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ELITE NETWORKS IN GERMANY AND BRITAIN

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Abstract This study considers the social organisation of the economic elite in Germany and Britain. Specifically, the analysis focuses on the internal structure of this social group, which is termed an 'elite network'. The resources on which the dominance of the economic elite is based are bureaucratic power, ownership and social capital. In institutional capitalism the power of managers is based not only on their hierarchical position within large corporations, but also on the fact that they 'represent' ownership within the network of associated firms. Additional topics considered in the course of the analysis include the forms of social control to which the economic elite is subject, the degree of internal competition and co-operation, and the stability of networks over time (circulation of the elite). The analysis shows how bureaucratic control over a company is linked with ownership of a company in the context of specific network configurations. These network configurations vary between countries and lead to differing forms of managerial control within institutional capitalism.

Key words: Britain, capitalism, elite, Germany, managers, networks.

The Economic Elite

Markets, competition and ownership are among the most important economic institutions which have been developed in every modern capitalist country (Williamson 1985). However, both the historical evolution from the end of the last century to the present and cross-country comparisons show that capitalism is not monolithic, but exists in various forms (Scott 1997:16): the family capitalism of the nineteenth century differs from present-day institutional capitalism (Chandler 1990), and Japanese capitalism is rather different from the capitalist social systems found in Western Europe (Gerlach 1992). Following the collapse of socialism, this diversity is set to increase further and to be enriched with post-socialist variants (Stark 1996).

Markets and ownership are abstract regulatory media (Parsons 1978:393) which perform their function only within the framework of concrete institutions. These institutions vary according to the cultural and political context in which they are embedded (Granovetter 1985). An ensemble of institutions specialised in regulating the economic system will be termed here the 'social organisation of the economic elite'. These institutions include, among others, large corporations and their internal governance structure, employers' federations and the various forms of ownership. Ownership may be concentrated within a family, distributed among thousands of small shareholders or in the hands of institutional investors. The different forms of ownership are matched by different opportunities for the owners to exert influence and control. Economic institutions change over time and vary between countries whose political and cultural traditions differ (Fligstein 1995:502). The social organisation of elites varies accordingly.

This study considers the social organisation of the economic elite in Germany and Britain. Specifically, the analysis focuses on the internal structure of this social group, which is termed an 'elite network' (Stokman *et al.* 1985; Bearden and Mintz 1987). The resources on which the dominance of the economic elite is based are bureaucratic power, ownership and social capital. In institutional capitalism the power of managers is based not only on their hierarchical position within large corporations, but also on the fact that they 'represent' ownership within the network of associated firms (Windolf 1994). The economic elite is defined here not only by its relationship[1] to the means of production, or with respect to its technocratic competence or its social capital (networks), but rather by the specific combination of *all* the relevant resources (Bourdieu 1984:106).

Economic, cultural and social capital are resources that are available in specific institutional forms and that can be accumulated and, under certain conditions, converted.[2] For instance, economic capital can be converted into cultural capital, as is illustrated by the cultural patronage practised by large companies. What is important in this context is to show how *bureaucratic control* over a company is linked with *ownership* of a company in the context of specific *network configurations*. These network configurations vary between countries and lead to differing forms of managerial control within institutional capitalism.

Institutional Capitalism

Since the mid-1970s a steady expansion of the market for corporate control, on which entire firms or divisions of firms are bought and sold, has occurred. The commodity-producing firm has itself become a commodity. Such transactions have significant implications for the social organisation of the economic elite: they are summarised immediately below. Specifically, the changes affect the *type* of owner, the *concentration* of ownership and the potential *liquidity* of property.

(1) Buyers and sellers in the market for corporate control consist largely of firms. The price of an entire firm generally exceeds the financial capacity even of families belonging to the upper class. In institutional capitalism it is *firms* that own other firms, and these 'owners', in turn, are frequently the property of other companies. In this way networks of firms are created that are linked by ownership and interlocking directorial boards (Scott 1990). These networks constitute the institutional

framework for economic power and form part of the social organisation of the economic elite that is the object of this study.

(2) In managerial capitalism the power of managers rests on the wide distribution of ownership. Thousands of small shareholders, scarcely able to co-ordinate their interests, stand face to face with a small group of managers with a monopoly on information. The market for corporate control leads to a *reconcentration* of ownership and thus increases the power of owners *vis-à-vis* managers (Useem 1996). In contrast to small shareholders, firms have a strategic interest in their ownership and are in a position to pursue this interest. The managers of the dominant company can act as if they were in fact 'owners' towards the managers of the dependent company. When a company is sold it gains a new owner who is not tied to 'implicit contracts' (Shleifer and Summers 1988) with the existing management and workforce. Such constellations are encountered more and more frequently and are becoming a central characteristic of an economic system in which firms are no longer organised as large-scale bureaucracies, but as corporate networks.

Scott (1997:41) argues that 'the growth of corporate and institutional shareholdings is the basis of a transition from indirect personal possession to impersonal possession'. Institutional investors who are the dominant owners of large corporations in the United States and in Britain jointly constitute a 'constellation of interest' which constrains the actions of managers. Even if there is 'no group cohesion among the controlling shareholders' (Scott 1997:49) they can informally co-ordinate their actions whenever managers ignore their interests or violate their rights. Thus, the reconcentration of ownership (and the growing power of owners) seems to be a common characteristic of the transformations of capitalism in many industrialised countries – notwithstanding structural and institutional differences which are discussed in more detail below.

(3) On the market for corporate control fixed capital becomes *liquid* once more. 'Sunk costs' – the money invested in real estate, machines and equipment – can be liquidated at relatively short notice on the market. The faster this market expands, the quicker each firm finds a buyer. The acquisition and sale of firms make networks flexible, enabling them to contract or expand quickly in response to changing market conditions. The market for corporate control has become an important instrument of control over the internal bureaucracy. The owners, that is the managers of the dominant firm, can threaten dependent firms that they will terminate their membership of the network or split them up into separate units and sell them to various owners. The external 'borders' of companies organised as a network of semi-autonomous

firms can be changed at will by virtue of this buying and selling option.[3] In the following sections the exertion of power mediated by this new organisational form and wielded by those dominating a network of associated firms is analysed in more detail.

The new organisational forms have brought about a change in managerial control with respect both to the resources on which the power of managers is based and to the legitimacy of this power (Scott 1996). The separation of ownership and control has been replaced in key areas of the economy by a link between ownership and control. Managers have supplemented their bureaucratic power with the power of ownership. Internally they legitimise their power through their hierarchical position within the bureaucracy; for the dependent firms they represent the owners, legitimising their power in this case by virtue of their ownership rights. Managers are not literally 'owners', but they control the organisation that is the owner in the legal sense. The bureaucratic control over the dominant firm is linked with ownership of the dependent firm and it is this *link* that is characteristic of the dominance of managers in institutional capitalism.

Thus managers base their dominance on a number of different resources and on various forms of legitimation, including bureaucratic power, ownership and social capital. It is the combination of these various resources that enables managers to underpin their position of power. The following hypotheses show more precisely how different resources are combined: executive and controlling functions on the Board of Directors (1); managerial and ownership functions within the capital networks (2); and bureaucratic power and social capital within the networks of interlocking directorates (3 and 4).

Hypothesis 1: The institutional structure of German and British firms differs ('board of directors' in Britain; management board (*Vorstand*) and supervisory board (*Aufsichtsrat*) in Germany).[4] Thus it is to be expected that the structures of control will also vary between the two countries. Specifically, a clearer separation between non-executive (supervisory) and executive functions is to be expected in German firms, whereas in Britain both functions are likely to be performed by one and the same person. The combination of executive and controlling functions gives more power to managers than they have in a system where these functions are separated and embodied in different institutions.

Hypothesis 2: Germany is characterised by a relatively high concentration of ownership (combine structure), whereas the ownership structure in Britain is fragmented (institutional owners).[5] It is to be expected that in Germany managers will frequently combine executive functions with ownership functions, whereas this combination will be encountered less frequently in Britain. The differences underline the fact that institutional capitalism is not a monolithic entity, but exists in numerous variants in different countries.[6]

Hypothesis 3: Elite networks serve to promote social integration and to consolidate positions of power (Useem 1984). Given its corporatist tradition (*Gemeinschaft*) it is to be expected that in Germany the network of multiple directors will be both relatively diffuse and comprehensive and that all members of the economic elite will be integrated into a single network. In the light of its liberal tradition ('a market economy'), it is expected that in Britain the members of the elite are in competition with one another, and that there is evidence of separate 'social circles' (pluralism).

Hypothesis 4: Networks are social institutions that offer their members both protection and opportunities on the market. The denser the network the more stable it is over time and the longer its members can maintain their position in the network. Because of the higher density of the German network we expect it to be more stable over time than that of the British elite.

The following section describes the database for the subsequent analysis. In the ensuing sections the four hypotheses are discussed.

The Sample

The point of departure for the empirical survey is a list of the 694 largest firms in (West) Germany and the 520 largest firms in the United Kingdom. For the German firms each member of the management and supervisory boards was identified (N=8,952). For the British firms all the members of the boards of directors were listed (N=4,599), and a distinction was drawn between executive and non-executive directors. The executive directors are roughly equivalent to the German management board (*Vorstand*) and the non-executive managers can, with certain reservations, be compared with the members of the supervisory boards (*Aufsichtsrat*). The German managers hold a total of 11,866 positions in the network of large firms, British managers 5,258. The distribution of the managers across the positions indicates that in Germany 83.1 per cent of managers held just one position and 3.4 per cent (N=308) more than four positions. A comparison of the distributions of persons across positions reveals that on average German managers hold more positions than their British counterparts, so that the German elite network is more tightly woven than the British (see Table 1).

It is assumed here that the managers with the greatest number of high-ranking positions in the large firms form the 'core' of the economic elite. Such

Table 1
Managers and Their Positions in the Elite Network 1992–93

Number of positions	Germany (%)	Britain (%)
1	83.1	89.7
2	10.4	7.5
3	3.1	2.0
4+	3.4	0.8
Total of managers	8,952	4,599
Total of positions	11,866	5,258
Total of companies	694	520

persons are not merely a member of a board of a leading corporation, but by virtue of their seat on a number of supervisory boards can also exert an influence on decisions in other large firms. Because they have not just one, but several positions in institutions of corporate leadership they collectively constitute a 'network' that can be used to exchange information, as a means of control or co-optation, or to manage resource dependencies (Koenig *et al.* 1979).

For the purposes of this study the elite network is defined as follows. In Britain all managers holding three or more positions and half of those occupying two positions in the network were included in the analysis (N=302 multiple directors). In Germany managers holding four or more positions were selected for the network analysis (N=308). For the German and for the British managers an adjacency matrix was drawn up into which all the formal relations held by these managers with each other were entered. These include the different boards in which the managers from the various companies regularly meet.

The data were drawn from various handbooks[7] and refer to 1992–93. Because managers clearly change their positions, a number of the positions will no longer be held by the managers indicated here at the time of publication (1998). This is true, for example, of the relationships portrayed in Figure 1 (see p. 330). No attempt has been made to bring the data up to date, as it is structures and not individuals that are the object of this analysis. Structures remain relatively stable while individuals come and go.

Interdependent Relationships (Hypothesis 1)

Even prior to the First World War German legislation stipulated that executive and supervisory boards were to be separated in all joint stock companies. This institutional structure provides for a clear functional division between the management board (*Vorstand*) and the supervisory board (*Aufsichtsrat*). The *Vorstand* is the executive board, the *Aufsichtsrat* the supervisory board; those managing the firm may not exercise a supervisory function, and those responsible for supervision may not manage the firm.[8]

In Britain, as in the United States, there is no institutional division on these lines within large companies, merely a differentiation between roles: executive and supervisory managers sit together on one board of directors. The supervisory directors may originate from the firm itself (internal directors) or be recruited externally (external directors).[9] Internal directors face conflicts of loyalty in situations in which they are to supervise the activities of executive managers who are their superiors in the corporate hierarchy. Such cases lead to a dual – executive and supervisory – responsibility in the hands of one person. According to Hill (1995:253):

> Several non-executives and chief executives commented on the awkwardness of having both chief executives and other executives on the board. In terms of the managerial hierarchy, the other executives were the chief's subordinate, but as directors they sat in judgement on his actions and two chief executives disliked this confusion of the line of command.

In Germany the institutional structure of corporate governance to some extent mirrors the division of powers within the political system. Firms are large-scale bureaucracies that are run by managers (agents), who pursue interests that differ from those of the owners (principals), and whose activities are to be monitored by independent experts. It is therefore to be expected that a division of labour would develop within the German network between executive and non-executive (supervisory) managers: one group would thus be largely active on management boards, the other group performs the supervisory function as professional members of supervisory boards.

Characteristic of the group of multiple directors studied here, however, is not the division of labour, but functional fusion ('personal union'): most managers occupy positions on both management and supervisory boards (are executive and non-executive directors), a phenomenon that applies to both Germany and Britain irrespective of the different institutional structures. Table 2 shows how even in the German system with its separation of supervisory and executive boards, there is little sign of specialisation. Almost half (48.3 per cent) of the managers holding two or more positions in the elite network are members of both a management and a supervisory board (in different firms). Thus Hypothesis 1 cannot be confirmed.

Against this finding it can be objected that a clear division of functions does prevail among those managers who were *not* included in Table 2, namely those managers - around 7,440 in Germany - holding only one position within the network and who are thus self-evidently either executive or non-executive

Table 2
Combination of Executive and Supervisory Functions

Position in company	Germany (%)	Britain (%)
Executive and non-executive	48.3	53.4
Only executive	13.8	16.1
Only non-executive	24.6	30.5
Only non-executive, but former executive*	13.3	†
Total	100	100
N	1,118	474

Note: Table 2 has been computed on the basis of *all* multiple directors.
* 148 German managers (=13.3%) are only members of supervisory boards (non-executive), but they had been executive managers earlier in their professional career; on reaching retirement age, they were elected onto the supervisory board of 'their' company. † For Britain comparable data are not available.

managers, but not both. Although at first sight this argument appears convincing, it is not conclusive counter-evidence. The boundaries of a network are defined arbitrarily by delimiting a sample (such as the 694 largest firms). The survey method means that the network comes to an end at some point (Doreian and Woodard 1994). Consequently we cannot know whether these 7,440 managers also hold additional executive and non-executive positions in smaller firms not examined here. And even if this is not the case, it is evident that the most influential directors holding positions in the largest and most reputable firms perform both functions simultaneously (albeit in different firms). Generally those holding more than one position within the elite network perform both executive and supervisory functions.

Thus the fusion of functions that is forbidden in Germany at the level of the individual firm occurs in spite of this ban at the level of the network as a whole. The top managers of large firms are executive directors of their firm and members of the supervisory board of another. The supervisory board elects the members of the management board, but the supervisory board is composed to a greater or lesser extent of management board members of other large companies. As a collective the multiple directors hold executive powers and at the same time are responsible for supervising this power.[10] At the level of the network as a whole it is no longer possible to distinguish between executive and non-executive managers. Most multiple directors are electors and are elected, are supervisors and are supervised, and, as we will see in the next section, in Germany they are owners and at the same time are subject to owner control.

Discussions are under way in a number of countries on whether changes in institutional structures would enable executive managers to be subject to closer supervision. In the United States, for instance, it has been proposed that the supervisory function should primarily be performed by independent *external* directors.[11] In Germany all the supervisory directors are *de facto* external directors, but Table 2 illustrates that at the collective (network) level it is, nevertheless, not the division of labour but functional fusion that predominates. This recombination of functions at the network level can be explained in at least two ways, and these explanations are not mutually exclusive, but rather complement one another.

Firstly, like the division of powers within the political system, the distinction between supervisory and executive functions in the economic system faces two problems: informational asymmetry and the lack of professional specialisation. Independent supervisors recruited from other social systems (such as politics, the universities or the cultural establishment) lack the information on a particular company which is necessary to supervise it adequately; in this respect they are at a disadvantage compared with internal management. Thus the fact that in both Germany and Britain (and the United States) supervisors are recruited largely from within the network of executive managers can be explained with reference to the need to guarantee a minimum of information and professional competence.

A second explanatory approach emphasises the hegemonic aspect: networks are instruments by means of which the position of the dominant elites are to be maintained. The network of multiple directors serves to integrate and homogenise the managerial class and to stabilise their economic power. The link between the executive and the supervisory function closes the network to external competition and prevents the economic elite being subjected to external control.[12]

Managers as owners (Hypothesis 2)

Most of the large firms in Germany and Britain are owned not by families or individuals, but by other firms. More precisely: firms are controlled by managers who represent the owners. In the following 'managers as owners' is used as an abbreviation for the fact that the leading managers of the dominant firm represent the owners and perform their supervisory function. Once a manager has attained a dominant position in a company that owns another firm, this position offers the opportunity to exert power not merely within the first company; this manager can act as if he or she 'owned' the second company, supplementing bureaucratic power with the power of ownership.

Of the 308 managers in Germany belonging to the 'inner circle' of the economic elite 139 of them occupy a position on the supervisory board of another company in which the corporation in which they are executive director holds an equity stake. In other words, around 45 per cent of the multiple directors are executive managers of Firm A and on the supervisory board of Firm B (and Firm C) in which Firm A also holds an equity stake. Firms B and C are themselves among the 694 largest companies in Germany. Within the network of leading German companies there are a total of 396 relationships in which an executive manager simultaneously 'represents' the owner (i.e., is on the supervisory board).[13] In 96 per cent of these cases the equity stake amounts to more than 10 per cent. A total of 942 executive mangers were counted in the dependent companies, of which 110 (12 per cent) belong to the group of 308 multiple directors. The 308 multiple directors are not merely simultaneously executive and non-executive directors, some of them have also assumed the function of owner, and a further sub-group is subject to owner control. These interrelationships are illustrated in Figure 1.

R. Schmitz is a member of the management board (MB) of Deutsche Bank and at the same time chairman of the supervisory board (Chair) of Metallgesellschaft. By virtue of the fact that Deutsche Bank owns 10.8 per cent of the share capital of Metallgesellschaft, Schmitz represents on the supervisory board the interests of the largest shareholder and the interests of the creditor.[14] H. Schimmelbusch is chief executive officer (CEO) of Metallgesellschaft and the chairman of the supervisory board of Kolbenschmidt AG and represents in this firm the owner interest at a

Figure 1
Managers as Owners

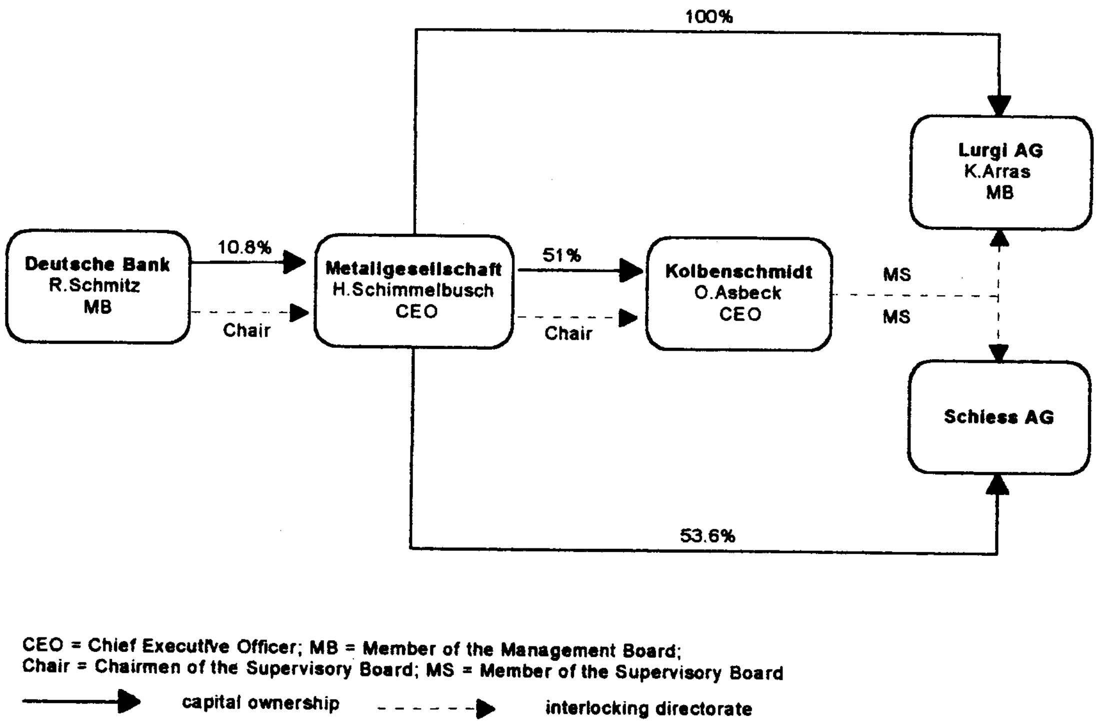
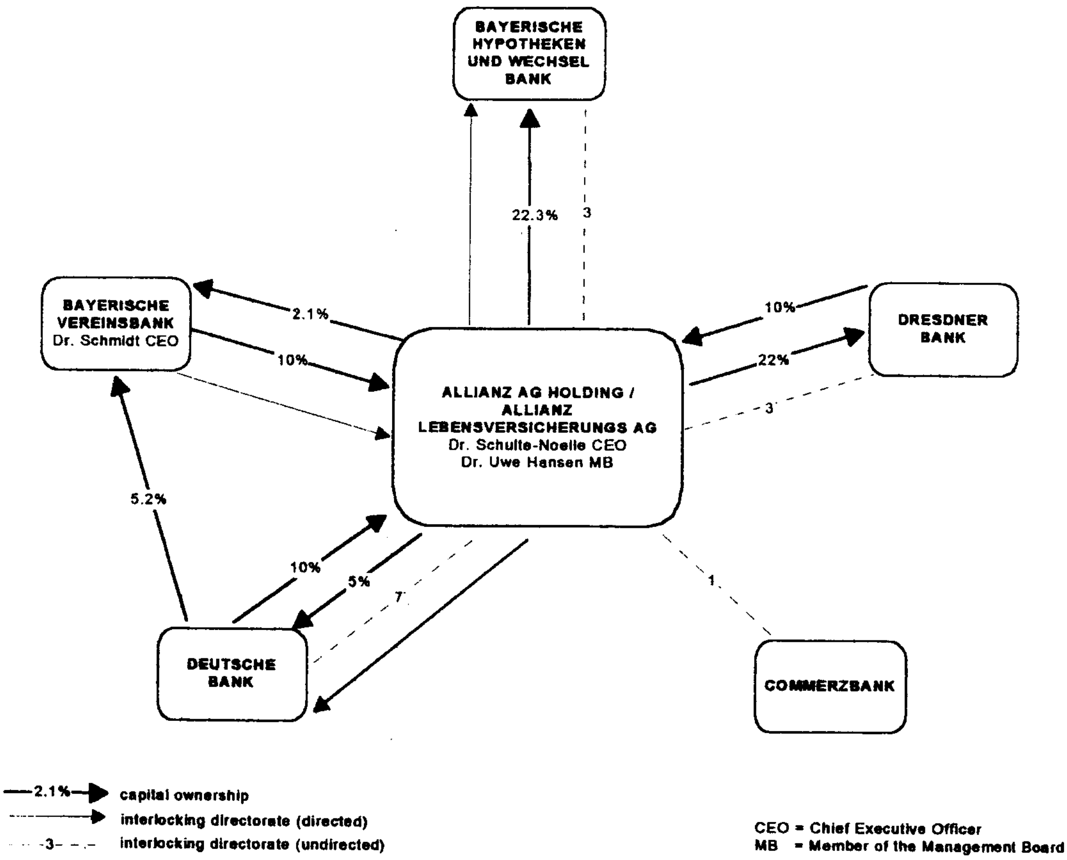


Figure 2
The Core of the German Finance Sector



subordinate level in the chain of control depicted in Figure 1. Schimmelbusch supervises the management board of Kolbenschmidt AG and, as the representative of the owner, he decides whether the shareholding (51 per cent) in Kolbenschmidt AG is to be sold, retained or increased. O. Asbeck is CEO of Kolbenschmidt and on the supervisory board of Lurgi AG and Schiess AG, where he, too, represents owner interests, namely the interests of the parent company (Metallgesellschaft). K. Arras, member of the management board of Lurgi AG and 'last man' in the chain of control belongs himself to the group of 308 multiple directors: he, too, holds four positions in the network analysed here.

The network of capital participation and interlocking directorates forms a system of interdependent relations in which managers supervise and are supervised, are owners and are controlled by other owners. Some managers are located at the end of the chain of control in one segment, but are at the head of the chain in another segment of the network. It is only those managers who are integrated within this network who can maintain their position of power in the longer term. The network forms a social institution that underpins the hegemony of the economic elite and opens up specific power opportunities to the managers involved.

Whereas Figure 1 illustrates the hierarchical structure of control and ownership relationships in a multi-layered German corporation, Figure 2 portrays the structure of interlocking relationships between the six largest (private) German financial institutes. This network can be described as follows: most of the leading banks are not directly linked, but all five banks are linked to the Allianz insurance company through both personal and capital linkages; the Commerzbank is the one exception here in which the link is purely personal. The Allianz forms the centre of a 'star' on which the banks are dependent, but on which they can also exert an influence (through reciprocal shareholdings).

Although it is not possible to draw direct conclusions regarding strategy from structures, it is extremely unlikely that the structural pattern shown in Figure 2 emerged 'coincidentally': it is to be assumed that mutual co-ordination of capital stakes and the distribution of board positions has occurred, a co-ordination based on three principles: firstly, the Allianz largely protects four leading German banks from external influence (such as hostile takeovers); secondly, the banks themselves gain influence on the 'centre' in the form of positions on the supervisory board and reciprocal shareholdings; thirdly, no one firm in this 'star' can dominate another. A further striking feature is that some personal interlocking is redundant (Burt 1992:21): there are a total of seven managers with positions on the supervisory boards of both Deutsche Bank and Allianz Insurance (two of whom are employee representatives).[15] Germany's financial centre has a network configuration similar to the Japanese *keiretsu* group. From a strategic point of view the pattern of mutual control can also be interpreted as 'exchange of hostages' (Williamson 1985:167).

As has already been shown, due to often parallel capital and personal interlocking, there are a total of 396 relationships within the German network in which an executive manager represents the owner on the supervisory board of the dependent firm. There are only twenty such relationships in the British network. Reciprocal relationships such as those illustrated in Figure 2 are entirely absent in the British system. On this point the researcher can merely conclude that network configurations that in Germany can be interpreted as hierarchical power relationships (Figure 1) or as mutual control (Figure 2) cannot be observed in the British system. The British network is rather diffuse and, as will be shown in the next section, is focused on the financial sector. The parallel system of capital stakes and interlocking directorships only occurs in situations where ownership is highly concentrated. Such a strategy is difficult to bring about in countries in which the structure of ownership is fragmented. This serves to confirm Hypothesis 2.

Social Circles (Hypothesis 3)

The multiple directors constitute a social network in which supervisors and the supervised are mutually linked at the collective level and in which the bureaucratic power of managers is linked with the power of ownership (in Germany). In this section we will consider the question of whether the managers form a network in which each individual is connected with every other individual, or whether there are a number of separate cliques which, to take up a term coined by Simmel (1908), can be termed 'social circles'.

A social circle is defined as an informal social group which does not keep a list of members, which lacks formal (written) rules, and hierarchical structures or leaders. A social circle and its delineations are defined by the mutual relationships between its members. Individuals bound by close social relationships constitute a social circle, while those without contacts to these persons do not belong to the circle (Kadushin 1966; Alba and Moore 1978).

Useem (1984) has postulated that multiple directors holding leading positions in several firms transcend the narrow horizons of firm-specific interests and represent the collective interests of large corporations as a whole. Due to the competing obligations placed upon them by their multiple boardships, they are forced to pursue 'global' interests shared by many large firms. If this hypothesis is correct we would expect the network of multiple directors to form a single large 'circle', the structure of which is relatively diffuse. The connections would not be restricted to separate groups of managers or corporate groups, but would be relatively open and unstructured and would encompass more or less all managers. In Germany the trend to comprehensive social circles is reinforced by traditions of corporatism and 'controlled competition' (Nörr 1995).

An alternative hypothesis, one postulating a number of separate social circles can point to the following line of argument. The managers of the large corporations are subject to tough competition on the market for corporate control, irrespective of whether or not they produce competing products (Fligstein 1990). During recent decades the expansion of large corporate groups has been achieved largely by external growth, i.e., by acquiring firms on the market for corporate control. Only those companies that are in a position to acquire other firms and thus to accelerate their own expansion have the chance of becoming and remaining one of the one or two hundred largest corporations in a country. These objective competitive relations between firms influence the structure of the elite network, splitting it up into social circles, the relationships between which are competitive in nature. In view of its liberal 'market tradition' it is expected that this network configuration predominates in Britain. In the following these hypotheses will be examined in the light of the empirical data.

A matrix was drawn up for the 308 multiple directors into which all the relationships were entered which these persons had with one another on the basis of their joint membership on the boards (*Vorstand* and *Aufsichtsrat*) of the 694 largest German firms. A similar matrix was drawn up for the 302 British multiple directors. A number of statistical procedures were tested in order to identify separate social circles (cliques) within these matrices:[16] block model analysis, clique analysis, cluster analysis and factor analysis. Two criteria are decisive in evaluating the results: the density of the relationships *within* a group should be as a high as possible, the density of the relationships *between* the groups should be as low as possible. The various procedures generated similar results. Tables 3 and 4 present the results of the factor analysis, as it was this that met the two criteria most closely.

From the matrix of German managers twenty factors were extracted which are interpreted here as 'social circles' (see Table 3). The density of relationship (path length 1) within these circles varies between 0.97 (DBV Holding) and 0.37 (Daimler-Benz/RWE; see column 3). The relationships between the circles is described in Table A1 in the Appendix. The highest densities between two circles are 0.22 (circle 2 with circle 17) and 0.20 (circle 3 with circle 10).

The core of a circle is often formed by a single corporate group (Daimler-Benz, Thyssen, RWE etc.), which is then used as the name of the circle. The twenty-one managers (column 1) assigned to social circle no. 2 (Daimler-Benz) hold a total of 120 positions (column 2); each member occupies 5.7 positions on average. Of these 120 positions 71.6 per cent are held within the Daimler-Benz combine itself (column 5), whereby the combine includes any firm in which the Daimler-Benz Holding has a stake of at least 50.1 per cent. The periphery of the circle consists of managers from a large number of other firms who occupy positions on supervisory boards alongside managers from Daimler-Benz. Of the 120 positions 17.5 per cent are on management boards, 82.5 per cent on supervisory boards (columns 7 and 8).

The social circle 'Deutsche Bank/Siemens' consists of twenty-four managers in all, who together occupy 148 positions in the elite network (an average of 6.2 positions). Of these 148 positions, however, just 11 per cent are in firms belonging to the Deutsche Bank combine (column 5); the remainder are held in other firms. Eleven positions (7.6 per cent) are held in the Siemens combine (combine II, column 6).

These two examples illustrate the fact that the social circles within the elite network are structured in different ways. Two types of social circle can be distinguished:

(1) *Integration networks:* In the 'Daimler-Benz' social circle (and in other circles exhibiting a high percentage value in column 5), a large proportion of the positions are held within the combine itself. Moreover, the interrelationships within these circles tend to be very dense (for example, density in the Daimler-Benz circle 0.94; Metallgesellschaft 0.91; see column 3). The high density means that within these

Table 3
Social Circles of Managers in Germany

Social circle	(1) Dir	(2) Posit	(3) Density P1	(4) Density P2	(5) Combine I %	(6) Combine II %	(7) Exec %	(8) Super %	(9) Var %	(10) 1978
1 DBV-Holding*	12	70	0.97	0.03	95.7	—	74.3	25.7	5.1	6
2 Daimler Benz	21	120	0.94	0.06	71.6	—	17.5	82.5	5.7	5
3 Metallges./Allianz*	11	61	0.91	0.09	65.5	9.8	21.3	78.7	3.3	4
4 Thyssen	15	95	0.69	0.31	61.0	—	16.8	83.2	3.6	6
5 VEBA	15	91	0.76	0.24	57.1	—	25.3	74.7	3.9	3
6 RWE	11	81	0.80	0.20	56.7	—	17.3	82.7	2.6	2
7 Hoesch-Krupp/ABB	11	62	0.75	0.25	54.8	6.5	17.8	82.2	1.7	2
8 Dillinger Hütte/Volksf.*	8	36	0.82	0.18	50.0	11.1	25.0	75.0	1.4	0
9 Mannesmann	12	83	0.64	0.36	49.4	—	9.7	90.3	2.1	4
10 Stora/Metallgesellsch.	11	58	0.80	0.20	46.5	13.8	18.9	81.1	1.8	2
11 Ruhrkohle/Allianz*	13	78	0.53	0.47	37.1	5.1	14.1	85.9	2.1	4
12 Kaufhof (Metro)/Asko	12	53	0.56	0.38	35.8	20.8	15.1	84.9	1.5	3
13 Victoria-Vers.* /Hoechst	12	62	0.42	0.52	29.0	22.6	19.4	80.6	1.4	4
14 MAN	15	91	0.60	0.37	26.3	—	15.4	84.6	2.3	4
15 VIAG/Bayernwerk	14	79	0.51	0.47	25.3	12.7	13.9	86.1	1.5	6
16 Preussag/VW	10	56	0.84	0.16	25.0	5.4	14.3	85.7	1.6	4
17 Daimler Benz/RWE	18	100	0.37	0.38	20.0	6.0	11.0	89.0	1.9	0
18 BHF Bank*/Babcock	13	64	0.89	0.11	18.7	6.3	9.4	90.6	2.8	6
19 Dresdner B.*/ Fam. Quandt	21	122	0.54	0.40	11.4	7.4	13.2	86.8	2.2	6
20 Deutsche Bank*/Siemens	24	148	0.57	0.42	10.8	7.6	13.5	86.5	3.1	8
Total/average	279	1,610					18.3	81.7	51.5	79

*	Financial institution (bank, insurance company)
Social Circle	Name of the company/combine with most positions (core).
Dir	Number of directors in social circle (total number of directors: 279).
Posit	Number of positions which are held by directors in this social circle (total number of positions: 1,610).
Density	P1: Density in social circle of path length 1 (direct contact); P2: density of path length 2 (friends of friends).
Combine	Proportion of positions held in Combine I/Combine II.
Exec	Proportion of executive positions (positions on the management board).
Super	Proportion of non-executive positions (positions on the supervisory board).
Var	Proportion of variance explained by this factor (=social circle); total variance explained 51.5%.
1978	Number of directors who belonged to the same social circle between 1978–1982.

combine-centred circles almost every manager is in direct contact with virtually all other members.[17] These circles are inwardly oriented, their aim is integration within the group. Their structure is less suited to maintaining contacts to the external environment or to obtaining information on other firms. This does not mean that such circles consist solely of managers from the combine itself, although in such circles the number of managers from other firms is relatively small. The fact that even here the 'world outside' is not neglected is shown, among other things, by the presence within the 'Daimler-Benz' circle of two politicians from the State of Bavaria.

(2) *Cosmopolitan networks:* These networks are characterised by the fact that only a small proportion of the positions are held within the combine and by a lower internal density. In such networks managers occupying positions in a large number of firms/combines meet. They are frequently dominated by managers from the banking sector (Deutsche Bank, Dresdner Bank, etc.). The aim of these networks is to procure information, particularly that relevant to the careers of banking and finance managers. Their positions on supervisory boards provide them with insider information on firms in receipt of large-scale loans or in which the banks hold a significant equity stake.

In Table 3 the social circles (factors) have been ranked according to the number of positions held within the dominant combine (column 5). The top position on this criterion is held by DBV Holding (95.7 per cent); Deutsche Bank/Siemens brings up the rear with (10.8 per cent). The classification into integration and cosmopolitan networks is based on the two terminal points of a continuum, and Table 3 (column 5) shows clearly that the borderline between them is fluid.

The network of the British economic elite was also examined for evidence of separate social circles. The results of the factor analysis are summarised in Table 4. Comparing these results with those for the German economic elite, three central structural differences emerge. Firstly, the density within each circle is substantially lower than in Germany. This finding reflects the generally lower density of relationships within the British economic elite.[18] Secondly, the proportion of positions held within the corporate group is lower. This implies that the social circles in Britain are less centred around a single corporation, encompassing managers from different corporate groupings.[19] Thirdly, in the majority of British social circles it is a financial corporation that forms the central core; this is true of eleven of the twenty circles.

While the financial networks (cosmopolitan) in Germany and Britain are structured in similar fashion, integration network patterns do not exist in Britain. The highest percentage figure in column 5 (proportion of positions held within the dominant group) amounts to 34.6 per cent in Britain

Table 4
Social Circles of Managers in Britain

Social circle	(1) Dir	(2) Posit	(3) Density P1	(4) Density P2	(5) Firm/Group I %	(6) Firm/Group II %	(7) Exec %	(8) Non-exec. %	(9) Var %
1 Trafalgar House	9	26	0.50	0.44	34.6	—	50.0	50.0	1.7
2 BBA/Securicor Group	9	24	0.44	0.48	33.3	33.3	45.8	54.2	1.5
3 Charter Consolidated	10	25	0.42	0.49	32.0	—	20.0	80.0	1.4
4 Bank of Scotland*/ Stand. Life*	9	23	0.56	0.38	26.0	13.0	26.1	73.9	2.0
5 Legal&General*/Bowater	12	31	0.52	0.42	25.8	9.7	19.4	80.6	2.2
6 Lloyds Bank*/Boots	10	24	0.33	0.47	25.0	16.7	45.8	54.2	1.2
7 Barclays Bank*	12	34	0.48	0.44	23.5	—	20.5	79.5	2.0
8 General Accident*/ Roy.Bk.Scot.*	11	26	0.47	0.42	23.0	19.2	15.4	84.6	1.8
9 HSBC Holdings*/Sears	14	40	0.34	0.46	22.5	20.0	47.5	52.5	1.7
10 Kleinwort Benson*/ Abbey Nat.*	8	23	0.50	0.36	21.7	13.0	39.2	60.8	1.3
11 Guard. Royal Exch.*/ Hambros*	15	37	0.39	0.46	21.6	10.8	43.3	56.7	2.3
12 Nat. Westminster Bk.*/ Hanson	16	43	0.46	0.46	20.9	11.6	30.3	69.7	2.6
13 Enterprise Oil	10	26	0.40	0.49	19.2	—	34.7	65.3	1.6
14 Warburg*/United Biscuits	12	33	0.42	0.46	18.1	15.2	36.4	63.6	1.6
15 Prudential*	11	28	0.33	0.52	17.8	—	17.9	82.1	1.4
16 Inchcape/Shell Transp.	14	40	0.35	0.50	15.0	10.0	35.0	65.0	1.7
17 Rank Org./Westland Group	12	36	0.33	0.46	13.8	11.1	33.4	66.6	1.2
18 T&N	8	22	0.32	0.43	13.6	—	18.2	81.8	1.2
19 British Aerospace	14	38	0.30	0.44	13.1	—	36.8	63.2	1.2
20 Grand Metropolitan/BOC	13	34	0.31	0.48	11.7	11.8	38.2	61.8	1.5
Total/average	229	613					33.1	66.9	33.2

*	Financial institution
Social Circle	Name of the firm/group with most positions (core).
Dir	Number of directors in social circle (total number of directors 229).
Density	P1: Density in social circle of path length 1 (direct contact); P2: density of path length 2 (friends of friends).
Posit	Number of positions which are held by directors in this social circle.
Firm/group	Proportion of positions held in Firm/Group I/II (total number of positions 613).
Exec	Proportion of executive management/director positions.
Non-exec.	Proportion of non-executive director positions.
Var	Proportion of variance explained by this factor (=social circle); total variance explained 33.2%.

(Trafalgar House). In an earlier publication the author showed that the combine (*Konzern*) is a predominant mode of intercorporate relationship in Germany, but not in Britain (Windolf and Beyer 1996). These differences are reflected in the structure of the elite network.

This section concludes with a discussion of whether the structural data analysed so far offer evidence that the German or British economic elite is decomposing into competing groups. The findings presented in Tables 3 and 4 reveal at first sight an unambiguous structural pattern: the economic elite, defined here as the set of multiple directors, can be decomposed into relatively clearly delimitated social circles within which the density of interrelationships is relatively high, between which this density is rather low. This finding points to separate elite groups belonging to different corporate groupings and in competition with each other regarding the position and prestige of their respective firms. However, the structure also shows that the various social circles are not completely isolated from one another, and that reciprocal links between them exist, although the density of such links is lower. Of the total of 190 possible linkages between the twenty social circles in Germany,[20] only seventeen are not utilised (see Table A1 in the Appendix). On average virtually every circle is linked to all the others through two, not infrequently three or more people. Information exchange, control and dependency exist between the circles. It seems appropriate to term this sort of competition 'controlled competition'. The competing groups are embedded in a co-operative system that permits competition (separate circles), but which at the same time provides the institutional framework required to put forward common interests towards the outside world (linkages between the circles).

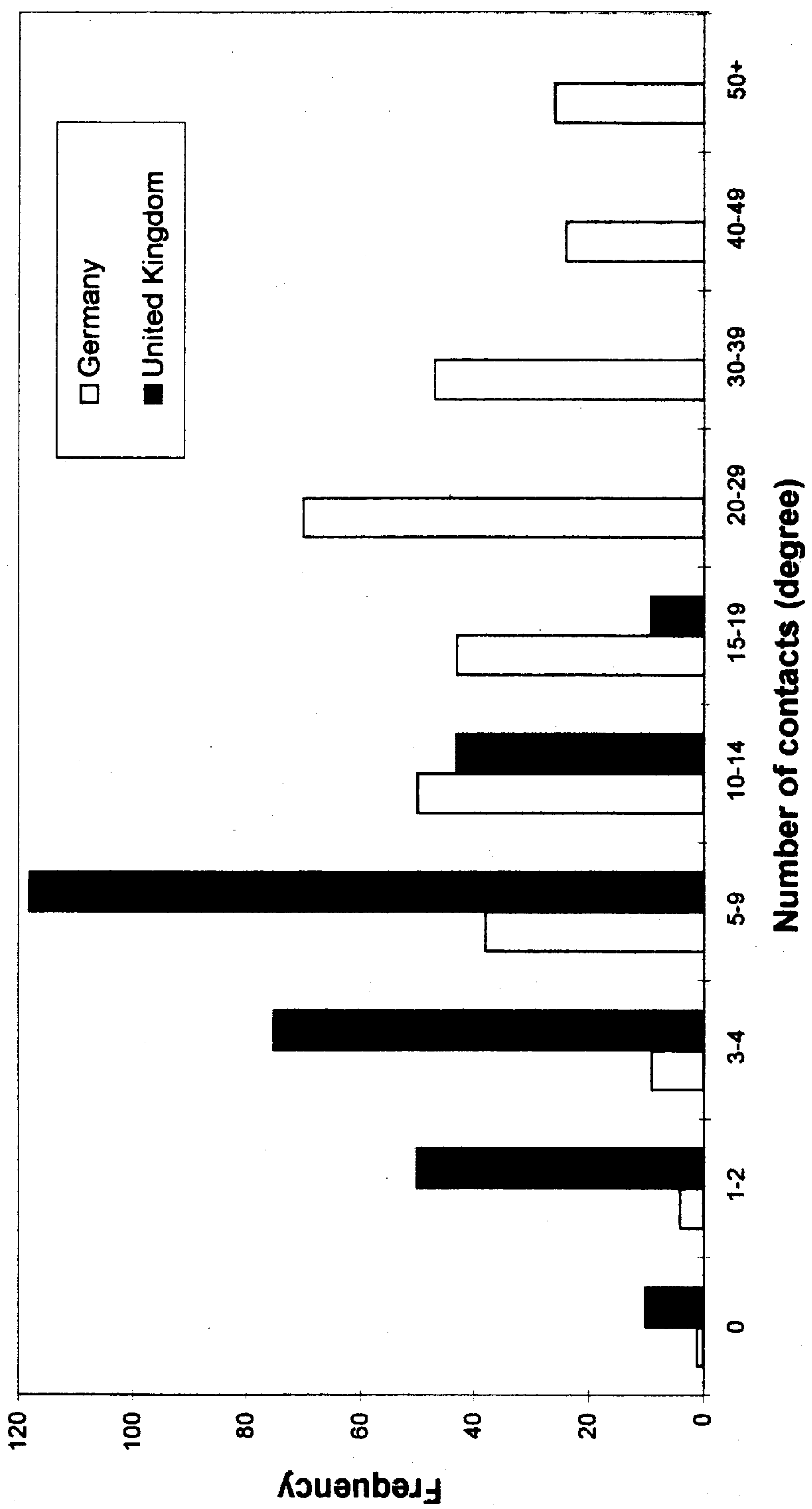
In Britain the majority of social circles are not linked to one another; of the 190 possible linkages ninety-one are not in use. Whereas in Germany virtually every competing circle is linked to all the others, most of these groups in Britain are isolated. Networks are institutionalised forms of communication, control and co-optation. The structure of the networks in Britain exemplifies the fact that the market order there is regulated to a greater extent by competition than in Germany.

The difference between the two networks is also evident in the frequency distribution of the number of contacts (see Figure 3). In Germany twenty-five managers have 50 or more,[21] in the British network the highest number is 18. This variable measures the number of multiple directors any manager meets on the different boards of which he or she is a member (marginal distribution of the adjacency matrix). German managers meet more multiple directors in the network than their British colleagues.

The Stability of Social Circles (Hypothesis 4)

The analysis of interlocking directorates presented in the previous section has

Figure 3
Frequency Distribution of Social Contacts



frequently been subject to the criticism that the 'meaning' of such relationships is unclear (Stinchcombe 1990). What does it really mean when two people over a period of one year attend between four and six supervisory board meetings together? Indeed, have they ever communicated directly with one another? Do they co-ordinate their voting behaviour on the supervisory board? Do they represent similar political interests? These and similar questions cannot be answered on the basis of the data analysed here. What we can do, however, is to determine whether two people who met regularly on a supervisory or management board in 1992–93 were linked ten years earlier through an interlocking directorate. This addresses the issue of the stability of the networks.

If the members of an elite network change rapidly (for discussion of elite circulation see Pareto 1968) or if with every change of board position the manager joins another 'social circle', there is little chance that such interlocking directorships will develop into stable social relationships. They would be more comparable to accidental encounters, the importance of which should not be overstated. If, however, it can be shown that many managers holding several positions within the elite network in 1992–93 were part of the network ten years earlier, and perhaps were even in contact with the same individuals, such interpersonal relationships could no longer be seen as merely chance meetings.

During a period of ten years numerous elections to the supervisory board (board of directors) are held in each firm, and the term of contract of all management board members has repeatedly expired. If, in spite of this, the network consists of the same individuals, this stability indicates a high degree of social integration. Even if these relationships originally derived from resource dependencies between firms, it seems plausible to assume that over such a long period they would be transformed into social relations which have reinforced the integration and normative homogeneity of the social group.

Once again the starting point for the analysis is the set of members of the economic elite holding several positions in the 1992–93 network (308 German managers; 302 British managers, see Table 1 above). For these individuals a list was made of all the positions (management and/or supervisory board) occupied between 1978 and 1982 using the handbooks available for these years.[22] Subsequently a matrix was drawn up into which all the relationships between these persons (by virtue of their position as management or board members) during the period 1978–82 were listed. This matrix was again analysed with the help of factor analysis in order to determine which social circles existed a decade ago, and the extent to which they overlap with the social circles identified in 1992–93.

In the following analysis a distinction is drawn between two types of 'stability': the stability of positions and the stability of relationships (dyads). We can first ask whether a manager held a position on the boards of one of the 694 largest firms in Germany ten years ago (or earlier). If this is the case, it is

Table 5
Stability of positions: Germany and Britain

	Germany (%)	Britain (%)
Combine stability	59.1	
Stability of position	14.7	43.1†
Employee representatives	4.3	—
Lower level position*	5.9	—
No information	16.0	56.9
	100	100

Germany N=308; Britain N=302.
* These German managers had been working in 1978–82 in the same combine or in a company which belongs to the 694 largest ones in Germany, but on a lower hierarchical level, i.e. they did not yet have a position on the management/supervisory board. For Britain this distinction was not made because appropriate data are not available.
† For British managers no distinction was made between 'combine stability' and 'stability of position'. Among the 308 German multiple directors there are 13 (=4.3%) who hold four or more positions as employee representatives on supervisory boards (German system of co-determination). These representatives are not analysed here.

an example of 'stability of position'; if, in addition, this position is within the same combine, it is termed 'combine stability' (Table 5). The stability of relationships cannot be calculated at the individual level as an individual may have many relationships of which some are stable and others not. Consequently such stability is calculated on the basis of dyads: the question addressed here is what proportion of the dyads making up the elite network in 1992–93 were in existence ten years ago (or earlier) (Table 6).

We begin with the analysis of positional stability as this is a precondition for stable dyads. Managers who did not occupy a position on a management/supervisory board (Germany) or board of directors (Britain) ten years ago do not belong to the elite network and were not included in the matrix for 1978–82. Relationships, as defined here, exist only by virtue of board membership of the 694 (520) largest firms in Germany (Britain).

As can be seen from Table 5 almost 60 per cent of all German managers held a board position ten years ago in the combine in which they held these positions in 1992–93 (combine stability). Almost 15 per cent of the managers were on a management or supervisory board ten years ago, although in a different large corporation from that in which they held the position in 1992–93 (positional stability). Thus a total of 73.8 per cent of the German managers held a management or supervisory board position ten years ago, either in the same combine or in another large firm. For British managers no distinction between the two types of stability was made because the combine is not a dominant network structure in Britain. Of the 302 British managers 43.1 per cent were members of the board of directors in one of the 520 largest firms in 1978–82. Thus the stability of managers within the network of the largest British firms is considerably lower compared to Germany (73.8 per cent).

An age-shift effect must be taken into account in evaluating this figure. In 1992–93 around 7 per cent of the managers were aged less than 50; ten years earlier, they were therefore under 40. Yet it is only seldom that managers join management or supervisory boards of large corporations before the age of 40. The youngest cohort of the managers could not belong to the elite network in 1978–82 simply because they were too young at the time. If this cohort is subtracted from the group of multiple directors (308−22), a total of 286 managers could potentially have belonged to the elite network ten years earlier. Of these 227 or about 79 per cent were stable. Similar considerations apply to the younger cohorts of British managers.

Thus as a preliminary result one is forced to the conclusion that in Germany the members of the economic elite attain their leading positions (on management or supervisory boards) at an average age of around 45, where they then remain for a relatively long period, as a rule until retiring from an active managerial function (management board). This does not mean that the same position is held throughout, but merely that a manager obtaining a position on the management or supervisory board of one of the 694 largest German firms is very likely to be occupying a leading position of this type in one of these firms ten years later. This stability is considerably lower in Britain. Table 5 shows that 'combine stability' explains most of the overall stability of the German management and this specific network structure is less important in Britain.

Though the financial press frequently reports that managers or chairmen of supervisory boards were 'fired' this is only the first part of the 'story'. The way in which such a career then continues is not usually reported on. On many occasions board members lose their position in a large corporation – for whatever reasons – and within just a few months they join the board of another large corporation, a move mediated by networks which we have described elsewhere as the 'extended internal labour market' (Windolf and Wood 1988). Table 5 shows that this is far from an exceptional case, but rather the rule.

Let us now consider the stability of dyads. The German elite network of 1992–93 consisted of a total of 3,690 dyads (897 in Britain); in other words, between the 308 managers constituting the network there are a total of 3,690 relationships (about twelve relationships per manager). The density of this network is 7.8 per cent (2.0 per cent in Britain). The German elite network of 1978–82 consists of a total of 1,481 dyads (203 dyads in Britain); this means

Table 6
Stability of dyads

	1992–93		1978–82	
	Germany	Britain	Germany	Britain
Dyads	3,690	897	1,481	203
Density	7.8%	2.0%	3.1%	0.4%
Average/manager	12	3.0	4.8	0.7
	1978–1993			
Stable dyads	667	32		
Average/manager	2.2	0.1		

Germany N=308; Britain N=302.

that between the same 308 managers a total of 1,481 relationships existed back in 1978–82 (about 4.8 relationships per manager). The density of the 1978–82 network was 3.1 per cent (0.4 per cent in Britain). The lower panel of Table 6 shows the stable dyads, i.e., those dyads that existed in 1992–93 and in 1978–82. The difference between Germany and Britain can be seen in the following relationship: In Germany 3,690 dyads existed in 1992–93 of which 667 could be identified in 1978–82 (18 per cent); there existed 897 dyads in Britain in 1992–93 of which only thirty-two could be identified in 1978–82 (3.6 per cent). Of the twelve relationships held on average by each German manager in 1992–93 2.2 dated back ten years (or longer). The respective figures for Britain are three and 0.1.

A summary interpretation of these results, one that clearly holds only at the average level, runs as follows: each of the 308 German managers making up the 1992–93 network was linked with twelve other managers from this group.[23] On average he/she has known somewhat more than two of these twelve managers for more than ten years. This interpretation can be taken a stage further: in the period 1978–82 a total of 1,481 dyads were registered; 667 of them remained stable. The remaining dyads (814) constitute a *virtual* network, consisting of 'distant' acquaintances (Wegener 1987) that a manager met some time back on a management or supervisory board (2.6 per manager). Contact can be re-established with some of these if the need arises. The virtual network raises the density of the interrelationships of the current (1992–93) network. There is only a small 'virtual' network among the British managers.[24]

In the same way as the 1992–93 matrix, the 1978–82 matrix of interrelationships was examined with the help of factor analysis in order to identify 'social circles'. Once again twenty factors were extracted. As can be seen from

Table 3 a total of seventy-nine managers belonged to the corresponding circles back in 1978–82 (column 10). For instance, of the twenty-one managers assigned to the 'Daimler-Benz' social circle in 1992–93, five managers belonged to it back in 1978–82. On average 28 per cent of the managers had been in the same social circle ten years earlier.

For Britain we were not able to identify 'stable' social circles because of the small proportion of dyads that remained stable over a ten-year period. Of the 302 British managers in the sample only eighty-six could be identified as having met at least one of their colleagues on the board of directors during the period 1978–82.[25] Table A2 in the Appendix shows that British managers belonged to different social circles in 1993 and in 1978–82. For instance, of the seven managers who were assigned to social circle 1 in 1978–82, two managers belonged to social circle 4 in 1992–93, one manager to circle 5, two managers to circle 6, etc. In other words, membership in a particular social circle in 1978–82 has no significant influence on the assignment to a particular social circle in 1992–93.

We started out with the hypothesis that dense networks are stable over time and that they offer their members both protection and job opportunities on the labour market. This hypothesis could be confirmed by a comparison of networks among managers in Germany and Britain. There seems to be a relationship between the density and the stability of networks. The higher the density of networks the more stable they are over time (*ceteris paribus*).

Conclusions

The 'classical' model of managerial control, formulated by Berle and Means back in the 1930s and since refined (Herman 1981), is based on the assumption that managers have been able largely to free themselves from external control. Neither owners, nor their peers nor the market can exert effective control over managers, who in advanced industrialised societies have taken over the function of economic elite from owners. The owners (shareholders) are unable to exert effective control due to their large number (separation of ownership and control), and the 'peers' are frequently dependent on precisely those managers they are supposed to be supervising. Under such conditions managers can become 'agents without principals' (Davis 1991), able to create huge business empires largely without hindrance.

What then are the differences between the new forms of control and ownership in institutional capitalism and the classical model of managerial control? In comparing the two it should be borne in mind that the differences are due to two causes: on the one hand, social changes that have transformed the structures of economic power during the past twenty years and, on the other, national variations rooted in cultural differences and different historical experiences.

(1) Control through ownership: In institutional capitalism it is no longer individuals or families that own companies, but rather other companies. This transfer of ownership has served to reconcentrate ownership and has thus increased and expanded the influence of owners. But the owners are the large firms that are controlled by managers. Many, although not all, managers have supplemented their bureaucratic power with the power of ownership. Managers are supervised by owners, but these 'owners' are other managers. The control function of ownership has been internalised in the network of multiple directors and is collectively performed by those managers who control the dominant firms.

In Germany, where ownership has become highly concentrated, the managers of the dominant company frequently have a seat on the supervisory boards of the dependent companies, where they play the role of 'owner' (cf. Figure 1). The structure of ownership that has developed in Britain, by contrast, is fragmented. Here control through ownership depends on whether institutional investors co-ordinate their behaviour (Scott 1997:49). In both countries the ownership function has been bureaucratised and professionalised. It is no longer exercised by amateurish shareholders but by financial experts (Useem 1996).

(2) Control by peers: In spite of the different statutory regulation in Germany and Britain, more than half of the managers examined here perform executive and non-executive (supervisory) functions simultaneously. The 'supervisors' are recruited from among the executive managers. At the collective level the multiple directors have executive power and the same collective also has the power of supervision and control. Most multiple directors are electors and are elected, supervisors and the supervised. This does not preclude the fact that within this collective separate 'social circles' are formed, with competitive relations prevailing between them. The social circles serve either to promote integration within the corporate group (primarily in Germany) or are 'cosmopolitan' financial networks open to a large number of managers. Control by peers is also internalised in the network of multiple directors in order to protect the managers of large companies from external interference. Within the network itself competition is permitted, but at the same time restricted through 'weak ties' (cf. Table A1, Germany).

(3) Control by the market: The question as to the extent to which managers are subject to market control was not considered directly in this study. However, a number of conclusions can be drawn from the structure of ownership relations which show the way in which market competition is effective within the elite network under the changed conditions of a globalised economy. Leading companies are increasingly

organised as (transnational) corporate networks linked to each other through capital networks and interlocking directorates. Whether or not a firm remains within the network depends on its profitability. Less successful firms are sold on the market for corporate control. Firms can be bought and sold at any time on the market for corporate control, and each and every transaction constitutes a potential threat to the managers of these firms. The decisions on acquisitions and sales are taken by those managers who simultaneously function as 'owners'. The market for corporate control has served substantially to increase the competition

Appendix Table A1
Relationship between Social Circles (Density)

Germany

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	—	.00	.02	.01	.00	.09	.01	.00	.01	.00	.02	.01	.01	.03	.01	.00	.06	.00	.00	.00
2	.00	—	.05	.02	.02	.02	.04	.02	.04	.01	.02	.01	.01	.03	.11	.07	.22	.06	.04	.07
3	.00	.00	—	.01	.00	.16	.02	.06	.06	.20	.05	.02	.04	.07	.03	.03	.09	.03	.10	.12
4	.00	.00	.00	—	.06	.16	.04	.05	.12	.08	.11	.01	.02	.09	.01	.15	.06	.11	.03	.12
5	.01	.00	.02	.03	—	.05	.06	.04	.11	.02	.18	.01	.06	.08	.10	.18	.07	.13	.10	.14
6	.00	.01	.00	.00	.02	—	.03	.05	.17	.02	.19	.01	.03	.15	.03	.15	.14	.07	.13	.11
7	.00	.00	.00	.06	.03	.02	—	.01	.03	.05	.13	.01	.05	.02	.01	.12	.03	.13	.07	.02
8	.00	.00	.00	.01	.00	.00	.05	—	.06	.02	.13	.00	.01	.03	.04	.00	.02	.12	.03	.10
9	.00	.00	.01	.00	.00	.00	.02	.00	—	.04	.04	.01	.10	.04	.04	.08	.07	.16	.12	.09
10	.00	.00	.00	.03	.00	.00	.00	.00	.00	—	.00	.04	.04	.10	.00	.00	.00	.18	.05	.08
11	.00	.00	.03	.04	.00	.03	.00	.03	.00	.00	—	.02	.03	.06	.03	.09	.03	.04	.04	.05
12	.01	.00	.01	.01	.01	.01	.04	.00	.05	.01	.00	—	.01	.03	.01	.00	.02	.00	.04	.05
13	.00	.01	.00	.00	.01	.00	.00	.00	.00	.03	.02	.03	—	.03	.04	.03	.07	.04	.04	.03
13	.00	.00	.00	.01	.03	.00	.01	.01	.01	.01	.02	.03	.01	—	.09	.06	.07	.09	.10	.14
15	.01	.00	.00	.00	.01	.00	.04	.00	.00	.02	.00	.01	.04	.04	—	.09	.04	.03	.06	.09
16	.01	.00	.00	.01	.00	.01	.02	.03	.03	.01	.00	.02	.00	.02	.01	—	.03	.08	.10	.12
17	.00	.00	.01	.00	.02	.03	.03	.00	.01	.00	.01	.01	.02	.01	.02	.00	—	.02	.06	.11
18	.00	.01	.00	.00	.01	.00	.01	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	—	.04	.05
19	.00	.00	.01	.02	.02	.00	.07	.00	.01	.01	.01	.04	.02	.02	.03	.01	.04	.03	—	.09
20	.00	.00	.00	.00	.00	.02	.03	.04	.02	.03	.01	.01	.02	.02	.01	.02	.01	.01	.01	—

Britain

Tables 3 and 4, columns 2 and 3 show density **within** social circles; this table shows density **between** social circles. The right-hand part of the matrix (above diagonal) shows the relationship (density) between social circles in Germany; the left-hand part of the matrix (below diagonal) shows the relationship (density) between social circles in the United Kingdom. Example: The density between the social circles 3 (Metallgesellschaft/Allianz) and 6 (RWE) amounts to 0.16; the density between the social circles 19 (British Aerospace) and 7 (Barclays Bank) amounts to 0.07. In the right-hand part of the matrix (Germany) 17 fields are empty (.00), i.e. there is no link between the social circles; in the left-hand part of the matrix (United Kingdom) 89 fields are empty (.00).

Appendix Table A2
Social Circle Membership 1978–82 and 1992–93 in Britain

Social circle 1978–82	Social circle 1992–93	*N*	Social circle 1978–82	Social circle 1992–93	*N*
1	4,5,6,7,12	7	11	3	1
2	1,6,8,9,10,18,20	7	12	8,10,13	4
3	5,8,10,12,14,17	9	13	4,9,10,13	5
4	1,4,5,6,7,16,17	9	14	11,14,18	4
5	3,4,12,19	7	15	13,15,17,18	6
6	11,14,16,18,19	5	16	16,18	3
7	9,14,16,19	6	17	5	1
8	8	2	18	11	1
9	2,10,	3	19	13,16	2
10	17	3	20	14	1

N=86 British managers
Explanation: The 7 British managers who were members of social circle 1 in 1978–82, were assigned to the following social circles in 1992/93: 4,5,6,7,12. The 4 British managers who were members of social circle 12 in 1978–82, were assigned to the following social circles in 1992–93: 8,10,13.

> between managers. Managers must not only establish a place within the bureaucracy of large corporations; what is decisive for the stability of their career is to get access to the elite network which has internalised the control function of ownership as well as that of peer control. The more 'central' their position in this network, the less they are threatened by the market for corporate control (see Figure 1).

Pound (1992) characterises recent changes in the control structure of large corporations as an evolution away from market control (like hostile takeovers) to a 'political model of corporate governance'. Institutional investors have used their voting power to change the internal governance structure of large US corporations to make them more responsive to their shareholders. This paper has shown that market forces (ownership) have been internalised in the network of multiple directors and are thus controlled by the collective of managers. The control structures of individual firms tend to become ineffective, if they are not paralyzed, by the collective network of managers.

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Notes

1. There are three types of relationship to the means of production: property (without control), control (without property), and property and control. The recombination of ownership and control is a central characteristic of institutional capitalism.
2. Cf. the discussion on the 'conversion' of political capital into economic capital in the transition countries of Eastern Europe (Szelényi and Szelényi 1995).
3. In 1995 the German combine Hoechst (chemicals) sold eight firms with a total turnover of US$2.5bn on the European market for corporate control. In the same year Hoechst acquired two firms with a total turnover of $3.1bn on the US market of corporate control. (*Frankfurter Allgemeine Zeitung*, 4 January, 1996, p.13).
4. As will be described in detail below, the German system of corporate governance differs from that in English-speaking countries in having two boards: the *Vorstand* (management board) is responsible for the day-to-day running of the enterprise, while the *Aufsichtsrat* (supervisory board) is responsible for 'supervising' the activities of the management board and periodically electing its members.
5. The ownership structures were analysed by Windolf and Beyer (1996:212, Table 1).
6. Cf. the analysis on 'recombinant ownership' in Hungary by Stark (1996).
7. The most important sources for Germany: *Handbuch der deutschen Aktiengesellschaften* (Hoppenstedt); *Handbuch der Grossunternehmen* (Hoppenstedt); *Leitende Männer und Frauen der Wirtschaft* (Hoppenstedt). For Britain: *Major Companies of Europe* (Graham & Trotman); *Who Owns Whom, United Kingdom & Republic of Ireland* (Dun & Bradstreet); *Stock Exchange Official Yearbook* (Macmillan Press); *Directory of Directors* (Reed Information Services, Essex).
8. The various amendments of the German company law illustrate the historical evolution and the ensuing division of labour between executive and supervisory functions (Hommelhoff 1985).
9. The 4,599 British directors hold 5,258 positions (see Table 1); 32.2 per cent of these are held by external directors (non-executive). In a survey on large British corporations a proportion of 44 per cent is given (Hill 1995:262).
10. This holds true also for the United States. It is estimated that in the Fortune 1000 US corporations about 63 per cent of the external (non-executive) directors hold executive functions in the same 1,000 corporations many of which are CEO positions. 'For the most part, directors form a relatively uniform pool' (Lorsch and MacIver 1989:18–19).
11. See Roe (1994); for an early critique of this institutional reform see Brudney (1981). It is estimated that 70 per cent of all directors in the Fortune 1000 US corporations are external directors; however, in about 80 per cent of these corporations the CEO still holds the powerful position of the Chairman of the Board (Lorsch and MacIver 1989:2,17,19).
12. This argument can be illustrated by the resistance put up against the German system of co-determination under which employee representatives hold positions on the supervisory board. The supervisory board is an important element within the elite network. If employee representatives gain access to this board they are in a position to interfere in the network 'from outside'. In view of this, informal meetings of the supervisory board are often held in which employee representatives do not participate.
13. The 139 managers are 'owners' in 396 cases, i.e. there are approximately 2.9 ownership relationships per manager.

14. In 1993 Metallgesellschaft received from Deutsche Bank a loan of about DM540m.
15. They received their supervisory board position on the basis of the German system of co-determination.
16. The matrix for the German directors has $308 \times 308 = 94,864$ cells (adjacency matrix, directors-by-directors). It is symmetrical as it contains only undirected relationships: if A meets B on a supervisory board, then B meets A there. Thus there are a total of $(308 \times 307)/2 = 47,278$ possible relationships. Of these 7.8 per cent actually occur in Germany (3,690 dyads). In the matrix of British managers the density is 2.0 per cent (897 dyads); see Table 6.
17. The correlation coefficient (r) between the proportion of positions held within the combine (column 5) and the density within the social circle (column 3) is 0.67 ($N=20$).
18. In Table 4 the densities are indicated separately for two different path lengths (columns 3 and 4). In the case of path length 1, managers meet directly on the board of directors, in path length 2 they are linked via a third manager ('friends of friends').
19. For Britain, too, there is a correlation between the proportion of positions held within the dominant group and the within-density of social circles (correlation of column 3 with column 5); the correlation coefficient (r) is 0.64 ($N=20$) and is thus almost as high as in Germany.
20. Between the twenty social circles there are a total of $(20 \times 19)/2 = 190$ possible relationships (see Table A1). The factors (social circles) were regrouped with the help of cluster analysis in order to determine whether or not larger social circles, composed of sub-groups of the twenty social circles, exist. The findings were unstable, however, and are not discussed further here.
21. Dr. Röller, former CEO of Dresdner Bank, has the highest number of contacts in the German network: He meets seventy-eight multiple directors on the different boards of which he is a member. For Germany, the mean of the number of contacts frequency distribution is 24.0, for Britain 5.2 (see Frank 1981:113). The numbers of contacts ranges from 0 to 78 in Germany and from 0 to 18 in Britain.
22. For Germany: *Handbuch der deutschen Aktiengesellschaften* (Hoppenstedt) 1978–1983; *Leitende Männer und Frauen der Wirtschaft* (Hoppenstedt) 1978–1983. For Britain: Directory of Directors 1978–1983.
23. This figure indicates the average number of contacts. In actual fact the number of contacts varies between 0 and 78. See n.21 and Figure 3 for Britain and Germany.
24. The reader is reminded that we report and analyse here only relationships which are created by board membership. Whether these managers are linked to each other by family bonds or joint club membership we do not know.
25. Included in the 1978–82 matrix were 125 managers, but only eighty-six had a positive number of contacts; the remaining thirty-nine managers were 'isolated' (no contacts).

References

ALBA, R. and MOORE, G. 1978. 'Elite Social Circles'. *Sociological Methods & Research* 7:167–87.

BEARDEN, J. and MINTZ, B. 1987. 'The Structure of Class Cohesion: The Corporate Network and its Dual', pp. 187–207 of M. Mizruchi, and M. Schwarz (eds.), *Intercorporate Relations*. Cambridge: Cambridge University Press.

BERLE, A. and MEANS, G. 1934. *The Modern Corporation and Private Property*. New York: Macmillan.
BOURDIEU, P. 1984. *Distinction: A Social Critique of the Judgement of Taste*. London: Routledge & Kegan Paul.
BRUDNEY, V. 1981. 'The Independent Director: Heavenly City of Potemkin Village?' *Harvard Law Review* 95:597–659.
CHANDLER, A. 1990. *Scale and Scope*. Cambridge, Mass.: Harvard University Press.
DAVIS, G. 1991. 'Agents without Principles?' *Administrative Science Quarterly* 36: 583–613.
DOREIAN, P. and WOODARD, K. 1994. 'Defining and Locating Cores and Boundaries of Social Networks'. *Social Networks* 16:267–93.
FLIGSTEIN, N. 1990. *The Transformation of Corporate Control*. Cambridge, Mass.: Harvard University Press.
FLIGSTEIN, N. 1995. 'Networks of Power or the Finance Conception of Control? Comment on Palmer, Barber, Zhou, and Soysal'. *American Sociological Review* 60:500–3.
FRANK, O. 1981. 'A Survey of Statistical Methods for Graph Analysis'. *Sociological Methodology* 11:110–55.
GERLACH, M. 1992. *Alliance Capitalism: The Social Organisation of Japanese Business*. Berkeley: University of California Press.
GRANOVETTER, M. 1985. 'Economic Action and Social Structure: The Problem of Embeddedness'. *American Journal of Sociology* 91:481–510.
HERMAN, E. 1981. *Corporate Control, Corporate Power*. Cambridge: Cambridge University Press.
HILL, S. 1995. 'The Social Organisation of Boards of Directors'. *British Journal of Sociology* 46:245–78.
HIGLEY, J. *et al.* 1991. 'Elite Integration in Stable Democracies'. *European Sociological Review* 7:35–53.
HOMMELHOFF, P. 1985. 'Eigenkontrolle statt Staatskontrolle', pp. 53–105 of W. Schubert, and P. Hommelhoff (eds.), *Hundert Jahre modernes Aktienrecht*. Berlin: de Gruyter.
KADUSHIN, C. 1966. 'The Friends and Supporters of Psychotherapy: On Social Circles in Urban Life'. *American Sociological Review* 31:786–802.
KOENIG, T. *et al.* 1979. 'Models of the Significance of Interlocking Corporate Directorates'. *American Journal of Economics and Sociology* 38:174–86.
LORSCH, J. and MACIVER, E. 1989. *Pawns or Potentates: The Realtity of America's Corporate Boards*. Boston, Mass.: Harvard Business School Press.
NÖRR, K. 1995. 'Law and Market Organisation: The Historical Experience in Germany From 1900 to the Law Against Restraints of Competition'. *Journal of Institutional and Theoretical Economics* 151:5–20.
PARETO, V. 1968. *The Rise and Fall of the Elites*. Totowa, N.J.: Bedminster Press.
PARSONS, T. 1978. *Action Theory and the Human Condition*. New York: Free Press.
POUND, J. 1992. 'The Rise of the Political Model of Corporate Governance and Corporate Control'. Working Paper, Harvard University.
ROE, M. 1994. *Strong Managers, Weak Owners*. Princeton, NJ: Princeton University Press.
SCOTT, J. 1990. 'Corporate Control and Corporate Rule'. *British Journal of Sociology* 41:351–373.
SCOTT, J. 1996. *Stratification and Power*. Cambridge: Polity Press.
SCOTT, J. 1997. *Corporate Business and Capitalist Classes*. Oxford: Oxford University Press.
SHLEIFER, A. and SUMMERS, L. 1988. 'Breach of Trust in Hostile Takeovers',

pp. 33–67 of A. Auerbach (ed.), *Corporate Takeovers: Causes and Consequences*. Chicago: University of Chicago Press.
SIMMEL, G. 1908. 'Die Kreuzung sozialer Kreise', pp. 305–44 of G. Simmel, *Soziologie*. Berlin: Duncker & Humblot.
STARK, D. 1996. 'Recombinant Property in East European Capitalism'. *American Journal of Sociology* 101:993–1027.
STINCHCOMBE, A. 1990. 'Weak Structural Data', *Contemporary Sociology* 19:380–2.
STOKMAN, F. N. *et al.* (eds.) 1985. *Networks of Corporate Power*. Cambridge: Polity Press.
SZELENYI, I. and SZELENYI, S. 1995. 'Circulation or Reproduction of Elites During the Postcommunist Transformation of Eastern Europe?' *Theory and Society* 24:615–38.
USEEM, M. 1984. *The Inner Circle*. London: Oxford University Press.
USEEM, M. 1996. *Investor Capitalism*. New York: Basic Books.
WEGENER, B. 1987. 'Vom Nutzen entfernter Bekannter'. *Kölner Zeitschrift für Soziologie und Sozialpsychologie* 39:278–301.
WILLIAMSON, O. 1985. *The Economic Institutions of Capitalism*. New York: Free Press.
WINDOLF, P. 1994. 'Die neuen Eigentümer: Eine Analyse des Marktes für Unternehmenskontrolle'. *Zeitschrift für Soziologie* 23:79–92.
WINDOLF, P. and BEYER, J. 1996. 'Co-operative Capitalism: Corporate Networks in Germany and Britain'. *British Journal of Sociology* 47:205–31.
WINDOLF, P. and WOOD, S. 1988. *Recruitment and Selection in the Labour Market*. Aldershot: Avebury.

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