Political Holes in the Economy:
Blockage and Brokerage in Hungary

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Abstract

When firms reach out to allies in the political field, the logic of partisanship can constrain the choice of business partners in the economy. To study the evolution of politicized partnerships, we conduct an historical network analysis of the relationship between firm-to-firm ties and firm-to-party ties in the Hungarian economy. To capture the first moments when such corporate and political entities emerged, our case reaches back to 1987 and covers an entire epoch of economic and political transformation to 2001. To identify the political affiliations of firms, 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. The findings of our field interviews and dyadic logistic regression models demonstrate that in Hungary corporate partnerships depend, to a significant extent, on political affiliations. 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.

INTRODUCTION

Business-to-business partnerships are now widely recognized as a resource for economic action. Firms can also extend their portfolio of alliances beyond the circle of other businesses by making ties with political parties. Strong links to political parties provide access to government contracts, timely information about changes in affairs of state, and opportunities to influence the formulation and enforcement of government regulations. But by bringing political parties into the formation of alliances, firms are also reaching into a field that operates with a logic different from that of business. Involvement with a political party is not simply adding another ally but is becoming involved with a different type of ally accustomed to operating according to a different logic of action. Indicative of this difference, whereas firms regard others as "competitors," political parties regard each other as "opponents."

Like business-to-business partnerships, business-to-party alliances are made for the purposes of strategic coordination. As with director interlocks, corporations use personnel

ties to enable such firm-party coordination, inviting politicians to join their boards of directors and involving them in the firms' strategic decision-making. The sustained and intense interaction that takes place through such strong ties opens the possibility that the logic of loyalty and partisanship (characteristic of the political field) will become mixed-up with the logic of business networks (characterized by partnership and portfolio management) (Schoenman 2005; McMenamin and Schoenman 2007).

Our task in this paper is to analyze how the structure of business-to-party alliances has consequences for the shape of business-to-business partnerships. As firms reach into the field of political parties, we ask, does the logic of political partisanship reach into the field of business? If party loyalty migrates from the political field into the economic field, partisanship will structure the choice of business partnerships. Thus, whereas political sociologists have studied how network ties in the economy shape similar political behavior (Burris 2001, 2005; Mizruchi 1989, 2007), we examine whether and how political affiliations shape business behavior.

To study the historical evolution of politicized business partnerships, we examine the Hungarian economy – a case where market-oriented enterprises and competing political parties developed in tandem. To capture the first moments where 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. To reconstruct the complete set of personnel ties establishing partnerships between firms, as well as the political alliances between firms and parties, we have constructed an unprecedented dataset. On the business side, we construct 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 show, on the basis of field interviews, how 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 in Hungary corporate partnerships 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. 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.

In the final section of our analysis, we use logistic regression models to demonstrate how firms with politically balanced boards seized a brokerage opportunity to occupy the political holes opened up by the growing division between left and right.

MULTIPLE NETWORKS AS MULTIPLE LOGICS

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 (Mizruchi 1992; Davis and Greve 1997; Burris 2001, 2005). Political sociologists in this field 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.[1] 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 adaptation 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.[2] Using quadratic assignment (QAP) regression on the 289,180 dyads of the 761 presidential contributors in his sample

[1] Mizruchi's (1989) work was pivotal in shifting attention from the patterns of integration among the corporate elite to the question of how patterns of ties shaped similarity of political behavior. "Political sociologist have debated for decades, without resolution, whether elites in advanced capitalist societies are integrated. Rather than ask whether elites are integrated, this study examines the conditions under which convergence of political behavior occurs…" (Mizruchi, 1989: 401)

[2] 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.

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. In contrast to 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 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).[3]

By highlighting politicized directorships, we are able to identify a more appropriate tie between firms and parties[4] 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. 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

[3] 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.

[4] 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.

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.

Our approach emphasizes that the networks of business and politics are not operating according to the same logics of action. That is, in addition to seeing the ties between firms and parties as conduits for resources, we also see them as the means whereby logics of action are mixed up. From mere points of exchange, they can become spaces of entanglement. Specifically, we are interested in how the logic of partisanship migrates from the political field to constrain the choice of business partners in the economic field.

The possibility that political ties can constrain business ties springs from the ways in which political alliances differ from business alliances. When firms seek a good match in finding a business partner, they face a pool of potential candidates that is likely to be considerably larger than when attempting to find a political ally. There are many businesses; but there are only a few, very few, political parties. Although it is true that parties compete for votes and firms compete for markets, the relational environments of specific organizations in these two fields are vastly different. Whereas a political party is in direct competition with nearly every other party, for a given firm only a small fraction of businesses in its organizational environment are direct competitors. Its potential collaborators include upstream suppliers and downstream customers as well as owners and subsidiaries. Beyond partnerships between pairs of companies, firms often get organized into business groups by forming ties to the partners of their partners (Ahmadjian and Lincoln 2001; Granovetter 2005; Siegel 2007). And we frequently observe a group of small companies around a larger one pursuing a coordinated strategy.

Competition among political parties 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"). The results are that whereas businesses are operating in a logic of portfolio management (diversify, hedge), political parties are operating in a logic of loyalty (with us or against us). Thus, whereas the business-to-business tie is about partnership, the business-to-party tie can evolve into partisanship.

Recognizing that multiple networks are also multiple logics (Padgett and Ansell 1993; Ansell 1997; Padgett 2001; Padgett and McLean 2006; Mische 2008) we ask what happens when the logic of business partnership confronts the logic of political partisanship. That is, whereas political sociologists have studied how network ties in the economy shape similar political behavior, we examine whether and how *political affiliations shape business behavior* (Mizruchi 1990b). Does political partisanship become a significant factor explaining the choice of strategic business partners? If so, at the level of the firm, pressures of political loyalty might block companies from choosing partners that might otherwise have been indicated by the logic of business embedding. Taken to the level of the economy, such blockage might result in political holes – politically induced fissures and fractures in the business network. But such blockage

might also create new opportunities for brokerage across the political fault lines (Burt 1992, 2005).

HISTORICAL NETWORK ANALYSIS

To examine the historical evolution of partisanship and its effects on patterns of business partnerships, we have a strategic case[5] – a case of concurrent marketization and democratization in which market-oriented enterprises and competing political parties emerged in tandem. At the beginning of the period we investigate, Hungary was a planned economy in which almost all productive assets were owned by the state, and the polity was ruled by a monopolistic Communist Party. During the period, the Hungarian economy was thoroughly marketized, with open competition among firms for capital, labor, suppliers, and customers; and the Hungarian polity has been democratized, with open competition among parties in a democratic electoral system in which incumbent parties was defeated in each of the parliamentary elections in 1990, 1994, and 1998.

In line with our multiple networks/multiple logics approach, we conduct an historical analysis. 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 business partnerships. 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.

Fundamentally, we seek to identify trends and specify timing in the politicization of the economy. Is the Hungarian economy politicized (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? Or, despite the fact that state ownership declines and foreign direct investment increases, do business ties become more politicized over the course of fifteen years in which incumbents are defeated in every parliamentary election? 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 a legacy of state socialism or a

[5] In analyzing the dynamics of the co-evolution of these multiple networks we address the lacunae noted by Koza and Lewin in their comprehensive review of the literature on inter-organizational alliances: "Rarely has research on alliances explicitly considered alliances to be embedded within the strategic portfolio of each partner and/or within accepted industry practices or as a function of the regulatory environment, institutional arrangements, and culture of the nation state or form of capitalism" (Koza and Lewin 2000).

holdover from the transition period but should be understood as an expression of a new dynamic of economic processes interacting with processes of political competition.

Not a legacy of the logic of state socialism (nor of the transition from it), we explore 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. 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, punctuated by the rhythm of elections, 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. 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 politicization of the economy in which competition for votes became competition for firms.

DATA

On the business side, the dataset we have assembled includes 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.[6] 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

[6] 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).

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 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.[7] 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."[8] We use the party affiliation of politicians to code whether they belong to the left or right political camps. Former communist party officeholders, those with the successor socialist party, and their coalition partner, the Free Democrats' Alliance were

[7] 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.

[8] 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.

classified as left. The MDF, FIDESZ after 1996, Smallholders Party, MIEP, and KDNP were classified as right.[9]

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.

To provide contextual background for our quantitative analysis, 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.

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)

[9] Our use of the terms "left-" and "right-" wing are strictly relational. In Hungary, these terms construct the political field but do not correspond to conventional ideological or policy preferences. In the 2006 election, the major political consultant for the "right-wing" FIDESZ party was a former advisor to Bill Clinton while the nominally "left-wing" Socialists hired a former advisor to Arnold Schwarzenegger.

> "Nobody knew what they were supposed to do. It wasn't like I was a new member of a board that had existed for decades – maybe a century. I couldn't ask some old hand to give me advice. It was completely new to all of us. All of that in a situation where all the laws and institutions were new. And throw into that that huge companies were being privatized. Here we were – central bankers – finding ourselves on the boards of investment banks or commercial banks." (Former official of the Central Bank)

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:

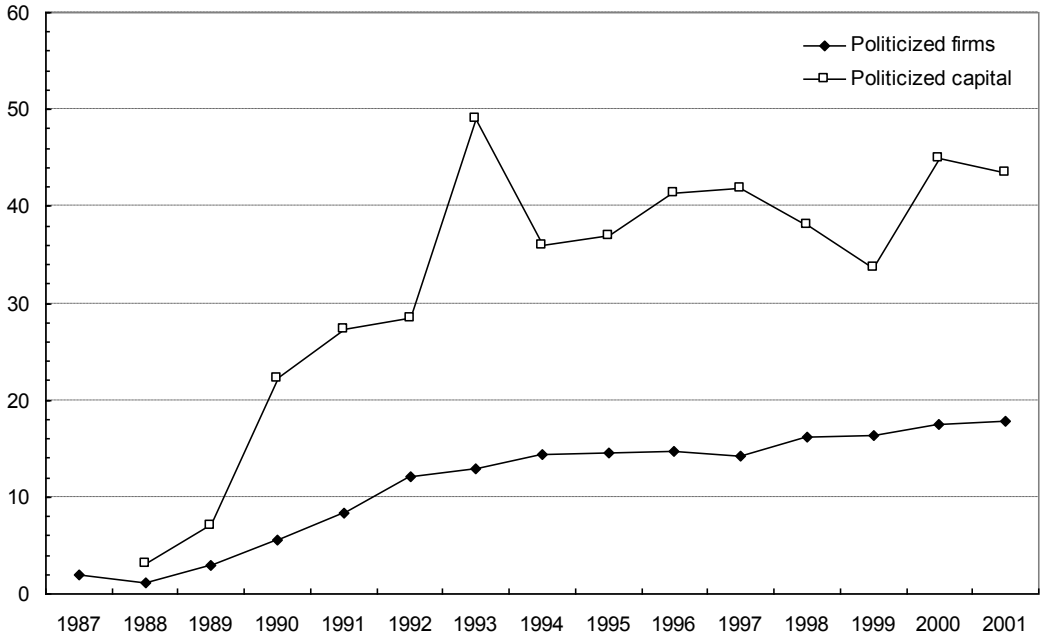
> Q. What can a political board member do?
>
> A. Use relations.
>
> Q. Yes…?
>
> A. Lobbying. Business lobbying and political lobbying.

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. One might have expected a different trajectory: 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.

Drawn from our dataset, Figure 1 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 1 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 1. Proportion of firms and capitalization with a political director.



In the early years, especially in sectors such as banking, firms brought former government officials onto their boards because there was a very limited pool of expertise:

> "The boards of the big banks were filled with people from the finance ministry, planning bureau officials, and other ministries. Even more than in the companies, the boards were from the ministry – the finance ministry – because that's where the expertise on banking was. The companies had people who knew about running companies. But there hadn't been banks as such in Hungary. Who knew how to run a bank in Hungary? That is why they drew on the central bank and the Finance Ministry."

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)

Politics sometimes made for strange bedfellows in the appointment of politicians to the corporate boardroom. Not all alliances were easily predictable, as seen in a case where a large agricultural holding (an enormous collective "farm," one of the largest in Eastern Europe) – seemingly a bastion of the socialist party – fired the socialist politicians form its board and brought on politicians from the opposing side:

> Q. Why did you appoint the MDF guys [a party of the right] to you board?
>
> A. We needed political allies. In a situation in which people are trying to line their pockets, you need friends.
>
> Q. But weren't the socialists your friends?
>
> A. The behavior of your enemies is somehow calculable but the backstabbing by friends that's something you can't be prepared for. (CEO of a large agricultural 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.

THE EFFECTS OF PARTISANSHIP ON PARTNERSHIP

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."

Business managers realized that partnerships with other businesses and alliances with political parties through personnel ties were a crucial resource in a changing economy. But 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 them as persons:

> Q. You've served under many governments. Are you a person of many political colors?
>
> A. No, I'm without political affiliation. The full spectrum is white light. I'm a civil servant. I have not been a party member and I never will be. But 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)

The notion of political camps suggests that firms' political alliances are related to their choice of business partners. Two firms within a camp have a common political affiliation and are more likely to build a business partnership with each other. Taking this example further, consider two firms belonging to different political camps. Will they be indifferent to political colorings when selecting their business partners?

To test expectations about the impact of political affiliations on business partnerships, we adopt a dyadic approach (Quillian and Campbell 2003). 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.

If the choice of economic partners is governed by a strictly business logic, firms should be indifferent to the political affiliations of their strategic partners. We expect that absolute size, relative size, industrial sector, state ownership, and foreign ownership will be significant factors in explaining the likelihood that firms will form a business tie. Our question is whether, net of these effects, political affiliations will also shape and constrain the structure of business alliances.

Our independent variables also refer to a pair of firms, to conform with the dyadic nature of our dependent variable. We use two sets of independent variables: the first set representing a business logic of networking while the second set represents a logic of political partisanship.

We represent the logic of business networking by variables of size, industry, ownership structure, and local network topography. We record capital size in the dyad, both as the absolute size of the larger firm in the dyad, and as the capital size difference in the dyad. 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 with smaller partners around).

We record industry affiliation by the combination of the following industry categories in the dyad: agriculture, energy, heavy, light, trade, service, and finance. Our reference category is the service-finance combination, which shows considerable stability throughout the epoch. 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, and also to those in upstream or downstream industries (for example, firms in heavy industry to those in energy or trading).

We record ownership by the prevalence of state, foreign, or domestic corporate ownership in the dyad (individual ownership is our reference category). For each ownership category we use two variables: whether both firms are in the same kind of ownership, or just one of the firms. Our first expectation here is about homophily (McPherson, Smith-Lovin, and Cook 2001) along shared ownership categories (for example a higher probability of a ties between two state owned firms). Our second expectation is about avoidance of contact with ownership categories (for example, privately owned firms might avoid state owned ones, foreign owned firm might avoid contact with domestically owned ones).

We record the triadic shape of ties around the dyad as a set of control variables. Ties are more likely in dyads where one of the firms already has many ties. Ties are also more likely between two firms that are already connected to a number of common third firms. This second variable of triadic closure is especially important to control for, as our

network data is a one-mode projection from the original bipartite graph of persons and boards.

The second set of independent variables records political affiliation, measured by four categories for each of the two firms in the dyad (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.

The findings of our logistic regression model are presented in Table 1.

Table 1 about here

The logic of business networks. Our findings indicate that a business network logic is operating in the formation of business partnerships. Overall, homophily is a dominant element in that business logic: firms prefer linking to partners of similar size, partners from the same industry, and of the same ownership category, as well as to firms with which they already share partners.

As expected, business ties are more likely when at least one of the firms is large; and the greater the disparity in the size of the two firms, the lower the odds that they will be connected by a business tie. Also as expected, network ties follow industrial categories. Industrial homophily is strong: Business ties are significantly more likely where pairs of firms operate in the same industry. Finance is the industry where such homophily is the weakest. Particular cross-industry pairings also make ties more likely, especially where one or both firms in the pair are in finance, service, or trade.

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. Privately owned firms were significantly less likely to be tied to state owned ones in two periods: 1992-93 and 2000-2001. 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.

Concerning local network topographies, not surprisingly, the more firms are connected to common third firms the more likely they will be connected to each other. Table 1 shows that our "open triads" variable is significantly positive during the first half of the epoch

but then reverses signs in the second half. Whereas in the earlier period, ties are more likely around firms with already many ties (i.e., there was tendency for highly central firms to connect to one another), in the later period, ties are less likely between firms that are otherwise linked to many other firms.

The logic of political partisanship. 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 two 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. In the early years of the extrication from state-socialism, we find that firms sharing a left political coloring are more likely to connect to each other in the business world. The more interesting finding is that left-oriented, politically-induced business partnering does not disappear; in fact, we find later years when it markedly increases. Even after large-scale privatization, the decisive shift to market coordination, trade liberalization, and a general normalization of the economy and political competition, shared affiliation to the political left has strong salience in shaping business ties.

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 a fragmented and increasingly disintegrating politicized economy.

The weakening of business logic in political dyads

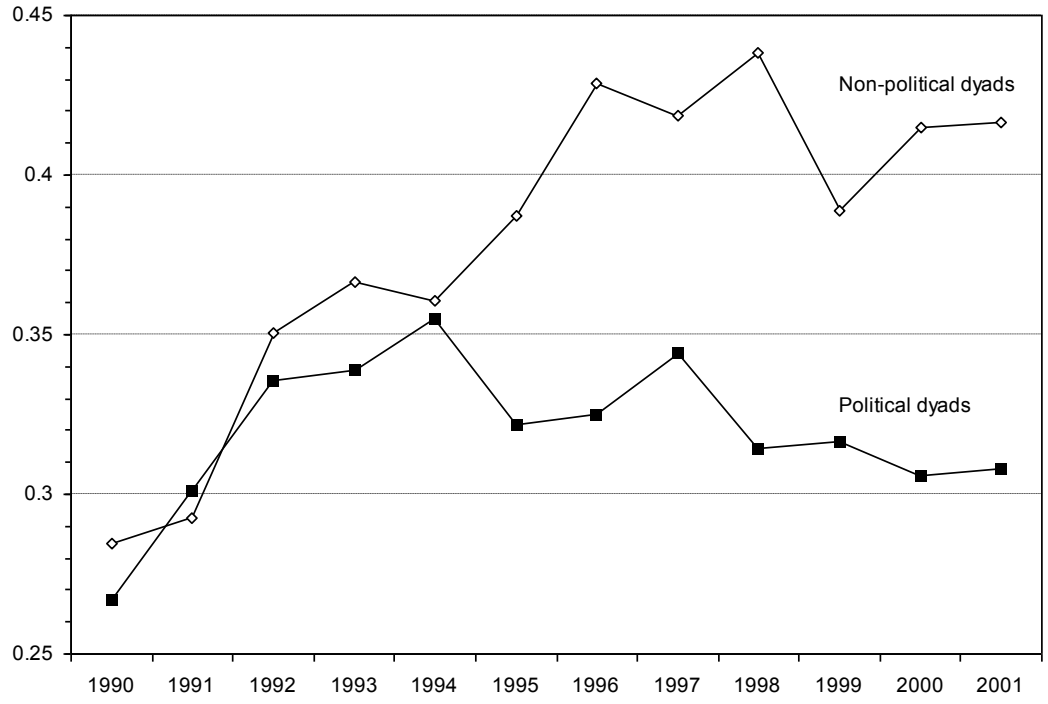
Table 1 demonstrates that politicized firms increasingly make their choice of business partners based on political criteria. It suggests that a business network logic is of decreasing salience for politicized dyads. To test this proposition directly, we evaluate the fit of the business logic in two subsamples of dyads: nonpolitical dyads: those without any political involvement (where none of the two firms have political ties), and political dyads: those with at least one of the firms connected to a political party. To evaluate the fit of the business logic in these two subsamples, we compare the fit of the business logic model to the initial fit of a model with only a constant:

$$\frac{(-2LL_{initial}) - (-2LL_{business\ logic})}{(-2LL_{initial})}$$

This ratio indicates improvement in fit over the initial model with only a constant. For each year, we compute the fit of the initial model and the business logic model, separately for the non-politicized subsample and for the politicized subsample.

Figure 2 presents trends in the fit of the business logic in our two sets of dyads. Until 1994 there is no difference in the prevalence of the business logic in either the politicized or non-politicized dyads. As we would expect in an evolving economy that adopted the institutional framework of market capitalism, there is an increasing trend in the importance of a business logic in predicting inter-organizational ties. After 1994 however, there is a sharp divergence between politicized and non-politicized dyads. In the case of non-politicized dyads, the prevalence of a business logic keeps increasing, leveling off at the late nineties. These findings underscore the significance of 1994 as a turning point: For politicized dyads there is a downturn from 1994, with a steady decrease in the importance of the business logic over the last five years of our epoch.

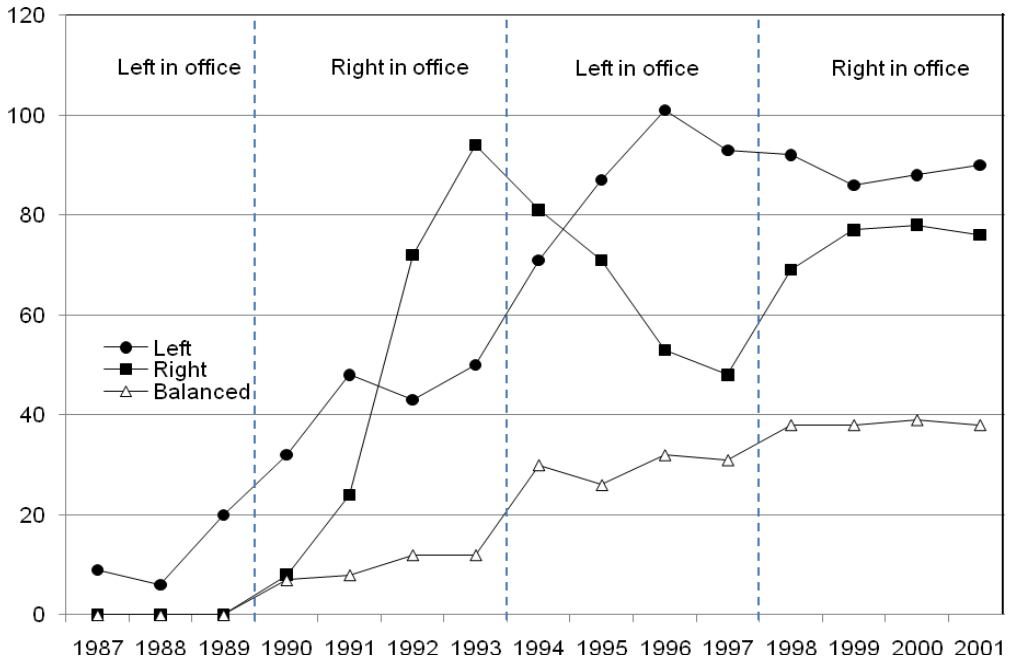
Figure 2. Business logic in political and non-political dyads.



The evolution of politicized business camps

The emergence of a politicized economy, shown in trends of the coefficients in Table 1 and Figure 2, must be placed in the context of election cycles. The changing fortunes of political parties is linked to the evolution of politicized business camps. 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.



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.

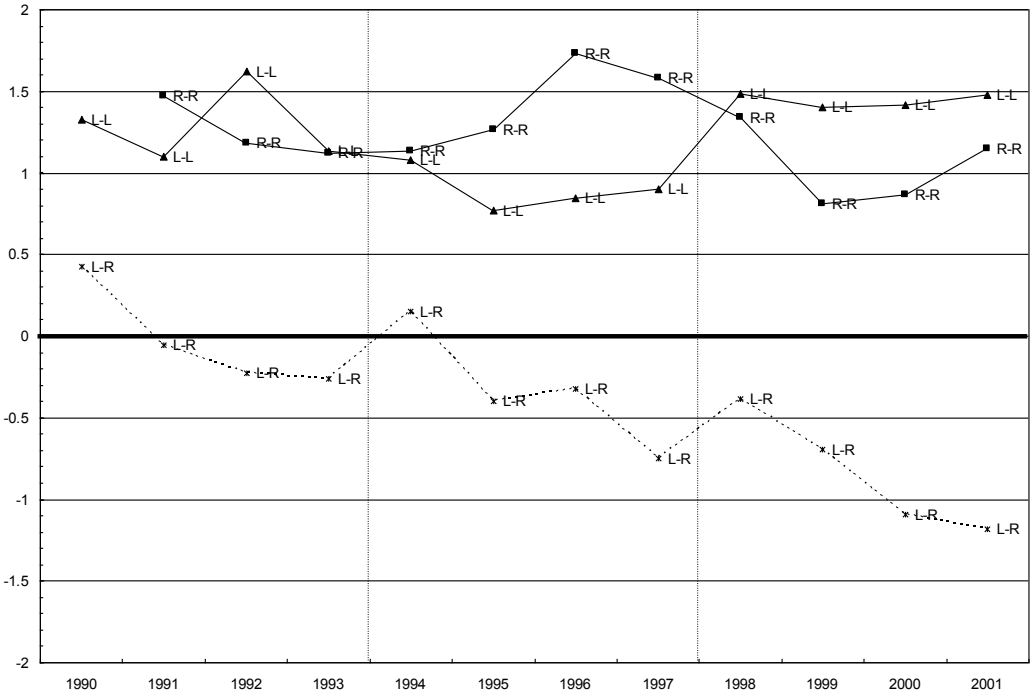
1994 was a key turning point. The reconstructed socialist party, which had gained only 10 percent of the parliamentary seats in the 1990 election, now achieved an overwhelming electoral victory. And it immediately began to translate success in the electoral arena into success in the field of firm affiliations. 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.

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 1997 the coefficient predicting business ties among antipathetic left-right pairings becomes significantly negative.

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.

Figure 4. Logistic regression coefficients of political coloring.



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.

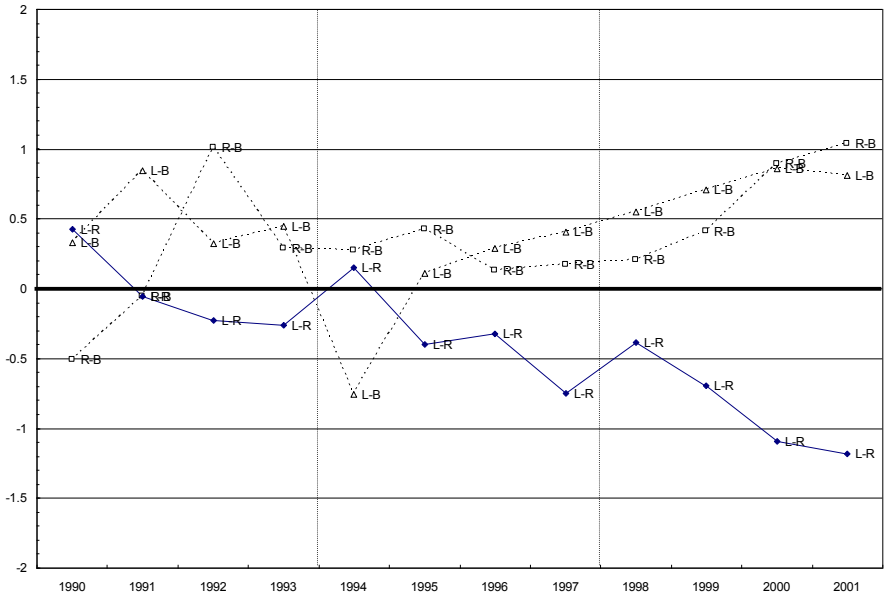


Figure 5 suggests that politically balanced firms are politically bridging firms. But several questions should be answered before we can be confident that it is their politically balanced character per se that is the key feature of such brokerage. First, it is possible that balanced firms are not bridging 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)[10]. 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.

Table 2 about here

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.

CONCLUSION

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.

[10] For a comprehensive review of this method in this business network context see Vedres and Stark 2006.

Although goals and means were clear, the actual challenges of market competition among firms and political competition among parties lead to the establishment of ties between the newly-corporatized firms and the newly-established parties. Restated, the goal of sharply separated fields was 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. On the other side, to compete in the economic field, firms need access to government contracts and to timely information about government policies. 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.

The Hungarian economy has been thoroughly marketized, with open competition among firms for capital, labor, suppliers, and customers; and the Hungarian polity has been democratized, with open competition among parties in a democratic electoral system. But whereas the economic and political fields have been institutionally separated, firms and parties have become organizationally entangled.

The Hungarian economy is not an aberrant case. Politics and business are entangled in every capitalist economy. 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, 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 Vice-President of the United States, is a senior advisor at Google and a member of the board of directors of Apple Corporation.

Our findings 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? Alongside further explicit attention to political fissures, our findings also 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.

Finally, our findings are likely to have applicability for future research on the U.S. financial crisis. On the surface, the two cases seem vastly different: Whereas in the

Hungarian case we see institutional and regulatory change in the transformation from state ownership to privatization, in the case of the contemporary U.S. political economy we see institutional and regulatory change in the entirely opposite direction (growing state involvement in the economy including de facto state ownership of a significant component of the banking system). Common to both cases is that political parties as well as firms are making adjustments in response to dramatic, unprecedented, unanticipated transformations of the institutional and regulatory environment. Political ties between business and firms, especially in the financial sector, are likely to grow in importance in the United States in the coming years. A thoughtful and rigorous analysis of these ties will require tested network analytic tools.

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Table 1: Logistic regression models of dyadic connectedness

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
The logic of partisanship												
Neutral-political	0.618**	0.228**	0.244**	0.086	0.014	0.106	0.202**	0.238**	0.233**	0.254**	0.264**	0.299**
Left-left	1.324**	1.099**	1.624**	1.131**	1.076**	0.767**	0.845**	0.900**	1.486**	1.403**	1.416**	1.479**
Right-right	-4.296	1.470*	1.180**	1.121**	1.137**	1.265**	1.735**	1.579**	1.337**	0.813**	0.864**	1.145**
Left-right	0.428	-0.055	-0.227	-0.262	0.148	-0.396	-0.323	-0.752*	-0.388	-0.696*	-1.093**	-1.184**
Balanced-balanced	1.846*	-6.388	1.942**	1.732*	0.369	0.757	0.912**	1.108**	0.719*	0.584	0.785*	0.817**
Left-balanced	0.329	0.847*	0.325	0.449	-0.755**	0.107	0.287	0.406*	0.547**	0.705**	0.856**	0.810**
Right-balanced	-0.507	-0.056	1.009**	0.292	0.278	0.425	0.133	0.171	0.209	0.414	0.893**	1.036**
The logic of business networking												
Ownership												
Both state owned	-0.015	0.018	-0.004	0.064	0.194	0.354**	0.279**	0.189	0.524**	0.678**	0.582**	0.803**
One state owned	-0.189	-0.069	-0.310**	-0.287**	-0.086	0.107	-0.092	-0.038	0.008	-0.083	-0.162*	-0.162*
Both foreign owned	-0.353	-0.176	0.115	0.105	0.178	0.194	0.249*	0.188	0.276**	0.386**	0.356**	0.333**
One foreign owned	-0.084	-0.385**	-0.317**	-0.300**	-0.283**	-0.215**	-0.257**	-0.121	-0.096	-0.066	-0.154*	-0.079
Both owned by domestic firm	0.312	0.220	-0.240	-0.169	-0.133	-0.066	-0.113	0.055	0.145	0.100	0.012	0.027
One owned by domestic firm	0.198	-0.049	-0.052	-0.051	-0.111	-0.079	-0.198**	-0.046	-0.060	-0.009	-0.011	-0.086
Size												
Capital size of largest firm	0.061	0.031	0.03	0.037*	0.046**	0.038**	0.024	0.050**	0.034*	0.043**	0.040**	0.042**
Capital size difference	0.035	-0.027	-0.029	-0.045**	-0.031*	-0.041**	-0.046**	-0.040**	-0.032*	-0.018	-0.029*	-0.020
Local topography												
Open triad	0.007	0.001	0.008	0.011**	0.017**	0.012**	-0.002	-0.009*	-0.009**	-0.007	-0.010*	-0.012*
Closed triad	2.493**	2.316**	2.637**	2.898**	2.685**	2.706**	2.727**	2.721**	2.805**	2.737**	2.950**	3.008**
Industry												
Agriculture-agriculture	1.582**	1.768**	1.374**	0.964**	0.815**	1.223**	1.381**	1.417**	1.395**	1.268**	1.141**	1.144**
Agriculture-energy	0.491	-0.872	-1.192	-1.471	-0.466	-0.235	-0.147	-0.629	-0.827	-0.791	-0.542	-0.540
Agriculture-heavy	0.115	-0.229	-0.065	-0.082	-0.415	-0.218	-0.04	-0.278	-0.157	-0.326	-0.326	-0.387
Agriculture-light	-3.399	-3.062	-1.479	-0.283	-0.327	-0.196	-0.439	0.074	-0.561	-0.028	-0.340	-0.53
Agriculture-trade	0.811	0.188	0.358	0.22	0.153	0.319	0.317	0.264	0.215	0.048	0.080	0.118
Agriculture-finance	-0.006	0.066	0.489	0.381	0.490*	0.510*	0.561**	0.604**	0.416*	0.287	0.431*	0.350
Energy-energy	-3.840	2.270**	3.032**	2.881**	2.190**	2.759**	2.448**	2.323**	2.241**	1.754**	2.684**	2.643**
Energy-heavy	0.583	0.148	0.704	0.72	0.359	0.268	0.452	0.604	0.272	0.412	0.054	0.01
Energy-light	-0.130	-4.39	-2.701	-2.517	-0.133	0.664	0.845	0.163	0.581	0.020	-2.569	-2.549
Energy-trade	-0.152	-0.703	0.334	-0.601	-1.257	-0.718	-0.24	-0.368	-0.234	-0.320	0.257	0.375
Energy-service	0.138	0.807	1.041**	0.764*	0.716*	0.804**	0.932**	1.014**	0.867**	1.037**	1.271**	1.232**
Energy-finance	0.945	0.316	0.201	0.584	0.418	-0.016	0.402	0.774	0.061	-0.117	-0.856	-0.335
Heavy-heavy	1.487**	1.167**	1.154**	1.089**	1.207**	1.350**	1.131**	1.039**	0.982**	1.042**	1.082**	1.034**
Heavy-light	-3.658	-0.264	0.291	-0.039	0.253	0.337	0.471	0.316	0.275	-0.021	0.497	0.258
Heavy-trade	0.076	0.121*	0.49	0.432*	0.375*	0.568**	0.464**	0.423*	0.230	0.291	0.351*	0.341*
Heavy-service	0.273	0.204*	0.605	0.446*	0.372*	0.555**	0.492**	0.517**	0.296	0.328	0.245	0.265
Heavy-finance	0.335	0.557	0.433	0.421	0.071	0.371	0.288	0.580**	0.208	0.180	0.198	0.203
Light-light	3.301**	2.626**	2.795**	2.475**	2.138**	2.262**	2.123**	2.303**	1.316**	1.391**	1.624**	1.848**

Light-trade	0.158	-0.069	0.516	0.550*	0.263	0.465	0.465	0.296	0.155	0.313	0.122	0.19
Light-service	0.163	0.196	0.17	0.257	0.280	0.198	0.156	0.332	0.056	0.114	-0.114	-0.114
Light-finance	0.637	1.016*	0.771	0.747*	0.840**	0.977**	0.363	0.612	0.566	0.314	0.644*	0.272
Trade-trade	0.319	0.620*	0.964**	0.748**	0.679**	0.815**	0.847**	0.856**	0.754**	0.778**	0.765**	0.806**
Trade-service	0.225	0.338	0.738**	0.460*	0.379*	0.379*	0.357*	0.364*	0.301	0.194	0.127	0.149
Trade-finance	0.516	0.629*	0.686**	0.417*	0.553**	0.571**	0.757**	0.829**	0.643**	0.587**	0.617**	0.624**
Trade-service	0.451	0.929**	1.156**	1.050**	0.998**	1.373**	1.256**	1.270**	1.281**	1.167**	1.033**	0.976**
Service-service	0.775	0.737*	0.543*	0.313	0.206	0.53**	0.243	0.499*	0.367	0.366	0.358	0.417*
Finance-finance	1.000**	0.763*	0.29	0.561*	0.599*	0.525*	-0.089	0.738**	0.605**	0.209	0.388	0.520*
Constant	-6.483**	-6.193**	-6.697**	-6.779**	-6.956**	-7.168**	-6.838**	-7.191**	-7.078**	-7.129**	-7.012**	-7.064**
N	24532	101927	214841	336611	381502	387641	412687	435711	440392	435712	426427	416329
-2LL	2333.8	5892.9	8984.3	11754.8	13068.7	13294.5	13789.7	13837.7	14050.5	14197.9	13279.9	12883.9
R2	.261	.294	.342	.356	.358	.355	.370	.379	.379	.351	.360	.364
% 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)	772.3(44)	2356.0(44)	4528.9(44)	6324.5(44)	7104.1(44)	7115.4(44)	7891.4(44)	8224.6(44)	8370.0(44)	7497.3(44)	7295.1(44)	7190.9(44)
P-value	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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

Table 2: Logistic regression models of politicized brokerage

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Political logic												
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
Business logic												
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