Political Holes in the Economy:
Business Camps and Partisanship

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Abstract:

When firms reach out to allies in the political field, partisanship can constrain the choice of business partners in the economy. To study the evolution of politicized business camps, we conduct an historical network analysis of the relationship between firm-to-party ties and firm-to-firm ties in the Hungarian economy. We construct a dataset of all senior managers and boards of directors of the largest 1,696 corporations and the complete set of all political officeholders from 1987 to 2001. The findings of our field interviews and dyadic logistic regression models demonstrate that in Hungary director interlocks depend, to a significant extent, on political affiliations. Although the economic and political fields have been institutionally separated, firms and parties have become organizationally entangled. Firms of either left or right political affiliation exhibit a preference for partnerships with firms in the same political camp while avoiding ties with firms in the opposite camp. Subsequently, firms with politically balanced boards seize a brokerage opportunity to occupy the political holes in the economy opened up by the growing division between left and right. Our historical analysis demonstrates that political camps in the Hungarian economy occur not as a direct legacy of state socialism but as the product of electoral party competition.

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Introduction

With the collapse of communist rule in the upheavals of late 1989, policy makers of many stripes posited clear goals in both the economic and the political arenas: a market economy of competing firms and a liberal democracy of competing political parties. The means to achieve these goals were also clearly stated: separate the state from the economy and sever political ties from the field of economic action.

Although theoretical goals and practical means were clear, the actual challenges of market competition among firms and the actual operation of political competition among parties led to the establishment of ties between the newly-corporatized firms and the newly-established parties. That is, the goal of sharply separated fields is undercut by the very logic of competition within each. On one side, to compete in the political field, governing parties need to manage the economy, and all political parties need access to resources. Strong ties to firms can provide these resources. On the other side, to compete in the economic field, firms build strong links to political parties to provide access to government contracts, timely information about changes in affairs of state, and opportunities to influence the formulation and enforcement of government regulations. In short, to gain resources to compete for votes, parties compete for firms. At the same time and in parallel, to gain an upper hand in economic competition, firms ally with parties. Thus, whereas the economic and political fields have been institutionally separated, firms and parties have become organizationally entangled.

The postsocialist countries are not aberrant cases. Politics and business are entangled in every capitalist economy. Members of the political elite in well-established democracies span the political field and the business field when they sit on the boards of major corporations, thereby providing strong ties between parties and firms. For example, just weeks after stepping down as Chancellor of Germany, Gerhard Schroeder accepted the invitation to chair the shareholders committee of Nord Stream AG, the European gas pipeline subsidiary of the Russian conglomerate Gazprom. Former Secretary of the Treasury in the Clinton administration, Robert Rubin, became Chairman of the Board of Citigroup, resigning that post in January 2009. Richard Armitage, former Deputy Secretary of State during the Bush administration, sits on the board of directors of the ConocoPhillips oil company; former republican Senators Warren Rudman and John Sununu are on the board of directors of Boston Scientific Corporation; and Al Gore, former democratic Vice-President of the United States, is a senior advisor at Google and a member of the board of directors of Apple Corporation.

As an ubiquitous and important feature of the political economy of modern capitalism, the analysis of field-spanning ties is a major component of the theoretical agenda at the intersection of political sociology and economic sociology

(Burris 2001, 2005; Davis and Greve 1997; Mizruchi 1989, 2007). We contribute to that agenda with the following theoretical question: how does the structure of ties that span the fields of politics and business shape the structure of network ties within the field of business? In other words, do divisions within the field of politics become divisions in the field of business networks?

To study the political polarization of business networks, we examine the historical co-evolution of the field of electoral party politics and the field of business networks in Hungary. Our case entails concurrent marketization and democratization in which market-oriented enterprises and competing political parties developed in tandem. To capture the first moments when such corporate and political entities emerged, our case reaches back to 1987; to cover an entire epoch of economic and political transformation, it extends to 2001.

During that period the Hungarian economy was thoroughly marketized, with open competition among firms for capital, labor, suppliers, and customers; and the Hungarian polity was successfully democratized, with open competition among parties in a democratic electoral system in which incumbent parties were defeated in each of the parliamentary elections in 1990, 1994, and 1998. Our case is, accordingly, strategic: if we find that political divisions are manifested as fissures in the business network, such findings cannot be attributed to the lack of systemic transformation in either the political or the economic field. Because thorough privatization and vigorous political competition are well-documented in Hungary, we can therefore eliminate the standard neoliberal explanation that would account for political divisions in the economy (seen in that perspective as an aberrant departure from the normal course) as the result of partial, incomplete, or failed systemic transformation. As we shall argue, in Hungary, political affiliations shape patterns of director interlocks in the business network not *despite* the transformation of the economy and the transition to democratic political competition but *because of it*. Because rampant partisanship can be a feature of even mature capitalist democracies, our research on the Hungarian case has bearing beyond its postsocialist context.

We analyze the complete set of personnel ties establishing director interlocks between firms, as well as the political alliances between firms and parties, by constructing an unprecedented dataset. On the business side, we compile a list of all economic officeholders in Hungary, consisting of the names of every senior manager and all of the members of the boards of directors and supervisory boards of the largest 1,696 enterprises in the country for the entire fifteen-year period. On the political side, we construct a list of all political officeholders in Hungary, consisting of the names and party affiliations of every government minister and elected politician, from the Prime Minister and Members of Parliament to all local mayors. By merging the datasets, we are able to identify whether any given firm had a politician among its economic officeholders. Through these personnel ties we are able to label a firm's political affiliation and register any changes in party attachment throughout the period under study.

In the first step of our analysis we report findings from field interviews that open up the "black box" of corporate boards of directors showing how, in Hungary, firms and parties use personnel ties to coordinate strategy and channel resources. Second, we use dyadic logistic regression models to test the impact of political partisanship on the patterns of business partnerships. Our findings demonstrate that director interlocks depend, to a significant extent, on party affiliations.

Our historical network analysis demonstrates that these patterns are not a legacy of state socialism: rather than appearing full blown from the first moments of corporate-party alliances, these structures evolved across the electoral cycle. We found that in time, as privatization progressed, and the significance of the market in coordinating the economy increased, the personal connections and interdependencies between political parties and firms increased. Paradoxically, the dismantling of earlier state dominance in the economy produced a new kind of increasing dependence, that was built of personnel ties between the political field and the economic field. In the initial stages, with relatively few politicized firms, parties were regarded as just another partner for getting access to resources. As more firms acquired political affiliations, these political identities became a resource for identifying business partners. Firms that traveled in the same political circles became more likely to meet up with firms with similar political coloring, leading to patterns in which, for example, left-affiliated firms show preferential attachment to other left-affiliated firms and right-affiliated firms are more likely to find right-affiliated firms as their business partners. As the political field became more polarized, divisions along party lines became fault lines in the business world. Political tagging, enforced by politicians and the politicized business groupings, became so pervasive that left-right business partnerships are eschewed, leading to political fissures in the economy.

Although left-affiliated companies are not likely to connect to right-affiliated companies, some firms are able to create board interlocks to firms in both political camps. In the final section of our analysis, we use logistic regression models to identify the characteristics of such firms. Our findings indicate that the brokerage opportunity across politically induced structural holes is most likely to be seized by firms with politically balanced boards.

Historical network analysis of co-evolving fields

Our research strategy builds on and departs from recent research on the relationship between economic networks and the activity of business actors in the political or regulatory field (Fligstein 2008; Mizruchi 1992; Davis and Greve 1997; Burris 2001, 2005). Political sociologists in this literature start with the observation that firms can be linked to political agendas. Recent advances in this research tradition combine the network analytic perspective of economic sociology with the goal of explaining the political behavior of corporate actors. Such research demonstrates that firms that are tied through business links are more likely to share ties (typically operationalized as campaign contributions) to the same politicians, parties, or policy positions in the political field. That is, the structure of networks in the economy is a predictor of political position.

Recent studies of political cohesion among corporate elites, for example, demonstrate that network structures of interlocking directors explain the speed of adoption of governance practices (Davis and Greve 1997) and that firms that are linked through interlocking directors are more likely to take similar positions on legislative matters (Mizruchi 1992). Likewise, Burris (2001, 2005) examines political behavior among the top officers of the 1050 largest US companies, operationalizing political behavior as contributions to political candidates in the 1980 elections.1 Using quadratic assignment (QAP) regression on the 289,180 dyads of the 761 presidential contributors in his sample population, Burris finds that social ties through common membership on corporate boards "contribute more to similarity of political behavior than commonalities of economic interests, such as those associated with operating in the same industry or the same geographic region" (Burris 2005: 249).

Although we are also broadly interested in how the structures of networks are related across the domains of business and politics, our theoretical questions differ markedly from those of the network analytic political sociologists. Whereas they focus on political identification, we address political alliances. Burris (2005), for example, is concerned with the extent to which two directors display similarity in the proportions of their contributions to the Republican or the Democratic candidate in the 1980 presidential election. Beyond seeing corporate actors as identifying with a political ideology or political tendency (Neustadtl and Clawson 1988), we are interested in how corporations recognize political parties as strategic business allies. In such alliances, businesses coordinate with political parties, not simply contributing

[1] These studies were part of a wave of empirical research launched after the Federal Election Commission provided machine-readable data, starting in 1978. Widespread availability of these data made campaign contributions the data of choice for political sociologists studying the U.S. corporate elite.

resources to them, but interacting with them by getting involved in shaping policies and involving them, in turn, in the strategic decision-making of the firm.

Because our theoretical question points to a stronger relationship between firm and party, we adopt a correspondingly stronger measure of network tie. Campaign contributions can measure flows of resources from firms to parties; but they are not an ongoing channel for coordination between them. The answer is to borrow (with a twist) a page from the analytic repertoire of the director interlocks literature. For decades, that specialization has used director interlocks to measure firm-to-firm ties. Our methodological extension is to use directorship registries to measure firm-to-party ties. We record a politicized directorship when a politician occupies a position of influence in a firm whether as a senior manager or, more typically, as a member of its Board of Directors or Supervisory Board. In contrast to U.S. practice, Hungarian regulations on conflicts of interest do not prohibit sitting politicians from holding corporate directorships; and, in fact, until the mid 1990s, cabinet ministers were not prohibited from serving as board members.

By highlighting politicized directorships, we are able to identify a more appropriate tie between firms and parties than campaign contributions. It is one thing for a chief executive to contribute $2,000 to a politician's campaign or to a corporate Political Action Committee (PAC). It is quite another for that executive to have a party politician sitting at the table with her board of directors. Through the appointment of a politician, a firm creates bonds with a party. An important feature of Hungarian electoral law is that candidates for Parliament do not run as individuals but rather on party lists. Politicians in Hungary are emphatically party politicians. They do not raise contributions for their own electoral campaigns. Appointing a politician to a corporate board solidifies a tie to his/her political party. Through these directors, firms can influence rule-making and gain access to timely information about government contracts, industrial and trade policies, and changes in regulatory policies and enforcement. On the other side, parties gain access to firms' resources and can have a voice at the boardroom table to influence business strategy. The business director/political officeholder thus constitutes a direct link between firm and party.

In addition to seeing the ties between firms and parties as opportunities for strategic coordination, we also see them as possible spaces of entanglement. Specifically, we are interested in whether and how partisanship migrates from the political field to constrain the patterns of interlocking directorates in the economic field. That is, whereas sociologists have previously studied how network ties in the economy shape similar political behavior, we examine whether and how political affiliations shape business behavior. Does political partisanship become a significant factor explaining the shape of business networks? If so, we expect to see the emergence of politicized business camps in the economy. At the level of the firm, such political divisions might block business partnerships that we typically see among firms that are not affiliated with political parties. Such blockage might result in politically-induced structural holes in the business network. As Ronald Burt (1992, 2005) shows, structural holes present opportunities for brokerage. Which firms, if any, occupy brokerage positions linking both to right-affilated and to left-affiliated firms across the political fault lines?

In addressing typical patterns of business embedding, we build on a long tradition of research on board interlock networks. Interorganizational ties though shared board members were shown to be vehicles of interorganizational power relations, and capitalist class unity (Dooley 1969; Useem 1986; Mintz and Schwartz 1985). Interlocks were shown to be important information channels (Haunschild 1998), that contribute to coordinated economic decision making (Mintz and Schwartz 1981), and even strategic alliance formation (Gulati and Westphal 1999). Ties through interlocking directorates are instrumental in securing debt financing (Mizruchi and Stearns 1988; Mizruchi, Stearns, and Marquis 2006), and contribute to coordinated political action (Mizruchi 1992; Burris 2005). In the Hungarian post-socialist context (as we show below based on our field interviews) board interlocks are crucial tools for coordinating action among strategic business allies.

Our research strategy further departs from the existing literature by adopting an historical network perspective. Fundamentally, we seek to identify trends and specify timing in the political polarization of the economy. Static snapshots at a single moment in time will yield an inadequate, perhaps even misleading, picture of the relationship between political ties and the formation of corporate interlocks. Our research design is not only continuous but also reaches back to the inception of the phenomena being investigated. Prior to the starting point of our study in 1987, there were no corporations in Hungary, no boards of directors, and no parties or politicians seeking resources to compete in competitive elections. That is, we are able to study the interactions of market-competitive firms and politically-competitive parties from the first moments that they exist as such entities. By charting the changing patterns of this interaction across an entire period of political and economic transformation, we are able to address a set of theoretical questions about the factors shaping the co-evolution of political networks and business networks.

Is the Hungarian economy politically polarized (i.e., with political affiliations constraining business alliances) from the outset as an immediate legacy of state socialism, perhaps later to wane with the routinization of market forces and political competition? In that case, one would expect an immediate and dramatic explosion in the number of politicized directorships in the initial period of transition followed by a diminution as foreign direct investment acquires a decisive ownership stake in the economy, privatization is concluded, market institutions are firmly established, and regulatory uncertainties are normalized. Alternatively, despite the fact that state ownership declines and foreign direct investment increases, do business ties become more polarized over the course of fifteen years in which incumbents are defeated in every parliamentary election?

As we shall see, the findings of our analysis are clearly in line with the latter possibility. They indicate that political polarization of the economy cannot be explained as the conversion of state power into economic power or as a holdover from the transition period but should be understood as a different form of political capitalism marked by the dynamics of interactions between firms and political parties.

Our historical analysis is particularly attentive to how Hungary's politicized economy was shaped by the logic of electoral competition. Political competition is unfolding on a different time frame than market competition; and, moreover, it is distinctively punctuated. Although publicly-traded firms face quarterly and annual reporting requirements, political parties face the certainty of elections — with uncertain outcomes. Although firms might produce long-range plans, the time horizons of these are not synchronized throughout the entire economy. Political competition, by contrast is synchronized. Punctuated by the rhythm of elections, it leads to intense campaigns in which parties mobilize their camps. In our analysis, it matters that elections are not only held but also have outcomes (a factor largely ignored in the existing literature on ties linking the economic and political fields). We shall examine how winning or losing an election has consequences for party-firm alliances, and moreover, how the periodicity of victories and defeats leads to an intensified polarization of the economy in which competition for votes became competition for firms.

Data and Methods

To gain an understanding of operations of corporate boards in Hungary and of the role of the political officeholder/director within them, we interviewed a targeted set of 24 CEOs (selecting across a range of industrial branches, locating actors who played important roles in the earlier period as well as those on the contemporary scene, and finding directors of companies owned by multinationals as well as domestically-controlled firms), politicians across political camps, former government officials (including two former Finance Ministers as well as two former heads of the Central Bank), and journalists who cover party financing and corporate governance. The typical interview lasted 2 hours; in almost every case we developed good rapport with our interviewees, resulting in remarkably candid conversations.

To conduct historical network analysis of field-spanning and field-specific ties, we assembled a large scale dataset. On the business side, the data include the complete list of economic officeholders as well as the complete ownership histories of the largest enterprises in Hungary during the period from 1987-2001. We define a large firm as ranking among the top 500 firms (based on revenue) in any of the years from 1987 to 2001. Our inclusion rule results in a population of 1,843 firms. Out of the 1,843 firms, 147 ownership files were unavailable or contained little or no information on ownership. Our final dataset contains the full managerial and ownership histories of 1,696 enterprises. For a small country like Hungary, this population of firms accounts for more than a half of all employment, two-thirds of the GDP, and the overwhelming proportion of export revenues (Figyelö 2002).

For each firm in our population, we gather directly from the 20 Courts of Registry the names of all *economic officeholders* which we define as all senior managers (e.g., CEOs, CFOs, and the like whose signatures are legally binding on the firm), all members of its Board of Directors, and all members of its Supervisory Board for the entire length of the firm's existence (with 1987 as the earliest starting point). The resulting dataset of the list of all economic officeholders from 1987-2001 contains 72,766 names.[2] For each economic officeholder, we record tenure in office as the month and year of accession to office and month and year of exit.

To augment these personnel records, we also gathered the complete ownership histories of these same largest 1,696 firms by recording, for each year from 1987-2001, the following data: equity in thousand Hungarian forints, the names of the firm's top twenty-five owners, and the percentage stake that each owner holds in the

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[2] By gathering at the Courts of Registry the addresses of each of the economic officeholders, we are able to distinguish particular individuals who share the same given and family names (e.g., the János Nagy who resides on Petofi Street in Budapest is not the same János Nagy who lives on Kodály street in Kecskemet).

company. Types of owners are coded in four categories: state, Hungarian firm, Hungarian person, and foreign owner. For each firm in our population we also collected data on its annual revenues, industrial classification (SIC code), location, privatization history, and increase or decrease in capitalization as well as information on the date when the firm was founded and the date of filing for bankruptcy, liquidation or cessation for any reason, i.e., the date when the file of the firm was closed at the registry court.

On the political side, we define *political officeholders* as all elected national and local officials, including all Members of Parliament (MPs) and all local mayors, and all national level government officials, including the Prime Minister, all cabinet ministers, and their politically appointed deputies. For the years prior to 1990, we include government ministers, deputies, and members of the Communist Party's Politburo and Central Committee. For the entire period examined, 1987-2001, we gathered the names of each of these political officeholders, recording their party affiliations and any changes in such.

Data on political and government officeholders were collected from the National Bureau of Elections (which holds records on all elected political officeholders) and from the Hungarian News Agency (which maintains records on all government officials entering or exiting office). For the period prior to free elections, we define political officeholders as all members of the Politburo and the Central Committee of the Hungarian Socialist Workers Party, as well as government ministers and their deputies.[3] Names of political officeholders in these years from 1987-89 were gathered from a comprehensive CD-rom publication (Nyírő and Szakadát 1993) covering the political elite under state socialism. As with the economic officeholders, tenure in office was recorded on a monthly time frame. The resulting dataset of the complete list of political officeholders includes 16,919 names.

For any given year we count all active as well as former officeholders as politicians. We inquired about whether it matters that the appointment is to a current or ex-politician. The reply, with muted laughter at our naiveté: "In Hungary, there is no such thing as a *ex*-politician."[4] We use the party affiliation of politicians to code whether they belong to the left or right political camps. Hungary has a multi-party

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[3] Whereas the Communist Party's Central Committee is analogous to the parliament of the subsequent democratic period, the Politburo was akin to the role of the government in the later period.

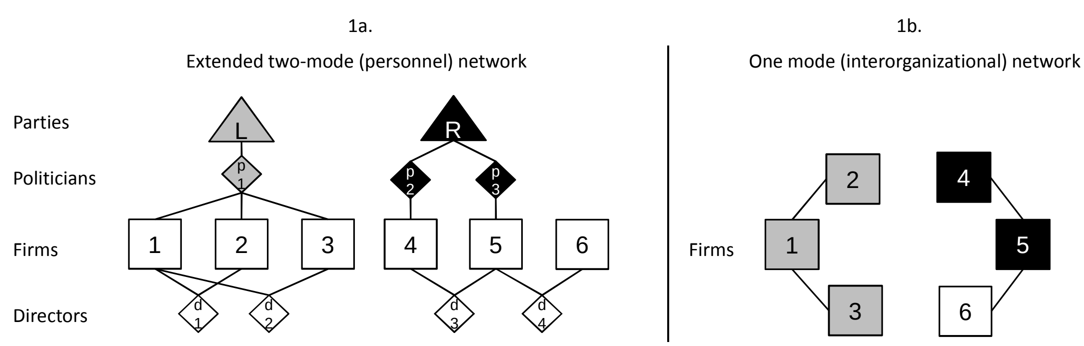
[4] Hungary is not exceptional in this regard. U.S. corporations frequently identify the party affiliations of former Senators and Congressional representatives in listings of the members of their boards, e.g., John Breaux, D-La. Title and party tag are affixed to the person even after he or she has left office.

system; but, in effect, it is dichotomous. Each parliamentary election produced a majority party and a large oppositional party. Smaller parties (who clearly ally with the left or the right) have relatively few parliamentary seats and even fewer board memberships. In our data, in any given year on average 89.3% of the board seats are occupied by the two main parties. Former communist party officeholders, those with the successor socialist party, and their coalition partner, the Free Democrats' Alliance were classified as left. The MDF, FIDESZ after 1996, Smallholders Party, MIEP, and KDNP were classified as right.

By merging the lists of economic and political officeholders we can precisely identify (for any given enterprise in any given month) whether that company had an economic officeholder who was also a political officeholder as well as identify the party label of that officeholder. We label firms with a left-camp or a right-camp politician on its board as left- or right-colored. We label firms as balanced if they feature both a left- and a right-camp politician on their board at the same time.

We count two companies as having the business tie of a *director interlock* when they share at least one board member who is not a politician. Figure 1 illustrates the way we construct the interorganizational network out of our lists of personnel. Firm 1 has a director interlock with Firm 2 through its shared director d1. In the same way, we establish the business network ties between Firm 1 and Firm 3, Firm 4 and Firm 5, and Firm 5 and Firm 6. Politician p1 sits on the boards of Firms 1, 2, and 3 and we thereby assign the left-party affiliations, with p2 making the right-party affiliation for Firm 4 and p3 making the right-party affiliation for Firm 5.

Figure 1. The extended two-mode network, and the one mode interorganizational network.



Because we are interested in testing the impact of political affiliations on business ties, we opt for a conservative coding scheme that does not count director interlocks where a politician acts as the personnel tie linking businesses. Such ties would automatically contribute to political homophily and the separation of political camps. In Figure 1 we see, accordingly, that Firms 2 and 3 are not categorized as having a business tie.

To test expectations about the impact of political affiliations on business partnerships, we adopt a dyadic approach. Dyadic data shifts the attention from firms to ties between firms. For any given year we construct datasets with pairs of firms as units of analysis. For each of these dyads we record the presence or absence of a business partnership (our dependent variable). This variable equals zero if there is no personnel tie between two firms, and it equals one when such a tie is present.

We use logistic regression models with dyads as units of analysis. The dependent variable measures the presence of a personnel tie between two firms. This is a customary approach in social network analysis, where the presence of a given tie is the dependent variable. Earlier logit models in the P* framework adopted a fixed effects approach by including expansiveness (number of ties) parameters for each node (Wasserman and Pattison 1996; Anderson, Wasserman, and Crouch 1999). These models were revised in subsequent applications for larger networks, as it was recognized that the inclusion of hundreds, possibly thousands of variables for this purpose is cumbersome and inpractical (Moody 2001). Thus the current approach to address unit specific heterogeneity is to include controls for the expansiveness of nodes involved in the dyad, and not all nodes (Quillian and Campbell 2003, Keister and Cornwell 2009). This is the approach we adopt. The variable that we include to capture unit specific heterogeneity in network embeddedness is "Degree of i x degree of j". We construct separate logit models for each of the years in our period, following the modeling strategy of Padgett and Lane (2006). Our further independent variables also refer to pairs of firms, to conform with the dyadic nature of our dependent variable. We use two sets of independent variables: the first set representing political affiliations while the second set represent business criteria.

Our variables of political affiliation are based on four categories (neutral, left, right, balanced). Our dyadic variables of political affiliation record combinations in the dyad: Both firms can be politically neutral, in this case our neutral-neutral variable equals one (our reference category). Similarly, both firms can be affiliated with the left, in this case our left-left variable equals one. We code shared affiliation with right parties (right-right) and a shared balanced affiliation (balanced-balanced) the same way. When one firm is affiliated with the left and the other with the right, our left-right variable equals one. We code our left-balanced and right-balanced variable the same way. When one of the firms is neutral and the other is right, left, or balanced, we record the dyad as “neutral-political.”

We expect the emergence of politicized business groups. At the dyadic level, dyads with shared political affiliations will be more likely to share a director interlock than a dyad with two politically neutral firms. We further expect that dyads with a left-affiliated firm and a right-affiliated firms will be less likely to share a director.

Because political affiliation might be correlated with firm attributes that are themselves strong predictors of business-to-business ties, our models control for conventional business criteria. Firms in heavy industry, for example, might be likely to be tied to each other and also likely to be traditional affiliates of parties on the left. Similarly, firms in agriculture might share ties and right-camp affiliations. In these cases, a finding of "political homophily" (in left-left and right-right dyads) might better be explained by common industrial sector; and "antipathy across political camps" (in the case of left-right dyads) might actually be due to the absence of cross-sectoral director interlocks. Size, position in local network structures, and wnership structure (companies in state ownership, foreign-owned companies) might similarly co-vary with party affiliation. Our question is whether the effects of political affiliation hold net of the effects of such conventional business criteria.

To control for such effects, our second set of independent variables thus records size, industry, ownership, and local network topography. We record capital size in the dyad, both as the product of the capital sizes of the two firms in the dyad and as the capital size difference in the dyad (Ingram, Robinson, and Busch 2005). We expect that larger firms will be more likely to build ties in general, and that ties will form between firms with a larger capital difference (as most business groups tend to have a larger central firm linked to smaller firms around it).

In our dyadic model we also include a variable that indicates a shared industry affiliation. Our expectation is that industry is a key category behind the choice of network partners, as firms tend to connect to those in the same industry.

To analyze how the ownership relations of the firms in a dyad effect business networking we construct a set of ownership variables. Designating a firm by one form of ownership alone would ignore that many firms in our population have several different types of significant owner. For example, a firms can have significant ties to state owners while also having significant ties to foreign owners. Thus for each firm we record the presence of significant owners of the following types: state ownership, foreign ownership, domestic corporate ownership,[5] and domestic individual ownership (the reference category). To determine significant owners we use cluster analysis (see appendix for details).

[5] The category "domestic corporate ownership" represents firms with another Hungarian company as the primary owner. During the privatization process many formerly state owned firms were bought by other Hungarian firms, or large state owned conglomerates disintegrated into smaller (but still substantial) firms with ownership relations among them.

Our ownership variables are constructed at the dyadic level. The first variable records whether both firms in the dyad have (in a given year) significant state ownership. The second records whether one but not both have significant state ownership. The third variable records whether both firms in the dyad have significant foreign ownership, and so on for domestic corporate ownership and domestic individual ownership (the reference category). Constructing the variables in this way allows us to test whether shared affiliations to the same type of owners (state, foreign, or domestic corporate) leads to the formation of directorship ties. We can also test whether ties are avoided in dyads that have different ownership affiliations.

We record the triadic shape of ties around the dyad as a further set of control variables. First, ties are more likely between firms that already have many ties. Thus we include a variable that records the degree of *i* multiplied by the degree of *j*. Second, because interlocks in Hungary are used in assembling business groups (Vedres and Stark 2010), we expect triadic closure to be a significant mechanism for creating ties. Ties are more likely between two firms that are already connected to a number of common third firms. Thus, we include a variable that records the number of third firms that *i* and *j* are both connected to.

Firm-Party Ties as Strategic Assets

During the early 1990s, the Hungarian economy underwent a rapid and profound transformation: firms were privatized, regulations were re-written in every policy domain (from taxation to tariffs, from accounting to corporate governance, and from banking to labor law), old external markets to the East collapsed, and new ones to the West had to be established. Amidst these uncertainties, corporate boards were an important new institution on the organizational landscape, and managers recognized the potential of board ties as providing reliable sources of information, access to insider knowledge of successes and failures elsewhere in coping with challenges, and a mechanism for coordinating actions among strategic business allies.

Required by corporate law, the institution was entirely novel to Hungarian executives. CEOs and other senior managers whom we interviewed recalled their puzzlement on attending their first board meeting:

> "I had no experience as a board member. But practically that was the case for everyone all across the country. There was no pool of people

> who had experience. For all of us it was on-the-job training." (Professional outside director who now sits on numerous boards)

But they also emphasized how quickly firms grasped the possibility of sharing directors as an opportunity for coordinating strategy:

> "Nobody knew what a board of directors was. We'd never, none of us, ever been in a board of directors meeting. Management didn't know either. But they quickly figured out that there were opportunities to exploit." (Bank director)
>
> Q. How are boards of directors important?
>
> A. It was necessary to have board interlocks in order to work out the problems. My predecessor here was only the CEO and without any board interlocks he didn't have a chance. (CEO of a major manufacturing holding company)

When we asked about what politicians do when they are members of a board, one director, who sits on several boards in the manufacturing sector, gave the following blunt reply:

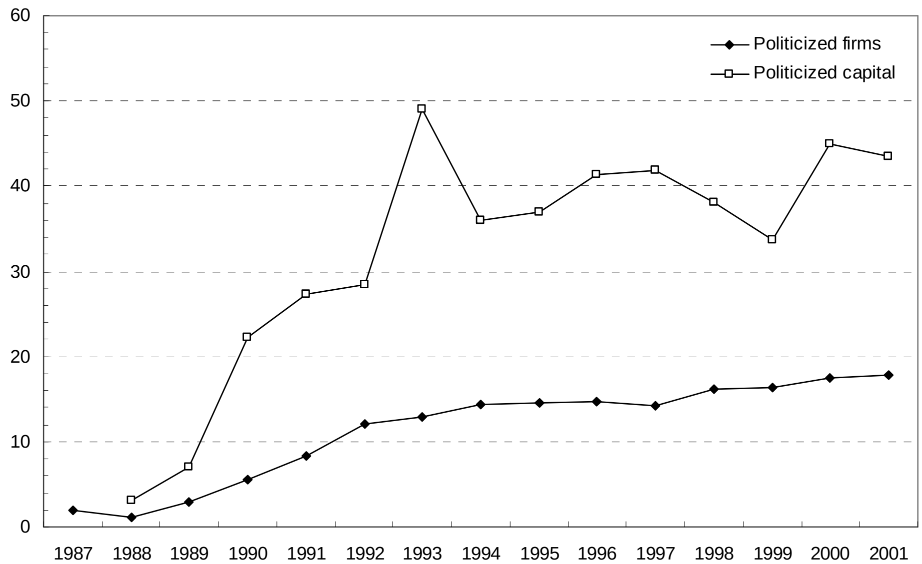
> Q. What can a political board member do?
>
> A. Use relations.
>
> Q. Yes...?
>
> A. Lobbying. Business lobbying and political lobbying.

In our interviews we learned that firms and parties alike regard the politician/director as a strategic asset. Not limited to the tumultuous years of the initial period, the importance of this role gained in significance as the number of firms with a political valence and their weight in the economy grew over the period we studied.

Drawn from our dataset, Figure 2 shows that the proportion of firms affiliated with political parties is small at the outset, grows quickly until about 1994, and continues to increase through 2001. Although the proportion of firms with a political valence never exceeds 17%, the importance of these firms in the Hungarian economy is better-captured by weighting firms according to their capitalization. When taking levels of capitalization into account, as Figure 2 also shows, the segment of the

Hungarian economy with a political coloring grows to almost 50 percent by 1994 and hovers with some variation around 40 percent throughout the remaining period.

Figure 2. Proportion of firms and capitalization with a political director.



Note: 'Politicized firms' records the proportion of firms with a political affiliation. 'Politicized capital' records the proportion of capitalization in politically affiliated firms.

Drawn from our dataset, Figure 2 shows that the proportion of firms affiliated with political parties is small at the outset, grows quickly until about 1994, and continues to increase through 2001. Although the proportion of firms with a political valence never exceeds 17%, the importance of these firms in the Hungarian economy is better-captured by weighting firms according to their capitalization. When taking levels of capitalization into account, as Figure 2 also shows, the segment of the Hungarian economy with a political coloring grows to almost 50 percent by 1994 and hovers with some variation around 40 percent throughout the remaining period.

During the early 1990s, the privatization of state owned companies was one of the major issues of contention in the Hungarian economy. Acquisition of these companies was highly politicized, as was access to bank credit during a severe banking crisis. It was in these "battles," as one experienced senior manager expresses it, that strong political ties between firms and parties were forged:

> "Ownership was born in and based on political ties because of privatization. The state held property and who would get that property was a political fight. Each party developed its own friendly, entrepreneurial court around them for privatization and for business in

> general. Access to credit was highly politicized whether it was direct actions by whichever governing party or by the banks that were close to them. There were battles for contracts. And the parties used all these kinds of battles as opportunities for donations." (Former head of the Central Bank, now CEO of a major construction holding)

CEOs repeatedly told us that getting out of the system of political ties is not a viable option. Politics and politicians pervade the economy. In the following passage, we see how a CEO reads the signals sent by the composition of boards, how he interprets the presence of a politician on a board, and how parties' demands for resources as a routine part of business life are met through means other than cash payments:

> Q. What if you see a known person, for example, a politician sitting on a board?
>
> A. Then I know some arrangement has been made or will be made.
>
> Q. A personal arrangement? Somebody wants to help a friend whose daughter is getting married...?
>
> A. I've heard of that. I don't believe it. Politicians are not there because of friendship. There's always a function.
>
> Q. So, what does it mean if I see an ex-politician on a ....
>
> A. [Interrupts] Whooaaa. There are no ex- [emphasis] politicians. There are politicians and there are businessmen. A politician who is not in office is still a politician.
>
> Q. OK. I see a politician on a board. What do parties want from companies?
>
> A. Money. What else?
>
> Q. How do they get it?
>
> A. There are lots of channels to get money to a party through normal business transactions. There are consulting firms, marketing companies, advertising agencies. You make a contract with them. But you only pay and get no service.
>
> Q. What about contributions to party foundations?
>
> A. That's too brutal. The other means are more discrete. It's your risk not to enter into business with them. You have to formulate what you need from a party. But it's frequently difficult to price.
>
> Q. Do parties approach companies?
>
> A. Yes. Sometimes a politician will be direct. But the more common practice is indirect. You're approached by another businessman. Someone who is close to a party. Sometimes they'll ask for cash.

> Sometimes they'll say "What do you need?" (CEO of a major holding company)

On the side of the political parties, the nomination of politicians to corporate boards is so important that it must be managed systematically. In our interviews we learned that a considerable part of the work of the directors of party finance is coordinating such corporate directorships. In party-firm negotiations, parties frequently nominate a list of several of their politicians as candidates for directorship appointments.

Following these negotiations, firms appoint political officeholders to their boards of directors, compensating them quite handsomely in many cases as well as providing other resources (cars, drivers, clerical, and other support staff, etc). Politically motivated corporate directorships thus provide parties with a means to build a loyal cadre. Directorship compensations can reward sitting politicians; and corporate appointments can provide a cushion to politicians who leave office after the party list did not fare well in a given election, thereby boosting morale among party loyalists who will be available to run again at the next electoral opportunity.

Although it is rare that firms openly make *financial* contributions to political parties, our interviewees confirmed political reportage (Juhasz 2001) that firms frequently make *in kind* contributions to parties. In such cases, for example, part of an advertising campaign for a political party is covered as part of the advertising budget of an enterprise; consultancy, data processing, information technology, and other charges that appear in a company's accounts are actually performed for a political party; and a leading politician (even a Prime Minister) might find his expensive lawyers' fees for a legal suit in which he is mired being covered as part of the legal expenses of a prominent corporation. These and other arrangements are facilitated by the appointment of politicians to corporate boards.

By the time we conducted our interviews in 2005, the Hungarian economy had completed the transformation to a market economy. But despite the institutionalization of electoral democracy, an unprecedented influx of foreign capital, and integration into the European Union (EU), many of the senior executives with whom we spoke complained of the political polarization of the economy. Although the phenomenon of a polarized political field is well-known, the notion that *the economy* might be politically polarized is likely to be unfamiliar to many. By political polarization, these senior managers refer to the problem that the economy is divided into political camps. A repeated theme of those conversations was that many large firms are expected to show a distinctive affiliation either to the left or to the right of the political divide.

Referring to the political colorings of left and right in Hungary, one senior executive stated with a combination of emphasis and regret, "Corporate boards are definitely political. It's easy to recognize who is red and who is orange." To our general question, "What's the significance of political ties in the economy?" the manager of a large manufacturing firm in electronics bemoaned: "It depends on the industry. In our industry it is the unavoidable dark side."

The effects of Partisanship on Business Ties

To test the effects of business-to-party alliances on business-to-business ties, we adopt a dyadic approach (Quillian and Campbell 2003; Kossinets and Watts 2009). The findings of our logistic regression model are presented in Table 1.

The findings of our logistic regression model indicate that political affiliations significantly explain business ties in the Hungarian setting. In general terms, the politicization of business ties increases throughout the period such that, in the final three years, all of the political variables are significant.

Within this overall trend, political homophily among pairs of left-left and right-right affiliated firms is a strong and always positive factor predicting business ties. Across the period, we find that firms sharing a left political coloring are more likely (than the reference category, neutral-neutral) to connect to each other through an interlocking director. Political homophily of the right-right variant is also pronounced. Except for 1990 when there were only a handful of right-affiliated firms, this variable is significant throughout the period. This finding is of interest because it cannot be interpreted as a simple legacy of state socialism. Under the Communist Party's monopoly on organized politics in the state socialist period, there were no parties on the political right prior to 1989. Given this situation, it is notable that firms with a right political affiliation are finding each other as business partners quite early in the process and continue to show preferential attachment.

Comparing our findings about homogeneous left-left and right-right pairings with heterogeneous left-right pairings, we see that whereas firms of the same political coloring show a marked homophily, pairs of firms with opposite political coloring exhibit a growing antipathy. The coefficients in Table 1 indicate that this trend starts in the mid nineties and becomes more pronounced over the last three years in our study. That is, it becomes less and less likely that a firm with a left affiliation will establish a business network tie to a firm with a right political affiliation. Such antipathy does not spring full blown in the immediate aftermath of the political transition but instead develops and intensifies across the period of left-right party competition.

Taken together, our findings of an always positive in-group homophily and a growing out-group antipathy suggest an increasingly disintegrating politically polarized economy.

Our findings about the influence of political affiliations on business ties are not artefacts of other attributes of firms. While many of the business criteria variables are predictors of business ties, the variables of political party affiliation presented above are statistically significant net of these effects.

As expected, business ties are more likely amongst large firms. Also as expected, business ties are significantly more likely where pairs of firms operate in the same industry. To test the sensititivity of our findings on political affiliation, we also ran expanded versions of our models with all possible pairings of industry categories (e.g., financial-heavy industry, financial-services, energy-heavy industry, and so on.)

Particular cross-industry pairings do make ties more likely (especially where one or both firms in the pair are in finance, service, or trade), but the political variables in these expanded models are unchanged.

Table 1. Logistic regression models of dyadic connectedness.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Political affiliation												
Neutral-political	.513**	.278**	.271**	.137	.107	.180**	.223**	.281**	.253**	.261**	.258**	.276**
Left-left	1.175**	1.134**	1.524**	1.123**	1.114**	.800**	.834**	1.004**	1.510**	1.440**	1.419**	1.451**
Right-right	-4.564	1.577**	1.185**	1.133**	1.141**	1.351**	1.760**	1.688**	1.377**	.896**	.866**	1.135**
Left-right	.216	-.005	-.376	-.267	.195	-.298	-.285	-.414	-.277	-.575*	-1.153**	-1.251**
Balanced-balanced	1.002	-7.710	1.913**	1.793*	.513	1.021*	1.220**	1.379**	.977**	.880**	.906**	.858**
Left-balanced	-.247	.619	.190	.482	-.600*	.277	.407*	.562**	.655**	.725**	.826**	.726**
Right-balanced	-1.174	-.091	1.089**	.356	.480*	.576*	.337	.654*	.346	.623**	.889**	.977**
Controls												
Ownership												
Both state owned	.250	.186	.102	.223*	.379**	.506**	.387**	.343**	.666**	.861**	.689**	.885**
One state owned	-.004	.031	-.251**	-.208**	.008	.182*	-.044	.030	.070	.007	-.124	-.132
Both foreign owned	-.118	-.058	.161	.185	.241(*)	.286*	.271*	.307**	.370**	.491**	.423**	.376**
One foreign owned	.053	-.336**	-.304**	-.269**	-.256**	-.165*	-.248**	-.053	-.041	-.001	-.108	-.047
Both owned by domestic firm	.490*	.360*	-.106	.025	.104	.131	.041	.176	.220*	.223*	.093	.095
One owned by domestic firm	.254	.009	.004	.033	-.003	.016	-.123	.007	-.022	.056	-.027	-.054
Capital size												
Size of i x size of j	.006*	.004*	.004**	.005**	.007**	.006**	.024	.006**	.004**	.005**	.004**	.004**
Absolute size difference	.075	.005	-.000	-.009	.027	-.011	-.046**	.002	.000	-.023	.005	-.014
Local topography												
Degree of i x degree of j	.010**	.002	-.000	.001	.000	-.000	-.002**	-.003**	-.002**	-.003**	-.002**	-.001**
Closed triad	2.442**	2.307**	2.672**	2.927**	2.760**	2.776**	2.784**	2.795**	2.861**	2.790**	2.961**	3.004**
Industry												
Same industry	.430**	.654**	.629**	.628**	.631**	.750**	.709**	.745**	.802**	.764**	.728**	.733**
Constant	-6.375**	-6.187**	-6.316**	-6.622**	-6.951**	-7.070**	-6.784**	-7.027**	-7.002**	-7.083**	-6.893**	-6.924**
N	24532	101927	214841	336611	381502	387641	412687	435711	440392	435712	426427	416329
-2LL	742.9	2279.4	4431.9	6242.9	6998.0	7015.9	7837.0	8179.2	8327.9	7446.7	7214.1	7113.3
R2	.251	.284	.335	.351	.353	.350	.368	.377	.377	.349	.356	.360
% correctly classified	98.9	99.4	99.6	99.6	99.6	99.6	99.6	99.7	99.7	99.7	99.7	99.7
χ2 (df)	749.3(18)	2184.6(18)	3671.1(18)	5194.9(18)	5664.3(18)	5954.8(18)	6713.4(18)	7056.9(18)	7292.3(18)	6937.3(18)	6365.7(18)	6214.8(18)
P-value	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

*:p<.05; **:p<.01

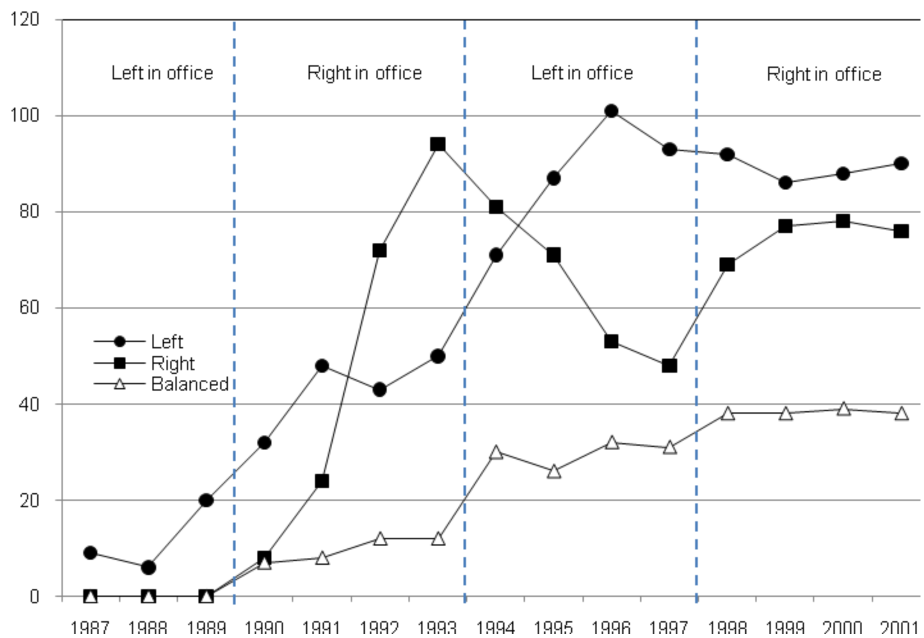
The coefficients recording the product of the degree in the dyad is significantly negative in the later years of the period, indicating that firms with higher degree centrality tend not to connect to each other. This "disassortative mixing" (Newman 2002) does not eliminate the significance of the left-right antipathy. Triadic closure is significant in all year. This process of cohesive group formation does not eliminate our findings of political homophily within party camps.

Table 1 also indicates that firms' relations to their owners shape their choice of business partners. Firms with similar types of owners – whether state or foreign – tend to have business ties with each other. Such homophily becomes more prevalent in the second half of our epoch. Pairings involving differences in ownership do not exhibit preferential attachment; in fact, in some periods, ownership differences obstruct the creation of network ties. Firms with considerable foreign ownership were significantly less likely to be connected with domestically owned ones in the early half of our epoch when foreign ownership was exceptional rather than prevalent. This negative correlation diminishes in the second half, suggesting that foreign-owned firms have become more integrated into the broader Hungarian economy.

The Evolution of Political Business Camps

To understand the evolution of politicized business camps we examine the changing fortunes of political parties across election cycles. Figure 3 shows that the outcomes of elections have consequences for the relationship between parties and firms. The dashed vertical lines in Figure 3 delineate the dates of the 1990, 1994, and 1998 elections in which incumbents were defeated and challengers triumphed in each election. After each election, political victors increase the number of their affiliated firms. That increase is most dramatic for the center-right coalition that won the 1990 election and presided over the first freely-elected government from 1990-94. As Figure 3 indicates, the number of firms with such a right political affiliation grew from effectively zero to over 90 during these four years in power. The socialists, too, capitalized on political success by increasing the size of their business base. In the last year in which they were out of office, 1993, they had left-oriented politicians on the boards of 50 firms. After coming to power, this number doubled to 100 firms by 1996. A new right coalition then wins the 1998 election, with the effect of increasing its business base from about 50 to almost 80 firms.

Figure 3. Number of firms by political affiliation.



Note: The vertical axis shows number of firms. Dashed vertical lines separate election terms, with the wining party indicated at the top.

In addition to indicating that winning parties succeed at winning firms, Figure 3 also shows an important trend. Across the three periods of alternating rule, we see that governing parties face increasing difficulty in expanding their firm base while in office: 88 in the first period (1989-93), 50 in the second (1993-97), 30 in the third (1997-2001). Those numbers suggest an increasing political competition over what becomes a more or less stabilized level of politicized firms.

Following their victory in the first democratic parliamentary election in 1990, the center-right parties led by the Hungarian Democratic Forum (MDF) had considerable ground to make up. The socialists already had a business base in the old state-owned enterprises. Some of these began converting to the newly recognized corporate form (among other legal requirements, establishing boards of directors) even before the system change. By 1989, left politicians were sitting on the boards of 20 such companies. Once in power, the right moved quickly and decisively. At the helm of the various state property and/or privatization agencies, MDF officials made sure that their politicians were appointed to the boards of newly privatized companies as well as to those newly corporatized firms that remained in state ownership. By 1992, after just two years in office, the right could already claim more firms than the left; and they pulled ahead still further in 1993. This they achieved, on one hand, by temporarily slowing the growth in the number of socialist firms and, more significantly on the other hand, by aggressively increasing the number of firms in which they placed their own politicians. To many observers it seemed that the new governing party had gained a hold on the economy and was consolidating these ties for the long run.

1994 was a key turning point. The reconstructed socialist party, which had gained only 10 percent of the parliamentary seats in the 1990 election, now achieved an overwhelming electoral victory. And it immediately began to translate success in the electoral arena into success in the field of firm affiliations. As we see in Figure 3, within three years it more than doubled the number of firms in its political business camp. Moreover, these gains were directly at the expense of the right parties. That is, whereas during the earlier period when the center-right government was in office (1990-93) left-affiliated firms continued to grow (if at a reduced rate), during this second period when the left was the governing party (1994-97) the right parties saw their numbers of affiliated firms sharply decline.

Business managers realized that alliances with political parties were a crucial resource. They later became aware that with alliances came political colors. As more and more boards acquired a political coloring and their respective networks solidified, CEOs and directors of boards began to sense that the political affiliation of their company was politically tagging their companies. A former government minister and current CEO of a major auditing firm expressed this succinctly:

> "Sooner or later everyone gets a political tag. It's less and less that you can convince others and convince the market that you are neutral. Even just keeping your position can mean that you are with my enemies."

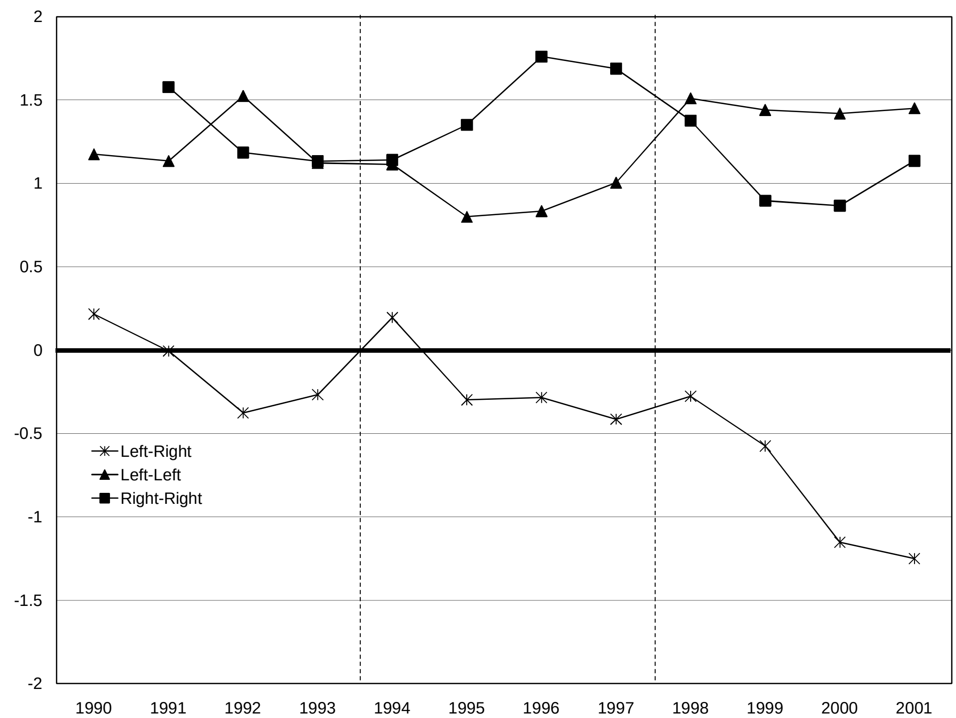
He went on to argue that political tagging is not about political beliefs but about location in a network:

> "It's not that this or that member or this or that board has a policy preference, but that they are closer to these people and not those. It's not like political beliefs but instead more like camps relying on different networks." (Former government minister and current CEO of a major auditing firm)

Campaign expenditures escalated in election years, while the legally available campaign budgets of parties changed little. Although there is no reliable data about actual campaign expenditures, it is estimated that by the 1998 election parties spent three to four times the amount that they could secure legally. Most of these expenses come through informal channels from trusted businesses around the parties (Juhasz 2001).

It was during this period that politicians and business leaders alike became more acutely aware that Hungarian political parties were not only in competition for votes; they were also in competition for firms. Just as party whips in Parliament attempt to enforce party discipline, now in the economic field parties were attempting to enforce discipline on “their” firms. This is directly reflected in our logistic regression findings: by 1999 the coefficient predicting business ties among antipathetic left-right pairings becomes significantly negative.

Figure 4. Logistic regression coefficients of political coloring.



For a graphic representation of these statistical relationships, Figure 4 charts the coefficients from Table 1. Lines L-L and R-R show the coefficients of homophily within the left and the right political camps respectively. Line L-R show the coefficients of antipathy across a growing Left-Right divide. This trend is negative throughout the epoch, periodically broken by election years. The coefficient of antipathy is somewhat mitigated after each election when political directorships are realigned as politicians from winning parties are newly placed on boards. For the company that changed its political coloring, it takes some time to adjust its business partnerships.

Figure 4 also shows that homophily markedly increases in the political camp whose party loses an election and decreases for the winning camp. As we saw in Figure 3, winning parties are able to increase the number of firms in which they hold directorships. These greater numbers show less density in their business ties. The shrunken camp of the losing party is its densely-connected core companies.

While we see a growing political divide in Figure 4, we also see, in the same period in Figure 3, a marked increase in the number of firms with at least one politician from each of the two political camps. Is the growth in the number of politically balanced firms a response to the political fracturing of the economy

Spanning the left-right divide

In attempts to deal with the increasing politicization of boards, several managers told us of their firms' efforts to create politically balanced boards. Instead of aligning with one party regardless of its political fortunes in the polls, or, in a kind of serial monogamy, switching from one to another, maintain stable ties to both sides of the political divide. The executive of a large pharmaceutical company:

> "We want to have balanced political relations. We attempt to have a balanced and stable board. [He then points to four directors, explicitly noting two in the left-wing camp and two in the right-wing camp.] We can demonstrate that this concept is workable over time to defend us when governments change."

Specifically, the way in which a politically-balanced firm can respond to political polarization is that it is open to engage in business partnerships with firms on either side of the political fissure. In such capacity, they assume a bridging position across political holes in the economy.

Figure 5 graphically represents the coefficients of our logistic regression reported in Table 1, with the line L-B designating Left-Balanced pairings and R-B designating Right-Balanced pairings. The findings are striking, especially in direct comparison with the findings about left-right antipathy. Starting from the mid-nineties, whereas the odds of business ties across left-right pairings decreases, the odds of balanced firms connecting to both left and right affiliated firms increases. Thus, the trend of an widening gap between left and right affiliated firms has a mirrored opposite trend – as firms with balanced political affiliations seize an opportunity to span the divide. That is, politically balanced firms are positioning themselves between pure political affiliations, capitalizing as business integrators or brokers in the space opened up by the growing politicized divisiveness.

Figure 5. Logistic regression coefficients of politically mixed dyads.

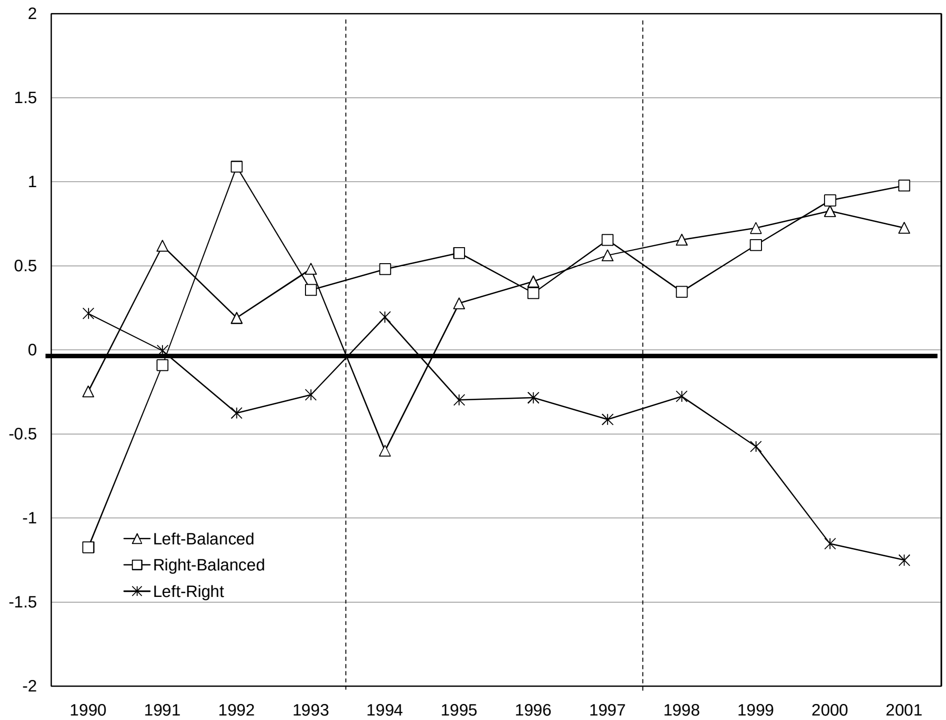


Figure 5 suggests that politically balanced firms are politically bridging firms. But several questions should be answered before we can be confident that it is their politically balanced character per se that is the key feature of such brokerage. First, it is possible that balanced firms are not bridging at all (i.e., that the left camp and the right camp of firms have *separate* sets of balanced firms around them). Second, an actual bridging capacity might not be a function of their political balance but instead is due to other features of these firms (for example, their size or network centrality).

To test whether affiliating with both political parties makes it more likely that a firm can also bridge between firms of singular political affiliation in the business network, we construct logistic regression models for each of the years in our epoch. The cases in these models are individual firms, rather than pairs of firms. The dependent variable in these models is bridging in the business network. This variable equals one if the firm in question has at least one business tie to a left-connected firm and also at least one business tie to a right-connected firm.

The independent variables in these models follow the same logic as in the dyadic models presented in Table 1. The first set of independent variables represent political coloring: left, right, or balanced. The reference category is non-politicized firms. We expect the balanced category to become a significant positive predictor of bridging in the business network. The next section of variables represent a business logic in creating bridging ties. The block of ownership variables are state ownership, foreign ownership, and domestic firm ownership. The reference category here is personal ownership. We expect that state-owned and corporate-owned firms are more likely to act as go-betweens connecting politically separated firms, while foreign-owned firms are more likely avoid such a potentially sensitive network position. Industry is represented by seven categories, with agriculture and food industry being the reference category. Size is recorded by the capital size decile of the firm, and local network properties are represented by degree centrality and cohesive group membership. To identify cohesive groups, we use the clique percolation method (CPM)[6]. We expect that more central firms are more likely to connect to left and right firms, and that firms within cohesive groups are also more likely to maintain connections to members with a left affiliation and also to members with a right affiliation.

Being politically balanced shows higher odds of bridging left and right firms in the business network. This is the case in six of the years since 1994, and is especially pronounced in the last three years of the epoch. Although there is one year in which right-affiliated firms can reach out to connect to business partners of a different color, and four years in which left-affiliated firms do this, this is no longer the case for the last two years.

State ownership increases the odds of political brokerage in the later part of the epoch, while foreign owned firms are unlikely to engage in such brokering in the earlier part. Financial firms often act as political brokers. Degree centrality and cohesive group involvement are always associated with higher odds of political brokerage.

[6] For a detailed elaboration of this method in this business network context see Vedres and Stark 2006.

Table 2. Logistic regression models of politicized brokerage.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Political affiliation												
Balanced	-.768	-.540	.725	1.918*	1.136*	1.064	1.169*	.819	.725	1.262**	1.408**	1.536**
Left	-1.428	.994	.886	.839	.881*	.866**	.328	-.342	.750*	.765*	.306	.350
Right	-10.152	.518	-1.089	.525	.654	.555	.508	1.228**	.705	-.101	-.044	.183
Controls												
Ownership												
State owned	1.173	.311	.542	.084	.265	-.287	-.158	-.298	.696*	.287	.560	.983**
Foreign owned	.641	-.408	.733	-.337	-.101	-.684*	-1.037*	-1.100*	-.624*	.084	.062	.032
Owned by domestic firm	-.064	.902	.410	-.412	-.459	-.490	-.318	-.050	-.054	.188	.533	.392
Industry												
Energy	10.101	2.120	-3.984	-4.656	-5.885	-5.106	-.083	.390	1.271	.361	-4.839	-4.753
Heavy industry	-1.127	-.528	.293	.552	-1.235*	-.259	-.839	-.630	.154	-.852	.079	-.047
Light industry	-.831	-.145	.274	-.530	-.681	-1.012	-.587	-.711	-.036	.201	-1.250	-1.256
Trade	7.652	.691	1.719	1.269*	.030	-.422	-.187	.016	.350	-.196	-.516	-.325
Service	7.727	1.782	1.057	1.402**	-.388	-.030	-.167	.099	.483	.145	.080	-.098
Finance	9.090	.922	2.118*	2.115**	1.151*	.796*	.396	.655	.793	.882*	.926*	1.044**
Size												
Capital size	-.296	.118	.099	.083	-.026	.152*	-.019	.147	.093	-.008	.059	.050
Local topography												
Degree centrality	.187	.188**	.236**	.195**	.155**	.119**	.156**	.090**	.103**	.131**	.129**	.123**
Cohesive group member	3.214	2.866**	1.310**	1.024**	1.669**	1.346**	1.165**	1.516**	1.093**	1.047**	.503	.931**
Constant	-12.257	-7.544**	-7.409**	-5.670	-4.143**	-4.391**	-3.435**	-4.399**	-4.900**	-4.424**	-4.673**	-4.797**
N	400	635	848	1020	1076	1109	1149	1174	1200	1220	1234	1234
-2LL	34.452	105.506	150.103	271.768	289.875	349.680	369.063	386.340	383.902	338.164	345.134	320.307
R2	.466	.571	.474	.405	.416	.376	.341	.335	.309	.345	.331	.357
% correctly classified	98.3	97.3	97.1	95.5	95.1	94.3	94.7	94.0	94.4	95.5	95.5	95.8
χ2 (df)	27.8(15)	117.9(15)	115.9(15)	150.7(15)	167.4(15)	167.2(15)	152.8(15)	155.1(15)	138.6(15)	146.2(15)	140.6(15)	147.6(15)
P-value	.022	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

*:p<.05; **:p<.01

Conclusion

The institutional separation of state and economy is a core feature of modern capitalism. As relatively autonomous fields of action, each is governed by different institutional principles: Whereas the relevant "capital" of a political party and of its leaders is measured by success in winning the votes of the electorate, that of a corporation and its leaders is measured by the capital that it accumulates in winning markets and securing profits. Political parties compete for votes; firms compete for profits.

Competition among political parties, however, is structured in such a way that a gain in the percentage of votes for your party is a loss for mine. Accordingly, whereas businesses regard others in their field as "competitors," political parties regard each other as "opponents" (and, not infrequently, the tag "loyal opposition" is a euphemism for "enemy"). Although it can vary in its intensity, partisanship is a key feature of party politics. At times, political leaders can rise above it when they attempt to construct political coalitions or secure support for legislative agendas. But at other times, partisanship can rage fiercely – so much so that it overrides policy choices that are demonstrably for the public good.

Although the field of party competition and the field of business competition are institutionally separated, their boundaries are crossed by field-spanning ties. In this paper we examined a strong version of such cross-field linkages: the field-spanning ties that occur when members of the political elite sit on corporate boards. Our task has been to analyze whether and how the structure of business-to-party alliances has consequences for the shape of business-to-business networks. Stated in the language of field theory, we examined how field-spanning ties could have effects on the field-specific ties of interlocking directors. As firms reach into the field of political parties, does political partisanship reach into the field of business?

If the choice of business network ties is governed only by business criteria, firms should be indifferent to the political affiliations of their strategic partners. On the basis of our field interviews and our logistic regression models, we demonstrated that Hungarian companies are far from indifferent to political affiliations. When a member of the political elite sits on a board of directors, that corporation does not literally fly the party flag; but, as we saw, it is politically tagged. Most corporations are politically neutral; but (in the color coding of Hungarian parties) some firms are known as "red" while others are recognized as "orange." Through field-spanning ties, partisanship has migrated from the field of politics to the field of business.

Moreover, as our dyadic modeling indicates, this political tagging colors the choice of other firms with which the corporation shares the business tie of a director interlock. Red firms disproportionately align with other red firms; and orange firms exhibit an elective affinity to link with other orange ones. Over time, as campaign budgets soar and the competition for firms increases, partisanship reaches so deeply into the economy that red firms and orange firms significantly avoid the directorship business tie with each other, creating political holes in the economy.

Our findings suggest that network analysts who find structural holes in network data should be attentive to the possibilities that such configurations might be attributable to the structure of political ties among the firms they are studying. Our findings further suggest the need for comparative research, constructing comparable datasets on the structure of business-party alliances among different types of political economies. In the Hungarian case, we found that politicization reaches a saturation level at approximately 20% of the companies (and around 40% of the capitalization) in the large corporate sector. Without comparable research it is difficult to assess whether these numbers are high or low. Are there cases (in Russia, for example) where the majority of large firms are politicized? If, among emerging market economies, Hungary is at the lower end of the range, would its very high level of foreign ownership be an explanatory factor?

When and where do political ties lead to polarization of the economy, depending on, for example, differences in party systems, stable incumbency, and legal systems that limit political board membership? Here research would benefit from comparisons among cases of relatively recent democratization. The Hungarian and Chilean cases, for example, are likely to be instructive. There democracies emerged after communist and authoritarian rule respectively, political cleavages are clearly structured, and party politics is a kind of national sport in each country. But despite sharp political differences, the Chilean economy, in contrast to Hungary, shows signs of immunity to political polarization.[7] Perhaps the outcomes are due to differences in institutional rules or to the history of electoral outcomes in which left and right did not alternate in Chile. Perhaps Chilean politicians and business people have more vivid memories of the personal difficulties of life under military dictatorship and so are more cautious to keep politicization within the sphere of politics. Perhaps political leadership matters.

We should not be overly optimistic that the U.S. economy is immunized to the reach of polarized politics. When political demagogy is so rampant that even flu vaccinations have become politicized, we are alerted that partisanship is raging so fiercely that it spills over into the sphere of civil society creating blockages to individual family decisions that could be in the public good even as a political impasse blocks legislative decisions about the reshaping of the health care system. Here, too, similar questions – about the role of institutional rules, of the memories

[7] Personal communication, Samuel Valenzuela, Kellog Institute for International Studies, University of Notre Dame.

of recent political scars, and of political leadership – are on the research agenda. And so, as well, are questions about the extent, the structure, and the history of network ties that reach into and out of the political field. The tools of historical network analysis will not resolve the problems of rampant partisanship, but they can illuminate critical aspects of social processes that undermine the public good.

Appendix: Determining significant ownership

Instead of relying on pre-defined cutoffs to distinguish significant and minor owners, we adopt a clustering approach. To assess the distribution of firms according to the concentration/dispersion of ownership, we used Ward hierarchical cluster analysis to find typical patterns of ownership based on the percentage shares held by a firm's first largest owner, second largest, third, fourth, and fifth for every year in which it existed as a company. Because dispersed ownership is exceedingly rare in our population of the largest enterprises, a two-cluster model is appropriate for representing ownership structure. An ownership structure with a dominant owner accounts for 45 percent of all firm-years. In this first cluster, the dominant owner holds, on average, 98 percent of the shares, while the second owner holds less than 2 percent. Second owners in this cluster are not classified as significant owners. The second cluster represents a coalitional structure in which the first owner holds, on average, 51 percent of the shares, while the second holds 25 percent. For firms in this cluster, we classify both the first and the second owner as significant.

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