

Concentration of Ownership and Pyramidal Shareholding Structures in Belgian Listed Companies

European Corporate Governance Network

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Abstract :

This paper provides an overview of the main characteristics of the ownership structure of the Belgian companies quoted on the Brussels Stock Exchange. Prior to the changes in corporate law regarding ownership disclosure in 1989 little was known about ownership and control. We detail ownership concentration, the importance of different shareholder classes, the violation of the one share-one vote rule via pyramidal ownership structures, and the corporate control market for share stakes. We start with a summary of the main aspects of the Belgian equity market which is compared with Anglo-American and other Continental European markets.

1. Insider versus outsider ownership and control systems.

According to Berle and Means (1932), dispersed ownership has given rise to separation of ownership and control. Demsetz and Lehn (1985) argue that ownership patterns reflect a trade off of the risk to investors of concentrated investments in large firms and the control potential of the firm. Diversified shareholdings are useful from the point of view of risk reduction but discourage active participation of investors. As Franks and Mayer (1995c) point out, it is puzzling that the resolution of this trade off has taken such different forms in different countries. German and French equity markets can be characterized by few listed companies, an illiquid capital market where ownership and control is infrequently traded and complex systems of intercorporate holdings (Mayer 1993, Franks and Mayer 1992). Consequently, these structures are appropriately described as *insider systems* in which the corporate sector has controlling interests in itself; outsider investors, while able to participate in equity returns through the stock market, are not able to exert much control. In contrast, the Anglo-American system is a market oriented or *outsider system* and is characterised by a large number of listed companies, a liquid capital market where ownership and control rights are frequently traded and few intercorporate holdings.¹ There are few large, controlling shareholdings and these are rarely associated with the corporate sector itself.

The main characteristics of the Belgian corporate ownership and equity market can be summarized as follows : (i) few Belgian companies are listed, (ii) there is a high degree of ownership concentration, (iii) holding companies and families, and to a lesser extent industrial companies, are the main investor categories, (iv) control is levered by pyramidal and complex ownership structures and (v) there is a market for share stakes. Properties (i) to (iv) imply that Belgium can be portrayed as a German-French 'insider system' rather than an Anglo-American system. However, typical for

¹ Wymeersch (1994b) makes a distinction similar to Franks & Mayer (1992) between *company-oriented* and *enterprise-oriented* systems. A company-oriented system is characterised by the existence of a large number of listed companies. Most of their shares are effectively traded on the markets. The monitoring function is essentially undertaken by the securities market and active market trading is an essential prerequisite for efficient monitoring. Privileged tools of intervention are the appointment of non executive directors who are chosen on their technical abilities and the designation of special board committees. Ultimately, takeovers drive out inefficient management. The U.S. and the U.K. fall clearly under the definition of a company-oriented corporate control system. An enterprise-oriented system has a low number of listed companies, control is held by major shareholder so that a limited number of shares are effectively on the market. Monitoring does not take place via the market, but is regulated by group law.

Belgium is the importance of holding companies which are often part of pyramidal ownership chains and are used to lever control.²

Table 1 shows the number of quoted companies per country and the total market capitalization as a percentage of GDP. The U.K., U.S. and Japan are characterised by a large number of quoted companies; respectively 1878, 6342 and 1627 in 1992. The market capitalization of companies quoted on the London Stock Exchange is around 81 percent of the U.K. GDP. Companies quoted on the Tokyo Stock Exchange have a value of 89 percent of the Japanese GDP while the value of corporations listed on the New York Stock Exchange and NASDAQ amounts to 56 percent of U.S. GDP. The capital markets of France, Germany, Belgium and Spain and of most of the remainder of continental Europe, present a different situation: they have many less quoted companies with a market capitalization as a percentage of GDP which is lower than 32 percent.³

Compared to the shareholding structure of Continental European corporations, ownership in the U.S. and the U.K. is much less concentrated (Franks, Mayer & Renneboog 1996). For the U.S., the average shareholding of the five largest shareholders in a sample of Fortune 500 companies is 15.4 percent and 23 percent of these companies do not have a shareholder with a share stake over more than 5% (Shleifer and Vishny 1986, Demsetz and Lehn 1985). These two percentages compare to respectively 60 percent and to 1 percent for Belgium. The large shareholders with a stake of at least 5% in the U.S. are mostly families, pension and profit-sharing plans as well as banks, insurance companies and investment funds. About two-thirds of the market capitalization are held by individual investors and institutional investors on behalf of individuals in U.S. and U.K. quoted companies, but the U.S. has a far higher proportion of equity owned directly by individuals. However, Davies and Stapledon (1994) report the enormous growth in the percentage (by value) of equity held by institutional investors in the U.K. and a decline in the percentage held by individuals.

² In this sense, the Italian equity market is similar to the Belgian one : few companies are quoted, concentration of ownership is high, pyramidal ownership structures with holding companies as intermediate investment vehicles are common (Nikodamo 1995, Bianchi and Casavola 1995). But, whereas the Italian state controls a large number of industrial groups and holding companies, Belgian state ownership is rare.

³ This is also the case for the Netherlands and for Switzerland when the impact of respectively the five Dutch large multinationals and the Swiss financial sector are excluded from the data.

Table 1 : Number of domestic quoted companies per country and the market capitalization as a percentage of GDP.

The numbers of quoted companies refer to 1992, but to 1991 for the U.S. and Japan. For each country, only domestic companies listed on the main stock exchanges have been considered : New York and NASDAQ combined, London, Tokyo, Paris, Frankfurt, Madrid, Amsterdam, all Swiss exchanges, and Brussels.

Country	number of domestic quoted companies	equity of quoted co's as % of GDP
U.S.	6,342	56 %
U.K.	1,878	81 %
Japan	1,627	89 %
France	786	26 %
Germany	665	18 %
Spain	433	20 %
Netherlands	314	44 %
Switzerland	180	78 %
Belgium	171	31 %

Source : Own calculations for Belgium and the U.K. are based on data from the Brussels Stock Exchange and the Department of Trade and Industry in London, Wymeersch (1994b) for the Netherlands, Germany, France and Switzerland, Goergen (1993) for Spain, Franks and Mayer (1992) for the U.S. and Japan.

Germany, like Belgium, has few widely held listed companies : only 15 percent of a German sample of the 171 largest companies do not have any shareholder with an equity stake of 25 percent or more (Franks and Mayer 1995b and 1995c).⁴ Other German companies and families own the largest share stakes. Trusts and institutional investors are sometimes large shareholders but their stakes are rarely majority holdings. The same holds for banks. However, the significance of banks is greater than their direct equity holdings would suggest : as holders of bearer shares they are able to exercise proxy votes on behalf of dispersed shareholders.⁵ Control is maintained at low cost via complex and pyramidal structures : the average tier of company holdings is 2.2 compared with 3.1 for families and 4.2 for banks.

In a French sample of the largest 155 quoted companies, almost 89 percent have a shareholder with an equity stake of 25 percent or more. The major shareholders in the French sample are predominantly other industrial companies (Goergen 1993). So, in France, like in Germany, the corporate sector is by far the single largest group of shareholders. Foreign companies, families and banks are the other large shareholders. Corporations who hold equity stakes in each other are often in related industries or in the same industry (Franks and Mayer 1995c). Furthermore, in most cases, these companies are not trading partners.

The Italian shareholding structure is characterized by high concentration of ownership, the presence of family owners and the pervasive role of the state (see Bianco, Gola and Signorini 1995). About 95 percent of the largest 500 non-financial companies are controlled with absolute majority (Bianchi and Casavola 1995). Contrary to what one would expect, the concentration of direct ownership is greater in larger firms. Controlling shareholders hold via pyramids and coalitions, 88 percent of the largest companies.

Japanese ownership is, similar to Continental Europe, highly concentrated. Financial and industrial groups (keiretsu), represent about 61 percent of the market capitalization of the Tokyo Stock Exchange (Lichtenberg and Pushner 1992). Average ownership in quoted companies held by

⁴ For the evolution of German ownership structure : see Baums (1994).

⁵ Chirinko and Elston (1995) find strong evidence that bank influence and concentrated ownership serve as substitutes for controlling corporations.

financial groups has risen to 30 percent in 1989, while average corporate ownership remained stable over the period 1975-1989 at 43 percent.⁶

Franks and Mayer (1995c) argue that the theories of ownership and corporate control⁷ do not provide adequate explanations for the organization and operation of Anglo-American, Japanese and Continental European capital markets. They advance the hypothesis that the patterns of ownership are associated with different forms of corporate control that allow for different types of correction. Concentrated ownership allows relations involving commitment on the part of investors to be sustained. Large shareholders who face limited free riding costs of control, can give a long-term commitment to the firm, while allowing a large number of small shareholders to trade in investment opportunities without having any effect on control. Dispersed ownership gives management more discretionary power but permits restructuring of management (e.g. by takeovers or by a market for share stakes) even in the absence of past failure, largely because owners are unable to commit. Consequently, it could be expected that different forms of ownership would be suited to promoting different types of activity. Concentrated ownership is needed where investment by other stakeholders is important and cannot be promoted contractually. When little investment is required by other parties or adequate contracts can be written, dispersed ownership will be advantageous.

⁶ Miyajima (1995) examines the creation and growth of bank centred corporate groups. For a detailed description of the Japanese ownership structure : see Prowse (1992).

⁷ There are two strands of the literature on ownership and control. The first focuses on the determinants of ownership while the second concentrates on how corporate control is exercised. With regard to ownership, there are into three classes of models. A first class of the models argues that transaction costs make transactions through markets more costly than internal activities within the firm. In this literature, the firm is considered as a nexus of contracts and it may be costly to write the contracts necessary to undertake transactions between firms through the market place (See, for instance, Coase (1937), Williamson (1975), Aoki, Gustafsson and Williamson (1990)) Secondly, the industrial economics literature emphasizes vertical ownership relations and attempts to explain the reasons why upstream and downstream firms hold stakes in each other (See e.g. Dixit (1983), Salinger (1988)). When upstream firms do not take full account of the interests of downstream firms e.g. with regard to the prices they set, ownership may be required to internalize such externalities in the absence of suitable contractual alternatives. A third series of models concentrate on the effect of incomplete contracts on the ex ante incentive that firms have to make sunk investments. Ownership is here considered as a commitment device with regard to specific investments. Ownership allows parties to avoid decisions being taken in the future that adversely affect the value of past investments (See e.g. Grossman and Hart (1986), Hart and Moore (1990)). The second strand of the literature focuses on corporate control. Manne (1965), Alchian and Demsetz (1972) and Fama and Jensen (1983) state that separation of ownership and control in the outsider system has evoked a number of mechanisms to limit the agency problems that would be expected to arise. Such mechanisms include monitoring and control by non-executive directors, incentive systems and a market in corporate control.

2. Concentrated ownership in Belgium.

2.1 Ownership disclosure legislation.

Up to 1989, little was known about the ownership structure of companies listed on the Belgian stock exchanges, given the general use of bearer shares and the lack of ownership disclosure obligation. Following the takeover battle in 1988 between the French Compagnie Financière de Suez and the de Benedetti group for the largest Belgian holding company, Generale Maatschappij van België (Société Générale de Belgique), new legislation concerning corporate control and ownership was initiated. An Ownership Disclosure Law⁸ was introduced in 1989 and amendments to the company law with regard to takeovers⁹ were made in 1991.

The Ownership Disclosure Law requires all investors, both individuals and companies, to reveal their share stakes in those companies governed by Belgian law, all or part of whose securities conferring voting rights are officially listed on a stock exchange located in a Member State of the European Union. Notification is obligatory if a shareholding equals or exceeds 5 percent¹⁰. Furthermore, shareholders have to declare any increases and decreases in ownership and their new ownership position if their stake exceeds a multiple of 5 percent of the voting rights or falls below such a threshold. For instance, a company that has revealed that it owns a stake of 11 percent will have to notify the Banking Commission¹¹ again once this ownership stake reaches 15 percent or more, or decreases below the 10%-threshold.

⁸ Law of 22 March 1989, called '*Transparantiewetgeving*' (transparency legislation) and Royal Decrees of 10 May 1989 and of 8 November 1989.

⁹ Law of 18 July 1991.

¹⁰ Individual companies can reduce this threshold in the articles of incorporation, but not to less than 3%. Notification of changes in stakes by the shareholders will have to be made if the following thresholds are passed : 3%, 5%, 10%, 15%, and further multiples of 5%. (Law of 22 March 1989, Section 5.) Currently, about 20 companies have adopted the 3% threshold (Wuille 1994).

¹¹ The Commission for Banking and Finance, usually abbreviated to Banking Commission, is the Belgian equivalent of the S.E.C. in the U.S. In a strict legal sense, the authority of the Banking Commission in the area of ownership disclosure supervision and M&A activity is limited, but the Commission has considerable influence on market participants on the basis of its 'moral authority'.

The notification percentages refer to real and potential voting rights. As a result, ownership of securities convertible into shares (convertible bonds, warrants, etc) is treated in the same way as shares in the company.¹² So, when investors make voting rights declarations, they include : (i) the percentage of the actual total voting rights they own proportional to all the actual voting rights outstanding, (ii) the potential voting rights, as a percentage to the aggregate of all potential voting rights and (iii) the percentage of cumulative actual and potential voting rights in the company based on the aggregate number of the voting rights associated with all outstanding shares and convertible instruments.¹³

Furthermore, the law applies not only to the direct owners of the voting rights, but also to those investors who control voting rights indirectly via a pyramid structure of intermediate companies.¹⁴ Investors are obliged to reveal whether they are affiliated to a group of companies or whether they act in concert¹⁵ with other investors. If the real or potential voting rights of the individual investor or of the investor group exceed or fall below the notification thresholds, they have to reveal their cumulative and individual direct and indirect ownership positions and changes in shareholdings. The Banking Commission suggests that the ultimate shareholder of an investor group assume notification responsibility for voting rights of its own direct and indirect holdings and for those share stakes held by investors this 'reference shareholder' is affiliated to or acts in concert with.¹⁶ In addition, once the stake of an investor (or of the investors belonging to the same investor group) reaches 20 percent of the voting rights of the company, the strategic policy with regard to the target has to be declared to the Banking Commission and the target.¹⁷

¹² Law of 22 March 1989, Section 1, paragraph 3.

¹³ Banking Commission 1989, p. 4-6.

¹⁴ 'Note on the application of the Law of 22 March 1989' (Banking Commission 1989 p.2).

¹⁵ The definition of 'affiliated investors' is given in Article 5 of the Royal Decree of 10 May 1989 and is based on the Royal Decree of 8 October 1976 on the company's annual accounts and consolidation of accounts. 'Acting in concert' is defined in Articles 7 of the Royal Decree of 10 May 1989. Companies acting in concert have agreements with regard to the possession, the acquisition and the selling of securities.

¹⁶ Banking Commission 1989 p.8-9.

¹⁷ Most 'strategy' statements, however, have a low informational content. For instance, on 14 March 1994, Generale Maatschappij van België (Société Générale de Belgique), the reference shareholder for Union Minière and Naviga, notified that these three shareholders had liquidated their combined shareholdings of 62% in Asturienne because 'the share stake is not considered as strategic'.

With regard to timing of notification, the investor who purchases or sells shares (voting rights) has to disclose his shareholding and the changes in his position to the target and to the Banking Commission in Brussels at the latest on the second working day after the transaction, if a notification threshold has been passed. The target who has been notified about changes in ownership by substantial investors, has a maximum of one working day after disclosure to pass on this information to the Documentation and Statistics Department of the Brussels Stock Exchange (Maertens 1994). This department updates its on-line ownership database BDPart and makes this information available *ad valvas* on the trading floor (*parquet*)¹⁸. The following day, the Documentation department publishes the information in the *Cote de la Bourse*¹⁹, a Stock Exchange publication that is inserted in the two Belgian financial newspapers, *De Financieel Economische Tijd* and *L'Echo de la Bourse*. The same notification timing applies to disclosure of investors' policies (20 percent ownership rule).

An investor's failure to disclose a substantial shareholding may lead to an interdiction for the investor in question to participate to the annual meeting, to a cancellation of the annual meeting which has been called for, to a suspension of the exercise of all or part of the rights pertaining to the securities for a certain period and to liability to penalties^{20, 21}. The voting rights of recently acquired major shareholdings (5 percent and more) can only be exercised 45 days after notification.²²

¹⁸ If a target faxes a ownership notification to the Stock Exchange in the morning, this information is disclosed to the floor at 11.00 a.m. at the earliest via the bulletin board (*ad valvas*) and via the on-line BDPart database. Important news is via this channel quickly dispersed via Tijd Electronic Services or Reuters.

¹⁹ The information in the *Cote de la Bourse* is the full responsibility of the Stock Exchange. The *Cote de la Bourse* in its current form appeared as of 1 January 1992. Before this date, the Stock Exchange disclosed information via de *Wisselkoerslijst* which was sent to about 1000 subscribers, mostly brokerage houses, banks, institutional investors and news agencies.

²⁰ Penalties are enumerated in Section 204 of the Coordinated Laws on Commercial Companies.

²¹ Law of 22 March 1989, Sections 7-11. In May 1995, minority shareholders of PB Finance, a listed real estate company, sued the Dutch holding Euver in order to annul Euver's voting rights or to limit them to 5% because Euver had not disclosed the size of its shareholding (of 67%) to the Commission of Banking and Finance and there were suspicions of fraud.

²² Ownership Disclosure Law of 22 March 1989, article 6.

2.2 Voting rights and restrictions, and the rights of the minority shareholders.

In principle, the general assembly takes decisions based on a simple majority of the voting rights. Since 1991, the balance of corporate power has shifted to the controlling shareholders who have been given legal instruments to entrench their position in the company and to protect themselves against undesired takeovers. Anti-takeover instruments, like share repurchase schemes or issuance of warrants, are valid for a maximum of 5 years but can be reinstated for a similar period by the general assembly (Wymeersch 1994a).²³ Such measures have further reduced the likelihood of hostile takeovers in Belgium.²⁴

However, to provide more protection to small shareholders a supermajority of 75 percent of the voting rights voted at the general assembly, is needed with regard to decisions about changes in the acts of incorporation, increases of the equity capital, limitations or changes in the preferential rights of existing shareholders to purchase shares in new equity issues, changes in the rights of different classes of shareholders²⁵, repurchases of shares and changes in the legal form of the corporation (Lievens 1994).

Since 1991, minority shareholders or a group of minority shareholders owning at least 1 percent of the equity capital or shares with a value of not less than BEF 50 million, can appoint one or more

²³ The percentage of ownership of the major shareholders is often an underestimation of the real corporate power these shareholders can exercise. The board, nominated by the major shareholders, could interpret a takeover threat as 'grave and imminent danger' which would allow them to repurchase shares. Furthermore, the board can allow share warrants to be exercised or sold to friendly shareholders for a maximum of 10% of equity capital in order to dilute shareholdings of a potential raider. This authority, for a maximum but renewable period of 5 years, has to be granted specifically to the board by the annual general meeting. Autocontrol mechanisms can also be installed whereby the company's shares are held by a subsidiary. However, a subsidiary's stake in the mother company is restricted to 10%.

²⁴ The mandatory bid rule which existed since 1965 on a self-regulatory basis has been incorporated into the amendments of law of 1991. The rule requires the acquirer of shares, in as far as he obtains control as a consequence of this acquisition, to bid for all remaining shares and the bid price should be set at a premium above the highest market price over the last 12 months. This way, equal treatment of shareholders is ensured since all shareholders are offered the benefit of the control premium. Furthermore, the propensity to trade large blocks, resulting in companies taken over against their will, is diminished. In practice, the proof that (in)direct control is acquired can still be difficult.

²⁵ There are additional conditions for changes in the rights of different classes of shareholders. The board of directors needs to document the reasons for the changes extensively and has to send that report to all shareholders before the annual meeting. On the annual meeting, the proposal is only valid if 50% of the total outstanding voting rights are present and 75% of each category of shareholders votes in favour (Company Law, article 71).

experts who can scrutinize the company's accounting and its internal operations.²⁶ The appointment of experts is conditional on indications that the interests of the company are threatened. Shareholders owning at least 1 percent of the votes can initiate a *minority claim* against the directors for the benefit of the company, if it can be proven that the directors have managed or supervised the company poorly and if the minority shareholders have voted against the directors' *discharge*²⁷ at the annual meeting. For instance, a minority claim would be justified when directors ensured that the company paid out benefits to large shareholders they represent at the detriment of the company.²⁸

Another important change, since the law of 1991, is the abolition of automatic voting rights restrictions.²⁹ This abolition was motivated by the fact that the restrictions could be easily evaded by redistributing the shares to family members, friends and subsidiaries (Van Nuffel 1994). Still, as in Germany, individual companies can still apply voting right restrictions by including such clauses in the acts of incorporation. While automatic voting restrictions are abolished, voting agreements among shareholders for (renewable) periods of 5 years are allowed since 1991 if these agreements do not limit the responsibilities of the directors or are used to create different classes of voting rights.

²⁶ Law of 18 June 1991, article 191. This law reduced the threshold from 20% to 1%.

²⁷ At the annual general meeting, the directors are 'discharged' from liabilities that may arise in the future if shareholders present at the annual meeting judge, with information from the external auditors and data in the annual report, that the directors fulfilled their tasks adequately during the fiscal year.

²⁸ Note that the minority claim (Company Law articles 66 bis paragraph 2, article 132 bis and article 158 bis) is for the benefit of the company and not for the benefit of the minority shareholder directly, although the minority shareholders, like all shareholders, might benefit. Consequently, this procedure to appoint experts cannot be used following conflicts between shareholders, but only if the company's economic position and its long term survival is endangered. Case law is rare, but the appointment of experts was justified in these cases: the stocks were overvalued, a company was badly managed and had negative earnings (Lievens 1994). In addition to lowering the threshold level for the minority claim, the rules of conflicts of interest have been tightened : personal liability cannot be excluded if directors take undue advantage of their position to the detriment of the company (Wymeersch 1994a). An individual liability claim can only be initiated if the shareholder can prove that he has experienced personal damage.

²⁹ Before 1991, no shareholder could participate in the voting at the annual meeting for more than 20 percent of the voting rights associated with the total shares outstanding or for more than 40 percent of the voting rights associated with shares represented at the annual meeting. The restriction limiting the exercise of voting rights most had priority.

3. Data.

3.1 Sample description.

The sample consists of all Belgian companies listed on the Brussels Stock Exchange during July 1989 and August 1994³⁰. In total, 192 firms are included in the sample; some of these went bankrupt in the period under consideration, while others were introduced after 1989. In 1989 and 1994, respectively, 186 and 165 companies were listed. Sector codes, dates of introduction and of delisting are provided by the Documentation and Statistics Department of the Brussels Stock Exchange. In the analysis, the sample size was reduced by 9 companies in 1989 and by 10 in 1994 as these listed firms, all in coal mining and steel production, were involved in a long liquidation process but were still listed. Table 2 shows that 40 percent of the Belgian listed companies are holding companies with multi-industry investments, 13 percent are in the financial sector (banking, insurance and real estate) and 47 percent are industrial and commercial companies.

³⁰ Only two listed companies (Delhaize and An-Hyp) were not included in the sample since ownership information was not available in the Brussels Stock Exchange. These companies should be regarded as widely held (no shareholdings of more than 5% exist). However, the Delhaize family, for instance, is believed to own around 30% of the shares. The non-declaration of these stakes is only legally allowed if several family members own less than 5% (see infra for the Ownership Disclosure Legislation) and if they do not 'act in concert'.

Table 2 : Sample Description

	1989	1994
All listed sample companies ¹	177	155
Holdings ²	71	64
Financial sector	23	19
Industrial and Service companies	83	72
Financial Sector		
Banks	8	7
Insurance	7	5
Real estate	8	7
Industry		
energy ³	6	5
materials ⁴	4	26
capital equipment ⁵	13	12
consumer goods ⁶	19	16
Services	11	13

¹ For 1989 and 1994, respectively, nine and ten listed companies that have been in liquidation for years, were not included in the sample. These companies are all in coal mining and steel production. The number of delistings in the period 1989-1994 surpasses the number of new introductions due to mergers, industry restructurings (e.g. in the energy sector) and the policy of the stock exchange to delist infrequently traded companies with tiny market capitalizations.

² The holding companies have multi-industry investments. The categorization is based on the NACE classification of the National Bank and the classification of the Bank Brussel Lambert.

³ mainly petrochemical and electricity production.

⁴ ferro, non-ferro, chemicals, building, paper, glass.

⁵ electricals, electronics, construction, machine building.

⁶ mainly food, pharmaceuticals and retail.

3.2 Ownership data.

Data on the ownership structure over the period 1989-1994 were collected from the Documentation and Statistics Department of the Brussels Stock Exchange. Ownership data are only available since 1989, following the introduction of the Ownership Disclosure. The Documentation Department maintains a daily updated database BDPart (Bourse Data Participations) of the shareholding structure of Belgian listed companies. BDPart provides data on the first level of shareholding (direct ownership) in all Belgian listed companies, such as the names of the investors, the number of shares declared, number of shares issued and the percentage of ownership. Apart from voting rights linked to the shareholdings, BDPart also displays potential voting rights linked to securities that will represent voting rights when converted or exercised (e.g. convertible bonds, warrants). Previous ownership positions in the BDPart database are overwritten once new ownership information becomes available. To capture a company's ownership position at the end of its fiscal year since 1989 and changes in shareholdings during each year, about 5000 hardcopy Notifications of Ownership Change from 1989 till 1994 were consulted. These Notifications were sent by the target to the Brussels Stock Exchange which published this information in the official Stock Exchange newspaper *Cote de la Bourse*. Apart from details on voting rights, the investors' status (independent, affiliated or acting in concert with other investors) was compiled from the Notifications. With this information about major direct shareholdings and indirect control, the multi-layered ownership structure was reconstructed for each company over the period 1989-1994. The shareholding data from BDPart and the Notifications of Ownership Change were verified with ownership data of the database of the National Bank which is based on annual reports.³¹

The 1988-1994 yearbooks of *Trends 20,000*, which comprise industry sector classification and financial data for most listed and non-listed Belgian companies, were used to classify all Belgian investors into the following categories : (i) holding companies, (ii) banks, (iii) institutional investors, (iv) insurance companies, (v) industrial companies, (vi) families and individual investors, (vii)

³¹ The database of the National Bank also comprises data on large shareholdings as reported in the annual reports. However, the data on the Notifications of Ownership Changes are more detailed, often present organization charts of pyramidal ownership structures and give all the ownership changes that took place during the fiscal year rather than the ownership structure at the end of the fiscal year.

federal or regional governments and (viii) real estate investors. Foreign companies owning a large share stake in Belgian companies were classified with information from *Kompass*.

4. Ownership structure in Belgium

4.1 Concentrated direct and ultimate ownership by shareholder class.

The structure of substantial shareholdings in all Belgian companies listed on the Brussels Stock Exchange in August 1994 is presented in table 3. On average, the sum of the direct share stakes held by large shareholders (who own at least 5 percent of the outstanding shares) amounts to more than 65 percent (panel A). Cumulative direct ownership is higher, almost 70 percent in the financial sector (panel C), and around 65 percent for both holding companies (column 1 of panel B) and industrial and commercial companies (panel D). It is clear that the concentrated ownership structure does not facilitate hostile takeovers if the acquirer does not initially have a large toehold. In their analysis of the Belgian market for corporate control over the period 1970-1985, Van Hulle, Vermaelen and de Wouters (1991) confirm that tender offers made directly to the public were characterised by substantial initial toehold interests.³²

Table 3 also reports the cumulative ownership of the three most important investor classes: holding companies, families and individual investors, and industrial and commercial companies.³³ From panel A can be concluded that holding companies are the largest direct investors³⁴; they hold on average 33 percent of the shares and account for half of the substantial ownership stakes in Belgian companies. Domestic and foreign holding companies have invested more in the Belgian holding companies than in the industrial and in the financial sector. Direct investment of industrial and services companies (panel A) totals almost 15 percent and is focused on other industrial and

³² Legal aspects of the mandatory bid are discussed by Wymeersch (1992).

³³ The columns with data on holding companies, families and industrial companies do not add up to the numbers in the all investors column since the total cumulative concentrated ownership of this column is the sum of 8 investor categories. Institutional investors, banks etc do not hold substantial stakes in the sample companies and are not shown in this table but are available upon request.

³⁴ It was assumed that direct shareholders are not affiliated to any other shareholder; control relations by other shareholders at a higher ownership tier are ignored.

commercial companies (panel D). Families' direct investment is of less importance with an average stake of about 4 percent.

A substantial number of share stakes are held by other companies which in turn are held by other shareholders. Therefore, if we want to answer the question who actually owns and controls a sample company, pyramidal and complex ownership structures should be taken into account. Examples of pyramidal and complex ownership structures are illustrated in figures 1 and 2. Figure 1 shows part of the ownership structure of Floridienne, a company in the chemical and food industry, at the end of 1994. On the direct investment level, Mosane and its fully owned subsidiary Cippar hold 25 percent of Floridienne's voting rights. Ultimate minority control lies with the Paribas group which controls its Belgian subsidiary Copeba. Ultimate minority control exists when there is a continuous chain of at least 25 percent if there are no other shareholders with large stakes available at any ownership tier. A continuous chain of holdings of at least 50 percent is called ultimate majority control while supermajority control arises when an uninterrupted chain of 75 percent is in place. The most important reason for the use of pyramids in Belgium is leverage (Wymeersch 1994a) : external equity can be raised while retaining control. The Paribas group controls the blocking minority in Floridienne with an interest in cash flow rights of merely 11 percent ($60\% \times 74\% \times 25\%$). In fact, Paribas exercises *pyramidal or levered control* over Mosane. It is clear that, although the one share-one vote rule applies to each individual ownership tier, pyramidal or levered control constitutes a violation of the one share-one vote rule if control extends throughout multiple ownership tiers (see also Renneboog 1996). Cobepa, a Belgian holding company, is also listed on the Brussels Stock Exchange and its organization chart is exhibited in figure 2. Within the ownership chain, Swiss, French and Dutch companies and banks belonging to the Paribas group control the underlying levels with almost 100 percent of the voting rights. This complex ownership structure, however, is not an example of an ownership pyramid, but is a case of majority control where there is hardly any control leverage. Basically, 60 percent of Cobepa's voting rights are held by one major shareholder, the Compagnie Financière Paribas.

Table 3 : Ownership concentration in all Belgian companies listed on the Brussels Stock Exchange.

This table reports the aggregate of individual shareholdings of 5% and more¹ for the main ownership categories. The shareholder classes (holding companies, industrial and commercial companies, and families) consist of both Belgian and foreign investors. Direct stands for the direct shareholdings. Ultimate refers to the fact that the direct shareholdings were classified according to the shareholder class of the ultimate investor and these direct shareholdings belonging to the same ultimate investor group were subsequently summed. Ultimate control is control based on (i) a majority control (minimal 50% of the voting rights) on every ownership tier of the ownership pyramid or (ii) shareholdings of at least 25% on every tier in the absence of other shareholders holding stakes of 25% or more. A chain of fully owned subsidiaries are considered as one single shareholder.

Aug. 1994	all investors	holding co's	families	industr. co's	Belgian investors	foreign investors
PANEL A : ALL SAMPLE COMPANIES (N=155)						
Direct	65.38	32.71	3.90	14.60	49.38	16.00
Ultimate	65.38	26.68	15.59	10.84	39.60	24.35
PANEL B: ALL HOLDING COMPANIES (N=64)						
Direct	63.92	36.73	5.15	13.11	46.85	17.07
Ultimate	63.92	34.43	14.12	8.33	36.08	27.97
PANEL C : FINANCIAL SECTOR (BANKS, INSURANCE, REAL ESTATE) (N=19)						
Direct	69.96	26.45	1.18	5.45	55.00	14.96
Ultimate	69.96	26.22	5.31	5.41	38.40	23.63
PANEL D : INDUSTRIAL AND COMMERCIAL COMPANIES (N=72)						
Direct	65.48	30.80	3.50	18.34	50.16	15.32
Ultimate	65.48	20.02	19.70	14.52	43.01	21.36

Source : Own calculations based on information from the BDPart database of the Brussels Stock Exchange and Ownership Notifications of the Documentation Centre of the Brussels Stock Exchange.

¹ In line with the Ownership Disclosure Legislation, substantial shareholdings are defined as share stakes that equal or exceed 5% (of the voting rights), unless investors with smaller shareholdings are affiliated to or act in concert with major shareholders, in which case small stakes ought to be revealed as well. The 5% threshold can be reduced to 3% if the company states this in its acts of constitution.

FIGURE 1 : Pyramidal shareholding structure of Floridienne.

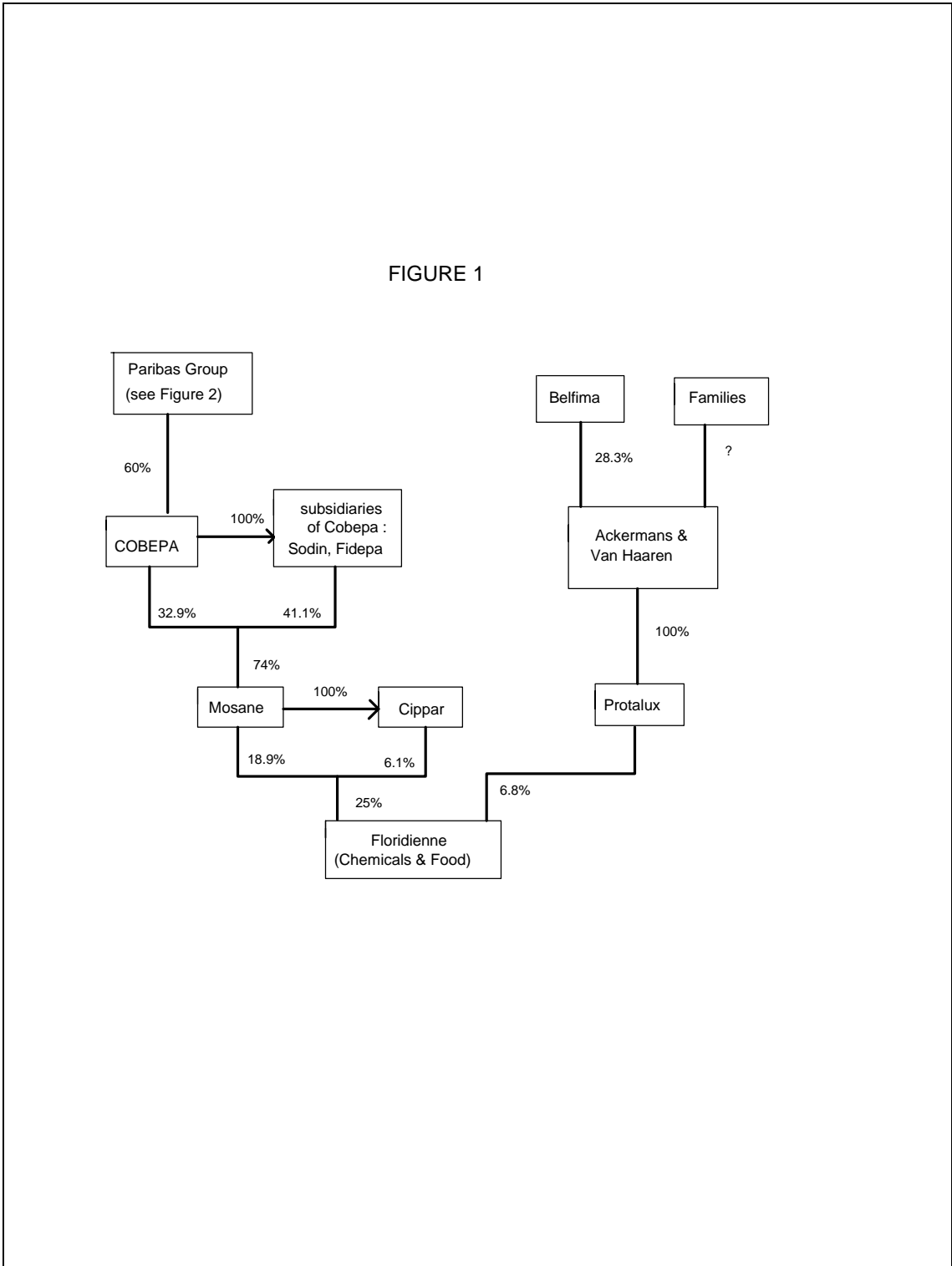
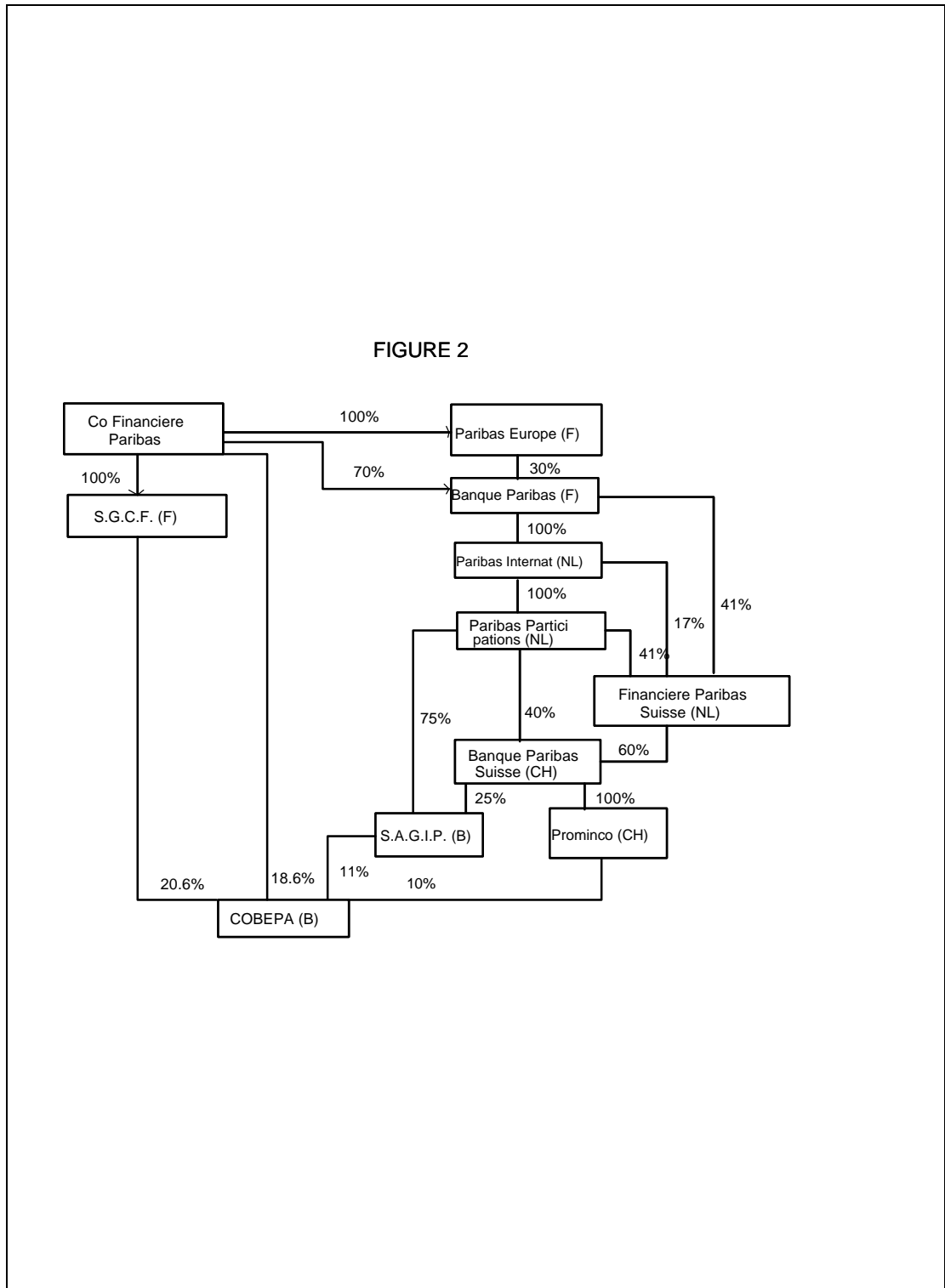


FIGURE 2 : Shareholder structure of Cobepa.



Previous examples clarified that the true owners of the Belgian sample companies are mostly not the direct shareholders (at ownership level 1), but that control is exercised by an ultimate shareholder on a higher ownership tier in the pyramid. It is important to identify these *ultimate shareholders* so that the percentages of voting rights held by direct or first-level shareholders controlled by the same ultimate investor can be aggregated into investor groups. Such investor group is named after and classified according to the identity and shareholder class of the ultimate shareholder.³⁵ Control exerted by an ultimate shareholder on a sequence of intermediate companies and, ultimately, on the sample company exists if (i) there is a series of uninterrupted majority shareholdings on every ownership tier throughout the pyramid or (ii) if there is a large shareholding of at least 25 percent on every ownership level in the absence of other shareholders with stakes of blocking minority size or larger. Applying this criterion, henceforth called the *ultimate shareholder criterion*, to the example (figures 1 and 2), the direct shareholdings of Mosane (18.9%) and Cippar (6.1%) are summed to 25% and classified according to the shareholder category of the ultimate shareholder (Paribas), namely, a holding company.

Table 3 also details the aggregate large share stakes of the main investor classes after applying the ultimate shareholder criterion.³⁶ Although holding companies remain the most important shareholder class in Belgian listed companies, their average cumulative shareholding on an ultimate control basis decreases to 26.7 percent from an average direct shareholding of 32.7 (panel A, table 3). The differences are explained by the fact that family controlled holding companies are now classified according to the identity of the ultimate investors, namely, families and individuals. The average shareholding held by industrial and commercial companies decreases to 11 percent for similar reasons. Industrial and commercial companies seem more inclined to hold substantial stakes

³⁵ To identify and classify investor groups according to the ultimate shareholder criterion, the BDPart database, the Notifications of Ownership Change and annual reports were consulted. If data on the percentage of voting rights held in a part of the control chain were not given and the top company explicitly declared that it controlled a company lower in the control chain, a 51% share stake was assumed and used in the calculations. Our control criterion is closely related to the one used by Bianchi & Casavola (1995). Applying their criterion does not yield significantly different results. They assign a company to an investor group if the voting shares held by the investor group represent a sufficient relative majority. A relative majority in a company i held by the group G (q_{Gi}) is defined as sufficient when it exceeds the sum of the maximum stake held by any other group j (q_{ji}) plus the sum of all the stakes held by the companies not assigned to any other group (w_{ji}). The condition for control to be assigned becomes : $q_{Gi} > \max(q_{ji} + w_{ji})$.

³⁶ Note that for tables 3, 6, 7 and 8, the ultimate shareholder criterion is only used to determine those direct shares that need to be aggregated and reclassified when they belong to the same investor group.

in other industrial firms (panel D). Individual and family investors frequently do not hold shares directly in Belgian companies, but use intermediate companies as their average concentrated ownership amounts to almost 16 percent, while direct stakes held by individual and family investors average only 4 percent (panel A). Family shareholdings are most distinctly present in the ownership structure of industrial and commercial companies (panel D) with an average substantial shareholding of nearly 20 percent.

The relative importance of domestic and foreign investors is examined in the last two columns of table 3. More than 75 percent of the direct large shareholdings (or an average of 49.4 percent of the voting rights) are held by Belgian investors, while foreign investors' direct investments account for an average of 16 percent. This proportion is similar for holding companies (panel B) and the industrial firms (panel D), but for the financial sector, domestic investments are higher with an average of 55 percent (panel C). When applying the ultimate shareholder criterion and taking account of the nationality of the ultimate shareholders, columns 5 and 6 show that foreign investors often use Belgian intermediary companies to control Belgian listed companies. Domestic ownership in a Belgian company amounts to nearly 40 percent; slightly lower (36%) in holding companies, and somewhat higher (43%) in industrial and service companies. Foreign investors hold about 38 percent of the substantial shareholdings (or an average of 24.3 percent of the total number of shares) in Belgian listed companies.

A comparison of the size of means and medians of concentrated cumulative ownership in 1994 and 1989 via parametric and non-parametric tests reveals that neither the total ownership concentration nor the average shareholding by shareholder class has changed significantly over time. This suggests that stakes are mostly sold to investors of the same shareholder class with whom the seller has a priority purchase agreement or to investors who belong to the same investor group.

4.2 Pyramiding and the violation of one share-one vote rule.

The ultimate shareholder criterion served to determine control relations through the pyramidal ownership structures. In previous section, we aggregated direct shareholdings which belonged to the same investor group and reclassified the aggregate share stake according to the investor class of the ultimate shareholder. In the example of figure 1, we found that the Paribas controlled 25 percent of the shares of Floridienne. In this section, we examine pyramiding by estimating deviations from the one share-one vote rule. These deviations have potentially important implications with regard to dilution of control. For instance, it is not certain whether a sequence majority control with e.g. 50% at every ownership tier, yields a determining voice in board decisions of the target sample company (level 0).

Table 4 shows the average ultimate ownership level (ultimate shareholder criterion). Direct share stakes are defined as level 1-shareholdings. The level from which ultimate control is exercised is, on average, 2.2 and only slightly decreases to 2.1 over the four year period.

Table 4 : Largest direct and ultimate levered shareholdings, and the control leverage factor

This table presents the ultimate ownership level, defined as the highest level of ownership in an uninterrupted control chain (direct shareholdings are level 1). Ultimate control is control based on (i) a majority control (minimal 50% of the voting rights) on every ownership tier of the ownership pyramid or (ii) shareholdings of at least 25% on every tier in the absence of other shareholders holding stakes of 25% or more. A chain of fully owned subsidiaries are considered as one single shareholder.

The direct largest shareholding is the average direct largest share stake of at least 25%. The ultimate levered shareholding is calculated by multiplying the share stakes of subsequent ownership tiers. The control leverage factor is the ratio of the direct shareholding divided by the ultimate levered shareholding. For instance, company A, whose shares are widely held, owns 40% of company B which, in turn, owns 40% of company C. The ultimate shareholder level is 2, the direct largest shareholding (of B in C) is 40%, the ultimate shareholding is 16% (40% x 40%), and the leverage factor is 2.5 (40/16).

There was no direct shareholding of at least 25% in 17 sample companies, which were not included in this table. Standard deviation in parentheses.

	1989	1990	1991	1992
sample size	160	156	156	156
ultimate ownership level	2.2 (1.364)	2.2 (1.290)	2.1 (1.188)	2.1 (1.159)
direct largest shareholding	55.1 (19.737)	56.4 (19.509)	57.2 (19.923)	57.8 (20.632)
ultimate levered shareholding	38.0 (22.524)	38.5 (22.906)	40.3 (23.988)	41.7 (24.600)
control leverage factor (direct/ultimate shareholding)	3.6 (8.391)	3.6 (8.650)	3.0 (6.756)	2.9 (6.710)

Source : Own calculations based on data from the BDPart database and the Notifications of Ownership.

As a proxy for the control leverage effect of the pyramid structures, we define the control leverage factor as the ratio of the direct largest shareholding³⁷ and its ultimate levered shareholding. The average of the largest direct stake per investor group amounts to about 58% in 1992. The ultimate levered shareholding is calculated by multiplying the consecutive controlling shareholdings. For example, the ultimate levered shareholding of Paribas in Floridienne (see figures 1 and 2) amounts to 11 percent ($60\% * 74\% * 25\%$) while the largest direct shareholding of the Paribas group is 25 percent. Consequently, the control leverage factor is 2.27 ($25\%/11\%$). The smaller the shareholdings with which control is maintained throughout intermediate levels and the more intermediate ownership tiers, the higher the control leverage factor or the more considerable the violation of one share-one vote. Table 4 discloses that the control leverage factor in 1989 was 3.6 and decreases to 2.9 in 1992. Since the average ultimate ownership level and the ultimate levered shareholding do not change significantly over time, the decline of the control leverage factor indicates that control on intermediate levels becomes more concentrated. The average direct largest shareholding for companies with a direct share stake of at least 25 % amounts to 57 percent while the ultimate levered shareholding is 41 percent.

There are substantial differences in pyramiding among the subsamples of the listed Belgian holding companies, financial firms and industrial and commercial companies.³⁸ In 1992, the ultimate ownership level for financial firms amounted to 2.6 versus 1.9 for industrial companies. Moreover, the control leverage factor for financial firms was 7.1, 3.0 for holding companies and only 1.9 for industrial companies. This reveals that control of holding companies and financial firms is more levered than that of industrial firms.

We also investigate the control leverage established by the different classes of ultimate investors (table 5). Of the 156 sample companies in 1992, 64 ultimate investors were holding companies, 49 were families and 27 were industrial companies.³⁹ Both the ultimate ownership level and the control

³⁷ Seventeen companies which did not have a large direct shareholder owning at least 25 percent of the shares were excluded. Table B1 of appendix B summarizes the data inclusive of companies without a direct shareholding of at least 25%. With regard to these companies the same ultimate control criterion was applied to the largest direct stakeholder. The results are similar to table 5.3.

³⁸ See table B2 in appendix B.

³⁹ Only one bank was among ultimate shareholders. The results of this table refer to 1992, but other years in the period 1989-1991 reflect a similar picture.

leverage factor point out that holding companies, insurance companies and families use more intermediate companies and smaller intermediate share stakes to ascertain control than industrial companies. Hence, the deviation of the concept of one share-one vote is considerable for investing holding companies and, consequently, the potential for dilution of control increases.

Table.5 : Largest direct and ultimate levered shareholdings, and the control leverage factor by ultimate investor category.

This table presents the ultimate ownership level, defined as the highest level of ownership in an uninterrupted control chain (direct shareholdings are level 1). Ultimate control is control based on (i) a majority control (minimal 50% of the voting rights) on every ownership tier of the ownership pyramid or (ii) shareholdings of at least 25% on every tier in the absence of other shareholders holding stakes of 25% or more. A chain of fully owned subsidiaries are considered as one single shareholder.

The direct largest shareholding is the average direct largest share stake of at least 25%. The ultimate levered shareholding is calculated by multiplying the share stakes of subsequent ownership tiers. The control leverage factor is the ratio of the direct shareholding divided by the ultimate levered shareholding. For instance, company A, whose shares are widely held, owns 40% of company B which, in turn, owns 40% of company C. The ultimate shareholder level is 2, the direct largest shareholding (of B in C) is 40%, the ultimate shareholding is 16% (40% x 40%), and the leverage factor is 2.5 (40/16).

There was no direct shareholding of at least 25% in 17 sample companies, which were not included in this table. Standard deviation in parentheses.

1992	ULTIMATE SHAREHOLDERS					
	holding co's	investment co's	insurance co's	industrial co's	families	government
sample size	64	5	5	27	49	6
ultimate ownership level	2.3 (1.270)	1.4 (0.489)	2.4 (1.496)	1.7 (1.116)	2.0 (0.868)	1.7 (1.105)
direct largest shareholding	57.0 (17.906)	44.6 (12.116)	75.2 (23.961)	60.4 (23.584)	54.6 (20.649)	63.3 (18.607)
ultimate levered shareholding	35.1 (21.741)	31.2 (12.023)	43.6 (27.659)	50.8 (25.277)	41.5 (23.997)	63.3 (21.116)
control leverage factor (direct/ultimate shareholding)	4.3 (9.959)	1.7 (0.877)	3.0 (3.121)	1.5 (1.387)	2.9 (1.387)	1.1 (1.185)

Source : Own calculations based on data from the BDPart database and the notification of ownership disclosure.

4.3 Blocking minorities, majorities and supermajorities.

Table 6 examines control patterns and gives the percentage of Belgian companies with an ownership structure characterized by the presence of blocking minorities, majorities and supermajorities. When a shareholder possesses more than 50 percent of the voting rights, he can dominate the agenda at the annual meeting and control the selection and hiring process of the board members and the delegated director (CEO). In practice, less than 50 percent of the voting rights will be needed to have a majority on the annual meeting because some - predominantly the small - investors usually choose not to be involved in active monitoring and will only use their voting rights under special circumstances e.g. in the case of a potential acquisition. Table 6 shows the percentage of sample companies with the critical threshold stakes of 25%, 50% and 75%. Both the direct threshold shareholdings are presented and the threshold shareholdings per investor group⁴⁰. Panel A reveals that a voting rights majority exists in more than half (56%) of the Belgian listed companies based on the ultimate shareholder criterion. In 18 percent of the Belgian companies, a supermajority gives absolute control to one shareholder or a group of shareholders as blocking minorities cannot be formed. Shareholdings of 25 percent or more are present in 85 percent of all companies. The concentrated ownership pattern is similar in all subsamples. Share stakes of more than 25 percent exist in more than 80 percent of the holding companies (panel B) and the financial firms (panel C) and even in 93 percent of the industrial and commercial companies (panel D). We find that ownership concentration is very strong in most companies within each subsample. Consequently, as, to large extent, takeovers have to be ruled out as a corporate control mechanism, large shareholders bear responsibility for monitoring management's performance.

Holding companies, both Belgian and foreign, are the main ultimate investors since they dominate with voting rights majorities 26 percent of the Belgian firms (panel A). Holding companies invest mainly in other Belgian and foreign holding and companies (see panels B and D). Family and individual investment (panel A) is high (on ultimate control basis) since they hold stakes of at least 25 percent in almost one fourth of all Belgian listed companies and majorities in 14 percent. This shareholder class owns large stakes (of over 25%) in 29 percent of the industrial and commercial

⁴⁰ For each direct large shareholding we applied the ultimate shareholder rule : we then aggregated these direct shareholding belonging to the same investor group (ultimate shareholder criterion).

sector (panel D) and has absolute control in 18 percent. The industrial shareholders predominantly hold share stakes of minimum blocking minority size in other industrial companies (panel D).

Total Belgian and foreign ownership concentration based upon direct shareholdings gives a different picture when ultimate control is considered. The proportion of about 75%-25% of the sample companies with direct share stakes of at least blocking minority size held by respectively Belgian and foreign shareholders, changes to a 60%-40% ratio on an ultimate shareholder basis. This fact reconfirms that foreign investors predominantly control stakes in Belgian companies via Belgian intermediaries.

With regard to absolute control in the form of supermajorities, foreign investors control 10 percent of the companies while Belgian investors only control 9 percent (panel A). Table 11 also reveals that Belgian and foreign investors each hold majority stakes in 30 percent of the Belgian listed holding companies. Consequently, the proportion domestic versus foreign ultimate investors has changed to a 50%-50% proportion. The majority of Belgian industrial and services companies (panel D) is still dominated by Belgian investors.

This section has disclosed that over the period 1989 till 1994, Belgian ownership was highly concentrated with more than half of the listed companies controlled with majority stakes. The average substantial stakes held by the different ownership classes has remained relatively stable.⁴¹

⁴¹ Parametric and non-parametric tests on means and medians show that the difference is not statistically significant.

Table 6 : Blocking minority, majority and supermajority shareholdings.

Percentage of the sample companies with a minority, majority or supermajority shareholdings held by the main shareholder categories.

MIN = % of companies with a stake of 25% or larger,

MAJ = % of companies with a stake of 50% or larger,

SUP = % of companies with a stake of 75% or larger.

Direct stands for the direct shareholdings. Ultimate refers to the fact that the direct shareholdings were classified according to the shareholder class of the ultimate investor and these direct shareholdings belonging to the same ultimate investor group were subsequently summed. Ultimate control is control based on (i) a majority control (minimal 50% of the voting rights) on every ownership tier of the ownership pyramid or (ii) shareholdings of at least 25% on every tier in the absence of other shareholders holding stakes of 25% or more. A chain of fully owned subsidiaries are considered as one single shareholder.

AUG. 1994	all investors			holding co's			families			indus. co's			Belgian investors			foreign investors		
	MIN	MAJ	SUP	MIN	MAJ	SUP	MIN	MAJ	SUP	MIN	MAJ	SUP	MIN	MAJ	SUP	MIN	MAJ	SUP
PANEL A : ALL SAMPLE COMPANIES (N=157)																		
Direct	82	45	14	48	23	5	2	1	1	21	12	5	63	36	9	19	9	5
Ultimate	85	56	18	41	26	6	23	14	3	15	8	5	51	33	9	34	23	10
PANEL B : HOLDING COMPANIES (N=64)																		
Direct	79	39	14	50	23	8	5	2	2	17	9	2	59	31	11	20	8	3
Ultimate	83	59	20	50	36	13	22	13	2	9	6	3	45	30	11	38	30	13
PANEL C : FINANCIAL SECTOR (BANKING, INSURANCE, REAL ESTATE) (N=20)																		
Direct	75	50	10	35	15	0	0	0	0	5	5	5	62	40	10	13	10	0
Ultimate	80	55	15	40	15	0	5	5	0	5	5	5	48	33	10	32	22	5
PANEL D : INDUSTRIAL AND COMMERCIAL COMPANIES (N=73)																		
Direct	86	47	15	48	25	4	0	0	0	28	15	8	66	37	7	20	10	8
Ultimate	93	55	16	34	19	3	29	18	4	24	11	7	61	37	8	32	18	8

Source : Own calculations based on BDPart and Ownership Notifications.

4.4 Belgian shareholder classes

Of the Belgian shareholder classes⁴², the dominant stake holders are families and holding companies. These two shareholder groups hold most of the controlling stakes (in respectively 12% and 11% of all the sample companies) and each shareholder class holds share stakes of more than 25 percent in about 20 percent of the sample companies.

Family shareholders.

Belgian families own a voting rights majority in 15 percent of the industrial and commercial companies and hold 26 percent of the shareholdings of at least 25%. Families also often use the holding companies as investment vehicles to control indirectly a variety of listed and non-listed companies in different industries.

Holding companies.

Belgian holding companies are substantial investors in all sectors : in other Belgian holding companies, in the financial sector and in industrial and commercial companies. The importance of the Belgian holding companies and the lack of large share stakes held by banks should be understood in its historic framework : banking and investment business had to be separated by law in 1934. This resulted in the creation of large financial holding companies which became the major shareholders in the financial institutions and diversified their investments over a wide gamut of industrial and commercial sectors. As clarified in figure 1, pyramidal ownership structures allowed holding companies⁴³ to exercise levered control with relatively small share stakes.

Financial Institutions.

⁴² Ownership tables about the different Belgian shareholder classes (holding companies, banks, investment and pension funds, insurance co's, industrial co's, families, federal and regional government) are not shown, but are available upon request.

⁴³ Since 1967 (See Article 1 of Royal Decree nr. 64 of 10 November 1967), there is a registration requirement for Belgian holding companies with a portfolio value of over 0.5 billion BEF (£ 10 million). Company Law does not distinguish between different holding categories and in this paper the NACE classification of the National Bank and of the Bank Brussel Lambert is used. However, as Bodson (1993) points out, the group of holding companies is still rather heterogeneous and includes holdings which are purely financial (e.g. Sofina), a combination of financial and industrial (Generale Maatschappij van België / Société Générale de Belgique) or more like a conglomerate (Tractebel).

As of 1934, 'credit institutions' were prohibited from taking share participations in industrial companies. Only since the 1993 Credit Institutions Act⁴⁴ which implemented the Second Banking Directive of the European Union, are credit institutions (banks, savings banks and other financial institutions) entitled to hold shares in industrial corporations and holding companies. Currently, credit institutions are allowed to hold up to 10 percent of their equity in Belgian shares. There is no limitation with regard to the percentage of the outstanding shares of an individual company a credit institution is allowed to own.

In practice, banks still do not invest much in shares of non-financial companies to avoid conflicts of interest :

- According to Belgian law, banks are held liable towards creditors of bankrupt companies, if the banks granted credit to these companies at times when a reasonably prudent banker should not have granted nor maintained the credit. A substantial shareholding in a financially distressed company by a bank might influence that bank's decision with regard to ceasing additional credit.
- Since most banks are controlled by a holding company which might be a substantial shareholder in a company, it is doubtful whether banks would be able to make independent decisions with regard to a shareholding in that company or the loans granted to a company (Verwilt 1992).
- Most investment and pension funds are managed by a bank that ensures the distribution of the investment fund's certificates (shares). Legally, investment and pension funds' management should use the voting rights associated with the shares of a company they have invested in, independent of the managing bank.

The Government .

In principle, the federal state does invest in listed Belgian companies. But it owns 50 percent of the shares of the National Bank, of which the shares are listed in the Brussels Stock Exchange, and 50 percent of the 'public credit institutions'. The role of the public credit institutions has been

⁴⁴ Law of 22 March 1993. The Royal Decree of 8 May 1990 had already allowed the credit institutions to purchase shares up to 5% of their own funds since 1990.

broadened to that of a bank and they are being privatised. The 'public investment companies', owned by the regional governments hold blocks in shares of a few listed companies. Those investments were made either to save ailing companies or to provide risky companies with growth capital so as to stimulate and support entrepreneurial and industrial expansion activities. In general, in contrast to France, federal and regional governments have not considered their shareholdings in companies as a long term financial investment. Only in two percent of the listed companies, the state still holds a share stake via the regional investment companies.

Employee shareholdership.

Since 1991, mechanisms of beneficial acquisition of shares by employees have been introduced. In general, employee ownership in most companies remains low. For instance, employees of Petrofina own 5.4 percent of the shares; in de Bank Brussels Lambert, employees hold 7%; in Creyf's Interim 0.9%; in Desimpel Kortemark 0.5%; in Royale Belge, 0.69% (Wymeersch 1994a).

Institutional investors.

Belgian institutional investors (insurance companies, pension funds, credit institutions, investment funds and investment companies) usually hold small share stakes (of under 5 percent), but own in aggregate about 22 percent of the shares in Belgian listed companies.⁴⁵ For instance, the average shareholding of all Bevek/Sicav-investment funds⁴⁶ in the 60 most traded Belgian companies, amounted to 1.5 percent in 1994 and the average shareholding of pension funds measures about 4 percent (B.B.L. 1994).⁴⁷ Insurance companies are legally allowed to invest up to 25 percent of their

⁴⁵ Most share stakes held by institutional investors are under 5% and are as such not included in the analysis. Data about investment funds should be interpreted with caution since some investment funds investing in Belgian shares are domiciled in Luxembourg but managed by subsidiaries of Belgian banks. The Luxembourg authorities do not differentiate according to nationality of the managers of the fund.

⁴⁶ *Beleggingsfonds met veranderlijk kapitaal (Bevek)/ Société d'Investissement à Capital Variable (Sicav)* (mutual fund with variable capital).

⁴⁷ Until the end of 1990, the investors in investment funds could not be represented by the investment fund on annual general meetings of companies in which the investment fund held shares. In practice, this legal prohibition made it impossible that the voting rights of shares held by investment funds were exercised. The legislation wanted to avoid that investment funds would become instruments of financial groups which could strengthen their control on quoted companies. However, the result of this legislation was not neutral since the position of controlling shareholders was even reinforced (Cornelis & Peeters 1992). The Law of 4 December 1990, article 112, abolished this prohibition and stated that the acts of incorporation can determine in which cases the investment fund is to exercise the voting rights.

reserves in shares listed on the Belgian stock exchanges, but owned only about 12 percent of the Belgian shares over the period 1986-1991. Most institutional investors reinforce the present majority's power by systematically voting in favour of management or, more commonly, by not taking part in the general assembly.

4.5 Foreign shareholder classes

Of the foreign investors, it is primarily the holding companies that hold large share stakes and control with a majority stake in 15 percent of all the Belgian listed companies.⁴⁸ Foreign holding companies invest predominantly in Belgian holding companies, one fourth of which they control with a majority of the voting rights. This way foreign holding companies also indirectly invest in unlisted Belgian companies with shares held in the investment portfolios of Belgian holding companies. Foreign industrial companies prefer Belgian industrial companies as long term investments, while foreign banks and insurance companies are substantial shareholders in the Belgian financial and insurance sector. Foreign institutional investors do not rely heavily on the Belgian stock market.

Although shareholders from a wide variety of countries⁴⁹ are present in the ownership structure of Belgian listed companies, the main investors are from the neighbouring European countries. Dutch investors own an average direct share stake of 3.8 percent and invest predominantly in Belgian industrial and commercial companies. German direct average ownership is low. German industrial companies mainly invested in the concrete industry via e.g. Heidelberger Zement. Investors from Luxembourg own, on average, directly 4.1 percent of Belgian companies, and have invested mainly in industrial and commercial companies. But, companies from Luxembourg are almost never the ultimate investor and are used as intermediary investment vehicles by e.g. French companies. U.K.

⁴⁸ Ownership tables with the relative importance of each of the foreign shareholder classes (holding companies, banks, institutional investors, insurance companies, industrial companies, families and the government) are available upon request.

⁴⁹ Shareholders of almost all the member states of the European Union, Switzerland, U.S.A., Canada, Japan, Panama, Zaire, Rwanda, Liberia and the Cayman Islands hold stakes of at least 5% in Belgian listed companies. Details per country are available upon request.

and North American shareholders hold large stakes in only 3 companies. Only one large shareholding of a Belgian listed company is Japanese: Ashaki acquired a majority stake in the glass manufacturer Glaverbel. The average French direct average shareholding is higher and close to 4.3 percent. The single most important foreign ultimate investors are French; their accumulated substantial shareholdings amount on average to almost 13 percent. They invest mainly in the Belgian holding companies of which they own an average stake of 19 percent and in the financial sector in which they hold an average of 14 percent of the voting rights. Via controlling participations in Belgian large holding companies, French investors control a substantial part - estimated at 30% (Wymeersch 1994a) - of all the listed and unlisted industrial companies in Belgium. Columns 2 to 5 of table 7 reveal that it is the French holding companies, rather than French family investors or industrial companies that have acquired substantial stake of the Belgian listed companies. French insurance companies own significant shareholdings in the Belgian banks and insurance companies.

Table 7 : Size of large shareholdings held by a French ultimate investor (group).

This table reports the aggregate substantial shareholdings¹ owned by the main French investor groups. Ultimate refers to the fact that the direct shareholdings were classified according to the shareholder class of the ultimate investor and these direct shareholdings belonging to the same ultimate investor group were subsequently summed. Ultimate control is control based on (i) a majority control (minimal 50% of the voting rights) on every ownership tier of the ownership pyramid or (ii) shareholdings of at least 25% on every tier in the absence of other shareholders holding stakes of 25% or more. A chain of fully owned subsidiaries are considered as one single shareholder.

AUG.1994	SHAREHOLDINGS OWNED BY ULTIMATE FRENCH INVESTORS					SHAREHOLDINGS EXCLUDING SUEZ AND PARIBAS	
	all investors	holding co's	insurance co's	indus. co's	families	all investors	holding co's
PANEL A : ALL SAMPLE COMPANIES (N=157)							
MEAN	12.89	9.37	1.05	1.41	0.45	6.32	2.80
STD	25.17	22.27	8.53	8.91	5.67	19.39	13.91
t-stat ³	-1.775 ⁴	-1.740 ⁴	-0.453	0.125	-0.600	-0.670	-0.513
PANEL B : ALL HOLDING COMPANIES (N=64)							
MEAN	18.82	15.28	0.16	2.28	1.11	9.21	5.67
STD	31.09	29.11	1.25	12.40	8.88	24.30	20.07
t-stat ³	0.040	-0.015	0.120	0.472	-0.064	0.050	-0.025
PANEL C : FINANCIAL SECTOR (BANKS, INSURANCE, REAL ESTATE) (N=20)							
MEAN	13.96	5.72	7.76	0.00	0.00	11.61	3.37
STD	25.82	15.04	23.19	0.00	0.00	26.01	13.98
t-stat ³	-1.253	-0.933	-0.408	0.000	-1.000	-0.729	-0.080
PANEL D : INDUSTRIAL AND COMMERCIAL COMPANIES (N=73)							
MEAN	7.39	5.19	0.00	1.04	0.00	2.33	0.13
STD	17.00	14.87	0.00	6.00	0.00	9.38	0.84
t-stat ³	-2.274 ⁵	-2.484 ⁵	-0.998	-0.384	0.000	-0.783	-1.511

Source : Own calculations based on BDPart and Ownership Notifications.

¹ In line with the Ownership Disclosure Legislation, substantial shareholdings are defined as share stakes that equal or exceed 5% (of the voting rights), unless investors with smaller shareholdings are affiliated to or act in concert with major shareholders, in which case small stakes ought to be revealed as well. The 5% threshold can be reduced to 3% if the company states this in its acts of constitution.

² The direct shareholdings are accumulated if they are directly owned or (indirectly) controlled by a French ultimate investor (group)

³ The t-stat. tests the difference between the ownership means in 1994 and 1989. Non-parametric tests give similar results.

⁴ Statistical significance at 10%. ⁵ Statistical significance at 5%.

The French Suez group controls the Generale Maatschappij van België (Société Générale de Belgique) and the Paribas group dominates the Belgian Cobepa holding. To investigate the prominence of these two large French holding companies, the average substantial shareholdings held by French investors excluding the Suez and the Paribas group are presented in columns 6 and 7 of table 7. A comparison of the aggregate concentrated French ownership including and excluding Suez and Paribas reveals that these holding companies account for more than half of the substantial French investments in Belgian listed companies (holding and industrial companies). The average large share stake held by the French holding companies falls from 9.4% to 2.8% after exclusion of the Suez and Paribas holding companies (columns 2 and 7). The 9.4% average shareholding is equivalent to majority control in 10 companies and the 2.8% represents control in 2 companies. Apart from controlling stakes, Suez and Paribas are present with minority stakes in 45 listed companies. Panel D (column 7) shows that the French holding companies other than Suez and Paribas, control virtually no voting rights directly in the Belgian industry.

The French average shareholding slightly decreases from 1989 to 1994 mainly due to a reduction of ownership by the French holding companies.⁵⁰ An important reason is the restructuring of the Generale Maatschappij van België (Société Générale de Belgique) after the takeover by Suez. Since then, the Generale focuses on eight core strategic sectors and has reduced its shareholdings in others.

4.6 Changes in large shareholdings.

We have shown that the aggregated large shareholdings per shareholder category remained stable over time. As selling activity of stakes within shareholder categories is not reflected in the aggregate ownership data, table 8 examines these changes in large shareholdings. Over the period 1989-1992, there were 238 shareholding increases of more than 1 percent, while 247 stakes were sold. Of these changes in ownership, there were 120 increases of a magnitude between 5% and 24.9%, versus 110 decreases of similar size. In 16 cases, majority shareholdings were acquired and 28 blocks of blocking minority size were purchased. Thirty-three blocking minorities were sold, in

⁵⁰ Parametric and non-parametric tests on means and medians show that the average investment by French holding companies was significantly reduced (at 1% level).

addition to 28 majority stakes. It should be noted that the changes are corrected for shareholding restructuring within investor groups. For example, a redistribution of share stakes in a sample company held by two companies which are controlled by the same ultimate investor, has a limited impact on control and is consequently not included in the changes of large shareholdings. These observations suggest that this market for share stakes is not insignificant : in one fourth of the sample companies, share stake changes of 5 percent or more occur in the period 1989-1992. The relevance of this market as a an external corporate control mechanism will be investigated in the following chapter. Table 8 discloses that the holding companies are the main sellers and purchasers of share stakes. Institutional investors, mainly banks and insurance companies, acquire 38 shareholdings of more than 5 percent and sell 30 stakes of similar sizes. Families sell 15 stakes of blocking minority size and more, while 8 such stakes are bought by this shareholder category.⁵¹ Most of the exchanges of blocks of shares are negotiated deals and take place ex exchange.⁵²

⁵¹ If a firm acquires control of another company through a private transaction, and pays a premium to the selling shareholders, a public tender offer has to be made all the remaining shareholders, under the same terms as the private transaction. Van Hulle, Vermaelen en de Wouters (1991) mention that when the private transaction only involves a fraction of the large shareholder's holding, the offer has to be made for only the same fraction of the remaining shares. For example, if the bidder acquires 60% of the shares of a large shareholder who owns 80% of the outstanding shares, the bidder has to make an offer for 60% of the other 20% of the outstanding shares.

⁵² Unlike in the U.S., U.K. and France, undisclosed accumulation of large shareholdings in Belgium via open market and private transactions was possible until March 1989. Van Hulle, Vermaelen and de Wouters (1991) test, over the period 1970-85, the Schleifer & Vishny (1986) hypothesis which states that bidders in a tender offer would benefit most if they had accumulated large holdings prior to the tender offer. Van Hulle et al. find that, while the targets in tender offers earn significant abnormal returns of 37%, bidders earn abnormal returns or zero. The authors advance as part of the explanation for the bidders' low return, the negotiation process with major shareholders. In most companies it is impossible to build up a large stake via open market transactions. Therefore, private negotiations are almost inevitable for an outsider who wants to enlarge his share stake.

5. Conclusion.

We have shown that the Belgian equity market is similar to most Continental European ones as few companies are quoted, ownership concentration is strong, pyramidal ownership structures are used to lever control and there is a market for share stakes. Typical for Belgium is the dominance of holding companies as large shareholders. Pyramiding of shareholding structures violates the one share one vote rule as ultimate shareholders can exercise control with a low percentage of cash flow rights. Despite the strong concentration of relatively stable large shareholdings, the existence of a market for small share stakes reveals the importance of reaching critical control levels, blocking minorities, majorities and supermajorities, for the exertion of corporate control.

Table 8 : Increases and decreases of large shareholdings over 1989-1992.

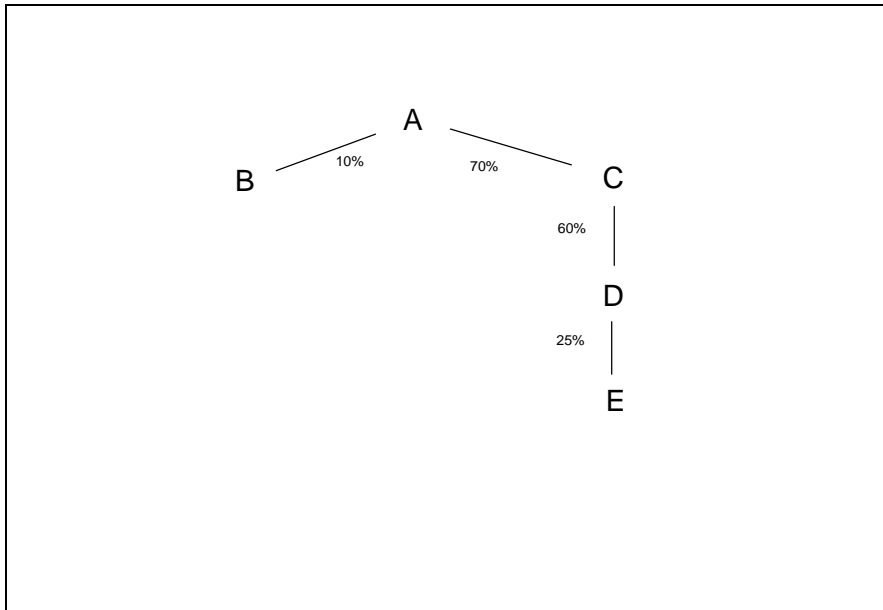
This table gives the size distribution of increases and decreases of large shareholdings over the period 1989-1992. Increases and decreases were calculated by comparing the share stakes of a shareholder category of a fiscal year to the shareholdings of previous year.

1989-1992	Number of increases and decreases stakes					
	[1%-5%[	[5%-10%[	[10%-25%[	[25%-50%[	[50%-100%[	Total
PANEL A : INCREASES FOR ALL SAMPLE COMPANIES (number of observations : 693)						
Increases : all shareholders	74	72	48	28	16	238
Increases : holding companies	34	35	17	16	2	104
Increases : institutional investors	24	17	12	4	5	62
Increases : industr. & commerc. co's	5	9	8	4	5	31
Increases : families	11	11	11	4	4	41
PANEL B : DECREASES FOR ALL SAMPLE COMPANIES (number of observations : 693)						
Decreases : all shareholders	76	51	59	33	28	247
Decreases : holding companies	26	31	34	12	18	121
Decreases : institutional investors	31	8	11	9	2	61
Decreases : industr. & commerc. co's	3	2	6	1	4	16
Decreases : families	16	10	8	11	4	49

Source : Own calculations based on BDPart and Ownership Notifications.

Appendix A :

To describe the ownership relation between companies, we can distinguish among affiliation, association and participation. Two companies are affiliated if one owns at least 50% in the other company (the subsidiary).⁵³ When two companies are associated, one of these companies holds a stake of more than 25% in the other company.⁵⁴ Note that 25% is the blocking minority threshold. If a company X owns a stake of less than 25% in company Y, there is a 'participating relationship' between them.⁵⁵



- A, C and D are affiliated. The control percentage of A in D is 60%, while its percentage of interest on a levered basis amounts of 42% (70% * 60%).
- A and E are associated. The control percentage of A in E is 25%, whereas its percentage of interest on a levered basis is only 11% (70% * 60% * 25%).
- A has a participation in B ; percentage of control and interest is 10%.

Cross shareholdings

It is possible that there is a reciprocal shareholdings between two companies. For instance, company P (parent) owns 75% of the shares of company S (subsidiary) while company S owns 5% of company P.⁵⁶

⁵³ Article 4, par. 1 of the Royal Decree of 8 October 1976.

⁵⁴ Article 3 of the Royal Decree of 9 March 1990 and article 6 of the Royal Decree of 30 December 1991.

⁵⁵ Participation is the translation of '*deelnemingsverhouding*' (article 67 of Royal Decree of 9 March 1990).

⁵⁶ Cross participation between two companies, if one of them has the legal form of a '*vennootschap*', is limited to 10% by article 52 quinquies and sexies of the coordinated company laws and by article 11 of the Law of 19 July 1991. For instance, if a company owns 55% in another company, the latter company is not permitted to hold more than 10% of the shares in the former.

--- 75% -->
 P S
 <-- 5% ---

To calculate the percentage of interest of P in S, let us assume that $a=75\%$ and $b=5\%$. P's shareholders own $(1-b)$ of the share capital of P the remaining $b\%$ is held by S. The direct interest of P's shareholders in S is $[(1-b) * a]$. Indirectly - this is via the shareholdings of S in P, they possess : $(1-b) * a * b * a$.

If this circular reasoning is repeated several times, the total interest of P in S can be expressed as follows :

direct holding of : $(1-b) * a$

plus an indirect holding of :

$$(1-b) * a + (1-b) * a^2b + \dots + (1-b) * a^{n+1}b^n$$

This sum is a geometrical progression :

$$(1-b) * a * (1 + ab + a^2b^2 + \dots + a^n b^n)$$

$$= (1-b) * a * (1 - a^n b^n) / (1 - ab)$$

And since $a^n b^n$ converges to one for a large n , we can write P's interest in S as :

$$(1-b) * a / (1 - ab)$$

Applying this result to our example, we conclude that P's ownership in S amounts to 74,03%.

Via a similar reasoning, we find that the percentage of interest of S in P can be formalized (Uyterschaut 1989) :

$$(1 - a) / (1 - ab)$$

Applied to our example, we find that S owns 5,97% of the share capital of P.

Since the shareholdings of the 'subsidiary' are limited to 10% of the share capital of the parent company, the difference between the percentage of interest of the 'parent' company in the subsidiary with and without considering the cross shareholding of the subsidiary will not be substantial.⁵⁷

⁵⁷ In our example, the parent's holding of 75.0% (assuming no cross shareholding) would decrease to 74.0% if the subsidiary's cross shareholding of 5% is taken into account. The maximum reduction of the parent's shareholding amounts to 2% (the parent effectively owns 73%) and can be found by considering the maximum allowed cross shareholding of 10%.

Appendix B : Table B1 : Largest direct and ultimate shareholdings, and the top level of uninterrupted ownership chains.

This table presents ultimate control, defined as control which is uninterrupted throughout the pyramid if there is a majority shareholding or if there is a large shareholder with at least 25% of the voting rights in the absence of other shareholders with stakes of 25% and more.

The ultimate ownership level defined as the highest level of ownership in an uninterrupted control chain, whereby direct shareholdings are at level 1. The direct largest shareholding is the average direct largest share stake. The ultimate levered shareholding is calculated by multiplying subsequent share stakes.

The control leverage factor is the ratio of the direct shareholding divided by the ultimate levered shareholding. For instance, company A, whose shares are widely held, owns 40% of company B which, in turn, owns 40% of company C. The ultimate shareholder level is 2, the direct largest shareholding (of B in C) is 40%, the ultimate shareholding is 16% (40% x 40%), and the leverage factor is 2.5 (40/16).

A chain of fully owned subsidiaries are considered as one single shareholder.

There was no direct shareholding of at least 25% in 17 sample companies, for which the ownership structure of the largest holding was taken into account.

Standard deviations in parentheses.

	1989	1990	1991	1992
sample size	177	173	173	170
ultimate ownership level	2.3 (1.471)	2.1 (1.330)	2.1 (1.312)	2.1 (1.300)
direct largest shareholding	50.4 (22.898)	51.5 (22.943)	52.6 (23.073)	53.6 (23.453)
ultimate levered shareholding	34.8 (22.131)	35.3 (24.544)	37.1 (24.544)	38.6 (25.222)
control leverage factor (direct/ultimate shareholding)	3.5 (7.956)	3.4 (8.917)	3.0 (6.535)	2.9 (6.555)

Source : Own calculations based on data from the BDPart database and the Notifications of Ownership.

Appendix B : Table B2 : Largest direct and ultimate shareholdings, and the top level of uninterrupted ownership chains.

This table presents ultimate control, defined as control which is uninterrupted throughout the pyramid if there is a majority shareholding or if there is a large shareholder with at least 25% of the voting rights in the absence of other shareholders with stakes of 25% and more.

The ultimate ownership level defined as the highest level of ownership in an uninterrupted control chain, whereby direct shareholdings are at level 1. The direct largest shareholding is the average direct largest share stake of at least 25%. The ultimate shareholding is calculated by multiplying subsequent share stakes. The control leverage factor is the ratio of the direct shareholding divided by the ultimate levered shareholding. For instance, company A, whose shares are widely held, owns 40% of company B which, in turn, owns 40% of company C. The ultimate shareholder level is 2, the direct largest shareholding (of B in C) is 40%, the ultimate shareholding is 16% (40% x 40%), and the leverage factor is 2.5 (40/16). A chain of fully owned subsidiaries are considered as one single shareholder.

There was no direct shareholding of at least 25% in 17 sample companies, which were not included in this table. Standard deviations in parentheses.

	1989	1990	1991	1992
PANEL A : HOLDING COMPANIES (sample size = 60)				
ultimate ownership level	2.2 (1.313)	2.2 (1.330)	2.1 (1.202)	2.0 (1.197)
direct largest shareholding	51.8 (16.125)	51.7 (16.491)	53.3 (16.569)	55.3 (18.722)
ultimate levered shareholding	37.213 (20.903)	37.4 (21.604)	38.4 (21.457)	40.7 (23.053)
control leverage factor (direct/ultimate shareholding)	3.7 (9.253)	3.8 (9.498)	3.0 (7.107)	3.0 (7.150)
PANEL B : FINANCIAL SECTOR (sample size = 20 in 1989 and 17 in other years)				
ultimate ownership level	2.9 (2.021)	2.6 (1.606)	2.6 (1.603)	2.6 (1.610)
direct largest shareholding	55.7 (19.606)	57.8 (19.746)	61.6 (20.322)	61.5 (20.654)
ultimate levered shareholding	29.8 (23.313)	32.4 (22.654)	33.8 (27.109)	34.8 (28.220)
leverage factor (direct/ultimate shareholding)	7.5 (13.597)	6.4 (13.535)	6.9 (13.535)	7.1 (13.841)
PANEL C : INDUSTRIAL AND COMMERCIAL COMPANIES (sample size = 78 in 1989 and 76 in other years)				
ultimate ownership level	2.2 (1.117)	2.1 (1.152)	2.0 (1.018)	1.9 (0.958)
direct largest shareholding	57.3 (21.845)	58.9 (21.113)	59.272 (21.656)	59.012 (21.826)
ultimate levered shareholding	38.8 (23.126)	40.779 (23.614)	43.2 (24.657)	43.9 (24.634)
leverage factor (direct/ultimate shareholding)	2.7 (4.847)	2.8 (5.908)	2.1 (2.337)	1.9 (1.642)

Source : Own calculations based on data from the BDPart database and the Notifications of Ownership.

Appendix B Table B3 : Changes in large shareholdings.

This table presents the size distribution of increases and decreases of large shareholdings over the period 1989-1992. Increases and decreases were calculated by comparing the share stakes of a shareholder category of a fiscal year to the shareholdings of previous year. The changes in shareholdings per size class over the period 1989-92 are summed.

1989-1992	Number of increases and decreases stakes					
	[1%-5%[	[5%-10%[	[10%-25%[	[25%-50%[	[50%-100%[	Total
PANEL A : CHANGES FOR THE HOLDING COMPANIES (number of observations : 273)						
Decreases : all shareholders	28	35	27	6	1	97
Decreases : holding companies	13	18	14	3	0	48
Decreases : institutional investors	7	6	4	0	0	17
Decreases : industr. & commerc. co's	2	3	2	2	0	9
Decreases : families	6	8	7	1	1	23
Decreases : all shareholders	34	25	29	12	6	106
Decreases : holding companies	9	18	23	4	3	57
Decreases : institutional investors	14	2	4	7	2	29
Decreases : industr. & commerc. co's	1	1	0	0	0	2
Decreases : families	10	4	2	1	1	18
PANEL B : CHANGES FOR THE FINANCIAL SECTOR (number of observations : 91)						
Increases : all shareholders	21	13	2	2	4	42
Increases : holding companies	9	4	0	1	1	15
Increases : institutional investors	10	8	2	1	2	23
Increases : industr. & commerc. co's	2	1	0	0	1	4
Increases : families	0	0	0	0	0	0
Decreases : all shareholders	13	6	9	5	7	40
Decreases : holding companies	6	2	2	0	5	15
Decreases : institutional investors	7	3	6	0	0	16
Decreases : industr. & commerc. co's	0	0	0	0	2	2
Decreases : families	0	1	1	5	0	7
PANEL C : CHANGES FOR THE INDUSTRIAL AND COMMERCIAL COMPANIES (number of observations : 329)						
Increases : all shareholders	25	24	19	21	11	100
Increases : holding companies	12	13	3	12	1	41
Increases : institutional investors	7	3	6	3	3	22
Increases : industr. & commerc. co's	1	5	6	3	4	19
Increases : families	5	3	4	3	3	18
Decreases : all shareholders	29	20	21	16	15	101
Decreases : holding companies	11	11	9	8	10	49
Decreases : institutional investors	10	3	1	2	0	16
Decreases : industr. & commerc. co's	2	1	6	1	2	12
Decreases : families	6	5	5	5	3	24

Source : Own calculations based on BDPart and Ownership Notifications.

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