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FINANCIAL SECTOR, REGULATION AND CORPORATE PERFORMANCE: THE CASE OF SPAIN

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Abstract

With the advent of the EMU and the widespread financial integration many efforts have been undertaken by European financial authorities. In the case of Spain, there are many regulatory and institutional factors that condition a deeper financial integration. This paper analyzes the relationships between corporate performance and the financial sector. The aim of the paper is twofold. Firstly, it seeks to overview the main characteristics of regulation and financial structure in Spain. On one hand, the dynamic role played by the Bank of Spain in supervising banks and the implications of a recent Financial Act (Ley Financiera) are underlined. On the other hand, regarding financial markets issues, we examine the importance of the National Financial Markets Commission (CNMV) as well as the medium-term effects of the Financial Markets Reform Act of 1998. Secondly, the paper offer a synthesis of the main indicators illustrating the relationships between financial markets and corporate performance, which is markedly influenced by the bank-based profile of the Spanish financial system and the universal nature of bank business. Financial deepening is also presented as one of the main facts explaining corporate financing, with an enormous development of assets such as mutual funds, a trend that has been partially instigated by a non-neutral income tax policy. Besides, some other indicators that reflect the state and the structure of corporate finance are computed and presented including market capitalization issues, lending and other pricing spreads or the cost of the use of financial capital. The paper ends with an empirical analysis of the impact of bank deepening and bank dependence on economic growth in Spain (260 words).

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1. INTRODUCTION*

The financial system has undergone an intense process of transformations in recent years. Integration, technological innovation and competition only are some of the main forces behind those changes, which have been particularly intense in Europe with the advent of a single market for financial services and the single currency. The role played by regulation within this context is crucial, since the benefits of a greater integration –as increasing competition, efficiency and product quality in financial services- are frequently limited by structural, legal, historical and even cultural differences across countries.

One of the main objectives when seeking a higher integration and financial development is to provide firms with appropriate financial mechanisms to turn them into productive capital and promote economic growth. In particular, financial deepening –understood as the diversification and modernization of financial markets and institutions- and financial dependence –when household and non-financial firms depend basically upon bank lending- play a key role in the link between finance and economic growth. These aspects should be particularly taken into account by regulators in Europe, where most of the corporate sector is composed by small and medium-sized enterprises (SMEs) with a very limited access to capital markets. This concern has been expressed by the European Commission –among many other regulatory initiatives- in the Financial Services Action Plan (FSAP), aiming to provide firms with a common legal framework for integrated wholesale markets and secure and open retail markets.

There still are many national differences remaining in terms of bank dependence or access to capital markets by firms across countries. This study refers to the relationship between financial system characteristics, regulation and corporate finance in Spain. The bank-based profile of the Spanish banking system as well as the considerable dependence on bank finance by firms are presented as the main challenges for a higher corporate development. The objective of the paper is twofold. On one hand, it seeks to analyze the evolution of the relationship between financial sector characteristics, regulation, and corporate finance. Secondly, financial deepening and corporate financial dependence are presented as the main concerns for a greater development of corporate finance in Spain, showing the main barriers still present in the markets as well as the main challenges for regulators in the near future.

* The author wishes to acknowledge and thank the technical help and comments from Francisco Rodriguez and also thanks the comments from participants at the International Conference on European Financial Systems and the Corporate Sector celebrated in Maastricht during 4-5 October 2002.

The structure of the paper is divided into four main sections following this introduction. In section 2, the legal framework and structure of the Spanish Financial System is presented together with the main recent regulatory initiatives to achieve a higher financial deepening. Secondly, some relevant indicators are presented in section 3 to explain the main facts affecting corporate finance in Spain in recent years. Section 3 relies on the relationship between financial deepening and financial dependence, underlining the importance of bank lending when capital and bond markets are not significantly developed. The results of an empirical test reveal the relevance of bank lending –compare to other financial activities- for economic growth in the territories where non-financial firms operate. The paper ends with a summary of the main conclusions and policy implications.

2. REGULATION AND FINANCIAL STRUCTURE: RECENT DEVELOPMENTS IN SPAIN

2.1. Financial sector regulation and corporate finance: the case of Spain

A classical definition of financial systems distinguishes between bank-based –where financial institutions dominate- and market-based –where most of the financial transactions take place in capital markets. However, this distinction is not clear anymore since the boundaries between bank and market business have been eroded intensively in most financial systems (Scholtens, 1999). In any case, regulation has partially explained the remaining differences since the scope of financial institutions activities has been different in the various countries. These differences become essential to explain the dynamics of the financial system structure, altering factors such as saving, investment and risk exposition decisions in the private sector and the interactions between financial intermediaries and capital markets.

In Spain, as in many other continental countries of Europe, banks have conducted the largest part of the financial business, while markets had a comparatively low development until recent years. However, some European countries –such as the United Kingdom- represent an exception and has been traditionally classified as an example of a market-based system. These differences across countries may affect the corresponding financial decisions and performance of their firms significantly. As noted by Allen and Santomero (2001), one of the main characteristics of market-based financial systems is the so-called cross-sectional risk diversification, when the risk and volatility of an agent is transferred to other agents although this diversification does not reduce the aggregate risk of macroeconomic shocks[1]. However, in bank-based systems, intertemporal risk smoothing is possible since financial intermediaries dominate most of the financial flows of corporations and borrowers and banks may take advantage of contractual lending-relationships. Banks may increase their loan rates when the economy is following an upward trend and reduce them at the advent of a recession. Since corporations depend mainly upon bank finance in bank-based systems, intertemporal smoothing may benefit them. Therefore, regulation does not only explain the structure of the financial systems but also their efficiency. As a general trend, most of the traditional market-based systems (i.e. US) have expanded the scope of their bank activities recently, seeking the benefits of the 'broad banking' (Barth, Brumbauhg and Wilcox, 2000).

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1 In these financial systems, households and firms' savings are more diversified between financial markets and traditional banking products.

In Europe, there are some ambitious initiatives to improve financial services and achieve greater integration and liberalisation. The Financial Services Action Plan (FSAP) approved in 1999 is the main recent initiative of the European Commission for the integration and improvement of efficiency in European financial services. The FSAP may affect corporate finance, mainly, from two perspectives: (1) the development of integrated and open wholesale and retail markets, where corporations may access to finance easily; (2) revising and reinforcing the procedures and prudential rules that determine financial relationships (mainly lending relationship) in a wider and fully integrated market. As expressed above, the relationship between banks' decisions and firms' finance is considered as one of the main concerns for further development of corporate finance, and the FSAP aims both to increase (and homogenize across countries) the access of firms to capital markets and to foster lending relationships controlling for the potential risks of an integrated framework. In any case, the FSAP is still being implemented and, although there are various significant improvements in regulation already under way, it is still too soon to assess the final impact and implications of this plan.

From the domestic perspective, the concerns of Spanish regulators are in line with those expressed in the FSAP. Specifically, there are two main issues for further advance in corporate finance. First of all, the size, openness and diversification of capital markets is not still considerably developed and almost only very large firms have access to market finance in favorable conditions. In particular, the growth and diversification of private bond markets is still very limited. Secondly, bank credit is the main source of finance for SMEs, which represent more than the 90% of the corporate sector in Spain and lending is seriously considered by regulators as a basic link between finance and business. To understand how regulation may affect firm finance –both from market or banking institutions- it is necessary to study first how markets, institutions and supervisors are related. The structure of the Spanish Financial system is briefly summarized in Diagram 1. There are three main executive and supervising institutions: the Bank of Spain, the National Financial Markets Commission (CNMV) and the DG of Insurance. Depository and other credit institutions, together with rating and currency exchange agencies are supervised by the Bank of Spain. The mortgage and government bond markets –the latter in coordination with the CNMV- are also supervised by the central bank. However, the main functions in supervising capital markets correspond to the CNMV, including stock exchange, private bond markets (AIAF) and derivatives markets, together with investment services companies and mutual, securitization and venture capital funds. Finally the DG of Insurance, coordinated with the Ministry of Finance is in charge of insurance and pension funds companies.

Having this financial sector structure in mind, there are three questions that will deserve specific attention in this paper:

(1) the regulatory boundaries among institutions shown in Diagram 1 are not clearly defined in practice since banks are offering a wide range of financial products including some of the services supplied by investment firms, mutual and pension funds or insurance companies;

(2) regarding market evolution, only stock exchange and derivatives markets have experienced a considerable growth in recent years, although only large firms seem to have benefited from those changes while SMEs still depend essentially on bank credit. Bond markets -specially private bonds (AIAF)- clearly need further development to provide SMEs alternative sources of financing;

(3) Financial disintermediation has been intense in Spain, where the very high growth of mutual funds during the 1990s has been the main paradigm. However, the mutual funds business together with others such as insurance or pension funds, has been mainly conducted and dominated by banks so that this process has been renamed as 're-conducted disintermediation'. The main implication for corporations is that this financial deepening has not represented an opportunity for financial diversification since the equity in which mutual and pension funds invest in belong to large corporations.

Bearing these considerations in mind, it is worthwhile summarizing some of the recent regulatory initiatives that may alter the current structure of the Spanish Financial System.

2.2. Recent regulatory developments in capital markets and bank lending

One of the most important previous regulatory events was the Reform of Capital Markets undertaken in 1998. This reform incorporates the Investment Services Directive (ISD) -EC 93/22- to the Spanish legislation providing primary and secondary markets with a higher efficiency in a cross-border basis under the "single license" and "mutual recognition" principles. There were several actions seeking to improve efficiency in capital markets. First of all, with this reform the Spanish market for private bonds (AIAF) became official. Another improvement in capital markets was the introduction of the necessary procedures to improve transparency and efficiency in the clearing and settlement systems. Third, following the ISD, the reform refers, for the first time, to the agents that may operate in the markets as 'investment services firms', including bank intermediaries among these agents and promoting the interaction between markets and financial institutions. Together with capital markets, the reform contributed also to the development of institutional investors in Spain. First of all, the reform permits mutual funds to invest in derivatives, both negotiated and non-negotiated in organized secondary markets. The reform also created the so-called 'funds of funds' -as mutual funds companies that invest in shares or assets of other companies. It also regulates the mutual funds investments in non-quoted equity shares which, in turn, could contribute to increase the sources of finance for SMEs, although the growth of these funds has been very limited.

The reform of capital markets contributed, then, to the expansion of institutional investors in Spain, although some important policy actions took place before. In particular, the tremendous growth of mutual funds during the 1990s –as the main paradigm of the disintermediation process in Spain- was the result of various facts. First of all, the introduction of a complete legal framework for the mutual funds industry during the 1980s. Secondly, the growth of capital markets and the changes in the patterns of investment of households and firms, more orientated to those markets. Finally, the several personal income tax reforms that were undertaken during the 1990s in Spain were clearly favorable to mutual funds compared to traditional savings instruments such as bank deposits. The most recent reforms have contributed to diminish the comparative advantages of mutual funds investments although they have also contributed to the development of the disintermediation process in Spain by fostering investment in insurance and pension funds assets.

There are other more recent regulatory initiatives in Spain. One of the most interesting initiatives at present is the project –still to be implemented- for a New Financial System Reform Act (so-called "Ley Financiera") by the Ministry of Finance. One of the main objectives of this act is to improve the link between finance and real economy to achieve greater economic growth and employment by providing SMEs with better and wider financial conditions. Primarily, there are two main actions in this Act that may affect SMEs finance notably: (1) the first one is the widening of their financial alternatives: easier access to factoring techniques and more flexibility for banks to securitize and have higher liquidity from mortgage loans; (2) the second refers to innovative SMEs, expanding the possibilities of venture-capital firms to acquire shares of non-quoted corporations and to invest in companies within their own business unit. Together with these actions, there are some others that may contribute to develop certain relevant aspects of the Spanish financial system. First of all, credit cooperatives are allowed to increase their industrial participations portfolios -which, in turn, may favor corporate finance- as well as to expand their liabilities with subordinated debt. Secondly, mutual funds may also benefit from this Act since they will be allowed to transform a percentage of their equity portfolio in negotiable securities. This reform will also affect the insurance market, as the adoption of the information requisites between European and third countries' insurance industry supervisors. Some other actions related to supervision may be also mentioned as the reinforcement of the Risk Information Central of the Bank of Spain as a public service to improve efficiency and transparency in the lending activity of credit institutions. Finally, the efficiency of capital markets may be also improved with this Act by integrating all clearing and settlement systems within a single system for public and private debt and quoted equity shares.

Overall, the measures contained in this Act could contribute to the expansion and efficiency of private debt markets –by adding securitization or mutual funds shares- as to promote lending and investment in SMEs.

In any event, since bank lending is the main source of finance for Spanish corporations, regulators should also consider the changes that may affect this finance channel as to ensure that firm access to finance is guaranteed. There are, at least, three aspects that should be mentioned. Firstly, the disentermediation process has altered the bank lending mechanisms in Spain where deposits growth –as the main liquidity source for bank credit- has been affected negatively by mutual funds expansion since both savings instruments have been considered as competitive by households and firms. However, the non-neutrality of income tax treatment noted above have been clearly favorable to mutual funds until recently. Although banks have managed to obtain liquidity from the domestic and foreign interbank markets, these regulatory actions could alter the financial channels artificially, increasing the probability of credit rationing.

Secondly, securitization may represent one of the most attractive alternatives to improve lending management and liquidity by transforming mortgage credit into negotiable securities, contributing to the expansion of private securities markets[2].

Finally, one of the main concerns of the Spanish regulators has been the adoption of new prudential rules for lending activities. The substantial growth of bank lending from the second half of the 1990s has been accompanied by a parallel economic upturn and a significant decrease of loan defaults. However, this lending expansion may result in a large increase of defaults at the event of an economic downturn. Banking should be seen as a procyclical business since banks tend to reduce lending during economic downturns because of their concern about loan quality and repayment probability. Moreover, this behavior exacerbates the economic downturn since it affects negatively the investment activities of the companies that depend upon bank finance. This contingency has led the Bank of Spain to the establishment of the so-called procyclical or dynamic provisions, imposing banks to increase these provisions when the business cycle is shaping and reducing them during downturns to favor intertemporal risk smoothing and loan supply[3]. This measure can be considered as a supplement to the adoption of the II Basle Capital Adequacy Accord. The main innovations in this accord refers to the introduction of different sources of risk under control -including not only credit risk but also market and operative risks- and the possibility of incorporating firm-level internal rating-based systems under certain conditions. As for the procyclical effects of these actions, it has been shown that both the new Basle standards and the internal-rating based systems may exacerbate

2 And to the so-called ‘credit improvement’ defined as the re-distribution of the credit risk through securitization.
3 See Allen and Santomero (2001)

the procyclical effects of banking business and their macroeconomic implications (Altman and Saunders, 2001) and, dynamic provisions may help to smooth these undesirable effects. These provisions are already implemented by the Bank of Spain –which was a pioneer in this context- since 2001, while the FSAP predicts that the new prudential rules under the II Basle Accord standards will be fully adopted by European Union countries by 2005.

All in all, a high profile of the supervisory authorities (especially, the Bank of Spain) and the advances in financial regulation (or deregulation) appear to have always had a substantial (positive) effect on the behaviour and performance of the Spanish financial sector and capital markets. This emphasizes the role of adequate financial rules for a favorable evolution of financial markets and their contribution to improving corporate performance and economic growth.

3. FINANCIAL MARKETS AND CORPORATE FINANCE IN SPAIN

The bank-based profile of the Spanish financial system and the recent changes with the disintermediation process are presented in this section as the main facts that explain the current state of corporate finance in Spain. The liberalization and integration trends have resulted in higher financial competition and diversification. Assets such as equity or mutual funds shares have grown substantially compared to traditional instruments such as loans or deposit accounts. However, diversification has altered the financial assets portfolio of households and firms while loans still represent the main activity of bank institutions and the basic source of finance for private agents. Disintermediation has contributed to this diversification of financial assets, although this process also partially explains why bank intermediaries have channeled most of these new financial flows, why capital markets do not represent an alternative for SMEs finance and why bank lending still prevails as the main funding mechanism for non-financial firms.

3.1. A bank-based profile in corporate finance

The increasing competition with financial liberalisation and integration have considerably altered the financial structure of firms in Spain. Figure 1 reflects the evolution of the financial structure of Spanish corporations from 1995 to 2001. The values shown represent the contribution of the different financial sources to the total change in the net incurrence of liabilities of non-financial firms. The bank-based profile is clearly illustrated here, where loans –although following an irregular evolution- have risen their contribution to the growth of the net incurrence of liabilities from 26.3% in 1994 to 48.4% in 2001. The contribution of shares and other equity to the change in the liability structure has been even more irregular, ranging from 1.7% in 1997 to 39.3% in 2000, depending on the evolution of stock markets. It is worthwhile noting, nevertheless, that the proportion of shares and other equity in the liability side of corporations' balance sheet has risen from 39.06% in 1994 to 51.13% in 2001 (not shown). However, as we will see later on, this growth can be partially explained by the increasing market value of quoted equity and, therefore, large corporations have been, in practical terms, almost the only ones benefited by these changes. The rise in the relative weight of loans can be partially explained by a decrease in the contribution of trade credits, advances and other accounts payable –from 60.1% to 36.5% during 1995-2001- although they are still very important in the liability structure of Spanish non-financial firms. Other sources of finance, however, show an insignificant or even negative contribution to the change in the financial structure as it can be observed in Figure 1 for insurance technical reserves and, particularly, for securities other than shares –reflecting the small size of private bond markets in Spain.

At first sight, Figure 1 leads to two main conclusions: (1) non-financial (and mainly large) firms are benefiting from the upward trend in equity markets -although this trend has reversed in 2002 (not shown)- while securities markets are progressively losing their weight in the liability structure; and (2) loans still represent one of the main sources of financing of these corporations.

It is also helpful to study the specific evolution of bank lending compared to other sources of financing compared with the evolution in other European countries. First of all, it is important to show how corporations have benefited from equity market finance. In order to explore the dynamic evolution of this market, Table 1 presents the percentage of capital raised by newly admitted companies compared to the total capital raised in stock markets from 1995 to 2000. A very active behavior is observed in European stock markets during this period. Newly admitted firms in the EU-15 have changed from representing the 28.45% of capital changes in 1995 to 48.71% in 2000. These firms account for more than a half of the capital growth in Spain and Italy at the end of the period and the changes have been noticeable in Germany (21.27% to 90.36%), France (1.48% to 28.26%) or the United Kingdom (23.13% to 40.50). Has this evolution lead to a loss of importance of bank lending in European corporate finance compared to stock market financing? This comparison is undertaken in Table 2 where bank loans, securities and stock market capitalisation are expressed as a percentage of GDP for Spain, France, Germany, Italy the United Kingdom and the average of the European Union (EU-15) for 1991, 1995 and 2000. The table shows the significant financial dependence on bank credit in certain countries and, in particular, in Spain and Germany where it represents the 65.49% and 80.63% of domestic GDP, respectively, in 1991, changing to 99.82% and 118.48% in 2000. In any case, it should be noted that the percentage represented by bank credit increased in almost all countries –rising from 76.60% to 93.68% in the EU-15 during the same period- with the single exception of France.

Finally, with regard to equity financing, its relative weight has risen substantially in Europe, moving up the stock market capitalisation from 34.66% (as a percentage of GDP) in 1991 to 107.47% in 2000 for the EU-15. This percentage is particularly high in the United Kingdom and France (187.22% and 109.68% in 2000, respectively). Spain has multiplied the percentage of stock market capitalisation by 3 during the 1990s, reaching the 88.58% in 2000. The growth has also been intense in Germany and Italy, where this ratio is around 70% at the end of the period. It should be noted, however, that the growth observed in stock market capitalisation has taken place almost entirely during the second half of the 1990s, except in the United Kingdom, where capital markets were already significantly developed. In any case, stock markets have only become more significant than bank credit in France and Italy. As for securities other than equity, the Italian case is very different from the rest where the value of these assets in terms of GDP is clearly larger than in the rest of countries (118.37% in 2000, while 86.57% for EU-15) although this development correspond mainly to the traditional role played by public debt in this country. Apart from this case, the securities industry is still modest compared to bank lending and stock markets in the rest of financial systems although it has risen considerably in Germany and France, where private bonds are becoming increasingly more popular (90.44% and 82.46% in 2000, respectively).

3.2. The impact of disintermediation

Although equity markets seem to have expanded substantially in Europe in recent years together with bank credit, we wonder to what extent non-financial firms have benefited from these changes. The characteristics of the disintermediation process –as the decrease in the relative weight of the assets of financial intermediaries compared to those of capital markets and other intermediaries- may partially explain how these changes have been conducted. In particular, the expansion of equity markets should not be directly understood –at least in Spain- as an improvement in financial conditions for all corporate firms since only large companies are clearly benefiting from this expansion. It is true that firms (and households) have taken advantage of the growth in capital markets, by diversifying their assets portfolio and increasing their net wealth. However, the liability structure of SMEs –as will be shown later on- have remained basically dependent on bank credit.

The disintermediation process has been largely conducted by institutional investors. In some countries where capital markets were not very large –as in Spain- mutual fund shares have increased considerably in recent years, as shown in Table 3, where the evolution of four different types of mutual funds shares –equity, bond, balanced and money market- is compared as a percentage of domestic GDP for the countries noted above from 1998 to 2001. First of all, it can be observed that equity and bond funds have become increasingly important in the countries where bank products have traditionally dominated financial flows –such as Spain Italy or France.

The initial growth of mutual funds was largely dominated by bond funds, although most of the underlying securities were government bonds. However, when interest rates fell in the second half of the 1990s and stock markets became much more attractive, a large share of mutual funds was invested in quoted-equity shares. This trend is evident in the aforementioned countries, since bond funds have decreased considerably between 1998 and 2001 in France (12.58% to 9.47%), Italy (17.59% to 12.93%) and Spain (14.36% to 8.22%) although the interest rate shift and the turbulence in capital makets during the last two years is inverting this downward trend.

Logically, the evolution of equity funds has been the opposite, reflecting these changes in market conditions. In particular, coinciding with the expansion of stock market value between 1998 and 2000, equity funds rose in all countries (9.32% to 17.30% for the EU-15), with the United Kingdom (16.15% to 20.70%), France (7.03% to 15.45%) and Italy (6.33% to 13.35%) presenting the largest percentages. As for balanced funds, their relative importance has been different across countries, since these mixed products have been only relatively successful in France (where they represented the 13.45% of domestic GDP in 2001), Italy (12.93%) and Spain (8,22%). Finally, the weight of the most liquid funds, the money market ones, has only been noticeable in Spain –where they have, however decreased from 9.60% to 6.78% during 1998-2001- and, particularly, in France –rising from 12.12% to 17.59% in the same period- due to the characteristics of these products in this country, with similar functions to bank deposits (as check-writing facilities).

Table 4 illustrates the evolution of bond markets in Spain and the rest of the European countries analysed for 1995, 1998 and 2000. Comparing domestic market value of bond listed with the total market value of EU-15, both Germany and the United Kingdom concentrates more than the 50% of those markets. French markets represent around the 10% of the EU-15 while this percentage was over 13% in Italy in 2000, due to the importance of government bonds in this country. However, the small size of the Spanish bond market is clearly reflected in this table, since they represent less than the 1% of the European markets and this percentage is decreasing over time (from 0.82% in 1998 to 0.53% in 2000). As a general trend, government bonds bonds seem to be more important than private bonds as a percentage of domestic GDP.

The private bond market in Germany seems to be progressively becoming larger (64.38% of domestic GDP in 1998). These securities are also gaining importance in the United Kingdom (rising from 20.41% to 34.92% between 1995 and 2000) and to a lower extent in France (from 10.71% to 15.29%) while they were slightly over 4% in Italy in 1998 and are clearly losing weight in Spain (2.74% in 2000). These data reveal that the state and the evolution of bond market is not homogenous across European countries and that government securities dominate. Private bond markets have apparently only reached maturity (among the countries analysed) in Germany and the United Kingdom.

While the evolution of bond markets has been very different across European countries, the trends in capital markets are more similar. In particular, market capitalisation has increased considerably during the 1990s (Table 5), although the most impressive growth took place in the second half of this decade. The growth of market capitalization (as % of GDP) has been quite high in all European countries, rising from 17.51% in 1991 to 125.53% in 2000 in the EU-15. Spain exhibited an impressive growth changing from 11.83% to 104.18% during the period. Nevertheless, although capital markets growth has been generalised, the weight and relevance of these markets on an European basis have remained almost unchanged, as also shown in Table 5. Even if Germany and the United Kingdom have lost part of their European market share (changing from 16.32% to 14.99% and 39.03% to 30.83%, respectively, during 1991-2000) and other countries such as France (14.31% to 17.07%) or Italy (6.83% to 9.07%) have increased it, the level of concentration is still very high. Only three countries -United Kingdom, Germany and France- concentrated more than the 60% of EU-15 stock market capitalisation. Spain, despite of the growth of its capital market, only represented the 5.95% of EU-15 total capitalization in 2000.

To explore the evolution of Spanish capital markets and its relationship with the corporate sector, the changes in stock market value (Madrid Stock Exchange) during the period 1995-2000 are presented in Table 6 including the evolution for the different economic sectors. Both the General index and the IBEX-35 multiplied by 2.5 and 2.7 during the period. The largest growth in market value corresponded to communications (326,4%) and bank and financial companies (282,3%) industries. Other sectors such as portfolio and investment (220.8%) or drinks, food and tobacco (218.2) also experienced large growth rates in their market value. However, the access to the markets is still limited to the large companies dominating these industries and SMEs have not yet found new opportunities to enter these markets.[4]

All things considered, financial deepening seems to have been intense in Spain and Europe in recent years, with a large expansion of capital markets and institutional investors and a diversification of financial portfolios by households and firms. However, this deepening has not diminished the existing financial dependence on bank loans, at least in countries as Spain, where only large firms have access to capital markets and where private bond markets still are quite far away from reaching maturity. Since bank dependence is high, it is interesting to explore corporate bank lending relationships in Spain, as well as the different role played by bank deepening and bank dependence for economic growth. These relationships are explored in the next section.

[4] Most of these conclusions would change substantially if we looked at the evolution of capital market share prices in 2002.

4. FINANCIAL DEEPENING, FINANCIAL DEPENDENCE AND CORPORATE FINANCE IN SPAIN: AN EMPIRICAL ANALYSIS

Recent studies suggest that corporate finance may benefit both from financial deepening –as capital markets develop- and financial dependence –as lending conditions improve- to foster investment and, consequently, higher economic growth. To analyze these relationships in Spain, this section offers, first, a review of the recent literature on the impact of financial deepening and bank dependence on corporate finance and economic growth. Secondly, the main indicators that describe financial dependence and corporate access to bank credit are also described. Finally, the section ends with an empirical exercise on the impact of both financial deepening and bank finance dependence on economic growth in a regional basis.

4.1. Financial deepening and financial dependence relationships

Since equity and bond market do not appear to represent an alternative to bank finance for most corporations in Spain, it is interesting to explore how financial deepening and financial dependence have particularly affected business activity in Spain. Two approaches are proposed in this study: (1) financial deepening may promote economic growth by fostering investment by large firms and by increasing the financial wealth of firms and household through the diversification of their assets portfolio towards capital markets activity; and (2) since SMEs represent more than the 90% of total Spanish corporations, the impact of bank dependence on economic growth should also be considered. Specifically, lending specialization by credit institutions in the territories where SMEs frequently operate (mainly provinces or regions) could play a key role for those firms to develop and promote investment and economic growth.

Regarding financial deepening, the analyses undertaken in recent studies –on a cross-country basis- have found evidence of causality between financial sector development and economic growth (King and Levine, 1993). Similarly, Levine and Zervos (1998) indicate that banking sector development significantly predict economic growth, even when other economic, political or capital market development factors are accounted for. Some other studies have estimated the impact of financial or banking sector development on various industries (controlling for regulatory changes), to analyze if the economic growth in the different sectors was different depending on the level of financial dependence, as Rajan and Zingales (1998), Cetorelli and Gambera (2002) or Levine, Loayza and Beck (2000). All of these studies found a significant relationship between financial deepening and economic growth.

Financial dependence has also been considered recently from various perspectives. There is a growing concern about the supply of bank lending to certain borrowers which results in SMEs relying more heavily on credit institutions. Small banks have better information about the local or regional markets they are operating in (Samolyk, 1999). Strahan and Weston (1998) find evidence of an increase in the importance of SMEs loans on small banks' portfolio in the United States, with large banks increasing their share of loans to large enterprises (LEs). Houston and James (1998) also find evidence of size-related specialisation. Large banks seems to benefit from internal capital markets through subsidiaries and allocate capital more efficiently than small banks while small and medium size intermediaries have a higher proportion of liquid assets. Therefore, bank lending in large banks' subsidiaries is less sensitive to cash flow evolution. The correlation of small and medium size bank loans with aggregate lending in the territory they operate is higher than for large banks. Houston and James (1998) also suggests that lending by small banks is more sensitive to changes in local market conditions -offering more money when the market follows an upward trend and reducing lending when conditions are not so favourable.

Local borrowers very often prefer to establish a lending-relationship with small banks, which are strongly linked with local economic conditions. A relationship between financial institutions and SMEs on a long-standing basis provides banks with valuable information (Petersen and Rajan, 1994). Berger and Udell (1995) illustrate lending relationships using information on loan rates and collateral requirements of lines of credit. They observe that banks obtain information during the course of their relationship with borrowers to adjust loan contract terms. These relations have been also pointed out by Samolyk (1999), showing that small-medium banks focus more on relationship lending and standardised lending products such as credit-card than large-complex bank holding companies. The Spanish bank market and corporate finance structure seem to be in line with these characteristics.

Spanish SMEs tend to operate in local or regional markets where specialized institutions – mainly local or regional savings banks[5]- establish long-term lending relationships with the corporations established in the same territories. In order to study the relevance of bank dependence relationships on economic growth, it will be, then, necessary to consider local and regional territories as the relevant markets in the analysis. This definition is in line with recent empirical evidence showing that different economic and competitive characteristics of the regions and markets where firms and banks operate may determine to a large extent the link between financial and business conditions (Pilloff, 1999). In any case, before undertaking this

5 Savings banks play a very important role in small territories since they are particularly linked to local business conditions and contribute largely to avoid financial and/or social exclusion.

empirical analysis, it appears to be convenient to describe the evolution of bank dependence relationships and conditions in lending to business in Spain in recent years.

4.2. Financial dependence and corporate lending in Spain

Bank finance dependence for SMEs and large enterprises (LEs) is shown in Table 7 for Spain together with the rest of the European countries analyzed for 1995, 1998 and 2000. First of all, relating bank finance to total corporate liabilities, bank dependence seems to be high and generally increasing in all countries, rising from 36.72% in 1995 to 45.56% in 2000 in the EU-15. Among the countries shown in Table 7, only Germany seems to have reduced bank financial dependence (from 21.01% to 8.01%) while this ratio is significantly high in France (58.57%), United Kingdom (50.98%) and Spain (46.96%) in 2000. Secondly, the outstanding debt with credit institutions is compared with manufacturing firm assets using BACH database. Data was only available for Germany, France, Italy and Spain from 1995 to 1999. Two conclusions can be obtained from this data: (1) SMEs dependence on credit institutions is substantially higher than in LEs; (2) manufacturing firms seem to have reduced their bank dependence during the period, with the exception of SMEs in Italy and LEs in Germany.

The information presented in Table 7 reveals that financial dependence, despite of capital markets growth, is still very high since almost only large firms seems to benefit clearly from financial deepening. In the case of Spain, bank dependence is still very high. As shown in Figure 2, the loans to business (reported by Bank of Spain as ‘lending to productive activities’) have been clearly increasing since 1995, when the reduction of interest rates has been more intense. In particular, lending to business doubled during 1992-2001, with a net growth of 95% between 1995 and 2001.

According to the evidence found by Strahan and Weston (1998) and Samolyk (1999), relationship lending should be more significant when bank dependence of firms is higher. The outstanding value of loan commitments in Spain is also shown in Figure 2. These contractual agreements exhibited a substantial increase during 1992-2001, multiplying by 3.6. It should be also noted that commitments may be employed as a financial buffer by corporations. That is, the likelihood of commitment takedown and the extent of commitment usage usually increases during economic downturns when credit is tight and credit-constrained firms are experiencing liquidity crises (Asarnow and Marker, 1995). Bank loan commitments are very flexible and convenient for the corporate borrower, and are usually used to provide working capital, rather than to fund specific large investments.

Both favorable economic conditions and the impact of financial liberalization and integration have resulted in lower lending interest rates and improved financial conditions. This process has been particularly intense in Spain. Figure 3 reflects the evolution of interest margins in corporate lending (relative to interbank loan rate) for short- and medium-to-long-term loans in Spain and the EU-15 between 1990 and 2000. The chart shows how Spanish loan corporate markets have apparently become very competitive relative to the European Union average in the second half of the 1990s. The improvement in loan prices is specially remarkable in the short-term market, where interest rates margins have decreased from 2.15% in 1990 to 0.59% in 2000. In the medium-to-long-term loan market, margins were larger in Spain in 1990 (3.28%) compared to the EU-15 (1.86). However, the situation reversed and, in 2000, medium to long-term mark-ups were lower in Spain (1.85% compared to 2.39% for the EU-15). Therefore, economic conditions, together with an enhancing bank competition and increasing specialization have driven Spain to a more advantageous competitive position in terms of loan to business markets in Europe.

The substantial improvement of corporate financial conditions is also confirmed when analyzing the cost of borrowed funds as a proxy of cost of use of financial capital. One important fact for firms to promote economic growth is an efficient allocation and a reduction in the cost of use of financial capital. In any event, the general level of interest rates –determined mainly by the overall monetary policy- plays a key role in this context. As a proxy for this cost, we have employed two indicators using Amadeus and BACH database information, respectively: the ratio of interest paid relative to long-term plus loans financing and the ratio of financial charges to non-commercial debt (Table 8). The evolution of the ratio “interest paid/long-term debt plus loans” suggests a sizeable reduction in the cost of use of financial capital, changing from 8.71% in 1995 to 5.65% in 1999 in the EU-15. All countries analyzed –excepting Germany- exhibited a reduction of this ratio, with the United Kingdom and Spain showing the lower values in 1999 (4.77% and 4.81%, respectively). The same conclusions applied when employing the ratio “financial charges/non-commercial debt”, falling from 7.8% to 3.2% in Spain during 1995-1999 while the reduction in the EU-15 was from 8.0% to 4.8% during the same period. Thus, more competition between financial institutions and a monetary policy that brought interest rates down explain the reduction in the cost of borrowed funds for Spanish firms.

4.3. Financial deepening and financial dependence in Spain: an empirical approach

Two different approaches are undertaken to estimate the impact of financial deepening and bank dependence in Spain. As for bank deepening, we want to explore –as the recent cross-country analyses noted above- if there is a kind of causality-relationship between improvements in the financial sector –as the development and growth of new financial products- and economic growth. Secondly, these financial products, including bank loans, are expressed relatively to total financial assets to explore if lending specialization by banks may play an special role in economic growth compared to other financial alternatives.

Data

As commented above, the estimation is undertaken on a regional basis using a bank-level regional GDP growth variable as the reference. This variable is computed as a branch weighted average of regional GDP in the regions where the corresponding bank operates[6]. The sample contains 38 Spanish banking institutions (20 savings banks and 18 commercial banks) with information available for all financial assets employed from 1993 to 1999[7]. Taking semi-annual data the total number of observations was 532. As a proxy for financial deepening we have employed the on and off-balance sheet value of the following assets: an estimation of fee-earning activities (ie. portfolio management, mutual and pension funds distribution, loan commitments, …); the outstanding value of mutual funds and equity shares holdings[8].

Methodological comments

First of all, a Granger predictability test is employed to contrast the financial deepening process. The Granger predictability between the regional economic growth (GDP) and six financial deepening variables is estimated. These variables include outstanding bank loans (LOAN) deposits (DEP), and securities (SEC), an estimation of fee-earning activities (CBA)[9], mutual funds (MF) and loan commitments (LC). According to cross-country studies we have also included competition indicators –the loan to deposit rate spread (SPREAD) and a deposits market Herfindahl-Hirschman concentration ratio (HHI)- to test if competitive conditions in the banking sector may also alter economic growth (Cetorelli and Gambera, 2002). One, two and three lags of the semi-annual variables were employed. An Augmented Dickey-Fuller (ADF) procedure is applied as a test for unit roots. First differencing the variables was sufficient to achieve stationarity. As for the methodology, we will consider, for example, that financial deepening Granger-causes (or predicts) GDP when two conditions are met:

[6] For 17 different territories corresponding to the administrative regional division.

[7] This sample is quite representative since the institutions included are all large or very large and manage more than the 75% of total banking assets in Spain.

[8] Let us remind here that Spanish banks have controlled the 'disintermediation' process in Spain (ie. they manage more than the 90% of the mutual funds industry).

[9] This estimation is computed employing the ratio of non interest-income activities (fee-earning revenues) to total assets.

(1) financial deepening variables (say FD) are significant (employing an F-test) when they are included in a time-series regression of the GDP:

$$GDP_t = a_0 + \sum b_i GDP_{t-i} \tag{1}$$

$$GDP_t = a_0 + \sum b_i GDP_{t-i} + \sum g_i FD_{t-i} \tag{2}$$

(2) the GDP variable is not significant (employing an F-test) when it is included in a time-series regression of the corresponding financial deepening indicators:

$$FD_t = a_0 + \sum g_i FD_{t-i} \tag{3}$$

$$FD_t = a_0 + \sum g_i FD_{t-i} + \sum b_i GDP_{t-i} \tag{4}$$

If the added FD variable in equation (2) and the GDP variables in equation (4) were both significant there will be predictability in both directions and probably a third factor will be also explaining both GDP and financial deepening evolution.

Secondly, the bank dependence test is undertaken employing dynamic panel data techniques. In this test, all variables are taken relative to total on and off-balance sheet assets. The aim is to contrast if lending may play an special role on regional economic growth compare to other non-bank traditional or "market-oriented" financial activities. The 'specialization' variables introduced are expressed relative to bank total assets including loans (LNSP), deposits (DPSP), securities (SECSP), commission-based activities (CBASP), mutual funds (MFSP). We also employed the sum of loans and loan commitments divided by total deposits (LCSP) to test for robustness of the loan specialization variables when considering relationship lending[10]. As control variables, the amount of loan provisions (to account for the relationship between loan quality and economic growth) and the deposits market Herfindahl-Hirschman concentration ratio (HHID) are also included. When measuring the impact of a set of explanatory variables on the GDP within a cross-section/time-series framework, it is necessary to consider the dynamic-nature of these relationships (Levine, Loayza and Beck, 2000). Hence, GDP in one period is expressed as a function of lagged GDP values together with the rest of explanatory variables. This equation is then estimated employing dynamic panel data techniques. The estimation procedure is a generalized method of moments (GMM) as described for dynamic panels by Arellano and Bond (1991) and Arellano and Bover (1995). The standard difference estimator does not seem to be useful within this context since lag values of the explanatory variables are weak instruments in the estimation and the individual effects can not be reported. However, these problems can be solved by employing a simultaneous equations systems model. There are

10 We divide this variable by total deposits to capture the ability of banks to develop relationship lending from deposit-taking.

two equations in this system. In the first one, the variables are taken in first differences. The second one refers to the estimation in levels. Arellano and Bover (1995) show that one-lag explanatory variables (including an additional lag for the already lagged dependent variable) are valid instruments for the first equation while lagged values of the explanatory variables taken in first-differences are valid instruments for the second equation:

The empirical specification of the model to be estimated by GMM is:

$$GDP_{i,t} = a\,GDP_{i,t-1} + b'X_{it} + h_i + e_{it} \tag{5}$$

$$GDP_{i,t} - GDP_{i,t-1} = a(GDP_{i,t-1} - GDP_{i,t-2}) + b'(X_{it} - X_{i,t-1}) + (e_{it} - e_{i,t-1}) \tag{6}$$

where X is a vector of the explanatory variables: lagged regional ($GDP_{i,t-1}$), loan provisions (PROV), and the especialization variables define above (LNSP, DPSP, SECSP, CBASP, MFSP and LCSP). The instruments for equation (5) are $GDP_{i,\ t-2}$ and a vector of the rest of lagged explanatory variables (X_{t-1}), while the instruments for equation (6) are the difference $GDP_{i,t-1}$-$GDP_{i,\ t-2}$ and the vector of explanatory variables in first-differences (X_t - X_{t-1}).

Results

The main results for the financial deepening model of causality are presented in Table 9. Both the loan to deposits rate spread (SPREAD) and the regional GDP seems to predict their corresponding variations. The reduction in interest margins is in line with the increasing loan demand. Similarly, economic growth is usually accompanied by a competitive intensification, with a reduction in intermediation margins. The results also suggest that regional GDP growth Granger-cause a reduction in concentration (HHID), which seems to support the hypothesis that maintain that banks localize in the territories with a higher potential of economic growth (Pilloff, 1999).

As for financial deepening variables, three causality relationships are particularly significant. All loans, mutual funds and loan commitment variables seem to Granger-cause (predict) regional GDP growth and Granger-causality is also found the other way with GDP predicting financial deepening. Not only lending but also mutual funds –as a proxy for household and firms financial portfolio diversification- seem to be significant and interacting with economic growth. This interaction between financial deepening and regional GDP is in line with the results of cross-country analyses such as King and Levine (1993) Levine and Zervos (1998); Rajan and Zingales (1998); Levine, Loayza and Beck (2000); or Cetorelli and Gambera (2002).

The dynamic panel data results (Table 10) offer some additional evidence that highlight the role played by bank lending on Spanish regional economic growth. The Sargan overidentification test indicates that the instruments employed seem valid. As for the results, the significance of the lagged dependent variable underpins the relevance of the intertermporal relationships that affect GDP growth. As for bank market concentration (HHID) there appears to be a negative relationship between concentration and regional GDP in some of the equations proposed, a result that is in line with Cetorelli y Gambera (2002). Regarding financial dependence, the most relevant result is that only the loan specialization variables (LNSP and LCSP) seem to be positively related with regional economic growth. The rest of financial specialization variables present a negative and significant coefficient. The latter indicates that, although financial deepening may foster economic activity (as shown in Table 9 with the variables taken in levels), bank lending specialization play an important role in the territories (regions) where SMEs use to operate when they are particularly dependent on bank credit. This seems to be the case of Spain, where savings banks and other regional-based banks contribute substantially to the financing of regional business activity in the territories where they are located. Therefore, the negative value of the rest of the specialization variables employed may be interpreted as a trade-off between lending specialization and bank diversification in the Spanish regions.

5. CONCLUSIONS

The main relationships between regulation, financial structure and corporate finance in Spain are studied in this paper. Financial deepening –defined as the expansion and diversification in capital markets- and bank dependence –as the importance of bank lending for certain corporations- are related and presented as the main pillars on which relies corporate finance in Spain.

Recent regulatory initiatives, both from the European Commission –as the Financial Services Action Plan- and Spanish regulatory authorities, are aiming to improve financial conditions by providing firms with larger, more open and wider financial markets. However, it is still soon to evaluate if these initiatives will result in a higher integration of financial markets and/or and improvement in corporate finance conditions. Although capital markets (particularly stock markets) experienced a substantial increase in the 1990s, only large firms seem to have improved their financial conditions. The disintermediation process has contributed substantially to financial deepening in Europe –particularly through the growth of institutional investors- diversifying firms and household financial portfolios and increasing their net wealth, although the financial structure of this agents has remain basically unchanged.

In bank-based financial systems, bank lending is the main source of finance for SMEs, since these firms have a limited access to equity and bond markets. Besides, the liberalization and integration processes have increased competition resulting in significantly lower loan prices. Overall, the cost of use of financial capital has been considerably reduced. Within this context, corporate loans and loan commitments have increased substantially in Spain. Moreover, bank lending has been also very relevant for corporate finance in other European countries with larger stock and bond markets such as the United Kingdom and Germany. An empirical test was applied to study the impact of both financial deepening and financial dependence in Spain on the economic growth of the regions where most of the Spanish corporations operate. The results suggest that, although financial deepening seems to contribute to improved firm performance and economic growth, bank lending is particularly important in a country with a comparatively high bank dependence, such as Spain.

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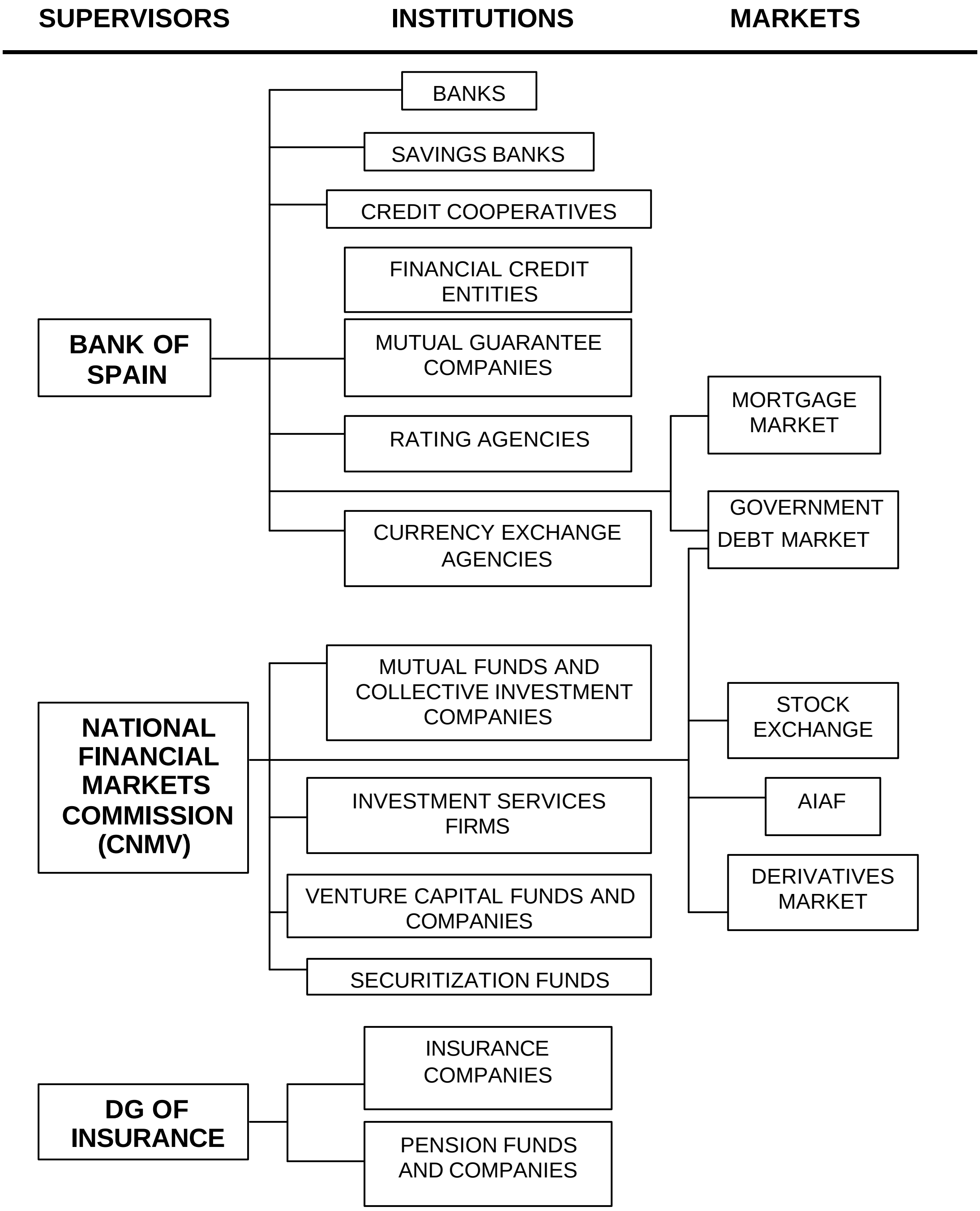
TABLES AND FIGURES

DIAGRAM 1. STRUCTURE OF THE SPANISH FINANCIAL SYSTEM



Source: Bank of Spain

TABLE 1. CAPITAL RAISED BY NEWLY ADMITTED COMPANIES / TOTAL CAPITAL RAISED

(1995-2000)

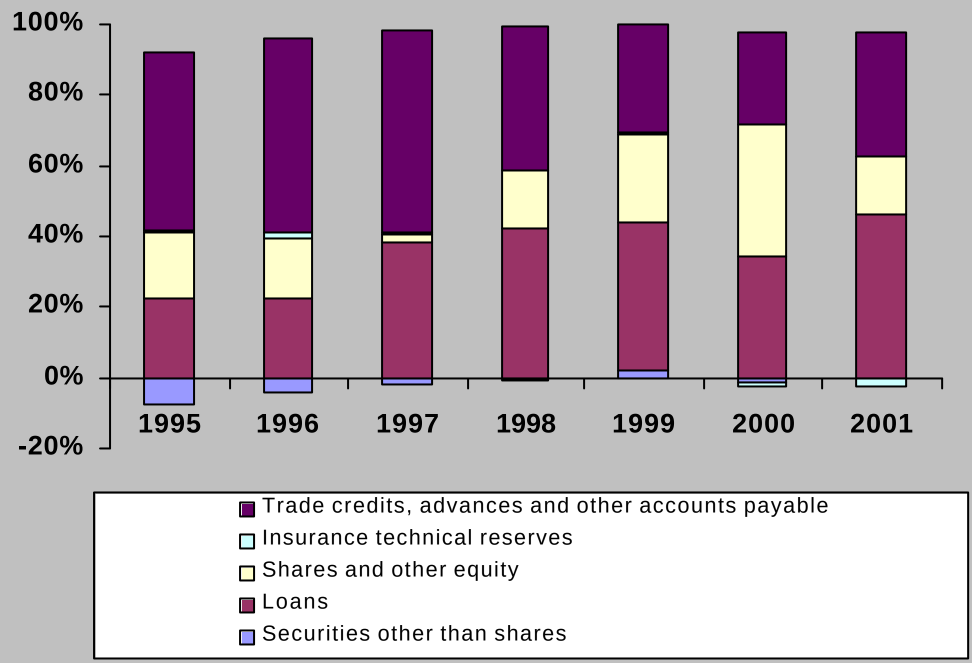
Percentage

	GERMANY (Deutsche Borse)	FRANCE (Euronext Paris)	*ITALY*	UNITED KINGDOM (London Exchange)	SPAIN	EU-15
1995	21.27	1.48	44.82	23.13	-	28.45
1996	75.61	9.09	48.12	54.31	-	46.44
1997	32.08	40.64	15.86	51.93	-	41.28
1998	15.48	45.94	6.35	38.10	47.65	33.14
1999	90.36	28.26	53.62	40.50	50.60	48.71
2000	90.36	28.26	53.62	40.50	50.60	48.71

Source: FIBV (www.fibv.com)

FIGURE 1. FINANCIAL STRUCTURE OF NON-FINANCIAL CORPORATIONS IN SPAIN (1995-2001)

Contribution to the total change in the net incurrence of liabilities



Source: Bank of Spain

TABLE 4. BOND MARKETS IN EUROPE

(1995, 1998, 2000)

	GERMANY	FRANCE	ITALY	UNITED KINGDOM	SPAIN	EU-15
MARKET VALUE OF BONDS LISTED/EU-15 MARKET VALUE (%)						
1995	28.29	10.96	10.79	12.95	0.82	100
1998	30.63	9.73	-	15.22	0.50	100
2000	-	10.10	13.83	19.66	0.53	100
MARKET VALUE OF GOVERNMENT BONDS AT YEAR-END/DOMESTIC GDP (%)						
1995	34.09	42.60	70.29	36.42	3.83	42.10
1998	33.34	47.72	90.32	31.36	3.18	33.65
2000	-	40.17	85.07	29.29	3.62	43.03
MARKET VALUE OF PRIVATE BONDS AT YEAR-END/DOMESTIC GDP (%)						
1995	44.08	10.71	3.42	20.41	6.67	23.53
1998	64.38	10.49	4.13	23.76	3.22	28.84
2000	-	15.29	-	34.92	2.74	25.81

Source: FIBV (www.fibv.com)

TABLE 5. MARKET CAPITALISATION OF DOMESTIC COMPANIES IN EUROPE

(1991, 1995, 2000)

	GERMANY	FRANCE	ITALY	UNITED KINGDOM	SPAIN	EU-15
MARKET CAPITALISATION/DOMESTIC GDP (%)						
1991	12.64	13.83	7.33	45.72	11.83	17.51
1995	13.67	18.38	10.81	70.73	14.63	23.93
2000	78.56	129.0	82.57	218.44	104.18	125.53
MARKET CAPITALISATION /EU-15 MARKET CAPITALISATION (%)						
1991	16.32	14.31	6.83	39.03	5.12	100
1995	16.53	14.00	5.87	37.71	4.23	100
2000	14.99	17.07	9.07	30.83	5.95	100

Source: FIBV (www.fibv.com)

TABLE 6. STOCK MARKET VALUE IN SPAIN. SECTORAL DIVISION (1995-2001)

Madrid Stock Exchange - annual average market value (year-end for 2001)

dec1985=100

	1995	1996	1997	1998	1999	2000	2001
General	296.14	367.29	556.04	817.67	894.41	994.77	824.40
Banks and financial companies	315.15	382.64	652.99	1,059.98	1,119.17	1,304.11	1,204.86
Electricity	342.57	473.34	641.985	842.09	882.69	911.72	899.67
Food, drinks and tobacco	175.86	206.77	344.25	581.80	520.53	457.31	559.55
Construction	445.88	419.41	672.56	1,102.05	1,189.13	964.62	1,223.31
Portfolio and Investment	229.41	326.10	492.62	704.34	847.44	882.90	735.89
Metal and mechanical	188.31	194.06	319.05	343.20	343.97	328.46	456.57
Petroleum and chemical	309.09	349.34	463.82	572.65	683.24	742.03	662.36
Communications	256.52	356.60	575.48	903.59	1,156.58	1,630.71	1,093.78
Other industries and services	92.37	103.94	126.33	174.29	165.32	150.30	119.96
New technologies	-	-	-	-	-	89.07	35.08
Ibex-35dec1989=3000	3,261.2	4,193.0	6,361.1	9,330	10,079.0	10,762.3	8,397.6

Source: Bank of Spain

TABLE 7. BANK FINANCE DEPENDENCE BY CORPORATE ENTERPRISES

Various years depending on data availability

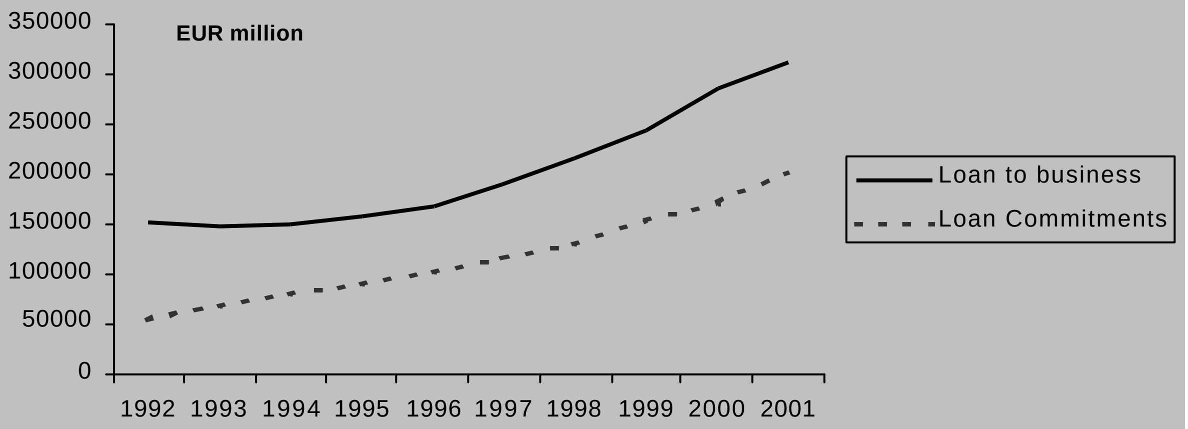
	GERMANY	FRANCE	ITALY	UNITED KINGDOM	SPAIN	EU-15
BANK FINANCE / TOTAL CORPORATE LIABILITIES (%) (all firms)						
1995	21.01	29.51	14.81	47.56	43.74	36.72
1998	17.91	33.60	13.51	51.70	54.25	39.93
2000	8.21	58.57	16.85	50.98	46.96	45.56

Source: Amadeus

	GERMANY	FRANCE	ITALY	UNITED KINGDOM	SPAIN	EU-15
SMEs DEBT WITH CREDIT INSTITUTIONS / SMEs ASSETS (manufacturing firms)						
1995	22.5	14.0	26.1	-	21.7	-
1997	22.9	12.7	24.8	-	19.4	-
1999	21.9	12.4	24.9	-	19.3	-
SMEs DEBT WITH CREDIT INSTITUTIONS / LEs ASSETS (manufacturing firms)						
1995	4.5	7.4	21.2	-	14.2	-
1997	4.7	6.1	19.2	-	9.2	-
1999	5.2	7.0	19.1	-	9.8	-

Source: Bank of Spain using BACH database (European Commission)

FIGURE 2. LOAN TO BUSINESS AND LOAN COMMITMENTS IN SPAIN (1992-2001)



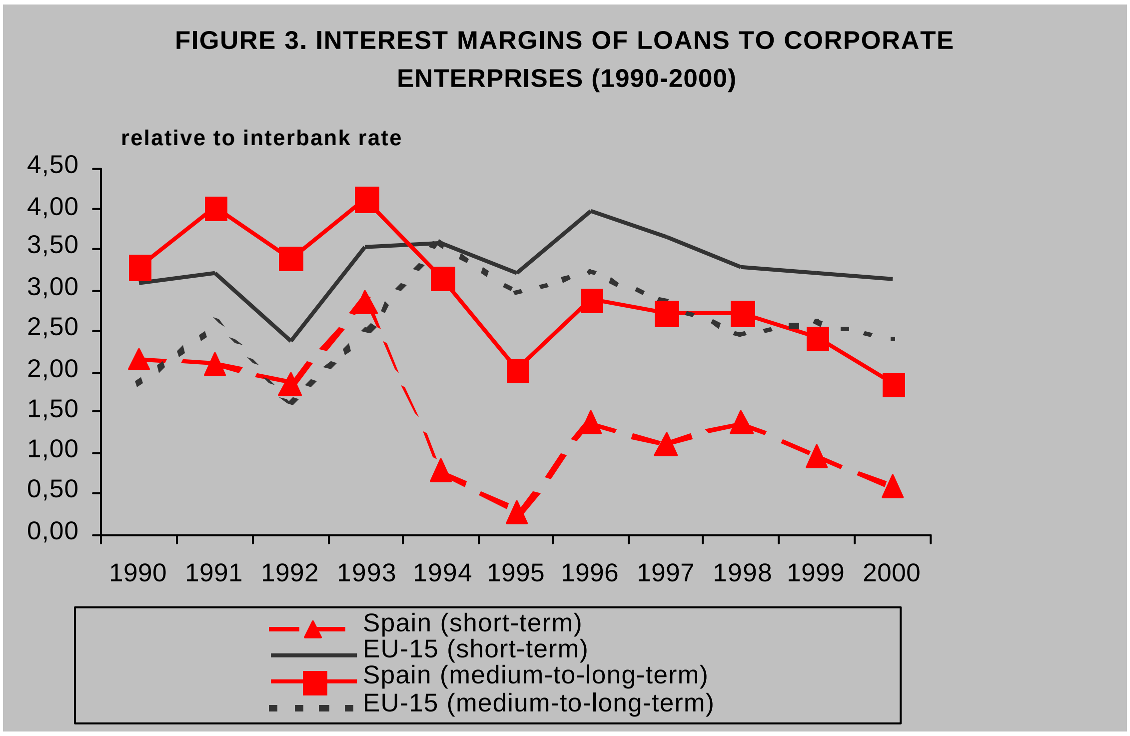
Source: Bank of Spain

TABLE 8. COST OF BORROWED FUNDS

(1995,1997,1999)

	GERMANY	FRANCE	ITALY	UNITED KINGDOM	SPAIN	EU-15
			INTEREST PAID / (LONG-TERM DEBT PLUS LOANS)			
1995	11.26	14.43	37.92	5.12	11.89	8.71
1997	11.16	6.26	23.56	4.94	6.38	6.20
1999	13.40	7.33	16.94	4.77	4.81	5.65
			FINANCIAL CHARGES / NON-COMMERCIAL DEBT			
1995	6.3	6.2	9.1	-	7.8	8.0
1997	5.8	5.1	9.0	-	5.3	6.4
1999	-	3.8	5.1	-	3.2	4.8

Source: Amadeus and Bank of Spain using BACH database (European Commission)



Source: European Central Bank

TABLE 9. GRANGER CAUSALITY TESTS. FINANCIAL DEEPENING AND REGIONAL GROWTH IN SPAIN (1993-1999)

Variables in first differences. Observations = 531
(95% significance level)

	HHID / GDP			GDP / HHID	
	lags	F test		lags	F test
No	1	0.31	*No*	1	0.09
No	2	0.07	***Yes***	2	4.01
No	3	0.65	*No*	3	2.11
	SPREAD / GDP			**GDP / SPREAD**	
	lags	F test		lags	F test
No	1	1.57	*No*	1	3.22
Yes	2	4.17	***Yes***	2	3.94
No	3	0.70	*No*	3	0.02
	LOAN / GDP			**GDP / LOAN**	
	lags	F test		lags	F test
Yes	1	5.02	*No*	1	0.08
No	2	0.50	*No*	2	0.21
No	3	0.83	***Yes***	3	4.72
	DEP / GDP			**GDP / DEP**	
	lags	F test		lags	F test
No	1	1.07	*No*	1	0.06
No	2	0.44	*No*	2	0.11
No	3	1.00	*No*	3	2.24
	SEC / GDP			**GDP / SEC**	
	lags	F test		Lags	F test
No	1	1.76	*No*	1	0.35
No	2	0.28	*No*	2	0.21
No	3	0.20	*No*	3	0.22
	CBA / GDP			**GDP / CBA**	
	lags	F test		lags	F test
No	1	1.60	*No*	1	0.20
No	2	0.58	*No*	2	1.65
No	3	0.03	*No*	3	0.08
	MF / GDP			**GDP / MF**	
	lags	F test		lags	F test
No	1	0.40	***Yes***	1	9.59
Yes	2	6.32	*No*	2	0.98
Yes	3	4.15	*No*	3	0.05
	LC / GDP			**GDP / LC**	
	lags	F test		lags	F test
No	1	0.56	***Yes***	1	5.93
Yes	2	7.94	*No*	2	2.18
No	3	0.21	***Yes***	3	6.05

AUGMENTED DICKEY FULLER TEST FOR UNIT ROOTS (ADF)

Variable	GDP	HHID	SPREAD	LOAN	DEP	SEC	CBA	MFUND	LC
t statistic	-30.28	-32.09	-37.59	-23.26	-12.34	-21.86	-20.32	-19.38	-18.37

Critical values for the rejection of the null hipótesis of unit roots

1% critical value	-3.4965
5% critical value	-2.8903
10% critical value	-2.5819

TABLE 10. FINANCIAL DEPENDENCE AND REGIONAL GROWTH IN THE SPANISH FINANCIAL SYSTEM (1993-1999). DYNAMIC PANEL DATA.
Observations = 531
t statistics in parenthesis

	(I)	(II)	(III)	(IV)	(V)	(VI)
Constant	3.34*** (3.06)	2.84* (1.84)	-4.2247*** (-17.17)	-3.87*** (-6.85)	-4.099*** (-10.43)	-3.92*** (-8.50)
GDP (-1)	0.000016*** (4.99)	0.000006*** (4.41)	0.0000004*** (2.71)	0.0000004** (2.30)	0.000007*** (26.84)	0.000014*** (10.21)
HHID	-3.63*** (-3.56)	-0.373132 (-0.53)	0.21987 (1.27)	-0.245343*** (-8.28)	-2.24423*** (-25.44)	-2.39799*** (-4.17)
PROV	-0.98640* (-1.91)	-0.634285*** (-3.36)	-1.3110*** (-3.42)	-0.130415*** (-32.88)	0.045218*** (32.07)	-0.490439*** (-1.79)
LNSP	20.81*** (3.87)					
DPSP		-52.0071*** (-4.02)				
SECSP			-1.7591 (-1.60)			
CBASP				-3.88*** (-20.18)		
MFSP					-1.73109*** (-108.70)	
LCSP						9.33662*** (4.26)
Sargan Test (p value)	0.071	0.072	0.076	0.252	0.252	0.083
R^2	0.80	0.62	0.72	0.84	0.88	0.90

* significantly different from zero at 10% level
** significantly different from zero at 5% level
*** significantly different from zero at 1% level