

# EIB PAPERS

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## Europe's changing financial landscape: Recent developments and prospects

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# Preface

The process of European integration, notably the creation of Economic and Monetary Union and the move towards the Single Market for financial services, has had a major impact on Europe's financial landscape over the last fifteen years. In addition, a variety of other forces are shaping the transformation of financial systems in the European Union, and there are no signs that the speed of change is abating.



**Philippe Maystadt**  
*President*

These developments are clearly of interest to the European Investment Bank. The Bank supports EU policies by extending loans and by providing equity capital via its venture capital arm, the European Investment Fund, to socially useful and economically viable projects. This makes it timely to take stock of recent structural developments in European finance and to reflect on likely future developments.

To set the stage, it is useful to go back to basics and ask whether financial sector development spurs economic growth or whether it is the other way around, i.e. financial sector development coming on the heels of economic growth. Related to this is the time-honoured debate about banks vs. markets, i.e. the question whether one type of financial system is better for economic growth than the other. As often with time-honoured debates, they may be illusive rather than illuminating, and - indeed - we need to enquire whether the focus on who provides financial services is not misplaced.

Moving beyond basics, we want to understand what happened to EU financial systems over the last decade or so: what have been the specific effects of EMU and financial sector liberalisation and integration, to what extent has the importance of markets relative to banks changed, and what needs to be done to complete the creation of the Single Market for financial services?

Related to EMU and the Single Market, powerful forces are affecting Europe's financial landscape, in particular its largely bank-based systems in Continental Europe. One force is the growing role of institutional investors, i.e. pension funds, insurance companies, and mutual funds. To illustrate the issues stemming from this, it is useful to recall that historically there was a clear distinction between finance intermediated by banks and finance directly transferred from small, retail investors to users of funds via capital markets. The growing role of institutional investors has substantially blurred this distinction and, in essence, retail investors

now increasingly interact with capital markets through institutional investors. Institutional investors are not only channelling funds on behalf of retail investors to capital markets, they are also much more active in managing these funds than the typical direct investor and, in fact, institutional investors themselves have become more active than they used to be. This raises a host of questions, notably as to the implications of institutionalisation for financial sector efficiency and stability and, by extension, prudential regulation. But we also need to be aware of direct implications for borrowers such as the European Investment Bank. Institutional investors have a much more structured investment approach, tend to be more focused on liquidity, and interact with capital markets on a day-by-day basis. The effects of this are already observable, and borrowers need to account for them in their activities by, for instance, adjusting to the preference for liquidity.

Another powerful force that will influence the transformation of finance in Europe is population ageing and the ongoing shift from pay-as-you-go pension systems to funded systems - a shift that contributes considerably to the growth in institutional investment. In contrast to Anglo-Saxon countries, the majority of Continental European countries have pay-as-you-go pension systems, and it is often argued that these systems will have to be replaced, at least in part, with funded systems to put pensions on a sustainable path. To the extent that this happens, it will have a profound impact on European capital markets. But a crucial question is whether a shift towards funded systems itself ensures the sustainability of pensions and, if not, what else is needed. In answering this question, one needs to bear in mind the possibility that long-term demographic trends may drive pension fund investments in a way that gives rise to a new form of long-term asset price instability, possibly reducing the value of funded pensions. From the perspective of long-term financing institutions such as the European Investment Bank, a key question is to what extent the introduction of funded pension schemes will change the structure of capital markets. For instance, one could expect an increase in the supply of longer-maturity fixed-income corporate debt instruments, whereby savings are channelled via institutional investors to the corporate sector.

In addition to institutional investor growth, banking sector consolidation is a prominent feature of Europe's changing financial landscape. Consolidation has mostly come in the form of mergers and acquisitions, mainly within the national borders of EU member states, and it has led to the emergence of large financial conglomerates that offer a broad range of financial services, including commercial and investment banking, asset management, and life insurance. The whole process raises a variety of questions. What drives consolidation? Perhaps in contrast to conventional

wisdom, the search for economies of scale and scope alone cannot explain the process that we are witnessing - in particular since strategies do not seem to be uniform across the industry. But then, what else can help explain the current drive of many financial institutions to become bigger and broader? Another question is whether we should expect the emergence of banking groups that eventually operate across all of Europe.

To the extent that bank consolidation results not only in larger banks but also in banks that may be moving away from traditional intermediation, is there not a risk that some borrowers who depend almost exclusively on banks for financing, such as small and medium-sized enterprise (SMEs), may lose out in the end? Another edition of the *EIB Papers* (Volume 8, Number 2) focuses specifically on the financing of SMEs. Suffice to note here that support for the development of SMEs, and especially those that are innovative or with a high growth potential, is a priority of EU policy and of particular concern for the European Investment Bank.

To conclude, the changes in Europe's financial landscape raise a variety of intriguing questions, pose challenges, and offer opportunities. Being a major borrower in EU capital markets and a provider of funds to the EU economy, including its banking sector, the European Investment Bank clearly needs a firm grasp of the issues associated with these changes. I strongly believe that the *EIB Papers* contribute significantly to this end, and I am sure that the findings we convey in this volume are of great interest to a wider readership.







# Europe's changing financial landscape:

## Recent developments and prospects

The 2003 EIB Conference on Economics and Finance, which was held at the EIB on 23 January 2003, aimed at reviewing Europe's changing financial landscape and the policy challenges arising from this. The conference concentrated on two main issues. Firstly, developments in the European capital market, the increasing importance of active institutional asset managers and the restructuring of the EU banking sector. The second issue related to the capital structure and finance of European SMEs, which is bound to be affected by the ongoing changes in the structure and regulation of banking.

Speakers included:

**Patrick Artus,**  
of CDC IXIS, Paris

**Michel Dietsch,**  
of the University of Strasbourg

**Thorsten Beck,**  
of the World Bank, Washington

**Luigi Guiso,**  
of the University of Sassari

**Graham Bishop,**  
of GrahamBishop.com, Battle

**Ulrich Hommel,**  
of the European Business School,  
Oestrich-Winkel

**Arnoud Boot,**  
of the University of Amsterdam

**Philippe Maystadt,**  
President of the EIB

**E. Philip Davis,**  
of Brunel University,  
West London

**Rien Wagenvoort,**  
of the EIB



## ABSTRACT

*This paper introduces the topic of Europe's changing financial landscape and highlights the findings of the contributions to this volume of the EIB Papers. Key points emerging from this overview include: (i) a variety of factors are reshaping Europe's finance, notably the Single Market, EMU, demographic trends, increasing wealth, technological progress, and financial innovation; (ii) further integrating Europe's financial systems, across borders and segments, should significantly increase economic welfare; (iii) although the functions that financial systems perform are being reallocated - implying a move towards the Anglo-Saxon paradigm - banks will remain important and should maintain their comparative advantage in financing small and medium-sized enterprises; (iv) the economic case in favour of a move towards funded pension systems - which would boost capital markets - is not as compelling as often assumed.*

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# The transformation of finance in Europe: introduction and overview

*Change is not made without inconvenience, even from worse to better.*

Richard Hooker

## 1. Introduction

Financial systems perform various functions, notably the clearing and settlement of payments, mobilisation and allocation of investment funds, intertemporal smoothing of consumption by households and expenditure by firms, and the pooling and sharing of risks (Allen and Gale 2000, Merton and Bodie 1995). In developed financial systems, these functions are carried out by a range of institutions, which can be broadly grouped into financial markets (for stocks, bonds, futures contracts, options, etc.) and financial intermediaries, banks in particular. One may wonder why there are different institutions essentially offering similar financial services. One reason is that services are similar, but far from identical, and there is thus scope to specialise on the basis of comparative advantages. But, of course, the structure of financial systems does not develop on the basis of comparative advantages alone. Another reason why we see different types of financial service providers is that financial sector regulation, by design or accident, has created different playing fields, thereby fostering specialisation and the creation of walls between various segments of the financial system.

These walls have been crumbling rapidly - even disappearing - in recent years, and a new financial landscape is emerging in Europe. A number of powerful forces are shaping this process. European integration, in particular the creation of the European Monetary Union (EMU) and moves towards the Single Market for financial services, is arguably the most important regulatory and institutional stimulus for change. In addition, advances in information technology and innovative financial instruments are revolutionising the way financial services are produced, distributed, and consumed, and they contribute to increasing interdependencies between various financial intermediaries as well as between intermediaries and financial markets. And then, increasing wealth and population ageing are fundamentally altering the demand for and, consequently, the supply of financial services.

How well financial systems fulfil their functions has an enormous impact on the welfare of nations (see, for instance, Rajan and Zingales 2003), and efforts to improve the performance of the financial system are an important element of the Lisbon process, i.e. the EU strategy to make Europe the most competitive region in the world by 2010. It is against this background that this paper examines key issues in the transformation of finance in Europe and highlights, at the same time, the main themes of the other contributions to this volume of the *EIB Papers*. Since our intention is to introduce and to highlight, our approach is inevitably eclectic. The next section sets the stage by reviewing key features and drivers of Europe's changing financial landscape. Section 3 discusses the importance of finance and financial structure for economic development and reviews the benefits of financial sector integration in the European Union. Section 4 informs about



*Eric Perée*



*Armin Riess*

progress, or lack thereof, in integrating EU capital markets, i.e. one important segment of the financial system. In Section 5, we investigate the link between population ageing, pension reforms, and capital markets and, in this context, we challenge the view that pension reforms have to include a switch to funded pensions. The issue is of interest since a major boost to capital markets is commonly expected to result from introducing or extending funded pensions. Section 6 moves on to a related topic, namely the role of institutional investors such as pension funds, insurance companies, and mutual funds. At this stage of the analysis, it will have become clear that banks are facing formidable challenges and we thus ask (and try to answer) in Section 7 whether banks are on the run and for which financial system functions they are likely to maintain their comparative advantage. This leads us straight to Section 8, where we will discuss whether the changes in Europe's financial landscape will put small and medium-sized enterprises (SMEs) into a squeeze. On this topic, we will be brief since our companion edition (*EIB Papers* Volume 8, Number 2) focuses exclusively on the financing of SMEs in Europe.

## 2. Key features and drivers of Europe's changing financial landscape

Before considering how Europe's financial landscape is changing, it is worthwhile making a short detour to take stock of what is the current European financial system and what are the underlying forces driving the transformation.

*To consider the continental European financial system as being bank-based rather than market-based is too simplistic.*

The continental European financial system is usually described as being bank-based, in contrast to the market-based Anglo-Saxon system. Such a basic description runs the risk of being too much of a caricature: neither the European nor the US financial system is a polar case. They essentially differ in the relative proportion of finance that is channelled through banks or markets. Hartmann *et al.* (2003) provide a more balanced comparison between the eurozone and the United States, and ECB (2002) provides similar information on individual EU countries. Nevertheless, while the aggregate financial depth of both regions are relatively similar, both studies highlight a few striking differences. First, US non-financial corporations obtain a substantial share of their external finance from the capital market while this source of funding is far less important in the eurozone. Second, US households have a much stronger preference for equities. Third, European non-financial firms have substantial shareholdings in other non-financial firms (this is related to group pyramid structure) and also have extensive intercompany debt. Finally, eurozone financial institutions have large amounts of interbank deposits.

The world of finance has undergone significant transformation in the last two decades on a worldwide basis. In the European context, the creation of the Single Market and the launch of EMU have amplified the underlying forces steering the transformation. Following the BIS (2001), these forces can be grouped into seven broad classes: technology, advances in finance theory, retrenchment of the state in the provision of finance, free capital flows, introduction of worldwide financial standards, institutionalisation of management of savings, and demographic changes.

Without the rapid and continuous progress in information and telecommunication technology, finance as we know it currently would have been impossible. Massive increases in computing power and faster data transmission enabled the application of

new financial theory, facilitated advances in risk management and the unbundling of financial risks.

The dismantling of restrictions to capital flows as well as a lower involvement of public authorities in the direct provision of financial services - although at different speeds across countries - have made the finance industry much more responsive to market forces. This has been accompanied by the introduction of worldwide standards in most fields of finance (the Basel capital adequacy agreement for banks is just one example).

In most developed countries, there has also been a tremendous move towards institutionalised management of savings. An ever-growing share of financial assets is nowadays controlled by professional asset managers, irrespective of whether they operate within banking conglomerates or outside. This process has certainly not run its full course as discussed in Section 6 below.

Beyond these general forces, the transformation of the European financial landscape also receives some additional impetus from the European integration, namely the Single Market and EMU. Let us consider the influence of these European factors on finance.

To begin with, the overall monetary philosophy underpinning EMU is that aggregate price stability is a useful goal and that inflation cannot enhance economic growth and efficiency in the medium term. Stable and low inflation should reduce the economic risk, driving down risk premia, and ultimately enabling investors to adopt longer time horizons for their investment. This should lead to the development of an equity-based culture and the development of longer maturity instruments.

Second, the adoption of the single currency in most of the EU has eliminated currency risk in cross-border investment decisions. As noted by Brookes (1999), performance of cross-border investments prior to the euro was mainly driven by country-specific factors. In a nutshell, about three-quarters of the performance of cross-border investment was ultimately related to exchange rate fluctuations and domestic monetary policy. As the exchange rate factor disappears with EMU and monetary policy is conducted for the whole eurozone, past investment strategies break down and, consequently, asset managers and investors will have to adopt a different investment strategy. For example, equity investment will shift away from country factors in favour of sectoral allocations and bond investments should be attracted to more credit risk (emergence of a corporate bond market).

*Following the elimination of currency risk in eurozone cross-border investment decisions, asset managers and investors had to revise their investment strategies.*

Third, the replacement of national currencies by the euro should lead to the disappearance of a regulatory-driven home bias of many institutional investors, facing strict limits on the extent of currency mismatches that they are allowed to bear. For example, in many European countries, life-insurance companies (one of the largest investors' group) are prevented from running currency risk. Hence, they are forced to invest their reserves in the currency in which their liabilities are denominated. Before the introduction of the euro this led to two consequences: financial markets were segmented along national currency lines and, as most national markets are small, liquidity was rather poor. The disappearance of national currencies and their replacement by the euro removed market fragmentation overnight and widened

considerably the set of investable securities. This should lead to the convergence of returns (for a given risk level) across the eurozone, much higher levels of liquidity, and much bigger cross-border investment flows.

To conclude, a variety of forces are reshaping the way financial services are provided. But to what extent does it matter? Specifically, what is the role of finance in an economy? Are there some financial services that are more important than others? And what can we expect from the creation of the Single Market for financial services? This is what we turn to next.

### **3. The importance of finance revisited and the benefits of financial integration**

There are at least two reasons why changes in Europe's financial landscape are of eminent interest. One is that financial development is widely seen as promoting economic growth and, as a result, furthering the development of Europe's financial system ultimately promises a better supply of its citizens with goods and services of all kinds. But it should be pointed out that the growth-enhancing effect of financial development has been, and still is, subject to controversy despite ample cross-country evidence for a positive correlation between progress in the financial and the real sphere of an economy. However, observing a link between finance and growth does not inform on the direction of cause and effect. Indeed, as Arestis and Demetriades (1997) - for instance - reveal, economists hold conflicting views about the causality between finance and growth. In addition, within the finance-causes-growth camp, there are opposing views as to which type of financial system is better for promoting economic growth: should countries rely mainly on bank finance or on capital market finance?

*Financial development matters for economic growth, financial structure does not.*

**Thorsten Beck** brings us up to date on both controversies, reviewing the respective role of banks and capital markets, their relative advantages, and their complementarities. He argues that variation in both banking sector and capital market development can explain variation in economic growth, but the degree to which a financial system is market- or bank-based cannot explain differences in economic development across countries. Finance thus matters but not who provides it. These conclusions clearly echo other studies, in particular Demirgüç-Kunt and Levine (2001, p.8), who conclude that "no evidence exists that distinguishing countries by financial structure helps explain differences in economic performance. More precisely, countries do not grow faster, financially dependent industries do not expand at higher rates, new firms are not created more easily, firms access to external finance is not easier, and firms do not grow faster in either market-based or bank-based financial systems". This insight has important policy implications. For one thing, as neither banks nor markets outperform each other, economic policies should not try to tilt the level playing field in favour of either banks or markets. For another, given that financial development as such is of considerable importance, policies should aim at creating the conditions for an efficient provision of financial services, with crucial conditions including the effective protection of creditors' and shareholders' rights, transparency to reduce informational asymmetries between lenders and borrowers, high-quality accounting standards, and adequate means and incentives for private agents to monitor and exercise market discipline vis-à-vis banks as well as stock markets.

The second reason for a keen interest in Europe's changing financial landscape relates to the first one: an important aspect of the ongoing change concerns the integration of EU countries' individual financial systems into the Single Market for financial services, and the creation of such a market is clearly a critical step in furthering financial development in Europe. In a financially fully integrated region there would be no geographical discrimination of economic agents to access and invest funds within the region. As a result, the price of a given financial service would be same throughout the region (Cabral *et al.* 2002), and this law of one price would apply to stock exchanges, bond markets, and wholesale as well as retail banking. Moving towards that ideal offers a variety of advantages, including economies of scale and scope, the supply of financial services on the basis of comparative advantages, and better access to financial services for those savers and users of funds that are currently operating in financially less developed regions of the EU. In sum, financial integration is expected to result in a more efficient mobilisation and allocation of resources, thereby boosting GDP.

Three recent studies aim at assessing the impact of further EU financial integration on the performance of EU economies. Giannetti *et al.* (2002) point out that in terms of financial development many EU countries still lag behind the financially most advanced countries, the United States or the most developed EU economies, and that the degree of financial development continues to differ substantially across EU countries notwithstanding progress towards integrating national financial markets in the EU over recent years. This indicates scope for raising the performance of EU economies by moving closer to the most-advanced-country benchmark.

To illustrate the growth enhancing potential of financial sector integration, Giannetti *et al.* simulate the effect of financial integration - interpreted as firms' access to a financial system similar to that of the United States - on the growth of value added in the EU manufacturing industry. These simulations rest on cross-sectional regression analyses that estimate the link between firm growth and financial development while controlling for other variables that may vary across countries and firms, such as differences in firms' dependence on external finance. The simulations indicate for the EU as a whole that annual growth could be boosted by close to 1 percentage point. The results also suggest that small firms should benefit more than large firms from financial integration provided that EU financial sector integration contributes to the development of local financial markets or makes small firms less dependent on local providers of finance. All this implies that financially less advanced EU members with a high share of small and medium-sized enterprises should benefit most from the Single Market.

The second study (London Economics 2002), prepared for the European Commission, takes a different approach to gauging the macroeconomic impact of integration of EU financial markets. First, the study estimates the impact of European financial market integration on the cost of equity and bond finance and, second, simulates the likely macroeconomic impact of the estimated changes in the cost of equity and bond finance. The simulation results suggest an EU-wide real GDP increase of close to 1 percent. It is worth noting that a good part of the simulated output increase results from an increasing use of market finance and not only from a general decline in the unit cost of corporate finance - a result that seems to be in conflict with the findings of Beck (this volume) and Demirgüç-Kunt and Levine (2001) that financial structure does not matter for economic growth. We will see

*Empirical evidence suggests that further financial integration in the EU will bring significant benefits.*

that a possible clash with the Beck/Demirgüç-Kunt/Levine (BDKL) view is a recurring theme of this paper.

The third study (Heinemann and Jopp 2002) has a different focus than the previous two. It concentrates on the integration of retail markets for financial services, notably those offered by banks, insurance companies, and investment funds. Reflecting this approach, the study highlights benefits of financial integration that accrue to private households and firms with no access to capital market finance. Benefits pointed out by Heinemann and Jopp include a wider choice in products, particularly in small countries; an annual cost saving potential of EUR 5 billion in the investment fund industry (based on the current size of the sector); a significant improvement in the risk-return profile of private investors' investment portfolio due to enhanced risk diversification possibilities; and lower interest payments on mortgage loans, ranging from 0.8 to 2.6 percent of the loan amount.

In sum, although simulations such as those reviewed here can only approximate the benefits of financial integration - and to quantify these benefits a number of simplifying assumptions have to be made - they clearly indicate that fully integrating EU national financial systems should lead to significant benefits. Against this background it is useful to briefly review the status of creating the Single Market. We do this in the next section for capital markets and in Section 7 for banking.

#### 4. Towards a single EU capital market

*There have been considerable delays in creating the Single Market for financial services, but the process has gained momentum in recent years.*

**Graham Bishop** recalls that European capital markets were to be unified by the Single Market programme that was completed in 1992. Although the Directives necessary for creating the Single Market for financial services were formally in place, there have been considerable deficiencies and/or delays in fully implementing them. New attempts towards creating the Single Market have been under way since the turn of the millennium: the year 2000 saw the launch of the Financial Services Action Plan (FSAP) - consisting of 42 measures to streamline the regulation of retail and wholesale financial markets - to be implemented by end-2005; subsequently, the Lamfalussy committee came up with an ambitious proposal to increase the speed and flexibility of European regulatory processes, with both speed and flexibility being considered crucial for bringing into existence the long-promised single EU capital market; in parallel to this committee, the Giovannini group has examined what hinders cross-border clearing and settlement of securities' markets transactions and how these obstacles could be removed.

Bishop - who is closely related to both the Lamfalussy committee and the Giovannini group - stresses that the current EU legislative system in general lacks a mechanism for keeping secondary legislation attuned to changing circumstances, a failure possibly leading to high economic cost especially in the rapidly changing sphere of finance. The process proposed by the Lamfalussy committee would go a long way in establishing such a mechanism. One of its hallmarks is open and transparent discussion with all market users at every level. At the same time, it gives rise to constitutional concerns and, in fact, implies a constitutional innovation because there must be a delegation of authority to amend legislation from the national governments to "somewhere" at a European level. Obviously, the process proposed by the Lamfalussy committee for securities market regulation can be applied to the regulation of other financial services, generally



introducing speed and flexibility in adapting the regulatory framework for Europe's financial system.

Overall, although the benefits to European citizens from further financial integration are substantial, the creation of a unified EU financial market has been a long time in the making. As with other aspects of integration, an important reason for this is that tearing down national barriers, although beneficial to the EU economy at large, creates winners and losers. As Giannetti *et al.* observe, potential winners include the relatively efficient suppliers of financial services and users of such services that currently have to rely on less efficient suppliers. By extension, possible losers include less efficient providers of financial services and those non-financial firms that currently enjoy an advantage in their markets because they have access to more efficient financial systems than their competitors. But as Bishop suggests, eventually inevitable changes to the process of regulating EU financial markets will also create winners and losers among those that are currently involved in this process: institutional prerogatives are likely to shift from the national to the European level as well as between the European Commission, Council of Ministers, and European Parliament. In sum, in light of competing interests, the completion of the Single Market for financial services is unlikely to be clear sailing, and temporary setbacks should not come as a surprise.

## **5. Population ageing, pension reforms, and capital markets**

There seems to be a consensus that population ageing and pension reforms will spur the development of EU capital markets in the period ahead - a view clearly expressed, for instance, by both Bishop and Davis (this volume). The essence of this position is that ageing and sweeping pension reforms, the latter characterised by a switch from public pay-as-you-go (PAYG) pension systems to private funded pension systems, will possibly increase saving and will certainly raise the share of saving channelled through capital markets. We find the first part of this proposition less straightforward than it seems at first glance. More generally, we doubt that a switch from PAYG to funded pension systems can defuse the pension time bomb. But if it cannot, such a switch is less compelling and the resulting boost to capital markets less likely to materialise.

Box 1 sets out why we are sceptical. Suffice to summarise here the key results. First, expected population ageing stimulates national saving and capital markets. But once ageing sets in - in the period after 2010 for the EU - this stimulus disappears or goes in reverse. Second, the way societies try to ensure the standard of living of their pensioners (PAYG vs. funding) has little impact on national saving and, thus, a move towards funded pension systems does not raise it. Third, the notion that funding fosters economic growth because a larger share of saving is channelled through capital markets (and/or intermediaries that provide finance via capital market products) presupposes that the financial structure of an economy matters for economic growth - a hypothesis not supported by the BDKL position reviewed above. In sum, the economic case in favour of funded pension systems as a means of coping with ageing is not as compelling as often presumed. In any event, the preference for funded systems may weaken in the face of bearish capital market conditions. The substantial decline in the value of pension fund assets since the stock market peak in 2000 has brought to the fore the investment risk associated with funded pensions, and the possibility that

*Demographic trends over the next ten years and a move towards funded pension systems will boost capital markets.*

### **Box 1. Some basic truths about ageing and pensions in greying societies**

An observation to start with is that while ageing and pension reforms are usually mentioned in one breath, one needs to examine their respective impact on saving and capital markets separately. To spill the beans upfront: expected ageing will indeed give impetus to saving and capital markets until ageing actually sets in, but pension reforms will probably have little impact on saving and work in favour of capital markets only if they imply a move towards funded pension systems, which is by no means decisive for addressing the pension problem in ageing societies. Indeed, erroneous belief in the power of funded pensions to cope with demographic challenges distracts from what is really necessary to defuse the pension time bomb.

#### **Ageing, saving, and capital markets**

What can we say about the link between ageing, on the one hand, and saving and capital market developments on the other? The effect of ageing on saving rests on the life-cycle hypothesis. In general, people save when they are young and working while they dissave later in retirement. The overall level of saving in an economy then depends on the age structure of the population, and changes in the age structure alter the level of saving. Saving is relatively high when the share of people working (workers from here on) in the overall population is high. By extension, saving is relatively low (and falling) if the share of pensioners in the total population is high (and rising).

While there is much talk of an ageing EU population, the EU as a whole is still in the phase of its life cycle where saving is rising. In fact, European Commission estimates (European Commission 2002) suggest that because of underlying demographic trends, the aggregate propensity to save (that is the combined saving rate of workers and pensioners) has been on the rise since the late 1980s and will continue to go up until about 2010. Thereafter, ageing is projected to kick in, resulting in a steep decline (equivalent to about 5 percent of GDP) in the saving ratio in the period 2010-2050. In sum, expected ageing suggests a further increase in saving over the next ten years or so; a good part of this is likely to flow through capital markets; but demographic developments also suggest that actual, as opposed to expected, ageing will be a drag on saving and capital markets from 2010 onwards.

Before discussing the link between pension reforms and capital markets, it is useful to sketch projected demographic developments and, more important, to illustrate why reforms are inevitable. A useful indicator for illustrating demographic trends is the dependency ratio, i.e. the ratio of the population below 15 or above 64 to the population aged between 15 and 64. For the EU as a whole, this ratio is expected to increase from around of 0.5 in 2000 to 0.725 by 2050 (European Commission 2002). In other words: at present, two workers support one dependent (either young or old) while only 1.4 workers will have to shoulder this burden by 2050. The increasing strain on pension systems can be illustrated as follows: assuming no change in the generosity of PAYG pension systems and in key parameters such as labour force participation rates and the effective retirement age, public pension expenditure are projected to rise from an EU average of around 10.5 percent of GDP to about 17 percent of GDP by 2050 (European Commission 2002).<sup>2</sup> The impact of demographic trends on the cost of providing for the elderly will be stronger still due to rising health expenditure associated with population ageing. In concluding, it is

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2 These projections differ from those reported in Table 1 of Bishop (this volume). The projections summarised in that table, indicating an increase in public pension expenditure of "only" 3.5 percent of GDP, are those of the European Policy Committee (European Commission 2001). The differences between the projections illustrated in this introduction and that of the European Policy Committee (EPC) are spelled out in detail in Mc Morrow and Roeger (2002). The main difference is that the EPC projections are based on a higher labour force participation rate and lower structural unemployment, and they account for the long-term effect of pension reforms that had already been introduced by 2000. The general point here is that while long-term projections of public pension expenditure are subject to considerable uncertainties, they nevertheless illustrate the pension problem arising with population ageing.

important to point out that we have looked at the fiscal implications of ageing to illustrate the increasing burden - and the need for inter- and intragenerational burden sharing - resulting from population ageing. But this does not mean that privately organised pension and health systems would not face similar challenges.

### **Alternative pension systems and national saving**

In light of the increasing pension burden, there can be little doubt that pension reforms are necessary. The (partial) replacement of PAYG with funded pension systems is commonly seen as a key element of pension reforms (see, for instance, European Commission 2002, Heinemann and Jopp 2002, OECD 2003, and Mc Morrow and Roeger 2002). But why is funding seen as a solution to the pension problem? For one thing, starting with Feldstein (1974), a number of economists have argued that PAYG systems curb national saving and, by extension, a switch to funded systems would raise saving and investment and, thus, income. For another, even without an increase in saving, funding is envisioned to foster economic growth and generally improve the conditions for coping with demographic challenges.

If at least one of these claims holds, a case in favour of funded systems can be made, with direct and indirect implications for capital markets: as funded systems rest on the accumulation of financial assets, such as equity and debt securities, it seems natural to expect an increasing role of capital markets; in addition, should saving rise, a good part of it can be expected to flow through capital markets. The trouble is that both claims can be disputed.

We begin with a critical look at the Feldstein hypothesis and inquire about the level of national saving under alternative pension systems. As pointed out above, a common - though admittedly not completely uncontroversial - view is that life-cycle considerations together with a society's age structure determine the level and time profile of saving. If this is so, saving should not be affected by how societies ensure the livelihood of their retired population. In questioning this position, it is tempting to argue that under a funded system the workers can save that part of their income that was transferred before to pensioners under PAYG, thus boosting saving. But the argument is obviously incomplete. To demonstrate why, it is useful to distinguish between the real-life situation of gradually switching from PAYG to a funded system and the hypothetical situation of replacing overnight a PAYG system with a mature funded pension system.

To start with the real-life situation, it is clear that pensioners that are not financed any longer by social security contributions of the active population under PAYG still need to receive their pension. Governments can finance existing public pension liabilities by borrowing, raising taxes, cutting non-pension expenditure, or a combination of the three. Let us investigate these possibilities, notably their impact on saving, one-by-one. Raising taxes directly offsets abolished social security contributions, thus leaving workers' disposable income and their saving unchanged. Government borrowing means a decline in government saving (or an increase in dissaving), which counteracts the increase in private saving, leaving national saving unaffected (in fact, the private sector's additional financial assets may simply comprise government bonds issued to finance existing pension obligations). In rescuing the claim that a switch to a funded system fosters saving, one could argue that additional private saving will earn a return, making future pensioners better off than they would be otherwise. It is true that additional private saving is expected to generate a return, but it is also true that taxpayers will have to cough up the interest on the extra government debt. As a result, there will be no net benefit to society at large and, in fact, the additional interest and profit income of future pensioners will have to contribute to meeting the additional interest obligation of the government. That leaves the option of financing existing pension promises by reducing non-pension expenditure. Ignoring the impact of cuts in non-pension expenditure on economic activity, this mode of financing does not affect government saving and, therefore, safeguards the increase in national saving stemming from additional private sector saving. However, it would be wrong to attribute this to a switch from PAYG to funded pensions: if there is

scope for painlessly reducing non-pension expenditure, governments could do this under any pension system, thereby reducing the current tax burden or repaying government debt and, thus, leaving more room for private sector saving. In sum, while our reasoning ignored some of the finer points and, for brevity, did not spell out underlying assumptions, it indicates that the hope for higher national saving allegedly resulting from a switch to private pension schemes is not well founded.

But suppose we woke up tomorrow in a world where the transition from PAYG to funded pensions has been completed. Would we not live in a more spendthrift society with a higher level of saving? In this world, workers do not have to contribute to public pension schemes and can save more than they could have under PAYG, and government pension obligations have disappeared with the death of the last PAYG-supported pensioner. At first glance, it seems as if national saving is higher because workers can save more than under public pension schemes. Again, the picture is incomplete. For one thing, having the possibility to save more does not necessarily mean that workers will save more. But this is not the main problem, as contributions to funded pension schemes can be made mandatory. But higher saving by workers does not imply higher national saving. The catch is that pensioners, not supported by the government, dissave by selling financial assets to finance their consumption. Simply put, in a mature funded system, workers' additional saving and purchase of financial assets corresponds to pensioners' dissaving and sale of financial assets. The bottom line is that even after the transition from public to private pension schemes, there are no convincing reasons to expect a higher level of national saving.<sup>3</sup>

#### **Funded pensions and demographic challenges**

The level of saving apart, a case for replacing PAYG with funded pension arrangements could be made if there are other reasons to believe that funding is better than PAYG in coping with the demographic challenges. Following Barr (2000), we will argue that this is not the case.

To start with three simple truths that hold under any pension system - PAYG and funded: first, all other things being equal, ageing implies a declining workforce and, consequently, a decline in the output of goods and services; second, in any one year, the consumption of pensioners has to be met by goods and services produced in that year; third, as pensioners receive no wage income, they can only consume by exercising claims on today's output obtained during their working lives. Funded and PAYG pension systems differ in the way pensioners have acquired claims on today's output. But under both systems ageing implies that pensioners and workers have to share a lower level of output, and from the perspective of pensioners this could mean the value of claims on output is not what it appeared to be when claims were acquired. But the two systems differ in how disillusionment becomes visible.

Under PAYG pension schemes, workers acquire a promise that they will receive a transfer from the government when in retirement. In the typical continental European public pension scheme, the promised transfer is equal to a proportion of the wage income received before retirement (replacement ratio), with this income often indexed to general wage developments after retirement. Due to ageing and the associated decline in output, the promises made are impossible to keep unless, that is, workers increase their pension contributions and thus reduce their claim on (a lower) output.

Under funded pension systems, workers acquire claims on future output by accumulating financial assets. To illustrate how the value of these claims shrinks in an ageing society, suppose that during

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3 Supporters of funded pension systems often point out that the expected return on mature funded pension systems is higher than the implicit return on public pension systems. While this is true, the comparison is incomplete because beneficiaries of funded pension systems are exposed to higher risk. As Barr (2000), for instance, has pointed out, funded as well as PAYG systems face common risk and uncertainties. But funded pension systems face additional risks such as investment risk, management risk, and annuities market risk.

their working lives pensioners simply accumulated money balances. When in retirement, pensioners draw on these funds to finance their consumption. But as output is lower than it was, too much money is chasing too few goods and inflation ensues, trimming down the real value of pensioners' nominal claims on output. Alternatively, suppose that during their working lives pensioners have invested in bonds, equities, and real estate and upon retirement they start selling these assets to finance their consumption. The trouble is that in an ageing society there are fewer people interested in buying these assets and, thus, pensioners face a decline in the nominal value of their assets and, by extension, their claim on output.

Two mechanisms could brighten the assessment of funded pension systems' capacity to deliver on their promises. First, it is often argued that the switch from PAYG to funding promotes economic growth. We have argued that there are no compelling reasons for a growth-enhancing increase in saving and investment. But higher economic growth could come from a more efficient mobilisation and allocation of saving. One may argue, for instance, that under a funded pension system a higher share of saving is channelled through capital markets rather than banks and that this fosters economic growth. This presupposes, however, that market-based financial systems outperform bank-based systems - a hypothesis that is difficult to maintain in light of the BDKL finding that financial development matters for the performance of a country, but financial structure does not.

Second, under funded pension systems it could be easier for workers to acquire claims on the output of other countries. In fact, our discussion has so far assumed a closed economy. In an open economy, pension saving can be invested in foreign countries. But to what extent would this mitigate the effects of ageing on the standard of living in ageing EU countries and, equally important, what is the role of a funded pension system as opposed to a PAYG scheme?

To begin with a very basic observation: funds invested abroad are not available for domestic investment; it follows, that foreign investment can bring relief only if the marginal return on foreign investment is higher than that on domestic investment. And then, investing in countries with demographic trends similar to those in the EU, such as Japan, would not help at all. From this we infer that foreign investment needs to take place in countries with better investment opportunities and where ageing kicks in much later than in Europe. Furthermore, investment will have to go to countries that are expected to be net exporters of goods and non-factor services at the time when European pensioners need to sell their assets. Otherwise, the currency of the country in which pensioners hold their assets depreciates and, as a result, accumulated pension assets purchase less goods and services than pensioners had anticipated. Finally, there is an external creditworthiness issue: given that the repayment of external finance depends as much on debtor's willingness as on their capacity to repay (Gersovitz 1984), one may doubt debtors' incentives to honour obligations to creditors who, for demographic reasons, have ceased to be suppliers of external finance. In sum, there are pitfalls on the way towards ensuring the sustainability of pensions through foreign investment.

But the main point still needs to be mentioned: the foreign escape route - to the extent that there is one - is not a prerogative of a funded pension system, but can be taken under PAYG as well. We have argued above that the level of saving is the same under PAYG and funding and, thus, the latter does not magically create an additional nest egg that could be invested in young, promising, and creditworthy nations. The main question is then whether the portfolio choice of institutional investors - made on behalf of workers contributing to funded pension schemes - leads to a greater emphasis on foreign investment than the choice of workers made under PAYG. This may be the case, but it cannot be taken for granted.

In sum, there are no strong reasons to believe that a switch from PAYG to a funded pension system fundamentally improves the performance of economies, thereby softening the burden associated with an ageing population.

funded schemes may not deliver on the promises they seem to have made surely caught headlines.<sup>1</sup>

The recent difficulties of funded pension arrangements indicate another misconception about pension reforms and the related expectation of a stimulus to capital markets. When arguing in favour of funded pension systems, unreformed and, thus, unsustainable public pension schemes are typically judged against defined contribution (DC) pension plans, i.e. funded pension schemes that allocate the investment risk to plan members. But this is, of course, an apples-and-oranges comparison. Current, unreformed PAYG schemes promise generous pensions, essentially a high replacement ratio indexed to inflation or general wage developments. In addition, as the effective retirement age has fallen and life expectancy increased, pensioners get a pension for an increasing number of years. By contrast, DC pension plans do not promise more than the market value of accumulated pension assets when plan members retire, except for a possible, but not obligatory minimum guaranteed return. As argued in Box 1, due to population ageing and the resulting output contraction, the purchasing power of these assets is very likely to fall short of what pension plan members had hoped. What is more, given the increase in life expectancy, pension assets will have to be stretched out over a longer retirement period, which means that plan members have to be content with a lower annual pension and/or postpone retirement. Such consequences are, of course, all too familiar from the debate on public pension reforms. It thus transpires that for a meaningful comparison between PAYG and funded pensions, one should compare reformed PAYG schemes (characterised by lower replacement ratios and a higher retirement age) to the type of funded pension plan (DC) that is commonly envisaged in a move towards funded pensions.

*A switch from PAYG to funded pension systems would probably contribute little to defusing the pension time bomb.*

The bottom line of all this is that the choice of pension system is of secondary importance for addressing the challenges of an ageing population (Barr 2000). What really matters in addition to lower replacement ratios and a higher retirement age are growth-enhancing policies, a substantial reduction in structural unemployment, an increase in labour participation rates, and migration.

So, does this all mean that the switch to funding and its related boost to capital markets will not happen? Probably not. Although neither PAYG nor funded pensions can alter the consequences of ageing, they differ in how risks and uncertainties are shared. At one end of the spectrum, DC pension plans leave the risk that acquired claims on future output do not yield the targeted standard of living with individual pension plan members (assuming that governments do not step in if funded pension plans fail to deliver on what they seem to have promised). At the other end, under PAYG schemes, risks are broadly shared among current and future taxpayers, pensioners, and contributors to PAYG schemes. Striking a better balance between individual and broad risk sharing could be one reason for supplementing reformed PAYG schemes with funded pension systems. Related to this, one could speculate about a more sinister, political-economy explanation: policy makers plainly anticipate that a lower number of workers leads, all other things being equal, to a lower output that needs to be shared with a higher number of pensioners; with the writing clearly on the wall, it may be politically opportune for the state to scale down provision of public pensions, replace them with privately funded schemes, and then -when crunch time comes - to not only dismiss any blame for the problem, but to come to the rescue of allegedly failed privately funded pensions.

<sup>1</sup> "How's your pension doing?" (*The Economist*, May 8, 2003) and "Broke: fixing America's private pension plans" (*The Economist*, January 23, 2003), for example.

## 6. Institutional investors on the rise

We have argued that pension reforms are inevitable, but that a move towards funded pension systems as such does not solve the pension dilemma. However, as the political momentum currently works very much in favour of such a shift (and those that would benefit from it), we need to look at the financial market implications of moving towards funded pension systems. An important implication is that it will enhance the role of institutional investors, largely comprising pension funds, (life) insurance companies, and mutual funds.

E. Philip Davis devotes his paper to the role of institutional investors, in particular their impact on financial system stability and efficiency. He starts by reviewing how and why institutional investors have grown over the last decades in major OECD countries. Three key insights emerge from this review: first, the growth in institutional investment has been formidable, clearly entailing a shift away from traditional bank intermediation; second, the author attributes the increasing importance of institutional investors to two factors: for one thing, their success in offering financial services relatively more efficiently than banks and in outperforming direct holdings of financial assets by retail investors and, for another, population ageing in the context of funded pension systems, notably in Anglo-Saxon countries; third - and following from the last point - institutionalisation can be expected to grow rapidly in continental Europe with a move to funded pension systems.

*The growth in institutional investment has been formidable, clearly entailing a shift away from traditional bank intermediation.*

On the issue of financial system stability, the author concludes that the institutionalisation of investment has the potential to support financial sector stability although it does - at times - seem to be linked to a rise in volatility for stocks held by institutions and/or liquidity failures, notably in debt markets. Furthermore, a salient feature of the financial market developments in recent years has been the considerable transfer of credit risk from banks to insurance companies, i.e. an important group of institutional investors, via securitised claims (such as collateralised debt obligations) and credit derivatives. Davis observes that such a process is widely seen as driven by regulatory arbitrage, whereby insurance companies are seen as less, or at least differently, regulated than banks and are thus willing to hold credit risk at prices banks cannot afford. One may want to add here that until the recent economic downturn, insurers - facing a decline in long-term government bond yields - were eager to add high-yielding credit risk transfer instruments to their portfolios.

There are concerns that banks' shedding of credit risk, in particular when motivated by regulatory arbitrage, may weaken financial system stability because it leads to more concentrated and less transparent risk and to a loss of diversity in risk assessment (Persaud 2002). In this context, Persaud also argues that the way insurance companies manage credit risk exacerbates stock market volatility, which - in turn - hampers fixed capital formation and exposes pension saving to greater risk. While acknowledging the regulatory and supervisory challenges resulting from credit risk transfers, official observers have stressed the stability-enhancing potential of such transfers (OECD 2002, BIS 2003, and Padoa-Schioppa 2002). The OECD, for instance, points out that risk transfer instruments may have made the deteriorating quality of credits witnessed since the second half of 2001 more manageable as credit losses have been more dispersed. In this context, it is

important to note that while the net transfer of risks is largely from banks to insurers, there has been a substantial reallocation of risks within the banking sector. This allows banks, notably those with a strong regional base, to maintain and even expand relationships with regional clients without undue geographical and sectoral risk concentration. Overall, regulatory arbitrage apart, the transfer of credit risks has potential to yield genuine economic benefit, in particular when other financial market participants are in a better position than the credit-originating bank to take credit risk.

*Credit risk transfer mechanisms have strengthened interlinkages between institutional investors and banks as well as between banks and capital markets.*

Another conclusion is obvious: the transfer of credit risk from banks to insurance companies links these two financial sectors, strengthening the direct links resulting from the creation of bancassurance groups, and it builds further bridges between banks and financial markets (OECD 2002 and Padoa-Schioppa 2002). This obviously highlights the concern that in a more integrated market where the boundaries between different types of institutions are porous, regulation needs to be structured so as to bring about the most efficient provision of financial services.

Returning to the contribution of Davis, we move on to discussing other macroeconomic consequences. Davis investigates the implications of institutionalisation on the level and maturity structure of saving, capital accumulation, and allocative efficiency. While neither economic theory nor empirical evidence clearly indicate a positive impact on the level of saving, empirical results suggest a shift to long-term assets, which tends to reduce the cost and increase the availability of equity and long-term debt financing to companies, thereby fostering capital accumulation and economic growth. In addition, the author argues that an accelerated growth of institutional investors has potential to strengthen corporate governance and thus the efficiency of firms. Overall, the author's general conclusion is that an institutionalised financial sector raises economic efficiency.

But is this conclusion not, again, in conflict with the BDKL position that financial development matters for the performance of a country, but financial structure does not? We will not attempt to answer this question, but it indicates that the debate about the importance of financial structure for economic development seems to be far from settled. One thing should be clear though: an increasing importance of institutional investors in the mobilisation and allocation of savings does not really fit the bank vs. market dichotomy. It is true that with institutionalisation capital market finance, i.e. equity and debt securities, increasingly replaces traditional bank lending. But it is also true that banks participate in the growth of institutional investment, for instance, through their involvement in the mutual fund industry and mergers or joint ventures with insurance companies. Probably more important, to the extent that institutional investors are active shareholders and/or holders of debt securities, they develop a relationship with firms that may have features of the traditional bank-firm relationship. In fact, in addition to trading a firm's securities, building a relationship with the firm is a key mechanism for improving corporate governance. In sum, the increasing role of institutional investors may be seen, as Davis does, as a move of continental European financial systems towards the Anglo-Saxon paradigm, but it is, at the same time, not necessarily a shift from relationship to arms-length provision of finance.

One reason why a growing role of institutional investors is expected to foster economic growth is the potential for improvements in corporate governance at the level of firms. A



note of caution needs to be added here, however. The hope for better corporate governance of firms presupposes that institutional investors themselves are well governed and act in the interest of their owners and/or beneficiaries. But the task of setting the right incentives for managers and of monitoring their behaviour arises not only at the level of non-financial firms but also at the level of institutional investors and, in fact, it may be even more challenging in the case of institutional investors. This is best illustrated for pension funds. In contrast to the management of firms, managers of pension funds do not face the disciplinary threat of hostile takeovers, for instance. And then, other forms of corporate control, such as pressure from banks and other creditors, are non-existent. Finally, the free-rider problem that discourages small and dispersed shareholders of firms from exercising corporate control applies to pension funds too. What is more, while the presence of large shareholders in public companies may help overcome the free-rider problem, this remedy is not available in the case of pension funds given that they usually have no large shareholders. In sum, the hope that the growing importance of institutional investors will strengthen corporate governance may be misplaced unless, that is, there are mechanisms for monitoring the monitors.

*Institutional investors are believed to improve the corporate governance of non-financial firms. But this eludes the problem of corporate governance of institutional investors.*

To conclude, institutional investment is on the rise and there is further scope for expansions, notably in continental Europe. Does that put banks on the run?

## **7. Banks on the run?**

To answer the question upfront: despite the growing importance of institutional investors, banks continue to be the dominant actors in European finance, but the transformation of European finance is closely linked with the transformation of the banks themselves and a change in the scope of their activities. According to the textbook definition, a bank collects money in the form of deposits, which are redeemable at face value at short notice, and invests these funds into illiquid, longer maturity loans generating uncertain payoffs. One key characteristic of a bank in such a set-up is that they provide bundled services, comprising credit assessment and monitoring, funding of loans, payments system, and loan and deposit administration. Furthermore, because of differences in the liquidity of assets and liabilities, banks are prone to runs that can translate into systemic problems.

Even to the casual observer it is clear that the textbook view of banks is not perfectly aligned to what banks are currently doing. Over the last twenty years, banks have been transforming at a rapid pace and there is little sign that the pace of change will abate any time soon. Against this background, this section reviews the performance of European banks and sheds light on the process of integration and consolidation in EU banking.

At the start of EMU, Hurst *et al.* (1999) conducted an analysis of euro-area banking and this provides a useful starting point to our discussion. They concluded that the overall picture of the typical euro-area bank at the launch of the euro was that of a bank generating relatively low returns on shareholders' funds with a balance sheet loaded with mostly high quality assets, when compared to Anglo-Saxon banks. While many explanations could potentially explain this situation, the authors hypothesised that this could be the result of an inadequate product mix, riddled by cross-subsidies, a too high and inflexible cost structure, and a possibly distorted competitive environment given the substantial involvement of mutually and publicly controlled banks.

Compared to the situation in the mid-1990s when aggregate return on equity of euro-area banks was below 10 percent, the aggregate profitability of euro-area banks had edged up to about 15 percent by the end of the last decade. While this improvement might be related to the reshaping of banks, an important driver of the recovery in profitability has been the fall in provisions and credit losses at the time of robust expansion of the European economy. While the rise in overall bank profitability towards the end of the last decade is encouraging, the ups and downs of provisioning does not say that much about the longer-term prospects of banks.

*The profitability of banks in the eurozone has increased in recent years, but banks need to boost net income to sustain this increase.*

A sustained increase in profitability depends more on the evolution of net income and costs than on provisioning. There is little sign that euro-area banks have been able, in aggregate, to lift their income generation power in recent years. Net interest income expressed in percent of equity has continued on a steady downward trend, falling from around 40 percent in the early 1990s to below 30 percent in 2000. Furthermore, its share in total income has fallen markedly. The exact reasons for this can be debated, but one factor that is likely to have played a key role is the increasingly competitive environment facing banks as a result of deregulation and consolidation in the past decade. Growing competition from capital markets has reinforced this process. It is well documented that the share of non-interest income in total income has risen dramatically. However, this positive development owes much to the mediocre development of net interest income. Furthermore, one should note that the growth in non-interest income has been insufficient to fully compensate for the decline in interest income and, as a result, total income expressed in percent of equity has fallen too.

The second channel for sustaining profitability is to reduce costs. Indeed, competition and bank consolidation have generated a wave of cost cutting in the banking sector. The downward trend in cost has largely matched the decline in gross income, leaving the ratio of net income to equity fairly stable. Although the number of banks has come down dramatically as a result of mergers, the decline in the number of bank branches has been relatively moderate.

Naturally, European averages hide substantial variations across countries and banking statistics are no different in this respect. Country differences continue to affect banking performance. This obviously raises the issue of whether the European banking market has become more integrated over time, especially since the introduction of the euro. Since the adoption of the Second European Banking Directive in 1992, any bank properly licensed in one EU country is allowed to provide its services through branches on a cross-border basis without authorisation by the host country. As observed and discussed by Dermine (2003) among others, the Second European Banking Directive has had little impact on the integration of the banking markets. When banks expand their business across borders, they hardly ever use the provisions of the Directive. Instead they set up subsidiaries, subject to host country authorisation and regulation.

Cabral *et al.* (2002) review the state of integration of the banking market in the eurozone. Their analysis distinguishes three broad categories: wholesale banking, capital market and large corporate finance, and retail and small businesses. They find that the unsecured interbank loan and deposit market is completely integrated, but that there remains some fragmentation in the repo market, mainly because of clearing and settlement obstacles.

For capital market activities and relations with large corporates, the authors find that fragmentation across eurozone countries has made ways for a fairly well integrated financial market. Further integration is prevented by the imperfectly integrated clearing and settlement infrastructure. In corporate lending, information barriers continue to support a home bias and thus limit integration. The area where the integration process has been the slowest is retail banking. More homogeneous macroeconomic fundamentals, in terms of inflation and interest rate levels, have led to a convergence of retail loan and deposits rates. However, there remain significant differences across countries in bank intermediation margins, suggesting that market segmentation remains strong.

Further integration of the banking market and improvement in profitability of European banks is very likely to come with bank consolidation. Consolidation can best be defined as a reshaping of the industry structure, either through mergers and acquisitions (M&As) or through changes in the market share of existing institutions (including exit of weaker ones). Of these, M&As is the predominant form of consolidation in the financial industry. Before examining how the banking industry is consolidating in the eurozone, let us first consider how mergers and acquisitions can bring economic benefits in any industry. There are several channels.

A first potential source of economic benefits could be derived from economies of scale, that is to say that when all factor inputs are increased proportionally the volume of output increases more than proportionally. In such circumstances, larger institutions enjoy a competitive edge as their size allows them to produce at lower unit cost. In practice, most of the available evidence suggests that economies of scale are quickly exhausted and thus does not support M&As to form very large banks. It should be noted, however, that more recent studies indicate that the point at which scale economies disappear has been increasing over time, possibly a consequence of the high cost of IT investment.

A second type of benefit may derive from economies of scope: for example through synergies where the banking firm can leverage the revenues from its traditional products with related products that can be sold to existing customers. The development of bancassurance strategies is a clear sign of the belief in scope economies. However, the available empirical evidence does not provide much support for the view that economies of scope are significant. It should, however, be recognised that economies of scope are inherently difficult to measure.

A third way of generating benefits would be through operating efficiency gains if a bank is able to shift down its cost curve by moving to best practice in combining inputs. In any industry at any one time, not all firms are as efficient as the best performer, and Wagenvoort and Schure (1999) found that European banks could achieve efficiency gains in the order of 15-20 percent, with substantial variation across countries. This suggests that there is tremendous scope for increasing efficiency through mergers if more efficient operators are able to transfer their better operating procedures to less efficient banks. It should be observed, however, that a non-negligible share of operating cost is made of labour cost and that reduction in labour cost can be hard to obtain in the short-term.

A fourth way to improve the economics of banking is to lower risk for a given level of nominal profitability, in other words to obtain a higher risk-adjusted profitability. This

*There is considerable scope for raising the operating efficiency of EU banks.*

essentially means altering the structure of assets to improve the risk-diversification potential of the business or to alter the geographic spread of activities to reach a better diversification level.

A final channel through which mergers may benefit (merging) banks is through an increase in market power. While this is certainly a sensible strategy seen from an individual banking institution, even if the institution would certainly not want to boast about this, it is not a desirable approach from a wider economic perspective.

While these value-maximising motives are likely to be present, there may also be other motives for mergers and acquisitions in banking that are equally important. This could include “empire building” by bank managers who value large size in itself for reasons of prestige, or because they want to make the institution large enough so that it is “too-big-to-fail”, thus increasing the chance that the government would come to its rescue in times of trouble.

Let us now consider the actual experience of banking consolidation in the eurozone. According to ECB data, the number of credit institutions in the eurozone has declined from 11,130 in 1990 to 8,961 in 1995 and 7,109 in mid-2002. The pattern of a steadily declining number of institutions is visible in most countries. The number of credit institutions does not tell much, however, about the density of banking services provided in each country, nor does it say much about whether possible overbanking is being rectified. The sharp decline in the number of credit institutions has in many countries not been accompanied by a similar decline in the number of bank branches or bank staff. Two different country groupings are clearly distinguishable in this context. The first group includes Scandinavian and the Benelux countries, which have reduced not only the number of institutions, but also the number of branches and employees. This group thus appears to have taken the lead in bank consolidation and has also likely enjoyed substantial efficiency gains from this process. In fact, in almost all countries the number of branches has come down faster than the number of employees. This means that there has not only been an across-the-board downsizing, but also structural shifts in the product mix of banks, for example away from traditional intermediation towards non-interest income. Alternatively, it could be that the downsizing process is slowed by the difficulties and constraints in shedding labour.

*An important driver of bank consolidation in many EU countries has been the ongoing retreat from the sector by governments.*

It is important to note that one key driving force behind bank sector consolidation in nearly all countries is the ongoing retreat from the sector by governments, be it as owners or guarantors of banks. Naturally, the withdrawal of the public sector as an owner has not proceeded at the same pace in all countries and this could explain why the consolidation wave has proceeded at an uneven pace across countries.

Cross-border consolidation has been rather limited and when it occurred it took place in relatively homogeneous regions such as Benelux and Scandinavia. In theory, most factors supporting national consolidation could also justify cross-border consolidation. Why is it that domestic consolidation has been the rule and cross-border consolidation the exception? This is discussed in detail by Dermine (2003). The benefits from domestic consolidation are likely to be easier and faster to obtain. Indeed, the potential for short-term cost reductions is higher within national borders. In addition, there is also an in-built tendency to favour “in-market” consolidation as domestic players can avoid increase in

competition that would result from foreign firms taking over one of their competitors. However, once the process of national consolidation has run its course, a wave of cross border consolidation is the logical next step. But will it happen in the near term?

One reason why it may not is that there remains a range of impediments that are unlikely to disappear any time soon. Persistent tax and legal differences, like in bankruptcy proceedings, efficiency of court proceedings, as well as cultural and language differences are making it difficult to reap economies of scale and scope in cross-border consolidation. One should note for example that even in markets that have seen some cross-border consolidation, there is seldom a retail-banking product that can be sold in exactly the same form in two neighbouring countries.

In addition, one should also note that in several cases, some of them well publicised, national authorities have been reluctant to accept takeover of domestic banks by foreign institutions. Furthermore, it should be noted that even if the cross-border consolidation of banking in the EU has been very moderate so far, this does not mean that EU banks have not ventured abroad. Indeed, throughout the 1990s there has been a considerable investment by EU banks in other markets in Latin America, Central and Eastern Europe and the United States. It might well be that the overbanked EU market was not seen as attractive enough compared to these alternatives.

It is in the retail and small-business segment that most of the fragmentation in European banking lies. Would cross-border consolidation be the answer to this fragmentation? Rosengren (2003) compares the European experience with that of the United States. For several decades the United States had strong restrictions on the provisions of interstate banking services. These restrictions have been completely abolished recently. Yet, despite the dismantling of these restrictions and the absence of most of the cultural barriers that exist in Europe, it is still striking to observe that in most of the main economic regions of the United States the provision of banking services is usually controlled by regional-based institutions and that none of these institutions has a national franchise. It could well be that the time since the dismantling of the restriction to interstate provision of banking services has been too short for the full adjustment to have taken place by now. But at this moment, one might as well conclude that the US evidence does not suggest that cross-border banking consolidation will necessarily happen on a massive scale in the retail and SME sector. In these sectors, banks are essentially dealing with soft (private) information that cannot be transmitted easily. In such a context, Stein (2002) shows that there is a natural tendency for small banks to focus on local markets and for large banks to focus on business covering a wider geographic area but is also based on hard (public) information.

*Retail and small-business lending in the EU continues to be fragmented, and integration in this banking segment is likely to be slow and limited.*

There is a mitigating factor, however. Regionally based and possibly national institutions might not achieve adequate risk diversification. This obviously raises the issue of what is the required geographic coverage to achieve an appropriate diversification of risk. It is difficult to answer this question with any precision. It is plausible that before EMU there was enough scope for diversification within national borders and thus that cross-border consolidation was not going to reduce risk. Even if one believes that this is correct, it is also true that adequate diversification prior to EMU might not be adequate any longer with EMU. Indeed, the risks borne by banks are ultimately related to the macroeconomic environment. When countries had their own national currency, monetary policy could

offset some of the (country-specific) macro shocks and this certainly reduced the risk embedded in the books of the banking industry. With EMU, the role of monetary policy as a (country-specific) shock absorber has been downgraded, if not eliminated altogether. Thus, the risks borne by regionally or nationally focused banks have, *ceteris paribus*, increased with EMU. Cross-border consolidation could be one way to restore adequate risk diversification. But this is not the only way. Indeed, appropriate use of credit derivatives would probably lead to the same outcome in a more economical way.

*Contrary to most other industries where the conglomerate approach has fallen out of fashion, the concept has been very popular in the financial industry.*

The choice confronting financial institutions is not only an issue of national vs. cross-border consolidation. Recent years have also witnessed a dramatic expansion of a range of activities performed by many financial institutions: investment banking, private banking, asset management, and insurance. Contrary to most other industries where the conglomerate approach has fallen out of fashion, the concept has been very popular in the financial industry. National Bank of Belgium (2002) reviews this trend. It is certainly too early to judge whether this conglomerate approach or scope expansion delivers the expected benefits. It is probably fair to say that requirements to reap the benefits of synergies across very different business lines are not any less demanding than those necessary to succeed in cross-border consolidation.

**Arnoud Boot** offers an interesting perspective on the issue. He starts from the review of the economics of consolidation that essentially supports that scale economies are quickly exhausted and that it is very difficult to demonstrate the existence of economies of scope. Yet, it is a fact of life that banks have been broadening their activities in the last few years. One reason could be that advances in information technology make it easier to manage conglomerates than before. Alternatively, it could be that this evolution is another episode of "empire building" by entrenched management. Boot proposes an alternative explanation. He observes that the world of banking and finance has been changing rapidly in the last two decades and that the outcome of this process of change is unknown. Thus, there is tremendous uncertainty about how banking will shape up in the future and about the relative future strength of each institution. In such a set-up, broadening the range of activities of an institution is an appropriate reaction to strategic uncertainty and serves two purposes. On the one hand, it allows presence in a wide range of business lines, thus increasing the probability of being in the few that will eventually succeed. On the other hand, it is also a way for banks to gain better information about their relative strengths and weaknesses. However, it should be observed that this situation is only a temporary phenomenon and the scope-driven consolidation wave should eventually make way for much more focused institutions.

Boot's perspective looks extremely appealing when one compares the banking industry with other industries. It is indeed striking that the production process in banking is considerably more vertically integrated than in other sectors of the economy. As said above, banks provide bundled products. It is natural to ask whether the production chain of banks could not be broken up in the future.

It is not clear that all the various functions of banks (i.e. credit assessment and monitoring, funding of loans, payments system, and loan and deposit administration, etc.) have to be performed within the same institution. On the contrary, one could argue that the bundled provision of these services does not constitute an efficient allocation of resources. "Where

does the comparative advantage of banks really lie?" is the question to be answered. The development of securitisation and credit derivatives markets is a clear example of the blurring demarcation line between banking intermediation and capital markets. These two techniques essentially offer banks ways to outsource/redistribute part of the risks to parties that are better placed to bear them, and to allow banks to specialise where they have a comparative advantage: collecting and processing information and monitoring borrowers.

Irrespective of whether there will be a more fundamental reorganisation of banking and finance in the medium term as suggested by Boot, concentration and competition are issues that certainly relate to the recent consolidation. According to ECB (2002), concentration has increased considerably in nearly all national markets. Because of its particular nature banking supervisors have usually tended to privilege stability over efficiency. Vives (2002) reviews whether competition considerations should feature more prominently in banking public policy. His conclusions are that it is only in the retail and SME segment of the banking business that market power is a serious concern and where active competition policy is called for. This leads to the question of what this all implies for the financing of SMEs.

## **8. Small and medium-sized enterprises in a squeeze?**

There are concerns that the transformation of finance in Europe, in particular the changes sweeping through the banking sector, adversely affect the supply of finance to small and medium-sized enterprises (SMEs). Our companion edition (*EIB Papers* Volume 8, Number 2) examines SME finance in the context of Europe's changing financial landscape, featuring contributions by **Rien Wagenvoort** (EIB), **Ulrich Hommel** and **Hilmar Schneider** (European Business School), **Michel Dietsch** (University of Strasbourg), and **Luigi Guiso** (University of Sassari). At the risk of generalising a little, three common findings of the contributions - which cover different countries (France, Germany, and Italy) - are worth mentioning here. First, perhaps in contrast to conventional wisdom, small businesses in all countries maintain a relationship with more than one bank (multiple banking). Second, there is no evidence that bank consolidation has reduced the supply of finance to SMEs. On the contrary, in France, SME financing seems to have improved with consolidation. Third, while the current economic downturn has made banks more reluctant to lend, credit rationing of SMEs does not seem to be a widespread phenomenon. Having said this, credit rationing occurs and is more likely, the smaller the firm is. What is more, Wagenvoort finds signs of financial market imperfections in the sense that the growth of small businesses, in comparison to large firms, depends more on internal finance, implying that small firms cannot to the same extent as large firms compensate a possible shortage of internal funds by external finance.

All in all, the outlook for SME finance in Europe's changing financial landscape is not as gloomy as often feared - on the contrary. One reason for this is that new information and communication technologies contribute, at a lower cost, to reducing information asymmetries between lenders and borrowers, thereby making SME lending more attractive. Another reason is that partly due to advances in information technology new banking methods emerge that allow banks to price their resources more effectively. Moreover, the use of credit risk transfer mechanisms (such as the securitisation of SME

*Concerns that the transformation of finance in Europe will adversely affect SME finance are exaggerated. In fact, the outlook for SME finance is positive.*

loans) is spreading, enabling banks to focus on comparative-advantage activities, notably credit risk assessment, loan origination, and credit risk monitoring - all activities crucial for the provision of finance to SMEs. And then, equity capital for SMEs should become increasingly available through the development of capital markets and venture capital finance. Finally, the Second European Banking Directive of the EU aims at boosting competition between banks, thereby improving the terms and conditions of bank finance, including those supplied to SMEs. Overall, while the transformation of Europe's finance will not be frictionless, we are convinced that SMEs will not be left out in the cold.

## 9. Conclusion

Europe's financial landscape is changing in many ways and for a variety of reasons. One thing is clear though: like the constants of nature, the functions that financial systems fulfil have not altered at all, and the changes that we observe relate to how these functions are carried out and by whom.

Physicists have observed that if the constants of nature were not constant, the Universe we live in would not be what it is (Barrow 2002) and there would probably be no creatures to ponder about its creation and its future. Something similar applies to the earthly matter of finance. If financial systems were not functioning as they do in the industrial countries, these countries would most likely not be industrialised and the bulk of its citizens would literally be struggling to make a living as, in fact, the majority of people in the developing world is.

*Promoting competition in an environment where property rights are effectively protected is the key to prosperity.*

But what determines whether financial systems and, by extension, whole economies function or not? It seems that competition in an environment where property rights are protected is the essential recipe for well-functioning financial and economic systems. In this respect, Europe - undoubtedly already fairly developed compared to most parts of the world - is in the process of spicing up the recipe. Two main ingredients are being added. One is the stimulation of competition across EU countries through the creation of the Single Market for financial services and the introduction of the euro. The other is the promotion of competition between different segments of the financial system, implying that the boundaries between financial markets and banking are becoming increasingly porous. Economic policies play a crucial role in fostering both dimensions of competition. But it is clear that progress in information technology and the ingenuity of financial system participants are equally important.

From the perspective of market players all this means that cards are being reshuffled. As Richard Hooker reminded us at the beginning of this overview, this may be inconvenient for some. But the bright side of it is that even after cards have been reshuffled everybody still has a role to play.



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## ABSTRACT

*This paper discusses the different functions that capital markets and banks have in economic development, and it reviews the debate about market-based vs. bank-based financial systems. Using data for a sample of 40 countries over the period 1975-98, the paper then shows that variation in both banking sector and stock market development can explain variation in economic growth, but the degree to which a financial system is market- or bank-based cannot explain economic development across countries. This is consistent with the financial services view, which focuses on the services provided rather than the providers of services and which emphasises complementarities between markets and intermediaries.*

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# Stock markets, banks, and economic development: theory and evidence

## 1. Introduction

Economic historians and theorists have provided conflicting opinions on the importance of financial intermediaries and markets for economic development. On the one hand, Joseph Schumpeter - for instance - argued in 1912 that financial intermediaries play a decisive role in economic development because they choose which firms get to use society's savings. Joan Robinson (1952), on the other hand, argued that finance rather follows growth and that the process of economic development had to be explained by other factors. Lucas (1988) asserts that the role of finance in economic development has been significantly overrated. Similarly, theoretical models show how financial intermediaries and markets can alleviate information and transaction frictions and thus enhance economic growth (Bencivenga and Smith 1991, Bencivenga *et al.* 1995, King and Levine 1993), but the same models show that higher returns from better resource allocation may depress saving rates to an extent that better developed intermediaries and markets can actually slow economic growth.

Economic history and theory also provide conflicting opinion on the different roles of financial intermediaries and markets. Some authors stress the advantages of intermediaries, others the advantages of markets. Arguments have been made in favour of a financial system in which intermediaries provide most financial services, while others focus on the superiority of financial markets.

Across countries, we can observe a wide variation in the development of both financial intermediaries and financial markets. We can also observe a variation in the degree to which financial systems are based more on intermediaries or more on markets. The theoretical debate and the empirical observation give rise to several questions: first, is the development of financial intermediaries and markets related to economic growth performance? Second, do markets and intermediaries provide the same, substitutable financial services, or are their services complementary? Third, are there advantages of having a financial system that relies more on intermediaries or more on markets? This paper reviews the theoretical literature and provides empirical evidence on these three questions.

These are important questions, not only for academics who want to understand the process of economic growth, but also for policymakers. If we find a significant relation between financial development and economic growth, it underlines the importance of policies that foster the development of efficient intermediaries and markets. If we find evidence for the superiority of either an intermediary-based or a market-based system, this implies policies that are focused more on either intermediaries or markets. In the following we will refer to financial development as the level of development of both intermediaries and markets while financial structure will mean the degree to which a financial system is based on intermediaries or markets.<sup>1</sup> Furthermore, most of our analysis will focus on banks, arguably



*Thorsten Beck*

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<sup>1</sup> An alternative distinction refers to systems that are based on intermediaries as relationship-based and to market-based systems as arms-length systems. See Rajan and Zingales (1999).

the most prominent type of intermediary, and on stock markets, i.e. the most important capital market segment for firms to raise external finance.

The remainder of the paper is organised as follows. Section 2 reviews the theoretical literature on banks and stock markets and presents empirical evidence on their relation with economic growth. Section 3 describes the debate on market- vs. bank-based financial systems and provides evidence on the importance of financial structure. Section 4 presents the financial services view, and Section 5 concludes and offers policy implications.

## 2. Financial development and economic growth

*The better banks and markets fulfil their functions, the higher economic growth is.*

This section reviews the theoretical literature on the roles that banks and stock markets have in fostering economic development; while both perform a variety of functions, a crucial one is the efficient mobilisation and allocation of savings: the better financial systems are in fulfilling this function, the higher is economic growth. We then present indicators of banking sector and stock market development, before presenting the results of cross-country growth regressions.

### 2.1 The theory

Significant information and transaction frictions prevent savers from easily entrusting their savings to entrepreneurs and firms. First, acquiring and processing information on firms and prospective investment projects is not only costly for individual investors, but would also result in duplication of effort. Second, individual investors face high costs of monitoring and controlling borrowers once money has changed hands. In this context, it should also be noted that small investors have incentives to free-ride on large investors who have greater incentives to pay the cost of screening, assessing, monitoring, and controlling firms. Third, investors are reluctant to give up control over their savings over a longer time period (liquidity risk). Many investments, however, require the long-term commitment of resources. Fourth, investors face idiosyncratic risk of individual investments. In the absence of tools to diversify these risks, investors again might be reluctant to give up control over their savings. In the following, we will describe how banks and markets can help overcome these different frictions.<sup>2</sup>

To start with banks, it is useful to highlight, first, that by specialising in the assessment of potential borrowers, banks can reduce the cost of acquiring and processing information about firms and potential projects, thus overcoming the problem of duplication and of freeriding (Diamond 1984, Boyd and Prescott 1986). By easing information frictions between savers and borrowers, they may increase saving and capital accumulation in the economy. Furthermore, by identifying the most worthy projects and firms, banks foster innovation and efficient resource allocation. Similarly, banks can specialise in monitoring and controlling borrowers, again avoiding duplication and free-riding of individual investors.

Second, banks can lower liquidity risk (Diamond and Dybvig 1983, Bencivenga and Smith 1991). By pooling savings and by investing both in short-term securities and long-term investments, banks can transform the maturity of savings and thus facilitate the commitment of long-term resources to investment projects.

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<sup>2</sup> For a more detailed overview of the theoretical literature, see Levine (1997).

Third, banks allow the pooling and sharing of risk by reducing transaction costs of individual investors. Banks can provide vehicles for pooling and diversifying idiosyncratic risk, thus allowing a shift to higher-return, higher-risk projects. Banks can also facilitate intertemporal risk diversification (Allen and Gale 2000): systematic risks, which cannot be diversified away at a specific point in time, can be diversified across generations by long-living banks; this is because - having a long-term perspective - banks can buffer shocks by offering a relatively lower return during good times and a relatively higher return during bad times.

Turning to the role of stock markets, we note, first, that more liquid markets give investors higher incentives to invest in the acquisition and processing of information since they are more likely to realise a return on this investment by trading in the market (Holmström and Tirole 1993). At the same time, firms can rely on long-term resources raised through markets.

Second, stock markets can help in corporate control by facilitating takeovers and tying managers' compensation to companies' performance (Jensen and Meckling 1976). By easing takeovers of poorly managed firms, liquid stock markets foster corporate control and efficient resource allocation (Scharfstein 1988, Stein 1988). Tying managers' compensation to stock performance helps align their interest with shareholders' interest (Diamond and Verrecchia 1982, Jensen and Murphy 1990).

Third, markets can ease liquidity risk by allowing investors to sell rapidly in more liquid markets. If individual investors can rapidly convert equity claims into cash, they will be more willing to provide resources for investment projects that require long-term commitment of resources (Levine 1991).

Finally, markets can facilitate risk diversification (Saint-Paul 1992). Better-developed markets - both larger and more liquid - allow investors to construct diversified portfolios and, thus, hedge against idiosyncratic risk.

In sum, while operating in different ways and with a different focus, both banks and markets can ease the acquisition and processing of information, allow control over users of finance, and facilitate risk diversification. In light of this, we would expect both banking sector and stock market development to foster economic growth. Let us see whether the data and the empirical evidence support this expectation.

*Banks and markets  
operate in different ways  
and with different focus.*

## 2.2 The data

To analyse the link between stock market and bank development and economic growth, we use a sample of 40 countries, with data for each country averaged over the period 1975-98. Table A1 in the Annex lists the countries in the sample and the different indicators of financial development and structure we will be using. Suffice to note here that the sample includes both developing and developed economies, and that we have averaged data over a longer time period to remove business-cycle effects.<sup>3</sup>

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<sup>3</sup> For a detailed description of the data and its construction see Beck, Demirgüç-Kunt, and Levine (2000).

To measure stock market development, we use the “turnover ratio” measure of market liquidity, which equals the value of shares traded on domestic exchanges divided by the total value of listed shares.<sup>4</sup> It indicates the trading volume of the stock market relative to its size. Some models predict that more liquid capital markets will create incentives to long-run investments because it is relatively easier to sell one’s stake in the firm. This can foster more efficient resource allocation and faster growth.

To measure banking sector development, we use “bank credit”, which equals bank claims on the private sector by deposit money banks divided by GDP. Although bank credit does not directly measure the degree to which banks ease information and transaction frictions, it is more suitable than alternative measures. For instance, unlike many studies of finance and growth that use the ratio of broad money to GDP as an empirical proxy of financial development, the bank credit variable directly measures the funds that banks intermediate from savers to the private sector.

*There is a wide variation in financial sector development and economic growth performance across countries.*

To assess the relation of banks, markets, and economic growth, we average real per capita GDP growth rates over the period 1975-98. Table 1 presents descriptive statistics on turnover ratio, bank credit, and economic growth. There is a wide variation in financial development - measured by the turnover ratio and bank credit - and in growth performance across the sample. Venezuela experienced negative average annual growth of 0.9 percent over the period 1975-98 while Taiwan achieved an annual growth rate of 6.3 percent (see also Table A1 in the Annex). Bank credit ranges from about 8 percent in Peru to 101 percent in Japan. While Uruguay had a turnover ratio of 5 percent over the period 1975-98, Taiwan had a ratio of 227 percent. Both financial development indicators are not only positively and significantly correlated with each other, but also with per capita GDP growth.

### 2.3 The empirical evidence

The data presented in the previous section suggest a close association of financial sector development and economic growth. Here we present ordinary-least-squares regressions of the average per capita GDP growth rate over the period 1975-98 on bank credit and turnover ratio. To assess the strength of the independent link between both stock market development and growth and bank development and growth, we control for other potential determinants of economic growth in our regressions. Specifically, we include the initial real GDP per capita to control for convergence, the average years of schooling to control for human capital accumulation, and the share of exports and imports to GDP to control for trade openness. Further, we control for a variety of government policies. Specifically, we include the black market premium to control for exchange rate and price distortions, the inflation rate to control for monetary stability, and the ratio of government expenditures to GDP to control for the government’s role in the economy.<sup>5</sup>

5 Other recent empirical papers on the role of financial development in economic growth have used the same set of conditioning information; see, among others, Beck, Levine, and Loayza (2000).

4 We prefer a measure of liquidity to one of size since theory also focuses on market liquidity rather than size. Furthermore, as noted by Levine and Zervos (1998), value traded relative to GDP has the potential pitfall that a higher value can be due to higher prices without an increase in transactions. Since the turnover ratio contains the price in both numerator and denominator, it is not subject to this problem.



**Table 1. Stock markets, banks, and economic growth**

	Descriptive statistics		
	Economic growth	Turnover ratio	Bank credit
Mean	2.1	37.0	44.0
Median	1.9	30.1	43.5
Maximum	6.3	227.3	100.9
Minimum	-0.9	5.0	8.4
Standard deviation	1.6	37.4	23.6
Number of observations	40	40	40
	Correlations		
	Economic growth	Turnover ratio	Bank credit
Economic growth	1.00		
Turnover ratio	0.58 (0.001)	1.00	
Bank credit	0.32 (0.041)	0.45 (0.004)	1.00

Notes: p-values are reported in parentheses; for definition of variables see text.

The results of the regression analysis, which are summarised in Table 2, provide evidence for a robust statistical relation between banks, stock markets, and economic growth. When we include either bank credit or the turnover ratio, both measures enter positively and significantly at the 1 percent level (regressions 1 and 2). When we include both measures simultaneously (regression 3), both measures enter individually only at the 10 percent significance level, but jointly at the 1 percent significance level. Interestingly, only the share of government consumption in GDP and the black market premium enter significantly at the 10 percent level in all three regressions, both negatively, while none of the other control variables enters significantly across the three regressions.

*Empirical evidence suggests a robust statistical relation between banks, stock markets, and growth.*

The empirical results do not only show a statistically significant relation between banking and stock market development, on the one hand, and economic growth on the other, but also an economically significant relation, as the following examples illustrate: all other things being equal, Mexico's annual average growth rate during 1975-98 would have been 1.4 percentage points higher than the actual rate of 1 percent if that country had had a level of banking sector development equal to the sample average of 44 percent instead of 13 percent; similarly, Chile's growth rate would have been 1.1 percentage above the actual rate of 4.2 percent if that country's stock markets had shown the liquidity of the sample average of 37 percent instead of the actual 7 percent.

Our results are consistent with the recent empirical literature. Levine and Zervos (1998) show that both banking sector and stock market development explain cross-country growth in GDP per capita for a sample of 42 countries over the period 1976-1993. Demirgüç-Kunt and Maksimovic (1998) find that countries with more liquid stock markets and better-developed banking systems exhibit a larger share of firms that grow beyond the rate predicted by their short-term financial resources. Rousseau and Wachtel (2000)

5 Other recent empirical papers on the role of financial development in economic growth have used the same set of conditioning information; see, among others, Beck, Levine, and Loayza (2000).

**Table 2. Regressions of economic growth on bank credit and turnover ratio**

	Regression (1)	Regression (2)	Regression (3)
<b>Explanatory variables</b>			
Constant	4.099 (0.025)	3.958 (0.104)	2.33 (0.275)
Initial per capita income 1/	-0.723 (0.044)	-0.355 (0.365)	-0.614 (0.136)
Average years of schooling 2/	0.356 (0.753)	-0.455 (0.735)	0.033 (0.980)
Government consumption 1/	-1.586 (0.027)	-1.251 (0.063)	-1.361 (0.037)
Trade openness 1/	0.324 (0.417)	0.637 (0.100)	0.513 (0.190)
Inflation rate 2/	1.345 (0.195)	-1.225 (0.290)	0.405 (0.758)
Black market premium 2/	-3.736 (0.003)	-4.083 (0.019)	-2.971 (0.054)
<u>Bank credit</u> 1/	1.808 (0.001)		1.185 (0.079)
<u>Turnover ratio</u> 1/		0.96 (0.008)	0.73 (0.068)
R <sup>2</sup>	0.518	0.554	0.608
Wald test for joint significance of bank credit and turnover ratio (p-value)			0.001
Observations	40	40	40

Notes: p-values are reported in parentheses; for definition of variables see text;

1/ In the regressions, this variable is included as log (variable);

2/ In the regressions, this variable is included as log (1+ variable).

and Beck and Levine (2003) show that the relation between banks, stock markets, and economic growth is not due to biases induced by simultaneity, reverse causation, and omitted variables.<sup>6</sup>

### 3. Financial structure and economic growth

While the previous section focused on the positive roles that both banks and markets can play in the economic growth process, this section emphasises the relative advantages of banks and stock markets. In essence, we want to examine whether financial structure, i.e. the degree to which a financial system is based on markets or banks, influences economic growth. We first present theoretical arguments for the bank-based and market-based view, respectively, before developing indicators of the financial structure of economies. Finally, we present cross-country growth regressions to assess the validity of either view. In this context, we also provide further evidence for the growth-enhancing role of financial development itself.

<sup>6</sup> Using a sample of 74 countries over the period 1960-95, Levine *et al.* (2000) also show that the relation between financial intermediary development and economic growth is robust to biases induced by simultaneity, reverse causation, and omitted variables. Beck, Levine, and Loayza (2000) show that the impact of financial intermediaries on economic growth occurs through productivity growth rather than capital accumulation.

### 3.1 The theory

Proponents of **bank-based financial systems** emphasise not only the advantages that well developed financial intermediaries have for economic growth, but also point at the relative advantages of banks vis-à-vis financial markets. First, financial markets do not provide sufficient incentives against free-riding of small investors. Since well-developed and liquid markets promptly reveal information to all investors, small investors do not have incentives to invest in the acquisition and processing of information (Stiglitz 1985). Banks, by contrast, do not face this problem since their information on borrowers is mostly proprietary (Boot *et al.* 1993).

*Banks may be better than markets at overcoming information asymmetries and at providing intertemporal smoothing of risks.*

Second, it is argued that banks are better exercisers of corporate control than markets.<sup>7</sup> There are four main reasons why this may be the case. The first is that insiders typically have better information about the firm than outsiders, such as small investors in the financial markets (Myers and Majluf 1984). Ill-informed outsiders will therefore be reluctant to out-bid well-informed insiders, which makes takeover (i.e. a potentially important corporate control mechanism in market-based systems) a deficient tool of corporate control. Moreover, ill-informed and short-term oriented shareholders can also force management to not undertake investments with a high long-term return (Stulz 2001). The second reason is that liquid markets might actually decrease incentives to use takeovers as a corporate control device since exit by sale is less costly (Bhide 1993). More liquid markets might foster more diffuse ownership of large corporations, thus decreasing incentives of the individual - fractional - owner to exercise corporate control (Shleifer and Vishny 1986). The third reason rests on the notion that an investor in very liquid and transparent markets will be reluctant to spend resources to obtain information about a potential takeover target if other investors can free-ride on his efforts (Grossman and Hart 1980). The last reason for a possibly ineffective market control of corporate behaviour is that boards of directors, supposed to represent the interests of shareholders vis-à-vis management, often enjoy incestuous relationships with management, reducing the effectiveness of corporate control (Allen and Gale 2000). Banks, on the other hand, can form long-term relationships with firms, which facilitate the acquisition and processing of information and thus resource allocation. Through staged financing and short-term loans that are renewed subsequently, they can monitor and exercise control over the borrower (Stulz 2001).

Finally, proponents of a bank-based system argue that banks are better than markets in providing intertemporal risk diversification options.

Proponents of **market-based financial systems** focus on the problems that powerful banks pose for the efficient delivery of financial services and thus resource allocation. First, powerful banks with inside information about firms can extract rents from these firms (Hellwig 1991). This might negatively affect the incentives for firms to undertake innovative, profitable projects (Rajan 1992). Other factors may further weaken the incentive to innovate. For instance, since banks are debt issuers, they tend to be conservative, thus hindering innovation and growth. Moreover, they may be less effective

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7 Davis (this volume) provides further perspectives on corporate control mechanisms in bank-based and market-based financial systems.

in collecting and processing information on new, innovative industries (Allen and Gale 2000, Subrahmanyam and Titman 1999) that are characterised by significant uncertainty. Markets, on the other hand, are much better in financing new, innovative industries, since they allow differing and complementary views.

Second, proponents of the market-based system also claim that banks, due to their insider status, are ineffective corporate controllers (Hellwig 1998). Bankers might become captured by firm management, colluding against the interests of shareholders (Black and Moersch 1998).

*Markets may be better than banks at supporting innovative firms and at providing risk diversification.*

Finally, according to proponents of the market-based system, financial markets offer better opportunities to hedge and diversify risk. While banks only offer limited and standardised hedging products, markets offer a richer and more customised set of risk diversification and hedging instruments.

Overall, at the heart of the debate about banks vs. markets is the question whether one system is better than the other at acquiring and processing information, corporate control, and risk diversification and, resulting from this, whether one system outperforms the other in efficiently mobilising and allocating savings and thus generating growth. To argue their case, proponents of market-based financial systems often use evidence from Japan and Germany. Japanese firms with close bank links tend to follow more conservative, slow-growth strategies, use more capital-intensive processes, and produce lower profits than other firms (Weinstein and Yafeh 1998, Morck and Nakamura 1999). Wenger and Kaserer (1998) provide evidence on the close relationship between banks and corporate management in Germany and on how banks fail to effectively control their borrowers. That said, Japan's bank-based system is often credited with partly explaining the country's rapid economic development over the last 50 years (Porter 1992, Aoki and Patrick 1993). Japanese firms with close ties to banks tend to be less credit-constrained than other firms (Hoshi *et al.* 1991).

Economic reasoning and the experience of particular countries do thus not provide arguments for the superiority of either the bank-based or the market-based view. Can it be that financial structure is irrelevant? In answering this question, we first present the data used in this section.

### 3.2 The data

We use two indicators to measure the structure of a financial system. The first indicator, which we name "structure-activity", builds on the indicators of stock market and banking sector development used above, namely the turnover ratio and bank credit, respectively. Specifically, "structure-activity" equals the log of the ratio of the turnover ratio to bank credit. This indicator thus measures the relative importance of stock markets vis-à-vis banks in a country's financial system.

The second indicator of financial structure, called "restrict", measures regulatory restrictions on banks' activities. This indicator aggregates sub-indices that gauge restrictions on banking along four dimensions: activities in the (i) securities, (ii) insurance, and (iii) real estate markets; and (iv) ownership and control of non-financial firms. The

degree of restrictions can vary as follows: unrestricted (=1), permitted (=2), restricted (=3), or prohibited (=4). The aggregate indicator can therefore vary between four and 16, with higher numbers indicating more restrictions on bank activities and non-financial ownership and control. The indicator "restrict" is computed for 1999 and is taken from Barth *et al.* (2001a, 2003). Barth *et al.* (2001b) have shown - though for a smaller sample of countries - that the indicator "restrict" has changed very little over the last 20 years; in light of this, we assume persistence of this indicator over the sample period 1975-98. Compared to "structure-activity", "restrict" focuses on the policy environment that determines the structure of the financial system, specifically, the activities of banks relative to other financial institutions and financial markets.

To control for the level of financial development, we construct an aggregate indicator that accounts for the development of financial intermediation and stock markets. This indicator, called "finance-activity", equals the log of the product of private credit and the turnover ratio. Private credit equals the claims of financial intermediaries on the private sector, expressed in percent of GDP. Unlike bank credit, it includes claims by both banks and non-bank financial intermediaries.<sup>8</sup> Recent work shows that the variable private credit exerts a statistically and economically significant influence on economic growth (Levine *et al.* 2000; Beck, Levine, and Loayza 2000).

Table 3 presents summary statistics of the three financial sector indicators. There is a wide variation in both "structure-activity" and "restrict". To begin with "structure-activity", this indicator yields intuitive as well as surprising rankings (see Table 1 in the Annex). According to this measure of financial structure, France and Japan have bank-based financial systems while the United States has a market-based system. Surprisingly, "structure-activity" identifies Germany as having a relatively more market-based system than the United States. Furthermore, the indicator ranks South Africa as the most bank-based financial system and Mexico as the most market-based system. But here it should be noted that Mexico is classified as market-based not so much because of a very liquid stock market, but because of a very underdeveloped banking system. Similarly, South Africa is classified as bank-based not because its banking system is very developed, but because its stock market is very illiquid. This underlines the importance of controlling for the level of financial development, via the "finance-activity" indicator, when assessing the relation of financial structure with economic growth.

*Financial structure differs widely across countries, with surprising country rankings.*

Similarly, the second indicator, "restrict", provides some intuitive and some surprising rankings. New Zealand has the least restricted banking system while Indonesia has the most restricted one. Both the United States and Japan have relatively restricted banking systems while both Germany and the United Kingdom have relatively few restrictions on bank activities and ownership.

Table 3 also shows that the two indicators of financial structure do not show a significant relation (the correlation coefficient is 0.14 and the p-value is 0.432). This might reflect the different aspects of financial structure measured by these two indicators. While "structure-activity" is an outcome measure, "restrict" is a policy measure. Using both measures might

<sup>8</sup> For this section, we prefer private credit to bank credit since we want a comprehensive measure of financial development, rather than a measure isolating banks.

**Table 3. Financial structure, financial development, and economic growth**

	Descriptive statistics		
	Structure-Activity	Restrict	Finance-Activity
Mean	-0.34	9.23	7.16
Median	-0.42	9.00	7.19
Maximum	1.32	14.00	9.82
Minimum	-1.96	4.00	4.95
Standard deviation	0.76	2.64	1.25
Number of observations	40	35	40

	Correlations		
	Structure-Activity	Restrict	Finance-Activity
Structure-Activity	1.00		
Restrict	0.14 (0.432)	1.00	
Finance-Activity	0.34 (0.030)	-0.22 (0.214)	1.00

Notes: p-values are reported in parentheses; for definition of variables see text.

add additional robustness to our empirical test. We also observe a positive and significant correlation between “finance-activity” and “structure-activity”, suggesting that financial development is associated with a move towards more market-based systems. At the same time, there is no significant correlation between financial development (“finance-activity”) and the degree of bank restrictions (“restrict”) as the high p-value of 0.214 suggests.

### 3.3 The empirical evidence

Table 4 presents the results of regressions of economic growth on financial structure. As in Section 2, we control for a number of variables to assess the strength of the link between financial structure and economic growth. In addition to the control variables introduced in the previous section, we have now included a measure of financial development (“finance-activity”). Neither the “structure-activity” nor “restrict” variable has a statistically significant impact on real per capita GDP growth. There is thus no evidence in favour of either the market-based or bank-based hypothesis. By contrast, the “finance-activity” indicator for financial development enters the regressions significantly at the 1 percent level. This is strong evidence that cross-country variation in financial development explains cross-country variation in growth performance.

These results are consistent with the recent empirical literature that assesses the market-based and bank-based views. Levine (2003) shows that the importance of financial markets relative to banks in a country cannot explain cross-country variation in economic growth, while financial development can. Beck and Levine (2002) show that the level of financial development fosters the expansion of industries that depend heavily on external finance, facilitates the formation of new establishments, and improves the efficiency of capital allocation across industries, but a specific structure of the financial system does not. Demirgüç-Kunt and Maksimovic (1998) show that the financial structure of a country cannot explain firm growth, but financial development can.

*The importance of markets relative to banks cannot explain cross-country variation in economic growth.*

**Table 4. Regressions of economic growth on financial structure**

Explanatory variables	Regression (1)	Regression (2)
Constant	2.325 (0.288)	0.096 (0.978)
Initial per capita income 1/	-0.594 (0.160)	-0.466 (0.183)
Average years of schooling 2/	-0.19 (0.882)	-0.26 (0.835)
Government consumption 1/	-1.388 (0.038)	-1.348 (0.127)
Trade openness 1/	0.601 (0.144)	0.686 (0.083)
Inflation rate 2/	0.375 (0.800)	-0.477 (0.705)
Black market premium 2/	-3.364 (0.036)	-3.154 (0.234)
<u>Structure-activity</u>	-0.234 (0.674)	
<u>Restrict</u>		0.108 (0.201)
<u>Finance-activity</u>	0.923 (0.003)	0.914 (0.003)
R <sup>2</sup>	0.581	0.603
Observations	40	35

Notes: p-values are reported in parentheses; for definition of variables see text; the regressions also include dummy variables for different time periods, which are not reported

1/ In the regressions, this variable is included as log (variable);

2/ In the regressions, this variable is included as log (1+ variable).

#### 4. The financial services view

While the theoretical literature has provided many arguments on the relative advantages of bank-based and market-based financial system, there is no empirical evidence in favour of either view. Cross-country growth regressions show the importance of the overall level of financial development rather than the composition of the financial system. This is consistent with the financial services view that emphasises the services that financial intermediaries and markets provide rather than who provides them. The financial services view is a functional approach, focusing on overcoming the informational and transaction frictions discussed earlier. It considers the institutional question of who provides these services of secondary importance.

The financial services view also emphasises the complementarity of intermediaries and markets. Well-developed and liquid stock markets can offset the negative effects of powerful banks we described above (Stulz 2001). They can offer alternative financing sources for an entrepreneur and help her realise the return on a successful project by selling her stake in the firm (Black and Gilson 1998). Financial intermediaries can benefit from price signals sent by well-developed and liquid markets. Further, intermediaries and markets

*What is important is that financial services are provided, not who provides them.*

provide funding to different segments of firms, with only larger and older firms accessing equity finance through stock markets. But even if markets provide external funding to only a relatively small share of firms, they can play an important role by offering customised risk diversification tools to investors. Finally, recent developments, such as loan securitisation, underline the complementarity and interdependence of intermediaries and markets.

The importance of markets relative to intermediaries might increase with the economic development of an economy (Boyd and Smith 1996, 1998; Boot and Thakor 1997). In other words, the structure of an economy's financial system might become more market-oriented as the economy develops. However, this would imply an effect of economic development and growth on the structure of the financial system rather than financial structure affecting growth.<sup>9</sup>

*A well-functioning legal framework is crucial for a healthy financial system.*

Complementary to the financial services view, the law and finance view focuses on the legal system as a major input for a healthy financial system. In the words of La Porta *et al.* (2000): "in the end, the rights create finance." The law and finance view stresses the importance of the rights of outside investors - both creditors and minority shareholders - and their effective enforcement for financial development and economic growth. Only if outside investors' rights are well protected, will they be willing to provide the necessary funding to firms and projects.

The evidence and the empirical literature discussed in the previous section are consistent with the financial services view; the level of financial services provided rather than the institutional structure of their provision explains cross-country variation in economic growth. The related literature also provides evidence for the law and finance view. Beck and Levine (2002) find that industries dependent on external finance grow faster in countries with better outside investor protection.

Levine (2003) shows that the component of financial development account for by legal system efficiency explains cross-country growth variation. More specifically, Demirgüç-Kunt and Maksimovic (1998) find that the component of both banking sector and stock market development accounted for by the protection of the rights of outside investors explains firm growth.

## 5. Conclusions

This paper has summarised theoretical arguments on the respective roles of financial intermediaries and financial markets and their relative advantages. We have discussed the channels through which intermediaries and markets can influence economic growth. Our empirical results for a sample of 40 developed and developing countries over the period 1975-98 confirm the importance of both banks and stock markets for economic growth. The lower level of statistical significance of the banking sector and stock market development indicators when including both, however, might indicate that it is difficult to distinguish their respective role in our rather small sample of 40 countries.

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<sup>9</sup> Alternatively, the insignificant coefficients on our indicators of financial structure are also consistent with the hypothesis that countries choose the optimal, growth-maximising financial structure.



We then discussed the arguments in favour of a market-based and a bank-based financial system, focusing on the relative advantages that intermediaries have over markets and vice versa. Our empirical findings, however, do not support either the market-based or the bank-based view. While the level of financial development can explain cross-country variation in economic growth, the degree to which a financial system is more market-based or more bank-based cannot. This is consistent with the financial services view, which focuses on the efficient provision of financial services and regards the question on who provides them as secondary. Similarly, the law and finance view stresses the importance of the rights of outside investor and their effective protection as decisive for the effective provision of financial services.

Our findings have important policy implications. For one thing, they are not supportive of policies that favour either financial intermediaries or markets and, thus, they caution against trying to tilt the playing field in favour of either banks or markets. For another, our results stress the importance of creating the conditions for an efficient provision of financial services. The recent literature has made large progress in identifying key conditions. To begin with, La Porta *et al.* (1997, 1998, 2000), Levine (1998, 1999, 2001), and Levine *et al.* (2000) have identified the effective protection of outside investors as important conditions for a well-developed financial system. In this context, it is important to note that the effective enforcement of creditors' and shareholders' rights, rather than the laws themselves, seems to matter.

Another condition is monetary stability. The intertemporal character of financial contracts suggests that this is crucial for an efficient provision of financial services (Huybens and Smith 1999). Using cross-country and panel techniques, Boyd *et al.* (2001) consider a stable monetary environment an important precondition for the development of efficient financial intermediaries and markets.

And then, transparency helps reduce informational asymmetry between lenders and borrowers, thereby promoting the efficient provision of financial services. Levine *et al.* (2000) discover that variation in the quality of accounting standards explains cross-country variation in financial intermediary development. Jappelli and Pagano (2002) find that the existence of credit registries, processing both positive and negative information about borrowers, is related to better developed financial intermediaries. Credit registries can decrease informational asymmetries between lenders and borrowers and reduce banks' market power vis-à-vis individual borrowers.

A final condition worth highlighting is that private agents need to have the means and incentives to monitor and exercise market discipline vis-à-vis banks as well as stock markets. Recent empirical work has established that this fosters the efficient provision of financial services. For instance, Barth *et al.* (2003) show that countries where private agents have better means to monitor banks enjoy higher levels of banking sector development. An important policy implication is that private agents have better incentives to monitor and exercise market discipline vis-à-vis banks if they are not protected by too generous deposit insurance. Necessary prerequisites for monitoring and exercising market discipline also include disclosure requirements and the legal liability of directors for the information they disclose. La Porta *et al.* (2002) show that private enforcement through high disclosure standards is related to more liquid stock markets. Finally, Beck *et al.* (2003) find that firms

*Financial development matters for economic growth, but financial structure does not.*

report lower financing obstacles in countries where private agents have higher incentives and better instruments to monitor banks and exercise market discipline vis-à-vis them.

To summarise the main message of this paper: financial development matters for economic growth, but financial structure does not; from a policy perspective, the need to ensure an environment that is conducive to financial sector development cannot be overemphasised.

## Annex

**Table A1. Country sample, economic growth, and key explanatory variables**

	Economic growth	Turnover ratio	Bank credit	Structure-activity	Restrict	Finance-activity
Australia	1.74	30.10	44.98	-0.40	8	7.67
Austria	2.15	38.98	79.20	-0.71	5	8.08
Belgium	1.86	13.38	38.41	-1.05	9	6.24
Bangladesh	2.38	9.53	14.84	-0.44	12	4.95
Brazil	1.16	53.45	17.69	1.11	10	7.23
Canada	1.45	33.12	47.24	-0.36	7	7.82
Chile	4.16	7.47	39.05	-1.65	11	5.81
Colombia	1.84	9.14	13.69	-0.40	...	5.52
Germany	2.11	82.65	90.67	-0.09	5	8.92
Denmark	2.12	21.27	40.11	-0.63	8	6.75
Egypt	3.44	10.02	24.03	-0.87	13	5.63
Finland	2.05	28.85	60.22	-0.74	7	7.46
France	1.74	36.28	75.90	-0.74	6	8.08
Great Britain	1.94	37.71	69.81	-0.62	5	7.88
Greece	1.70	18.97	23.09	-0.20	9	6.65
Indonesia	3.98	25.93	26.07	-0.01	14	6.52
India	2.98	49.21	21.47	0.83	10	7.08
Israel	1.74	54.77	51.10	0.07	13	7.94
Italy	2.14	35.47	55.45	-0.45	10	7.59
Jamaica	-0.72	8.58	22.33	-0.96	12	5.47
Jordan	1.67	14.92	53.63	-1.28	11	6.80
Japan	2.51	48.51	100.91	-0.73	13	8.96
Korea	5.89	96.39	44.37	0.78	9	8.95
Mexico	1.01	50.10	13.39	1.32	12	6.81
Malaysia	3.99	30.61	55.94	-0.60	10	7.73
Netherlands	1.80	43.83	71.83	-0.49	6	8.55
Norway	2.87	43.05	46.58	-0.08	...	8.27
New Zealand	0.76	24.58	40.13	-0.49	4	7.16
Pakistan	2.71	30.06	22.69	0.28	...	6.52
Peru	-0.29	20.67	8.38	0.90	8	5.51
Philippines	0.50	27.97	25.64	0.09	7	6.80
Portugal	2.88	21.91	68.48	-1.14	9	7.31
Sweden	1.17	32.50	42.63	-0.27	9	8.07
Thailand	5.53	71.65	53.09	0.30	9	8.54
Taiwan	6.27	227.29	80.68	1.04	12	9.82
Uruguay	1.60	5.01	28.02	-1.72	...	4.95
USA	1.76	57.02	64.21	-0.12	12	8.94
Venezuela	-0.86	14.00	20.44	-0.38	10	6.24
South Africa	-0.64	7.12	50.36	-1.96	8	6.33
Zimbabwe	-0.01	6.36	13.48	-0.75	...	4.95

Notes: all data are averaged over the period 1975-98; for definition of variables see text.

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## ABSTRACT

*The 1992 “Single Market” failed to create a real single market for financial services across Europe. However, the boom in bond issuance (stimulated by EMU) and the coincidental equity issuance boom have both led to dramatic changes in the infrastructure of financial markets. So, the EU is well past the point of no return in the creation of a single financial market. If regulatory reform can be certain, and coincide with the rising pillars of reform in the dealing and settlement systems, then a dramatic revolution of European financial services will have been achieved – within a decade of the start of EMU.*

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# The role and development of EU capital markets

## 1. Introduction

The European capital markets were intended to be unified by the “Single Market” programme that was completed in 1992. But perhaps the real disappointment in 1992 (and the years following) was the growing realisation that in spite of all the effort that had been put into getting the single financial market Directives on to the statute book, they were not going to deliver what had been hoped. Too many of the compromises were fudged and ambiguous. With the benefit of hindsight, it was obvious that this would cause problems as the Directives began to be implemented and that indeed was what happened. So the high hopes were gradually dashed on the rocks of reality as it became apparent that there is not yet really a single market in financial services across Europe.

A major reason to have a single financial market is quite simply that it will assist economic growth. A recent report to the European Financial Services Round Table (Heinemann and Jopp 2002) estimated that closer integration would create additional economic growth of at least half a percent annually. That is a worthwhile prize in its own right, but there is another strong reason for pushing on towards that goal: if the EU does not keep moving forward, there is a significant risk that it will actually slip backwards.

It is against this background that this paper examines the role and development of EU capital markets. We begin in Section 2 by highlighting the key forces that are driving the changes in Europe’s financial landscape. Section 3 reviews bond and equity market activities in recent years, in particular since the creation of European Monetary Union. Section 4 follows up on this with an analysis of structural changes in EU capital markets. One focus here will be progress (or lack thereof) in making the clearing and settlement of capital market trades more efficient. Section 5 turns to regulatory reforms, with a focus on proposals to speed up the EU legislative process and to ensure the effective and timely implementation of the regulatory framework. Section 6 concludes.

## 2. Key drivers of Europe’s changing financial landscape

Powerful driving forces are at work and they will re-shape European finance in the years ahead. Obviously, EMU and efforts to create a single market for financial services stand out. But before considering these in subsequent sections it is useful to highlight two specific, worldwide phenomena that operate irrespective of EMU - namely advancements in information technology and ageing.

The pace of advancements in information technology remains dramatic: a new laptop may cost the same as two years ago - but is 40 times more powerful! The advent of the Internet, and especially broadband, means that geographic boundaries have become irrelevant. For many citizens (and market professionals), the serious boundary is where the mobile phone signal runs out. Overall, technology is revolutionising the financial markets. It reaches all the way down the transaction chain from the moment when an investor decides to make some sort of transaction - whether in money or securities or



*Graham Bishop*

financial products - and finishes in the “plumbing” of clearing and settling the transaction.

*Demographic trends will lead to a substantial increase in financial assets in the period ahead.*

As to ageing, most people are already aware of the basic factors: at present, life expectancy at birth for a male in the EU is 75 years - by 2050 that will have risen to 80 years. That does not sound too dramatic. But consider retirement savings for an insured life - they have a longer life expectancy: in the UK, for instance, an insured male, retiring at the now-normal age of 60, has an average life expectancy of almost 84 years. It follows that a typical citizen, from the moment he retires, has 20 to 30 years of life left. Retirees will need an income and many of them will save to get it, either through a second pillar pension system or third-pillar individual savings. That means they will be saving up a huge portfolio of assets, which will be invested in financial assets - intermediated via the single financial market. But the saving really gets underway when people are in their early forties, which means that these financial assets have to maintain their real value for perhaps 50 years. The political class has thus the enormous responsibility of arranging a regime of price stability that must last for half a century. If not, the electors will be very upset: inflation at even 2 percent annually multiplies prices nearly three times in 50 years.

Public pension systems are likely to be under great pressure in the decades ahead. Table 1 shows the basic numbers for EU countries. Given the greater role of funded pension systems in some countries, the United Kingdom for instance, the projected burden of population ageing on public expenditure differs widely across countries. But in general these projections underpin the need to start with sound public finance - to create scope

**Table 1. Public pension expenditure (in % of GDP)**

	2000	2010	2020	2030	2040	2050	Peak change
Austria	14.5	14.9	16.0	18.1	18.3	17.0	4.2
Belgium	10.0	9.9	11.4	13.3	13.7	13.3	3.7
Denmark	10.5	12.5	13.8	14.5	14.0	13.3	4.1
Finland	11.3	11.6	12.9	14.9	16.0	15.9	4.7
France	12.1	13.1	15.0	16.0	15.8	...	4.0
Germany	11.8	11.2	12.6	15.5	16.6	16.9	5.0
Greece	12.6	12.6	15.4	19.6	23.8	24.8	12.2
Ireland	4.6	5.0	6.7	7.6	8.3	9.0	4.4
Italy	13.8	13.9	14.8	15.7	15.7	14.1	2.1
Luxembourg	7.4	7.5	8.2	9.2	9.5	9.3	2.2
Netherlands	7.9	9.1	11.1	13.1	14.1	13.6	6.2
Portugal	9.8	11.8	13.1	13.6	13.8	13.2	4.1
Spain	9.4	8.9	9.9	12.6	16.0	17.3	7.9
Sweden	9.0	9.6	10.7	11.4	11.4	10.7	2.6
United Kingdom	5.5	5.1	4.9	5.2	5.0	4.4	-1.1
<b>EU 15</b>	<b>10.4</b>	<b>10.4</b>	<b>11.5</b>	<b>13.0</b>	<b>13.6</b>	<b>13.3</b>	<b>3.2</b>

Notes: Expenditure include most public replacement income to people aged 55 and above; projections are based on legislation in force in 2000; recent pension reforms in Germany are projected to lower 2050 expenditure by 2 percentage points; for Denmark figures include statutory labour market supplementary pension schemes; for Ireland figures are in percent of GNP.

Source: European Commission (2001).

for meeting rising pension claims - and with pension reforms that aim at cutting the generosity of public pension systems and promoting funded pension systems.

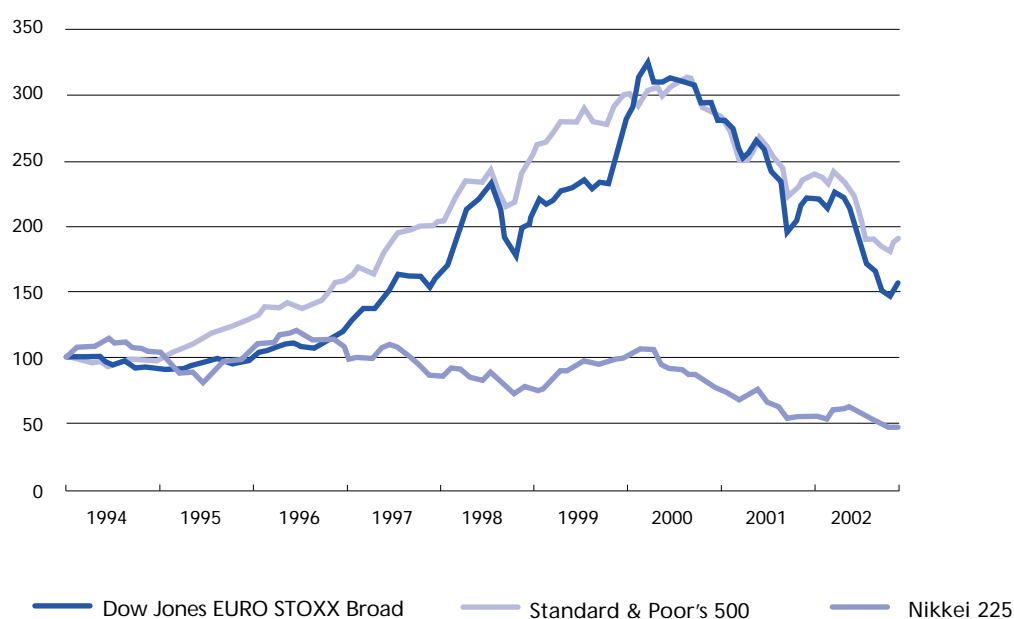
A shift towards funded pension systems inevitably pushes the burden onto individuals to save for their own retirement. The resulting surge in demand for financial assets is likely to coincide with the moment when the financial services industry is digesting the full implications of the completion of the next round of evolution of the single financial market in Europe. The combination with the technological revolution promises (some may say threatens) to change the mechanics of delivering financial services. That may enable the gusher of pension fund money to flow through some rather unexpected conduits, and that is the challenge: how to foster a market that removes the barriers to citizens achieving the full benefit of their savings? Before sketching what needs to be done to complete the internal market for financial services, we briefly review recent trends in bond and equity market activities.

### 3. A review of recent trends in capital market activities

To begin with equity markets, one should note at the outset that the boom during the early years of EMU could hardly be ascribed to the new currency. Indeed, as Figure 1 shows, EU markets moved closely in line with the US stock market for much of the period. The steps that are underway to improve the regulatory and practical functioning of EU markets - as part of the Financial Services Action Plan (see Section 5) - will play a role in the future volume of issuance, and the subsequent secondary market trading.

*Booming EU equity markets in the second half of the 1990s cannot be attributed to the coming of EMU.*

Figure 1. Equity market trends in the EU, United States, and Japan, 1994-2002

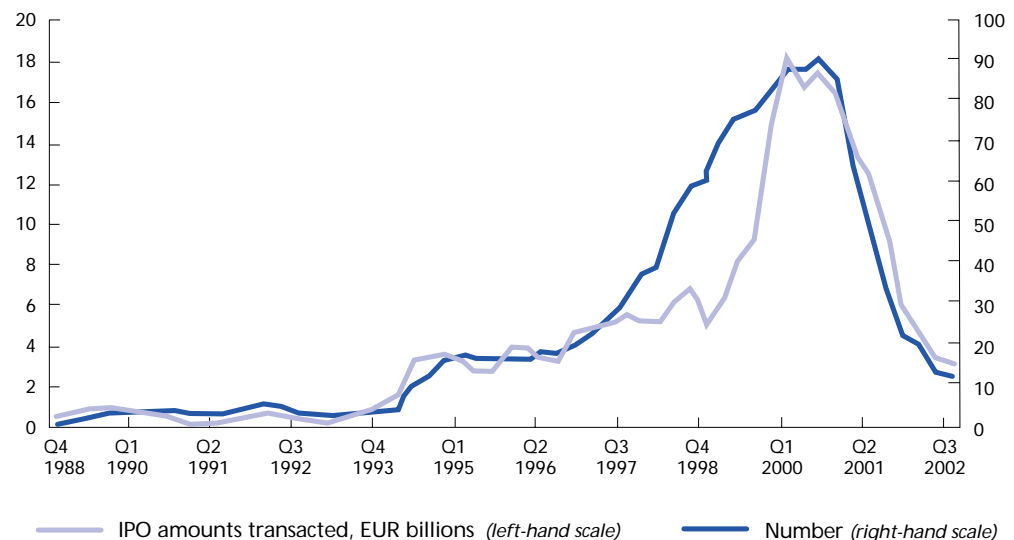


Notes: January 1994 = 100

Source: ECB (Monthly Bulletin, December 2002).

Initial Public Offering (IPO) began to rise sharply after the equity boom had raised investors' appetite for new issues. Figure 2 demonstrates the dramatic uplift - in both value and the number of IPOs. At first, values were running at barely EUR 20 billion annually, but shot up to an annualised EUR 80 billion as the market peaked in early 2000.

**Figure 2. Initial public offerings in the eurozone, 1988-2002**



Notes: Four-quarter moving average; quarterly data  
Source: ECB (Monthly Bulletin, December 2002)

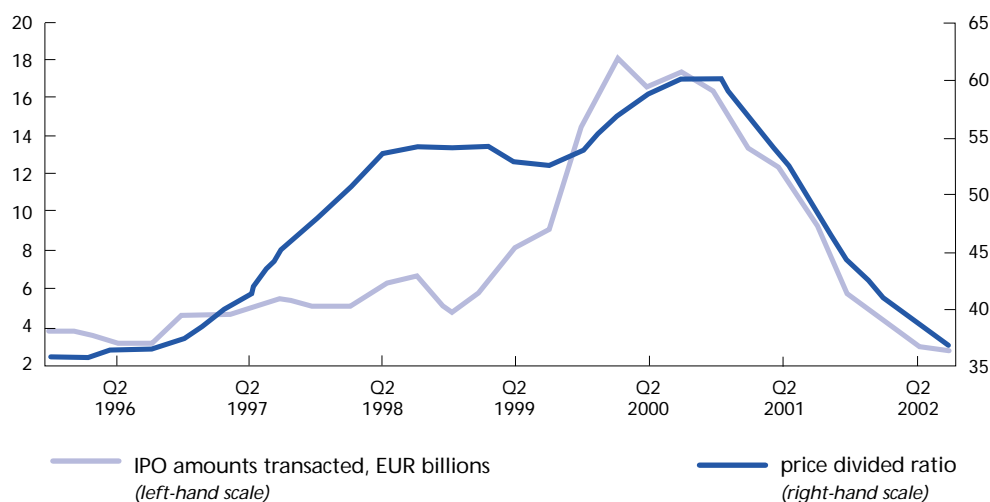
*The surge in equity issuance until mid-2000 was driven by a substantial drop in the cost of capital.*

The motivation for this issuing boom is easy to understand when we account for the cost of capital. As can be seen from Figure 3, the rising equity market was not accompanied by a surge in dividends and, thus, price dividend ratios increased substantially, implying a sharp fall in the effective cost of capital. Unsurprisingly, many issuers were prepared to raise capital at negligible cost, and the lag before this mechanism sprang into effect was barely a year, but thereafter the response was dramatic - until the market peaked.

However, the surge in equity issuance prompted the authorities to begin a review of prospectus requirements even before the Lamfalussy plan (see Section 5) came into operation. The coordinator of European securities regulators at the time - the Forum of European Securities Commissions (FESCO) - produced its consultation paper on prospectuses in May 2000 - virtually coincident with the equity market peak. While the consultation paper was on prospectuses for equity issuance, it paved the way for the later realisation that bond markets should also be covered when the formal proposal was made for a new Directive.

Turning to bond markets, it is worth noting at the outset that the euro bond market is an undoubted success of the capital markets. Moreover, its scale dwarfs the equity markets, with annual issuing volume running at some EUR 670 billion even before EMU, approximating 50 times equity issuance at the time. As Table 2 shows, the total value of bond issuance doubled in 1999 and it is still running at twice pre-EMU level.

Figure 3. Initial public offerings and price dividend ratio in the eurozone, 1996-2002



Notes: Four-quarter moving average; quarterly data  
Source: ECB (Monthly Bulletin, December 2002)

Is the current scale of this market a “euro phenomenon”? The answer is surely “yes” – because the very act of creating a single currency meant that the obligation on all the insurance companies to match their assets and liabilities was suddenly achieved by creating a single currency across most of the EU. One cannot overestimate the resultant pan-European demand for euro-denominated securities. It was anticipated, but it took a while to put in place the portfolio management teams to carry it out. At the stroke of midnight on 1 January 1999 – the beginning of EMU – that legal matching requirement crystallised a pan-European demand for euro-denominated securities, after which the world was different.<sup>1</sup>

These developments did not happen by accident – there was an explicit intention to create a single bond market and that is well on the way. There was a political, emotional, and intellectual desire to go from the disjointed and inefficient situation 15 years ago to a clear and simple market. The relative scale of the euro bond market should not be a surprise; it is not a flash in the pan – it is the natural result of the creation of a single currency for Europe, built on the concept of a single financial market.

*The phenomenal increase in the euro bond market is the natural result of the creation of a single currency for Europe.*

The government debt managers of the eurozone took the lead in the mid-1990s and made great efforts to take advantage of the opportunity presented by EMU. Essentially, they epitomised the outcome of the “emotional and intellectual” desires by their decision to compete head on with the US Treasury and, most importantly, with each other. That required reforming the size of their issues and the types. Now that objective is achieved, attention has moved to the minutiae of clearing and settlement – the plumbing.

<sup>1</sup> Going back to the mid-1980s, this author wrote a series of “bond manuals” on different countries but now they are just museum pieces. The changes in those 10 to 15 years are phenomenal, and are due initially to the single financial market – the 1992 programme, but EMU is now the accelerator.

But as Table 2 shows, the private corporate sector is also making use of this market on a scale that could not have been imagined. To highlight one fact: the new issuance by private corporations and utilities is still up by a factor of 8 from pre-EMU days. In 2002, the level of issuance was still high, even after the various global problems raised a series of questions about corporate governance and accounting standards. This dramatic increase represents a disintermediation of the banking system by European and other companies. Moreover, the massive growth in the private finance category masks the use of financing subsidiaries by industrial companies as a means of bypassing the banking system.

**Table 2. Euro bond issuance in billions of euros, 1998-2002**

	1998	1999	2000	2001	2002
Sovereign	385	448	429	439	475
Supranational	13	15	8	12	15
Corporates (incl. utilities)					
Private	14	121	104	167	113
Public	10	19	32	41	27
Financial institutions (incl. banks)					
Private	144	437	390	419	375
Public	102	198	153	201	198
<b>Total</b>	<b>668</b>	<b>1,238</b>	<b>1,116</b>	<b>1,279</b>	<b>1,203</b>

Source: Capital DATA Bondware.

To conclude the description of bond market activities since the creation of EMU, we note that one of the key characteristics is the size of issues. Traders would regard a EUR 500 million bond issuance as a reasonably liquid bond - something that is going to be traded by institutions internationally, as well as just bought and held. It is a measure of what is needed to have a global bond market. Table 3 indicates that at the start of EMU, half the non-government bonds were in this category; now some 60 percent of non-government bond issues exceed this threshold - even as issue activity has risen sharply. Splitting the category further, one would see that about 40 percent of the non-government issues are over EUR 1 billion each - roughly twice the proportion in pre-EMU days.

*Since the creation of EMU, the size of the eurozone government bond markets has further increased relative to government bond markets elsewhere in the world.*

How does the size of eurozone bond markets compare to markets in the rest of the world? We start with a look at government bonds because any currency that lays claim to be a world reserve currency must have at its foundation a large and liquid government bond market. Government bonds are the top credit in any country, so are the foundation for an international role. Significantly, Figure 4 illustrates that, even as EMU was starting, the euro-denominated aggregate of government bonds in the eurozone became substantially bigger as a proportion of the world bond market. Moreover, it enlarged its lead over the US bond market despite the euro depreciation. While this was partially because the US government was running budget surpluses and repaying bonds, the performance of the euro government bond markets was nevertheless impressive from the very beginning, and now there is a huge disparity between the eurozone and the United States. For reference, Figure 4 also shows data for the United Kingdom, which issues the only other major European currency; it is obvious, that the UK government bond market accounts for a relatively small proportion of the world government bond market.

**Table 3. Issue size of non-government euro bonds (in % of total), 1998-2002**

	1998	1999	2000	2001	2002
Issue size in millions of euros					
< 100	3	8	9	6	7
100-500	39	43	36	31	30
> 500	58	49	55	63	63
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: Capital DATA Bondware

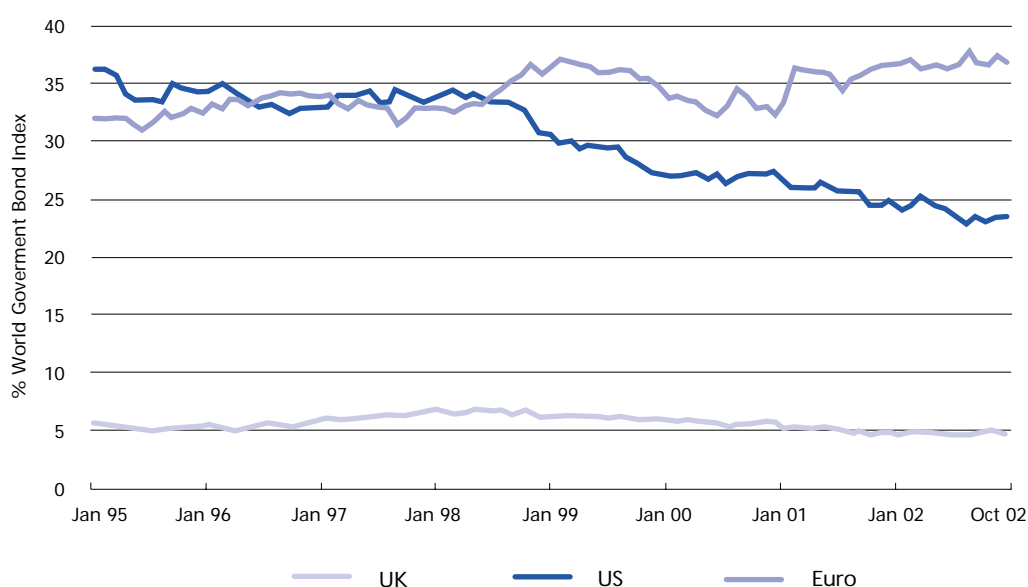
To appreciate the potential for eurozone bond markets it is worth pointing out that only about half of gross general government debt is in the form of bonds that are publicly traded. There is a chance that more could be made tradable (securitising government debt), which could have tremendous implications for both markets and intermediaries who are presently extending loans directly to the governments.

But obviously government bonds are only part of the universe of bonds available. One measure to assess the totality of the bond market rests on the Schroder Salomon Smith Barney Broad Investment Grade Performance Index, which has a minimum size requirement for a bond of EUR 500 million outstanding. On this measure, the US dollar component was EUR 6.7 trillion equivalent at the end of October 2002 and the euro component was EUR 3.9 trillion, implying that the US dollar denominated bond market is about twice the size of the euro bond markets. As the index includes both the domestic market and "offshore" markets, it truly allows an "apples and apples" comparison.

Another measure rests on the European Central Bank's data on bonds eligible for repo money market operations, which effectively takes all euro-denominated bonds. The data

*Even when looking at the totality of bond markets one thing is clear: after just four years, the eurozone has bond markets that compare favourably to that of the United States.*

**Figure 4. Relative size of eurozone, US, and UK government bond markets (in % of total)**



Source: Schroder Salmon Smith Barney - World Bond Index

shows EUR 7.6 trillion of bonds outstanding, which is about the same size as the US market, though, of course, the US market would also have that long tail of small issues. But the key point remains: after quite a short period of development - just four years - the eurozone already has bond markets that compare favourably to that of the United States.

#### **4. A review of structural developments in Europe's capital markets**

We are now moving beyond issues of size and activity and take a look at key structural changes. Europe's financial markets have been subject to far-reaching structural changes as a result of EMU. For instance, the ECB's forerunner insisted on the creation of a Real Time Gross Payments System (RTGS) - which has become TARGET - to ensure that the single monetary policy would not be impeded by any difficulties in moving money around the eurozone. Settlement standards were also raised - for money and bonds. In this section, we focus on two other key developments that are taking place. One is the transformation of European stock exchanges from being "clubs" to profit-maximising companies. The other change concerns clearing and settlement, i.e. that essential - though less visible, and sensational - activity following once bonds, equities, and other financial instruments have been traded.

*The transformation of European stock exchanges is largely driven by market participants' response to technological changes.*

To start with the transformation of European stock exchanges, a key feature here is that while politicians have set the scene, market participants within the financial chain are embarking on sweeping changes in the way they embrace technological advances. In assessing how the European stock exchanges will evolve in the coming years, perhaps the biggest difficulty is that virtually all aspects of equity dealing are undergoing change simultaneously. An analysis of the different functions that used to be combined under the single roof of the stock exchange may help shed some light on the way in which these functions can be fulfilled, or may change, in the new world.

An original driver for the creation of stock exchanges was the need for a "club" to create and enforce rules to ensure the solvency of the members so that the credit risk of deferred settlement was minimised. In the world of open-outcry, the physical proximity of a central market place, preferably in a grand and ornate 19<sup>th</sup> century building, also provided some transparency, as well as liquidity amongst the dealers. Policing issuers and investors was a third function that was sometimes backed by a legal monopoly. As a result, investors and issuers had to abide by the rules of the local stock exchange because they had no alternative mechanisms available.

The club of stock exchange members usually managed the processes carried out within the ornate building. Key functions would normally include:

- overseeing the financial soundness of the members to protect members dealing with each other and the public customers of the members; the latter function would often include some sort of guarantee fund;
- conduct of business rules towards each other and the public customers of the stock exchange's members;
- setting listing rules for companies; the initial prospectus for a listing would be checked and then the issuer would have to agree to make additional disclosures from time to time; in effect, this imposed standards of corporate governance;
- organising linkages into the settlement chain of payments and security delivery;



- information services were a valuable source of income as the stock exchange had the monopoly of price information that investors needed; moreover, information flowing from listing rules would be reported to the stock exchange first, and then re-broadcast to the general public.

The key element in this process was that the club had a certain responsibility for public policy in the financial sector that could be enforced by the effective monopoly of capital-raising opportunities. However, the club was run, ultimately, for the benefit of its members. This is the area where changes have been most dramatic, as stock exchanges have turned themselves from clubs into profit-maximising corporate entities. These entities must develop their own customer base and adapt their systems infrastructure in order to meet customers' needs. Those customers - investors, intermediaries, and issuers - may correspondingly re-examine their own best interests rather than simply accepting *diktats* from the old pattern of national authorities. Responding to the needs of customers is a key challenge for the new model of a stock exchange.

*A key feature of the changes in the European exchange landscape is that stock exchanges have turned from clubs into profit-maximising entities.*

The architecture of European exchanges has changed dramatically in a few years.<sup>2</sup> Critically, Euronext, Deutsche Börse, and the London Stock Exchange have all become listed companies. Moreover, they have seriously discussed a wide variety of methods of co-operation, including offers to purchase. They have also absorbed players in various other sectors - clearing and settlement, derivatives markets, and central counter-parties.

The new model is still evolving, driven by technological advances and regulatory changes, and the traditional functions of the stock exchange are being questioned. As an example, information services have exploded everywhere and the rationale for making a stock exchange the initial point of contact now seems slender when investors and intermediaries rely on screen-based providers for all other instantaneous information. Even listing rules will be moved away completely from the exchanges by the Prospectus Directive.

One of the major questions facing equity transactions is the future functionality of the stock exchanges' trading platforms. The well-publicised danger is that, as re-invented financial service providers, the exchanges focus their resources towards the liquid end of the stock market. Major stocks are so actively traded that liquidity is rarely an issue for the average investor, but this is often not the case for smaller stocks.

In this context, it is important to have well-regulated financial intermediaries, whatever entity - public or private - performs the regulatory function. Electronic auction systems enable investors from all over the globe to deal at the best price available at that instant. However, that leaves open the question of how liquidity is created to provide the counterparty to that investor's trade. Order-driven platforms combined with a quote-driven infrastructure offer a viable answer to these concerns. But then, when a dealer assumes that risk, adequate compensation must be available.

Finally, as most exchanges become electronic and remote trading becomes possible, it is essential for the continued systemic stability of the equity markets that trading functions continue to be carried out by adequately capitalised and regulated exchanges, clearing

<sup>2</sup> Figure A1 in the Annex illustrates the complexity of the European exchange landscape.

houses and financial intermediaries. Permitting unregulated and thinly capitalised software or technology companies to provide key processes in electronic securities transactions creates potential new risks.

Moving on to clearing and settlement, i.e. the plumbing of the financial architecture, we start by recalling that there continues to be considerable scope for making cross-border capital market activity more secure and cost-efficient. Examining what can be done on this front is part of the remit of the Giovannini committee, which was organised by the European Commission to analyse some of the detailed nuts and bolts that need to be solved to approach that Holy Grail - a genuine single capital market.

*Making clearing and settlement more effective is crucial for creating an efficient single capital market.*

Cutting the costs of trading improves market liquidity, which - in the bond market - can impact the intermediation spread that a bank can make between its deposit rate and its lending rate to, say, triple B companies. If the securities markets can get in the middle of that banking spread by cutting dealing costs as well as the holding costs (which includes all the settlement aspects), then there is a squeeze on the cost of bank intermediation that is to the advantage of both lenders and borrowers. In sum, making clearing and settlement more effective is a necessary (and powerful) effect in improving the efficiency of the capital markets.

The method of working of the Giovannini group is interesting. The group, which commenced working when the financial community was focussed on the changes needed in markets to get EMU running, addressed the key question of how to get 15 systems to evolve very quickly into one single system that would deliver the benefits of the genuine single capital market for the EU.

Participating in such an exercise certainly forces recognition of the complexity, and the historical nature, of the evolution of a financial system. In each member state, there is a different amalgam of primary legislation, secondary legislation, rules of public bodies (some of them formally independent) and finally, market conventions agreed by the dealer community when a particular market comes into existence. Some of these conventions, in fact, finish up as laws.

How to make these have consistent practical results so there is a single market? The group started by taking an inventory of what exists and what is directly relevant. Then what is seen as "best practice" is laid out and usually quite high agreement is achieved - but the real conundrum is how to change from what is today to what is now seen as that new ideal. Primary legislation "from Brussels" is always seen as absolutely the last option because it will take so long. Instead, fostering competition is seen as the most effective way of inducing change: when people realise they are about to be outflanked commercially, entrenched positions evaporate miraculously. This is what seems to have happened in the clearing and settlement area - now two main systems in the EU - and the stock exchanges have already shrunk to three major groups.

In November 2001, the Giovannini group issued its first report (Giovannini 2001), which identified 15 barriers to efficient cross-border clearing and settlement in the EU. These barriers have been grouped under three headings: (i) barriers relating to national differences in technical requirements/market practice, (ii) barriers relating to national

differences in tax procedures, and (iii) barriers relating to issues of legal certainty that may arise between national jurisdictions. To illustrate, the first group of barriers comprise:

- technical requirements versus market practises;
- absence of intra-day finality;
- practical impediments to remote access;
- national restrictions that require multiple systems;
- national differences in IT and interfaces; rules on corporate actions, beneficial ownership, and custody (this is the localisation debate); settlement periods; operating hours and settlement deadlines; securities issuing; restrictions on primary dealers and market makers; and in location of securities.<sup>3</sup>

The second report of the Giovannini group came out in April 2003 (Giovannini 2003). In this report, the group proposes to replace existing barriers by a set of technical standards, market convention, rules, regulations and laws that are consistent with a barrier-free environment for clearing and settlement. Furthermore, the group suggests a strategy of how to remove existing barriers, based on an appropriate sequencing of actions, a clear allocation of responsibility for those actions and aggressive but realistic deadlines. Obviously, many of these actions will require legislation - either at the Member State level, or possibly by the EU itself. There is a natural tendency to set deadlines that will fall within the timeframe of the Financial Services Action Plan (see Section 5), i.e. the year 2005. However, there is much to be done yet to uncover the exact tasks that are needed, so there may easily be some overshoot before all the key problems are dealt with.

*Building on its earlier findings, the Giovannini group has now proposed measures to remove barriers to cross-border clearing and settlement in the EU.*

In any event, the priority should be to achieve legal clarity within the same timeframe as the technological changes flowing through in the trading and settlement systems. The more the owners of those systems see it as likely that they will get a commercial benefit from their investment - due to adequate regulatory reform - the more likely they are to make the investment. In short, a virtuous circle may be at hand. That circle may be accelerated if market participants also believe that the "front office" will be able to trade securities freely across borders - as well as settle the resulting trades.

## **5. Regulatory reforms aimed at integrating EU capital markets**

To set the stage for the discussion in this section, it is probably worth recalling that the creation of a single market for financial services in the EU has been on the agenda for a long time. In fact, as for goods and non-financial services, the 1992 Single Market programme envisioned a single market for financial services to be in place by end-1992. What was largely achieved with respect to goods and non-financial services remains a worthy but yet to be accomplished goal in the area of financial services.

The problem was not that the necessary directives, which allow financial institutions to offer their services across borders without the need to establish subsidiaries, were not put in place on time. Rather, the process of establishing the Single Market for financial services

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<sup>3</sup> With respect to the latter, the impact of the Robert Maxwell scandal nearly a decade ago is worth mentioning. This caused such a loss of mutual trust amongst regulators that there was a sudden proliferation of requirements to locate institutional assets in the home state - the exact opposite of a single market.

has suffered from delays in (fully) implementing the relevant directives. About five years ago, the European Commission realised that the coming of the euro, together with enlargement and technological change, meant that the original 1992 programme was looking a bit long in the tooth. What was to be done about it? A committee was formed and came up with a wish list, which has turned into the Financial Services Action Plan (FSAP) - consisting of 42 measures to streamline the regulation of retail and wholesale financial markets - to be implemented by end-2005. This plan was endorsed at the Lisbon summit in March 2000, when the EU set itself a new strategic goal, namely to become the most competitive and dynamic knowledge-based economy in the world by 2010.<sup>4</sup> It was rightly recognised that to achieve this objective, it was essential to have efficient and transparent financial markets that foster growth and employment by better allocating capital and reducing its cost.

*The Lamfalussy committee made innovative proposals to make the EU decision-making process more suitable and effective for the regulation of financial markets.*

Following the adoption of the FSAP, a small committee was set up to study the possibility of ensuring that the timetable was met. In its report of February 2001, this committee of "wise men", chaired by Alexandre Lamfalussy, came up with ambitious proposals to reform the legislative process required to bring into existence the long-promised single EU capital market (Lamfalussy 2001). The report put forward a variety of reform measures - with innovative proposals to make the EU decision-making process more suitable, and effective, for the regulation of financial services. The remainder of this section elaborates on these proposals, in particular their political and constitutional implications.

Achieving the practical reality of an open, competitive financial market on a European scale requires thoughtful regulation to mould 15 sets of national rules into one secure system. But there may be an inherent tension between the desirable goal of subsidiarity and a uniform, harmonised, single financial market. This raises important political questions.

Market participants may well gnash their teeth about the problems thrown up by the implementation of the FSAP because it has pitch-forked them into the middle of a significant constitutional argument precisely because the Lamfalussy Report focused on the issue of "governance" rather than "what should be done". The latter has been commonly accepted for several years - engendering a rising tide of frustration at the apparent inability of the EU's political system to deliver the necessary reform. That common ground on what needed to be done was the basis of the FSAP, and explained why it was put together so easily and quickly. Yet, the fudges left over from 1992 were precisely the difficult elements that impinged on what some Member States regard as key items.

Many in the markets feel that the triangular power structure of the EU - to adapt the description of the US Constitution: Commission "proposes" and Council (the national Finance Ministers) co-decide with Parliament to "dispose" - risks creating a legal framework for financial services that may not offer consumers the full benefits of the single currency and single market. In practice, criticisms are levelled at the Council for conducting secret negotiations that, historically, have fallen victim to nationalistic pressures. In essence, the key demand from the market is that the Council shares power in an open, reasoned manner - transparency is the watchword.

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<sup>4</sup> Table A1 in the Annex summarises the progress made in implementing the FSAP.

Financial markets will probably be in a permanent state of evolution, as technology and ageing have their impact. In these circumstances, the regulatory framework has to be adapted timely to ensure the efficiency and stability of an increasingly integrated EU capital market. This gives rise to constitutional concerns, highlighted by the Lamfalussy Committee. It proposed the setting-up of a speedy mechanism to amend secondary legislation because it is inevitable that much of the legislation of the FSAP will have to be up-dated over the years. Either it will have been done in a rush and be found to be wrong, or it will be outmoded by technological developments, which are moving at a rate that cannot be foreseen. The EU thus needs a mechanism for rapid and effective clarification/amendment of these measures. But this is a constitutional innovation because there must be a delegation of authority to amend this legislation from the national governments to "somewhere" at a European level.

Who should have that authority? Is it the European Parliament; or is it the Council, i.e. EU governments? Historically, the governments actually created many of the problems by ineffective primary legislation, and the FSAP is meant to correct these. In light of this, will market participants trust governments again to create a real single market? The answer may be "no". The best bet may be to enhance the influence of the European Parliament and, crucially, maintain that authority down the chain of implementing rules. But giving Parliament that role may be a major constitutional shift.

It is a mark of the immaturity at the EU-level that the mechanisms of keeping secondary legislation up-to-date have not yet developed - a basic problem of the EU legislative system, but one that is particularly ill suited in the rapidly changing sphere of finance. The EU cannot go back to the Parliament and the nation states repeatedly to ask for changes on very technical matters. But it is clear that competitive disadvantages are bound to emerge when operating on out-dated laws after, say, technology has moved forward.

*It is a mark of immaturity at the EU-level that the mechanisms for keeping secondary legislation up-to-date have not yet developed.*

But the need to bring citizens the full benefits of the single currency is forcing the necessary constitutional innovation. That is exactly why the three institutions - Commission, Council, and Parliament - are determined to set precedents now that will preserve their institutional prerogatives. They are petrified of setting precedents in the field of financial services that could be applied elsewhere. This issue is now a topic for the Convention on the Future of Europe that is scheduled to present a draft Constitutional Treaty to the Heads of Government in June 2003.

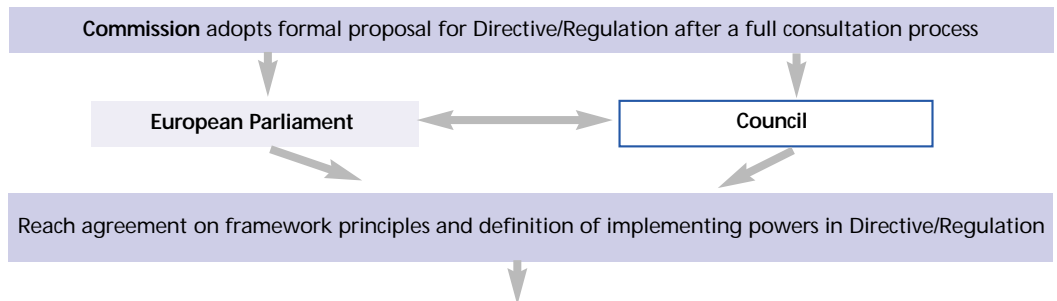
Let us now take a closer look at the process that the Lamfalussy committee has proposed for decision-making and the implementation of financial market regulations. As Figure 5 illustrates, the process, as currently designed, comprises four levels. Level 1 concerns framework principles (primary legislation), Level 2 deals with detailed technical measures (secondary legislation), and levels 3 and 4 are essentially about implementing and enforcing the regulatory framework.

The whole process is, roughly speaking, on schedule for the primary legislation but it may be difficult to complete all the detailed national measures and finalise every single detail. But what are the main strengths and weaknesses of the Lamfalussy process?

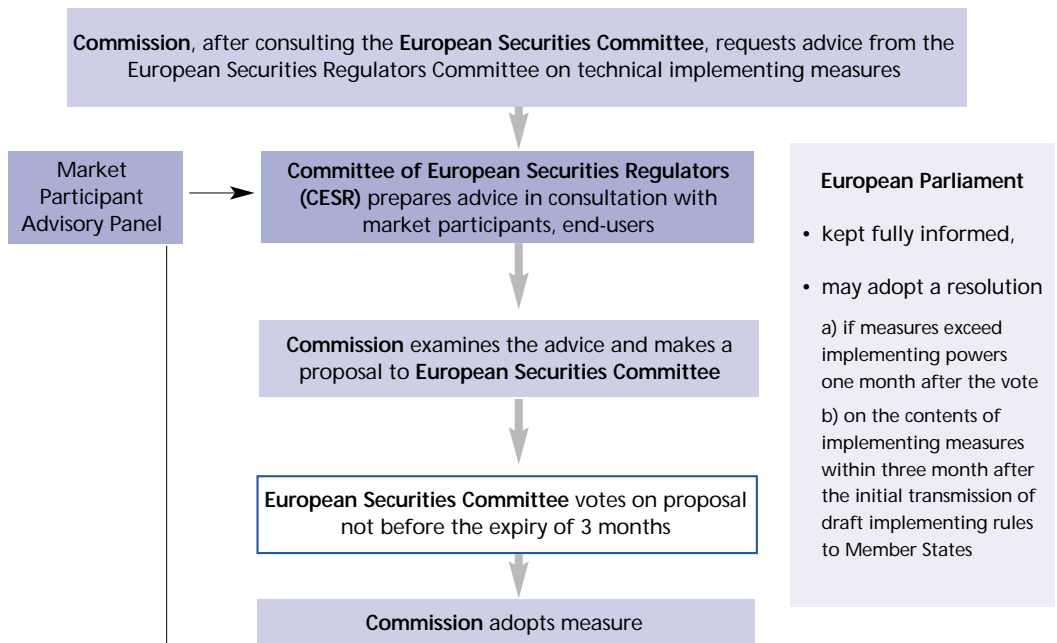
The hallmark of this process is open and transparent discussion with all market users - and at every level. The approach to consultation is welcome as it is clearly making a major effort to be open to market participants and to consult them. Beyond the formal system, perhaps one of the key aspects of the new regulatory system is the informal effect of these

Figure 5. The 4-level Lamfalussy process

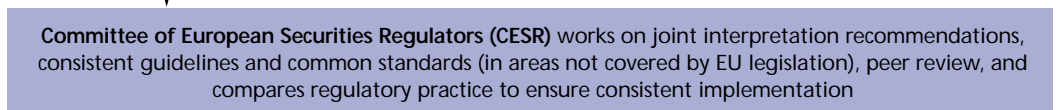
LEVEL 1 (primary regulation)



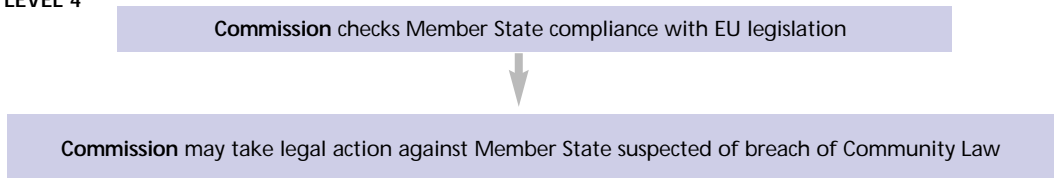
LEVEL 2 (subject to the sunset clause of four years laid down at Level 1)



LEVEL 3



LEVEL 4



officials getting to know each other personally and building up mutual trust about cross-border enforcement. The experience of consultation with the UK's Financial Services Authority (FSA) is instructive - and should stimulate some thought about the mechanics of "consultation" generally. The FSA is setting an excellent example for other European regulators in terms of openness. Nonetheless, there is a real risk of the process falling short of achieving its goals due to the sheer scale. The total of discussion papers stood at 107 about a year ago. Today, the total is over 160. Can this really be done effectively - on both sides? Are the Commission and the Committee of European Securities Regulators (CESR) sufficiently staffed to deal with this scale of activity? And what about the burden on the private sector trying to respond?

Notwithstanding the considerable progress that the Lamfalussy process involves, there are shortcomings. At level 2, Parliament is restricted to considering whether implementation is consistent with the powers agreed - in co-decision - in the Directive. What appears to be missing is the power to review a decision that is thought to be wrong, rather than merely *ultra vires*. Parliament gets the details of meetings, the agendas and the minutes. That means they will be effectively public so there will be an additional level of the interested public - including market practitioners - able to scrutinise progress, but only after the event.

*The hallmark of the Lamfalussy process is open and transparent discussions with all market users, but despite the progress that this implies, shortcomings remain.*

In practice, once the discussion goes into conclave between the Commission and Council - as represented by the admittedly "high-level" European Securities Committee (ESC) - the outside scrutiny disappears. That is the vital moment when the Commission becomes aware through informal discussions that it may have to trim its proposals to achieve agreement by qualified majority voting. At that critical moment, the tried, tested and failed mechanism of a secretive Council Working Party takes over and may again produce decisions of the type that has led us to the current position of too much poor quality legislation.

What is the court of appeal under the Lamfalussy proposal and who has the standing to make the appeal? This is the weak point of the proposal: if the ESC agrees to a proposal, it becomes law. The only appeal may be from the Parliament, but solely on the technical grounds that the decision was *ultra vires*; but this is rather different in significance to the blunt question: is that proposal wrong, despite all the consultation that has gone on?

Overall, the EU needs time to see how this system settles down in practice. Not a single Directive has yet been put through the complete process - all the way to enforcement by the Commission (Level 4 of the Lamfalussy process). But a very promising start has been made and there is a tremendous impetus to complete the FSAP<sup>5</sup> and to finish up with a single capital market, which will be more single than the United States' internal market.

## 6. Conclusion

Powerful forces are re-shaping Europe's financial landscape and the EU needs to be sure that these changes are channelled into beneficial paths so that its citizens gain full advantage from the advent of the single currency.

In the 1990s, progress in creating the Single Market for financial services has been disappointing. Nevertheless, EU Member States had been well past the point-of-no-return on the journey to a single capital market, and new, promising efforts are now under way

<sup>5</sup> The FSAP Timelines provided by *GrahamBishop.com* make it easy to follow progress.

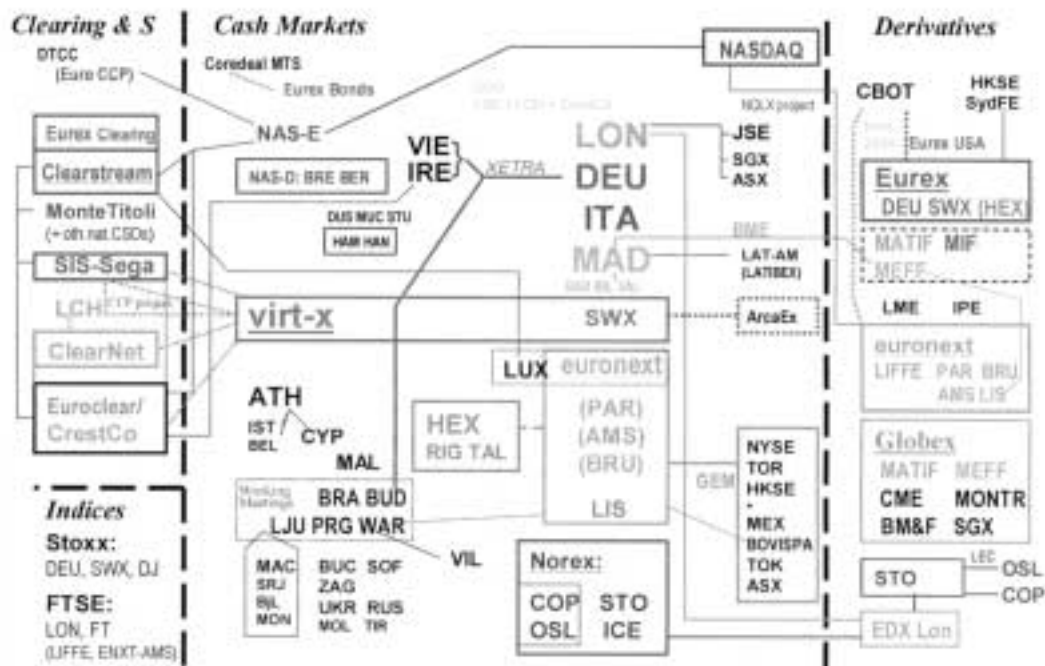
to achieve that goal, notably in the context of the FSAP, the Lamfalussy process, and the Giovannini group.

The final steps will not look like the crowning glory. Rather they will be a seemingly interminable march through the undergrowth of the financial system. As technical matters such as clearing, settlement and payments move to a pan-European basis, constant attention is required to make sure that speed, and an admirable goal, do not open the door to the law of unintended consequences! This is not glamorous work - but must be done diligently and patiently if Europe is to reap the rewards: significant extra growth in the shorter term and much higher pensions in the longer run. The hope is that this can be done in good time for the 10th anniversary of the introduction of the single currency - meeting the goals laid down in Lisbon as the millennium began.



## Annex

Figure A1. European exchanges at end-2002



Notes: The purpose of this figure is simply to illustrate the complexity of the links and alliances existing in Europe's stock exchange landscape. The most recent version of this figure and an explanatory legend can be found on [www.fese.org](http://www.fese.org).

Sources: Federation of European Securities Exchanges (FESE) and Gregor Pozniak (pozniak@fese.be).

**Table A1. Progress in implementing the Financial Services Action Plan (FSAP)**

Measure	Initial time frame	Adoption expected	Key concerns	State of play
Prospectus	April 2002	June 2003	<ul style="list-style-type: none"> <li>• annual updating provisions</li> <li>• choice of regulator for the issue of bonds</li> <li>• competent regulatory authority</li> <li>• single European regulatory agency</li> </ul>	<ul style="list-style-type: none"> <li>• first reading Parliament finalised</li> <li>• political agreement in Council</li> <li>• awaiting first reading Council</li> </ul>
Market Abuse	2003	End 2002	<ul style="list-style-type: none"> <li>• financing of competent authority</li> <li>• frontrunning</li> <li>• transparency and disclosure of financial interests of responsible persons</li> <li>• save harbours</li> <li>• journalists</li> </ul>	<ul style="list-style-type: none"> <li>• awaiting second reading Council</li> </ul>
Investment Services Directive	2003	2003		<ul style="list-style-type: none"> <li>• proposal published in November</li> <li>• awaiting first reading Parliament</li> </ul>
Takeover Bids	2000	2003	<ul style="list-style-type: none"> <li>• multiple voting shares</li> <li>• golden shares</li> <li>• reciprocity US legislation</li> <li>• protection of employees' rights</li> </ul>	<ul style="list-style-type: none"> <li>• proposal published October</li> <li>• awaiting first reading Parliament December</li> </ul>
International Accounting Standards	2002	Early 2003		<ul style="list-style-type: none"> <li>• proposal published end May</li> <li>• awaiting first reading Parliament</li> </ul>
Pension Funds	January 2002	December 2002	<ul style="list-style-type: none"> <li>• prudent man 'plus'</li> <li>• investment rules</li> <li>• social issues</li> <li>• cross-border pensions</li> </ul>	<ul style="list-style-type: none"> <li>• political agreement reached in Council</li> <li>• awaiting Council Common Position</li> </ul>
Taxation of Savings Income	2000	December 2002	<ul style="list-style-type: none"> <li>• negotiations with Switzerland</li> </ul>	<ul style="list-style-type: none"> <li>• consultation process finalised</li> <li>• awaiting signature</li> </ul>

Notes: Based on published proposals (autumn 2002). The FSAP Timelines provided by *GrahamBishop.com* make it easy to follow progress.

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## ABSTRACT

*Emphasising the scope for further growth in institutional investment, in Europe in particular, this paper focuses on the impact of institutional investment on the efficiency and stability of financial systems. The paper stresses the scope for efficiency gains arising from an increasing role of institutional investors, reflecting - inter alia - their role in improving corporate governance. The paper also argues that institutional investors tend to enhance financial system stability although they may sporadically exacerbate market volatility or liquidity problems. This calls for a close focus of regulators and monetary policy makers on institutional behaviour, while inter alia continuing the shift envisaged in the current EU Pension Funds (IORP) Directive towards a “prudent-person rule” for investment, and focusing closely on the long-term sustainability of guarantees being offered on life policies, annuities and pensions.*

E. Philip Davis is Professor of Economics and Finance at Brunel University, West London and Visiting Fellow at the National Institute of Economic and Social Research, London (e\_philip\_davis@msn.com; www.geocities.com/e\_philip\_davis). This paper draws in part on Davis and Steil (2001).

# Institutional investors, financial market efficiency, and financial stability

## 1. Introduction

Institutional investors have grown strongly in the past few decades, not only due to the overall expansion of financial sectors relative to GDP, but also because of a boost in their share of total financial claims. As outlined in Davis and Steil (2001), the growth of institutional investors can be traced to various supply and demand factors that have made investing via institutions attractive to households. Supply-side factors suggest that institutions have offered their services relatively more efficiently than banks and direct holdings, thus fulfilling the functions of the financial system more effectively, while demand-side factors stem from households' enhanced needs for the types of financial functions that institutional investors are able to fulfil. On the supply side, there is, for instance, the ease of diversification, liquidity, improved corporate control, deregulation, ability to take advantage of technological developments, and enhanced competition, as well as fiscal inducements and the difficulties of social security pensions. On the demand side, one may highlight demographic aspects (notably funding of pensions and population ageing) and growing wealth.

Owing to the dominance of pay-as-you-go pensions and the lack of sustainability of current systems, scope for expansion of private pension funding and institutional investment is greater in Continental Europe than in the relatively mature markets of the United States and the United Kingdom, where pension systems already have major funded elements. Pension saving in pension funds or - as precautionary saving - in life insurance and mutual funds is likely to increase sharply over the next twenty years as individuals seek to provide for their retirements following pension reform. We also argue that European Monetary Union (EMU) enhances the scope for change in EU pension systems as well as for growth of institutional investors. The prospective development of institutional investors has major implications for the structure and performance of EU financial markets. Given this perspective, an overview of the likely implications of the growth of institutions is very timely. But we should keep in mind that in light of the lesser development of institutions in Europe to date much of the paper has to be set out in general terms or using experience from the United States and the United Kingdom.

Our focus will be on the impact of institutional investor growth on the efficiency and stability of financial markets. Efficiency is defined broadly in terms of the ability to perform the underlying functions of financial systems. While financial systems ought to perform a variety of functions (Merton and Bodie 1995), we are particularly interested in their ability to provide mechanisms for (i) pooling of funds from individual households to facilitate large-scale indivisible undertakings and the subdivision of shares in enterprises to facilitate diversification; (ii) transferring economic resources over time, across geographic regions, or among industries; and (iii) dealing with incentive problems when one party to a financial transaction has information the other does not and when control and enforcement of contracts is costly.

We begin in Section 2 by providing details on the current size and likely future trends in institutional investment. In Section 3 we successively assess the extent to which forms of pooling of assets provided by insurance companies, pension funds, and mutual funds differ



*E. Philip Davis*

in ways that may be relevant to their impact on financial markets. Following this, we examine the impact of institutional investors on saving, investment, and corporate finance - i.e. transferring economic resources (Section 4) - as well as on corporate governance - i.e. dealing with incentive problems (Section 5). Proceeding from efficiency to stability aspects, we look in Section 6 at the impact of institutional investment on market dynamics and systemic risks. In Section 7 we elaborate on this by discussing financial stability risk associated with the role of life insurance companies. This discussion takes us in Section 8 to some aspects of prudential regulation of institutional investors before we conclude in Section 9.

## 2. Size and determinants of institutional investment

*The financial superstructure has grown sharply in all industrial countries.*

The long-term development of financial systems and institutional investors in the EU-4 and G-7 is traced in Tables 1 to 5, using national flow-of-funds balance sheet data (see Byrne and Davis (2003) for an extended analysis of financial structures using these data). Table 1 shows that the financial superstructure - the value of total financial claims of all sectors relative to GDP - has grown sharply since 1970, more than doubling from 4 to 9 on average across the G-7. Table 2 illustrates that despite the rise in total claims and in

**Table 1. Total financial claims (as a multiple of GDP)**

	1970	1980	1990	2000	Change 1970-2000
United Kingdom	4.7	4.9	8.9	11.0	6.3
United Kingdom excl. Euromarkets	4.7	4.2	7.9	9.7	5.0
United States	4.1	4.1	5.9	8.4	4.3
Germany	2.9	3.6	4.7	7.9	5.0
Japan	3.8	5.1	8.5	11.9	8.1
Canada	4.7	5.1	5.8	6.6	1.9
France	4.4	4.8	6.9	11.4	7.0
Italy	3.4	3.9	4.3	7.1	3.7
<b>G7</b>	<b>4.0</b>	<b>4.4</b>	<b>6.3</b>	<b>9.0</b>	<b>5.0</b>

Source: Drawn from national flow-of-funds balance sheets

**Table 2. Financial intermediation ratios (intermediated claims in % of total claims)**

	1970	1980	1990	2000	Change 1970-2000
United Kingdom	32	42	47	58	26
United Kingdom excl. Euromarkets	32	34	40	52	20
United States	33	37	34	44	11
Germany	44	45	43	45	1
Japan	39	42	42	52	13
Canada	29	34	37	47	18
France	34	62	41	39	5
Italy	36	32	31	35	-1
<b>G-7</b>	<b>35</b>	<b>41</b>	<b>38</b>	<b>45</b>	<b>10</b>

Source: Drawn from national flow-of-funds balance sheets

securitisation, financial intermediation (through banks, institutional investors, and other financial institutions) has grown as a share of the total from 35 to 45 percent. Table 3 shows that institutional intermediation has grown relative to banking; in fact, the importance of traditional bank intermediation seems to have declined significantly, although banks remain larger than institutional investors in all countries but the United States. Table 4 shows that the size of the institutional-investor sector has increased massively since 1970. It is worth noting that the trends identified are common to Anglo-Saxon and bank-based economies, although institutions remain less important in the latter than in the former. Table 5 shows that pension funds tend to dominate in the Anglo-Saxon countries, but insurance and mutual funds come to the fore elsewhere.

*Institutional intermediation has grown relative to banking, but banks continue to be larger than institutional investors in most countries.*

**Table 3. Bank and institutional intermediation ratios (bank and institutional investor claims in % of intermediated claims)**

		1970	1980	1990	2000	Change 1970-2000
United Kingdom	Bank	58	64	55	44	-14
	Institutional	28	26	32	38	10
United States	Bank	58	58	42	21	-37
	Institutional	31	31	40	44	13
Germany	Bank	84	86	83	73	-11
	Institutional	10	12	17	23	13
Japan	Bank	45	36	38	24	-21
	Institutional	10	10	16	17	7
Canada	Bank	45	55	44	38	-7
	Institutional	23	19	25	35	12
France	Bank	94	68	82	65	-29
	Institutional	5	4	19	27	22
Italy	Bank	98	98	95	64	-34
	Institutional	6	5	11	31	25
<b>G7</b>	<b>Bank</b>	<b>69</b>	<b>66</b>	<b>63</b>	<b>47</b>	<b>-22</b>
	<b>Institutional</b>	<b>16</b>	<b>15</b>	<b>23</b>	<b>31</b>	<b>15</b>

Source: Drawn from national flow-of-funds balance sheets

**Table 4. Claims of institutional investor (in % of GDP)**

	1970	1980	1990	2000	Change 1970-2000
United Kingdom	42	37	102	193	151
United States	41	47	79	162	121
Germany	12	20	33	84	72
Japan	15	21	58	103	88
Canada	32	32	52	110	78
France	7	12	52	120	113
Italy	7	6	15	76	69
<b>G7</b>	<b>23</b>	<b>25</b>	<b>56</b>	<b>121</b>	<b>98</b>
<b>Anglo-Saxon</b>	<b>39</b>	<b>39</b>	<b>78</b>	<b>155</b>	<b>116</b>
<b>Europe and Japan</b>	<b>11</b>	<b>15</b>	<b>40</b>	<b>96</b>	<b>85</b>

Source: Drawn from national flow-of-funds balance sheets

**Table 5. Assets of institutional investors, 1998**

	Life Insurance		Pension Funds		Mutual Funds		Total	
	\$ billion	% of GDP	\$ billion	% of GDP	\$ billion	% of GDP	\$ billion	% of GDP
United Kingdom	1,294	93	1,163	83	284	20	2,742	197
United States	2,770	33	7,110	84	5,087	60	14,967	176
Germany	531	24	72	3	195	9	798	35
Japan	1,666	39	688	16	372	9	2,727	63
Canada	141	24	277	47	197	34	615	105
France	658	43	91	6	624	41	1,373	90
Italy	151	12	77	6	436	35	664	54
<b>G-7</b>	<b>7,212</b>		<b>9,479</b>		<b>7,195</b>		<b>23,886</b>	

Source: Drawn from national flow-of-funds balance sheets

*The main stimulus to growth of institutional investors in Europe will come from population ageing.*

Looking ahead, the main stimulus to growth of institutional investors in Europe will come from the ageing of the population in the context of generous pay-as-you-go pension schemes. The issue of population ageing needs little expansion here. Suffice to note that in the EU the proportion of the population aged 65 and above is expected to increase sharply. With an unchanged retirement age, such a demographic shift will naturally lead to an increase in transfers under pay-as-you-go pension systems. That pension promises are extremely generous in a number of EU countries even for high earners compounds the problem.<sup>1</sup> Consequently, projections of public pension expenditure feature sharp and possibly unsustainable increases in such expenditure in a number of EU countries; this will encourage reforms of public pension systems, including a greater role for funded pension systems.

EMU enhances pressure for pension reforms, further stimulating the demand for institutional investment. This links to fiscal integration in EMU, notably because an effective Stability and Growth Pact permits governments much less scope than would otherwise be the case to run large deficits aimed at containing tax increases when ageing becomes an acute burden on social security. This is the case even if such deficits are part of reform strategies that aim at fairly distributing the burden of transition to funded pension systems between generations.<sup>2</sup> To avoid sharp rises in taxation, governments should seek to deal with their public pension obligations and switch to funding of pensions at an early stage. Furthermore, owing to the "no-bailout clause" in the Maastricht Treaty,<sup>3</sup> financial markets - rating agencies in particular - increasingly focus on general government obligations, of which pension liabilities are the largest part. Macroeconomic and financial conditions in EMU also favour growth of institutional investors. Since monetary integration fosters sustained lower inflation, at least in some countries, it will make it easier for defined benefit pension schemes to finance inflation indexation while pension benefits from defined contribution schemes will also more readily retain their purchasing power.

1 The exceptions in this respect are Denmark, the Netherlands, Ireland and the United Kingdom, which are also the countries where funded pension systems are most developed.

2 Note that reforms that seek to distribute the costs of transition from pay-as-you-go to funding between generations may in principle involve heavy government borrowing and deficits. Pure tax financing leaves the entire burden on the current generation of workers.

3 The Treaty debars the monetary authority and other fiscal authorities from rescuing a country in fiscal crisis.



Financial integration - in part driven by EMU - also increases the attractiveness of institutional investment by making a better risk-return trade-off attainable. One aspect is increases in the range of instruments, owing - for example - to broader availability of private equity as well as corporate bonds and securitised loans, the latter especially as the supply of government bonds diminishes. Another aspect is that increased liquidity and lower transactions costs resulting from market integration in EMU are increasing institutions' comparative advantage over bank intermediation. In due course, in a deeper EU securities market, financial innovations may arise that are tailored to institutions' needs. These could include currently unavailable instruments such as bonds with returns linked to average earnings, which could be useful for life insurers and pension funds in matching assets to liabilities.

With the advent of EMU, regulations limiting international investment have ceased to be effective in the euro zone, and increased correlation of national markets has led to sectoral investment across the euro zone.<sup>4</sup> Besides eliminating the effects of home bias and diversifying portfolios across the euro zone, a sectoral approach requires a major restructuring of portfolios as, for example, industrial stocks account for 45 percent of the German market and 11 percent of the Spanish market.

*Financial integration and deregulation, and EMU support the growth of institutional investment.*

Partly as a consequence of these factors - and also complemented by regulatory reform establishing a Single Market in asset management, life insurance, and mutual funds - EMU is leading to increased competition among asset managers that previously monopolised national markets; in this process, asset manager with pan-EMU expertise are having a decisive advantage. Indeed, Mercer (2001) reports that the number of domestic equity mandates fell by 60 percent over 1999-2001 and domestic bond mandates by 92 percent. Besides benefiting returns, competition should mean that the high fees and hidden charges typical of many EU countries should diminish. By increasing efficiency in investment, such competition favours institutional investment more generally.

Increasing financial integration owing to EMU also tends to intensify competition between banks for wholesale deposits and loans and to reduce the scope for traditional bank intermediation, the latter indicated by the rapid growth of corporate bond issuance by EU firms since 1999. Furthermore, the integrated money markets generated by EMU are facilitating the use of commercial paper for short-term borrowing by companies and investment in security repurchase agreements and commercial paper as alternatives to bank deposits. As a result of these developments, banks in Europe are facing challenges to their traditional business that are leading them to expand their asset management activities and other investment banking services to maintain profitability. This development is particularly marked in countries such as Germany, where the major commercial banks are seeking to redefine their business focus towards investment banking and aim to downplay or even eliminate their traditional - and relatively unprofitable - domestic retail and corporate banking. The pressure to expand non-traditional banking activity has been reinforced by the elimination of commissions for foreign exchange transactions within the euro zone. Moreover, lower inflation in some countries due to monetary integration has reduced interest rate margins, owing to the elimination of the so-called endowment effect profit from zero-interest sight deposits in a context of positive rates of inflation.

<sup>4</sup> But as Beckers (1999) has shown, correlation had already increased even before EMU.

The thrust of the points made above is that pension reforms, EMU, and the changing focus of banks are likely to spur securities market financing and institutional investment. Before looking at the implications of these developments, we first need to understand the behaviour of institutional investors.

### 3. Portfolio behaviour of institutional investors

In this section, we trace the essential characteristics of institutional investors, which will determine their impact on financial markets, and also consider how these characteristics differ between types of investors in a way that may influence their asset management.

#### 3.1 Common features

*A key feature of institutional investors is that they offer a better trade-off between risk and return than is generally available via direct holdings.*

Institutional investors may be defined as specialised financial institutions that manage savings collectively on behalf of small investors towards a specific objective in terms of acceptable risk, return maximisation, and maturity of claims. A key feature of institutional investors is that they provide a form of risk pooling for small investors, thus providing a better trade-off of risk and return than is generally possible via direct holdings. This entails, on the asset side, putting a premium on diversification, both by holding a spread of domestic securities (which may be both debt and equity) and by international investment. Institutions also prefer liquidity and hence use large and liquid capital markets, trading standard or “commoditised” instruments, so as to be able to adjust holdings in pursuit of objectives in response to new information.

A backup for the approach to investment is the ability to absorb and process information that is superior to that of individual investors in the capital market. In contrast to banks, institutional investors rely on public rather than private information, which links strongly to their desire for liquidity. Most institutions have matched assets and liabilities in terms of maturity, unlike banks, which tends to minimise the risk of runs. Moreover, in many cases, they have long-term liabilities, facilitating the holding of high-risk and high-return instruments.

The size of institutions has important implications since there may be economies of scale, which result in lower average costs for investors. For instance, the ability to transact in large volumes typically involves lower proportionate commission charges. Furthermore, investors share the costly services of expert investment managers and thereby save in advisory fees. Size also enables them to invest in large indivisible investments (although there is a tension with desire for diversification). Moreover, size may establish countervailing power, yielding lower transactions costs and custodial fees. This countervailing power may also ensure fair treatment by capital market intermediaries on the one hand and, on the other, improved control over companies in which they invest (Section 5), thus reducing the incidence of adverse incentive problems.

Salient features of institutional investors also arise from the process of asset management, which can be broken down into two stages: asset allocation between broad asset categories and security selection of individual assets within those categories. There are offsetting forces in the asset management relationship. On the one hand, it gives rise to an essentially fiduciary relationship to the ultimate investor, which often entails a degree

of caution in the portfolio strategy and a desire to limit risks. On the other hand, such delegation raises principal-agent problems since fund managers may act in their own interest (e.g., in generating excessive commission income) or - particularly in Europe and Japan - in the interest of related financial institutions but not in the interest of the ultimate investor. The various means used (particularly in Anglo-Saxon countries) to counteract such problems could result in herding behaviour of fund managers, an issue to which we return in Section 6.

### 3.2 Specific features

The discussion above does not imply that institutional investors are homogeneous. The main types of institutional investors are pension funds, life insurance companies, and forms of mutual funds. They differ generally in terms of the contractual relations between the owners of the assets and the asset managers, that is, the rules determining the distribution of risk and return, as well as in the definition of their liabilities. The main differences stem from liabilities, and may have important implications for investment behaviour.

*Pension funds, life insurance companies, and mutual funds are the main types of institutional investors.*

Table 6 provides data on the size of various institutional investors in EU countries in 2000.<sup>5</sup> In that year, pension fund assets were equivalent to around 30 percent of GDP, while insurance company assets and investment funds amounted to over 50 percent of GDP and 40 percent of GDP, respectively. The total value of institutional assets in Europe was around EUR 11 trillion, with the United Kingdom accounting for about 30 percent of this. As Table 6 indicates, the size of pension fund sectors differs markedly between countries, with Denmark, the Netherlands and Sweden standing out in Continental

**Table 6. Assets of EU institutional investors (in % of GDP), 2000**

	Pension funds	Investment funds	Insurance
Belgium	6	30	42
Denmark	24	20	78
Germany	16	12	43
Greece	4	25	1
Spain	7	30	13
France	7	55	61
Ireland	51	144	45
Italy	3	39	21
Luxembourg	1	3,867	117
Netherlands	111	25	65
Austria	12	40	24
Portugal	12	16	20
Finland	9	10	57
Sweden	57	34	90
UK	81	27	107

Source: CEPS (2002)

<sup>5</sup> It needs to be pointed out that Table 6 is only to some extent comparable with the tables shown earlier. Moreover, there may be some double counting in Table 6 since insurance companies are important managers of pension fund assets, and pension funds are important investors in investment companies.

Europe, and the United Kingdom and Ireland also having major pension fund sectors. Life insurance stands out in the United Kingdom, Sweden, Denmark and Luxembourg while investment funds are largest in France, if we abstract from the offshore markets of Ireland and Luxembourg.

**Pension funds** collect, pool, and invest funds contributed by sponsors and beneficiaries to provide for the future pension entitlements of beneficiaries. They are often sponsored by employers although personal pensions (generally contracts between individuals and life insurance companies) are also common. Pension funds may be internally or externally managed. Returns to members of pension plans backed by such funds may be purely dependent on the market (defined contribution funds) or may be overlaid by a guarantee of the rate of return by the sponsor (defined benefit funds). The latter have insurance features that are absent in the former. These include guarantees with respect to the replacement ratio (pension as a proportion of income at retirement) subject to the risk of bankruptcy of the sponsor, as well as potential for risk sharing between older and younger beneficiaries. Defined contribution plans have tended to grow in recent years as employers have sought to minimise the risk of their obligations and, at the same time, employees desired funds that are readily transferable between employers. Employees may also prefer the ability, offered by some defined contribution arrangements, to control the disposition of their investment.

*Defined contribution pension schemes have tended to grow in recent years relative to defined benefit schemes.*

For both defined benefit and defined contribution funds, the liability tends to be set in real terms, as the objective of asset management is to attain a high replacement ratio at retirement, which is itself determined by the growth rate of average earnings. Hence, as Table 7 shows, they will hold considerable shares of real assets such as equities and real estate as well as foreign assets. Defined benefit funds may need to hedge or hold more cautious portfolios than defined contribution funds to allow for the risk of going below minimum solvency levels. At the same time, the sponsors have an incentive to maximise returns on defined benefit funds to lower their own costs whereas the individual members of defined contribution funds may pursue cautious strategies given the risks they face. If pension funds develop more than other types of institutions in Europe in future, these features will have major importance for EU financial markets.

**Life insurance companies**, like pension funds, are long-term institutional investors with a large share of tradable assets in their portfolios. They historically provided insurance for

**Table 7. Pension funds' portfolio composition (in % of total assets), 1998**

	Liquidity	Loans	Domestic Bonds	Domestic Equities	Property	Foreign Assets
United Kingdom	4	0	14	52	3	18
United States	4	1	21	53	0	11
Germany	0	33	43	10	7	7
Japan	5	14	34	23	0	18
Canada	5	3	38	27	3	15
France	0	18	65	10	2	5
Italy	0	1	35	16	48	0

Sources: National flow-of-funds balance sheets, Mercer (1999).

Notes: Domestic equity and foreign asset holdings of US pension funds are estimates.

dependents against the risk of death at a given time in the future, but they are increasingly offering long-term saving vehicles. Whereas life insurance companies' liabilities have traditionally tended to be nominal or "money fixed", that is, offering a guaranteed return that is fixed in money terms, an increasing proportion of policies are now variable and either lack such guarantees, or may have option features, with, for example, variable returns but a guaranteed floor. There are increasingly close links with pension funds, as life insurance companies offer annuities for guaranteeing pension benefits as well as guaranteed investment contracts purchased by pension funds. They often also provide defined contribution pensions directly, may act as external asset managers for pension funds, or offer insurance to defined benefit funds on behalf of small employers<sup>6</sup>.

*Life insurance companies offer long-term saving vehicles and have increasing links with pension funds.*

The structure of assets - which varies between national markets (Table 8) - will depend on the balance between "money fixed" and "variable" liabilities. In the case of nominal liabilities, bonds tend to dominate assets, with private bonds being sought in addition to government bonds to maximise returns. In the case of variable liabilities, being less risky for the firm, and with the understanding that higher returns will be sought, funds may be invested to a greater extent in equities, real estate, and foreign assets.

**Table 8. Life insurers' portfolio composition (in % of total assets), 1998**

	Liquidity	Loans	Domestic Bonds	Domestic Equities	Property	Foreign Assets
United Kingdom	5	1	25	48	6	13
United States	6	8	52	26	0	1
Germany	1	57	14	17	4	0
Japan	5	30	36	10	0	9
Canada	7	28	55	26	7	3
France	1	2	74	15	7	0
Italy	0	1	75	12	1	0

Source: National flow-of-funds balance sheets.

**Mutual funds** are simply vehicles for the pooling of assets for investment purposes. They seek to offer an enhanced risk-return profile and greater liquidity to individual investors by exploiting synergies from pooling assets of many individuals, economising in particular on transaction and management costs while offering low minimum holdings. They hence differ from the long-term institutions by offering short-term liquidity on pools of funds - albeit at rates that depend on current market prices - either via direct redemption of holdings (open-end funds) or via the ability to trade shares in the funds on exchanges (closed-end funds). Investors in mutual funds are residual claimants and bear all the risk.

Asset allocation of an individual fund is generally fixed by the prospectus, especially in the case of specialised funds that invest in a given class of assets (domestic equities, foreign bonds, etc.<sup>7</sup>). The asset manager is thus responsible for security selection only. Accordingly,

<sup>6</sup> For a discussion of life insurers' investments see Dickinson (1998) and Davis (2002a).

<sup>7</sup> There are also balanced funds that hold a variety of assets at their discretion; these are notably popular in Continental European countries such as France.

the size and asset allocation of the mutual fund sector largely reflect the asset preferences of households directly as they choose between investing in different types of funds such as equity, bond, and money market funds.<sup>8</sup> Table 9 indicates the portfolio composition of mutual funds in G-7 countries.

**Table 9. Open-end mutual funds' portfolio composition (in % of total assets), 1998**

	Liquidity	Loans	Domestic Bonds	Domestic Equities	Property	Foreign Assets
United Kingdom	4	0	8	56	2	33
United States	17	0	30	51	0	N.A.
Germany	10	0	22	18	0	29
Japan	23	18	27	9	0	22
Canada	20	3	18	31	0	23
France	29	0	37	20	0	14
Italy	19	0	54	22	0	0

Source: Drawn from national flow-of-funds balance sheets.

A special type of closed-end fund is a hedge fund, a private unadvertised mutual fund that is restricted to wealthy investors who are willing to incur high short-term risk in exchange for high return potential. Hedge funds may engage in unlimited short-term trading, take short positions, and borrow to a greater extent than other institutions. Because of their ability to leverage and willingness to take risks, hedge funds may create sharp market movements and thereby provoke other institutions to similar action (e.g., in exerting pressure on currency pegs). At the same time, they may have more scope to act in a contrarian manner than other types of institutional investors.<sup>9</sup>

*A key distinction between types of institutional investors comes from the locus of risk bearing.*

A further key distinction between types of institutions comes from the locus of risk bearing. In a defined benefit pension fund and a life insurance contract with guaranteed returns, the risk of market volatility is taken by the sponsoring company and the life insurer, respectively. In contrast, in the case of a defined contribution pension fund, a mutual fund, and an index-linked life insurance contract, the risk is borne wholly by the individual (except for a rather low guaranteed amount for the life insurance contract). In recent years, institutional investors seem to have switched from bearing risks themselves to transferring them to households, whereby the institutional investor offers less or no insurance.

In combination with the growth of mutual fund investment per se, the rise of defined contribution plans means that households are tending to have an increasing influence on asset allocation. Implications for asset allocation are unclear. In the early 1990s, the shift to defined contribution in the United States was thought to have accompanied less aggressive portfolio distributions, which could threaten overall returns in the long term. More recently, equity proportions have risen, but the reaction of the household sector to a prolonged bear market has yet to be seen. Certainly, it was the 1970s bear market that drove the earlier shift

<sup>8</sup> The existence of mutual funds may itself modify such preferences compared to a situation where direct securities holding is the only option, for example by reducing risk aversion.

<sup>9</sup> An extensive discussion of the hedge fund sectors' structure, investment strategies, and effects on market dynamics can be found in Eichengreen and Mathieson (1998).

away from defined contribution arrangements in countries such as the United Kingdom and led to a collapse in holdings of equity mutual funds in the United States.

More generally, it can be argued that - as in the rest of the financial sector - there is a blurring of distinctions between types of institutional investors: mutual funds, in particular, are being used as a vehicle for retirement saving; pension saving often has a life insurance aspect; insurance companies are tending to launch their own investment funds and are widely involved in pension provision, provision of annuities and guaranteed investment contracts for pension funds, and in asset management for pension funds. Meanwhile, banks themselves are becoming active in this area, by purchasing or launching their own insurance companies to form financial conglomerates, selling their own mutual funds and personal pensions, and by setting up or purchasing fund managers. Furthermore, pension funds and, to a lesser extent, life insurers are linking more closely to the rest of the financial system via their choices of external fund managers.

#### **4. The impact of institutional investors on saving, investment, and corporate finance**

It is often suggested that the development of institutional investors could entail an increase in saving, switch of asset holdings towards longer maturities, and a change in the structure of corporate finance. This section will shed some light on each of these possible effects, which may have implications for investment and economic performance more generally.

To start with the level of saving, it may be noted at the outset that a strong effect of institutionalisation on saving appears a priori unlikely to hold. Empirically, the countries where institutions are most important - the United States and the United Kingdom - are also typified by low personal saving. By contrast, European countries with small institutional sectors have higher saving. There are also theoretical objections. The basic argument against any effect of institutionalisation on saving is that individuals choose a lifetime saving pattern separately from its distribution, so a rise in one component of wealth (such as pension funds, mutual funds, or life insurance claims) will be fully offset by falls elsewhere, either by reducing forms of discretionary saving or by borrowing. This offset will be particularly likely to occur when contractual saving and discretionary savings are close substitutes.

Nevertheless, growth of long-term institutional investors could generate increased saving via the following channels (for an overview, see Kohl and O'Brien 1998):

- Illiquidity of long-term institutional (life insurance and pension) assets may mean that other household wealth is not reduced one-to-one for an increase in wealth held in the form of claims on such long-term institutional investors; this is because households do not see such claims as a perfect substitute for liquid saving such as deposits.
- Credit constraints, whereby some households are not free to borrow, may imply that borrowing cannot offset any forced saving (such as life insurance or pension contributions).
- The interaction between the need for retirement income and retirement behaviour may increase saving if workers increase saving to provide for an earlier planned retirement.
- As social security is typically seen to reduce saving, because it implies an accumulation of implicit claims of future income, a switch towards funding of pensions via institutional investors should increase saving.

*Economic theory is ambiguous as to the link between the development of institutional investment and the level of saving.*

With economic theory suggesting ambiguous results as to the link between the development of institutional investment and the level saving, the issue requires empirical investigation. Much of the literature, such as Pesando (1992), which focused on US defined benefit funds, suggests that a unit rise in pension fund assets increases personal savings by around 0.35-0.5 units; when accounting for the fiscal cost of tax incentives to pension funds, the overall increase in national saving is around 0.2 units. There is also evidence that the effect on savings is less marked for defined contribution funds, in which the worker is more likely to be able to borrow against pension wealth and participation is generally optional. Nevertheless, Poterba *et al.* (1993, 1996) suggest that 401(k) accounts in the United States have added to aggregate saving. Tax incentives are one important reason, but employer matching of contributions, payroll deduction schemes, and information seminars may have encouraged net saving by this route. These results do not extend to shorter-maturity non-pension saving instruments, even if they are tax privileged. Banks *et al.* (1994) found that tax privileged equity accounts as well as tax free deposits had no effect on personal saving in the United Kingdom but only generated portfolio substitution.

Another question is whether the overall level of countries' development could influence results. For instance, for developing countries, Corsetti and Schmidt-Hebbel (1997) find that pension reforms replacing pay-as-you-go with funding boosted saving in Chile. A World Bank study (1994) finds similar effects in Singapore. In part, these effects may be due to the prevalence of credit constraints for low-income households that would not otherwise have saved.

Approaching the issue from a different angle, other studies allow the conclusion that unfunded social security systems appear to lower private saving. For instance, Feldstein (1995) suggests that personal saving rises by 0.5 for every unit decrease in US social security wealth (and vice versa). Neumann (1986) gives similar estimates for Germany, and Rossi and Visco (1995) find a figure of 0.66 for Italy. Kohl and O'Brien (1998) argue that the displacement of private saving by pay-as-you-go is more likely the more imperfect capital markets are.

*Empirically, the impact of institutionalisation on the level of saving is difficult to separate from other effects such as those arising from financial liberalisation.*

On balance, empirical research suggests that growth in funded pension schemes does appear to boost personal saving, but not one-to-one. A significant offset arises via a decline in discretionary saving. But it is clear that one should not look at the development of institutional investment in isolation. For instance, institutional investment may have side effects on saving in the case of financial liberalisation and easing of credit constraints. It is plausible that there would be an institutional effect on saving before such liberalisation owing to credit constraints. This might disappear after liberalisation, however. Indeed, it is notable that the household sectors in countries with large pension fund sectors, such as the United States and the United Kingdom, have also been at the forefront of the rise in private sector debt (see Davis 1995a, 1995b). The familiar story underlying this is that rationing of household debt diminished following financial liberalisation, which allowed households to adjust to their desired level of debt. But in the context of pre-existing accumulation of wealth via institutions and high returns to institutional assets, this adjustment could be partly seen as a rebalancing of portfolios, thus entailing borrowing by households to offset earlier forced saving through institutional investors.

Even in a liberalised financial system, credit constraints will affect lower-income individuals particularly severely, as they have no assets to pledge and less secure employment. Therefore, forced institutional saving tends to boost their overall saving rather markedly (for evidence, see Bernheim and Scholz 1992). This point is of particular relevance in countries



that have or are currently introducing compulsory private pensions. An example is Australia, where - all other things being equal - a rise in personal saving is anticipated (Edey and Simon 1996); the same could apply to EU countries that follow such a strategy.

In concluding, two observations are worth making. First, all the estimates mentioned above abstract from effects on public saving in the transition to a privately funded system. When the transition is debt-financed (i.e. higher fiscal deficits to finance existing social security obligations), the resulting decline in public saving may fully offset possible increases in private saving (see Holzmann 1997b). Even a tax-financed transition may, according to some authors, have at most a small positive effect on national saving in the long term (Cifuentes and Valdes-Prieto 1997). Second, it needs to be emphasised that population ageing itself generates changes in saving that may have a major macroeconomic impact (see - for example - Cutler *et al.* 1990b, Davis 2002d).

Turning to the implications of growth in institutions for the structure of saving, we start with a brief comparison of the portfolio composition of household assets (Table 10) with that of institutional investors (Tables 7-9). The portfolios of long-term institutions vary widely, but in most cases, institutions hold a greater proportion of capital-uncertain and long-term assets than households. For example, in 1998, the share of equity holdings in the portfolio of pension funds was 68 percent in the United Kingdom (including foreign equities) and 64 percent in the United States. In both countries they compared favourably with household sector equity holdings, which - in 2000 - reached 17 and 25 percent, respectively. At the same time, the household sector tends to hold a much larger proportion of liquid assets than institutions do. These differences can be explained partly by time horizons, but institutions also have a comparative advantage in compensating for the increased risk of long-maturity assets by pooling.

The implication is that institutionalisation could increase the supply of long-term funds to capital markets and reduce bank deposits, even if saving and wealth do not increase, as long as households do not increase the liquidity of the remainder of their portfolios to fully offset growth of institutional assets. As Table 10 shows, total deposit shares have indeed tended to decline in most countries, in particular in Germany, France and Italy. That said, some offsetting shifts were apparent in the econometric results of Davis (1988) whereas King and Dicks-Mireaux (1988) found little such offsetting effect in Canada. Moreover, radical changes in financial structure - inconsistent with full offsetting - have been widely observed to accompany growth of funding, not least in Chile (Holzmann 1997a).

On balance, empirical results are consistent with an increased demand for long-term saving as institutional investors grow, implying that institutionalisation has indeed accompanied a shift in the composition of households' overall portfolios.<sup>10</sup> What are the implications of this for the structure of corporate finance and the economic performance of countries in general?

The shift towards long-term assets - in Europe or elsewhere - should tend to reduce the cost and increase the availability of equity and long-term debt financing to companies. As Table 11 shows for the G-7, there has certainly been a shift from loans to securities on the liability side of firms' balance sheets. And then, an increased supply of long-term capital market instruments may lead to a compression of the yield differential between equities and bonds, which may have significant implications for corporate capital structures by

*Institutionalisation could increase the demand for long-term assets, lowering the cost of equity and long-term debt financing to companies.*

<sup>10</sup> Besides demographics, this may be related to rising overall income and wealth (where only a certain volume of saving is needed to cover contingencies). Interestingly, a shift to defined contribution plans in which individuals determine their own asset allocations may reduce or eliminate these shifts to longer-term assets.

**Table 10. Composition of household assets (in % of gross financial assets)**

		1970	1980	1990	2000	Change 1970-2000
United Kingdom	Deposits	34	43	31	22	-12
	Bonds	7	7	1	1	-6
	Equities	24	12	12	17	-7
	Institutions	23	30	48	56	33
United States	Deposits	28	33	23	12	-16
	Bonds	13	10	11	7	-6
	Equities	36	21	14	25	-11
	Institutions	22	28	39	49	27
Germany	Deposits	59	59	48	34	-25
	Bonds	8	12	16	10	2
	Equities	10	4	7	16	6
	Institutions	15	17	21	34	19
Japan	Deposits	55	69	60	54	-1
	Bonds	6	9	9	8	2
	Equities	12	7	9	3	-9
	Institutions	14	13	21	31	17
Canada	Deposits	31	38	36	25	-6
	Bonds	14	8	5	5	-9
	Equities	27	24	21	27	0
	Institutions	22	21	28	41	19
France	Deposits	49	59	38	25	-24
	Bonds	6	9	4	2	-4
	Equities	26	12	26	37	11
	Institutions	6	9	26	23	17
Italy	Deposits	45	58	35	25	-20
	Bonds	19	8	19	19	0
	Equities	11	10	21	26	15
	Institutions	8	6	8	30	22
<b>G7</b>	<b>Deposits</b>	<b>43</b>	<b>52</b>	<b>39</b>	<b>28</b>	<b>-15</b>
	<b>Bonds</b>	<b>10</b>	<b>9</b>	<b>9</b>	<b>7</b>	<b>-3</b>
	<b>Equities</b>	<b>21</b>	<b>13</b>	<b>16</b>	<b>22</b>	<b>1</b>
	<b>Institutions</b>	<b>16</b>	<b>18</b>	<b>27</b>	<b>38</b>	<b>22</b>

Source: Drawn from national flow-of-funds balance sheets.

making issuance of equities cheaper relative to bonds than was the case in the past. Recent trends and market comment indeed point to a considerable further compression of the equity risk premium since 1993 (Bank of England 1999) although this may partly be a cyclical rather than a structural phenomenon.

Looking specifically at the importance of equity finance in the euro zone, monetary integration will leave national economies - and hence their corporate sectors - more vulnerable to asymmetric shocks. Simultaneously, increased banking competition is likely to undermine exclusive banking relationships due to competition between lenders. It follows that lenders will be less willing to rescue firms in financial distress, as they could not charge higher interest rates to finance such implicit insurance. For both these reasons, companies will be under pressure to issue equity to increase the robustness of their balance sheets.<sup>11</sup>

11 In addition, if there are heightened information asymmetries owing to a decline in relationship banking, debt maturities may decline and collateral requirements increase.

**Table 11. Structure of corporate liabilities (in % of total balance sheet)**

		1970	1980	1990	2000	Change 1970-2000
United Kingdom	Bond	7	2	0	7	0
	Equity	49	37	53	67	18
	Loan	15	22	21	21	6
United States	Bond	14	17	18	14	0
	Equity	55	49	39	63	8
	Loan	15	13	18	10	-5
Germany	Bond	3	2	2	1	-2
	Equity	27	20	31	49	22
	Loan	47	52	42	37	-10
Japan	Bond	2	3	6	10	8
	Equity	16	22	29	29	13
	Loan	48	45	45	40	-8
Canada	Bond	12	8	13	18	6
	Equity	46	41	41	54	8
	Loan	15	22	22	12	-3
France	Bond	3	4	4	4	1
	Equity	41	34	56	70	29
	Loan	54	60	38	14	-40
Italy	Bond	8	4	3	1	-7
	Equity	32	52	48	52	20
	Loan	60	43	41	30	-30
<b>G7</b>	<b>Bond</b>	<b>7</b>	<b>5</b>	<b>7</b>	<b>8</b>	<b>1</b>
	<b>Equity</b>	<b>38</b>	<b>36</b>	<b>43</b>	<b>55</b>	<b>17</b>
	<b>Loan</b>	<b>36</b>	<b>37</b>	<b>32</b>	<b>24</b>	<b>-12</b>

Source: Drawn from national flow-of-funds balance sheets

As to effects on countries' economic performance, lower cost and enhanced availability of equity and long-term debt financing will tend to spur economic growth. In addition, an accelerated growth of capital markets should increase allocative efficiency and there may hence be an increase in productive capital formation and thus economic growth - especially if saving also increases. An important question in this context is whether institutionalisation strengthens corporate governance and thus the efficiency of firms - a question to which we will return below. One may note that equity market development per se has also been shown to enhance overall economic development (Demirgüç-Kunt and Levine, 1996) - this may be a particular benefit in some EU countries whose equity markets are little developed to date.

Overall, a rise in long-term savings resulting from the growth in institutional investment is possibly more beneficial to the EU than an increase in saving per se. One note of caution is that if governments force pension funds to absorb the significant issues of government bonds that may be needed in a debt-financed transition strategy, or if government debt issuance crowds out corporate issues, many of the benefits of long-term financing may not materialise. In Europe this underlines the importance of the current Pension Funds (IORP<sup>12</sup>) Directive, which mandates a "prudent-person rule" and would outlaw such quantitative restrictions on portfolios as have been applied historically in countries such as

*A rise in long-term savings associated with institutional investment may be more beneficial than a possible increase in savings per se.*

12 Institutions for Occupational Retirement Provision.

Germany and France. Another caveat is that institutional investors may be reticent in investing in equity of small firms, despite their potential for innovation, growth, and job creation. As institutions grow in Europe, this may bias the EU economy towards sectors with larger firms.

## 5. Institutional investors and corporate governance

*Institutionalisation can improve the performance of economies through a variety of mechanisms - strengthening corporate governance is one them.*

The increasing importance of institutional investment has considerable potential to improve the efficiency of financial systems - and thus of economies at large - in a number of ways. It can be argued that institutional investors help generate liquidity that stimulates capital market development. They also demand adequate public disclosure of information and a market-oriented accounting system, have superior ability to use price information, and speed-up the adjustment of asset prices to fundamentals - within countries but also across borders. Overall, institutional investors seem to contribute significantly to the capacity of markets to mobilise and disseminate information and to allocate resources efficiently. Furthermore, there are reasons to believe that institutional investors stimulate financial innovation that offers improved scope for risk management.

While all these effects are of interest, this section will concentrate on another potentially important efficiency-enhancing effect of institutional investors, namely their role in improving corporate governance and, thus, the financial function of overcoming incentive problems (notably the possibility that managers of firms do not act in the interest of shareholders). As Table 12 shows, the growth of institutional investors went together with a rising share of equities held by them, not only in the Anglo-Saxon countries. This suggests that institutions' potential impact on corporate governance has grown and is likely to grow further, especially as the population ages and pension systems switch towards funding.

**Table 12. Institutional shares of equity holding (in % of total)**

		1970	1980	1990	1998
United Kingdom	Life and pension	14	45	47	46
	Foreign	13	15	34	33
United States	Life and pension	13	24	33	34
	Foreign	4	6	8	10
Germany	Life and pension	4	7	12	14
	Foreign	15	17	14	16
Japan	Life and pension	9	8	9	12
	Foreign	9	6	4	13
Canada	Life and pension	5	6	11	14
	Foreign	8	7	4	6
France	Life and pension	2	4	2	4
	Foreign	8	13	12	18
Italy	Life and pension	2	1	2	2
	Foreign	18	5	7	15
G-7	Life and pension	7	13	17	18
	Foreign	11	10	12	16

Source: Drawn from national flow-of-funds balance sheets

To appreciate the role of institutional investors in corporate governance, it is useful to distinguish between direct and market-based corporate control as well as between control via debt and via equity. Bearing this in mind we can sketch four paradigms of corporate governance. To begin with, **market control via equity** is the core of Anglo-Saxon shareholder capitalism, where voting rights are enforced and minorities protected, the level of public information disclosure is high, and conflict of interest between managers and shareholders are resolved by takeovers. Institutional investors are active in assessing takeover proposals and selling poorly performing firms' shares. But there are also well-known problems: takeovers are so costly that only major performance failures are likely to be addressed; they may increase agency costs when bidding managers overpay for acquisitions; they require a liquid capital market; and as discussed below, they may give rise to "short-termism".

**Market control via debt**, involving leveraged buyouts and leveraged takeovers, is in effect a variant - a new paradigm that emerged in the 1980s - complementing equity control. This paradigm stresses that company managers may have an incentive to use retained earnings or "free cashflow" in a way that is not in the interest of shareholders. Debt issue - encouraged by banks and institutional investors alike - limits this possibility since increasing interest payments reduce the cashflow that could be invested in unprofitable projects. In addition, when managers are given equity stakes and/or stock options they have an incentive to perform well. With limited free cashflow, new investment needs external finance and, as a result, the viability of such investment is subject to the scrutiny of capital markets and banks. But debt availability is a prerequisite, and higher leverage, while reducing the conflict between managers and shareholders, raises the creditor-shareholder conflict. Moreover, if monitoring is inadequate, awarding of stock options give rise to adverse managerial incentives, as witness the case of Enron.

*Corporate control can be direct or market-based and via debt or equity.*

**Direct control via equity** rests on board representation and direct contacts by institutional investors at other times. Institutions may challenge excessive executive compensation, takeover defences, and appointment of the same manager as chairman of the board and chief executive officer. They also may remove under-performing managers, appoint more non-executives to the board, and issue codes of conduct for firms. The motivation of institutional investors to control firms in this way - rather than simply selling under-performing stocks - is partly due to the development of indexation strategies that oblige institutions to hold all the constituents of the underlying index. But even in the absence of this constraint, selling large stakes can be costly, notably in the presence of illiquidity. There are important preconditions for institutions' direct control via equity to be effective; for instance, collaboration among institutional shareholders must be permitted, institutional investors must have a fiduciary obligation to vote (as in the United States but not the United Kingdom - but has been mooted by the "Winter Group" on EU corporate law reform), and key information rules - such as on disclosure of executive remuneration - must be in place.

Finally, there is **direct control via debt**. While the first three control mechanisms characterise Anglo-Saxon modes of governance, direct control via debt is a key feature of Continental European relationship banking, where banks maintain corporate control via credit, but also by sitting on boards as equity holders/representatives. In these circumstances, there are extensive cross shareholdings among companies, low liquidity of

*The growth of institutional investment in Europe is likely to lead to increased market control and direct control via equity.*

equity markets, low public information disclosure, voting restrictions, and discrimination against minority shareholders. Institutional investors in such systems are traditionally largely passive (delegating a monitoring role to banks). An important role is played by laws that protect stakeholders and may limit public disclosure. Allen and Gale (2000) point at the benefit of this system in “time series risk sharing”, e.g. credit insurance to firms, which is absent in the Anglo-Saxon system.

With an increasing role of institutional investment in Continental Europe, we should expect Anglo-Saxon control mechanisms to become more important. Against this background, what does the empirical research tell us about the experience of Anglo-Saxon countries? We will not attempt to give a comprehensive answer, but rather focus on two issues, namely the effect of institutional activism and the risk of short-termism.

The empirical literature suggests, on balance, that institutional activism is successful in changing management structures, but there is mixed evidence on increased returns. On the positive side, Wahal (1996) found that efforts by institutions to promote organisational change via negotiation with management (as opposed to proxy proposals) are associated with gains in share prices. Strickland *et al.* (1996) report that firms targeted for pressure by the United Shareholders Association<sup>13</sup> experienced positive abnormal stock returns although corporate governance proposals per se had no effect. On the negative side, Del Guercio and Hawkins (1999) found no evidence that activism had a significant effect on stock returns over the three years following the proposals. Gillan and Starks (1995) found some positive returns in the short term but no statistically significant positive returns over the long term, leading them to question the overall effectiveness of shareholder activism. Monks (1997) explains the ineffectiveness of corporate governance activity in raising returns by reference to the political nature of public pension funds. While they are well placed to raise fairness issues such as excessive managerial remuneration, the incentive structure of trustees is not such as to encourage the long-term pressure on management that is needed to obtain positive excess returns in the long term. By contrast, relationship investors – such as Warren Buffet – may be more effective in exerting beneficial institutional pressure on the governance of firms.

As noted, a possible adverse effect of Anglo-Saxon corporate governance is short-termism, which implies an excessively high discount rate on future earnings due to the threat of takeover. Miles (1993) finds some evidence of higher discount rates on cashflows further in future while Poterba and Summers (1992) see mean reversion in stock prices as evidence of short-termism. Against the short-termist hypothesis Marsh (1990) argues that it is incoherent, as prices depend on future earnings; markets favour capital gains over dividends, the announcement of capital expenditure and expenditure on research and development boosts share prices. Another observation against this hypothesis is that pension funds hold shares for long periods. Overall, short-termism may be variable over time, varying with the scope of takeovers, but – on balance – the hypothesis is not completely proven.

Turning to our own macro work on estimation of the effects of institutionalisation on the corporate sector (Davis 2002b), we argue that the often contradictory results from micro studies link to the fact that disciplinary effects of corporate governance may impact more

<sup>13</sup> Note that this is actually a coalition of small investors rather than an institutional investor per se.

widely than on firms targeted, which in some cases might actually obscure the specific effects sought in these studies. We tested a number of hypotheses, finding that in Anglo-Saxon countries a larger institutional share of equity stimulates the distribution of profits in dividends at the macro level; aggregate fixed investment itself is lower as institutions oppose unprofitable investments; and economy-wide productivity growth rises, implying that institutional investment improves the use of capital and labour. These are at least partly consistent with a long-term viewpoint and should apply in Europe as institutions grow.

This takes us to a few concluding observations concerning possible future developments in Continental Europe. The system of direct control via relationship banking is likely to decline in favour of Anglo-Saxon modes. Changes seem to be underway. As US institutions put pressure on direct control via debt to improve corporate governance, European firms seek access to international capital markets and cross holdings begin to unwind. There have also been hostile takeovers even in Germany (e.g. Mannesmann by Vodafone). Banks are seeking to reduce relationship links/sell equity and become investment banks, as profitability of traditional lending declines. Barriers to change remain, however. For example, there continues to be a need to reform laws and company statutes, and shareholder blocs are slow to change (including cross-holders). At the same time, EMU is likely to speed development of capital markets and hence corporate governance, owing - for instance - to companies' desire to issue equity, a burgeoning euro corporate bond market that facilitates leveraged buyouts, and to international diversification of institutions in the euro zone. The EU is seeking to introduce a level playing field on mergers and acquisitions via the Takeover Directive. Arguably, future pension reform will increase the pressure for change.

## **6. Institutional behaviour, market dynamics, and systemic risks**

We now turn from efficiency to stability aspects and begin with a brief review of arguments that suggest, in principle, a positive role of institutional investors on capital market stability. We then discuss in more detail the suggestion that the behaviour of institutions may give rise to periodic herding, which could amplify market volatility. Finally, we assess possible systemic consequences of herding.

In principle, a financial system characterised by institutional investors and extensive capital market financing should be more stable than a bank-based one, especially if there is mispriced safety net protection in the latter and low values of banking charters. For in normal times, institutional investors, having good information<sup>14</sup> and low transactions costs, are likely to speed the adjustment of asset prices to fundamentals; this should entail price volatility only to the extent that fundamentals are themselves volatile. Moreover, the diversity in types and sizes of institutional investors should be stabilising to financial markets. The liquidity that institutional activity generates may dampen volatility, as is suggested by lower average share price volatility in countries with large institutional sectors (Davis and Steil 2001). In a global context, enhanced cross-border portfolio

*Institutional investors and extensive capital market financing tend to enhance financial system stability.*

14 The concept of superior information of institutions is underpinned by studies showing that initial public offerings that are largely subscribed by institutions tend to do well, while those that are largely purchased by the general public tend to do badly (Trzcinka 1998).

investment undertaken by institutional investors should enhance the efficiency of global capital markets by equalising returns (and hence the cost of capital) between markets.

It can, moreover, be argued that securitised financial systems have important stabilising features, such as ease of marking to market, matched assets and liabilities - notably for mutual funds and defined contribution pension funds - and distance from the safety net. There are wider opportunities to diversify and spread risk. And the multiple channels of intermediation available to the corporate sector in securitised financial systems will reduce the impact of any crises that affect either banks or securities markets (Greenspan 1999, Davis 2000).

But it is also true that a considerable volume of theoretical research focuses on the implications for financial structure and behaviour of principal-agent problems to which institutions are prone. It examines, in particular, potential effects on price volatility, suggesting that institutional investors may at times be subject to rational herding, all seeking to buy or sell assets at the same time (Devenow and Welch 1998, Bikhchandani and Sharma 2000). In fact, although institutions are usually best seen as merely a conduit through which investors' changing moods are transmitted to financial markets, in exceptional circumstances herding behaviour may induce capital market volatility beyond what would be generated by similar reactions in a more traditional investor base composed of individuals. In other words, the hypothesis is that institutionalisation, in the context of modern capital markets, may amplify market dynamics by virtue of institutions' size and common behaviour. Such herding may be a periodic rather than continuous phenomenon, being much more marked in periods of market stress than in the case of normal market conditions, which in turn makes it more difficult to detect by using standard statistical techniques.

*Rational herding of institutional investors could, at times, exacerbate capital market volatility.*

To justify herding, it is useful to recall that fund management is a service involving management of an investment portfolio on behalf of a client. Unless the manager is perfectly monitored and/or a foolproof contract is drawn up, the manager may act in his or her own interest and contrary to that of the fund. Various features of competitive fund management can be seen as ways to reduce principal-agent problems. For example, pension fund managers in countries such as the United States and the United Kingdom are offered short (three-year) mandates, with frequent performance evaluation.

Principal-agent problems and the means that are used to resolve them could give rise to institutional behaviour that induces capital market volatility. One underlying mechanism is reputation - the desire of managers to show they are of good quality. In the model of Scharfstein and Stein (1990), herding occurs because the market for fund management skills takes into account both the success of investment strategies (based on skills and information) and the similarity to others' choices. The first is not used exclusively, since there are systematically unpredictable components of investment, while good asset managers are expected to receive correlated signals (they all observe the same relevant pieces of information); hence, all good managers may be equally unlucky; however, a manager who alone makes a good investment may be a lucky but poor-quality manager. It follows that mimicking others is the best way to show quality; as a result, managers avoid positions that could lead to a large deviation from the benchmark and, therefore, will not seek contrarian positions that might otherwise help to stabilise markets. It is notable in this context that according to the Financial Times (1999), 75 percent of UK pension funds still use a peer group benchmark. Davis and Steil (2001) in a questionnaire for global asset managers found that relative rather than absolute return was one of the crucial aspects of asset manager competition.



Herding could also occur if institutions infer information from each others' trades, about which they are relatively well informed compared to individuals. In these circumstances, herding occurs as information cascades (Shiller and Pound 1989, Bikhchandani *et al.* 1992). This may be a marked feature if some managers have a reputation for being well informed. Moreover, they may be reacting to news, which they all receive simultaneously, in a similar manner.

The risk management framework may also play a role. If defined benefit pension funds and life insurers have minimum funding limits, they are subject to heightened shortfall risk (i.e. that asset values fall below estimated liabilities) if asset values decline. This may entail herding either via direct sales of equities for bonds or by the effects of hedging in so-called dynamic hedging, contingent immunisation, or portfolio insurance strategies on market prices. It also severely limits the stabilisation role of funds, that is, the degree to which they are free to act in a contrarian manner.

Further elements of the overall framework of asset allocation dominated by institutional investors may, while not strictly involving herding, still give rise to positive feedback mechanisms that increase market price momentum. The increasingly narrow style distinctions being employed by mutual fund managers as a means of communicating with investors may imply that swings in investor sentiment lead to more leverage on market prices as they switch between such narrowly defined asset classes. The increasing focus on the "best-performing fund" over a recent period, combined with managers' desire to stick to a narrowly defined style, can lead to disproportionate rewards for good performance of a style, which lead on to sharp price rises in the asset class concerned. The popularity of momentum trading, which was seen as highly profitable in the bull market of the late 1990s, illustrates this point.

A simpler mechanism may underlie sharp movements by open-end mutual funds, namely purchases and sales by households that oblige the manager to liquidate assets immediately to redeem the units or, in an upturn, to purchase stocks. This may be a powerful mechanism if households are risk-averse and subject to major shifts in sentiment. It may be increased by the shift to defined contribution pension funds, with assets typically held in mutual funds and their disposition often at the discretion of the individual investor. Risk-averse investors may sell funds in response to short-run moves, contrary to appropriate long-run time horizons of their (retirement) assets. However, evidence from the Investment Company Institute (1995, 1996, 1998) tends to suggest that US mutual fund shareholders have at least in the last two decades not sought to liquidate en masse when markets fell.

Herding is less likely to have a market impact when other investors are able to take offsetting contrarian positions. But not all institutions are at liberty to act in a contrarian manner. Mutual funds must adhere to the asset allocation strategy set out in their prospectus. Moreover, whereas the overall strategy of leveraged institutional investors, such as hedge funds, is precisely to adopt contrarian positions, they may at times of market stress have limited scope for manoeuvre. They may, in fact, be forced to herd, given that bank credit may be sharply withdrawn in the downturn. This was apparent in the bond market crisis of 1994 as well as in the Russian financial crisis and the insolvency of the hedge fund LTCM in 1998. Pension funds and life insurers have the greatest freedom to act as contrarians, but as noted, the tightening of solvency regulations in recent years is also constraining them in the current bear phase (Davis 2003).

*But herding is less likely to have a market impact when some investors are able to take offsetting contrarian positions.*

Herding by institutions need not always be destabilising. It may speed the market to a new equilibrium price. Indeed, Wermers (1999) suggests that US mutual funds on average tend to speed the price adjustment process for individual stocks to which they herd (although overshooting of equilibrium levels could not be ruled out). For herding to be of concern, institutions have to follow strategies that may be contrary to fundamentals and profit maximisation - buying high and selling low. Cutler *et al.* (1990a) suggest that institutions may themselves act in this manner. This may be a consequence of biases in judgment under uncertainty by fund managers, which leads to extrapolative expectations or trend chasing rather than focus on fundamentals. Institutions may also seek indirectly to provoke positive feedback trading because in the presence of less-informed investors (such as households) it is rational for institutions (such as hedge funds) to buy in the knowledge that their own trades will trigger further feedback trading by less-informed investors, thus amplifying asset price movements.

Lest the discussion of the link between institutional behaviour and market volatility be too negative regarding competitive asset management sectors, we note that volatility could also be induced if monitoring is weak. Mutual fund managers may transact repeatedly to generate commission income in uncompetitive markets such as Switzerland, thus generating market volatility. Furthermore, asset management sectors in Germany and Japan, which are effectively oligopolies, offered historically poor returns and high costs. Fortunately, the Single Market and EMU are helping to eliminate such oligopolies in the EU.

*Capital market volatility apart, a key question is whether institutional investor behaviour increases systemic risks.*

What could all this imply for financial sector stability? As a consequence of herding, institutional investors may sporadically give rise to financial instability from the point of view of regulators and market players, which will be accentuated as they grow. Already in existing experience of financial instability one can distinguish two particular types of financial turbulence they give rise to.

A first type involves extreme market price volatility after a shift in expectations and consequent changes in institutional investors' asset allocations. Whereas misaligned asset prices and sharp price movements during corrections that result from institutional herding may not in themselves have systemic implications, these may emerge when such movements threaten institutions that have taken leveraged positions on the current level of asset prices. Examples are the stock market crash of 1987, the ERM crisis in 1992-3, the 1994 bond market reversal, and the Mexican crisis in 1995.

A second type of turbulence involves protracted collapse of market liquidity and issuance, again often involving one-way-selling by institutional investors as they seek to shift asset allocations simultaneously. Such crises tend to characterise debt markets rather than equity or foreign exchange markets. The risks are acute not only for those holding positions in the market but also for those relying on the market for debt finance or liquidity - which increasingly include banks. Examples in the past have tended to be rather specific and idiosyncratic markets (such as the US junk bond market and the ECU bond market), which by nature relied on a narrow investor base, market maker structure, and/or issuer base. The events following the Russian default and the rescue of LTCM were particularly serious, as liquidity failure was a threat in markets such as those for US securities repurchases, swaps, commercial paper, and corporate as well as Treasury bonds.

Three points may mitigate systemic concerns. First, insurance companies and defined benefit pension funds are not easily subject to runs on suspicion of insolvency given that they have matched long-term assets and liabilities, while mutual funds and defined contribution pension funds are not themselves subject to solvency risks given that credit risks are passed on directly to the household sector. Second, most claims on institutional investors are not insured, or the insurance is mutual, thus generating incentives for interfirm monitoring. Third, given the ease of adopting market value accounting for securitised claims, it can be argued that debt crises are much less likely in corporate bond markets than for banks where the deterioration of credit quality is hidden from view in the balance sheet. Markets can still make mistakes, however, as witness the repeated bond-based debt crises of the late Victorian period; and US experience suggests that bond markets generally find rescheduling after financial distress difficult (Gilson *et al.* 1990).

Beyond the consequences for asset price volatility and securities market liquidity, further risks may arise for the banking sector in an institutionalised financial system. A lesser proportion of saving being channelled via banks, due to lower deposit inflows and greater competitiveness of capital market financing, may give rise to banking crises of the familiar type, where banks take increased risks so as to boost their profitability in a highly competitive market situation while higher quality credits seek capital market financing. It can be argued that the banking crises in a number of countries in the early 1990s - including Japan - were linked to the heightened competition banks faced from the capital markets. In this context, note that a number of authors, including Demirgüç-Kunt and Detragiache (1998), have looked at the effect of financial liberalisation on systemic risks; they found that banking crises were more likely to occur in liberalised financial systems. Crises tended to occur a few years after liberalisation, and were linked to a decline in bank franchise value, because monopoly power is eroded (see Hellman *et al.* 2000). Securities market competition driven by an increased proportion of saving directed via institutional investment can arguably have a similar effect on franchise values and risk taking, which could become an increasing problem in the EU, given the simultaneous scope for increasing competition in the banking sector itself.

To conclude, while the institutionalisation of investment has the potential to support financial sector stability, it does - at times - seem to be linked to a rise in volatility for stocks held by institutions and/or liquidity failures, notably in debt markets. The implication is that regulators and monetary policy makers need to focus closely on institutional behaviour - an issue that we address in Section 8. But first, it is useful to highlight some financial stability issues related to a specific type of institutional investor - namely life insurance companies.

*While the rise in institutional investment is beneficial, it creates new regulatory and supervisory challenges.*

## **7. Financial stability and life insurance companies**

Life insurance companies and prospective dangers to them as the population ages offer an interesting illustration of the new stability risks from institutional investors (Davis 2002c). They are of major relevance for the EU given the predominance of that sector in most countries (Table 6).

Increasing credit risk taking by insurance companies may aggravate the risk to insurers and, thus, annuities unless credit risk is properly priced and reserved for. Credit risk concerns are emerging for life insurers at the time of writing, exposure to which has been prompted by a

desire for higher yields than are available on government bonds. In particular, defaults on corporate bonds are expected to impact on insurance companies that have sought low-rated high-yield bonds in search for sufficient return (Financial Times 2002). Background to this includes increased competition, lower inflation reducing market yields, and the current shortage of government bonds. There remain questions whether insurers' credit risk assessment is adequate, with simple reliance being placed on fallible credit ratings (IMF 2002b) or inappropriate application of actuarial approaches to volatile credit risk.

Furthermore, credit risk has been transferred from banks to insurance companies via securitised claims (such as collateralised debt obligations) and credit derivatives at an unprecedented rate (Bank of England 2001). Such a process is widely seen as driven by regulatory arbitrage, whereby insurance companies are seen as less regulated than banks and so are willing to hold credit risk at prices banks cannot afford (IMF 2002a).

*Dangers to life insurers arise from mispricing of credit risk, guaranteeing too generous rate of returns, and underestimating longevity.*

Insurance companies may also become insolvent when they guarantee a rate of return on policies in excess of that achievable in the market. For example, Japanese life insurers basically offered forward rate agreement options to their clients (mainly on life policies rather than annuities), at prevailing rates, such as 5-6 percent, up to 1992 (Fukao 2002). There was no duration matching of assets and liabilities, partly because most Japanese bonds are 10-year maturity. Average duration on the asset side has been 5 years and liabilities 15 to 20 years. As Japanese long-term interest rates have now fallen to 1-2 percent, the firms have been unable to make returns sufficient to meet guarantees to policyholders. The life insurers also faced huge bad debts on loans. Accordingly, a number have become insolvent. Regulatory failures compounded the problem; owing to asset restrictions, firms were obliged to hold mainly government bonds in their portfolios; the firms that failed had declared satisfactory solvency margins before closure, and more generally the crisis was worsened by forbearance by the supervisory authorities. A similar case arose for the UK life insurer Equitable Life (Davis 2002c). There has been comment on possible difficulties of life insurers in southern European countries such as Italy, Spain, and Portugal as well as Belgium and France.

Further perspectives on risks are provided by the consequences of population ageing for life insurers. As pointed out by the Financial Services Authority (FSA 2002), the UK financial regulator, one of the key risks for annuities for insurance companies is that owing to market-share competition or simple errors, they underestimate the average age to which people live. This could in turn lead to insolvency of an insurance company heavily reliant on annuities. Indeed, Blake (1999) suggests that UK insurance companies have already underestimated life expectancy of their annuitants by two years or more, which could lead to major losses. US firms made similar losses in the 1930s due to lower-than-expected nominal interest rates during the deflation of the Great Depression and an underestimation of longevity. Well-capitalised life insurers could charge such losses to shareholders. But there are grounds for caution when capital is low and liabilities are underestimated. There are clearly great difficulties in forecasting mortality, especially given the possibility of cures for cancer and heart disease in coming years.

As discussed in Davis (2002d), the prognosis among forecasters is for a major build-up of aggregate retirement funds in OECD countries owing to saving by workers in the large baby-boom-prime-saving cohort up to around 2010, followed by dissaving, including a switch from pension funds to annuities.

As regards the build-up phase, Davis (ibid) points out that even if funds are invested in life insurance companies, avoidance of systemic risk is not guaranteed. Owing to the nature of their liabilities, as well as regulations, life insurers tend to invest heavily in domestic bonds. A shortage of government bonds that may continue for some time ahead - as well as competition in asset management that prompts life insurers to aim at higher returns - is already prompting more investment in higher risk assets such as high-yield bonds and low-rated securitised loans. Besides their general effect on credit expansion, which could generate fragility in the non-financial sectors, such funds may feed a property boom, leaving the insurers as well as banks vulnerable to a downturn in the property cycle, as was the case in the Jamaican insurance crisis of 1996 (IMF 2001).

Similar issues may arise when insurance companies focus increasingly on debt claims as members approach retirement. When baby boomers retire and dissave, aggregate saving is liable to decline. This will tend to put downward pressure on asset prices, implicitly affecting the real interest rate or the risk premium. For example, Schieber and Shoven (1994) note that given the correlation of ageing in OECD countries and the likely decumulation of defined benefit pension fund assets, there could be widespread falls in asset prices, linked to high real interest rates (see also Erb *et al.* 1997). But not all researchers agree that a meltdown is likely, see Poterba (1998). Changes in issuance, for example, might smooth equity returns. Nevertheless, the possibility means prudence is warranted.

In sum, this and the previous section clearly indicate that the growth in institutional investors is not neutral to the stability of the financial sector. This raises the question of how and - probably more important - how well institutional investors are regulated.

## **8. The prudential regulation of institutional investors**

There are considerable differences in the regulation of the behaviour of the various types of institutional investors. The tightness of regulation in turn tends to reflect the differences in fiduciary obligations and in the contractual obligations and their implications for risk bearing. In particular, regulation reflects differences in the degree to which insurance features are bundled with asset management. Mutual funds are rather lightly regulated. The main regulations of mutual funds link to information disclosure to holders (as well as various other investor protection provisions). Reflecting the nature of obligations, life insurers and defined benefit pension funds are generally subject to forms of solvency or minimum funding regulations and may also have restrictions on the disposition of assets. Defined contribution pension fund regulation is typically intermediate in terms of tightness. There is no particular focus on financial stability more generally. As noted, an important reason for this is that, unlike banks, institutional investors are not in general subject to panic runs because they have assets and liabilities of similar maturity.

Some have argued that a wider range of institutions may need to be covered by lender-of-last-resort assistance in the context of an institutionalised financial system. Federal Reserve policy during the 1987 stock market crash aimed to avoid systemic risk arising from failure of investment banks, which was ensured by a general easing of liquidity and moral suasion on commercial banks to lend. The private sector rescue of the hedge fund LTCM was undertaken with the good offices of the Federal Reserve Bank of New York because of fears of both the authorities and major financial institutions that serious disruption could follow an unwinding

*The prudential regulation of institutional investors is shaped by a variety of factors, but the nature of obligations they have entered into is a crucial one.*

of LTCM's portfolios. It cannot be ruled out that non-banks may need direct public sector rescues in the future. For example, as discussed in Edwards (1995), the stability of money market mutual funds could be threatened in some circumstances. A fund that breaks par value could plausibly lead to a run on such funds, which could lead to a more general liquidity crisis in the money markets. There is an issue whether individuals realise that such funds are not subject to deposit insurance and whether demands for policy assistance could become loud if a crisis supervened.

*Liquidity failure in money, bond, and derivatives markets is a key prudential concern.*

Liquidity failure of securities markets (money, bond, and derivatives markets), which may be generated by institutional behaviour, may also raise prudential concerns. Notably, funding difficulties of banks and other intermediaries are a potential source of instability. Furthermore, markets are seen as a repository for liquidity. Derivatives markets are often vital for the smooth functioning of asset and liability management strategies, so failure of such markets may threaten wider defaults on the part of intermediaries. If they consider that systemic risks are likely to arise from market liquidity failure in debt securities markets, central banks may intervene, either by offering liquidity assistance to market participants or even by maintaining market liquidity using their own assets. Clearly, moral hazard may arise for securities markets in the same way as for banks, with imprudent underwriting and market-making practices being followed on the assumption that liquidity will be maintained; non-financial companies would also be more willing to increase leverage via securities markets.

The incidence of securities market liquidity crises may be reduced by policy action that increases the robustness of markets. For example, issuance of standardised benchmark securities by governments and avoidance of interest rate instability as a by-product of monetary policy<sup>15</sup> are strategies that can be helpful to ensuring market liquidity. Robustness of intermediaries requires adequate capital, encouraging clearing and settlement, adequate management and control procedures, and inducing firms to monitor each other. An obvious additional point is that both intermediaries and end-users of securities markets must diversify their sources of funds and of liquidity to protect themselves against problems in individual markets. Crisis scenarios could play an important role in such calculations. Integration of capital markets as is taking place due to EMU is likely to make markets more robust; indeed, historically, liquidity crises were in narrow markets dominated by few market makers.

As cited by Bingham (1992), a traditional view is that robustness of debt securities markets may also require some limits to competition between market makers, possibly via designation, recognition, and licensing rules. In this view, economic rents associated with market maker status may be needed to ensure that they devote sufficient capital to prevent frequent liquidity collapses. Alternatives to entry limits are low levels of disclosure of trades and the ability to post indicative prices. One reason why this approach has not typically been adopted (and indeed remaining cartels have been liberalised) is that such markets might be subject in the short term to oligopolistic abuses, with high fees, wide bid-offer spreads, and risks of price manipulation. In the longer term, trading in such markets would be disintermediated. More generally, the number of market maker markets, in the sense of having an obligation to make markets, is declining. The more common type of market nowadays is the dealer market with no obligation to make markets. In such markets, high

<sup>15</sup> Volatile and unpredictable interest rate movements may undermine the profitability of market making, by increasing position risk as well as driving away liquidity traders.

levels of capitalisation might protect the dealer from bankruptcy but could not guarantee that market liquidity would always be maintained since the dealer has no obligation to do so.

In respect of trading per se we see no strong reasons to change the prudential regulation of institutional investors to reduce market volatility, e.g. by requiring longer mandates or holding periods of shares. Herding is in our view largely an issue that markets and regulators must learn to live with, also in the light of benefits to market efficiency. Rather, the need is for an ongoing shift to a “prudent-person rule” as proposed in the IORP Directive and their vigilant enforcement to ensure that institutions optimise their risk-return profile in the light of liabilities. Indeed, a close focus on the viability of guarantees being sold in the light of historical returns in asset markets would also be warranted, given the experience of life insurance sectors such as those of Japan. Meanwhile, the move to defined contribution funds could reduce some aspects of herding, notably those related to solvency. More controversially, there could be a need to apply solvency regulations on pension funds over a number of years, rather than months, to prevent “fire sales” of real assets during price falls and allow institutions to act in a contrarian manner - the trade-off could be moral hazard if such regulatory forbearance were accompanied by implicit state guarantees. It is also useful for reporting by institutions such as hedge funds to be sufficiently detailed and to timely highlight concentrations of holdings in certain markets leading to overhangs and risks to stability. But obtaining such a result is likely to be difficult given the need for international agreements on regulation, including by offshore centres.

## 9. Conclusions

The growth of institutional investors is a key financial innovation of recent years. It is entailing a shift away from traditional bank intermediation, necessitating a re-evaluation of financial market structure and behaviour. The impact is likely to be of particular importance in Continental Europe, given that institutionalisation will be spurred in the future by the interaction of EMU, autonomous financial market developments, and population ageing in the context of unsustainable social security pension systems. All of these tend to shift the focus of the financial system towards an Anglo-Saxon paradigm. This will necessitate considerable adaptation by regulators and market participants alike. We have traced impacts on financial structure, saving, investment, corporate governance, and on financial stability. Generally, we suggest that an institutionalised financial sector is more efficient in a broad sense, but there are also risks to stability from asset manager incentives, including aspects of risk management. Current risks for life insurance companies illustrate the evolving difficulties of institutional investors as competition increases and financial structures evolve, while the situation in Japan shows the dangers of inadequate regulation. Yet, vigilant implementation of appropriate prudential regulation should suffice to prevent serious instability in a financial system that is increasingly shaped by institutional investors.

*Europe's shift towards an Anglo-Saxon financial system tends to be efficiency enhancing, but requires adaptation by both regulators and market participants.*

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## ABSTRACT

*Set against the background of a rapidly consolidating financial sector, this paper explores the main forces that are driving this process. Acknowledging that the search for scale and scope economies is one of them, the paper emphasises that the empirical evidence in support of such economies is mixed, at best; while scale and scope economies exist, in principle, they are difficult to attain in practice. The paper considers strategic positioning in an uncertain and rapidly changing environment a more important factor: by expanding scope (and scale), financial institutions acquire options to venture into new activities. An implication of this strategic-option explanation is that consolidation, scope expansion in particular, will partially unravel as and when uncertainty declines and competition forces financial institutions to discover their true competitive advantages.*

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# Restructuring in the banking industry with implications for Europe

## 1. Introduction

The financial services sector is restructuring and consolidating with considerable force. Most striking is probably the ever-escalating scale of mergers in banking. In just the last few years, in the United States, mergers have led to a consolidation of money centre banks (e.g. the Chase Manhattan and Chemical Bank merger, prior to their subsequent merger with JP Morgan) and the emergence of regional powerhouses (e.g. the expansion strategies of BankOne and Nationsbank and their mergers with, respectively, First Chicago/NBD and BankAmerica). In Europe, mergers have also been prominent. While cross-border mergers are relatively infrequent, domestic mergers typically involve large universal banks and are often spectacular. Noteworthy examples include the marriage of Union Bank of Switzerland (UBS) with Swiss Bank Corporation and the acquisition of Paribas by Banque Nationale de Paris.

The merger wave has not only increased scale but has generally also broadened the scope of many banks. Major investment banks are redefining their domain by offering traditional commercial banking products, such as commercial and industrial loans, and by moving into retail brokerage. The union of Salomon Brothers (investment bank) and Smith Barney (broker) within Travelers underscores the scope-expansion in the industry. Similarly, Credit Suisse bought the US stockbroker DLJ, and UBS bought PaineWebber. The spectacular cross-industry merger of Travelers (insurance) and Citicorp (banking) also brings the insurance activities together with bank-oriented financial services. Similarly, Credit Suisse expanded into insurance by acquiring Winterthur.

Why are banks consolidating so much and often choose to expand scope? The empirical evidence on scale and scope economies in banking is far from conclusive. It is questionable whether these economies are large enough to justify consolidation and scope expansion on the scale that we have observed (see Berger 1997, Berger *et al.* 1993). Moreover, ample research in corporate finance points at the existence of a diversification discount. On average, diversification seems to destroy value. At the same time, there is substantial evidence that firms that have refocused their activities have experienced improvements in operating performance and stock returns (see John and Ofek 1995, Comment and Jarrell 1995). Against this background, one may wonder: why are so many mergers and acquisitions taking place in the industry?

This study aims to address this question and related issues. I will examine the existing empirical evidence on scope and scale economies in banking. In a recent survey paper, Berger *et al.* (1999) evaluate the extensive, primarily, US evidence. Their findings are, if anything, quite sobering about scope and scale economies. However, most studies they report on are quite dated. Therefore, an important question is whether this empirical evidence is suitable for explaining the current consolidation wave. While I will conclude that the existing evidence is of some value - and I will cite some newer evidence that is of greater value - I doubt that it is really helpful for understanding the current restructuring in banking. Several issues play a role here. Apart from econometric and sample-selection issues, and possibly fundamental changes in underlying circumstances, the overriding issue is - in my view - that strategic



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considerations are the key forces behind the current consolidation wave. As I will argue, strategic considerations may have little to do with true scale or scope economies. But learning, first-mover advantages, and strategic advantages of market power may explain the current consolidation wave and the broad scope of many of the players in the industry.

Strategic positioning might currently be the rule of the game, constituting an optimal response to the uncertainties and rapid - as well as unpredictable - changes financial institutions are facing today. Consolidation might then be an evolutionary phenomenon, about to be followed by a new type of repositioning when the uncertainties become more manageable. In any event, as competition is growing, margins are declining, and costly scope-expanding strategies possibly becoming unsustainable, the viability of a broad wait-and-see strategy may soon be over.

The organisation of this paper is as follows. In Section 2, I discuss scope and scale economies in banking - their sources, empirical evidence for them, difficulties in realising them, and scale and scope considerations that may become important in future. Section 3 introduces strategic considerations, in particular, the importance of strategic positioning. In that section, I will also discuss the relevance of these insights for the ongoing restructuring in the European financial services industry. Finally, in Section 4, I conclude by offering some thoughts on the (to be expected) disaggregation of the value chain, with a more prominent role for alliances and joint ventures. I will also discuss some political considerations, particularly in the European context, that may have an important impact on the ongoing restructuring of Europe's banking industry.

## **2. Scope and scale economies in banking**

### **2.1 Introduction**

*Economies of scale and scope are supposedly behind consolidation in banking - but are they truly present?*

Scale and scope economies are often cited as one of the main reasons behind mergers and acquisitions in banking. But are scale and scope economies truly present? And could they rationalise the current restructuring in the industry? In this section, I first seek to identify the main sources of scope and scale economies (Section 2.2). I then summarise the empirical evidence on scale and scope economies (section 2.3); discuss why such economies - to the extent that they exist - may be hard to attain in practice (Section 2.4); and conclude with some observations on the activities that seem to be most susceptible to scale and scope economies (Section 2.5).

### **2.2 Sources of scope and scale economies**

Scale and scope economies essentially rest on (i) advancements in information technology, (ii) reputation and marketing/brand name, (iii) financial innovation, and (iv) on diversification. Let us look at these sources for potential scale and scope economies one-by-one.

**Information technology** is most likely of great importance. Recent developments in information technology facilitate a more efficient and effective use of databases over a wide range of services and customers. That is, client-specific information may allow for scope economies and facilitate a competitive advantage to financial institutions that offer a range of services to their clientele. Similarly, possibilities for reusability of information across customers may have increased.

Information technology helps in identifying related client needs. Scope economies therefore apply to all products that could be sold to the same client group. Examples for bank-insurance conglomerates include: life-insurance features in mortgages, asset management/private banking services combined with life insurance, commercial credits in combination with industrial risk insurance, and export financing together with export credit insurance.

This also points at benefits related to distribution networks. Advancement in information technology may facilitate scale economies in running a sizable distribution network. Simultaneously, scope economies might become much more visible. For example, information technology facilitates an increasing array of financial products and services to be offered through the same distribution network. Customers may attach value to one-stop shopping, encouraging some financial institutions to offer a broader package of financial services tailored to particular customer categories.

*Advancements in information technology create the potential for scale and scope economies, not only because modern IT allows to run a larger distribution network.*

Finally, developments in information technology may affect the possibility of control, thus facilitating the management of a bigger organisation. But it also true that sizable investment in information technology is needed to help make scale and scope economies become a reality.

**Reputation and brand name/marketing** also offers potential for scale and scope economies. Scope benefits may be present in the joint marketing of products to customers. Brand image is partially marketing related but is also linked to the notions of trust, reputation, and confidence. These notions play an important role in the financial services industry. Increasingly, financial service providers offer services that crucially depend on their reputation. For example, the growing importance of off-balance sheet claims puts great emphasis on the ability of financial institutions to honour these contingent liabilities. But also the success of modern, virtual distribution channels (Internet) may depend crucially on reputation. Under certain conditions, increasing scale and scope allows financial institutions to capitalise more on their reputation. That is, a wider scope (and/or scale) may help a financial institution to put its reputational capital at work (see Boot *et al.* 1993).

A concrete example here is the Dutch bank-insurance conglomerate ING that offers direct banking services in Spain, for example. In advertisements, the name of ING is linked explicitly to Nationale-Nederlanden, ING's insurance subsidiary, a well-known and respected institution in Spain.<sup>1</sup> Using a brand name established in one line of business when entering another is also used by other players (e.g. supermarkets leveraging their brand name when offering financial services).

**Financial innovation** as a source of scope and scale economies is a two-edged sword. On the one hand, one could argue that larger institutions are less likely to innovate due to the inherent bureaucracy. This might be true, but that is a governance issue. On the other hand, *ceteris paribus*, larger institutions can better recoup the fixed costs of financial innovations. This is because innovations can be marketed to a larger customer base and/or introduced in a wider set of activities. In fact, for financial innovations, scale and scope might be particularly

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<sup>1</sup> The ING example also shows the possible sharing of marketing expertise between insurance and banking subsidiaries. Banking subsidiaries have generally benefited from the extensive direct marketing expertise of the insurance arm. Furthermore, in the case of ING, the skills of Postbank (an ING subsidiary) in direct banking are also relevant.

important given the rapid imitation by competitors. Only for a short period of time does a true competitive advantage exist. In these circumstances, a wider scope and larger scale may help recoup the fixed costs in this short period of time. Economies of scale and scope resulting from financial innovations should also be seen in light of the first two sources of economies: a wider range of products offered to a large client base in combination with advanced information technology can provide superior information for the design of financial innovations.

Bank-insurance combinations could potentially be successful in leveraging each other's product skills. For example, insurance subsidiaries could benefit from derivative innovations coming from the banking arm. Similarly, securitisation skills developed in banking are heavily cross-used, and, more recently, several securitisation innovations have been motivated by particular needs in the insurance operation. A related argument for combining life insurance and banking is that it could augment the total asset management pool, and thus offer scale economies. While this might be true, more recently banks and insurers have learned that the asset management operation requires distinct skills and is not automatically profitable as a passive spin-off from other activities. Thus, synergies are present, but not necessarily dominant.

*The view that diversification is a source of scale and scope economies is controversial.*

**Diversification** means that financial institutions offer several products that might be close substitutes, for example pension-, life insurance-, and saving products. Combining these products and services under one roof makes institutions less vulnerable when savers substitute one of these products for other ones. This could be interpreted as a diversification benefit, but may also point at cross-selling benefits discussed in the context of benefits arising from the use of advanced information technology.

From a corporate finance perspective, diversification is a controversial argument. After all, investors in financial institutions could diversify; and why would a financial institution itself need to do this unless, of course, there are synergies and, thus, scope economies? Various frictions may help answer this question and, thus, explain the value of diversification. For example, diversification facilitates an internal capital market where cashflow generating businesses could help fund other activities that need funding. If raising external funds is costly, this may add value. Nevertheless, this might be a mixed blessing. Often the presence of internal capital markets invites cross-subsidisation of marginal or loss-making activities that could wipe out potential benefits. Having said this, it is also true that a low volatility in returns is considered very important in banking, suggesting some benefit of diversification.

A link can also be made to the proliferation of off-balance sheet banking. These activities involve a plethora of guarantees that lead to contingent liabilities. For such activities, the credibility of the bank to honour such guarantees is crucially important. One measure of this is a bank's credit rating. With the proliferation of off-balance sheet banking, ratings have become more important. If diversification helps in getting a better rating, the case for diversification is stronger.

Diversification benefits may also accrue on the funding side, and direct funding synergies may apply. To illustrate, the mismatch between assets and liability on a bank's balance sheet (short-term funding vs. long-term assets) might be the reverse from that of an insurer with largely long-term obligations. However, corporate finance theory suggests doubts as to the validity of these arguments.



**Table 1. Key sources of scale and scope economies and underlying synergies**

Source	Type of synergy	Example(s)
Information technology related economies	Revenue	• cross selling potential
	Cost	• fixed cost of IT • reusability of information: cross-sectional and intertemporal • scale economies in running distribution network
Reputation and marketing/brand name related benefits	Revenue	• acceptance of new distribution channels (internet) • cross-selling potential
	Cost	• fixed cost of marketing, branding
Financial innovation related benefits	Revenue	• superior innovations based on broader information set • better rent extraction due to bigger network
	Cost	• spreading of fixed cost of innovation
Benefits of diversification	Revenue	• avoid loss of turnover to substitutes • benefits linked to off-balance sheet activities
	Cost	• internal capital market

Table 1 summarises the main sources of scope and scale economies; it also indicates that synergies, which generate such economies, can be revenue-enhancing and/or cost-reducing. The examples shown in the table suggest that most of the potential for scope and scale economies arise from the distribution of financial products and services. The importance of the distribution network is clear and should be considered a primary source of scope and scale benefits.

*Most of the potential for scale and scope economies arise from the distribution of financial products and services.*

### 2.3 Empirical evidence on scale and scope economies

Scale and scope economies in banking have been studied extensively. A recent survey paper by Berger *et al.* (1999) concludes that, in general, the empirical evidence cannot readily identify substantial economies of scale or scope.<sup>2</sup> Scale economies could not readily be found beyond a relatively small size of banks as measured by total assets (i.e., beyond USD100 million up to USD10 billion in total assets). The story on scope economies is even more negative. Diseconomies of scope are quite prevalent. An important caveat is that this research largely involves US studies only. Contrary to banking in many other countries, US banking has historically been quite fragmented.<sup>3</sup> The mergers and acquisitions that were included in most studies took place in an environment where severe constraints existed on the type and geographic dispersion of activities. It is conceivable that these restrictions made it difficult to benefit from scale and scope economies (see also Calomiris and Karceski 1998). Moreover, most studies use data from the 1970s and 1980s. Since the structure, technology

2 See also Shaffer and David (1991), Cornett and Tehranian (1992), Mester (1992), Mitchell and Onvural (1996), and Clark (1996).

3 This is not really surprising. US banks faced substantial regulatory constraints on their activities concerning both the type of their activities (e.g. banks could engage in commercial banking or investment banking, but not both) and their location (e.g. limits on interstate banking). More recently, however, regulatory constraints have become less binding. This undoubtedly partially explains the surge in mergers and acquisitions.

and environment of banking has changed dramatically over the last decades, it is not clear whether insights from those studies readily apply today.

*Empirical evidence in favour of scale and scope economies is weak - but this may also reflect measurement problems.*

In any case, most empirical researchers in the field of industrial organisation will acknowledge that scale and scope economies are very difficult to measure. So, at best, very modest conclusions could be drawn from these empirical studies. The presence of largely inconclusive results should then not really be surprising. Moreover, inefficiencies in managing larger organisations may mitigate possible scale and scope benefits. This would be in line with the sizable literature on the diversification discount; Berger and Ofek (1995), for instance, found an average diversification discount of 13-15 percent. Berger (2000) further observes that managerial ability to control costs creates a differentiation in bank performance that may well dominate the potential scale economies. The difference between an average bank and the best-practice bank is about 20 percent (of the costs of the average bank), while scale economies in the 1980s were not more than 5 percent, but they are possibly larger today. Berger also argues that managerial ability may have an equally big impact on revenue efficiency.

What further complicates empirical research is that increasing scale and scope may facilitate market power and, thus, elevate profitability even if there are no scale and scope economies at all. This effect might be less important in inter-geographic market mergers. Moreover, alternative distribution networks - direct banking for instance - and the broadening and deepening of financial markets may have reduced the effective market power of locally concentrated financial institutions and, more generally, elevated the contestability of markets.

Another issue is that the level of aggregation in most studies is high and may obscure benefits of scale and scope. In particular, aggregation does not allow identifying what type of merger and acquisition involve scale and/or scope benefits. Cognisant of this problem, Flannery (1999) refers to recent research that suggests that mergers with both a geographic and activity focus are most value-enhancing.<sup>4</sup> This strongly suggests that in analysing scope and scale issues one should focus on the type of activity; this would allow investigating the scale economies in each activity as well as the scope economies associated with a particular product-mix.<sup>5</sup>

I now turn to the question of how the efficiency gains of scope and scale are actually measured. Earlier work - i.e., research produced up to, say, the mid-1990s - measured economies of scope, for instance, by comparing the cost of specialised single-product financial institutions to that of financial institutions producing multiple financial services. A typical study along these lines is Ferrier *et al.* (1993), which considers possible scope benefits of five closely related bank services, namely demand deposits, time deposits, real estate loans, instalment loans, and commercial loans. More specifically, the study compares the cost of fairly specialised banks to that of comparatively diversified ones. A key finding is that less than 3 percent of the banks in the sample showed scope economies,

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4 The question remains as to what extent enhanced value is due to efficiency gains, as opposed to enhanced "value" due to increased market power.

5 Surprisingly, this type of research is yet hard to find. A lot of research has been done on potential conflicts of interest in universal banking (see, for example, Kroszner and Rajan 1994, Puri 1996, and Ramirez 2002). However, this research is of very limited interest for the issue raised here because it does not really focus on the complementarity between activities.

while 79 percent experienced scope diseconomies.<sup>6</sup> Other contemporary studies come to similar conclusions (Berger *et al.* 1987, Pulley and Humphrey 1993). The study of Ferrier *et al.* also showed that diseconomies of scope were more likely, the larger the bank was.

More recent studies rest on different efficiency concepts, profit in particular. Again, the results are inconclusive at best. In a typical study, Berger *et al.* (1996) focus on the benefits of jointly using deposits and loans, which are - in a sense - the benefits of one-stop banking. Theoretically, one can envision various benefits, such as lower transaction, search, and information costs. However, no profit efficiency enhancement was discovered. This does not necessarily imply that scope economies do not exist. It is possible that competition between financial institutions prevents banks from retaining the benefits. That is, competition might force institutions to pass on to consumers the surplus that scope expansion creates. But as a general conclusion, it is fair to say that scope economies are hard to realise. Illustrative in this respect is Saunders (2000); he lists 27 studies, of which 13 find diseconomies of scope, six find economies of scope, and eight conclude that scope is neutral to efficiency.

*Efficiency gains from scale and scope can be measured in different ways.*

Other studies seem to yield more positive results as to the cost and profit efficiency effects of expanding scope and scale. For instance, focussing on structural differences between financial conglomerates, universal banks, and specialised institution in Europe, Vander Venne (2002) finds somewhat higher cost and profit efficiency of conglomerates and universal banks. However, these efficiency differences cannot readily be translated into scale and scope economies. The banking industry is changing rapidly and the (traditional) inefficiencies in banking are coming under attack from competitive pressure and technological advances. Differences in efficiency may just reflect differences in the state of adjustment of these institutions, translating into temporarily diverging levels of X-efficiency rather than pointing to scale or scope economies.

Another approach to gauge efficiency gains is to assess how the market values them. Recently, DeLong (2001) has looked at the shareholder gains - that is, the immediate announcement effects - from focused versus diversifying bank mergers in the United States during 1988-95. He found that focused mergers (i.e. those aiming primarily at scale economies) - both on the level of activity and geography - had positive announcement effects. Moreover, focus in activities was shown to be more important, than geographical focus, albeit the latter was important as well.<sup>7</sup> Interestingly, activity-diversifying mergers (i.e. those aiming primarily at scope economies) had no positive announcement effects. These results point at the presence of scale rather than scope economies.

While the study of DeLong focuses on relatively small US banking institutions,<sup>8</sup> recent European evidence on much larger institutions confirms the desirability of geographical focus. Beitel and Schiereck (2001), analysing mergers between European financial institutions during 1988-2000, show that domestic mergers have - on average - significantly positive combined (bidder plus target) announcement effects, which were

<sup>6</sup> The sample covered 575 banks that participated in the 1984 Federal Reserve's Functional Cost Analysis Program.

<sup>7</sup> Geographical expansion in the United States often involves buying neighbouring (focused) retail banks, which allows for economies on IT systems, management processes, and product offerings. Relative to Europe, where geographical expansion often implies buying large universal banks across the border, fewer barriers to an effective integration exist.

<sup>8</sup> Market capitalisation of the bidder (target) approximately USD 2 (less than 0.1) billion.

weaker, however, in the last few years (i.e. 1998-2000). They also found that diversifying domestic mergers (particularly between banks and insurers) had on average a positive value impact. In line with this evidence, the Citigroup-Travelers merger resulted in an increase in the stock prices of both merger partners (Siconolfi 1998). Other European studies on bank-insurer mergers confirm the latter insight; for instance, Cybo-Ottone and Murgia (2000) find a positive effect on combined value. Overall, studies investigating the announcement effect on financial institutions that strive for scope economies point at positive effects of expanding scope - seemingly in contrast to studies focussing on cost or profit efficiency - but this may well reflect market power effects. However, the distribution of the value gains is often tilted against the bidder. Especially in cross-border bank mergers, bidding banks suffer a severe value loss while targeted institutions come out extremely well.

The results of the studies that focus on the announcement effects of mergers and acquisitions reveal the market's expectation of future cashflow. Two caveats should be emphasised. First, actual performance may differ from market expectations. As DeLong puts it, "Although the prior conditions to predict successful mergers may exist, their presence may be difficult to discern." This is particularly true for some of the mega-mergers that are observed today. A lack of data and potentially radical and unprecedented shifts in the structure of banking give little guidance in interpreting the value consequences of these mergers. As an example, the reported significant positive announcement effects associated with bank-insurance mergers may be difficult to reconcile with the current market sentiment. Second, mergers and acquisitions may change the structure and dynamics of the industry, and the possible increase in the market value of bidders and/or targets could measure a variety of effects other than those related to the expansion of scale and scope, including those linked to a perceived increase in market power of the enlarged institution.<sup>9</sup>

To conclude, the empirical evidence on scale and scope is far from conclusive, but - in any event - evidence for scale and scope economies is weak at best. One problem with existing empirical studies - summarised in Table 2 - is that they are quite generic, and often they neither really identify those activities that could offer scope benefits nor do they pinpoint activities (services and products) that generate economies of scale.

#### 2.4 Problems with realising economies of scope and scale

*Weak empirical evidence for scale and scope economies does not necessarily mean that they do not exist, but may be difficult to realise in practice.*

Economies of scope and scale may of course exist, in principle, but are difficult to achieve in practice. This could be for a variety of reasons. To begin with, technological frictions may severely hamper the realisation of potential benefits. For example, a merger between two financial institutions may not readily lead to scale and scope economies because the integration of computer systems may take time. An interesting account on this very issue is the integration of Citicorp and Travelers. A quote from the New York Times (1998) illustrates the issue clearly:

*Citibank and Travelers say their deal is mainly about finding ways to grow rather than cutting costs. But the challenge will be finding common ground between Citicorp's traditional emphasis on advanced technology and Travelers' preference for low-cost, no frills systems.*

<sup>9</sup> In an interesting recent paper, Focarelli *et al.* (2002) contrast the motivation for mergers to that of acquisitions. They conclude, based on Italian data, that mergers often have a strategic, revenue-enhancing objective (cross selling) while acquisitions often aim at improving the credit policy (and thus the loan book quality) of the target.

**Table 2. Selected problems with existing empirical studies on scale and scope economies**

Subject	Issues
<u>Market power analysis: effect on prices and profits</u>	
Static	<ul style="list-style-type: none"> <li>• Is concentration the right measure? What about contestability of markets?</li> </ul>
Dynamic (effect of M&A)	<ul style="list-style-type: none"> <li>• Combined effect of market power and efficiency changes difficult to disentangle:               <ul style="list-style-type: none"> <li>- Profitability ratio affected by market power.</li> <li>- Cost ratio via costs of deposits linked to market power. Operational costs affected by relative importance of deposits versus purchased funds.</li> </ul> </li> <li>• Event studies affected by “signalling”, i.e., the immediate effect of a merger announcement on stock prices incorporates all types of changes in expectations.</li> </ul>
<u>Efficiency consequences</u>	
Static	<ul style="list-style-type: none"> <li>• How to measure scope economies?</li> <li>• Lack of data points for mega institutions.</li> </ul>
Dynamic	<ul style="list-style-type: none"> <li>• Little differentiation between type of mergers and/or type of activities.</li> </ul>

The same article states that Citicorp has a backlog of past integration issues before it can even think of making its systems compatible with those of Travelers. This points at potential frictions that can severely hamper the realisation of scale and scope benefits. Ultimately, the exploitation of benefits of scope might have to include the cross-use of databases from the insurance and banking side. Achieving this might have to wait until IT systems are finally made compatible.

Regulatory constraints may also stand in the way of realising potential scope and scale economies. If regulations force banking and insurance activities to be operated separately, potential scope economies may be hard to attain. This problem was most acute in the United States where up until recently insurance and banking activities could not be combined under one corporate roof. In many other countries, regulations have been less stringent but could still have a major impact on the feasibility of realising scope economies.

*In practice, the realisation of scale and scope economies faces many hurdles, including regulatory, managerial, and political constraints.*

Difficulties in implementing mergers and acquisitions could also turn out to be formidable obstacles to reaping scale and scope economies. For instance, the challenges of staff management in large institutions, especially when they combine different cultures and corporate identities, are notorious. In sum, managerial ability is crucial, but not necessarily on hand, for overcoming such obstacles.

A final barrier worth mentioning are political considerations. Many governments seek to protect their domestic financial institutions; what is more, they may want to create or

preserve “national flagships” to ensure domestic ownership and control. And even if cross-border mergers would occur, a policy favouring “national flagships” would prevent true integration (or rationalisation) of activities. Scale and scope benefits can then not materialise – even if potentially present.

## 2.5 Some conclusions

While the possibility for scope and scale economies is generally present, the distribution network for financial services is a primary source of such economies. For example, the proliferation of saving products and their link to pensions, mutual funds, and life insurance clearly pushes for joint distribution and, thereby, facilitates economies of scope. But even here, a word of caution is warranted. It is true that advancements in information technology have made it possible to better exploit potential scope economies with multiple product offerings to a particular customer group, using new direct distribution channels with relatively easy access to formerly distant customers. But it is also true that modern information technology offers very good possibilities for focused single-product players. Moreover, interfaces may increasingly help bundle the product offerings of specialised providers, thereby becoming a substitute to an integrated provider. Only very well managed financial services firms may realise scope economies. The execution, in other words X-efficiency, is probably more crucial than ever before because single-product players are likely to exploit inefficiencies of integrated financial institutions.

*Only very well-managed institutions may realise scale and scope economies, but company-wide synergy arguments per se do not rationalise universal banking strategies.*

The same arguments apply for vertical disintegration of the value chain. Specialising in one segment of the value chain might for now be too risky a strategy. Banking is too much in turmoil, and specialisation within the value chain may lead to an overly vulnerable dependence on the other players. But ultimately, it does not seem unrealistic to expect the emergence of, for example, product specialists without distribution network (see also McKinsey & Co 2002). This would fit a situation where financial intermediaries become supermarkets that sell products from a variety of suppliers.<sup>10</sup>

Notwithstanding the potential for scope and scale economies, a variety of factors may undermine the possibility for realising scope benefits. This makes it even more important to have well-focused operations and abstain from scope-expanding strategies that would complicate operations. In some cases this also means that one should abstain from broad cross-border acquisitions - unless the specific activity at hand requires this.

Overall, it becomes increasingly questionable to rationalise a universal banking strategy based on some company-wide synergy argument. Scope economies need to be carefully examined and linked directly to specific market segments across clients, products, and geographic areas of operation (see also Smith and Walter 1997). More important for understanding institutions' strive for scope and scale are strategic considerations, a topic that is addressed next.

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10 On the benefits of vertical (dis)integration in the financial services industry there is little empirical work. An interesting exception is a recent paper by Berger *et al.* (2000) who look at profit scope economies in combining life insurance and non-life insurance services in the insurance industry. They find that conglomeration (and hence scope) might be optimal for larger institutions that are primarily retail/consumer focused and have vertically integrated distribution systems.

### 3. Scope as a strategic advantage

#### 3.1 Introduction

The analysis so far has solely focussed on scope and scale economies. But this is inadequate for predicting or explaining the strategic choices of financial institutions. In fact, before reflecting on scope and scale economies, an institution needs to analyse a variety of other factors, notably (i) its core competencies and skills, current strategy, and its financial strength; (ii) alternative scenarios concerning future trends in the market for financial services; and (iii) the market structure emerging under these scenarios, in particular the degree of competition that the institution is likely to face - both in its current market and the market it considers entering.

This implies that scope and scale economies are just one input, albeit an important one, for the positioning today. It is also worth noting that the decision about scale and scope (involving choices about clients, products, and geographic presence) is not final. For example, the choices being made today could seek to keep options open in anticipation of further restructuring once more information becomes available. This is important for interpreting the restructuring that we observe. The current restructuring is motivated by strategic considerations (e.g. positioning) and may not give a good indication about what the future structure of the financial services sector will be. Current decisions might be “posturing” vis-à-vis competitors that might be undone in the future. In this section, I develop this strategic-option explanation for the restructuring in the financial services sector (Section 3.2), and I discuss its relevance in the European context (Section 3.3).

*The current restructuring in the financial services industry is motivated by strategic positioning and may not give a good indication for the future structure of the industry.*

#### 3.2 A strategic-option explanation for the pursuit of scope and scale

The explanation developed in this section is that strategic uncertainty about future exploitable core competencies and skills may dictate broadening of scope. The basic idea is as follows. Suppose a financial institution knows that - perhaps due to deregulation - it can participate in another market at some time in the future. The problem is that this is a new market, so the financial institution is highly uncertain about whether it has the skills to compete effectively in that market.<sup>11</sup> It has two choices. It can wait for some time to find out whether it has the capabilities and core competencies for this new market. Or it can enter the market early and discover what its skills are prior to making costly resource allocation decisions. The advantage of the second approach is that it permits the institution to experiment with a new business and learn whether it has the skills to compete in that business. This learning permits better decisions when competition commences. In particular, having better knowledge about its own skills allows the institution to be more aggressive in its output decisions and gain market share when it knows that its skills are superior to those of its competitors, and to exit the market when its skills are inferior.

One could explain scope expansion as the financial institution reserving the right to play in a variety of new activities. By making incremental investment today, the institution puts itself in a privileged position through the acquisition of superior information by learning. This

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<sup>11</sup> Note that these are strategic investments in activities that are uncertain. What I mean by this is that the investment is in an activity with uncertain profit potential, or that the fit between the new activity and the existing activities is uncertain.

*Strategic positioning takes place against the background of uncertainty about the demand for new financial services and institutions' skills to supply them.*

allows it to wait until the environment becomes less uncertain before determining whether to compete in the new market and, if so, how aggressively. However, whether financial institutions indeed acquire, and exercise, the right to play in a variety of new activities is very likely to depend also on the competitive environment in which they operate - now and in future.

In a recent paper Boot *et al.* (2002) develop a model that formalises these ideas and incorporates scope as a potential competitive advantage. The framework in that paper is as follows. It starts out with a financial services sector with narrowly defined existing activities and asks whether financial institutions should expand into a new activity. A key feature of the setting is that there is uncertainty about at least two issues: first, about the demand for this new activity, i.e. the activity has prospects only in the long run, but demand may not materialise at all; second, uncertainty about the skills needed to exploit the opportunities possibly arising from the new activity. Another feature taken into account is the degree of competition in both existing and new activities. This is the setting in which the institution must decide whether or not to expand in this activity and, if so, whether to enter early or late.

Early entry is costly because the activity becomes important only later, if at all. Entering early requires investments to be made prior to the resolution of demand uncertainty; these investments are largely irreversible, which means that costs are sunk and cannot be recovered if the institution decides later to exit the market. Another potential cost is that scope expansion could reduce the competitiveness of existing operations due to dilution of focus, for example. But early entry also promises benefits. It offers potential strategic advantages. In particular, it could lead to the discovery of skills that would allow for a more efficient delivery of the new activity and, hence, make the financial institution a more credible competitor once the prospects of this activity become clear. It is worth noting that the value of early scope expansion is increasing in the strategic uncertainty about the skills needed for future success in exploiting new opportunities.

Financial institutions faced with these options need to assess whether the benefits of early entry outweigh the costs. Whether the trade-off comes out in favour of early entry essentially depends on two factors. For one thing, uncertainty about skills plays a key role; if they are substantial, early entry may be beneficial. For another, the degree of competition - both in existing and new activities - is a decisive element.

The competitive environment of the existing activities enters the analysis because of the investment and risk associated with early entry in the new activity. If the existing activities face "too much" competition, financial institutions would be unable to absorb the cost of irreversible investment and, thus, the risk associated with early entry in the new activity. In essence, the institution's existing operations must be sufficiently profitable to give it the necessary financial strength - or "deep pocket" - to absorb the potential loss of the capital invested early if there is no demand or if skills turn out to be inadequate. *Ceteris paribus*, deep pockets raise the likelihood of early entry, and early entry into new markets is the more likely, the lower the degree of competition is in existing activities. An immediate implication of all this is that investments in strategic options and thus the adoption of broader, less-focused strategies will be observed in less competitive industries, whereas institutions in competitive industries, will embrace more focused strategies.

In analysing the effect of the anticipated future competitive environment in the new activity on the entry decision, three cases can be distinguished. If the financial institution anticipates



little or no competition in this activity, early entry - with its accompanying cost and dilution of focus - is unnecessary because a competitively unchallenged institution can operate successfully in this market without the benefit of early entry. At the other extreme, if competition anticipated for the new activity is very intense (perhaps due to many potential future competitors), early entry is not an attractive proposition either and is once again sub-optimal. In the intermediate case of moderate anticipated competition, early entry is a promising strategy unless, that is, there is too much competition in the existing activities.

The influence of the competitive environment on the optimal scope of financial institutions is summarised in Table 3. The main finding is that moderate anticipated competition in the new activity together with little-to-moderate competition in existing activities facilitates early entry, thus making the pursuit of scope a promising strategic option. Overall, the analysis suggests that scope expansion is promising when there is high strategic uncertainty, moderate competition expected in the new activity, and low-to-moderate competition in the existing activity.

*The degree of competition in both existing and new activities critically shapes the strategic options that financial institutions pursue.*

**Table 3. Optimal scope as function of the competitive environment**

Anticipated competition in the strategic option, i.e. the <u>new activity</u>	Current competition in existing activities	
	Little to moderate competition	High competition
Little competition	Narrow	Narrow
Medium competition	Broad	Narrow
High competition	Narrow	Narrow

Note: Narrow = no early investment in new activity; broad = early investment in new activity.

The strategic-option explanation offers additional insights. For instance, the benefits of consolidation can be explored. To illustrate this, assume that there are multiple competing institutions and that two of them are contemplating a merger. The question is whether merging today gives them a competitive advantage in undertaking the new activity tomorrow. The answer is affirmative. Merging helps create deep pockets, and possibly also reduces the degree of competition, making investments in strategic options more affordable. It should be clear that these effects have little significance in an environment without strategic uncertainty. The analysis thus predicts greater consolidation in industries with more strategic uncertainty. In this context, it is also worth pointing out that if a scale-expanding merger deepens the institution's pockets, scale expansion will facilitate scope expansion and thus precede it.

Another insight is that there could be an interaction between uncertainty about competencies and skills, on the one hand, and competitive behaviour on the other. To explain this, suppose a specialised provider can offer the new activity that a financial institution considers in a scope-enhancing strategy. Assume further that the specialised provider and the financial institution would form a Cournot duopoly in the new market. In these circumstances, the financial institution would benefit from early entry because it would then learn its skills in the new activity; allowing it to compete more aggressively when it has favourable information about its skills and to behave more cautiously when it has poor

information about its skills. The benefits of early entry also depend on how likely it is that a specialised provider will come along.

Before discussing the relevance of the strategic-option explanation for what is happening in the European financial services sector, it is probably useful to conclude with a few remarks that explain why the strategic-option explanation fits the financial services sector so well. There are at least three reasons. First, deregulation of the sector is opening doors to new activities at a rate that is unprecedented since the Great Depression. Second, the swirling tides of technological and regulatory changes are generating a level of uncertainty about the skills needed to operate successfully in the future that is perhaps greater in the financial services sector than in most other industries. Lastly, banks and to some extent insurers have traditionally faced limited competition in their home markets. This has created deep pockets across the industry, and serves to support the broad strategies observed particularly in banking. The combined validity of these arguments makes the model especially suited for the financial services industry.

The precise interpretation of the model of strategic uncertainty could be amended to fit financial institutions even better. In particular, one could interpret the institution's problem as one of not knowing what combination of activities will give it a competitive edge in future. In this interpretation, a financial institution is not contemplating to embark on entirely new activities (as assumed above) but on activities that it traditionally chose to abstain from. Choosing a wider set of activities would let the institution discover what activities optimally fit together.

### 3.3 Relevance of strategic options in the European context

*A comparatively low degree of competition in a number of EU countries could explain why many financial institutions pursue scope-enhancing strategies.*

A key message of the strategic-option explanation is that investments in strategic options and thus the adoption of broader, less-focused strategies will be observed in less competitive industries, whereas institutions in competitive industries will embrace more focused strategies. This could explain why Continental European financial institutions generally follow broad strategies. Their local market power allows them to afford the widening-of-scope strategy and benefit from its potential future strategic advantages. Indeed, industry practitioners are convinced that a strong position in the home market is crucial for a successful expansion in foreign markets. Generally, this seems to be the case, as a few examples from banking illustrate. Belgian banks generally have weak foreign operations. One reason is that the Belgian political situation (the split between the French and Dutch speaking regions) did not allow for strong domestic powerhouses. Swedish and other Scandinavian banks suffered from a financial crisis in the late 1980s and early 1990s, inhibiting their foreign aspirations. By contrast, the Dutch, Swiss and - to a lesser extent - French powerhouses have strong franchises in their home markets and all have foreign aspirations. Furthermore, multiple mergers in the Spanish banking sector, for instance, rapidly led to two big banks, BBVA and BSCH<sup>12</sup>. Their foreign aspirations have largely been limited to the South American market, but by now (and after running into problems in South America) also involve other Southern European countries.<sup>13</sup>

<sup>12</sup> Banco Bilbao Vizcaya Argentaria and Banco Santander Central Hispano, respectively.

<sup>13</sup> The German banks face difficulties in their home market. Across the Channel, Hongkong and Shanghai Banking Corporation Ltd (HSBC) and Royal Bank of Scotland (RBS), have strong positions in their home markets, and seek focused international expansion.

In the interpretation of the model sketched above, strength in the home markets allows financial institutions to invest in strategic options. An important one is investment banking. While Continental European banks traditionally dominated the domestic activity in investment banking, they have had a more marginal role in investment banking in foreign markets and now also face severe competition in their domestic investment banking activity. Many of them feel that a presence in investment banking might be important for their existence as powerful banks in the future. They are willing to accept - for the moment at least - relatively low returns on those activities. The potential but uncertain vital role of these activities in the future defines them as a strategic option.

From a shareholder-value-maximisation point of view, investing in strategic options might be desirable (if at least potentially sufficiently lucrative). However, how can we distinguish a management that is pursuing value-maximising strategic options from one that simply reflect managerial entrenchment? That is, managers (and governments!) may just want powerful institutions for their own sake. Distinguishing between those explanations is difficult. The experiences of the (no longer independent) French bank Crédit Lyonnais teach us: banks that are not accountable and, even worse, operate as playground for government-appointed cronies, are unlikely to follow value-maximising strategies; growth then becomes a managerial entrenchment strategy.

*In practice, scope-enhancing strategies that aim at value-maximisation are difficult to distinguish from those that reflect managerial entrenchment.*

Banks themselves are ambivalent too. The struggle of European banks in investment banking is a perfect example: while some see it as a strategic option, others (NatWest - now RBS - and Barclays) have retreated. And then, the recent partial retreat of ING from investment banking and the problems that Dresdner Bank faces with investment banking under the umbrella of Allianz indicate banks' undecided approach. While investment banking might be a valuable strategic option, lack of profitability, deep pockets, and/or core competencies may dictate a retreat. Obviously, opinions may also differ on the viability and importance of investment banking as a strategic option. Not more than a year ago, many analysts argued that the lending capacity of commercial banks could give them a competitive edge in the investment banking market. More recently, particularly in light of the high losses on telecom-related debt incurred by some of these players, synergies between commercial and investment banking look much less convincing.

There is a similar ambivalence vis-à-vis the bank-insurance model. Some institutions think that insurance is perfectly complementary to commercial banking (e.g. to economise on the distribution network) and have embraced it; examples included ING and Credit Suisse/Winterthur. Others, such as AEGON - one of the world's largest life insurance groups, have rejected it. Apparently, market players differ in their assessment of the viability and importance of insurance activity as a strategic option. But here, at least in terms of distributing financial services to targeted customer segments, some agreement exists on the complementarity and synergies between commercial banking and insurance. The strategic consideration might be a different one, however. For example, AEGON is probably of the view that its possibilities for taking part in the ongoing consolidation in the insurance industry would be hampered by linking up to a banking institution now. After the consolidation phase is over, it may actually subscribe to the bank-insurance model. However, it may also believe that more focus and alliances/joint ventures are superior.

Nevertheless, I do believe that scale and scope economies are present in the European financial services sector. But I also observe that much of the consolidation in the sector is

defensive. Consolidation has increased scale and scope mainly in domestic markets and facilitated local market power. Size has reached a level that seriously questions whether any benefits of scale remain untapped. At the same time, one wonders whether the wider scope is truly sustainable and whether it will not cause dilution and loss of focus. If so, it will clearly limit the desirability of investing in strategic options. Instructive in this respect is that the operations of European financial institutions in foreign markets, where they face more competition, are generally well focused.

### 3.6 Summary

Strategic considerations play an important role in the restructuring of the financial services industry. The arguments developed above help to give a prescription about where scope and, to some extent, scale become important from a strategic perspective. The decisive factor is strategic uncertainty, with the degree of competition a crucial complementary factor.

The development of alternative distribution channels (e.g. the Internet) is a primary source of strategic uncertainty. Moreover, while developments in information technologies have substantially enhanced the feasibility of managing larger organisations, it has induced uncertainty about the desirable scale and scope of operations. Overall, strategic uncertainty suggests that, for the moment, bigger and broader seems to be the safest option.

However, the degree of competition also plays an important role. In particular, too much competition in existing activities weakens the rationale for scope expansion. By extension, the fairly protected position of institutions in their home markets has allowed them to choose a broad positioning. As markets become more open, both to foreign competitors and inter-sector entry, this choice will be reconsidered. In fact, there are indications that this phase has started, making more focus inevitable before not too long. This takes us to a brief outlook for Europe's financial services industry.

## 4. Outlook - Europe's financial services industry in a state of flux

*The strategic-option explanation implies that financial institutions are likely to pursue different strategies, which may be reconsidered in future.*

The analysis of the preceding section helps understand current trends in consolidation in Europe's financial services industry. A key implication is that financial institutions are very likely to pursue different strategies and may have good reasons for reconsidering current strategies in the future. Against this background, this section briefly discusses alternatives to consolidation and, more generally, considers political obstacles to rationalising the structure of Europe's financial services industry.

A potentially important alternative to consolidation is building alliances. The concept of alliances is underdeveloped in banking. This is to some extent surprising, as banks have engaged - for instance - in correspondent banking, particularly in the context of cross-border payment services. But correspondent banking is losing its importance. In particular, with advances in information technology, international payment and settlement systems have become available (e.g. the emergence of TARGET and settlement systems like Cedel and Euroclear). These developments reduce the need for corresponding banking. More importantly, correspondent banks may have become competitors in areas where they

were cooperating before. For example, some banks seek to gain a competitive edge by offering proprietary cross-border payment facilities. This points at an important consideration for the feasibility of correspondent banking, or alliances for that matter. It only works if the interests of the participating institutions are sufficiently aligned.<sup>14</sup> But why may alliances become important?

A fundamental reason is that vertical disintegration in the value chain will gain in importance (see also Berlin 2001). This may enable greater specialisation and, thus, focus as well as economies of scale. Alliances could play an important role in this process. They may introduce more durable, yet flexible cooperative structures, facilitating interactions between the different parties in the value chain. An example is the opening up of a bank's distribution network to products from other banks. In that way, institutions could exploit their local presence by capitalising on their distribution network; simultaneously, product specialists may emerge that feed products into these distribution networks.

*Alliances and joint ventures could introduce more durable yet flexible cooperative structures.*

The applicability of this idea is broader. Financial institutions rooted in strong local relationships may gain access to more distant asset management services that are scale-intensive and globally, rather than locally oriented. It may well be possible to offer some of these services in an alliance (i.e. to join forces) and still capitalise on customer-related synergies. While it can be argued that a merger with these institutions allows for a smoother operation of these services, one can take issue with this point of view.

First, for several reasons, cross-border mergers may not (yet) be feasible. A focused alliance would create valuable linkages between institutions with immediate synergy benefits, but could also allow nationally-rooted partners to get to know each other. In that sense, it would be an intermediate phase. As a second argument, using alliances for asset management and/or specific investment banking activities may, if properly designed, combine the benefits of an integrated universal banking structure with a stand-alone type of organisation of those activities. For example, all alliance partners would have a limited exposure to these activities, which helps them maintain focus. In particular, cultural conflicts and distractions associated with trying to build up (or buy) an investment bank next to running the relationship-rooted regional bank are prevented.<sup>15</sup> Obviously, the alliance model does not come without cost. The important task is to define a clearly defined portfolio of activities that would become part of the alliance. This will not be investment banking in the broadest sense of the word. Similarly, in the case of asset management, the alliance partners would each maintain their own proprietary access to the customers, but join forces in the asset management operations including research and back office activities. This would facilitate the information technology investments that allow the partners to capitalise on scale economies. Maintaining proprietary access by the individual alliance partners preserves customer-related scope economies.

The same arguments could be made for bank-insurance combinations. That is, banks could choose to engage in an alliance with an insurer rather than merge. The alliance model is

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<sup>14</sup> It is worth noting that correspondent banks could traditionally not enter each other's markets. Interests were therefore more readily aligned.

<sup>15</sup> The experience of some banks is that top management gets fully distracted by the investment banking activities and spends disproportionately little time on the often more profitable non-investment banking activities.

*Alliances and joint ventures are alternatives to consolidation that are likely to become more important in the period ahead.*

indeed observed (e.g. Credit Suisse and Winterthur before they merged). It is possible to distribute insurance products via a bank's distribution network based on a license agreement.<sup>16</sup> However, at least until recently, the perception in the market was that the integration of information technology services is only assured with an outright merger. If true, the desired synergy in distribution (and also the complementary feeding of asset management operations) would then seem to favour mergers.

A key question is whether this will remain so. I tend to believe that joint ventures and alliances will gain importance in the future, in particular as and when uncertainties surrounding the industry wane. At present, vertical disintegration could create an unpredictable dependence on other parties in the value chain. Ultimately, alliances seem only feasible if the activities that are part of it can be run as a more or less separate (jointly-owned) business unit with considerable independence from the parent institutions. This is for now most likely for smaller regionally specialised financial institutions that may want to join forces in, for example, investment banking and asset management. For bigger institutions alliances are for now less relevant, but when these institutions will finally choose to focus, alliances are likely to grow rapidly.

The pros and cons of consolidation and alliances apart, political obstacles may slow down the move towards a more rational structure of Europe's financial services industry. While EU banking directives aim at liberating cross-border banking, domestic banks are being considered national flagships that governments - some more, others less - are trying to protect. This reflects a fundamental belief that foreigners should not control domestic financial institutions, which has - so far - almost prevented any cross-border merger.

Even in countries, such as the Netherlands, where governments do not directly interfere in banking and where banks are considered truly commercial enterprises, the political dimension is important. Central banks, ministries of finance, and the banks operate in close concert. This is not surprising: a very homogeneous group of executives is in charge of the financial sector, the central bank and government ministries, guaranteeing a clear national identity of domestic institutions. In countries with explicit government involvement (e.g. Germany, France and Italy), foreign control over domestic institutions is even less likely unless banks become so inefficient and weak that involvement of foreign investors is seen as inevitable to fix the problem. But in general, the primary response to the liberating EU directives has been defensive: domestic mergers are encouraged to protect alleged national interests. A case in point is Germany, where banking is surprisingly dispersed despite the (traditionally!) powerful images of Deutsche Bank, Commerzbank, and Dresdner Bank (now part of Allianz). Public policy definitely aims at protecting the interests of these institutions, and consolidation occurs mainly at the level of the *Länder*. Indeed, the political dimension is especially relevant at this level, which explains why the German banking sector has seen regional and not national consolidation.

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<sup>16</sup> Very recently, ABN AMRO announced that it would put its (limited) insurance operations in a joint venture with Delta Lloyd (a bank-insurer). It hopes that the alliance will promote a more effective cross selling of insurance products via its own distribution networks.

Overall, the national flagship dimension has been of primary importance in Europe.<sup>17</sup> As a result, cross-border expansion is rare, and consolidation is primarily observed within national borders. That said, it remains an open question whether national (European) authorities are serving the interests of their constituencies when advocating national flagships. This is an intriguing question that needs to be looked at in a game-theoretic context. If other countries support national flagships, an individual country may be well-advised to follow the same policy. However, all would possibly be better off if none pursued a national flagship policy.

To conclude, powerful forces are driving consolidation. Value-maximising behaviour is one of them, but the political dimension cannot be ignored. Value-maximising behaviour, in turn, comprises two main elements: the search for scope and scale economies as well as strategic positioning in an uncertain and rapidly changing environment. Strategic positioning has created broad powerhouses. But this will change. Competitive pressures will force financial institutions to discover their true competitive advantages and choose an optimal configuration of services and activities. As a result, the new demarcations between the financial institutions may be very different from the past, but it is very unlikely that a single strategy will dominate the industry. The regional expansion that characterises much of the merger wave in the United States will carry over to Europe. Cross-border acquisitions are coming, particularly with the arrival of the European Monetary Union, which is a catalyst that will accelerate the integration of national financial markets, inducing a more pan-European view on financial services. Overall, the process of restructuring will be a fascinating one, and the current developments are just an interesting start.

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17 In this context, a comparison to the United States is worth making. In the United States, interstate expansion has been a driving force behind the consolidation in the banking sector. Politics do not seem to interfere any longer with interstate expansion. However, the political dimension seems to have an effect on the demarcations between commercial banking, investment banking, and insurance. Powerful lobbies are successful in mobilising (local) politicians, and they had been able to obstruct major banking reform in the US Congress until the passing of the Gramm-Leach Bliley Act of 1999. In other words, in both the United States and Europe vested interests are at work. In Europe, national authorities are preserving national flagships; in the United States, powerful lobbies seek to preserve traditional demarcations between financial institutions.

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