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Non-voting shares in France: An empirical analysis of the voting premium

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Christian K. Muus

**Non-voting shares in France:
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WORKING PAPER SERIES: FINANCE & ACCOUNTING

New Foreword

Given that the Johann Wolfgang Goethe University is located in Frankfurt, it is not surprising that finance has always been one of the focal points of teaching and research at its Department of Economics and Business Administration. The new Working Paper Series is intended to document the continuing prominence of this field in the work of the department. But most of all, it shall foster the exchange of ideas both within the academic world and between academics and practitioners. We would be pleased if these papers were to contribute to this dialogue.

The timely dissemination of research results is now even more critical than it was in the past. Unfortunately, the time-span between the completion of a paper and its submission to the editor of an academic journal or book and its formal publication has increased considerably in recent years. It is an important objective of the Working Paper Series to reduce this time-lag. However, in some cases papers that have already been published will also be included in the Series if they have appeared in books or journals which interested readers would find it difficult to obtain.

As a rule, the papers published in this Working Paper Series will be written by teachers and researchers at the Institute of Business Administration of the Goethe University or by persons closely associated with this institute. Thus, the editors of the Series are the professors who are members of the business finance faculty, which is currently composed of Jan-Pieter Krahn, Helmut Laux, Martin Nell, Christian Schlag and myself, acting as managing editor.

Starting with Working Paper No. 22, we have formally extended the scope of topics which shall be covered in the series, widened the group of editors and, as a consequence, also changed the name: It is now the "Working Paper Series Finance & Accounting" covering regularly also the work done at the accounting chairs at the University of Frankfurt, which are currently held by Professors Ralf Ewert (co-managing editor for accounting), Günther Gebhardt, Wilfried Mellwig and Dieter Ordelleide.

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Reinhard H. Schmidt

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** This paper is based on a master's thesis presented to the department of economics and business administration of the Johann Wolfgang Goethe-Universität, Frankfurt as part of a double diploma program of Université Paris-IX-Dauphine and Johann Wolfgang Goethe-Universität. I would like to thank Professor Reinhard H. Schmidt, my thesis supervisor, and Marcel Tyrell for comments and discussions.

Non-voting shares in France: An empirical analysis of the voting premium

November 1998

Abstract: It is the objective of this paper to determine the voting premium for French shares by comparing the values of voting and non-voting shares, and to analyze the value of the voting rights. The study uses data for 25 French companies which had both types of shares outstanding and traded on the stock exchange during the entire period from 1986 to 1996, or for some time during this interval. The average value of the voting premium is 51,35%.

The paper analyzes the reasons for this surprisingly high value by testing different hypotheses based on dividend differences, the revival) of the voting right, capitalization, shareholder structure, and the share of non-voting capital in total equity capital. The regressions show that the shareholder structure strongly influences the value of the voting premium.

A case study of the attempted takeover of Casino by Promodès shows that investors attach a much higher value to the voting right during relevant situations than at other times. Both companies involved had, at the time, two types of shares outstanding and listed. Furthermore the paper shows that non-voting shares have never played an important role in equity finance in France since the companies have different alternatives.

In an international comparison, France is found to have the second highest voting premium, exceeded only by that of Italy. A probable reason is the low quality of the national accounting standards and the low level of minority shareholder protection.

Résumé: Le but de ce cahier de recherche est l'évaluation du droit de vote en France par une comparaison des actions avec et sans droit de vote. L'analyse est basée sur 25 sociétés ayant introduit ces deux types d'actions en bourse pendant une partie ou la totalité des années 1986-1996. Nous déterminons pour cette échantillon l'existence d'une prime moyenne de 51,35% sur les actions sans droit de vote. A travers le test de différentes hypothèses (différence de dividende, reprise du droit de vote, capitalisation, actionnariat et pourcentage du capital sans droit de vote), nous essayons ensuite d'expliquer l'importance de cette prime. Les régressions indiquent que la structure de l'actionnariat influence fortement la prime. Le cas pratique de l'OPA Promodès sur Casino -ces deux sociétés ayant introduit deux classes d'actions en bourse- montre que les investisseurs donnent une valeur plus importante au droit de vote pendant des situations critiques. L'histoire du financement des entreprises montre que les actions sans droit de vote n'ont jamais joué un rôle important parce qu'il existe d'autres alternatives moins chères. Au niveau international, la France présente la 2ème prime la plus élevée après l'Italie. L'explication du niveau de ces différents primes est à chercher dans les normes comptables et dans la protection des actionnaires minoritaires.

JEL classification: G 12, G 32, G 34

Key words: dual-class shares, ownership structure, voting premium, corporate governance

1 Theory of the Firm and non-voting shares

Economic theory predicts that in a world without costs, with symmetrically distributed information, an unambiguous allocation of strong ownership rights and with a system of complete and perfect markets, decentralized or market-based decision making leads to an optimal allocation of resources. If these conditions are not fulfilled, organizations can have an advantage over markets provided that they create suitable structures to allocate resources. In this context it is important that, according to Jensen/Meckling (1976), a firm can be characterized as a network of contracts between different interest groups such as shareholders, creditors, employees, clients and suppliers.

Rights and obligations of the members of the different interest groups cannot be specified completely in advance for all possible future circumstances. A complete set of contracts would be much too expensive due to "bounded rationality" of the parties (Williamson 1985) and to asymmetrically distributed information. The high costs of complete contracts would lower the value of a company. On the other hand, incomplete contracts can lead to moral hazard and hold-up problems as every party would try to exploit this situation which is also not in the interest of the organization and the parties to the network of contracts. For instance, lacking appropriate incentives and monitoring, managers tend to minimize their work effort. As the incompleteness of contracts should not lead to a failure of the organization, there is thus a need for controlling and monitoring the management.

Grossman/Hart (1986) and Hart (1995) develop an "incomplete contracting approach" to explain the efficient boundaries of a firm. They define a firm as a set of non-human assets under common control, and the owners of an asset as those who have the residual control rights. In the case of a corporation, the owners are the shareholders with voting rights, and they can, at least in principle, exercise control over the management by using their voting rights.

In most cases, corporations follow the one share - one vote-principle. Where this principle does not apply, there is no direct correspondence between residual income rights and residual control rights, and this may impair the functioning of the control over those who run the business of the corporation. A shareholder who has all voting rights, but only holds a small fraction of the shares may have, and pursue, interests beside the maximization of the value of the corporation's equity, since he does not bear the full consequences of his decisions. This suggests that corporations with non-voting shares are inefficient due to their shareholder structure,¹ and this inefficiency might even result in a delisting.²

¹ Grossman/Hart (1988) and Harris/Raviv (1988, 1989) extensively analyze the separation of cash flow rights and voting rights and the optimality of a one share - one vote system.

There are three main motives for introducing non-voting shares.

One is that the introduction of non-voting shares can protect a dominating position even if this is only for the psychic benefit of being in control. Non-voting shares are a takeover defense (Dumontier 1988) for the present shareholders. It makes it easier for them to form a coalition which controls the corporation and to limit the influence of those shareholders who do not belong to this coalition. At an empirical level, this suggests that deviations from the principle of one share - one vote are more likely to be found in corporations with concentrated ownership and in those with a strong influence of a family than in widely held corporations.

A second motive for having non-voting shares is that it can help to facilitate the monitoring of the management. As monitoring is costly, only major shareholders have an incentive to monitor the performance of the management (Shleifer/Vishny 1986). If those who have an economic incentive to exercise their control rights used them in such a way that this is also of benefit to other shareholders, for instance by preventing managers from shirking, a concentration of the control rights in their hands would increase the overall value of the company.

Thirdly, many countries, especially Scandinavian countries, have for a long time had a policy of protectionism; they try to limit the influence of foreign shareholders in national companies. Permitting only non-voting shares for foreigners is a means to achieve this aim. Bergström/Rydqvist (1990) provide this as an explanation for the fact that in 1986 74% of the publicly traded Swedish companies had issued non-voting shares.

These three motives indicate why it may constitute an advantage for those shareholders with voting rights that others do not have voting rights. But what does this imply for the potential shareholders without voting rights? If his voting rights can only have a small influence, the typical small investor will be indifferent between voting or non-voting shares. If the non-voting shares are sold with a discount and are paid a higher dividend, he will even prefer this type of shares in particular if the probability of participating in a new coalition to control the company is low. Therefore, in reality, issues of non-voting shares are typically targeted at investors with no intention of controlling the corporation. In Scandinavian countries non-voting shares are often the only possibility to invest in these countries.³

So far, I have analyzed the motivation of companies to issue non-voting shares and the motivation of investors to buy them. Taken together, these arguments do not provide a reason

² This does not seem to be the case since, for example, there are still IPOs of companies with non-voting shares in Germany, and in many other countries non-voting shares are still important. For empirical evidence concerning the role of dual-class shares in various countries, see Rydqvist (1992).

why non-voting shares should trade at a discount which may even be sizable as this paper reports for the case of France (see Appendix 1). Thus the question remains why investors will attribute a positive value to the voting right or, looked at from the other side, attach a lower value to non-voting shares. One possible answer to this question, which has been introduced into the recent theoretical and empirical literature by Kristian Rydqvist (1986) is that control rights are valuable since the voting shareholders can make decisions which are favorable only for themselves. As Zingales (1998) takes up this argument:

"The only possible answer is that, although all shares are created equal, some - like the pigs in George Orwell's Animal Farm - are created more equal than others".

Furthermore Zingales (1994, 1995) argues that the value of the right to vote, the so-called voting premium, is positively correlated with private benefits which only an investor with voting rights can appropriate for himself in addition to dividends and capital gains, and which are likely to be at the expense of others who do not have voting rights. These private benefits may arise from high wages, payments in kind, and exploiting other business relationships with companies under control of the same shareholder (Shleifer/Vishy 1997). Based upon the models of Grossman/Hart (1988) and Harris/Raviv (1988), Bergström/Rydqvist (1992) for Sweden and Zingales (1994) for the USA show that the voting right is particularly valuable in case of a current or imminent battle over control. The value of the voting right depends on two factors, one being the possibility that a vote is pivotal in a control contest and the other one being the extent of possible private benefits for those who gain control of the corporation. These factors are anticipated and reflected in the price of voting shares.

Different corporate governance-systems, and, more generally, different legal systems, may lead to different possibilities of appropriating private benefits; and these differences should be reflected in the average market value of voting rights. In what is, according to my knowledge, the first comprehensive study⁴ of dual-class shares in France, the present paper analyses these propositions concerning the value of voting rights and its determinants.

The paper proceeds as follows. Section 2 presents the major characteristics of voting and non-voting shares according to French law. Section 3 presents the data sources and the calculation methods used in the empirical analysis and the basic result concerning the overall level of the value of the voting premium in France. Section 4 introduces possible factors influencing the size of the voting premium, whose impact is evaluated empirically by means of a regression

³ Eun/Janakiraman (1986) describe ownership restrictions in 16 countries, for Finland see Hietala (1989) and for Norway see Ødegaard (1998).

⁴ An earlier analysis (Husson/Jaquillat/Schintowski 1987) was limited to a short period (1985-1986) and to only one of three non-voting share types (certificat d'investissement).

analysis in the following section 5. Section 6 supplements these results by discussing the case of a takeover contest involving two companies which both had voting and non-voting shares outstanding at the time of the contest. Section 7 continues with an analysis of the significance for non-voting equity in France and places the French empirical results in an international context. Section 8 discusses the implications of the findings and concludes.

2 The institutional situation in France

2.1 Characteristics of voting shares

The only time of the year a shareholder can make direct use of his voting right is the annual general meeting where all requests have to be approved by more than 50% of the votes. This includes the dividend distribution, the elections for the supervisory board (*conseil d'administration* and *conseil de surveillance*) etc. All changes of the statutes need a 2/3 approval of the shareholder meeting which includes in particular the issuance of new equity capital, the issuance of non-voting shares and the granting of double votes to shares. French law provides the possibility to grant two votes only for so-called registered shares, whose transfer is restricted in certain respects, and only if these shares have been held for two consecutive years (for publicly traded companies even only after four years). In contrast to this it is not allowed to issue ordinary shares with more than one vote. Company by-laws can limit the voting power of the shareholders.

2.2 Characteristics of non-voting shares

There are three different types of non-voting shares. They have in common that the percentage of non-voting capital must not exceed 25% of total equity and that the par value of voting and non-voting shares must be identical:

1. *action à dividende prioritaire sans droit de vote* (ADP)
2. *certificat d'investissement certificat pétrolier* (CI/CP)
3. *certificat d'investissement privilégié* (CIP)

The first type, a share with preferred dividends and without voting right (ADP), was first used in 1983. This type of shares is created either by exchanging voting into non-voting shares or by increasing equity capital. It is only allowed to introduce ADP when profits have been made during the last two years.. The dividend is split into two parts: a first dividend (*premier dividende*) and a super dividend (*super dividende*). ADP holders receive at least a 7,5% first dividend of the par value while the ordinary shareholders receive only a minimum 5% first dividend. The super dividend is the same for both shareholders. If the dividend is not granted, the claim to it will be accumulated and the voting right has a "revival" after three consecutive

years of not fully paid dividends and remains in force until the accumulated claim to past dividends has been paid off.

The second type of non-voting shares, investment certificates CI and CP, had initially been created to facilitate the increase of equity-capital of state-owned corporations without losing control. But legally, the CIs can be issued by all corporations. CIs have been allowed since 1983, whereas CPs have been issued since 1957 only by the oil-companies Elf-Aquitaine and Total. The dividend for both types of non-voting shares is identical to ordinary shares, but in comparison to ADP shares the voting right can never revive. They can only be issued in the course of an increase of capital.

Shares of the third group, CIP, receive higher dividends than the corresponding ordinary shares, but as in the case of CI and CP, the voting right cannot revive. This type of share has so far only been used by state-owned firms.

It is a peculiarity of the French law that there are separate certificates for the voting rights (*certificat de droit de vote*, CDV). By law, these certificates, which have to be registered, are distributed among the present ordinary shareholders at the time of a CI issue in proportion of their existing voting rights based on the holding of ordinary shares. The number of CDVs corresponds to the number of CIs. By possessing a CI as well as a CDV, an ordinary share is automatically created. Between 1983 and 1988, it was forbidden to sell CDVs. The only way of de facto selling the voting right was to buy a CI and to sell the re-established ordinary share. Since 1988 the French legislature has allowed trading of CDV on the stock exchange to insure the liquidity of the certificates, as well as to have a better control of the transactions. However, as only holders of CIs have the right to acquire CDVs – which then automatically leads to their convergence - their liquidity remains very limited. In addition, every CDV can only be traded once.

3 Data

Evidently and almost by definition, it is difficult to assign a value to private benefits. Control of a company is also not valued in traditional finance theory which only takes into account discounted expected future cash flows. If the private benefits of control could be quantified directly, they were no longer private and minority shareholders could initiate legal proceedings against the corporation or the controlling shareholders who appropriated benefits for themselves. It follows that these control benefits can only be measured indirectly. In principle, there are two possible ways to value control: The first one would consist in measuring the difference between the price per share if a control block changes hands, and the share price

before the offer (e.g. Barclay/Holderness 1989). The second option is to calculate the difference between voting and non-voting shares. Like Rydqvist (1986) and Zingales (1994, 1995), this paper follows the second way, which is the only possibility to measure the value of control in the absence of information concerning the prices of block transactions. For France, like many other countries, this information is not accessible. I calculated the voting right premium (*VRP*) as the relative price difference of the voting shares over the non-voting shares as a percentage of the latter:

$$VRP_t^i = \frac{VS_t^i - NVS_t^i}{NVS_t^i} \quad (1)$$

VRP voting right premium of stock *i* at time *t*
VS voting share quote of stock *i* at time *t*
NVS non-voting share quote of stock *i* at time *t*

The sample consists of 25 companies whose voting and non-voting shares were publicly traded on the stock exchange (marché à règlement mensuel, marché au comptant and second marché) during the entire period from 1986 to 1996 or for any time during this period (see Appendix 1).

For the determination of average *VRPs*, I calculated the daily ratio *VRP* only for those days on which both types of shares of the company *i* were traded. The quotes were provided by SBF-Bourse de Paris, Datastream and Fininfo. All other information was taken from the annual reports, press articles, and the database Dafsaliens. For the calculation of *VRPs*, I neglected the additional dividend rights for ADP and CIP-shares since the additional net payments represented on average only 1% of the ADP-market price, and consequently have little economic value. The effect is an underestimation of the voting right premium which should, however, be only of minor importance.

Traditional asset valuation theory only takes into account expected dividends. The voting right is not given an explicit value. Following this theory, the share premium *VRP* should be non-positive, as all permissible forms of non-voting shares require that the dividends paid on non-voting shares may not be below those on ordinary shares. In contrast to this, Appendix 5 shows a positive premium for almost all sample companies although the results vary during the sample period and across all companies. The average *VRP* – over companies and over time – amounts to an astounding 51,35% with a maximum of 137% for Pechelbronn in 1990 and a minimum of -9% for Pechiney in 1995.

4 Factors of influence on the voting premium

Based upon the assumption of the presence of private benefits, I assume that the voting right has a positive value. The fact that in France the market for takeovers is almost nonexistent (Franks/Mayer 1990) and thus cannot be the only explanation for a voting right premium, as was argued in section 1, I accept the assumption that there are probably opportunities to appropriate private benefits. Based on this working hypothesis, this section looks at factors which might determine the voting premium or, in other words, the price difference between voting and non-voting shares.

The first factor is the dividend difference. The value of a share results from two factors: cash flow rights and voting rights. The standard discounted cash flow model only takes into account the cash flows. Since ordinary shares and CIs receive the same dividends, they should be equally priced if cash flows were the only determinant of value and price. In contrast to this, ADP and CIP receive a higher dividend and according to the conventional theory of share valuation, they should even be more valuable than ordinary shares as long as voting rights are neglected (Hermann/Blignières 1983).

The difference between the dividends for non-voting shares ($NVSDiv$) and voting shares ($VSDiv$) can be calculated in absolute and in relative terms. Since quotes were not available for a long enough period for CIP, the following calculations only cover the ADP shares.

The absolute difference $ADiff$ of the dividends paid in year t is defined as

$$ADiff_t^i = NVSDiv_t^i - VSDiv_t^i \quad (2)$$

and the relative dividend difference $RDiff$ as

$$RDiff_t^i = \frac{NVSDiv_t^i - VSDiv_t^i}{VSDiv_t^i} \quad (3)$$

According to traditional finance theory, the superior dividend should lead to a higher value for ADP-shares, with the dividend difference determining the difference in value. However, as we have seen, there is a positive voting premium in France. In combination, these two considerations lead directly to Hypotheses 1:

<p>Hypothesis 1: The value of the dividend difference influences the share price difference. The higher the dividend advantage of the ADP over ordinary shares, the lower the voting premium.</p>
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As already mentioned in section 2, the voting right of ADP-shares "revives" if for three consecutive years the accumulated difference between the "first dividends" paid on ADP-shares and the statutory first dividend has been positive. The failure of a corporation to pay the full statutory "first dividend" increases the probability that the voting right "revives". As the price difference seems to be connected with the lacking voting right, we can formulate Hypothesis 2:

Hypothesis 2: The likelihood of a revival of the voting right has an effect on the voting premium. The higher it is, the lower the voting premium.

Synergies can be realized by takeovers of companies. An important condition for successful takeovers is the prospect for financing the deal. High capitalization of the shares result in high prices to be paid in a takeover and therefore limit the number of potential buyers. This results in Hypothesis 3:

Hypothesis 3: The capitalization of the ordinary shares influences the voting premium. A lower capitalization results in a higher voting premium.

One can calculate the capitalization (*Cap*) by multiplying the number of outstanding ordinary shares (*NumVS*) with the quotation *p* of the last trading day *t* in each year:

$$Cap_t^i = NumVS_t^i * p_t^i \quad (4)$$

The ratio of voting to non-voting shares varies from corporation to corporation as well as over time in the case of a given corporation. A shareholder needs more than 50% of the shares to have a majority and to control a corporation with no non-voting shares. If the corporation issues the maximum amount of 25% of non-voting shares, the shareholder can limit his investment to 37,5% of the ordinary shares to have the majority of votes, which would make it easier for him to gain control. In order to test the influence of the ratio of voting to non-voting shares on the price difference, the variable *RelSha* is used. It is defined as the fraction of voting shares (*NumVS*) to the total number of shares issued (*NumTS*).

$$RelSha_t^i = \frac{NumVS_t^i}{NumTS_t^i} \quad \text{with } RelSha \in [0,75;1] \quad (5)$$

In the case of a high ratio *RelSha* the ordinary shares and therefore the voting rights can be assumed to be relatively less valuable since an investor needs to hold more ordinary shares to control the majority of votes. This leads to Hypothesis 4:

Hypothesis 4: The relationship of ordinary to total shares influences the value of the voting right. The lower the fraction of voting shares, the more valuable the voting right.

The shareholder structure is frequently referred to as a reason for the existence of a voting premium (e.g. Rydqvist 1986, Husson/Jacquillat/Schintowski 1987, Kruse/Berg/Weber 1993, Rothauge/Menkhoff/Krahnert 1994). The underlying argument is that influential shareholders have more extensive opportunities than small shareholders of influencing the management of the corporation in such a way that they can get private benefits. One reason for this, but probably not the only one, is that large shareholders are represented at the annual shareholders' meeting and can have their candidates elected more easily than small shareholders. For influential shareholders the voting rights are more valuable, and this should result in a higher voting premium in corporations with concentrated shareholdings. This applies in particular to corporations with a strong influence of a family. Besides having a large fraction of the voting rights, these families often also have important management functions.

In the case of a corporation with a majority shareholder, a takeover can only be successful if this shareholder agrees, as the old shareholder will only sell his shares with attached voting rights if he is compensated with a higher block price. This also tends to raise the voting premium. Hypothesis 5 tries to catch all of these factors.

Hypothesis 5: The concentration of votes and the existence of a major shareholder has an influence on the voting premium. The higher the concentration of shares, the higher the voting premium.

In order to test Hypothesis 5⁵, the sample corporations are classified into five groups. A higher number of the group indicates a higher degree of concentration and assumes better opportunities for the influential shareholders to reap private benefits. Shareholders of

⁵ In order to derive a similar hypothesis for the case of Sweden, Rydqvist (1986) applies a specific game-theoretic model to shares with different voting rights. An important condition for the applicability of his model is that the direct and indirect voting rights of every shareholder are known. In the Swedish case, this condition is fulfilled. But this is not the case for many companies in France. French law requires that only the range of a

corporations with only small shareholders are not in a position to have private benefits since their possibility of influencing the firm's management is very limited. There exists a clear separation of ownership and control. The personal benefits derived from voting rights are therefore very limited, and the valuation of the shares should be based only on the expected future cash-flows. In comparison to widely held corporations, the possibilities of extracting private benefits are only a little higher in corporations in which the state is the major shareholder, provided that the government is controlled by the parliament and wishes to be reelected. Private benefits are most likely to be found in corporations which belong to a group, and in family-dominated firms. A list which indicates the number of companies in each group for all years covered in this study can be found in Appendix 3. The following list presents the general characteristics of the five different groups of corporations:

- N** group 1: no major shareholder, many small investors, often after privatization with "noyveau dur" (core shareholders)
- S** group 2: state company with direct and indirect control of more than 50% of the voting rights by the state
- G** group 3: company belongs to a group which controls more than 50% of the voting rights
- M** group 4: no majority shareholder, but control of the company through a family acting in concert with friends and other companies
- F** group 5: family/employee control of more than 50% of the voting rights held directly and indirectly

After having presented the five hypotheses, the following section will analyze the regression data for longitudinal and cross sectional-regressions. Furthermore I will analyze the valuation of the voting certificates CDV.

5 Regression analysis

5.1 Analysis of the voting right certificats

The explicit possibility to trade voting rights on the French stock exchange provides the opportunity to test directly whether the Hypothesis that the voting rights are valuable. Manne (1965) suggested that if there is a majority shareholder, the voting rights of the other shareholders would be worthless. This assumption can be refused by analyzing the cases of L'Oréal and Robertet. Although both companies have been under family control with more

direct individual investor's ownership interest (5%, 10%, 20%, 1/3, 50%, 2/3) is made public. Therefore the exact percentages and indirect shareholdings are not known, and a transfer of Rydvist's model is not possible.

than 66,66% of the votes so that additional votes should have no value according to Manne, their CDV have always had a positive price quote (see Appendix 7).

The quotes of CDVs on the French stock exchange allow a simple and direct test of the hypothesis that the value of the voting right of equation (1) equals the difference between the value of a voting share and that of a non-voting CI. If this is the case and the value correspond to the quoted price for CDV, the quote of the voting share of company i would equal the sum of the quotations for CI and CDV (equation 6). This can then be transformed to calculate the variable ($RCDV$) in equation 7:

$$VS_t^i = CI_t^i + CDV_t^i \quad (6)$$

$$RCDV_t^i = \frac{CI_t^i + CDV_t^i}{VS_t^i} \quad (7)$$

In testing equations (6) and (7), the average is calculated by only those days t have been taken into account on which all three kinds of securities of the company i were traded (see Appendix 2, column 5). The empirical result is that in all but two cases⁶ the price of the voting shares exceeds the sum of the prices of the CIs and the CDVs by between 1 and 5 percent. This results show clearly that CI and CDV do not fully reflect the value of a voting share with exception of St. Fiacre and Groupe Victoire. Furthermore the results indicate that arbitrage profits can be realized on long-time average by buying a CI and a CDV and selling the resulting voting share.

However, it is important to notice that the French legislation only permits CI-holders to buy CDVs which leads to an automatic restitution of a voting share. Each CDV can only be traded once and the percentage of CIs in equity capital decreases with every trading of CDVs (see Appendix 10).

The observed price differences in prices of 1%-5% can be explained by two factors. The first explanation deals with the strong legal limitation of CDV trading. During takeover attempts CDVs can only help to achieve a majority of votes after purchasing CIs. Since the CDVs are obligatorily issued as registered certificates and the issuing company has to be notified in case of a restitution, it is impossible to accumulate a stock of CDVs in secret.

A second possible reason for the price difference could be the low level of liquidity of the CDVs. The available, although incomplete, data on trading volumes for CDVs indicate clearly

that the absolute number of CDVs traded is indeed low. It can be assumed that the low number leads to a very low number of contracts signed. In some cases, CDV papers there had not been a single registered trade during several weeks, which makes an adequate pricing by the market difficult.⁷

5.2 Cross-sectional regressions

Cross-sectional regressions analyze share prices of different companies at a specific point of time. An annual average of the premium VRP_{year} as dependent variable was calculated based on the daily values of VRP . The independent variables are calculated based upon the hypotheses derived above. All results reported here have been checked and found to be robust with respect to heteroscedasticity, autocorrelation and multicollinearity. In order to increase the sample size for the testing of Hypotheses 1 and 2, the data for all companies and all sample years were pooled into a single regression.

The H_0 -hypothesis that the dividend difference (**Hypothesis 1**) has no influence on VRP_{year} cannot be rejected. The expected negative sign of the slope for $ADiff$ cannot be found (see Table 1). The regression result of $RDiff$ shows the negative sign, but the significance level as well as the R^2 -value are too low to be economically meaningful. In calculating the two regressions referring to absolute and relative differences of dividends, I make the assumption that the amount of the dividend is already known in the year for which it is paid, although the actual dividend disbursement only takes place in the following year.⁸ These two regression results support the assumption introduced in section 3, namely that a correction of the quotes due to additional dividend rights is not necessary.

Hypothesis 2 that a possible revival of the voting right for ADP-shares influences the voting premium could only be evaluated for the sample years 1986 to 1994 (Table 1, equation 3). For 1995 and 1996 there was no difference between the companies since all of them paid the statutory dividends. As the independent variable for testing Hypothesis 2, a dummy-variable $RVR = 1$ was used in those cases in which the corporation did not pay the statutory dividend for year t . The regression shows that the voting premium is positively correlated with the non-

⁶ The exceptions are Groupe Victoire and St. Fiacre. Groupe Victoire was part of a takeover battle in 1989 which might explain the high average. St. Fiacre is characterized by only 28 observations in the sample period (1989-1996) which does not allow an interpretation of the average.

⁷ On the other hand there may be situations when the price for CDVs increases. They are not well suited for speculation, which is not possible due to the legal circumstances under which the CDVs were created. Investors with a large number of CDVs must be "old" investors which had voting rights at the time when the CIs were issued. If these investors sell their CDVs they will decrease their influence in the company. This will only be an exceptional case, for example with desinvestment decisions or lucrative takeover offers, which leads to a limited liquidity as well and would increase the price for CDVs.

payment of statutory dividends and this result leads to a significance level of 6%. Among the sample, Mors and CSEE are the only two corporations with RVR=1 due to not fully paid dividends. All other companies paid dividends regularly.

Table 1: Cross-sectional regressions for absolute dividend and relative dividend differences and for a voting right revival

equation	constant (t-value)	variable (t-value)	R ²	* - 10% significance level significance level	N
(1) $VRPyear_t = a + Adiff_{t,x}$	0,6427 (12,748)*	0,0006 (0,168)	0,0001	0,8668	65
(2) $VRPyear_t = a + Rdiff_{t,x}$	0,6531 (13,359)*	-0,0003 (-0,153)	0,0003	0,8789	65
(3) $VRPyear_t = a + RVR_{t,x}$	0,6771 (13,664)*	-0,2299 (-1,895)*	0,0532	0,0626	65

The results for **Hypothesis 3**, that the capitalization influences the premium, are presented in Table 2. The explanation of the variability as well as the significance level are not satisfactory for most individual sample years. Only the pooled regression shows a significant result with the expected negative sign for the independent variable. The regressions take into account all companies in order to increase the sample size. For the companies with CIs, Hypothesis 3 is only partly valid. For every CI issued, the old shareholders with VS received CDVs so as to have a constant voting power. In case of a takeover, the potential buyer would not only have to buy the majority of the voting shares, but CDVs to control the majority of votes. Since he could only buy CDVs after buying the same number of CIs, his investment is expanded to total equity and not limited to voting equity.⁹

Table 3 shows that the significance level for **Hypothesis 4** is below 10% for 1986, 1992, 1993, and 1996. For these years, the R²s are acceptable, and the negative signs of the variables are as expected. The regression over all companies and all years also shows the expected negative slope and a high significance level of under 1%. The slope is very flat and the constant has a very high value for the annual as well as for the pooled regressions which can be due to other factors influencing $VRPyear$. This assumption will further be dealt with later on in the context of a multiple regression. With regard to the legal circumstances of CI and CDV the same problems appear as in Table 2.

⁸ A different approach ($VRPyear_t = a + Adiff_{t-1,x}$ and $VRPyear_t = a + RDiff_{t-1,x}$), which is not presented, does not lead to any better results.

⁹ An alternative approach only with companies who issued ADP shares, which is not presented in this paper, leads to the same results.

Table 2: Cross-sectional regressions for capitalization

VRP _{year,t} = a + Cap _{t,x} (voting shares without CDV)			* - 10% significance level		
year	constant (t-value)	variable (t-value)	R ²	significance level	N
1986	0,4091 (7,732)*	-0,0001 (-2,363)*	0,3366	0,0376	13
1987	0,4451 (7,563)*	-0,0001 (-1,377)	0,1193	0,1901	16
1988	0,4864 (6,024)*	-0,0003 (-0,503)	0,0147	0,6215	20
1989	0,7768 (6,648)*	-0,0001 (-0,224)	0,0025	0,8248	22
1990	0,8521 (7,106)*	-0,0003 (-0,574)	0,0170	0,5730	22
1991	0,7214 (5,842)*	-0,0007 (-0,015)	0,0001	0,9883	21
1992	0,6646 (5,290)*	0,0002 (0,048)	0,0001	0,9622	20
1993	0,6009 (5,601)*	-0,0003 (-1,313)	0,0874	0,2055	22
1994	0,4597 (6,379)*	-0,0004 (-1,987)*	0,1885	0,0633	20
1995	0,4353 (5,252)*	-0,0003 (-1,198)	0,0873	0,2494	17
1996	0,4516 (4,447)*	-0,0002 (-1,095)	0,0844	0,2935	14
pooled	0,5902 (18,353)*	-0,0003 (-2,555)*	0,031	0,0113	207

Table 3: Cross-sectional regressions for ratio voting equity capital/total equity capital

VRP _{year,t} = a + RelSha _{t,x} (voting shares without CDV)			* - 10% significance level		
year	constant (t-value)	variable (t-value)	R ²	significance level	N
1986	1,5563 (3,083)*	-0,0150 (-2,443)*	0,3516	0,0327	13
1987	0,8087 (1,144)	-0,0049 (-0,590)	0,0242	0,5647	16
1988	1,2246 (1,410)	-0,0088 (-0,881)	0,0436	0,3908	20
1989	1,2661 (1,088)	-0,0057 (-0,436)	0,0094	0,6677	22
1990	1,9890 (1,693)	-0,0130 (-1,004)	0,0503	0,3282	22
1991	2,3746 (2,022)*	-0,0183 (-1,414)	0,0999	0,1744	21
1992	3,7450 (3,871)*	-0,0334 (-3,194)*	0,3617	0,0050	20
1993	2,5725 (2,943)*	-0,0221 (-2,364)*	0,2370	0,0295	22
1994	1,7110 (2,688)*	-0,0142 (-2,091)*	0,2257	0,0540	20
1995	1,3674 (2,046)*	-0,0107 (-1,485)	0,1282	0,1582	17
1996	2,4721 (3,898)*	-0,0226 (-3,308)*	0,4570	0,0057	14
pooled	1,6282 (5,681)*	-0,0121 (-3,779)*	0,0673	0,0002	207

Table 4 presents the test results for **Hypothesis 5** concerning the influence of the shareholder structure on the voting premium VRP_{year} . Dummy-variables with a value of 1 for the individual shareholder structure of company i in year t and a value of 0 for all other four groups are employed. In order to avoid perfect multicollinearity, the regression model includes four variables, the remaining dummy-group is reflected by the constant which is group F in this case. Therefore the constant cannot be interpreted as in the tables presented before.

Table 4: Cross-sectional regressions for shareholder structure

$VRP_{year_t} = a + struc_{i,t}$						* - 10% significance level	
year	constant (t-value)	N (t-value)	S (t-value)	G (t-value)	M (t-value)	adj. R ²	N
1986	0,3124 (4,735)*		-0,2412 (-2,111)*	0,1197 (1,352)	0,0385 0,337	0,3941	13
1987	0,4850 (6,781)*		-0,3651 (-2,728)*	-0,0587 (-0,606)	-0,1323 (-1,133)	0,2476	16
1988	0,5785 (4,780)*		-0,4182 (-1,847)*	-0,1046 (-0,693)	-0,1466 (-0,742)	0,0252	20
1989	1,0558 (6,838)*		-0,8332 (-2,698)*	-0,3764 (-1,961)*	-0,2282 -0,853	0,2016	22
1990	1,1358 (6,344)*		-0,7386 (-2,062)*	-0,4347 (-1,953)*	-0,5472 (-1,764)*	0,1393	22
1991	1,0420 (5,743)*		-0,5494 (-1,514)	-0,4568 (-1,950)*	-0,4069 (-1,295)	0,0781	21
1992	0,9878 (5,558)*		-0,5145 (-1,447)	-0,5236 (-2,282)*	-0,2200 (-0,715)	0,1271	20
1993	0,7490 (5,048)*	-0,6031 (-2,347)*	-0,5110 (-1,302)	-0,2625 (-1,298)	-0,1814 (-0,706)	0,1066	22
1994	0,5720 (6,363)*	-0,4491 (-3,159)*		-0,2375 (-1,939)*	-0,2669 (-1,714)	0,2824	20
1995	0,5659 (4,842)*	-0,4631 (-2,426)*		-0,1617 (-1,022)	-0,2694 (-1,412)	0,1692	17
1996	0,5721 (4,238)*	-0,4489 (-2,036)*		-0,1714 (-0,846)	0,2639 (-1,177)	0,0886	14

The annual results in Table 4 clearly show that group F with family companies leads to high values of VRP , and groups N and S to the lowest values (see also Appendix 6). All of the results for the constant and most of the variables are significant under a 10%-level and thus support Hypothesis 5. The level of explanation of the variability varies between 8% in 1996 and 39% in 1986. These findings are consistent with Nicodano's (1998) for Italy. The author shows that the premium is higher for holding companies issuing non-voting shares than for similar operating companies with non-voting equity. These pyramid structures can be found in France in some companies of groups G, M, and F (e.g. Taittinger).

In order to increase the sample size and to analyze possible joint effects of different factors, I used multiple regressions (Table 5). Equation (1) shows the result of a pooled regression with the shareholder structure *struc* as the independent variable. The constant as well as the coefficients of all four variables are significant, and the regression can explain 18% of the variability. Tables 2 and 3 showed relatively high results for the constants. In order to test whether the variables capitalization (*Cap*) and the fraction of voting capital *RelSha* can explain the voting premium when they are considered in combination with the variable *struc*, two additional regressions were estimated. In comparison with equation (1), equation (2) adds *RelSha* as an independent variable. The adjusted multiple coefficient of determination R^2 increases to 21%. If *Cap* is added as third factor of influence, the adjusted R^2 goes up to 23%, but the slope coefficient of *Cap* is weakly positive which is not consistent with Hypothesis 3. This regression suggests that a higher capitalization is correlated with a higher premium. The constants and all variables of equations (2) and (3) are significant. The variables of Hypotheses 1 and 2 could not be included since they are limited to companies having issued ADP-shares.

Table 5: Cross-sectional multiple regressions

VRPyear _i = a + b ₁ x ₁ + + b _n x _n								* - 10% significance level	
equation	constant (t-value)	N (t-value)	S (t-value)	G (t-value)	M (t-value)	RelSha (t-value)	Cap (t-value)	adj. R ²	N
(1)	0,7584 (16,227)*	-0,6349 (-5,753)*	-0,4844 (-4,634)*	-0,2983 (-4,995)*	-0,2598 (-3,278)*			0,1807	207
(2)	1,4972 (5,383)*	-0,5693 (-4,976)*	-0,4510 (-4,412)*	-0,2265 (-3,786)*	-0,2908 (-3,767)*	-0,0083 (-2,663)*		0,2113	207
(3)	1,6719 (5,928)*	-0,7920 (-5,610)*	-0,5840 (-5,178)*	-0,2090 (-3,521)*	-0,2892 (-3,803)*	-0,0107 (-3,349)*	0,0004 (2,620)*	0,2345	207
Tests of Means (t-value)									
		N	S	G	M				
F vs.		10,10***	7,20***	4,004***	3,53***				
N vs.			-2,89***	-5,92***	-5,38***				
S vs.				-3,07***	-2,81***				
G vs.					-0,05				

* - 10% significance level; ** - 5% significance level; *** - 1% significance level

The results of the cross-sectional regressions show that the voting premium *VRPyear* can be best explained by a multiple regression with shareholder structure, percentage of voting capital and capitalization as independent variables with the shareholder structure as the most influential factor. For all other variables the significance is far beyond an acceptable level. The following section will use a different approach to analyze the hypotheses.

5.3 Longitudinal regressions

In contrast to cross-sectional regressions, longitudinal regressions analyze the voting premium for the same company during the total sample period in order to test the hypotheses of section 3. The results may provide additional information as to which of the independent variables has a strong influence on the premium for an individual company. Since the number of all corporations in the sample was already very limited, I made regressions for those corporations for which a minimum of four years' data was available. With respect to Hypotheses 3 and 4, Tables 9 and 10 show only the regression results for the companies with a significance level of 10% or better.

It was only possible to test **Hypothesis 1** for one company (Legrand) since for all others the absolute dividend difference was constant (Appendix 4). Mors was not included in the test since the number of observations is too limited. The result in Table 6 can only explain 16% of the variability, and the significance of the results is far from an acceptable level.

Table 6: Longitudinal regression for absolute dividend difference

$VRP_{year_t} = a + ADiff_t x$			* - 10% significance level			
company	constant (t-value)	variable (t-value)	R ²	significance level	Durbin- Watson	N
Legrand	0,1653 (0,531)	0,0770 (1,282)	0,1544	0,2319	0,4849	11

Table 7 presents the results of the tests for an influence of the relative dividend difference. CSEE is excluded here, since this company paid no regular dividend and had only later payments. The results for the remaining four companies with a fixed absolute dividend difference of voting and ADP-shares do not permit the conclusion that there is a significant relationship between the dividend difference and the voting premium. The low values for the Durbin-Watson coefficients in Tables 6 and 7 show that autocorrelation may be a problem. In spite of this reservation, the longitudinal test for an influence of the absolute and relative dividend differences support the results of the cross-sectional regressions in section 5.2, and this seems to be important, as these results were insignificant as well.

Table 7: Longitudinal regressions for relative dividend difference

$VRP_{year_t} = a + Rdiff_t x$			* - 10% significance level			
company	constant (t-value)	variable (t-value)	R ²	significance level	Durbin- Watson	N
Casino	0,4435 (1,204)	-0,0202 (-0,283)	0,0088	0,7838	1,0995	11
Essilor	0,5794 (1,413)	0,0117 (0,264)	0,0077	0,7976	0,5736	11
Roussel Uclaf	0,8332 (3,988)*	-0,0029 (-0,295)	0,0108	0,7753	0,5027	10
Sagem	1,2824 (2,734)*	0,0080 (-0,519)	0,0291	0,6161	0,5163	1

With regard to the regression for a possible revival of the voting right (**Hypothesis 2**) it is important to notice that only Mors and CSEE had irregular dividend payments which led to a dummy-variable $RVR = 1$. Since for Mors the sample period was very short, the regressions are limited to the case of CSEE. The result can only explain 25% of the variability with a low t-value.

Table 8: Longitudinal regressions for a revival of the voting right

VRP _{year,t} = a + RVR _{t,x}			* - 10% significance level			
company	constant (t-value)	variable (t-value)	R ²	significance level	Durbin- Watson	N
CSEE	1,1717 (2,467)	-0,2223 (-1,271)	0,2122	0,2506	1,3108	8

The acknowledgement of the voting right is often anticipated by investors. In the case of CSEE the voting right was granted to the ADP-shareholders on December 12, 1994 and their ADP-shares were exchanged 1:1 for voting shares. The development of the VRP shows that the difference between the prices of both shareclasses started to decrease in April 1993 (see Figure 1). In the case of the privatization of BNP the voting premium also decreased from 30% in October 1994 to 0%, and this was almost certainly in anticipation on the exchange of CI for voting shares as decided by the special shareholder meeting on December 7, 1994.

Figure 1: Development of the voting premium in anticipation of an acknowledgment of the voting right

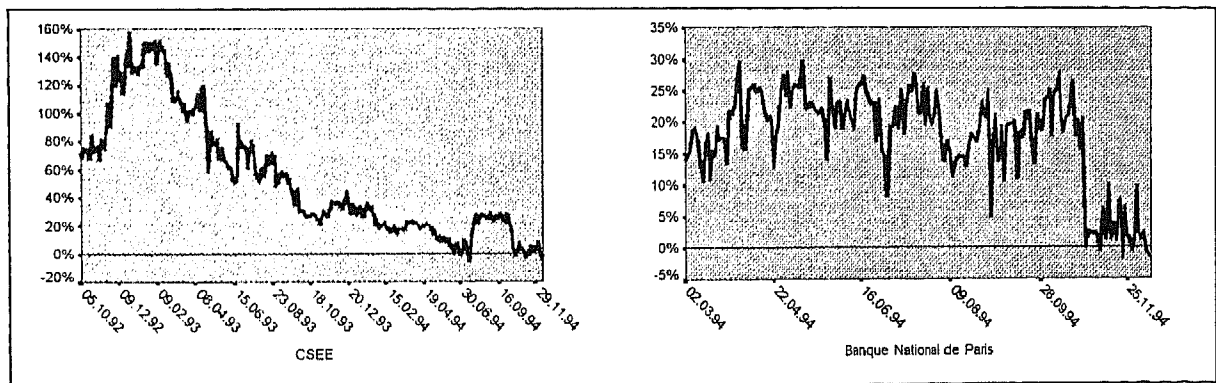


Table 9 shows that there is a possible influence of the capitalization on the voting premium (**Hypothesis 3**) for seven companies, which is statistically significant at the 10 percent level. With the exception of Essilor, all of these companies had issued CIs. However, the expected negative sign of the coefficient can only be observed for four companies. For the remaining three companies, the slope was weakly positive. The explanation of the variability is very acceptable with a maximum of 64% with acceptable t-values.

When testing **Hypothesis 4**, only six companies are found to have a significance level of under 10% (see Table 10), and the expected negative sign can only be found for four companies. The results for Piper-Heidsieck and Robertet are significant at the 1%-level.

Table 9: Longitudinal regressions for capitalization

VRP _{year_t} = a + Cap _t x (voting shares without CDVs)			* - 10% significance level			
company	constant (t-value)	variable (t-value)	R ²	significance level	Durbin- Watson	N
Eridania	0,4365 (8,028)*	-0,0001 (-3,337)*	0,5820	0,0103	2,2632	10
Essilor	0,9978 (6,010)*	-0,0006 (-2,157)*	0,3407	0,0594	1,0732	11
Groupe Victoire	0,2672 (1,417)	0,0002 (3,168)*	0,8338	0,0869	2,5679	4
Louvre	0,3349 (1,302)	0,0002 (2,373)*	0,3848	0,0417	1,1803	11
Piper-Heidsieck	0,7130 (5,912)*	-0,0003 (-2,752)*	0,4569	0,0224	1,6234	11
Robertet	1,2571 (7,363)*	-0,0013 (-3,276)*	0,6415	0,0169	1,6353	8
Taittinger	0,1579 (0,835)	0,0004 (3,843)*	0,6214	0,0039	0,9549	11

Table 10: Longitudinal regressions for voting share percentage

VRP _{year_t} = a + RelSha _t x (voting shares without CDV)			* - 10% significance level			
company	constant (t-value)	variable (t-value)	R ²	significance level	Durbin- Watson	N
Eridania	1,0882 (2,576)*	-0,0087 (-1,913)*	0,3138	0,0921	1,1929	10
Louvre	-5,0049 (-3,018)*	0,0679 (3,570)*	0,5861	0,0060	1,1375	11
Piper-Heidsieck	2,0364 (3,722)*	-0,0171 (-2,976)*	0,4960	0,0155	1,4079	11
Robertet	56,8007 (5,616)*	-0,6056 (-5,545)*	0,8367	0,0015	3,0427	8
Roussel Uclaf	2,5097 (2,660)*	-0,0199 (-1,887)*	0,2834	0,0918	0,4341	11
Total	-0,7675 (-1,460)	0,0116 (2,042)*	0,3167	0,0715	0,5241	11

Taken together, the longitudinal regressions indicate that in particular Hypotheses 3 and 4 provide an explanation of the average annual premiums for some corporations. This allows the conclusion that not all companies influence the cross-sectional results in the same way, but that the capitalization and the part of voting capital of some companies influence the voting premium more than for other companies.

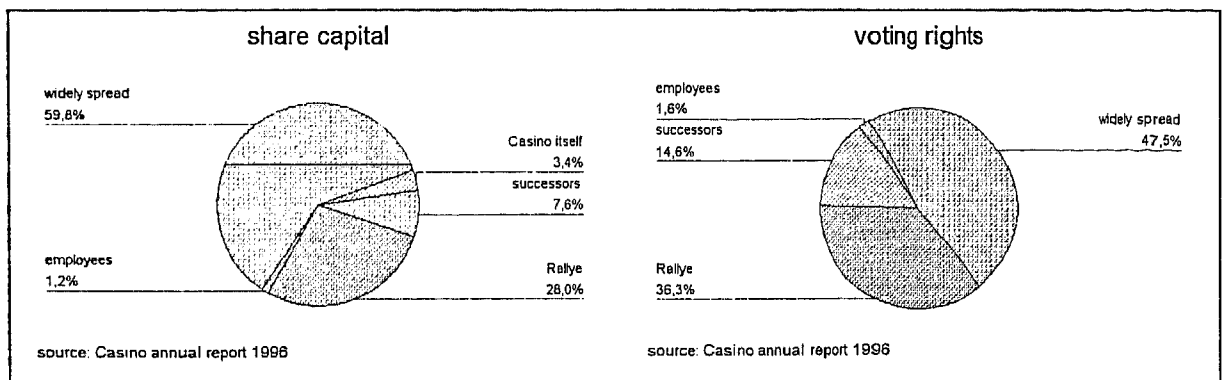
So far this paper has analyzed the voting premium from a global perspective covering all companies falling into a certain category. The following section will present a case study in order to analyze the development of the voting premium of two companies which were involved in a specific event.

6 Case study Casino/Promodès

As in the neighboring countries, food retailers face increasing competition in France, which leads to decreasing profits. Higher margins can only be realized by reducing purchasing prices, which requires a higher market share. Internal growth can only be realized with great difficulty since new "hypermarché" shops with huge areas are no longer allowed since 1996 (loi Raffarin), so that external growth remains the only alternative in the French market.

In this situation, the second largest French food retailer, Promodès, made a takeover bid to the sixth largest one, Casino-Guichard, on September 1, 1997. Since both companies had issued two classes of shares, an analysis of the voting premium for both companies during the takeover contest is of special interest. Rumors were already spread several months before the formal offer, which had resulted in an increase of Casino's voting right premium from 17% as of August 1, to 27% one month later. Analysts expected an increase of the premium since the voting rights were deemed decisive for the success of an eventual offer. Casino had issued ADP in 1983 which made up 21% of total equity capital in 1996. The company was controlled by two major shareholders: Rallye¹⁰ and the successors of the founder (see Figure 2). Rallye is a holding company whose majority (75%) belongs to Jean-Charles Naouri. Promodès had issued CI in 1987 which made up 1,5% of the nominal equity capital in 1996. The company is owned by the Halley family.¹¹

Figure 2: Casino share capital and voting rights as of December 31, 1996¹²



On September 1, Promodès offered 340 FF for one voting share VS and 272 FF for one ADP (which implies a voting premium of 25%), provided that shareholders would sell at least 50% of the Casino voting rights.¹³ Before the suspension of trading until September 8, Casino had a voting premium of 27%. On September 2 the supervisory board of Casino classified the offer

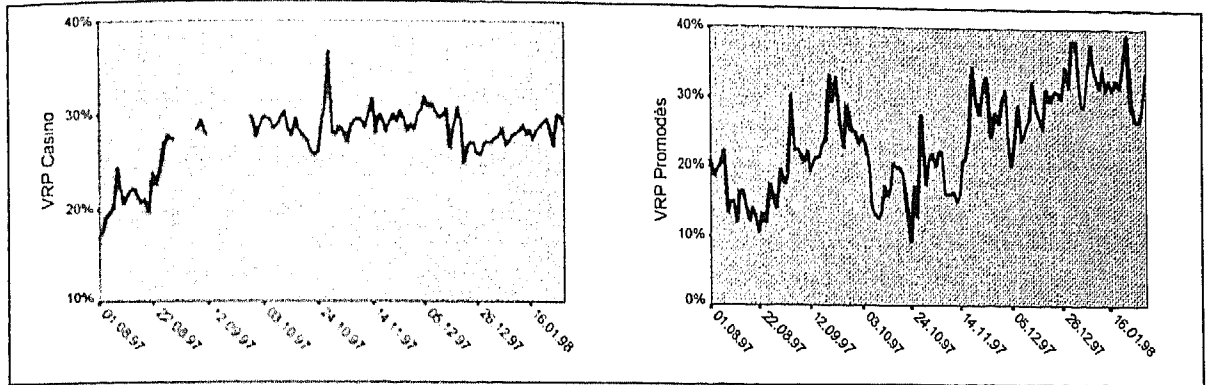
¹⁰ Casino grants double voting rights after 4 years. Rallye was therefore able to increase its part of voting rights to 42% as from October 25, 1997.

¹¹ Further information with regard to the percentage of voting rights owned by the family are not published by the company and were not available upon request.

¹² The 400 successors agreed in 1994 only to act unified with Antoine Guichard as speaker.

as unfriendly and bought the supermarket chain Franprix in order to demonstrate its determination to remain independent. The voting right premium of Promodès doubled during five days to 30% on September 4 (see Figure 3).

Figure 3: Voting premium for Casino and Promodès between August 1, 1997, and January 31, 1998



After resumption of trading the quotations of both the voting shares and the ADPs of Casino increased, and the *VRP* remained unchanged until another suspension of trading occurred on September 12 (see Appendix 8). The premium for Promodès fluctuated around 22%.

Since Rallye was not willing to sell their shares, the success of the takeover initiative depended totally on the decision of the successors. On September 12, they decided not to sell and to support Rallye. Both groups together controlled the majority of votes. On September 14, Rallye made a counter offer. In contrast to Promodès, Rallye did not offer cash for Casino shares but an exchange of voting and non-voting shares into a convertible loan with a conversion right for Casino voting shares. The stock exchange commission COB did not permit this counter offer due to what seem to have been doubts concerning the ability of investors to evaluate the offer made to them. Promodès was perceived to be strengthened by this decision, and the value of its voting rights increased rapidly to 33%. The market expected an increase of the offer of Promodès in order to persuade the successors' group.

On September 25 Promodès indeed increased its offer to 375 FF for a voting share and 300 FF for an ADP (*VRP* 25%) or alternatively an exchange of 7 Casino voting shares for 1 Promodès voting share. The new alternative was introduced to convince the successors who did not want to lose their influence in the company. During the following day Rallye published a new counter offer which was accepted by the COB, although the comparison with the Promodès offer remained difficult since Rallye now offered a Rallye convertible loan into Casino or

¹³ For an overview of the different events see Appendix 9.

Rallye shares. This new counter offer was not conditional on a minimum of voting shares offered.

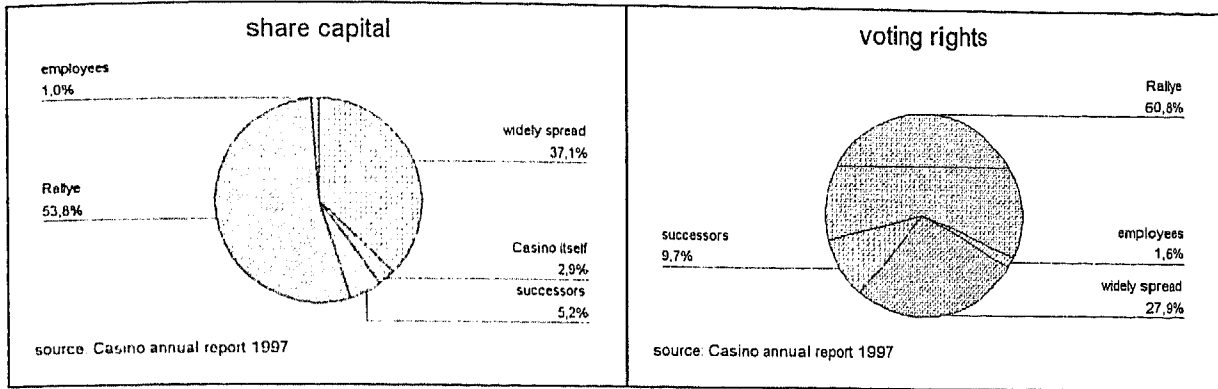
Trading of Casino shares resumed on September 30, and high volumes of shares were changed hands. The price increased by 8 percent, but they remained at 361 FF for a voting share and 278 FF for an ADP, which was below the Promodès offer. Surprisingly, the voting premium stayed at 29 percent, whereas Promodès had only offered 25 percent as an implicit price of the voting right. The development of the quotes and the voting premium can be interpreted as a reaction of the investors to the uncertainty of the outcome of the contest. Both offers had the same duration and the investors had a wait-and-see attitude.

On October 4, the group of successors met again, but could not find a common position with respect to which offer to support. A decision in favor of Promodès would have been decisive for its offer. The premium for Casino stayed constant in contrast to the premium of Promodès which decreased from 28% to 13% since investors felt that Promodès would not be successful.

During the following days, the premium of Casino stayed around 28%. On October 29, it increased rapidly to 36% after Jean-Charles Naouri had announced his decision to make use of an exchange of BSA¹⁴, which increased his percentage in voting rights from 42,9% to 47,9%. With this decision and the fact that the stock exchange commission did not demand a new offer from Rallye, Promodès had actually lost the battle apart from a contrary court decision since Rallye could count on the votes of the personnel and a large part of the successors to achieve a majority. During the following months Casino had a constant voting premium of around 28% again until the end of December when Promodès and Casino/Rallye signed a contract which officially marked the end of the takeover contest. The premium decreased from 30% to 24%. The companies agreed to cooperate in international non-food purchasing and to consult each other in case of important capital variations. The new shareholder structure of Casino after the exchange procedures can be seen in Figure 4.

¹⁴ Casino BSA (bon de souscription d'action) could be exchanged 1 BSA = 1 voting share at any time; BSA were issued before the start of the takeover battle.

Figure 4: Casino share capital and voting rights as of March 15, 1998



By analyzing the premium of Promodès in Figure 3 we see a steady increase from the beginning of November until the end of the takeover contest and the premium remained at this relatively high level even in January 1998. This fact results from the sharper increase of the price of the voting shares in comparison to that of the CIs.

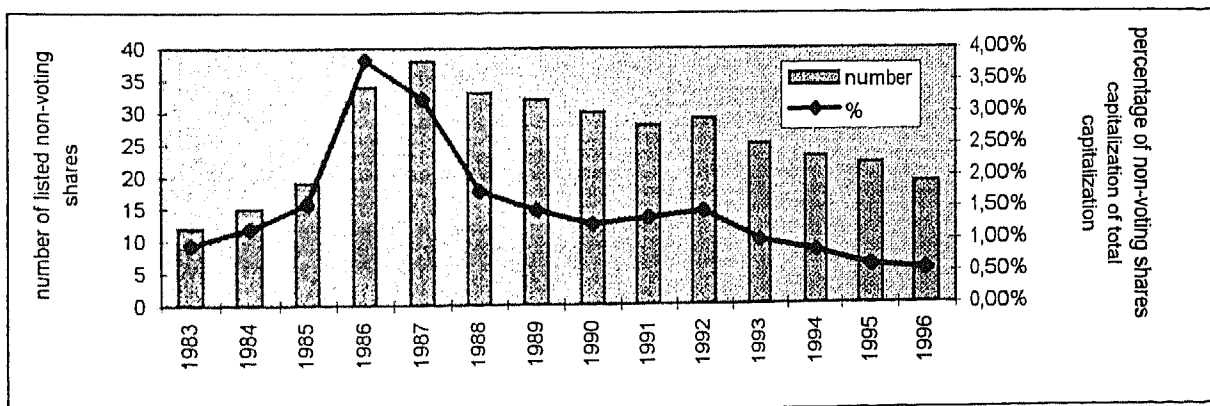
The following section analyzes the significance of non-voting capital for French companies and puts the French empirical results in an international comparison.

7 International comparison

7.1 The significance of non-voting shares for equity financing in France

The main finding of the paper, namely a high average voting premium in France, implies that issuing non-voting shares is simply very expensive in France. A possible consequence of the high premium can be seen in Figure 5 which shows that the use of non-voting shares has been declining over time since the late 1980s. As it seems, corporations try to use alternative, but less costly, means to achieve the same results as those which non-voting shares were originally meant for.

Figure 5: Capitalization of non-voting shares



However, as Figure 5 also shows, non-voting shares have never played an important role in the equity financing of French companies. The number of corporations which issued non-voting

shares as well as their fraction of total capitalization have always been quite limited. Since 1986/87, there was a constant reduction of non-voting shares traded at the stock exchange. The stock exchange has started to play a much more important role for equity and for debt.¹⁵ At the end of 1996, out of 770 French shares publicly traded, only 19 were non-voting, which corresponds to 0,54 percent of total market capitalization. This tendency continued in 1997 with the delisting of Roussel-Uclaf and Piper-Heidsieck.

There seem to be four causes for this development:

The first reason has to do with changes in the concept which had guided the privatization process in France since the early 1980s. During the period 1983-87, state-owned companies and especially the major banks had issued CIs and CIPs. In fact, these legal instruments had been created specifically for their needs. With the introduction of non-voting shares whose voting rights cannot revive the state had created for itself the possibility to increase the equity capital of state-owned companies without having to give any voting rights to new shareholders. However, most of the privatized companies have since exchanged their non-voting shares for voting shares. The state was no longer majority shareholder so there was no need for a dual-class share system anymore (Reinhard 1988). The delisting of the second class of shares of the same company saves money for the listing fee and facilitates the relevant administrative work.

The second reason for the insignificance of non-voting shares can be seen in the French system of permitting double votes for voting shares. As already pointed out above, the annual general meeting can grant two votes to one share if that share was held by the same investor for a minimum of four years. Non-voting shares are one possibility to increase the equity capital without losing influence in the corporation. But double votes can achieve the same result and prevent unwanted takeovers equally well, but at lower cost (Desbrières 1994). In the case of a capital increase all newly issued ordinary shares get one vote, but this is evidently less important if old shareholders have double votes. In the case of a takeover, a bidder who needed the majority of votes in order to gain control of the corporation, would have to buy more than the majority of shares.

The third reason why non-voting shares are not "needed" as a means to secure control of a corporation can be seen in special features of the French corporate governance system. There is a high incidence of cross-holdings between French companies, and wealthy families still play

¹⁵ A study by the SBF - Bourse de Paris (1997) shows that the number of corporations listed has decreased since 1990, but the nominal value of French equities and of French bonds listed has increased steadily for 25 years (SBF - Bourse de Paris 1998).

an important role not only as owners but also in the management of those corporations which they dominate,¹⁶ Morin (1996) provided evidence that most privatized former state-owned enterprises are part of two large networks of cross-ownership and "strategic shareholdings". Eleven of the 21 companies, which he mentions as being parts of these networks had issued non-voting shares in the past. With the exception of Bouygues, these are all former state-owned companies for which non-voting shares do not exist anymore or have become completely unimportant.¹⁷ The OECD (1997) points out that this system of "*cross-participation has not enabled the recently privatized companies to adopt a truly 'private' system of corporate governance*". Thus, still today there are only a few corporations in France which have all of their shares held by a large number of small shareholders. In addition the shareholders represented on supervisory boards typically have very limited opportunities to control the management in the first place. According to Franks/Mayer (1995), the French corporate governance system is an "insider control system" in which the insiders control themselves instead of being controlled by outsiders via a capital market which also functions as a market for corporate control (Moerland 1995).

A fourth possibility is the limitation of voting rights per shareholder in the company by-laws. A takeover can only be successful by a coalition of shareholders if an investor wants to gain control of the majority of votes (e.g. Alcatel-Alsthom).

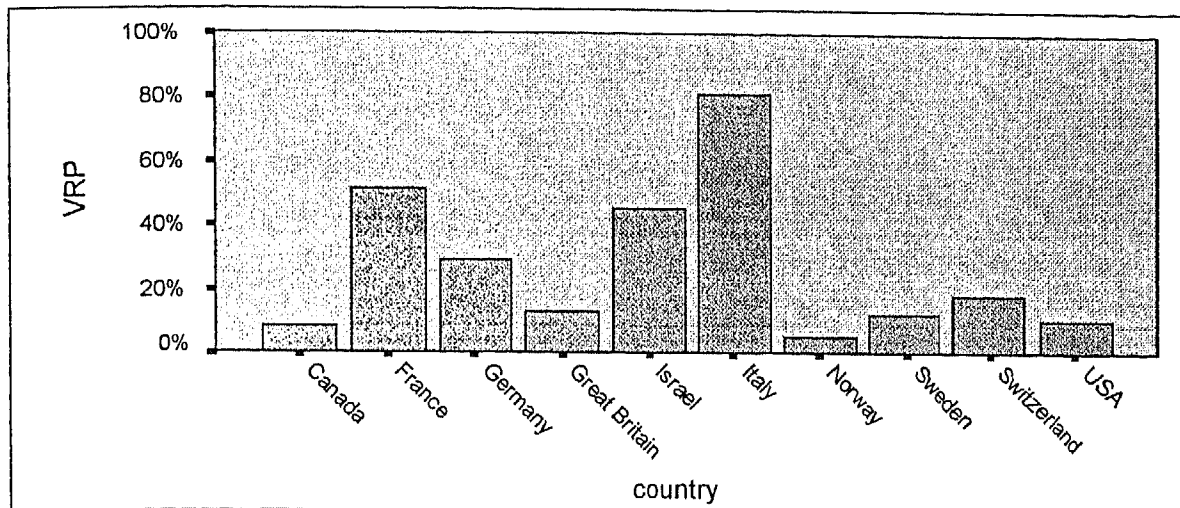
All four factors which have been discussed as possible explanations for the limited "need" for using non-voting shares suggest that owners of corporations have alternatives to non-voting shares which they can use in order to keep control. And they seem to make use of these opportunities to a large extent.

7.2 The voting right premium in different corporate governance-systems

In order to provide an assessment of the absolute level of the voting right premium of over 50 percent in France, this section offers a comparison of results for France with comparable results from other countries.

¹⁶ Several studies have analyzed the shareholder structure in France, e.g. Moerland (1995), Bloch/Kremp (1997), La Porta et al. (1998b).

¹⁷ An exception is the bank Crédit Lyonnais which is still directly and indirectly completely state owned. This bank has only CIs outstanding which are publicly traded. (18,25% of capital in 1997).

Figure 6: Voting right premiums in different countries¹⁸

As Figure 6 shows, the highest voting right premium can be found in Italy, with France being second. Among the major countries for which this has so far been investigated, the voting right premium is lowest in Norway and Canada. The method used for calculating the voting right premium in the studies whose results are summarized in Figure 6, are largely the same. The sizable difference of the results for the individual countries are remarkable. Still more surprising is the fact that in each country the national average price differences between voting and non-voting shares appear to be largely constant for considerable time spans if there are no changes in legislation. This suggests that there should be country-related factors which determine the size of the voting right premium or, in other words, the value of private control rights.

It can be assumed that different corporate governance systems lead to different potential benefits for those who are in control. Thus following Zingales (1994), the value of private control rights measured by the average voting premium can be interpreted as a quantitative measurement of the "quality" of a corporate governance system. France is characterized by an insider control system in the classification of Franks/Mayer (1995). In an insider control system, the possible private benefits of control can be assumed to be larger than in a outsider control system.

Following this idea, an attempt is made to explain the different voting rights premia in the ten countries, which are covered in Figure 6, as a consequence of the "quality" of the respective national corporate control systems. In order to provide the "quality" of the corporate governance systems, three different characteristics of these systems are "rated": the quality of

¹⁸ For Canada (sample period 1981-1990) *Robinson/Rumsey/White* (1995), for Germany (1980-1997) *Muus/Tyrell* (1999), for Great Britain (1955-1982) *Meggison* (1990), for Israel (1974-1980) *Levy* (1983), for

national accounting standards, the strength of shareholder rights, and the possibility of enforcing these shareholder rights.

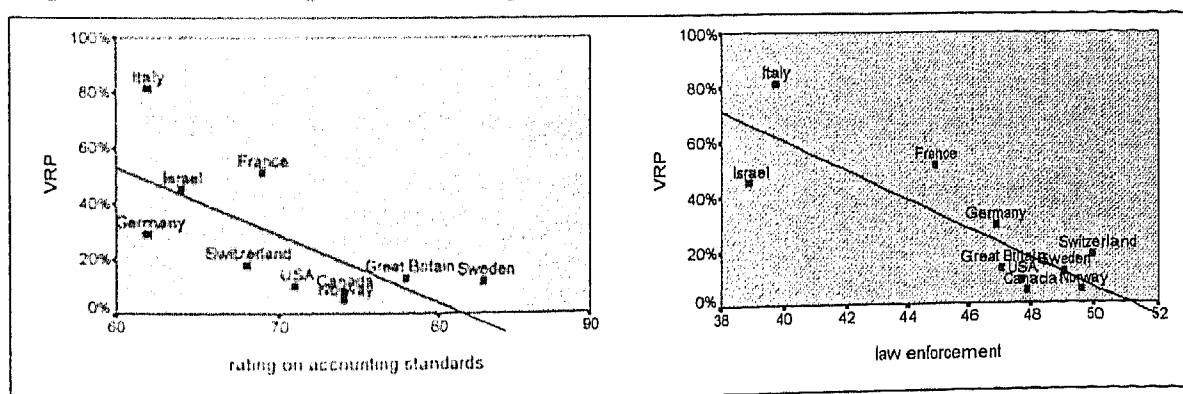
It can be assumed that investors base their investment decisions on the publicly available information about a company including the annual reports. Different accounting standards may result in different depreciation figures and different levels of profits. Non-voting shareholders may be at a disadvantage in a country with deficient accounting standards since the management which is often related to the voting shareholders can achieve "private benefits" for example by high salaries and non-monetary benefits which cannot be recognized by looking at the annual reports.

The rating with respect to accounting standards is based on the work of La Porta et al. (1998a, Table 7). It is based on an assessment of seven categories of balance sheet items which leads to the variable *rating*. The numerical values for the quality of the accounting systems of individual countries are provided in Appendix 11. They range from 62 for Italy and Germany to 83 for Sweden, with higher values indicating better accounting systems from a shareholder perspective. The value for France is 69.

Hypothesis 6 The country-specific rating of the accounting standard influences the level of the voting right premium. A higher rating leads to a lower premium.

The slope of the regression line shown in Figure 7 is consistent with the hypothesis.

Figure 7: VRP, rating on accounting standards and law enforcement



The strength of shareholders' rights can be assumed to influence the decision to invest in shares in general and in non-voting shares in particular. The less a given legal system prevents managers from using their informational advantage and their discretion to the disadvantage of

Italy (1987-1990) Zingales (1994), for Norway (1995-1997) Odegaard (1998), for Sweden (1983-1990) Rydqvist (1996), for Switzerland (1990-1991) Kunz Angel (1996), for the USA (1984-1990) Zingales (1995).

outside shareholders, the more important it is for them that they can at least use their voting rights at the annual general meeting to exercise some control over the management. Conversely, the better the legal system protects shareholders, the less they need the protection which the voting right affords them. This leads to Hypothesis 7:

Hypothesis 7: The strength of the legal rights of shareholders influences the voting premium. Countries with extensive rights have a smaller premium than countries with very limited rights.

This Hypothesis is tested by fitting a regression with *rights* as the independent variable. The variable *rights* is a quantitative measure of the strength of shareholders' rights. Based on the work of La Porta et al. (1998a, Table 2), numerical values of *rights* are calculated as the sum of five characteristics of national legal systems. Details are summarized in Appendix 11. Although these characteristics do not refer specifically to non-voting shares, it appears permissible to assume that general indicators of the strength of shareholders' rights carry over to the situation of non-voting shareholders. For France the value for the variable *rights* is 2 on a scale from 0 to 5 with higher values indicating better legal status. This value is low compared to those for the US and Canada. The difference reflects, among other things, the fact that in the Anglo-Saxon countries the decision of the management should be based on the shareholder interest which is not the case for France (e.g. Bissara 1998).

The enforcement of shareholder rights can be of equal relevance as the rights themselves. The efficiency of the judicial system and level of corruption are of importance in this context. Non-voting shareholders can try to prevent a disadvantage by appealing to court, and they might be more inclined to buy non-voting shares if they could count on the legal system if a relevant conflict comes up. Hypothesis 8 is based on this idea:

Hypothesis 8: The enforcement of shareholder rights influence the voting premium. Better enforcement possibilities lead to a lower premium.

In the regression to test this hypothesis, an index *enforce* for the enforceability of shareholders' rights is used. It is calculated as the sum of five criteria which are also derived from the work of La Porta et al. (see Appendix 12). A higher score indicates better or easier enforcement. France receives 44,87 out of 50 index points which is mainly due to the inefficiency of the judicial system. As the right panel in Figure 7 shows, the results of the simple regression support the hypothesis.

Table 11 reports the results of the single regressions relating the voting premium in the nine countries to the values for the three explanatory variables accounting standards, legal protection and enforceability. The signs of the coefficients are as expected under the hypotheses.

Table 11: Single regression results of the international comparison

VRP _{country} = a + hypothesis _{country} X			* - 10% significance level	
hypothesis on	constant (t-value)	variable (t-value)	R ²	significance level
rating	199,516 (3,072)*	-2,440 (-2,660)*	0,469	0,029
rights	52,204 (4,188)*	-9,877 (-2,310)*	0,400	0,050
enforce	276,668 (5,041)*	-5,399 (-4,554)*	0,722	0,002

All three regressions have relatively high results for R² and are significant at the 5% level. This suggests that it is appropriate to interpret the voting premium as a measure of the "quality" of the legal system – and possibly also of the corporate governance system of a country.

Since the last three factors together influence the investment decisions of potential shareholders, a stepwise regression is used to analyze the joint impact of the variables on the voting premium. Table 12 summarizes the result. It seems that the voting premium is mainly determined by the quality of the legal system, composed of two factors, namely the strength of shareholder rights and the enforceability of these rights, whereas the variable *rating* could not improve the significance of the regression.

Table 12: Stepwise regression for an international comparison

VRP _{country} = a + bx ₁ + ... + bx _n			* - 10% significance level		
constant (t-value)	rights (t-value)	enforce (t-value)	adj. R ²	significance level	N
260,108 (7,430)*	-6,882 (-3,607)*	-4,667 (-6,010)*	0,875	0,001	10

The result is robust to autocorrelation and multicollinearity.

However, taken together, the single and multiple regression results underline the influence of the variables accounting standards, shareholder rights as well as the enforcement of the shareholder rights on the premium in different countries with different corporate governance systems.

La Porta et al. (1998a) found that in countries with French legal tradition¹⁹, accounting standards and investor rights are less developed. As they point out "*the most widely spread legal family, that originating in the French civil law, appears to have the worst efficiency*

¹⁹ La Porta et al. (1998a) analyzed 49 countries and developed four categories for legal traditions: English, French, German and Scandinavian origin.

properties from the perspective of corporate governance." A possible effect of this can be a difficult access to capital markets or no access at all. This is consistent with the finding in this study that in France non-voting capital can only be issued with a high discount which makes equity finance via non-voting shares very expensive. On the other hand, French companies have different alternatives to non-voting capital. Therefore it might go too far to interpret the empirical results of this study as evidence that French companies have a disadvantage *because* of their faulty corporate governance-system. In addition, it might be too simplistic to postulate a straightforward correspondence between the three indicators of what constitutes a good *legal* system from the perspective of shareholders on the one hand and the "quality" of a given country's corporate governance system, as the quote from La Porta et al. suggests. We do not yet know well enough what constitutes an overall good corporate governance system to draw such a sweeping conclusion.

8 Conclusion

This paper analyzed the voting right premium in France as the additional price the investor would have to pay over the price of a non-voting share in order to have a voting share. With 51,35 percent, the average voting premium is surprisingly high in France. The voting premium varies over time and between companies. The only explanation for different premiums of different companies can be found in their specific shareholder structure. In an international comparison, the level of the average voting premium in a country is found to vary significantly and, as it seems, as a consequence of different accounting standards, shareholder rights and the enforcement of these rights.

A high voting premium makes equity finance more expensive in France. Non-voting shares have never been of great importance for financing. The number of companies with non-voting shares has decreased since 1987 and this tendency will go on in the future. It appears likely that the voting right premium will be influenced by changes in the corporate governance system. If there were indeed a tendency towards a convergence of the different corporate governance systems due to international pressure²⁰. The Viénot report (1995) recommended changes with regard to transparency and was critical with reciprocal directorships. If these suggestions would be adopted the voting premium might decrease in France. The low level of Canada and the US will not be reached since this would presume a considerable change in the French

²⁰ Shleifer/Vislny (1997) and Fanto (1997) are among those who see a tendency of a convergence. Bebchuk/Roe (1999) and Schmidt/Spindler (1999) do not share this assumptions and provide arguments why convergence is not likely to come about soon. For a theoretical approach of complementarity of certain elements in financial systems see Hackethal/Tyrell (1998).

corporate governance system which is unlikely to happen. Only minor changes in the system will most likely appear (e.g. with regard to shareholder information and transparency).

Press reports have often speculated that the integration process within the EU will lead to a prohibition of non-voting shares which I question. The EU commission proposes a one share - one vote - system in the third modification²¹ as of November 20, 1991 (art. 33, subsection 1). The member countries are given expressly the right to allow non-voting shares. Non-voting capital should not exceed 50% of total equity, but the non-voting shareholders should be granted a higher dividend than to ordinary shareholders. The modification proposes a revival of the voting right for non-voting shares in the case of non-payment of the dividend.

²¹ First proposition as of December 13, 1972, first modification as of September 9, 1983, second modification as of December 10, 1990.

9 Appendix

Appendix 1: Companies and their voting right premium in the sample

company	non-voting share	from	to	observations	average VRP
BNP	CI	18.10.1993	02.12.1994	281	15,02%
Bouygues	CI	20.02.1987	31.12.1996	2.099	46,96%
Casino-Guichard	ADP	24.06.1986	31.12.1996	2.623	36,78%
CSEE	ADP	24.06.1986	09.12.1994	1.688	58,04%
Delmas-Vieljeux	CI	02.08.1988	01.02.1993	562	85,05%
Elf-Aquitaine	CP	24.06.1986	31.12.1996	2.619	22,98%
Eridania Beghin-Say	CI	22.10.1986	31.12.1995	2.150	27,38%
Essilor	ADP	24.06.1986	31.12.1996	2.620	69,79%
Groupe Victoire	CI	03.01.1989	06.10.1993	319	81,41%
Legrand	ADP	24.06.1986	31.12.1996	2.617	56,79%
Louvre	CI	12.08.1986	31.12.1996	2.092	93,20%
Mors	ADP	13.09.1988	24.07.1990	349	2,06%
OGF	CI	01.09.1988	05.08.1996	515	18,03%
Oréal L'	CI	22.09.1986	30.12.1994	1.827	92,69%
Pechelbronn	CI	16.02.1987	22.07.1991	966	87,39%
Pechiney	CIP	18.12.1995	31.12.1996	259	-6,10%
Piper-Heidsieck	CI	10.12.1986	06.09.1996	630	55,41%
Promodès	CI	30.03.1987	31.12.1996	1.819	70,57%
Rhône-Poulenc	CIP	26.01.1993	05.05.1995	562	-6,34%
Robertet	CI	04.01.1989	31.12.1996	1.858	71,83%
Roussel-Uclaf	ADP	24.06.1986	31.12.1996	2.283	76,94%
Sagem	ADP	24.06.1986	31.12.1996	2.460	107,00%
St. Fiacre	CI	13.06.1989	14.06.1996	399	0,44%
Taittinger	CI	14.08.1986	31.12.1996	2.136	89,15%
Total	CP	24.06.1986	31.12.1996	2.626	31,24%

Appendix 2: Sample companies with CDV

company	from	to	observations	QCDVgesamt
Bouygues	10.08.1993	31.12.1996	485	96,00%
Eridania Beghin-Say	03.10.1988	31.12.1996	1.224	99,03%
Groupe Victoire	03.01.1989	06.10.1993	692	101,43%
OGF	09.01.1989	28.09.1995	228	94,87%
Oréal L'	18.04.1989	30.12.1994	1.226	99,20%
Pechelbronn	03.10.1988	22.07.1991	456	96,98%
Piper-Heidsieck	17.10.1988	06.09.1996	214	97,39%
Robertet	04.01.1989	31.12.1996	212	96,47%
St. Fiacre	13.06.1989	28.05.1996	28	120,76%

Appendix 3: Shareholder structure during the sample period 1986 - 1996

type	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
N	0	0	0	0	0	0	0	3	4	3	3
S	2	2	2	2	2	2	2	1	0	0	0
G	5	6	10	11	11	10	9	9	7	6	3
M	2	3	3	3	3	3	3	3	3	3	3
F	4	5	5	6	6	6	6	6	6	5	5
Σ	13	16	20	22	22	21	20	22	20	17	14

- N group 1: no major shareholder, many small investors, often after privatization with "noyau dur" (core shareholders)
- S group 2: state company with direct and indirect control of more than 50% of the voting right by the state
- G group 3: company belongs to a group which controls more than 50% of the voting rights
- M group 4: no majority shareholder, but control of the company through a family acting in concert with friends and other companies
- F group 5: family/employee control of more than 50% of the voting rights held directly and indirectly

Appendix 4: Statutory first dividend for voting and ADP-shares after tax

company	first dividend of the voting share based on the par value	first dividend of the ADP share based on the par value	first dividend of the ADP share as a product with VS
Casino	5,00%	7,50%	-
CSEE	5,00%	12,50%	-
Darty ¹	7,50%	35,00%	-
Essilor	6,00%	10,00%	-
Legrand	7,50%	-	1,6; min. 18,75 FRF
Mors	5,00%	-	1,5; min. 3,33FRF
Roussel-Uclaf	10,00%	15,00%	-
Sagem	5,00%	15,00%	-

¹ - Darty is not a sample company

Appendix 5: VRP_{year} and standard deviation σ for the sample companies

company	1986		1987		1988		1989		1990		1991	
	VRP	σ	VRP	σ	VRP	σ	VRP	σ	VRP	σ	VRP	σ
BNP												
Bouygues			0,4666	0,2309	0,3936	0,2001	0,8741	0,2735	0,5016	0,2623	0,4475	0,1095
Casino-Guichard	0,3015	0,0742	0,2283	0,0608	0,2879	0,1053	0,5254	0,0828	0,2829	0,0886	0,4865	0,0922
CSEE	0,1797	0,0641	0,1914	0,1008	0,3473	0,1349	0,6719	0,4301	1,2820	0,1549	0,6220	0,1262
Delmas-Vieljeux					0,6254	0,1866	1,3618	0,2758	0,7291	0,1911	0,6667	0,2731
Elf-Aquitaine	0,0454	0,0244	0,1031	0,0435	0,1632	0,0441	0,2248	0,0436	0,3595	0,0520	0,4955	0,1086
Eridania Beghin-Say	0,3790	0,1084	0,3808	0,1300	0,2762	0,1110	0,5066	0,0962	0,3643	0,1334	0,2249	0,0889
Essilor	0,4003	0,0657	0,3632	0,0920	0,6142	0,1687	1,0832	0,1006	0,9814	0,1983	0,9715	0,1160
Groupe Victoire							1,0220	0,0982	0,7674	0,5127	1,0112	0,3834
Legrand	0,2099	0,0815	0,1648	0,0841	0,2742	0,0639	0,6548	0,2041	0,8610	0,1239	0,9412	0,1182
Louvre	0,3198	0,0668	0,5402	0,1351	0,5567	0,2574	1,0801	0,1456	1,3022	0,1878	1,1509	0,1727
Mors					0,0103	0,0491	0,0394	0,0522	-0,0069	0,0810		
OGF					0,0505	0,0438	0,0621	0,0839	0,1900	0,0711	0,3612	0,0818
Oréal L'	0,2983	0,0730	0,6507	0,2486	0,7919	0,2707	1,1819	0,1700	1,3541	0,1316	1,1731	0,1231
Pechelbronn			0,5541	0,1269	0,5132	0,2042	0,9332	0,2058	1,3784	0,2689	1,1254	0,3608
Pechiney												
Piper-Heidsieck	0,6611	0,1875	0,6680	0,1317	0,7635	0,2017	0,4947	0,1031	0,3388	0,0733	0,1992	0,1054
Promodès			0,5192	0,1885	0,4897	0,2175	1,2351	0,2704	1,1134	0,3398	1,0002	0,2245
Rhône-Poulenc												
Robertet							0,9549	0,2269	1,0777	0,2814	0,8810	0,1571
Roussel-Uclaf	0,5246	0,1890	0,4232	0,1216	0,7143	0,1652	0,8722	0,1207	1,1560	0,1692	1,1957	0,1486
Sagem	0,4161	0,0995	0,3404	0,1588	0,9642	0,1692	1,3097	0,1385	1,4733	0,1498	1,4957	0,1401
St. Fiacre							0,1821	0,0202	0,2025	0,0800	0,0445	0,2420
Taittinger	0,4216	0,1046	0,5502	0,2073	0,7801	0,2639	1,2278	0,1698	1,1067	0,2310	1,1058	0,2012
Total	0,0970	0,0283	0,1368	0,0486	0,1575	0,0484	0,2203	0,0695	0,4353	0,0764	0,4897	0,0828

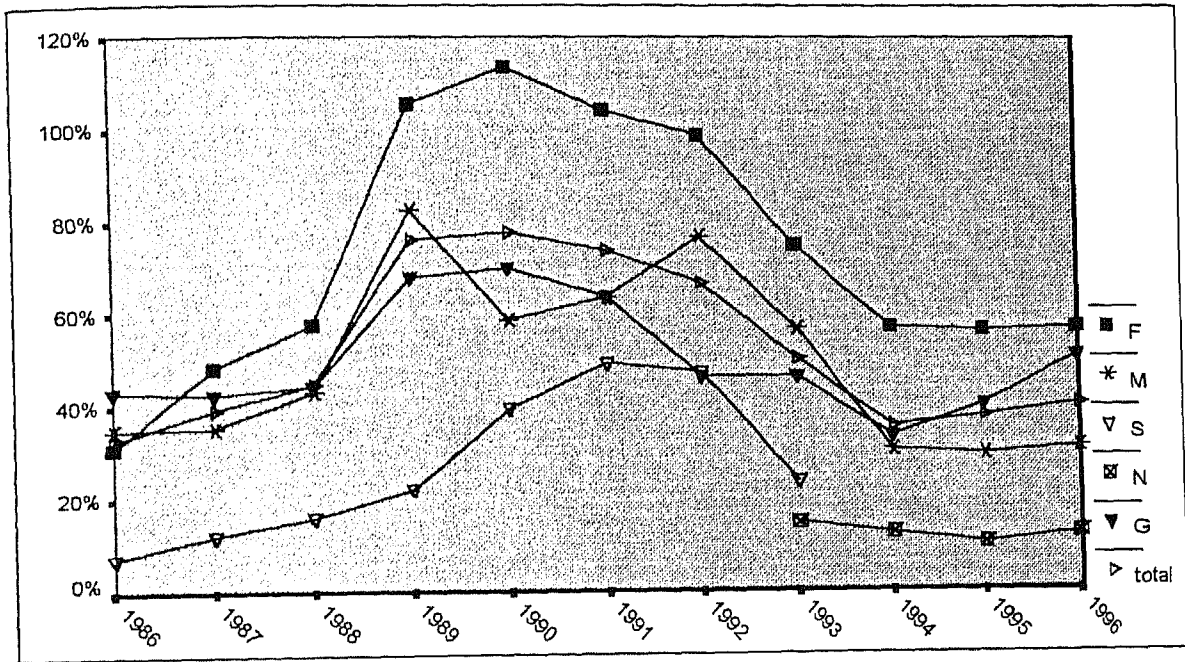
company	1992		1993		1994		1995		1996		total		T-Test
	VRP	σ	VRP	σ	VRP	σ	VRP	σ	VRP	σ	VRP	σ	
BNP			0,0621	0,0463	0,1707	0,0723					0,1502	0,0803	31,35***
Bouygues	0,6012	0,1556	0,5258	0,1729	0,2055	0,0557	0,2255	0,0443	0,1716	0,0708	0,4696	0,2687	80,06***
Casino-Guichard	0,5851	0,0836	0,3701	0,1015	0,2744	0,0579	0,2556	0,0755	0,4169	0,0898	0,3678	0,1446	130,23***
CSEE	0,6628	0,2783	0,7473	0,3932	0,1636	0,1027					0,5804	0,4223	56,47***
Delmas-Vieljeux	0,3143	0,3555	0,3000	0,1384							0,8505	0,4107	49,09***
Elf-Aquitaine	0,4513	0,0536	0,2380	0,1173	0,1567	0,0366	0,0978	0,0238	0,1027	0,0169	0,2298	0,1543	76,19***
Eridania Beghin-Say	0,2906	0,0573	0,2325	0,0558	0,1348	0,0546	0,0417	0,0487			0,2738	0,1527	83,11***
Essilor	1,1172	0,0996	0,8069	0,2350	0,4354	0,0740	0,4084	0,0664	0,3490	0,0832	0,6979	0,3220	110,94***
Groupe Victoire	0,5484	0,2860	0,4773	0,1138							0,8141	0,3782	38,44***
Legrand	0,8262	0,0968	0,6378	0,2041	0,4292	0,0830	0,5398	0,0601	0,5271	0,0638	0,5679	0,2714	107,04***
Louvre	1,3159	0,2020	1,2589	0,3035	0,7850	0,1516	0,8917	0,1119	0,8164	0,1301	0,9320	0,3532	120,68***
Mors											0,0206	0,0668	5,76***
OGF	0,1896	0,1309	0,2434	0,0770	0,1962	0,0549	0,1760	0,0541	0,1538	0,0615	0,1803	0,1245	32,85***
Oréal L'	1,1135	0,1171	0,6562	0,2797	0,2859	0,0877					0,9269	0,3727	106,30***
Pechelbronn											0,8739	0,4041	67,20***
Pechiney							-0,0906	0,0311	-0,0600	0,0322	-0,0610	0,0321	-30,57***
Piper-Heidsieck	0,2112	0,0839	0,5539	0,1310	0,3325	0,1746	0,2979	0,2687	0,0488	0,0826	0,5541	0,2598	53,54***
Promodès	0,8122	0,2084	0,4364	0,1793	0,3684	0,1463	0,3361	0,0624	0,4924	0,1015	0,7057	0,3796	79,29***
Rhône-Poulenc			-0,0012	0,0631	-0,1338	0,0664	-0,0351	0,0380			-0,0634	0,0632	-23,77***
Robertet	0,7202	0,2059	0,4341	0,1194	0,6561	0,1181	0,4927	0,0680	0,5802	0,1943	0,7183	0,2747	112,70***
Roussel-Uclaf	1,0930	0,1433	0,7502	0,1855	0,5462	0,1111	0,5090	0,1154	0,3187	0,1453	0,7694	0,3263	112,65***
Sagem	1,4185	0,1425	1,1281	0,2717	0,7683	0,1127	1,0510	0,1874	1,1587	0,1251	1,0700	0,3887	136,54***
St. Fiacre	-0,5144	0,1832	-0,5511	0,1361	-0,2499	0,1547	0,2011	0,3501	0,3482	0,1175	0,0044	0,3325	0,26
Taittinger	1,1392	0,1535	1,0707	0,1290	0,9075	0,1733	0,5696	0,1539	0,4442	0,1060	0,8915	0,3271	125,96***
Total	0,4954	0,1125	0,3770	0,1232	0,2982	0,0554	0,3016	0,0635	0,3268	0,0519	0,3124	0,1473	108,64***

H_0 VRP = 0

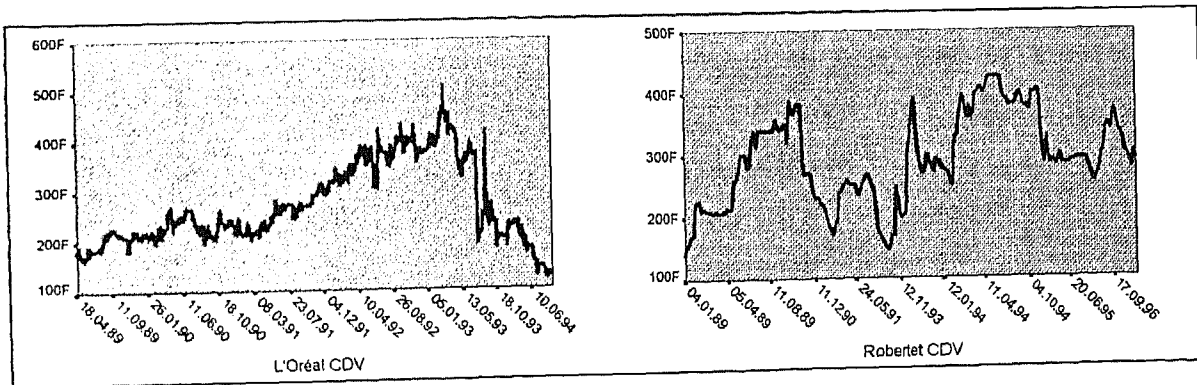
H_1 VRP \neq 0

*** 0,01% significance level of VRP \neq 0

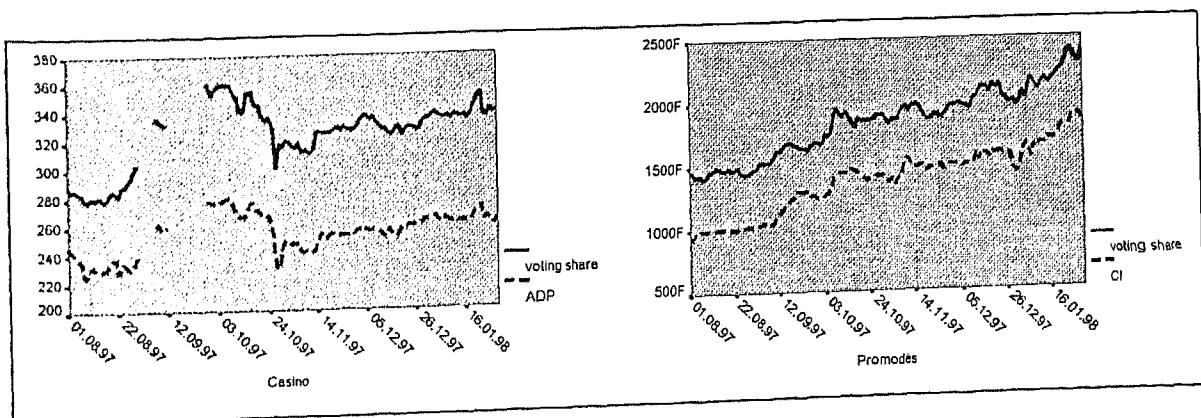
Appendix 6: Voting premium for different shareholder structures



Appendix 7: Value of CDV for L'Oréal and Robertet



Appendix 8: Casino and Promodès quotes for both share classes



Appendix 9: Events during the takeover contest Casino/Rallye and Promodès

date	event
August	Rumors of a forthcoming takeover offer to buy Casino.
September 1	Conditional takeover offer of Promodès to buy Casino.
September 2	Casino classified offer as unfriendly.
September 2-8	Suspension of trading of Casino shares.
September 12	Successors of founder decide not to sell and to support Rallye.
September 12-30	Suspension of trading of Casino shares.
September 14	Unconditional counter offer by Rallye (not accepted by COB).
September 25	Improved offer by Promodès.
September 26	New counter offer by Rallye (accepted by COB).
October 4	Successors of founder cannot decide which offer to support.
October 25	Rallye can make use of double voting rights.
October 29	Rallye announces decision to use BSA to increase voting rights.
October - November	Promodès tries to achieve a court decision that Rallye cannot use BSA to increase its voting rights / investors can sell their shares to Rallye or Promodès.
December 29	Agreement between Casino/Rallye and Promodès to finish the takeover contest; Promodès withdraw its takeover offer.

Appendix 10: Development of non-voting shares CI as a percentage of total equity capital

company	introduction	January 1988	September 1988	December 1990	December 1992	December 1994
Bouygues	14,29%	10,84%	6,13%	1,64%	0,86%	0,56%
Eridania	25,00%	22,43%	13,09%	3,37%	1,58%	-
Groupe Victoire	16,67%	16,67%	12,50%	0,16%	0,08%	-
O.G.F.	11,11%	11,10%	11,10%	7,21%	6,66%	2,06%
Oréal	9,09%	8,75%	6,70%	5,42%	5,18%	-
Pechelbronn	16,67%	16,60%	8,43%	1,92%	-	-
Piper-Heidsieck	25,00%	23,41%	19,62%	0,53%	0,18%	0,17%
Robertet	16,67%	16,67%	16,67%	7,89%	7,19%	7,19%

sources: column 2-4: Lombard/Bellon/Laforge (1988)
column 5-7: own calculations

Appendix 11: Rating of accounting standards and shareholder rights in comparison

country	VRP	rating	rights
Canada	8,34%	74	4
France	51,35%	69	2
Germany	28,15%	62	1
Great Britain	13,30%	78	4
Israel	45,50%	64	3
Italy	81,50%	62	0
Norway	5,40%	74	3
Sweden	12,00%	83	2
Switzerland	18,16%	68	1
USA	10,47%	71	5

source: La Porta et al. (1998a), Appendix Table 2 and 7

rating \in [0;90] rating of accounting standards improves with higher values: Index created by examining and rating companies' 1990 annual reports on their inclusion or omission of 90 items. These fall into 7 categories (general information, income statements, balance sheets, funds flow statement, accounting standards, stock data and special items). A minimum of 3 companies in each country were studied. The companies represent a cross-section of various industry groups where industrial companies numbered 70% while financial companies represented the remaining 30%.

Rights \in [0;5] shareholder rights improve with higher values: An index aggregating the shareholder rights which La Porta et al. (1998a) labeled as "anti-director rights." The index is formed by adding 1 when: (1) the country allows shareholders to mail their proxy vote; (2) shareholders are not required to deposit their shares prior to the General Shareholders' Meeting; (3) cumulative voting is allowed; (4) an oppressed minorities mechanism is in place; or (5) when the minimum percentage of share capital that entitles a shareholder to call for an Extraordinary Shareholders' Meeting is less than or equal to 10% (the sample median).

Appendix 12: Enforcement of shareholder rights in comparison

country	A	B	C	D	E	enforce
Canada	9,25	10,00	10,00	9,67	8,96	47,88
France	8,00	8,98	9,05	9,65	9,19	44,87
Germany	9,00	9,23	8,93	9,90	9,77	46,83
Great Britain	10,00	8,57	9,10	9,71	9,63	47,01
Israel	10,00	4,82	8,33	8,25	7,54	38,94
Italy	6,75	8,33	6,13	9,35	9,17	39,73
Norway	10,00	10,00	10,00	9,88	9,71	49,59
Sweden	10,00	10,00	10,00	9,40	9,58	48,98
Switzerland	10,00	10,00	10,00	9,98	9,98	49,96
USA	10,00	10,00	8,63	9,98	9,00	47,71

source: La Porta et al. (1998a), Appendix Table 7

A \in [0;10] Efficiency of judicial system (increases with higher values)
 B \in [0;10] Rule of Law (increases with higher values)
 C \in [0;10] Corruption (decreases with higher values)
 D \in [0;10] Risk of Expropriation (decreases with higher values)
 E \in [0;10] Risk of Contract Repudiation (decreases with higher values)
 enforce \in [0;50] enforcement of shareholder rights (increases with higher values)
 $enforce = A + B + C + D + E$

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