

THE ENTREPRENEURIAL SOCIETY

This timely book analyses the emergence of new firms in a broad context where economics, management and sociological approaches may be joined for a new perspective.

The Entrepreneurial Society reveals that the market benefits of an entrepreneurial economy are evident in the new technology that has been made available to consumers over the past ten to 20 years. It illustrates that entrepreneurial firms provide the market with innovations that create new products and, in turn, generate new employment and tax revenue, thus playing a critical role in surviving the economic crisis. The expert contributors explore the diverse conditions that explain, permit and support entrepreneurship, allowing thinking 'outside the box' and enhancing breakthrough innovations. At a time when new challenges relating to the ecological footprint are appearing, this work will prove crucial.

The eclectic approaches to entrepreneurship within this book, gathered from different countries and fields of research, will prove to be hotly sought after by researchers and postgraduate students of entrepreneurship and social policy.

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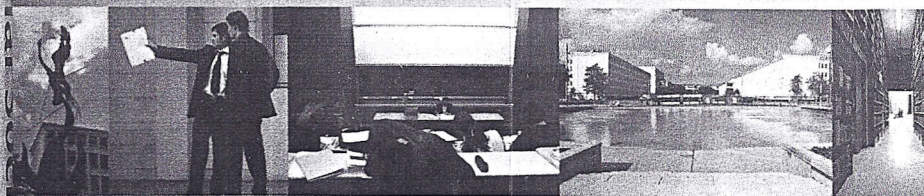


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The Entrepreneurial Society

How to Fill the Gap Between Knowledge and Innovation



Edited by
Jean Bonnet
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7. Differences in financial and legal systems and contribution of private equity funds to transfers of shares in Europe

**Rafik Abdesselam, Sylvie Cieply and
Anne-Laure Le Nadant**

INTRODUCTION

Private equity provides capital to companies that are not publicly traded on a stock exchange. This capital can be used to finance new firms, to develop new products and technologies, or to expand working capital. Most academic articles on private equity finance deal with the funding of these activities, that is, with venture capital only. Venture capital can be defined as a subset of private equity investment, which provides capital to companies in the early stages of the life cycle, particularly in innovative sectors.

Private equity, however, is also used to finance acquisitions and to resolve ownership and management issues. Successions in family-owned companies or buy-outs of businesses by experienced managers can be achieved using private equity funding. Private equity is thus a way of stimulating entrepreneurship and of energizing small and medium-sized enterprises (SMEs), which are caught between the difficulty of accessing the financial markets and the reluctance of banks to expose themselves to risk. Understanding the financial and legal factors that help private equity to flourish and to contribute to transfers of shares is therefore an important question for research.

Following Glachant et al. (2008), who stress the common features of the private equity segments rather than highlighting their differences, we focus, in this study, on the role played by private equity firms in the financing of all types of transfers of ownership rights in order to advance the understanding of private equity investing as a whole. The organization around funds that obey common rules is the first factor that unites the private equity industry, but the nature of the relationship between investor

and entrepreneur is the most important thing that distinguishes private equity from other forms of funding.

The role of private equity firms is deeply influenced by the nature of financial systems (Black and Gilson, 1998; Gompers and Lerner, 1998, 2001; Jeng and Wells, 2000). The principal proposition established in the literature is that private equity flourishes in countries with deep and liquid stock markets. But financial systems still remain different among European countries, despite the process of the European integration (Schmidt et al., 2002). In our study we first identify the expected effects of differences in financial systems on private equity activity. Second, we study, with individual data, similarities and dissimilarities between five European countries (France, Germany, Italy, Spain and the UK) in the contribution of private equity firms to transfers of ownership rights.

We retain these five countries because they are the five largest European countries in terms of gross domestic product, their private equity markets are relatively well developed and their governance systems still remain different (La Porta et al., 1998, Caby, 2007). We use data from Zephyr, a database from Bureau Van Dijk, which contains information on deals involving transfers of ownership rights. These deals include mergers (business combinations in which the number of companies decreases after the transaction), acquisitions of majority interests (all cases in which the acquirer ends up with 50 per cent or more of the votes of the target), transfers of minority stakes (below 50 per cent), leveraged buy-outs (LBOs), and initial public offerings (IPOs), which involve targets (companies being sold, or companies in which a stake is being sold) from France, Germany, Italy, Spain and the UK. Transfers of ownership can be supported by private equity firms but this feature is not compulsory. The information used in this study is thus very different from the data gathered by surveys which only concern deals financed by venture capital (Cumming et al., 2009; Manigart et al., 2002).

We structure the chapter as follows. Section 7.1 identifies expected relationships between the nature of governance systems and the role of private equity firms in transfers of ownership rights. Section 7.2 describes the sample and the data. In section 7.3 we present the results of the tests of the expected relationships between target nationality and the financing of transfers of ownership rights by private equity firms. We conclude by underlining the specific case of France.

7.1 LITERATURE REVIEW

For Cumming et al. (2009), the nature of the legal system can justify differences of venture capital funds' practices around the world. These authors

apply to venture capital the lessons of the classification of legal systems introduced by La Porta et al. (1998). These authors justify differences in financing structures between 49 members of the OECD with legal arguments. This approach, which links 'Law' and 'Finance' topics, has deeply renewed the comparative study of financing systems which, hitherto, was only based on financing means and on a dual classification of countries, which are either market centred or bank oriented. Some authors complete these two approaches by taking into account the structure of shareholdings. In this section we use these three approaches to analyse the role of private equity firms in the five countries studied. For each approach, we describe the countries studied and then we identify the consequences of their characteristics on the role of private equity.

7.1.1. Role of Private Equity Firms and Financing Systems

Classification of financing systems and position of countries studied

Traditionally, the distinction between Anglo-Saxon countries and continental European countries has been expressed in terms of dominant providers of financing resources. Two systems are opposed: one is centred on financial markets whereas the other is centred on banks (Allen and Gale, 2000; Levine, 2002). In bank-centred systems, such as Germany and Japan during the 1970s and 1980s, banks play a major role in the collection of financial resources, the allowance of capital and the definition of firms' investment plans. In market-based systems, such as the Anglo-Saxon countries, securities markets play an important role besides banks in the collection of resources and their assignment, which makes investment less sensitive to banking debt (Demirgüç-Kunt and Levine, 2001).

This classification has been called into question by Mayer (1988) and Corbett and Jenkinson (1996). Using net financial data (new debt minus reimbursement of existing debt and banking deposits), these authors do not find any significant difference in the way companies of the most developed countries are financed. Self-financing is the most important financing source everywhere, and then, among external financial resources, debt, in particular from banks, is the most used financing source (except for Canada). Schmidt et al. (1998, 2002) disputed these results. According to them, Mayer's results and those of Corbett and Jenkinson are mainly due to a statistical artefact related to the use of net data. When gross data from national accounts are used, Mayer's results are not confirmed and significant differences still exist in financing structures across the world: on the one hand, Germany is still very centred on banking debt and, on the other hand, the UK still relies on financial markets for external financing.

For France, results are less clear but show a radical transformation of the financing system, which could converge towards the British system.

Demirgüç-Kunt and Levine (2001) also find significant differences in financial structures for a sample of 150 countries during the 1990s. They compute an index of financial development¹ and show the segmentation of countries into two classes, which corresponds to the traditional classification between bank-centred and market-based countries. According to this research, France, Germany, Italy and Spain belong to bank-centred economies whereas the UK belongs to market-based ones. Paillard and Amable (2002), using net data on six European countries (Germany, France, Italy, the Netherlands, Sweden and the UK), also find an opposition between two types of economies: one is characterized by a high level of internal financing and the other one by an important use of banking loans.

To sum up, various financing systems still remain in Europe. However, results by country are not always homogeneous. The British case is an exception; this country still remains a market-based country, with a high level of external financing. For the other countries, the situation is less clear.

For Germany, Demirgüç-Kunt and Levine (2001) and Schmidt et al. (1998) assert that this country is still a bank-centred economy. On the contrary, Friderichs and Paraque (2001) and Paillard and Amable (2002) show that only small and medium-sized firms are related to this financing system. The largest German firms are less and less financed by banks, and their financing tends to get closer to the Anglo-Saxon model.

For France, Demirgüç-Kunt and Levine (2001) show that this country is a bank-centred economy. Schmidt et al. (1998) underline, nevertheless, that the recent transformation of this economy makes its situation confused. According to the authors, in the middle of the 1990s the French economy was difficult to classify. Paillard and Amable (2002) also underline the evolution of the French financing system. They show the high increase in the internal financing of French firms during the 1990s and their important degearing. Moreover, Caby (2007) shows that the role of financial markets has sharply increased in France so that it tends to approach the British and US levels. In 2001 the ratio stock exchange capitalization to GNP was equal to 103 per cent (against 49 per cent in 1997), whereas the same ratio was equal to 152 per cent in the USA (against 132 per cent in 1997) and 166 per cent in the UK (against 161 per cent in 1997).

For Italy, Demirgüç-Kunt and Levine (2001) and Paillard and Amable (2002) classify this country as a bank-centred economy. Paillard and Amable (2002), however, underline the relative importance of securities in Italy, a fact that the traditional classification between bank-centred and market-based economies cannot take into account.

For Spain, very few studies exist on the financial system. Demirgüç-Kunt and Levine (2001) classify this country as a bank-centred economy. Artola et al. (2002) analyse the Spanish financing system and confirm this conclusion.

To conclude, this traditional typology of financial systems must be used carefully. We can retain the clear opposition between the British case, a pure market-based economy, and the Italian and Spanish cases, which are still bank-centred economies. The German case is dual; the situation of large firms is very different from the situation of small firms. Insofar as the activity of private equity firms is concentrated on unquoted firms which are, for the most part, small or medium-sized firms, we retain, for Germany, the model of a bank-centred economy. The French case is more difficult to characterize and deserves further research.

Financing systems and activity of private equity firms

Levels of private equity investment vary both across time and countries (Gompers and Lerner, 1999; Jeng and Wells, 2000; Mayer, 2001), closely tracking business cycles in the economy generally. Theory and evidence also indicate a strong link between the size and liquidity of a nation's stock markets and the extent of its private equity investment market (Black and Gilson, 1998; Gompers and Lerner, 1999, 2001; Jeng and Wells, 2000; Mayer et al., 2005).

As private equity funds need financial markets where shares can be sold, a more active role of private equity funds can be expected in market-based economies, such as the UK, or, in a more restrictive way, in countries where the securities market is particularly active, such as France and Italy. On the contrary, as private equity firms are financial intermediaries, some of them being subsidiaries of banks, they should be more active in countries which are centred on financial institutions such as, traditionally, Germany, Italy, Spain and, to a lesser extent, France. In fact, taking into account the role of private equity funds underlines the limits of the traditional classification of financing systems based on the opposition between markets and banks. Financial intermediation and financial markets are indeed complementary tools rather than substitutes. More recently, another classification based on differences in legal systems has been introduced. It brings other elements to explain the differentiation of governance systems and the role of private equity firms.

7.1.2 Role of Private Equity Firms and Legal Systems

Typology of legal systems and position of countries studied

The classical analysis of financial systems has been recently amended. On the one hand, the development of banking activities on financial markets

shows some limits to the efficiency of this approach, which opposes banks to markets. On the other hand, according to many authors (Beck et al., 2003; La Porta et al., 1998; Levine, 1997, 1999; Paillard and Amable, 2002), this classification is indeed no longer effective to distinguish between financial systems. A new approach, developed by La Porta et al. (1998), takes into account the nature of the legal regimes, which offer a legal and regulatory framework for financial activities, to discriminate between countries. As financing is a matter of contracts and transfer of information, the nature of the legal regime is crucial. In particular, the ability of the legal system to protect creditors and shareholders and its enforcement power are essential criteria for the development of financial activities.

More precisely, La Porta et al. (1998) oppose two types of legal systems. The regime of common law, based on the Anglo-Saxon tradition, ensures a very strong protection to both shareholders and creditors, whereas the regime of French civil law, which derives from the Roman law, offers a low degree of protection to external investors as the power of enforcement of contracts² and the quality of information are low. The regimes of German and Scandinavian civil law are intermediate. In these two legal systems the power of enforcement of contracts is higher than in common law countries. For the quality of information, it is better in Scandinavia than in common law countries or in German civil law countries.

Using this typology, La Porta et al. (1998) studied 49 countries, members of the OECD, during the 1990s. According to their results, Italy and Spain belong, like France, to French civil law systems. On the contrary, the UK has a pure common law system. The German legal system is close to the French one but it is closer to the British system than Italy and Spain.

Legal systems and activity of private equity firms

The influence of legal systems on private equity firms has already been studied in the literature. According to Armour and Cumming (2006), the legal environment matters as much as the strength of stock markets. Studies often examine the impact of new regulations on venture capital. For example, Gompers and Lerner (1999) study the influence of new taxes and new processes of initial public offerings on venture capital in the USA. Other studies analyse the impact of differences in legal systems between countries on venture capital firms. Cumming et al. (2009) show, on a sample of 3848 portfolios of venture capital firms from 39 countries during the period 1971–2003, that differences in legal systems have a significant impact on the way venture capital firms screen and monitor businesses. More precisely, countries where shareholders are more protected are those where deals are originated the most quickly, with the strongest rate of

syndication and the highest frequency of private equity firms among the members of the boards.

A number of studies have used a range of 'legal' indices drawn from the work of La Porta et al. (1998) as independent variables to investigate whether legal rules affect venture capital financing (Jeng and Wells, 2000; Lerner and Schoar, 2005). Such factors seem to have little impact on venture capital investment activity, as the rights of private equity firms derive largely from their investment contracts, as opposed to general corporate law (Gompers and Lerner, 1999).

We can formulate two assumptions about the influence of legal systems on the contribution of private equity firms to transfers of ownership rights. On the one hand, the microeconomic approach of private equity firms justifies the existence of these institutions given they use sophisticated contracts which make it possible to limit the consequences of imperfection of information. As, in the French civil law system, information transparency is weak and the power of enforcement of contracts limited, we expect significant advantages of private equity firms in these countries and a more significant role of these institutions in the financing of transfers of ownership rights than in common law countries. On the other hand, as private equity firms are shareholders, we can expect their activity to be more developed in legal systems that protect shareholders the most. Their activity being based on complex contracts, it can be supposed easier in countries where the power of enforcement of contracts is higher. Lastly, as screening and monitoring rely on accounting and financial data, their practices are easier in countries where the quality of information is the best. Consequently, we can expect a more important activity of private equity firms in common law countries and, to a lesser extent, in Germany than in French civil law countries (France, Spain and Italy).

7.1.3 Role of Private Equity Firms and Ownership Structure

Classification of ownership structures and position of the countries studied

Differences in legal systems induce different firms' behaviours in terms of ownership and control, which are, according to Franks and Mayer (2001), the main distinguishing factors between corporate governance models. The ownership structure has been examined in many researches for many years so that we can differentiate the five countries studied.

According to La Porta et al. (1998), the concentration of shareholdings could be indeed a rational response to the lack of protection of investors in a given country. If the law does not protect owners against controllers, owners will seek to be controllers. The authors indicate that, in this situation, agency conflicts between managers and shareholders are not

significant because large shareholders have at the same time the incentive and the ability to control the management. La Porta et al. (1998), however, point out that a high concentration of shareholdings leads to an agency problem between the majority shareholders and the minority ones.

Studies show that the structure of ownership is characterized in the UK by a dispersed ownership (Faccio and Lang, 2002). On the contrary, they find a higher concentration of shareholdings in Germany (Franks and Mayer, 2001), in France (Bloch and Kremp, 2003), in Italy (Barca, 1995) and in Spain (Crespi-Cladera and Garcia-Cestona, 2003).

For the UK, ownership structure is characterized, historically, as for the USA, by a great number of quoted firms, the majority of them having a dispersed shareholding.

For Germany, the concentration of shareholdings is historically high because banks have played an active part in the German industrialization and they still hold large stakes in the largest companies (Roe, 1994). Important reforms, however, have been launched during the second half of the 1990s and they may call into question this situation. According to Nowak (2001), the observed increase in hostile takeovers and initial public offerings in Germany can be associated with the changes in German law which improve the situation of shareholders³. Wojcik (2003) studied the evolution of the ownership structure of large German firms between 1997 and 2001. He found a decrease in the level of ownership concentration but it remained nevertheless very high. Cross-holdings have become less important and financial sector institutions, including the most powerful ones, have lost their position as blockholders. These financial institutions have adopted behaviours of portfolio investors which are very different from the traditional bank-industry model. Wojcik (2003) documented a quick step of Germany towards the parameters of the Anglo-US corporate governance, but at the same time he identified areas of strong persistence.

For France, the distinctive characteristics of ownership structure are a high concentration, family shareholdings and the important role played by holding companies, the two last characteristics being closely dependent. Concentration of shareholdings is high for both private companies and public companies in the CAC 40 index. Family shareholdings are significant, whereas stakes held by banks, insurance companies and other financial institutions are relatively low, except for CAC 40 firms. Caby (2007) underlines that the percentage of shares held by foreign investors, mainly Anglo-Saxon institutional investors, has become very important: 36 per cent in 2000 (against 6 per cent in the USA, 9 per cent in the UK, 11 per cent in Japan, and 15 per cent in Germany). France is now the most internationalized Western country (by far) as regards to the shareholdings structure.

For Spain, concentration of ownership is high. Non-financial companies are the largest investors. Banks' shareholdings, historically high, have decreased but still remain significant in some sectors as banking and communication. State's shareholdings, that were significant in some sectors and many large companies until 1995, have almost disappeared since 1998 because of the process of privatization.

For Italy, traditionally, ownership structure is characterized by a high concentration with a small number of powerful industrial families holding large stakes in large companies. However, since the end of the 1990s new laws have been introduced in order to modify corporate governance. In particular, thanks to the Draghi law, investors' protection has improved, the development of the Italian financial market has accelerated and concentration of ownership has decreased.

La Porta et al. (1998) show that concentration of ownership varies according to the legal origin of a country (49 countries, measure of ownership structure in 1994). The highest concentration of ownership is observed in countries with a French civil law, with an average stake for the three main shareholders of about 54 per cent for the ten largest privately-held companies. The lowest concentration is observed in the countries with a German legal origin (German civil law), with an average of 34 per cent. Countries with a common law system are intermediate cases, with an average of 43 per cent. Results, however, differ somewhat within legal families. If we consider the average percentages per country, then the UK is characterized by a low concentration of ownership (19 per cent), France by an average concentration (34 per cent), and Germany, Italy and Spain by a high concentration (respectively, 48 per cent, 51 per cent and 58 per cent). The differences in the degree of ownership concentration between all the countries of German civil law and Germany is explained by the very weak concentration of ownership in the Eastern Asian countries where business law has been more influenced by the USA than by Germany, Austria or Switzerland (La Porta et al., 1998, p.1146). Pedersen and Thomsen's results (1997) are similar to 1990 data. Less than 10 per cent of the 100 largest German, Spanish and Italian companies are characterized by a dispersed ownership. This proportion is 61 per cent for the largest British companies. The position of France is intermediate: for 16 per cent of firms, ownership structure is dispersed.

Ownership structure and activity of private equity firms

How could differences in ownership structures influence the activity of private equity firms? To answer this question, we can formulate two alternative answers again.

Private equity funds are often minority investors. Indeed, only larger

LBOs lead private equity firms to become majority shareholders and the number of large LBOs remains limited (number of deals) in Europe. La Porta et al. (1999) show that an agency conflict exists between majority shareholders, those who have control, and minority ones in countries with a high concentration of ownership. The expropriation of minority shareholders appears all the easier since the concentration of ownership is larger in countries with poorer investors' protection. The activity of private equity firms, as minority shareholders, can be more difficult in these countries. Moreover, pyramidal structures and reciprocal stakes are more frequent in countries with poorer shareholders protection. These characteristics of the ownership structure, in particular its complexity, can dissuade private equity firms from investing in some firms because of expected agency costs. As a consequence, we expect a lower contribution of private equity firms to transfers of ownership rights in countries with a high concentration of ownership, except within the framework of larger LBOs.

An argument can contradict this hypothesis. Indeed, in order to support the development of their firms, owners are often constrained to raise equity and to sell shares to external investors. In this situation, the financing by private equity firms, except the case of larger LBOs, is a solution both to find external finance and to keep the control. Private equity firms provide capital to firms, many of them being family-owned businesses, to develop new projects by opening equity to only one investor, for a short period of time (between three and seven years). Moreover, thanks to the introduction of covenants, as the pre-emption one, in the shareholders' agreement, the initial owners can plan to buy the shares held by the private equity firm once the firm's development is achieved. Since maintaining the firm's control is an issue which is common to owners in all countries, we can expect an important contribution of private equity firms in all the countries studied, including those which are characterized by a high concentration of ownership.

Our analysis of the determinants of the contribution of private equity firms to transfers of ownership rights leads, for each group of determinants, to several alternative propositions. Our empirical study will make it possible to identify, for each group of arguments, the proposition which is corroborated.

7.2 DESCRIPTION OF DATA AND VARIABLES

We use a sample that contains deals, corresponding to sales of shares, completed between 1996 and 2004 in France, Germany, Italy, Spain and

the UK, and reported by Zephyr, a database from Bureau Van Dijk. Descriptive statistics show the diversity of deals in the sample. The variables used allow us to examine the role played by private equity firms in the financing of transfers of ownership rights.

7.2.1 Population and Sample Selection

The Zephyr database from Bureau Van Dijk contains information on various types of deals including mergers and acquisitions, IPOs, joint ventures and private equity deals, with no minimum deal value. Over 260 000 transactions are included since 1996.⁴ We select all deals corresponding to transfers of ownership rights, completed during the period 1 January 1996 to 5 May 2004. These deals are mergers (business combinations in which the number of companies decreases after the transaction), acquisitions of majority interests (all cases in which the acquirer ends up with 50 per cent or more of the votes of the target), transfers of minority stakes (below 50 per cent), LBOs and IPOs, which involve targets (companies being sold, or companies in which a stake is being sold) from France, Germany, Italy, Spain and the UK.

We thus obtain 47 942 deals. The availability of targets' turnover before the deal limits our sample size to 21 155 deals. Moreover, data on deal financing are available for only 7 441 deals. In interpreting the results, we note that it is important to be aware that the availability and the quality of data may be better in the UK because of broader Zephyr coverage. Moreover, the coverage of a country seems to improve over time. The sample is redressed so that it is representative of the total population in Zephyr according to the target's country before the filters are applied to select the sample.

7.2.2 Description of Sample

The sample gathers 7 441 deals for which data on deal financing are available. For each deal, we retain only the main target company, its first branch of industry and the most significant financing mode. In the sample 27.35 per cent of the deals retained are acquisitions of majority interests (above 50 per cent) whereas 30.47 per cent are mergers, 19.72 per cent transfers of minority stakes (below 50 per cent), 13.24 per cent LBOs (MBOs, MBIs and IBOs) and 9.21 per cent IPOs.

More than half the deals involve British targets (61.41 per cent), 14.45 per cent French targets, 13.13 per cent German targets, 6.47 per cent Spanish targets and less than 5 per cent Italian targets (4.54 per cent). Deals occur in several industries. Among them, the sector of computer,

information technology and internet services is the most represented one (23.12 per cent), followed by personal, leisure and business services (14.96 per cent) and industrial, electric and electronic machinery (8.13 per cent). Of these deals 65.55 per cent involve unquoted targets. More than half the deals are mainly financed by capital increase, almost 40 per cent by private equity firms and less than 7 per cent by debt.

7.2.3 Description of Variables

We retain only the main answer for the variables that allow multiple answers. For instance, if a deal is financed by both capital increase and debt, then we retain only the main financing resource.

The deal financing variable aims to identify the presence of private equity firms in deals. It has three modalities:

- 'Presence of a private equity firm' when the deal financing contains an element of private equity activity either as development capital, an MBO, an MBI, an IBO or corporate venturing (when a normal company joins a round of development capital financing or when it owns one of the venture firms).
- 'Debt' when the deal is mainly financed through new bank facilities, a syndicated loan, loan notes or mezzanine debt.
- 'Capital increase' that gathers different methods for placing new shares and convertible bonds.

The 'target country' variable has five modalities: France, Germany, Italy, Spain and the UK. 'Quotation of target', 'quotation of acquirer', 'target activity' and 'acquirer country' are used as illustrative (or supplementary) variables. These variables intervene a posteriori in the characterization of the profiles to enrich their interpretation.

7.3 RESULTS

Descriptive analysis has shown the great number of deals involving British targets. On the 7441 deals for which data on deal financing are available, 39.02 per cent are mainly financed by a private equity firm. 49.79 per cent of the interventions carried out by private equity firms involve British targets, 23.92 per cent French targets, 13.73 per cent German targets, 7.61 per cent Spanish targets and 4.95 per cent Italian targets.

To study the link between target country and the deal financing by a

Table 7.1 Contingency table and independence test of target country by deal financing

Target Country		Deal financing			Total
		Private equity	Debt	Capital increase	
Frequency	France	694	24	356	1 075
Row %		64.6%	2.3%	33.2%	100.0%
Column %		23.9%	4.8%	8.8%	14.4%
Frequency	Germany	399	28	551	977
Row %		40.8%	2.9%	56.4%	100.0%
Column %		13.7%	5.5%	13.7%	13.1%
Frequency	Italy	144	15	179	338
Row %		42.6%	4.4%	53.1%	100.0%
Column %		5.0%	2.9%	4.4%	4.5%
Frequency	Spain	221	18	243	482
Row %		45.9%	3.7%	50.5%	100.0%
Column %		7.6%	3.5%	6.0%	6.5%
Frequency	UK	1 446	420	2 704	4 569
Row %		31.6%	9.2%	59.2%	100.0%
Column %		49.8%	83.3%	67.0%	61.4%
Frequency	Total	2 903	504	4 033	7 441
Row %		39.0%	6.8%	54.2%	100.0%
Column %		100.0%	100.0%	100.0%	100.0%

Note: Test Chi-square Value = 466.26 with 8 DF; Prob. (Chi-square > 466.26) = 0.0001; Test value = 99.99.

private equity firm,⁵ we apply a factorial correspondence analysis (FCA) on the two-way table of target country by deal financing (Table 7.1). This analysis leads to two factorial axes, which account for 100 per cent of information to be summarized, that is, of the symmetrical association between target country and deal financing. The Pearson's chi-square test allows us to reject the assumption of independence: there is a significant relationship between target country and deal financing.

Figure 7.1 proposes a simultaneous representation on the first factorial plane of the FCA and illustrates the relations between the modalities of the variables. The first axis, which summarizes 93.81 per cent of the relation between these variables, reveals two notable dependences:

- a positive relation between the financing by private equity firms and French targets;
- a negative relation between debt financing and French targets.

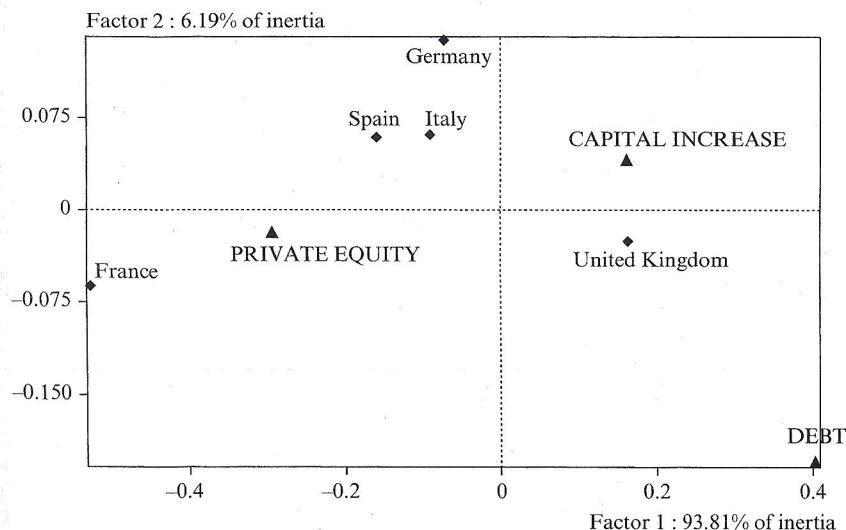


Figure 7.1 Factorial correspondence analysis representation

The second axis, which summarizes 6.19 per cent of information, reveals a negative relation between debt financing and German targets.

After this study of relationships we seek what differentiates and separates these countries according to deal financing. The results from discriminant analysis illustrate the proximities between the countries studied in their methods of financing of transfers of ownership (Figure 7.2 and Table 7.2). They show:

- the strong similarity between Germany, Italy and Spain;
- the notable resemblance between this group and the UK;
- the very specific case of France, which is opposite to other countries.

A ClustanGraphics tree summarizing the final classification of the five target countries studied according to the deal financing is shown in Figure 7.2. This was obtained using an Ascendant Hierarchical Classification (AHC) with Ward's criteria⁶ on the results of FCA.

This analysis leads us to split the hierarchical tree into three groups of countries, which are characterized in Table 7.2. The three classes division was strengthened around the centres of gravity for the classes thanks to the k-means method.

The statistical description (using a 5 per cent significance level) of the content of each class of the three classes retained is given in Table 7.2. The

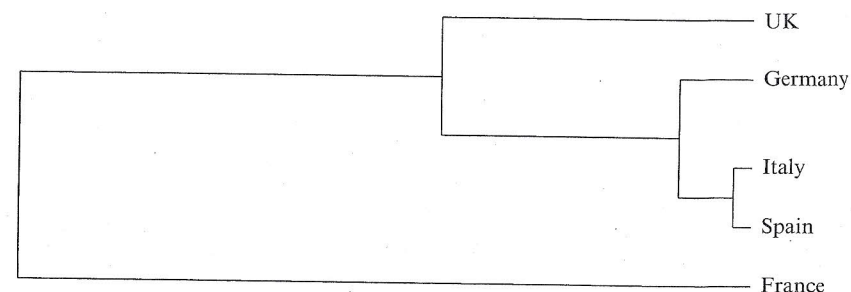


Figure 7.2 Hierarchical tree of target countries according to deal financing

class standard profile is based upon comparisons of percentages of the modality in the class (per cent of frequency in the class) and of this same modality out of the class (per cent of frequency in the total sample) taking into account the degree of inclusion of the class in the modality (per cent of the class in the frequency). The selection of the most characteristic modalities that come out of each class stems from the gap between the relative values of the class and the global values. These values are converted into a test-value criterion (test-value) and are given in a decreasing order with a lower than 5 per cent error risk (probability) which allows us to classify the most characteristic modalities for each class.

- The first class corresponds to France. The 1075 deals on French targets are distinguished, relative to the whole sample, by a higher contribution of private equity financing and a lower use of debt and capital increase financing.
- The second class contains three countries (Germany, Italy and Spain). The 1797 deals in these countries are distinguished, relative to the whole sample, by a higher contribution of private equity financing and a lower use of debt financing.
- The third class corresponds to the UK. The 4569 deals on British targets are distinguished, relative to the whole sample, by a larger use of debt and capital increase financing and a lower contribution of private equity financing. The deals on British targets thus exhibit the opposite characteristics of the deals in the first class, that is, of those on French targets.

We introduce the target turnover as an illustrative (or supplementary) variable into the discriminant analysis to specify the nature of the deals that belong to each class. Results (not presented here) show that the two

Table 7.2 Characterization of classes by discriminant analysis

CLASS 1/3 FRANCE

Characteristic frequencies	% of frequency in total sample	% of frequency in the class	% of the class in the frequency	Test value	Probability	Frequency
Private Equity	39.02	64.59	23.92	18.30	0.000	2903
Debt	6.78	2.25	4.81	-7.14	0.000	504
Capital increase	54.20	33.15	8.84	-15.01	0.000	4033

CLASS 2/3 GERMANY, ITALY AND SPAIN

Characteristic frequencies	% of frequency in total sample	% of frequency in the class	% of the class in the frequency	Test value	Probability	Frequency
Private Equity	39.02	42.48	26.29	3.42	0.000	2903
Debt	6.78	3.35	11.94	-7.06	0.000	504

CLASS 3/3 UK

Characteristic frequencies	% of frequency in total sample	% of frequency in the class	% of the class in the frequency	Test value	Probability	Frequency
Debt	6.78	9.19	83.25	10.91	0.000	504
Capital increase	54.20	59.17	67.03	10.81	0.000	4033
Private Equity	39.02	31.64	49.79	-16.41	0.000	2903

classes of deals involving French targets and German, Italian and Spanish targets are characterized by a higher target turnover than the sample average. On the contrary, the class of deals involving British targets is characterized by a lower target turnover than the sample average. This result may be explained by a broader Zephyr coverage for deals involving small companies in the UK.

The three classes obtained correspond to the traditional classification of the financing systems. We find an opposition between the UK, which is a pure market-based economy, and the other countries, which are rather bank-centred economies. According to our results, private equity firms play a more important role in the financing of transfers of shares in bank-centred economies. Hence, by focusing on all transfers of shares, we do not confirm the results of Black and Gilson (1998) and Jeng and Wells (2000) who focused on venture capital. This unexpected result can be explained by the fact that private equity firms can rely on mergers and acquisitions (M&A) markets (indeed most exits are by trade sales) and not so much on IPO markets. Our results show a radical opposition between the British and the French cases, suggesting that convergence towards the Anglo-American corporate governance system is not completed yet.

The three classes also correspond to the typology based on the origin of legal systems. Results suggest that private equity firms play a more important role in the financing of transfers of shares in civil-law countries. On the contrary, we show the lower contribution of private equity firms in the financing of transfers of shares in the UK. This can be explained by the existence of other modes of financing, in particular thanks to the importance of the financial markets. The role of private equity firms in civil-law countries confirms the need for financial intermediaries providing equity financing in the economies with a lower investor protection, in particular for minority ones, a lower quality of accounting standards and a lower quality of law enforcement.

Finally, the three classes obtained are in accordance with the expected opposition between the countries with a dispersed ownership and those with a higher concentration of ownership. Results show that private equity firms play a more important role in the economies with a higher concentration of ownership. This result validates the interpretation according to which private equity can be used by owners-managers to open the capital of their firms, possibly temporarily, in order to raise external funds while maintaining control.

7.4 CONCLUSION

In this study we consider private equity as a specific category, characterized by its unity (Glachant et al., 2008). We seek to explain the relative importance of private equity in the financing of transfers of ownership rights among five major European countries. We use differences in financial and legal systems to explain the differences in the findings. Based on

a large sample of transfers of ownership rights in France, Germany, Italy, Spain and the United Kingdom, completed between 1996 and 2004, we find that the classification of deals matches the traditional classification of financing systems. We find indeed an opposition between the UK, which is a pure market-based economy, and the other countries, which are rather bank-centred economies.

According to our results, private equity firms play a more important role in the financing of transfers of shares in bank-centred economies. Hence, we do not confirm the results of Black and Gilson (1998) and Jeng and Wells (2000). This unexpected result can be explained by the fact that private equity firms can rely on M&A markets and not so much on IPO markets. Results also show that private equity firms play a more important role in the financing of transfers of shares in civil-law countries, which confirms the need for financial intermediaries providing equity financing in the economies with a lower investor protection, a lower quality of accounting standards and a lower quality of law enforcement. Results show that private equity firms play a more important role in the economies with a higher concentration of ownership. This result is in line with the proposition according to which private equity can be used by owners-managers to open the capital of their firms in order to raise external funds while maintaining control.

Interestingly, we find that the French case is very specific in terms of financing of transfers of shares. In France private equity firms play a more important role in the financing of transfers of ownership rights than in the other countries studied, suggesting that France's corporate landscape is particularly well suited to private equity. This result also supports the thesis of the specificity of the French corporate governance system. Moreover, the marked opposition between France and the UK in terms of deals' financing suggests that convergence towards the Anglo-American corporate governance system is not yet completed.

Finally, one suggestion for future research can be added. Our analysis relied on data from the five biggest European countries, where the value of private equity investments is relatively high. Hence future research might compare all European Union countries, with significantly less developed private equity markets.

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NOTES

1. This index is based on the ratios of development of the banking environment relative to financial markets (in terms of size, activity and effectiveness). The countries with the highest ratios of banking structures are centred on banks. The countries where the composite index is lower than the average are centred on markets.
2. In particular, the tax authorities can discuss some agreements and modify them deeply.
3. In 1998 a reform has reinforced the power of boards and made the use of stock-options easier.
4. The availability of data varies with types of deals.
5. We use the SPAD software.
6. Generalized Ward's Criteria: aggregation based on the criterion of the loss of minimal inertia.

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