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The Financial System of the EU 25

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Abstract

We present an overview of the financial structure of the enlarged European Union with 25 countries. We start by describing the financial system development in all member states since 1995, and then compare the structure between the old and new countries. Using financial measures we document the prevailing substantial differences in the financial structure between new and old member states after the enlargement in 2004. Finally, we compare the financial structures of an enlarged EU with those of the United States and Japan.

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1. INTRODUCTION

Despite the political and economic convergence in the European Union (EU-25), the financial structures of different members remain diverse. This paper compares the development of EU-25 countries' financial structures from 1995-2004. We stress that the enlargement of the EU in May 2004, by changing the institutional setting, has reduced some divergences across Europe, but increased others. However, it has not significantly altered the structure of the European financial system. There is significant inertia with regard to financial structure: important and persistent transformations of financial systems can take more than a decade. On the other hand convergence in the financial systems of EU-25 countries is important, in particular for the future prospects of an eventual enlargement of the European Monetary Union because a common monetary policy may be hard to implement when the financial structures of member states are diverse.

We start our analysis in section 2, by outlining the economic background of the enlarged European Union (EU-25) and the main characteristics of its financial system. In section 3 we describe the banking system, while in section 4 we focus on the development of capital markets. In section 5 we present other important players in the financial system, such as the insurance industry and pension and investment funds. Finally, section 6 concludes by summarizing and making a comparison of the EU-25 financial system with that in the US and Japan.

2. THE BACKGROUND

The New Member States (NMS), except Cyprus and Malta, have been engaged in a transition process involving institutional and structural changes that have turned former planned economies into market economies. The main economic indicators still show that significant differences exist between NMS and Old Member States (OMS). The level of financial development, understood as the size and efficiency of the sector, may strongly affect the pace of future economic growth[1].

[1] For a survey of the theory and empirical research on finance and growth, see Levine (1997).

In terms of GDP the NMS are rather small compared to the OMS. At the end of 2004 the GDP at current exchange rates of the NMS was €441 billion or only 5 per cent of the value of that of OMS countries with €9,307 billion in 2004 (Figure 1).

The average growth rate has been higher in the NMS than in the OMS over the years 1995-2004. As a result the NMS have made substantial progress catching up in real terms and have reached 54 per cent of the EU-25 average purchasing power per capita income in 2004. An exception is the Czech Republic, which had the lowest growth rate among the NMS. The country underwent a severe financial crisis caused by bad loan problems in 1996 (Bonin and Wachtel, 2004). The case of the Czech Republic, however, confirms the theoretical prediction that countries' economic growth and financial system development are closely linked. Thus, we believe that the financial system development of the EU-25 is essential for economic growth and for further convergence of the market structures within the EU-25.

The structure of the European financial system has changed significantly in the last few years. This change can mainly be attributed to the liberalization of international capital movements in order to create a common regulatory framework for the provision of financial services as part of the European Internal Market.

In comparison with the NMS, the OMS have a relatively deep and broad financial services industry, with total assets amounting to 558 per cent of GDP in 2002, while in the NMS it was only 170 per cent (Figure 2).

Credit institutions lead the EU-25 financial system, with a relative share in total assets of 52 per cent in the OMS and 73 per cent in the NMS. Apparently, the EU-25 financial structure is mainly bank based, yet in some member states capital markets are also quite important. In the OMS other financial intermediaries have been gaining in importance in the last decade, but their position compared to credit institutions is still relatively small in terms of assets to GDP. Although the dominance of credit institutions has been declining in the NMS too, the role of insurance companies, investment funds and pension funds is still underdeveloped in comparison to the OMS. Therefore, credit institutions followed by capital markets are the main elements of the European financial system. Hence, in the next two sections we will focus on the banking system and the capital markets in the EU-25.

Within the EU-25 national differences in financial structures are significant. In the OMS, the domestic credit to GDP ratio stood at 120 per cent in 2004, compared to a stock market capitalisation to GDP ratio of around 91 per cent (Figure 3). NMS

have significantly smaller credit to GDP and stock market capitalisation ratios. Bank based financial structures remain predominant within the EU-25, the exceptions being the United Kingdom and since recently Finland, Sweden and the Netherlands, which have moved towards market based financial systems.

Rajan and Zingales (2003) analyzed European financial system characteristics over the last two decades. Based on their findings they came to the conclusion that in the last two decades the EU-25 financial system moved away from a bank based towards a market based financial system. They identified the process of monetary and financial integration as the underlying cause of these changes. Rajan and Zingales (2003) argue therefore that the ongoing process will likely result in the evolution of a more market based system over time.

Differences in financial structure are often related to divergences in countries' respective legal systems (La Porta et al, 1998). According to this theoretical prediction, a high degree of investor protection should help the development of stock markets. Conversely, a high degree of creditors' rights protection should encourage bank lending.

In the NMS improvements in the domestic legal system in the 1990s have reduced credit risk, thereby promoting credit supply since then. Apart from this, in the EU-25 the index of creditors' rights and anti-director rights protection seems not to be positively related to bank credit and market capitalization, respectively (Figure 4).

This situation may be explained by a weak and costly enforcement of the existing laws in some of the member states, especially in the NMS. In the OMS the time needed to enforce a contract takes on average 221 days, while on average 305 days are needed in the NMS. Additionally the average cost of enforcing a contract as a percentage of GNI per capita is 4.45 per cent in the OMS against 5.42 per cent in NMS (Allen et al., 2005). Those numbers disclose that even as NMS have introduced high quality legal protection, they may not influence financial system development, as their enforcement remains weak and costly.

Law enforcement may play an even greater role in the future as further financial integration may result in a convergence of the legal protection of shareholders and creditors within the EU-25. The past experience shows that harmonization, integration and enforcement of the regulations affecting the financial services industry may take a long time. Therefore differences in legal protection and

as a consequence in financial structures may prevail for some time in the EU-25, yet we may expect a further integration of laws and financial structures in the long run.

3. THE BANKING SYSTEM

As already shown, the financial system of the EU-25 is mainly bank based, due to the prominent role of credit institutions (CI) in most member states. In terms of GDP, bank assets in the OMS reached 219 per cent in 2004, an increase of 17 per cent compared with 1995 (Table 1).

Changes in NMS bank assets were more significant and the ratio reached 85 per cent in 2004, an increase of 27 per cent since 1995. The difference in the ratio between the OMS and NMS shows a potential for development and explains the large amount of foreign bank entry in the NMS (Dermine, 2005). Data show also that credit and deposits to GDP have more than doubled over the last decade in many EU-25 countries. This means that EU-25 credit institutions were able to retain their position relative to other financial intermediaries despite the fierce competition; they even increased their importance in most economies. Only in the Czech Republic and Slovakia did the role of credit not increase; this was caused by the protracted restructuring of bad loans accumulated earlier.

Credit institutions responded to the structural changes in the financial sector and increased competition by consolidating their activities in order to increase in size and scope. This affected all types of credit institutions, including cooperative banks and mutual savings banks (Goddard et al., 2001). The average number of credit institutions fell from 504 in 1997 to 334 in 2004, a decrease of 34 per cent compared with 1997 (Table 2).

The decrease was mainly caused by a high level of mergers and acquisitions within the EU. The large number of M&A transactions may also be a sign of convergence and integration of bank market structures of the EU-25 (Allen and Song, 2005). Within the EU-25 438 transactions were reported involving at least one credit institution over the period 2001-2004, 68 per cent involved within border transactions, 26 per cent transactions within the European Economic Area (EEA)[3], and 6 per cent of deals were with third countries outside the EEA. While in the OMS 76 per cent of transactions were domestic, in the NMS 62 per cent of deals were cross-border

[3] The EEA comprises the EU, Iceland, Liechtenstein and Norway.

transactions. As a result there are significant cross-country differences in the foreign presence in the local banking sector within the EU-25.

On average 70 per cent of NMS total banking assets were controlled by foreign institutions in 2004, against only 19 per cent in the OMS. In addition foreign presence is notably high, over 90 per cent, in some of the NMS, while in some of the OMS it remains below 10 per cent of total assets.

Divergence in foreign ownership has a strong impact on the market structure in the EU. Davis and De Bandt (1999) provided evidence of monopolistic competition in a variety of European banking markets in the mid-1990s. They noted that the competitive environment in the French, German and Italian banking markets still lags behind that in the US banking sector. Data show that these markets have few outside competitors even after more than a decade of EMU.

Significant M&A activity and a downward trend in the number of credit institutions has significantly increased the level of concentration in local markets. On average, the five largest institutions' share of total bank assets (CR-5) amounted to 45 per cent in the EU-25 in 2004, up from 33 per cent in 1997. In the OMS a similar trend is also visible from the Herfindahl-Hirshman Index (HHI), which rose from 370 in 1997 to 662 in 2004. In the NMS the HHI declined as a result of increased competition caused by foreign entry and a decrease of market share of former state owned banks. In general, however, in NMS concentration remains high and the CR5 ratio varies between 50 per cent and 99 per cent. Moreover in some member states the HHI coefficient also exceeds the 2000 point high level concentration threshold.

An indication that the consolidation process and high concentration have not adversely affected competitive conditions in the EU-25 banking industry is the decline in net interest margins (NIM) (Table 3).

Concentration and margins are negatively related. In the NMS margins have significantly decreased despite a huge rise in concentration. In addition some of the countries with a high level of concentration have reported the lowest net interest margins within the EU-25. Apparently, concentration ratios do not necessarily reflect competitive conditions in the EU-25 banking sector.

The fall in interest margins was compensated for by a decrease in overhead costs of credit institutions. In the OMS the average overhead ratio was 1.58 per cent in 2003 and had decreased by 13 per cent since 1997. The average ratio of overhead costs to total assets in the NMS was double that of the OMS, at 2.99 per cent in 2003,

yet it had decreased already by 19 per cent since 1997. These differences suggest considerable scale inefficiencies and large potential for future improvement in the NMS banking industry.

The deterioration of interest margins and high overhead costs was responsible for the fact that the average cost-to-income ratio in the NMS, at 63.59 per cent, exceeded that of OMS. While in the NMS the average cost-to-income ratio slightly increased, in the OMS there has been an increase in efficiency. In the OMS the average cost-to-income ratio fell from 62.23 per cent in 1997 to 60.69 per cent in 2003.

The trends in income and costs are reflected in the data for profitability. However, the results for return on assets (ROA) present a quite mixed picture within the EU. The overall ROA in the EU-25 decreased moderately, to 0.84 per cent in 2003 from 0.90 per cent in 1997. On average there was, both in the OMS and NMS, a downward trend in profitability. Given that the level of return in NMS countries was quite high the decline is understandable, while in the OMS the decrease may be related to the worsening of macroeconomic conditions. The downward trend in bank performance also reflects increased competition in the financial sector despite the overall fall in the number of credit institutions. However, the ratio shows a significant cross-country variability within the EU-25.

Concluding, even if the European financial system is mainly bank based, there are significant cross-country differences, especially between the OMS and NMS. In the OMS the number of credit institutions is larger and thus the level of concentration is lower than in the NMS despite the continuing consolidation trend. In the last decade in the NMS most of the M&A transactions were cross-border, while in the OMS they were mainly domestic. As a consequence the level of foreign ownership in the NMS is significant, while in the OMS it remains moderately low. In general, foreign ownership had a positive impact on the risk management and performance of domestic credit institutions, as well as on the stability of the NMS financial systems.

Trends in the structure of the banking industry are reflected in the performance of credit institutions. While interest margins remained higher in the NMS over the period 1997-2003, the overhead costs were significantly lower in the OMS. Trends in performance of credit institutions suggest that the structural changes described above have not dampened competition. Differences in the credit institutions' performance reflect the persisting potential for development in the NMS, which has attracted

foreign banks in the past. However, in the long term foreign banks' expectations about local bank profitability may be too high, which could induce them to compete aggressively on the local market (Dermine, 2005). Besides a shift from subsidiaries into branches may present quite a challenge for local and host supervisors. A foreign branch may have systemic importance in the host country even though it often represents only a modest share of a foreign credit institution's total operations. As a consequence potential conflicts may emerge as far as country controls in supervision and responsibility in safeguarding financial stability are concerned. While, we expect a convergence in performance and later on also of the structures of the EU-25 banking industry, we stress that enhanced coordination, regulation and information-sharing within the integrated financial system are needed in order to prevent eventual cross-border spillovers due to bank failures.

4. THE CAPITAL MARKETS

In transition economies the privatization of former state-owned companies has induced the development of equity markets: that's how the first stock exchanges appeared in the Czech Republic, Slovakia and Poland in 1991. The further development of stock markets was strongly influenced by the privatization strategies of the government in individual countries. A strategy of mass privatization schemes was employed in the Czech Republic, Slovakia and Lithuania. In these countries the stock markets quickly comprised a large number of companies. However, the extent of the equity markets restrained their liquidity. In addition the widespread ownership limited transparency and the enforcement of corporate governance mechanisms. Thus, few companies were traded and most companies were later delisted. As an example in the Czech Republic 81 per cent of companies were delisted between 1995 and 1997 and the number of listed companies declined from 1,716 in 1995 to 55 in 2004.

A different strategy to privatization and stock market development was adopted in Estonia, Hungary, Latvia, Poland and Slovenia. In these countries the government decided to privatize only financially sound and recognized companies via the stock market. In addition minority stakes in the privatized companies were often sold prior to the initial public offering to a foreign strategic investor. This provided additional security for the government for the success for the planned public offer and guaranteed also a higher price for the remaining shares. As a result, the equity markets in those countries have been growing gradually and provided adequate liquidity for

the listed companies. In Poland, in contrast to the Czech Republic, the number of listed companies grew steadily from 9 at the end of 1991 to 250 in 2004. However, many of those companies are currently closely held by strategic investors and therefore their equity is not always liquid. Thus, even if some market development has emerged, stock exchanges are still not very developed in Central and Eastern European countries. In fact, when we look at the average size of the stock exchange in NMS it amounts to a third of that of OMS.

Market size is rather homogeneous in NMS: the market is not very large in these countries (Figure 5). The evidence for OMS is more scattered, taking into account the different historical developments of all countries concerned. In those countries with a less developed stock market the ratio of market capitalization to GDP has risen a lot in the last decade. This is particularly true for NMS. For Finland it is due to the market capitalization of Nokia, which had astonishingly high values in the period 1999-2001. Now that Nokia's shares values are to a more customary level, Finnish stock market capitalization is still high, but in line with the relatively largest European stock exchanges. The same pattern has been observed for Cyprus over the same period (1999-2001).

Considering the last decade as a whole, the largest European stock exchange markets are in Luxembourg, the United Kingdom, the Netherlands, Finland and Sweden. The London Stock Exchange is in absolute terms the largest in Europe; the Amsterdam stock exchange is large both in absolute and relative terms. On the other hand, in absolute values the stock exchange is not very large in Luxembourg, but, compared to GDP, it is the largest in Europe. The Wiener Börse is particularly small and this is probably due to the centrality of banks in the Austrian financial system. Among the new accession countries only Cyprus and the Check Republic seem to have a market size comparable to previous EU-25 members when looking at the period 1995-2004.

On average in the last decade the most active markets have been the London and the Amsterdam stock exchanges (Figure 6). Transactions volumes are high in Spain, Finland and Sweden too. Despite its large size, Luxembourg has a very idle market, even less than the Wiener Börse. In NMS markets have very small trading volumes; the Czech Republic and Hungary are the only exceptions: enlarging stock exchanges seems to have been easier than having dynamic ones. Almost all markets

have recorded a peak in activity in 2000; after this exceptional year they all have returned to a stable level. Intra-group differences are higher for OMS.

Another important part of the domestic capital market is the market for debt securities. In the EU-25 the size of the domestic debt securities market was on average 107.6 per cent GDP in the period examined (Figure 7).

Debt securities markets have been growing much faster in NMS than in OMS over the period 1995-2004. However, the debt market in the NMS is still three times smaller than that of OMS with an average of 67 per cent of GDP and 146 per cent of GDP at the end of 2004, respectively. The most developed domestic bond markets were in Denmark, Italy and Belgium within the OMS[4], and in Malta, the Czech Republic, Hungary and Cyprus among the NMS.

As we did with shares, we want to examine activity in bond trading together with the size of the market. NMS have almost no bond trading: positive trade values are recorded for Malta and Hungary, but these are quite small and much lower than the trading volumes in OMS. Data for OMS are more diverse: the stock exchanges that have a higher activity in bonds are located in Denmark, Sweden and Italy. Together with the London stock exchange and the Amsterdam stock exchange, these are the only markets which record any significant activity in bonds. For Italy the reported average is influenced by the large values traded in 1996-1998; the ratio is quite low in recent years. In the late 1990s the highest trade volumes of bonds were recorded and these years were characterized by high volatility. In recent years, trade volumes are more stable and their average level is quite low.

At first sight the EU-25 domestic debt securities market seems to be more developed than the equity market: however, the structure of the EU-25 debt markets as a whole is dominated by bonds issued by governments.

The recent increase in issuance of government debt instruments primarily reflects the financing of fiscal imbalances of member states. At the end of 2004 the value of domestic government securities as a share of GDP was 77 per cent for the EU, while for the OMS it was 82 per cent and 62 per cent for the NMS.

[4] The debt markets of Luxembourg and the United Kingdom seem small because we are only taking into account domestic securities. In fact the total bond market sizes are doubled in these countries, and hence are the greatest in EU-25, if international bonds are taken into account.

The amount outstanding of privately issued debt in the EU-25 is still relatively modest, while the issuance of bonds by financial institutions has increased from 41 per cent of GDP in 1995 to 47 per cent in 2004. The difference in importance of the financial institutions debt market between the OMS and the NMS is significant. While in the OMS the share of financial institution bonds was 53 per cent of GDP, in the NMS it was merely 5 per cent of GDP at the end of 2004.

In the EU-25 the corporate bond market was equivalent to only 5.6 per cent of GDP at the end of 2004. At the same time the average was over one percentage point higher for the OMS countries, while in the NMS the corporate bond market practically does not exist as it is equivalent to only 1.5 per cent of GDP.

Although the corporate bond market is still not very large within the EU, it has been growing in most member states as corporations have increasingly been exploring the opportunities for direct financing with better funding conditions. The switch to debt markets was accompanied by increased financing needs, which were related to new technologies and an intensive period of mergers and acquisitions. According to Hartmann et al. (2003) and Rajan and Zingales (2003) the surge in corporate bonds may also be a consequence of EMU and the introduction of the euro. Our data are consistent with this theory as they show that the largest increase in the importance of the corporate securities domestic debt market was in those member states that also introduced the euro.

Besides the introduction of the common currency, the corporate issuance of debt instruments was also encouraged by banks as a result of new BIS regulations and stronger competition in the financial system: European financial intermediaries were helping their existing customers obtain direct access to the capital market. Consequently it is hard to distinguish whether the recent changes in corporate finance towards debt securities have been driven either by market changes, corporate restructuring or the banks themselves (Pagano et al., 2004).

In the NMS, especially in the transition economies, the bond market for non-financial corporations is still very tiny. Nevertheless, in most of these countries the government has recently made efforts to develop the debt market. For example, in Poland the legal barriers have been eased. Moreover changes in the pension system in those countries should create demand for corporate bonds, and enhance new issues in the long-term.

A recent trend in European capital markets is the creation of stock exchange networks. A very large European market is forming: its main components are Euronext, connecting the Amsterdam, Paris, Brussels and Lisbon stock exchanges, and the Nordic and Baltic stock exchange, which combines the markets of Sweden, Finland, Estonia, Latvia, Lithuania and Denmark. Stock exchange networks satisfy the needs of companies seeking to broaden their shareholders' base and raise capital beyond local markets. Together with the need of setting up a new or renewed stock exchange, this is what has probably induced the small countries of Estonia, Latvia, and Lithuania to join the Nordic and Baltic alliance. It may be the only way they could avoid an almost sure decline of the local market, undermined by the migration of the best companies through cross-listing in international markets[5].

Another characteristic of stock exchange networks is their higher efficiency, granted by extended trading hours, the possibility of remote membership, lower transaction costs and greater information. All in all, an integrated European stock exchange market should lead to greater efficiency. In the future network externalities may contribute significantly to increasing EU-25 capital markets size and activity.

5. OTHER FINANCIAL INTERMEDIARIES

The enlargement of the EU-25 accelerated the process of financial integration and is already evident in the banking industry and capital markets. The developments in each of these main areas have been summarized above emphasizing that the extent of integration across markets is not uniform. The variation is also visible in the case of other financial intermediaries, as mentioned in Section 2.

Insurance companies, investment funds and pension funds are notable features of OMS financial system, while in the NMS these financial institutions have only marginal importance. In part this is due to the breadth of activities and the historically strong position of universal banks. The development of these financial intermediaries is strongly connected with the problem of aging of the population and ongoing pension system reforms.

Within the EU-25 the total investments of insurance companies represented 48 per cent of GDP in 2004, an increase of almost 10 percent since 2001 (Table 4). In the

[5] In the last decade, before the emergence of the European stock exchange networks, cross listing on US stock exchanges was very popular among export-oriented and high tech European companies.

NMS the increase was especially significant: total investments of insurance companies increased almost 30 per cent over the years 2001-2004, mainly because of an increase in spending on life insurance. The per capita life insurance premiums have increased by 37 per cent since 1996 and were equal to €776 in 2003, yet there is a lot of cross-country variation in the average life insurance spending in the EU-25 (Swiss Re, 2000; 2004).

Also investment and pension funds have become a powerful factor in the financial services industry as a result of changes in saving patterns caused by demographic changes and decreasing yields on bank deposits and other traditional financial instruments.

Owing to favorable tax treatment the assets under management by investment and pensions funds are already comparable in some countries to those of the banking industry. The growth of investment and pensions funds was encouraged also by credit institutions and insurance companies as asset management makes up an important share of their non-interest income. Nevertheless, there is still significant potential for growth as weighted average assets managed within the EU-25 without Ireland and Luxembourg amount only to 29 per cent of GDP in 2004 compared to 70 per cent in the US.

6. CONCLUSIONS

In drawing our conclusions about the characteristics of the European financial system, we will briefly compare it to the financial structures in the US and in Japan.

Our first conclusion, in line with related work on financial structures (Allen et al., 2004; Hartmann et al., 2003; Allen and Gale, 2000), is that the European financial system is bank based: in the US, on the contrary, the capital markets (including the bond markets) play the larger role in the financial system. The importance of banks in the US economy is lower than in Japan and even smaller than that of NMS. Thus, the US financial structure may be described as market based. The Japanese financial structure can be described as bank based, even if the size of the stock market is larger than that of the banking system: in fact the capital market is still underdeveloped, if we exclude public bonds.

Also considering the results of previous studies, we conclude that the main characteristics of the financial structure of the EU-25 have not changed in spite of the enlargement. In addition our results show that the existing differences in financial

structures across the most important economic regions and countries have not been affected in the last decades.

Among the characteristics of the banking system, we have observed a high level of concentration, in particular in NMS. This has led to an increase in the European average, that is higher than the value of the concentration index for the US and Japan, probably because of a low level of integration and low foreign bank penetration in OMS. The recent wave of European cross-border mergers and acquisitions may lead to a decrease in the concentration of the banking sector in the long term.

Regardless of this high concentration, the European banking sector, in particular in OMS, is more efficient than that of the US. The factors behind the high inefficiency of the banking sector in the NMS and US are quite different: in the NMS the ratios were driven mainly by the transition economies, because of high interest rates, due to bad loans, and high overheads costs, caused by excessive employment and low application of modern technology[6]. In the US the high overhead costs are mainly due to a still large number of small banks despite the merger boom of the last decade. The significant difference in net margins between the US and other countries reflects divergences in bank activity, rather than in efficiency or competition. In the US banks are more focused on short-term and consumer financing, while in Europe and Japan they are more commercially based and long-term oriented.

In Japan the degree of concentration in the banking sector is between the level observed in the US and the EU-25. However, the efficiency of Japanese banks is close to that of the OMS. The Japanese banks have the lowest overhead costs, while net margins are comparable to the lowest in the OMS. Thus, we may deduce that the level of banks efficiency is affected by the degree of financial development.

As anticipated, the stock and debt market in the US is more active and efficient than that in the EU-25 or Japan. The Japanese stock market is larger than the European one, but smaller, less active and efficient than the average stock market in the OMS. Moreover, the structure of the debt market varies significantly across countries: in Japan and EU-25 it is dominated by government bonds, while in the US

[6] Recent studies present evidence that the efficiency of banks has been increasing in transition economies in recent years see Bonin et al. (2005) and Fries and Tacit (2005).

the larger role is played by financial bonds. The European corporate debt market is the smallest when compared to the US and Japan.

We conclude the comparison examining insurance corporations and pension funds, both of which have grown in recent years in all countries. Nonetheless, insurance corporations are more important in Japan and, to a lesser extent, in the US. In the EU-25 insurance corporations and pension funds still don't play a significant role, particularly in the NMS, due to the importance of public pension schemes.

Summing up, financial systems differ a lot among countries; divergences are higher when comparing European countries with the US and Japan. Differences emerge also between OMS and NMS. The important differences between the OMS and the NMS need to be taken account of by policymakers going forward. For example, prior to the enlargement foreign banks played an important role in very few countries. Thus policies such as supervision by a bank's home regulator could be readily justified. Now, however, with foreign banks important in so many countries this is not so clear. On the other hand, as NMS catch up and converge, differences in financial systems may decline. On the other hand they may not. We strongly believe that more research on European financial integration is needed in order to understand the structural changes in the financial system caused by the accession of new member states.

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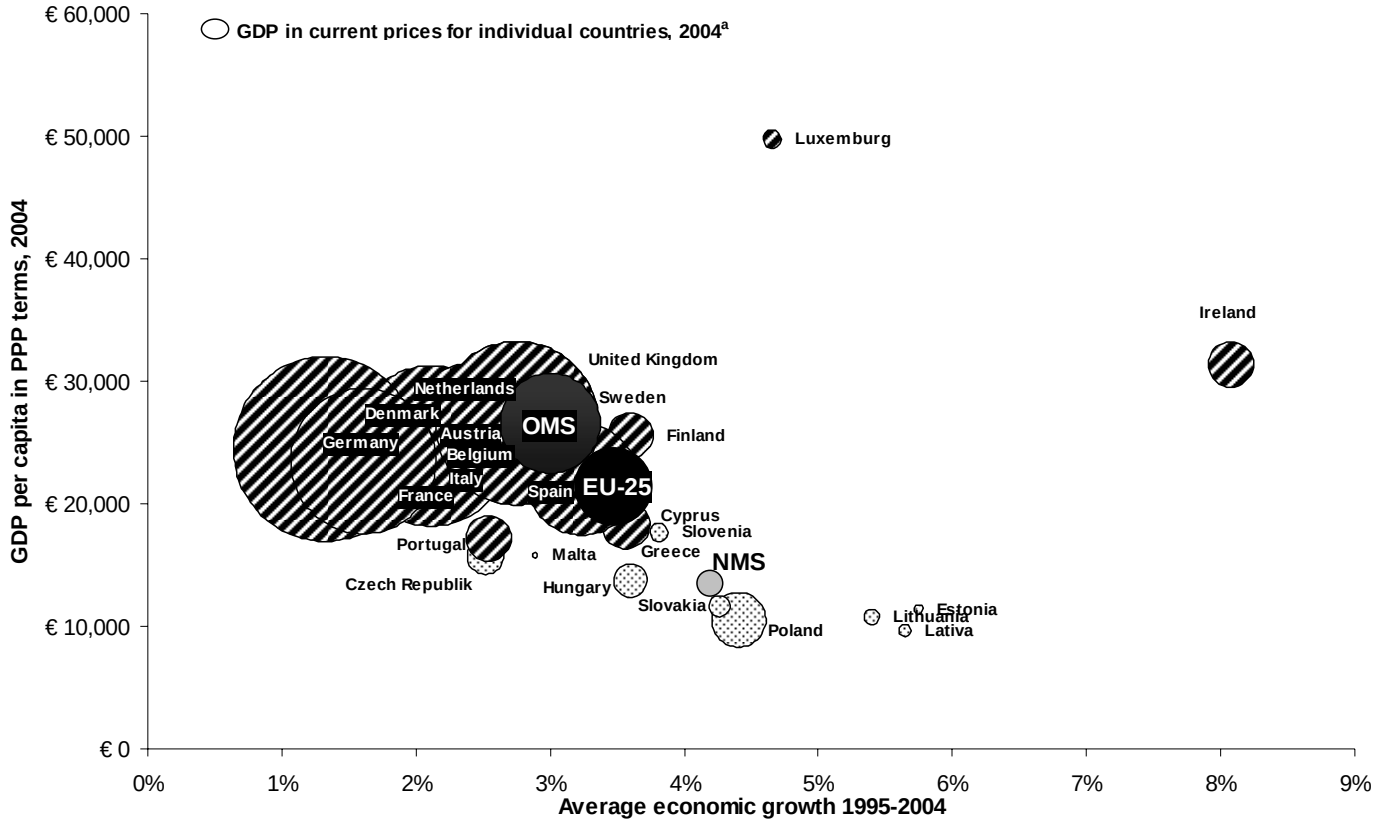
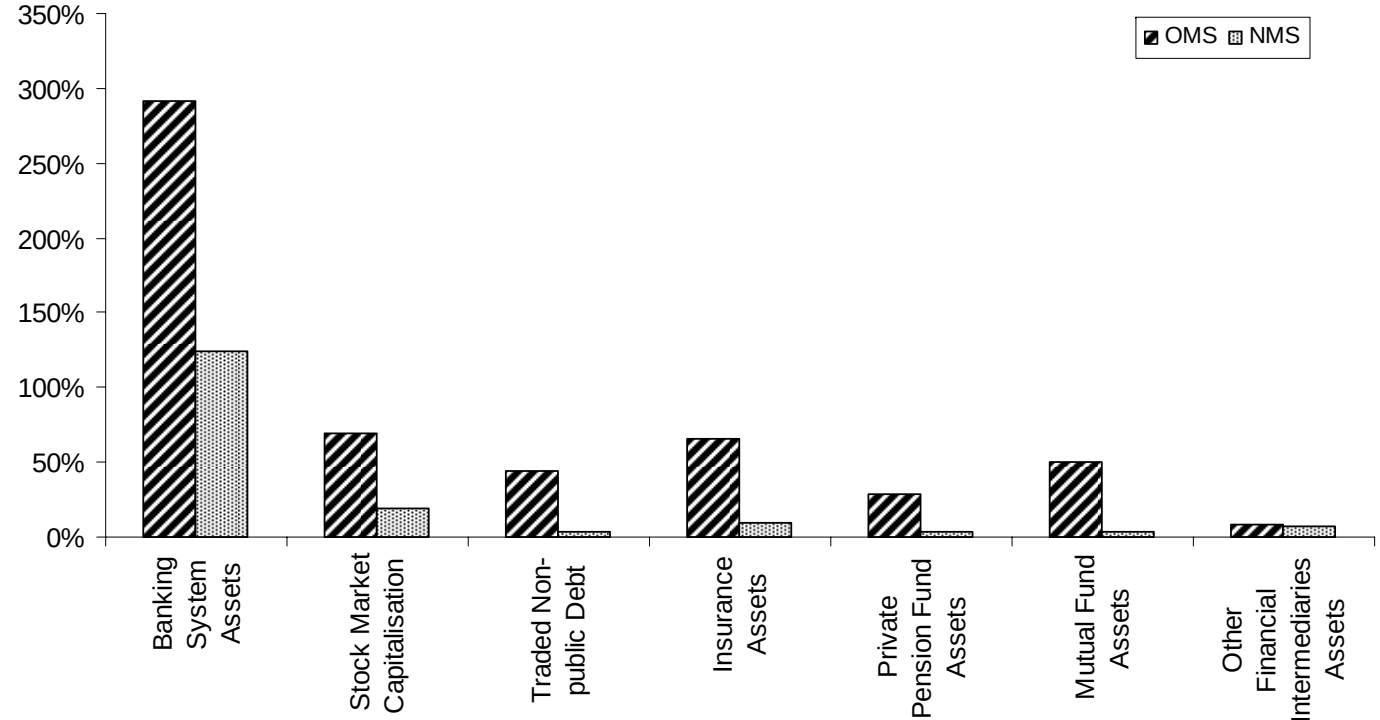
Figure 1: Comparison of economic strength and growth



Source: Eurostat, ECB

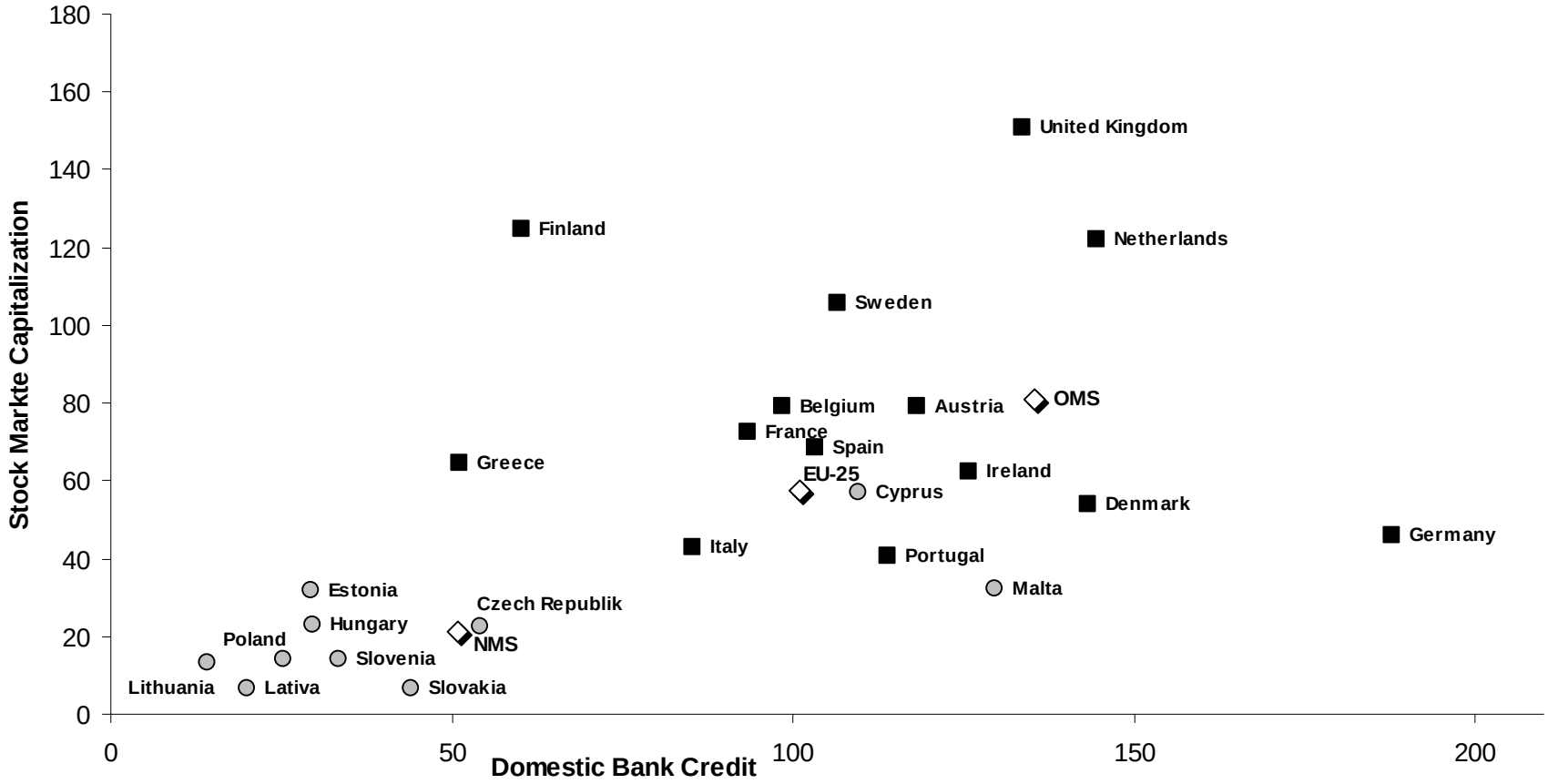
[a] GDP in current prices for OMS, NMS and EU-25 is the average per country

Figure 2 Assets of financial intermediaries as per cent of GDP in 2002



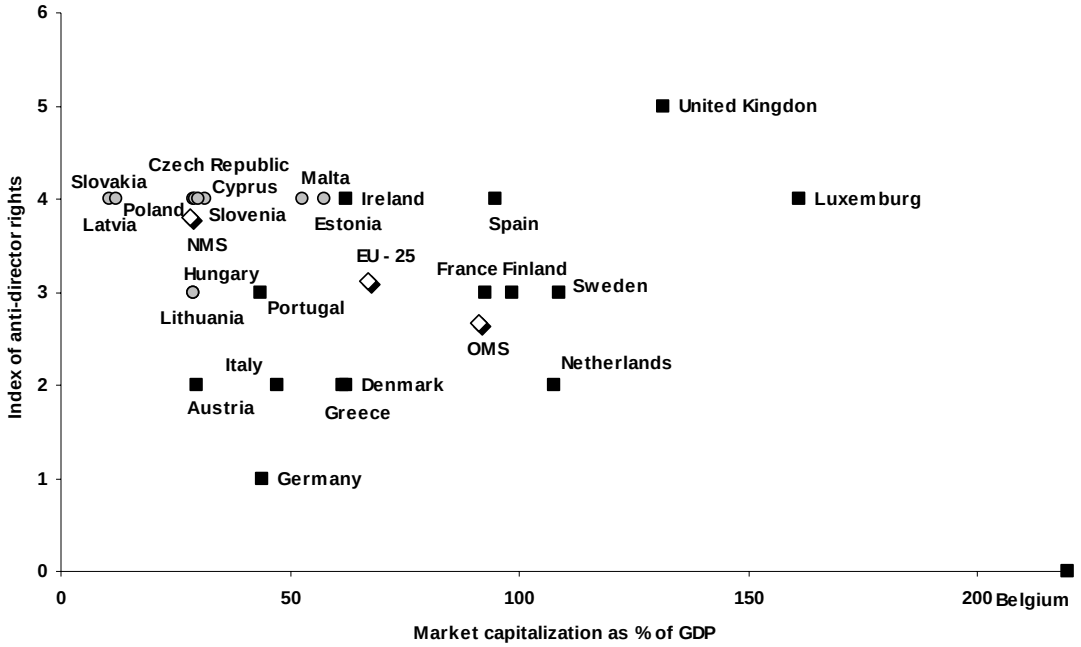
Source: ECB, Eurostat, OECD, National Central Banks

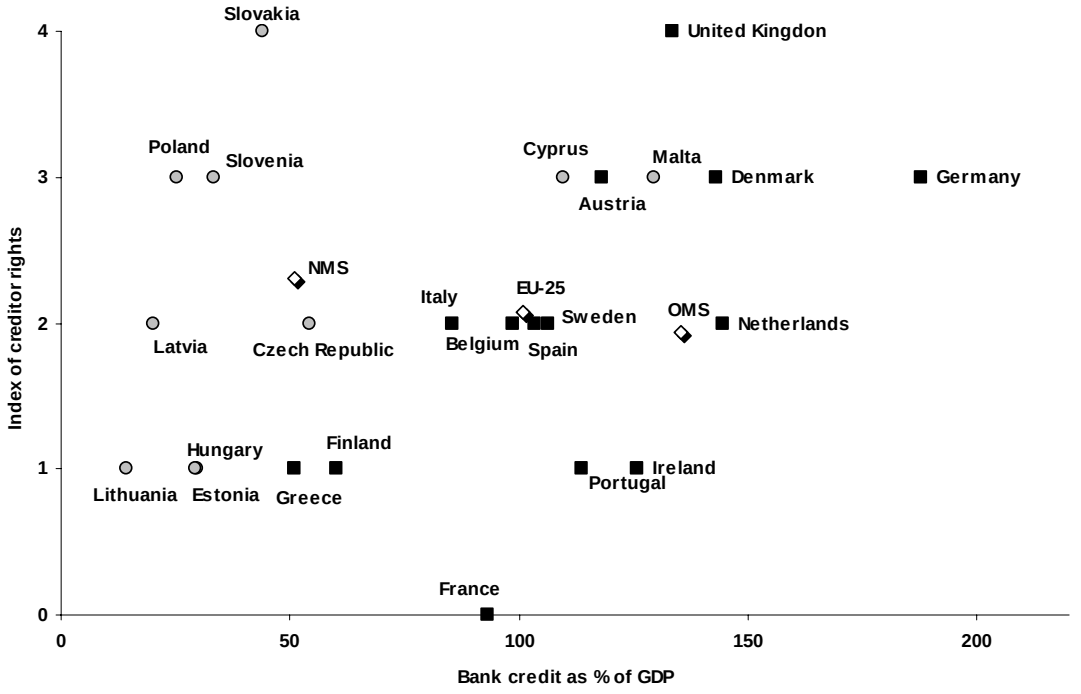
Figure 3 Bank sector vs. Stock market (as per cent of GDP), average 1995-2004



Source: ECB, National Central Banks, WDI and National Stock Exchanges

Figure 4 Legal determinants of financial activity in the EU-25





Source: ECB, LLSV (1998) and companies laws or commercial codes

Table 1 Total assets, credits and deposits of CI as per cent of GDP

	Total assets		Total credits		Total deposits	
	1995	2004	1995	2004	1995	2004
Austria	213.3	268.0	94.0	125.1	85.0	97.9
Belgium	291.2	322.3	74.7	107.2	74.6	142.8
Cyprus	85.9	305.9	80.2	141.1	86.7	126.8
Czech Republic	132.1	99.7	70.7	38.7	62.2	69.2
Denmark	118.0	309.3	n/a	164.4	53.7	62.2
Estonia	35.9	94.4	14.0	65.4	16.3	45.8
Finland	117.0	141.9	66.0	69.4	54.2	53.2
France	173.1	267.9	101.9	92.9	65.8	77.0
Germany	205.0	29.7	n/a	135.8	62.4	113.3
Greece	98.0	137.9	33.6	76.4	57.1	95.6
Hungary	36.1	80.1	22.5	48.3	40.2	44.4
Ireland	129.4	486.4	70.3	176.2	65.9	122.7
Italy	139.0	168.4	95.6	88.0	57.3	58.0
Latvia	31.0	101.3	7.1	56.5	16.6	65.7
Lithuania	27.9	47.5	14.3	30.4	14.3	30.1
Luxemburg	2876.0	2708.5	n/a	467.3	n/a	859.4
Malta	177.9	476.8	95.8	200.1	114.5	204.9
Netherlands	216.0	343.3	112.5	174.1	77.9	122.4
Poland	48.8	67.6	17.3	34.8	25.7	45.6
Portugal	158.0	242.5	70.5	136.8	76.1	102.2
Slovakia	76.0	87.7	36.7	36.3	54.9	21.7
Slovenia	61.1	93.6	25.7	47.3	31.7	56.7
Spain	159.0	205.0	102.3	120.6	73.6	104.4
Sweden	152.0	208.9	114.1	114.5	40.4	51.2
United Kingdom	239.0	406.4	122.3	142.2	72.4	117.6
EU-25 average [a]	181.7	215.1	71.6	114.5	63.4	94.3
OMS average [a]	187.6	219.1	76.5	119.9	65.8	96.9
NMS average [a]	66.6	84.7	31.8	41.9	38.4	50.6

Source: ECB, National Central Banks and Eurostat n/a= not available

[a] GDP in PPP terms weighted averages

Table 2 Structure of the banking sector

	Number of CI		Asset share of foreign CI		CR-5		HHI	
	1997	2004	1997	2004	1997	2004	1997	2004
Austria	995	796	3.4	19.4	48.3	43.8	515	552
Belgium	131	104	30.4	23.2	54.0	84.3	669	2100
Cyprus	n/a	14	10.2	30.1	91.6	69.4	2747	1365
Czech Republic	50	74	24.0	91.8	67.0	64.0	2533	1103
Denmark	213	202	4.5	16.2	70.0	67.0	1431	1146
Estonia	12	9	29.0	98.0	83.0	98.6	4312	3887
Finland	348	363	8.4	59.5	88.0	82.7	2150	2680
France	1,258	897	10.4	11.4	40.0	44.7	449	623
Germany	3,420	2,148	4.3	6.3	17.0	22.1	114	178
Greece	55	62	15.8	24.8	56.0	65.0	885	1069
Hungary	286	217	53.0	77.0	53.0	52.7	2101	795
Ireland	71	80	24.8	45.4	41.0	43.9	500	556
Italy	935	787	7.0	7.7	31.0	26.0	201	230
Latvia	37	23	55.0	57.8	51.0	62.4	1450	1021
Lithuania	37	74	41.0	93.0	84.0	78.9	2972	1854
Luxemburg	215	162	92.5	94.1	23.0	29.7	210	304
Malta	n/a	16	47.1	39.1	98.0	78.7	4411	2015
Netherlands	648	461	7.2	12.1	79.4	84.0	1654	1726
Poland	1,378	653	15.3	67.6	46.2	50.2	859	692
Portugal	238	197	14.8	26.1	46.0	66.5	577	1093
Slovakia	29	21	30.0	97.0	63.0	66.5	2643	1154
Slovenia	34	24	5.0	38.0	62.0	64.1	2314	1425
Spain	416	346	12.5	11.5	45.0	41.9	285	482
Sweden	237	212	2.5	8.7	59.0	54.4	830	854
United Kingdom	557	413	52.2	51.3	24.0	34.5	208	376
EU-25 average [a]	504	334	20.3	29.2	33.3	44.8	389	670
OMS average [a]	640	482	15.8	19.0	33.0	44.6	370	662
NMS average [a]	233	113	23.0	70.4	61.3	60.3	2024	1087

Source: ECB, National Central Banks and BankScope n/a= not available

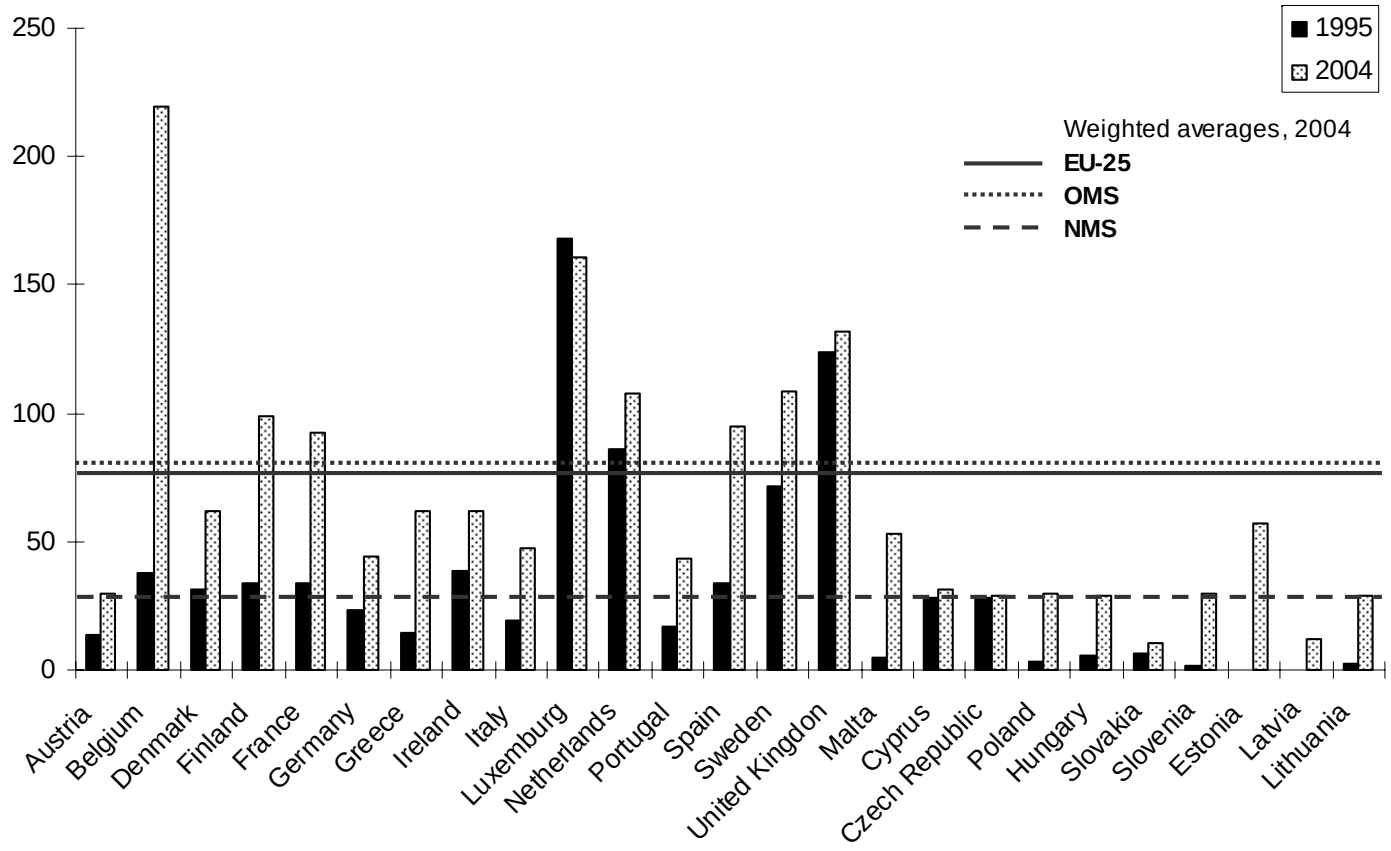
[a] credit institutions assets weighted averages

Table 3 Indicators of banking sector performance

	NIM		Overhead costs		Cost/Income		ROA	
	1997	2003	1997	2003	1997	2003	1997	2003
Austria	1.82	1.80	1.69	1.63	66.95	65.62	0.25	0.41
Belgium	1.74	1.40	1.29	1.33	66.08	67.72	0.65	0.45
Cyprus	2.24	2.51	2.13	2.29	63.37	67.39	0.75	-0.06
Czech Republic	3.61	2.54	2.66	2.52	53.37	61.48	0.44	1.28
Denmark	1.97	1.36	1.36	0.90	58.87	52.64	0.84	0.58
Estonia	6.14	4.03	3.92	2.80	53.12	52.86	3.64	2.17
Finland	3.62	1.92	1.99	2.09	57.15	59.06	1.50	1.00
France	1.62	1.15	1.73	1.47	72.01	67.37	0.31	0.40
Germany	2.31	1.86	1.67	1.44	62.48	65.93	0.30	0.18
Greece	2.5	3.51	2.63	2.59	64.66	59.89	0.71	0.94
Hungary	5.05	4.62	4.23	4.01	65.81	63.15	1.75	1.73
Ireland	2.27	1.29	1.91	0.85	60.14	51.83	0.92	0.68
Italy	2.87	2.99	2.68	2.46	73.73	69.59	0.36	0.75
Latvia	6.34	3.1	5.57	3.18	65.32	60.68	3.27	1.41
Lithuania	7.16	3.42	6.14	3.39	80.07	79.98	-0.22	1.27
Luxemburg	0.79	0.68	0.62	0.78	46.4	54.53	0.56	0.54
Malta	2.45	2.00	1.67	1.49	53.22	47.11	0.93	1.08
Netherlands	1.93	1.63	1.91	1.72	72.21	70.34	0.58	0.47
Poland	5.61	3.38	3.35	3.84	55.04	68.36	1.97	0.43
Portugal	2.79	2.23	2.22	1.79	59.88	61.06	1.05	0.79
Slovakia	2.63	3.58	3.52	3.28	79.08	70.73	-1.26	1.34
Slovenia	4.48	3.29	3.61	3.06	59.15	64.12	1.11	0.88
Spain	3.16	2.75	2.46	1.95	61.58	54.31	0.89	0.94
Sweden	1.48	1.54	0.93	0.94	50.56	49.48	0.48	0.65
United Kingdom	1.93	1.69	1.75	1.77	60.75	61.03	0.66	0.63
EU-25 average	3.14	2.41	2.55	2.14	62.44	61.85	0.90	0.84
OMS average	2.19	1.85	1.79	1.58	62.23	60.69	0.67	0.63
NMS average	4.57	3.25	3.68	2.99	62.76	63.59	1.24	1.15

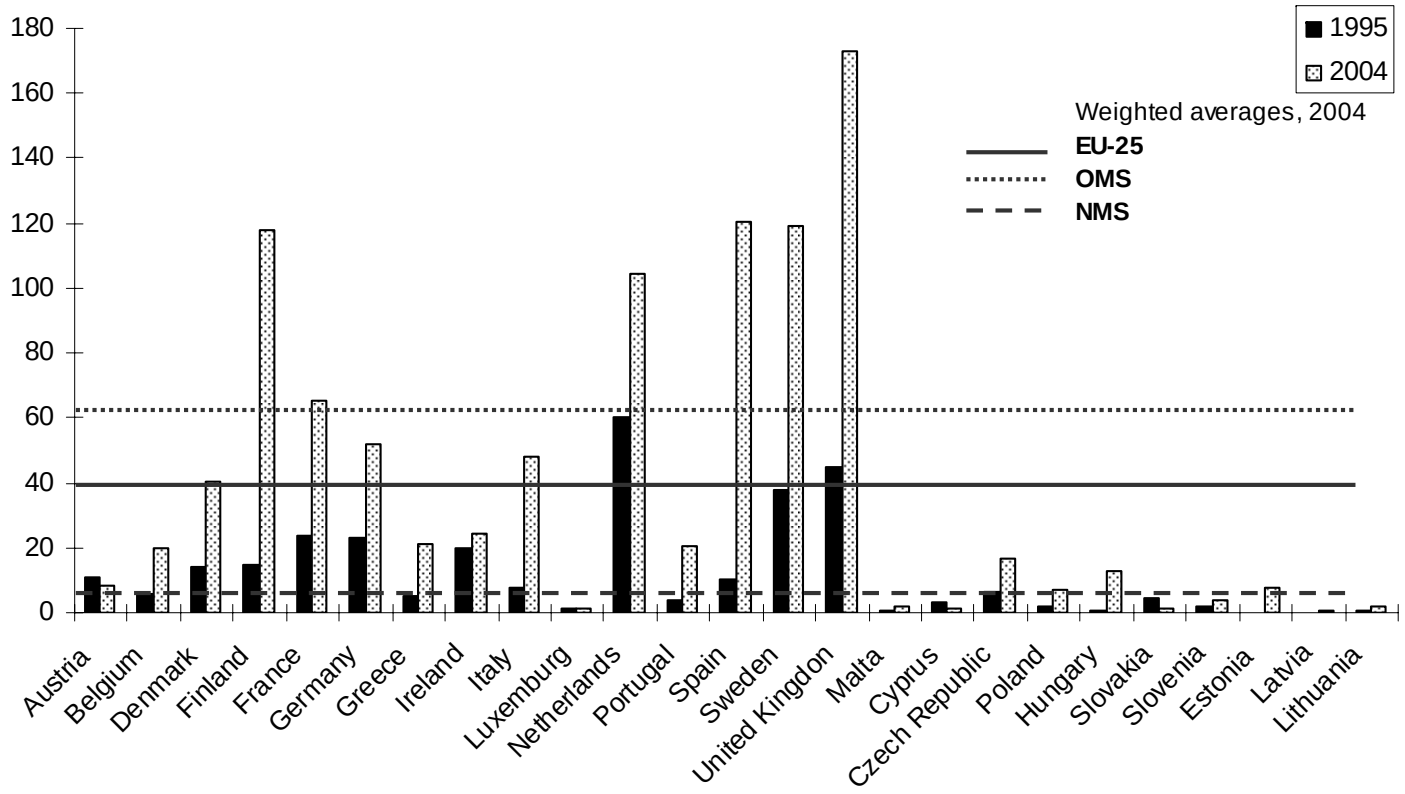
Source: BankScope

Figure 5 Domestic stock market capitalization as per cent of GDP [a]



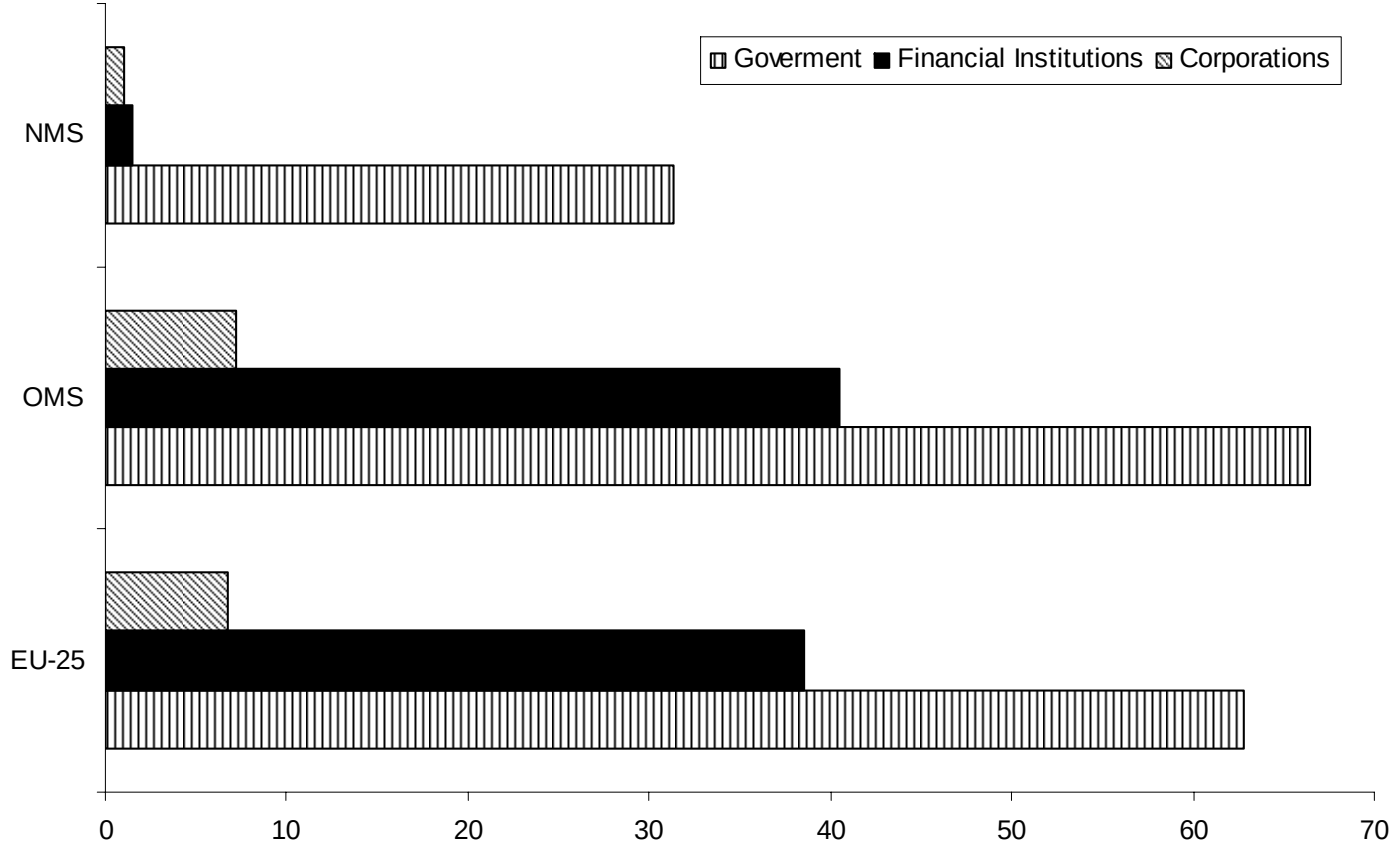
Source: WDI, World Federation of Stock Exchanges, National Stock Exchanges
[a] GDP in PPP terms weighted averages

Figure 6 Total value equities traded as per cent of GDP [a]



Source: WDI, World Federation of Stock Exchanges, National Stock Exchanges
[a] GDP in PPP terms weighted averages

Figure 7 Domestic debt market as per cent of GDP, 1995-2004 [a]



Source: BIS, IMF, National stock exchanges
[a] GDP in PPP terms weighted averages

Table 4 Total investments of insurance companies and total assets under management as per cent of GDP

	Insurance companies		Pension funds		Investment funds	
	1995	2004	1995	2004	1995	2004
Austria	26.6	28.8	3.7	4.3	45.3	51.7
Belgium	45.5	57.7	5.7	4.1	34.1	33.4
Cyprus	n/a	n/a	n/a	n/a	n/a	n/a
Czech Republic	7.2	9.3	2.4	3.7	4.0	4.3
Denmark	53.8	63.3	23.3	192.8	21.2	39.2
Estonia	2.3	3.4	0.0	1.9	n/a	3.5
Finland	23.7	25.5	n/a	n/a	9.0	14.4
France	55.9	59.9	0.0	0.0	43.3	48.5
Germany	44.6	49.3	n/a	11.7	37.6	38.9
Greece	9.2	7.2	0.0	0.0	13.2	9.5
Hungary	4.9	4.4	4.0	6.6	5.0	5.3
Ireland	48.2	58.2	43.7	42.0	242.7	292.5
Italy	25.2	29.4	0.5	0.9	31.5	20.8
Latvia	2.2	2.0	0.2	0.4	0.2	0.5
Lithuania	1.6	2.3	0.0	0.1	n/a	n/a
Luxemburg	130.0	130.3	n/a	n/a	3,878.3	3,797.9
Malta	10.9	13.9	0.0	0.0	13.0	23.5
Netherlands	66.3	65.8	100.8	106.9	25.1	20.1
Poland	5.1	7.1	2.7	7.9	1.7	4.7
Portugal	20.6	24.6	11.5	10.7	19.8	21.9
Slovakia	5.6	7.2	n/a	n/a	n/a	5.0
Slovenia	6.0	8.9	0.9	2.0	11.5	8.0
Spain	21.9	24.3	6.6	7.7	23.3	24.8
Sweden	0.1	31.3	0.0	0.0	35.6	42.1
United Kingdom	108.6	95.0	73.6	64.5	22.6	24.8
EU-25 average [a]	46.6	48.3	17.6	21.9	39.6	41.0
OMS average [a]	50.3	52.2	19.0	23.5	42.9	44.4
NMS average [a]	5.2	6.7	2.3	5.4	2.8	4.6

Source: ECB, National Central Banks and Eurostat n/a= not available

[a] GDP in PPP terms weighted averages