

Corporate Governance Systems and Institutional Complementarities: What Consequences for European Financial Integration ?

Jean-Paul Pollin and Anne-Gaël Vaubourg*

"The new frontiers of European Union"
March 16 and 17 th 2005, Marrakech

Introduction

It is very difficult to draw the limits of Europe from the point of view of its financial system. In that area, the partner economies of the Union have few common characteristics. Financing and investment structures vary widely from one country to the other. As an example, recent statistics (year 2000) show that borrowings from banks account for 43 % of the liabilities of German companies, 36 % in Italy, 22 % in the UK and 16 % in France; money invested in life insurance and in pension funds represents 53 % of the financial assets of households in the UK, 24 % in Germany and France and 13 % in Italy ; deposits represent 84 % of the liabilities of the banking system in the UK, 75 % in France and around 60 % in Germany and Italy (Byrne & Davis (2003)).

The least we can say is that these figures do not give the idea of a European identity. True, the "bank-oriented" financial systems of Continental Europe in which the place of banks is dominant are often set against the "market oriented" Anglo-Saxon systems in which markets prevail. But this distinction is no longer obvious from statistics and on second thought, it quickly turns out to be insufficient. At first because the securitization of banking balances blurs the distinction between intermediation and direct finance. This traditional distinction has become vague because banks act partly as "markets intermediaries", that is they only intervene between providers and buyers of securities. Conversely,

*Laboratoire d'Economie d'Orléans (LEO) Faculté de Droit, Economie, Gestion, Rue de Blois, BP 6739, 45 067 Orléans cedex 02, France. Mail : Jean-Paul.Pollin@univ-orleans.fr, Anne-Gael.Vaubourg@univ-orleans.fr

they are not the only financial intermediaries: pension or investment funds, even when they hold only negotiable stocks, are able to become involved in the direct control of companies just like credit institutions. So, institutional separation does not imply a difference of nature in relations between providers and borrowers of capital.

Besides, the bank-market opposition hides the all-important distinction between equity and debt, which is just as significant. The proportion between these two financing sources determines the allocation and exercise of property rights and also the sharing of responsibilities among shareholders and lenders. This proportion also conditions the role of all stakeholders in the orientation of the company and the distribution of its profit.

Now, the interest here is not to establish a formal description of financial systems. It is rather to identify the mechanisms by which financial systems shape the organization of firms, their strategic choices, or even their day-to-day decisions, thus bearing on the behaviour of the productive system. What matters to us then more precisely is the system of governance understood in its broad sense, that is to say the way firms are managed and controlled, but also the objectives towards which they act.

More generally, we are trying to find out to what extent the financial relations prevailing in partner economies of the Union can contribute, or on the contrary, hinder, the construction of an economic and social model specific to Europe. If European construction is to be something other than an excuse for (or an accelerator of) globalization, then it is necessary to wonder whether the modes of governance of EU companies create economic dynamism and forms of social relations which enable Europe to be different.

To answer these questions we are first of all going to show that the systems of governance are very dissimilar from one European country to another. Then, we shall try to understand the institutional complementarities which underly this heterogeneity and make it difficult to erase. Finally, we shall present statistics which attempt to build a typology of national systems by determining the main characteristics which differentiate them.

1 The heterogeneousness of governance systems in Europe

A system of governance is analyzed as the intersection of two types of characteristics which can be combined in many ways:

— The first one consists of the contents of the contracts which bind the company to all its stakeholders and notably to the providers of capital. These contracts set out the sharing of the rights of property among the various actors of the firm and consequently, they determine according to which interests and towards which objectives the company has to be managed. This conditions the investment of every stakeholder and thus the type of growth of the company and of the economy.

— The second one concerns the forms of control of the firm, in particular the role conferred

on markets or on direct interventions in decision making. Control which is decentralized by market signals or games does not have the same horizon or the same implications as the closer monitoring exercised within the framework of bilateral relations (for example that of a majority shareholder or a financial intermediary). Intermediated financing makes it possible to establish and to maintain long-term relations between a firm and its capital providers. As for financial markets, they cause sanctions and reallocations of capital more rapidly by crystallizing scattered information. And this affects the trend as well as the cyclical behaviour of the economy.

Analyzed in these terms, the variety of the European systems of governance boils down to a few essential points.

1.1 The missions of the company: "Shareholders vs. stakeholders"

The definition of corporate objectives is the crucial element of systems of governance. Now, on this point, there is a very clear opposition between the Anglo-Saxon model and that of Continental Europe.

In the United Kingdom Company law, which includes the main rules of corporate governance, binds managers to behave firstly in the interest of shareholders. The Anglo-Saxon legal system is the one which is the most protective of shareholders in relation to other partners of the company, and especially to managers. Minority shareholders also have the right to appeal against abuse of power from blockholders.

In Continental Europe on the other hand (except from Italy maybe), the driving principle is that of the general interest of the company, and the interest of the employees must explicitly be taken into account. A much-quoted survey, conducted with managers of big companies, shows that in the United Kingdom 70 % of the surveyed persons consider that the company has to put the interest of the shareholders first, whereas in France and in Germany about 80 % answer that the company has to behave according to/in the interest of all the "stakeholders" (Yoshimori (1995)).

In fact, it is in Germany and in the Netherlands that this principle is acted upon most effectively. In the first case, obviously the system of joint management ensures the distribution of power between employees and shareholders. As for the Netherlands, companies of more than 100 employees have to set up a joint consultative committee whose role is mainly consultative, but which actually has an important function of information and control.

The French situation is more ambiguous. The notion of social interest which is written in company law and which appears in the recommendations of the Vienot reports of 1995 and 1999 is not translated into an integration of "stakeholders" in the decision-making process. Listed companies however have the obligation to include information about their social policy and about the consequences of their activities on the environment in their annual reports. Besides, France has set up company share-ownership schemes. From the 1959 order on participation, to the 2001 law of on employee savings, a set of measures has been implemented which aim to favour the financing of companies by stockholders' equity and

to share the fruits of growth more fairly. But in terms of power conferred on the employees, these measures have little effect. Company share-ownership represents only a little more than 2 % of the capital of the companies listed in the CAC 40. Moreover, it is mostly intermediated saving which does not result much in participation in the management boards of the companies concerned. Furthermore, this saving is very unevenly distributed among employees.

Finally, the originality of the Swedish system of governance deserves to be mentioned. This model is based on a consensus between labour unions and employers. By custom and/or by convention the shareholders agree to be widely responsible for the employees. This leads them to put long term horizons first and to seriously consider the social consequences of their decisions.

1.2 Concentration of capital and voting rights

The opposition between the United Kingdom and the countries of Continental Europe on the missions of a company is also found in the different allocation of capital and voting rights. This is easy to explain because the best guarantees offered to the shareholders (and to minority shareholders in particular) allow a wider opening of the capital: since the balance of power is legally more favourable to them, the concentration of power becomes less necessary¹.

And so the capital of British companies seems much more spread out, whatever indicators we use. The "floating" capital of companies is important, which confers good liquidity to the market and allows arbitrages which, as a rule, exercise an external control on the management of companies. This floating capital is mainly owned by institutional investors which behave as "outsiders"; that is they join or withdraw from the capital of the company according to their appreciation, but they do not participate in the management boards and they do not use their rights to press on decisions in board meetings. Moreover, even though market capitalization in the hands of institutional investors is very significant, their shares of the capital of quoted companies are very scattered: On average the biggest share of an institutional investor in a company is around 5 % (Georgen & Renneboog (2001)). In these conditions, investment funds tend to behave as "stowaways", refusing to be involved in the direct control of companies.

In Continental Europe, the concentration of capital is generally higher. But there are important differences from one country to the other highlighted by calculations made on samples of some quoted companies. In Germany, in Austria, in Belgium and in France, the biggest shareholder of each of these firms holds on average almost half of the capital (Boutillier, Labye, Lagoutte & Oheix (2002)). In these countries the floating capital is obviously low and market liquidity is limited. In return, majority shareholders are strongly incited to be involved in the direct control of the company.

Some other countries of Continental Europe are in an intermediate situation with regard

¹This is the thesis of LaPorta, LopezDeSilanes, Shleifer & Vishny (1997), LaPorta, LopezDeSilanes, Shleifer & Vishny (1998) and LaPorta, de Silanes & Shleifer (1999) to which we will come back later.

to that of the Anglo-Saxon model. In Italy, the biggest shareholder of a quoted company holds about 40 % of its capitalization. This figure hovers between 25 and 30 % in the Netherlands and in Sweden. In Spain, it is close to that of the United Kingdom, nearly 20 %.

From the viewpoint of the distribution of votes, differences are even more clear-cut. Indeed in some countries, limitations to voting rights (more exactly to the rule "one share-one vote") further increase the concentration of the rights of control compared to that of the rights of property (rights on cash flow). It was thus calculated that in Austria, Germany, Belgium and Italy, one quoted company out of two is controlled to the extent of more than 50 % by one investor or one group of investors (Becht & Mayer (2001)). This percentage reaches 44 % in the Netherlands; 35 % in Spain and in Sweden and only 10 % in the United Kingdom ².

It is necessary to add that the nature of blockholders is also diverse according to countries. We saw that in the United Kingdom the biggest blockholders are essentially institutional investors but their power of control is low on average. In Austria and in Germany family capitalism, participation in the capital of other companies and participation of financial institutions are the controlling powers. In Italy as in Spain families and pyramidal structures hold this power. In Sweden, the holding company of the Wallenberg family has control on the biggest companies of the country and these disparities entail differences in the aims and the type of management of companies.

1.3 Structure and composition of boards

The dissimilar conceptions of corporate missions which inspire the systems of governance are also found in the variety of managing bodies. In Germany, the principle of joint management is embodied in a two-level structure of governance including a board of directors made of executive members and a supervisory board in which employees are strongly represented and which appoints the board of directors. In the Netherlands, large companies have a fairly small supervisory board which appoints the board of directors, appraises managers and presents annual accounts. Let us not forget that these firms have to set up a factory committee with a fairly wide consultative role with notably the possibility of blocking or of postponing some decisions concerning employment and salaries (pensions, safety regulations, working schedules...).

On the contrary, it is a single structure, that of the board of directors consisting of executive and non executive directors, which prevails in the United Kingdom. France is in an intermediate situation because companies may choose between the two types of structures, but it seems that the two-tier structure is gaining strength in big firms. Finally, Italy's structures are different with the existence of an auditing committee outside the board of

²For the United States, figures are 5.4 % for NYSE and 8.6 % for NASDAQ. The available figure for France (20 %) is only based on companies listed in CAC 40 and then has little significance. From a fairly wide sample of listed companies, Bloch & Kremp (2001) worked out that the average percentage held by the biggest shareholder was 52 %, when it reached only 26 % on companies listed in CAC 40.

directors (the members of this committee are not on the board of directors). Like the board, this committee is elected by all shareholders and its mission consists in controlling the action of the non-executive directors.

As regards the composition of boards, the presence of independent administrators is very diversely respected from one country to the other. The principle is fairly well implemented in the United Kingdom, whereas in France, the same personalities from a restricted group, who accumulate mandates, are frequently found on the boards of big companies. The same flaw is found in Italy. As for Germany, we have already seen that parts of the members of supervisory boards are employee representatives, so it is not possible to speak of independence.

1.4 Control by takeover bids

Nowhere are takeover bids an effective mechanism to sanction and control companies. Nevertheless, the frequency of these operations and the opinion people have of them vary significantly from one place to the other. In the countries where the rights of control are strongly concentrated, hostile takeover bids are obviously very rare. In the case of Austria, the Netherlands or Sweden the takeovers are mainly seen as the coming together of companies by mutual agreement. In Germany, the law is restrictive on these operations which are considered negatively by public opinion, which sees in them a questioning of the national corporate model. This explains why German MEPs blocked a directive aiming to facilitate hostile takeover bids in the European Parliament.

In the United Kingdom on the other hand, the frequency of takeover bids is high and it can be estimated that about 10 % of quoted companies were the object of such an operation during the 90s. However, it is not demonstrated that the companies concerned were particularly badly managed or unprofitable, or that their efficiency was improved by these operations. In fact, even though the capital of the English companies is very scattered, a set of measures was implemented enabling managers to protect themselves from hostile takeovers. Not much can be expected from this form of market discipline.

1.5 Banking control

The figures quoted in the introduction show that the proportion of bank loans in the financing of companies is very different from one country to the other. However these figures must be used with caution because they vary a lot according to statistical sources, according to whether we consider stocks or flows, and depending on the types of firms concerned. Although the financial structures of the large quoted companies have become more similar, those of small and medium-sized firms have retained strong peculiarities from one country to the other.

Besides, the role of banks in companies is not limited to the granting of loans; banks also hold stocks and sit in Boards. It is a well-known fact that the relation of control

is much richer when the lender is also a shareholder, because it incites him to be interested in the distribution of probability of cash flows (and not only in the probability of a repayment). What is more, the conflict of interest between creditors and shareholders is partially erased, which reduces moral hazard, that is to say the incentive to overvalue risky investment. Finally, some observations show that the introduction of bank representatives on boards increases the performance of the companies concerned.

The model of the German universal bank is typical of such a construction which strengthens the link between credit institutions and firms. This is where the basic principle of "Rhenish capitalism" lies. In this particular case, banks intervene in loans and in stockholders' equity, and they can use the mandates given by their customers who are shareholders to vote in general meetings. Besides the "home bank" is invested with particular responsibilities (by law and by convention) in case the company should have financial difficulties. On the contrary in Italy, but also in France, regulations limit the participation of banks in the capital of companies and thus put more distance between them.

In this area it is also necessary to take into account the governance systems of the banks themselves (that is to say the question of the "control of the controller") as well as the structure of the credit market (the concentration of the banking sector). German mutual banks certainly do not have the same objectives or the same horizons as English banks. At least the constraints of short-term profitability are not the same in both cases. This therefore has a bearing on the type of relation between banks and companies. The same is true whether banks have market power or whether they are in a tough competition situation. In the first case, we show that they can invest in long term relations because they can keep the clientele of their borrowers for a long time, whereas in a competitive market, in which borrowers are more mobile, it is more difficult to have long term relations; then the model of the "acting bank" prevails. Here again, even if statistics are difficult to interpret, the concentration of banking systems varies widely. The biggest five banks hold over 70 % of market share in the Netherlands, in Belgium and in Portugal, 50 % in Spain and in Austria, 40 % in France and in Italy, 20 % in Germany³.

2 What are the obstacles to the convergence of governance systems ?

The static report of heterogeneousness of the European systems of governance we have just drawn up must not however mask the reality of a recent move towards more convergence. For example, in a number of countries an increase in market financing, a reduction of inter-corporate stock-holdings or of pyramidal structures can be noticed as well as a rise in the number of privatizations, and an increase in the weight of institutional investors in the capital of firms. At the same time (and this may be a contradiction) in several countries of Continental Europe, companies resort more often to two-tier structures (board of

³These figures were taken from Davis & Bandt (2000).

directors and supervisory board) which show their will to better take into account the interests of all stakeholders and specially those of employees.

Nevertheless the unification of financial systems in Europe will not be an easy matter, since the differences we have pointed out are rooted in a long history which cannot be put into question overnight, and also because the forms of governance are coherent with other rules, standards and institutions which characterise the economic and social models to which they belong. Consequently, the coming together of governance systems is not easily conceivable without the existence of these institutional complementarities. Yet nothing indicates that the homogenization of financial systems is the best way to bring this convergence about.

That is why we are now going to analyse the contents of these complementary institutions. We will not try to be exhaustive; instead we would like to describe some interactions between the forms of governance and other aspects of the economic and social organization.

2.1 Characteristics and dynamics of the productive system

In this respect we first want to talk about the characteristics of the firms which make the productive system, at a given stage of development. Indeed it is very clear that the question of governance is put differently in growing companies and in those which have reached maturity: the nature of information asymmetries and the conditions of their reduction are very dissimilar from one type to the other. The former have hierarchical control because of their size, of their higher financial frailty, and of the uncertainty of their projects. The latter are more easily controlled by markets.

Furthermore, the model of governance is conditioned by the type of production even though it is impossible to determine a priori any causality between both⁴. Slow-maturity activities which require heavy equipment go better with concentrated capital and the stability of funding relations. Besides, optimal distribution of property rights depends on the nature of the resources implemented. In theory nothing proves that this allocation must be exclusively in the interest of capital providers and that the issue of control is limited to a relation of agency/proxy (relation d'agence) between managers and shareholders. This principle may be justified in the case of traditional companies (let us say Taylor-style companies) in which equipment is the structuring resource which governs the organization of production, whereas employees are easily replaceable in their jobs. On the other hand in an economy of knowledge, human capital is the strategic input and so it is advisable to allocate rights of property to the workforce in order to bring them to make the specific investments necessary for the development of the company⁵. In this case, the structure of financing has to be such as it confers on the employees a right of control on corporate decisions and on the sharing of residual funds.

⁴See about this Carlin & Mayer (2000)

⁵For a comparison of american and european firm strategies, based on this opposition between standardization and differentiation, see Vitols (1997) and Streeck (2001).

Governance models are also interdependent on the structures of the markets of goods and services. Indeed competition is a form of control and because it is rather constraining, it solves ipso facto the problems of agency or incentives and invalidates questioning about corporate objectives. In other words, market structures which are competitive enough are themselves an effective form of governance. However, the main goal of a control system is not only that of inciting to the optimization of its assets. It also consists in favouring the emergence of new activities as well as the reallocation of productive resources. In this way, the action of financial markets undoubtedly stimulates capital mobility and thus the flexibility of the productive system. It also contributes to enlighten strategic choices by aggregating information and opinions of various origins. However this does not mean that innovation is always related to market funding. First because the birth or development of innovative firms requires more often to resort to capital-risk institutions, and therefore to financial intermediaries. In this particular case, the contents of contracts (intervention in stockholders' equity is necessary here) and the forms of control (only intermediation is able to initiate financing) must not be confused. Next, because innovation takes various forms depending on sectors, because the time of maturation, and the guarantees offered can be widely different. Yet it is true that the long-term relations which usually characterise intermediated financing may hinder the reallocation of capital during phases of major technological innovation.

2.2 The structure of fund supply

However the importance of technological determinism should not be exaggerated. Many observations show that it is possible to finance and implement the same production techniques according to very different modalities. The same stage of development can be compatible with different forms of industrial organization. The determiners of governance models are not simply linked to the composition and to the evolution of productive activities.

Among these determiners, the structure of saving as well as the channels through which it is collected are undoubtedly important (Vitols (1997), Vitols (2001), Jackson & Vitols (1998)). It is easy to understand that savings collected in the shape of cash deposits by credit institutions will have the same destination as savings that are invested directly or by means of investment funds on financial markets. In each case the control exercised on a company will be of a different nature. In other words, here the supply of capital conditions the type of governance.

As for the structure of savings, it undoubtedly depends on the status, the organization, the concentration of financial institutions. But it also depends on its origin (therefore on the distribution of incomes), on the tax system, on the welfare system (which has a bearing on contingency funds), on statutory measures aiming to protect or favour saving. All these factors are likely to entail deep and lasting disparities from one country to the other. In this area, pension schemes naturally deserve particular attention. An economy where

a system of capitalization prevails needs a developed financial market and logically leads to a scattered structure of capital. Conversely a system of pension based on redistribution adapts better to an intermediated system and to capital concentration. The French experience provides an *ad absurdum* demonstration of this: the will to develop capital markets coupled with the preservation of a system of pension based on redistribution has led to a massive entry of foreign investors in the capital of big firms. This evolution is worrying because it subjects companies to management criteria which are in contradiction with the other dimensions of institutional organization, in particular labour relations, and social advantages.

It should be added that even inside capitalization regimes, the systems with defined benefits or on the contrary with defined contributions lead to very different types of investment and therefore of control.

2.3 The legal framework

Insofar as the legal system defines the guarantees of capital providers, it naturally affects the conditions of financing and of the control of companies. Research work by LaPorta et al. (1997), LaPorta et al. (1998) and LaPorta et al. (1999) has taken this idea to its extreme by endeavouring to show that the level of protection of investors determines corporate financial structures and modes of governance. For example, a structure of scattered capital requires a good protection of minority shareholders. Also, resorting to borrowings supposes the possibility of giving and of claiming guarantees, and also requires effective legislation on bankruptcies. So that the volume and structure of external financing would be related, beyond the laws and their enforcement, to the foundations of national legal systems. Thus the Anglo-Saxon model of "Common Law" would be favourable to the financing and to the control by markets, whereas the French model of "Roman Law" would better suit intermediated financing and capital concentration and might entail in some cases phenomena of rationing.

The conclusions of this thesis ("LLSV's thesis" in the remainder of the paper) are particularly pessimistic as regards the prospects of the homogenization of governance systems in Europe. These are unlikely to converge if their underlying legal frameworks differ too much in their general principles. However, even though LLSV's thesis is attractive in theory and has some explanatory power, it does not take into account the reality of models of financing and of governance. In many cases historical experience shows that there is no obvious link between the evolution of finance and that of law⁶: in various countries of Continental Europe financial systems have changed in the last 20 years, whereas the legal systems have not evolved either in their principles or in the main features of their contract law. Obviously, the system of "French Civil Law" has not prevented the strong development of financial markets and a sharp drop in intermediation.

⁶For an historical approach of LLSV's thesis, see Morck & Steier (2005).

The concentration of capital which prevails under various forms in Continental Europe does not necessarily result from the protection of minority shareholders. There is a wealth of other possible explanations: capital concentration can be for example, a way of regulating the balance of power between employees and capital providers⁷. Having said that, we previously tried to show that the efficient allocation of property rights could not be reduced to the optimization of the capital providers' interests. A general theory of governance cannot therefore be built by analyzing the way in which these interests are protected. Such a system is the result of a compromise between the various stakeholders of the company. And nothing proves that this compromise is determined mainly by the legal frame in which it is formed, or even that it takes its final shape at a given moment in a particular state of the law.

2.4 The working of the labour market

After all, governance models are determined in interaction with the set of rules, standards and conventions which govern the behaviour of economic agents. What makes their efficiency and at the same time makes it difficult to put them into question, is the way in which they fit in with the other aspects of the economic, legal and social system. Indeed it is this interplay of dependence and complementarities which makes difficult the converging of each dimension of the system.

In particular, the wide conception of governance adopted in the present paper confers on it a natural proximity with the organization of social relations and with the functioning of the labour market (Vitols (1997), Roe (2000), Streeck (2001)). It is easy to understand that a system of control by markets is better suited to a competitive functioning of the labour market. When there is enough job mobility, that is when the external market is sufficiently developed, the risk born by employees because of real and financial shocks is lower. Similarly it is easier at macroeconomic level to comply with criteria of short-term profitability when there are institutions or when behaviours have been developed to enable to meet the cost of the resulting higher instability, whereas a model built on more stable relations between employees and a company cannot fully adapt to the logic of financial markets⁸. The latter model implies forms of financing which look to the long term and offer enough flexibility for a firm to face the rigidity of its commitments. To sum up, it implies a more intermediated system of financing. In such a model, adaptation to change is more strongly dependent on the common will of managers and employees. This supposes that employees find in the upgrading of their qualification, of their salary and of their status the necessary motivations to accept or to lead evolutions. One way or another, it means that they must hold sufficient rights of control on corporate decisions and on residual funds.

⁷For instance Roe (1999) considers that the low level of development of German financial markets results from too little power given to shareholders. Capital concentration would then be a reply to the balance of power tilted too much in favour of employees.

⁸For example, Schnitzer (1995) shows how a threat of takeover on a firm can weaken the relationships between this firm and its workers.

But the working of the labour market is not only a matter of compromise within the company. It also depends on the regulations and institutions which define the protection of employment⁹, on the conditions of mobility, on unemployment benefit schemes (more generally compensation payments), on the organization of in-service training... So that governance systems are naturally dependent on the way human resources are managed.

3 A data analysis approach

Let us now present a data analysis approach of these institutional complementarities in Europe. The heterogeneity of corporate governance systems in Europe has already been tackled by Amable & Paillard (2000). But their principal component analysis only relates to financial system indicators without considering their potential interactions with non financial factors. Symmetrically, Cadiou & Guichard (1999) highlight strong heterogeneities of european labour markets but do not deal with the possible implications of their results in terms of corporate governance. Their approach is enlarged by Nicoletti, Bassanini, Ekkehard, Jean, Santiago & Swain (2001) and Nicoletti, Scarpetta & Boylaud (1999) who carry out an econometric analysis of interactions between labour and product markets in OCDE countries.

With reference to the previous section, our goal is to widen the discussion and to adress the question of european corporate governance systems in the light of institutional complementarities. As Amable & Petit (2001), Amable (2000) and Amable (2002) who are interested in the diversity of european "Social Systems of Innovation and Production", we shall identify country groups and point out their specificity. But whereas Amable (2002) proceeds to a cluster analysis, we resort to a principal component anaysis. Moreover, our work explicitely raises the point of LLSV's legal determinants.

3.1 A principal component analysis

— Data

We use 4 groups of quantitative indicators:

★ *Financial structures and corporate governance:*

- *STOCK* measures the "importance of stock market value in the national economy", calculated by the FIBV ¹⁰ as the stock market value as a poucentage of GDP for 2000.
- *INT* measures the importance of bank intermediation in the economy. To construct this

⁹For a political approach of the interaction between the protection of shareholders and the regulation of the labour market, see Pagano & Volpin (2001).

¹⁰World Federation of Exchanges: <http://www.fibv.com>.

indicator, we divide the "claims of banking institutions on other resident sectors (i.e. others than the government)" (from the IMF International Financial Statistics) by the GDP for 2000¹¹.

- *CONC10* is obtained from LaPorta et al. (1999). It measures the pourcentage of firms that are "widely held" i.e. the pourcentage of firms whose ultimate owners have less than 10% of the voting rights. *CONC20* is calculated in the same way, but using a 20% cutoff. Both indicators are only available for 1995.

★ *The structure of productive system:*

— To measure the intensity of high technology and R&D activities, we use 3 indicators:

- *RD* is a ratio of total R&D expenses on GDP for 2000 (source: OECD, STI Outlook).
- *X* measures the share of high technology products exports as a pourcentage of total exports for 2000 (source: OECD, STI Outlook).
- *HTVA* is a larger indicator that measures the value added of technology and knowledge-based industries (high technology manufactures, medium-high technology manufactures, post and telecommunication, finance and insurance services) as a pourcentage of total value added for 2000 (source: OECD, STI Outlook).

— We also deal with the intensity of human capital:

- *EDU* measures education expenses as a pourcentage of GDP for 1999 (source: Eurostat).
- *HRTS* measures human resources in science and technology occupation as a pourcentage of total employment, in 2002 (source: OECD, STI Outlook).

— To capture the regulation of product market, we use two indicators built by Nicoletti et al. (2001) and Nicoletti et al. (1999) for 1998:

- *GOOD1* is the average of several indicators (barriers to entry, public ownership, market structure, vertical integration and price controls) for 7 industries : gas, electricity, post, telecoms, air transport, railways, road freight.
- *GOOD2* is the average of several indicators (state control, barriers to entrepreneurship, barriers to trade and investment, economic and administrative regulation).

The higher these indicators are, the higher the level of regulation is.

★ *The structure of fund supply:*

— The nature of pension systems (repartition vs. capitalisation, defined benefit vs. defined contribution) cannot be introduced in our empirical study because of the lack of harmonised data on these issues. But the weight of institutional investors in corporate governance systems can be measured:

¹¹We could also use banking concentration data. But harmonised figures for both european and non european countries are very difficult to find. Moreover, even when limited to european countries, indicators vary strongly from one source to the other.

- *INSTINV* indicates the weight of institutional investors in the economy. It is defined by the OECD Institutional Investors Statistical Yearbook as the financial assets of institutional investors ("insurance companies, pension funds, investment companies and other forms of institutional investors"¹²) as a percentage of GDP for 1999.
- *SHINSTINV* is also supplied by the OECD Institutional Investors Statistical Yearbook. It measures the percentage of shares in the portfolio of institutional investors in 1999. This indicator especially captures the role played by institutional investors in corporate governance through shareholding.

— In order to assess the importance of the system of social protection, we use a variable built by Botero, Djankov, LaPorta, LopezDeSilanes & Shleifer (2004) and we will call *SOCIALAW*. It captures 3 aspects of social protection: the level of old-age, disability and death benefit, the level of sickness benefit and the level of unemployment benefit¹³. It lies between 0 and 1: the higher it is, the higher the level of protection is.

★ *The regulation of labour market:*

— To measure the regulation of labour market, we use variables built by Botero et al. (2004):

- *EMPLAW* captures 4 aspects of the employment law: the possibility of alternatives to the standard employment contract, the cost of increasing hours worked, the cost of firing workers, the dismissal procedures.
- *COLLECLAW* captures 2 aspects of the collective relation laws: the labour union power and the degree of protection of workers during the collective disputes¹⁴.

As *SOCIALAW*, both indices lie between 0 and 1. The higher they are, the higher the level of regulation is.

Finally our sample contains 15 variables and 16 countries : 14 European countries (France, Germany, Denmark, Belgium, Austria, Finland, Greece, Italy, Netherlands, Norway, Portugal, Spain, United Kingdom¹⁵) as well as the United States and Japan.

— Results

The principal component analysis is exclusively implemented on European countries. Japan and the United States are given the status of "supplementary individuals" in order not to introduce the characteristics of non European countries in calculations.

★ *Variables:*

¹²It would have been interesting to calculate this indicator for each form of institutional investor (especially for pension funds) but such a decomposition is not available for all countries.

¹³For more details concerning the contents of this indicator, see Botero et al. (2004), pp. 1350 -1352.

¹⁴cf. the previous footnote.

¹⁵Ireland and Luxembourg are excluded because too many data are missing for these countries.

The two first axis of our principal component analysis explain about 57% of the variance. Correlations and coordinates of variables for both axis are summarized in Table 1 and in Graph 1.

Variables	Axis 1		Axis 2	
	Coord	Correl	Coord	Correl
<i>STOCK</i>	0.67	0.45	0.28	0.08
<i>INT</i>	0.18	0.03	-0.53	0.29
<i>CONC10</i>	0.86	0.74	-0.29	0.08
<i>CONC20</i>	0.76	0.58	-0.11	0.01
<i>INSTINV</i>	0.86	0.74	-0.10	0.00
<i>SHINSTINV</i>	0.72	0.53	0.26	0.07
<i>EMPLAW</i>	-0.50	0.25	0.48	0.23
<i>COLLECLAW</i>	-0.73	0.54	0.07	0.00
<i>SOCIALAW</i>	-0.13	0.01	0.65	0.42
<i>EDU</i>	0.00	0.00	0.77	0.59
<i>HRTS</i>	0.00	0.00	0.77	0.59
<i>RD</i>	0.53	0.28	0.75	0.57
<i>X</i>	0.84	0.64	0.11	0.01
<i>HTVA</i>	0.47	0.22	0.19	0.03
<i>GOOD1</i>	-0.70	0.49	-0.13	0.01
<i>GOOD2</i>	-0.74	0.55	0.14	0.01

Table 1: Principal component analysis : factors for the principal variables

[Graph 1 here]

The first axis explains 38.5% of the variance. It clearly shows an opposition between two groups of variables:

— on the one hand, we have a "market oriented" corporate governance (*INSTINV*, *SHINSTINV*, *STOCK*, *CONC10* and *CONC20*) and a high level of technology (*X*, *RD* and *HTVA*).

— on the other hand, we have a high regulation of labour (*EMPLAW* and *COLLECLAW*) and product markets (*GOOD1* and *GOOD2*).

The second axis explains nearly 18.5% of the variance. It distinguishes two other groups of variables:

— on the one hand, we have a strong social protection (*SOCIALAW*), a high level of education (*EDU*, *HRTS*) and a high ratio of R&D expenses (*RD*).

— on the other hand, we find a strong level of banking intermediation (*INT*).

These outcomes are noteworthy because they confirm that the famous typology based on the opposition between financial markets and intermediation is not relevant. On the first axis, *STOCK* is not opposed to *INT*, but to labour and product market indicators. On the second axis, *INT* is not opposed to *STOCK*, but to social protection, education and R&D variables.

★ *Countries:*

Graph 2 illustrates how countries differ from each others according to both axis:

[Graph 2 here]

— The United-Kingdom is characterised by a "market oriented" corporate governance, a high level of technology, a very weak regulation of labour and product markets. This particularly low regulation of the United-Kingdom labour market (compared with other European countries) has already been stressed by Cadiou & Guichard (1999). As Byrne & Davis (2003), we note that the United Kingdom is also characterised by a high level of bank intermediation.

— Greece, Italy, Spain and Portugal constitute another group (called "the mediterranean group" by Amable & Petit (2001)). On the one hand, their financial system is not "market oriented" and intermediate financing is important for three of them: Greece, Italy, Spain. On the other hand, the regulation of their labour and product markets is high and the level of R&D is low. This is consistent with the negative correlation between the strictness of the labour market regulation and the intensity of R&D activities found by Nicoletti et al. (2001).

— A third group gathers Sweden, Finland and Denmark. In these countries, social protection, education, R&D are important while bank financing indicator is low. As it has already been underscored by Amable & Paillard (2000), Amable (2000) and Amable (2002), it shows that the anglo-saxon system is not the only one to be able to promote innovation. R&D can also emerge from a high level of human capital investment and of social protection.

— Norway has an intermediate profile: education and social protection are not so important, and the regulation of labour and product markets is higher than in Sweden, Finland or Denmark. This particularity of this country is also underlined by Amable & Petit (2001) who exclude it from what they call "the social democratic social system of production and innovation".

— Finally, we find that France, Belgium, Austria and Germany constitute a group that do not clearly exhibit any pronounced profile. The Netherlands are not far from this configuration. It is interesting to see that in Germany (as well as in Austria), whose financial

system is often considered as particularly "bank oriented", the level of bank financing is not so high. This result coincides with Edwards & Fisher (1993)'s and Alexander & Mayer (1990)'s conclusions.

3.2 What about legal determinants ?

We now attempt to confront LLSV's legal theory to our data analysis results. How do legal determinants interact with our European country typology ? To answer these questions, let us consider successively both aspects of LLSV's thesis.

— Does the legal framework matter ?

Following LLSV, we define a variable (we will call *LEGAL*) that indicates the origin of each national legal system: French, English, German and Scandinavian. Table 2 (in Appendix) gives the modalities taken by these variables in each country of our data set.

Since our qualitative data have too numerous modalities in comparison with the number of individuals, it is quite difficult to proceed to a discriminatory analysis. But we can indicate what are the modalities taken by each variable for each country on our principal component analysis graph (Graph 3). We also carry out average equality tests whose results are summarized in Table 3 (see the Appendix).

[Graph 3 here]

We note that LLSV's classification partly coincides with the typology given by our data analysis. The "south" country group can be associated with the french legal system, and "social democracy" countries are characterised by a scandinavian legal system. Our typology also isolates the United Kingdom, which has an english legal environment. These observations are confirmed by the results of average equality tests. The average of nearly all the variables which are correlated with the first or with the second axis are significantly different for each level of *LEGAL*: Scandinavian systems have the highest levels of *EMPLAW*, *SOCIALAW*, *EDU*, *HRTS* and *RD*, English systems the highest levels of *CONC10*, *CONC20*, *INSTINV* and *SHINSTINV*, and French systems exhibit the highest values of *GOOD1*, *GOOD2* and *COLLECLAW*¹⁶.

— Why does the legal framework matter ?

LLSV's thesis suggest that the legal framework matters because it determines the degree of investor protection. More especially, the english legal system implies a high level of

¹⁶The influence of *LEGAL* on *EMPLAW*, *COLLECLAW* and *SOCIALAW* is also pointed out by Botero et al. (2004) who argue that French and Scandinavian systems have historically been associated with a "political power of the left".

investor protection, which facilitates the development of financial markets and of ownership dispersion. Symmetrically, the french legal system is the worst since it implies a low investor protection, thus impeding the development of financial markets and enticing the concentration of corporate ownership.

We thus use the same variable as LLSV (we will call it *SHARE*). It is a qualitative variable that measures the level of shareholder protection and lies between 0 and 5¹⁷. The higher it is, the stronger the protection is¹⁸. The modalities taken by *SHARE* in each country is presented in Table 2 (see the Appendix) and in Graph 4.

[Graph 4 here]

In LLSV's view, *STOCK*, *CON10* and *CON20* strongly discriminate countries. At first glance, this may also be the case in our typology since our first axis is partly defined by these variables. But it seems that the discriminating effect only holds for *CON10* and *CON20* since Table 4 indicates there is no significant effect of *SHARE* on *STOCK* average. Besides, the role played by the degree of shareholders' protection is all the more questionable than the relationship between *SHARE* and *CON10* (or *CON20*) does not seem to be linear. Moreover let us remind that *STOCK*, *CON10* and *CON20* are not the only variables to define the first axis. It is also constructed on the opposition between non financial variables, such as the intensity of R&D, the regulation of labour and product market. Non financial variables are also predominant for the determination of the second axis. But according to the average equality tests presented in Tables 3 and 4, there is no significant effect of *SHARE* on non financial variable averages. This is confirmed by Graph 4: *SHARE* seems to be correlated neither with the first nor with the second axis.

All these elements suggest that when complementarities and interactions between *all* variables are taken into account, the importance of the level of investors' protection vanishes. Legal environment matters for corporate governance but through complex complementarities, that the LLSV do not capture when they focus on investor protection.

Conclusion

The aim of this article was to adress the question of the convergence of financial structures and European corporate governance systems towards a unique model. Resorting to theoretical arguments as well as to empirical evidence, we argue that such a move towards convergence is likely to be undermined by the diversity of European governance systems and by the existence of institutional complementarities. Our data analysis makes it clear that European financial and governance divergence cannot be analysed without considering national differences of labour and product market regulation, of human capital and

¹⁷LLSV are also interested in the degree of creditor protection: the higher it is, the more developed the debt market should be. Insofar as the measure of debt market is not available for all the countries of our data set, the issue of creditor protection becomes here less interesting.

¹⁸More details are given in LaPorta et al. (1999), pp. 1130-1137.

technology intensity. Our results thus contrast with the widely known typology based on the opposition between "market oriented" and "bank oriented" financial systems. Our study also takes a critical look to LLSV's thesis since we show that corporate governance practices do not boil down to investor protection issues. Actually, both typologies miss to capture the implications of institutional complementarities on the way firms are governed.

True, there exists an alternative explanation for financial and corporate governance divergence in Europe. It consists in interpreting the persistence of national financial structures as a form of inefficient inertia (Bebchuk & Roe (1999), Krosner & Strahan (1999), Rajan & Zingales (2000), Rajan & Zingales (2001)¹⁹. According to this approach, the path dependence phenomenon would be due to incumbent agents (banks, managers, blockholders...) who hinder the development of market oriented governance practices in order to protect the rent they get from the lack of competition and from a high ownership concentration. The institutional complementarity literature supplies a more complex and more convincing explanation. In the line of Gilson (2000) and Vitols (1997), it suggests that persistence insures the coherence and thus the efficiency of each national corporate governance system. So trying to build a unique corporate governance space in Europe (eventually through the promotion of the anglo-saxon financial model) could be harmful for the performances of European economies.

Appendix

¹⁹The role played by political and ideologies in the history of corporate governance systems is outlined by Morck & Steier (2005).

Countries	<i>LEGAL</i>	<i>SHARE</i>
United Kingdom	English	5
Sweden	Scandinavian	3
Finland	Scandinavian	3
Denmark	Scandinavian	2
Norway	Scandinavian	4
Greece	French	2
Italy	French	1
Spain	French	4
Portugal	French	3
France	French	3
Belgium	French	0
Netherlands	French	2
Germany	German	1
Austria	German	2
Japan	German	4
United States	English	5

Table 2: LLSV's legal determinants

Quantitative variables	Significance level in %	Effect of <i>LEGAL</i> on the quantitative variable
<i>STOCK</i>	26	
<i>INT</i>	32	
<i>CONC10</i>	0.16	English > German > French > Scandinavian
<i>CONC20</i>	2.3	English > Scandinavian > German > French
<i>INSTINV</i>	14	English > Scandinavian > German > French
<i>SHINSTINV</i>	1.3	English > Scandinavian > French > German
<i>EMPLAW</i>	4	Scandinavian > French > German > English
<i>COLLECLAW</i>	9.7	French > German > Scandinavian > English
<i>SOCIALAW</i>	2.6	Scandinavian > French > German > English
<i>EDU</i>	1.5	Scandinavian > German > French > English
<i>HRTS</i>	7	Scandinavian > German > French > English
<i>RD</i>	10	Scandinavian > German > English > French
<i>X</i>	39	
<i>HTVA</i>	47	
<i>GOOD1</i>	0.32	French > Scandinavian > German > English
<i>GOOD2</i>	1.32	French > Scandinavian > German > English

Table 3: Average equality tests for *LEGAL*

H0: Quantitative variable averages for each level of the qualitative variable are equal

H1: Quantitative variable averages for each level of the qualitative variable are different

Quantitative variables	Significance level in %	Effect of <i>SHARE</i> on the quantitative variable
<i>STOCK</i>	52	
<i>INT</i>	69	
<i>CONC10</i>	0.55	5 > 1 > 3 > 2 > 4 > 0
<i>CONC20</i>	5.6	5 > 1 > 3 > 4 > 2 > 0
<i>INSTINV</i>	33	
<i>SHINSTINV</i>	31	
<i>EMPLAW</i>	0.35	3 > 4 > 1 > 2 > 0 > 5
<i>COLLECLAW</i>	2.66	4 > 1 > 3 > 2 > 0 > 5
<i>SOCIALAW</i>	39	
<i>EDU</i>	75	
<i>HRTS</i>	38	
<i>RD</i>	77	
<i>X</i>	16	
<i>HTVA</i>	32	
<i>GOOD1</i>	66	
<i>GOOD2</i>	26	

Table 4: Average equality tests for *SHARE*

H0: Quantitative variable averages for each level of the qualitative variable are equal

H1: Quantitative variable averages for each level of the qualitative variable are different

References

- Alexander, I. & Mayer, C. (1990), 'Bank and Securities Markets: Corporate Financing in Germany and in the UK', *Journal of the Japanese and International Economies* **4**, 450–475.
- Amable, B. & Paillard, S. (2000), 'Intégration européenne et systèmes financiers: y-a-t-il convergence vers le modèle anglo-saxon ?', *mimeo CEPREMAP* .
- Amable, B. & Petit, P. (2001), 'The Diversity of Social Systems of Innovation and Production during the 1990s', *Working Paper CEPREMAP 2001/15* .
- Amable, B. (2000), 'Institutional Complementarity and Diversity of Social Systems of Innovation and Production', *Review of International Political Economy* **7**, 645–687.
- Amable, B. (2002), 'Is There an Institutional Base of the New Economy', *mimeo CEPREMAP* .
- Bebchuk, L. & Roe, M. (1999), 'A Theory of Path Dependence in Corporate Ownership and Governance', *Stanford Law Review* **52**, 127–170.
- Becht, M. & Mayer, C. (2001), Introduction, in F. Barca & M. Becht, eds, 'The Control of Corporate Europe', Oxford University Press.
- Bloch, L. & Kremp, E. (2001), *Ownership and Voting Power in France*, Oxford University Press.
- Botero, J., Djankov, S., LaPorta, R., LopezDeSilanes, F. & Shleifer, A. (2004), 'The Regulation of Labor', *Quarterly Journal of Economics* **119**(4), 1339–1382.
- Boutillier, M., Labye, A., Lagoutte, C. & Oheix, V. (2002), 'Financement et gouvernement des entreprises', *Revue d'Economie Politique* .
- Byrne, J. & Davis, P. (2003), *Financial Structure: an Investigation of Sectorial Balance in the G7*, Cambridge University Press.
- Cadiou, L. & Guichard, S. (1999), 'La diversité des marchés du travail en Europe : Quelles conséquences pour l'Union Monétaire ?', *Document de travail CEPRII 99-10* .
- Carlin, W. & Mayer, C. (2000), *How do Financial Systems Affect Economic Performance ? in Corporate Governance: Theoretical and Empirical Perspectives*, Cambridge University Press.
- Davis, P. & Bandt, O. (2000), 'Competition, Contestability and Market Structure in European Banking Sectors on the eve of EMU', *Journal of Banking and Finance* pp. 1046–1066.

- Edwards, J. & Fisher, K. (1993), *Bank, Finance and Investment in Germany*, Cambridge University Press.
- Georgen, M. & Renneboog, L. (2001), *Strong Managers and Passive Institutional Investors in the UK, in the Control of Corporate Europe*, Oxford University Press.
- Gilson, R. (2000), ‘Globalization Corporate Governance : Convergence of Form or Function’, *Columbia Law School Working Paper 174* .
- Jackson, G. & Vitols, S. (1998), ‘Pension Regimes and Financial Systems : Between Financial Commitment, Market Liquidity and Coporate Governance’, *mimeo Wissenschaftszentrum berlin fü Sozialforschung* .
- Krosner, R. & Strahan, P. (1999), ‘What Drives Deregulation ? Economic and Politics of the Relaxation of Bank Branching Restrictions’, *Quarterly Journal of Economics* **114**(4), 1437–1467.
- LaPorta, R., de Silanes, F. L. & Shleifer, A. (1999), ‘Corporate Ownership Around the World’, *Journal of Finance* **54**(2), 471–517.
- LaPorta, R., LopezDeSilanes, F., Shleifer, A. & Vishny, R. (1997), ‘Legal Determinants of External Finance’, *Journal of Finance* **52**, 1131–1150.
- LaPorta, R., LopezDeSilanes, F., Shleifer, A. & Vishny, R. (1998), ‘Law and Finance’, *Journal of Political Economy* **106**, 1113 – 1155.
- Morck, R. & Steier, L. (2005), ‘The Global History of Corporate Governace: an Introduction’, *NBER Working Paper 02138* .
- Nicoletti, G., Bassanini, A., Ekkehard, E., Jean, S., Santiago, P. & Swain, P. (2001), ‘Product and Labour Markets Interactions in OECD Countries’, *OECD Economic Department Working Paper 312* .
- Nicoletti, G., Scarpetta, S. & Boylaud, O. (1999), ‘Summary Indicators of Product Market Regulation with an Extension to Employment Protection Legislation’, *Economic Department Working paper 226* .
- Pagano, M. & Volpin, P. (2001), ‘The Political Economy of Coporate Governance’, *Center for Studies in Economics and Finance Working Paper 29* .
- Rajan, R. & Zingales, L. (2000), ‘The Great Reversals : the Politics of Financial development in the 20th Century.’, *OECD Working Paper 38* .
- Rajan, R. & Zingales, L. (2001), ‘The great Reversals : The Politics of Financial Development in the 20ies Century’, *CEPR Working Paper 2783* .
- Roe, M. (1999), *Codetermination and German Securities Market*, The Brooking Institution.

- Roe, M. (2000), 'Comparative Corporate Governance', *Palgrave dictionary* .
- Schnitzer, M. (1995), 'Breach of Trust in Takeovers and the Optimal Corporate Charter', *The Journal of Industrial Economics* **18**, pp 229 – 259.
- Streeck, W. (2001), 'The Transformation of Corporate Organization in Europe : An Overview', *MPIFG Working Paper 01/8* .
- Vitols, S. (1997), Financial Systems and Industrial Policy in Germany and Great Britain : the Limits of Convergence, in Regimes Changes, *in* D. Forsyth & T. Nottermans, eds, 'Regime Changes: Macroeconomic Policy and Financial Regulation in Europe from the 30s to the 90s', Berghahn Books.
- Vitols, S. (2001), 'The Origines of Bank-Based and Market-Based Financial Systems : Germany, Japan and the United States', *mimeo Wissenschaftszentrum berlin fü Sozialforschung* .
- Yoshimori, M. (1995), 'Whose Company Is It ? The Concept of Corporation in Japan and in the West', *Long Range Planning* pp. 33–44.