

# Evidence of a transnational capitalist class-for-itself: the determinants of PAC activity among foreign firms in the Global Fortune 500, 2000–2006

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**Abstract** *Transnational capitalist class (TCC) theory is rooted in the claim that the globalization of the economy has led to a globalization of economic interests and of class formation. However, systematic evidence linking the indicators of transnational class formation with political behaviour is largely missing. In this article, I combine data on board of director interlocks among the 500 largest business firms in the world between 2000 and 2006 with data on the political donations to US elections of foreign corporations via the corporate political action committees (PACs) of their subsidiaries, divisions or affiliates. Controlling for the various interests of individual firms, I find that foreign firms that are highly central in the transnational inter-corporate network contribute more money to US elections than do the less central foreign firms. Given prior research on board of director interlocks, this finding suggests that a segment of the transnational business community has emerged as a class-for-itself.*

**Keywords** TRANSNATIONAL CAPITALIST CLASS, INTERLOCKING DIRECTORATES, CORPORATE PACS, POLITICAL DONATIONS, ELITE NETWORKS, POWER STRUCTURE

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The issue of class formation has long been central to debates on power and control in capitalism. While these debates have traditionally been located within a national context and been focused on the extent of business class political unity, the increasing globalization of the economy has shifted the nature of the debate. Specifically, as the organization of capitalist production has moved from a national to a global base (Robinson 2004; Robinson and Harris 2000; Ross and Trachte 1990), transnational class formation has become a central issue (Klassen and Carroll 2011).

A group of scholars, including Jerry Harris, William Robinson and Leslie Sklair, has utilized the shift from monopoly capitalism to global capitalism and the purported

effects of economic globalization on the nation-state as a departure point for theories of an emerging transnational capitalist class (Robinson 2001, 2004; Robinson and Harris 2000; Sklair 2001). Research mapping transnational inter-firm networks created by interlocking boards of directors (Carroll 2009; Carroll and Carson 2003; Carroll and Fennema 2002; Fennema 1982; Kentor and Jang 2004; Nollert 2005) and cross-border ownership (Vitali et al. 2011) provides support for transnational capitalist class (TCC) theory. These studies identify a small group of closely connected firms and directors hypothesized to represent a class conscious and politically active ‘inner circle’ of the TCC.

While class consciousness and political action on behalf of global interests are integral components of the formulation of the TCC (Robinson 2004; Robinson and Harris 2000), existing empirical evidence only establishes the presence of structural conditions that are necessary for the emergence of a transnational class-for-itself. That is, economic indicators of class such as globalized production or increasingly transnational inter-firm networks may serve as evidence of common transnational interests among firms domiciled in different nations, but they do not entail action on behalf of those interests. Systematic evidence linking economic indicators of class, such as centrality in interlock networks, to political behaviour is currently missing. In this article, I provide a piece of this missing evidence by testing the link in the world’s largest firms between transnational class and political behaviour.

### **Globalization and class formation**

The process of class formation generally fluctuates between two phases. In the first phase, a group of individuals becomes an objective class-in-itself when its shared relationship to the ‘process of social production and reproduction’ creates common interests among its members (Robinson and Harris 2000). The second phase involves the forging of ‘collective political and/or cultural protagonism’, transforming a class-in-itself into a class-for-itself (Robinson and Harris 2000).

Jerry Harris (2011) summarizes the evidence of transnational economic integration, or the relationships to the process of social production and reproduction that constitute the structural conditions for an objective transnational capitalist class-in-itself. He identifies three steps in the maturation of the TCC – the globalization of production, ownership and control. The globalization of production marks a shift in manufacturing from rich core countries to poor peripheral nations, so commodity chains become increasingly transnational, with pieces of each product manufactured in multiple nations. Robinson and Harris (2000) argue that the globalization of production marks the key difference between the prior system, with nationally produced goods and services traded internationally, and the current system when both trade and production are transnational. A consequence of globalized production is that rather than being limited to the labour forces of only the nations in which they are domiciled, corporations are able to search the globe for the cheapest labour (Robinson and Harris 2000; Silver 2003). Thus, corporations domiciled in different nations increasingly tap into the same labour pools to create a common transnational interest.

In addition to corporate production now taking place on a transnational scale, the ownership of large corporations has become increasingly global in nature. Specifically, since the 1970s there has been a growth in the percentage of foreign corporate stockholders and investments made in cross border deals (Harris 2011). Transnational ownership is a significant step in creating the structural conditions necessary for the emergence of a TCC. In an economic system of national ownership, capitalists from different nations link largely through market transactions. Global ownership, on the other hand, institutionally links capitalists from different nations together and broadens their economic interests from national to global capitalism.

The final step in the maturation of the TCC, according to Harris (2011), is the globalization of corporate boards. The separation of ownership and control in large corporations, which results from the dilution of individual ownership rights through the stock market, makes this step necessary (Berle and Means 1932; Fama and Jensen 1983). The implication of the separation of ownership and control for the emergence of a TCC is that it becomes possible to organize control of the firm nationally even when ownership is global. An increase in the proportion of corporate boards made up of directors of different nationalities globalizes the control of firms (Harris 2011).

While the above evidence of increasing transnational economic integration paints a compelling picture of the emergence of a transnational capitalist class-in-itself, proponents of TCC theory conceptualize the transnational fraction of capital as a class-for-itself. The key difference between a class-in-itself and a class-for-itself is action on behalf of collective interests, or as Marx (1995: 189), writing in 1847 put it, ‘the interests [a class-for-itself] defend become class interests.’ One example of a statement suggesting a collective political protagonism on the part of the TCC is Sklair’s (2001: 5) proposition that ‘the TCC is beginning to act as a transnational dominant class in some spheres.’ Another is Robinson and Harris’s (2000: 22) assertion that ‘at the level of agency, the TCC is class conscious, has become conscious of its transnationality, and has been pursuing a class project of capitalist globalization.’

Despite these claims, systematic evidence in support of the class-for-itself conception is currently lacking. Much of the existing supporting evidence comes in the form of anecdotal examples. A more robust defence of TCC theory requires demonstrating a consistent correlation between indicators of transnational class cohesion and class-informed political behaviour. Of all the potential sources of capitalist social cohesion, the mechanism that has the strongest empirical support is social ties created by individuals who sit on multiple corporate boards, also known as interlocking directorates.

### **The significance of transnational interlocks**

An interlocking directorate occurs when a person affiliated with one organization sits on the board of directors of another organization (Mizruchi 1996: 271). Interlocking directorates are quite common among large corporations, or as C. Wright Mills (1956: 123) puts it, they are ‘a solid feature of the facts of business life’. The result of the many interlocks between firms is that the business community in any given nation is part of large interconnected networks of both firms and individual directors (Scott

1997). There is evidence, however, that the globalization of control is making these national interlock networks increasingly transnational (Nollert 2005). In other words, as the composition of corporate boards becomes more transnational in general, it also becomes more common for individuals who hold multiple directorships to affiliate with firms domiciled in different countries, which connects these firms to one another across national borders (Carroll 2010; Carroll and Fennema 2002; Fennema 1982; Kentor and Yang 2004).

Generally, the findings of transnational interlock studies have been interpreted as evidence of, at the very least, emerging social cohesion among the TCC (Carroll 2009, 2010; Kentor and Jang 2004; Nollert 2005). However, aside from a few studies (Carroll 2010; Carroll and Carson 2003; Nollert 2005) demonstrating that transnational interlockers (directors who sit on multiple boards of different national domiciles) are more likely to serve on global policy groups, most of the research on transnational interlocking directorates does not explicitly test the association between position in the interlock network and political behaviour. Rather, the consequences of transnational interlocks tend to be inferred through an analysis of the structure of the resulting inter-firm and interpersonal networks. These structural analyses ground their interpretation of the meaning of transnational interlocks in research on the causes and consequences of interlocking directorates within a national context.

For example, Mills (1956: 123) asserts that interlocks between US corporations are important social ties that anchor the 'community of interest' and 'the unification of outlooks and policy' among the economic elite. Organizational theorists have proposed numerous additional explanations for why interlocks form, ranging from organizational factors such as resource dependency to individual considerations such as the desire for career advancement by directors who choose to sit on multiple boards. Whereas Mizruchi (1992, 1996) argues that, regardless of the motivation behind the formation of any single interlock, the resulting network may have the consequence of facilitating business political unity. Similarly, Useem (1984: 17) states that 'classwide informal organization ... has indeed been formed, not through conspiratorial design, but as an unintended by-product of other forces playing themselves out.'

This line of reasoning drove much of the research on US interlocks away from studying causes and instead refocused it on consequences. It is important to note that research on the behavioural consequences of board of director interlocks focuses on two types of interlock, namely ties between individuals who sit on the same boards and ties between firms that share directors. The logic underlying the study of firm behaviour in the context of class formation requires some elaboration, for individuals, not firms, make up a class. The study of firm behaviour as an indicator of class organization relies on three assumptions. First, the current mode of production is embedded entirely in the corporate system, to the extent that the capitalist class is necessarily a corporate class; or, as Mills (1956: 148) argued more than 50 years ago, 'the propertied class, in the age of corporate property, has become a corporate rich.' Second, in a corporate economy, firms represent the greatest concentration of economic power and resources, and are thus important tools through which a capitalist

class-for-itself acts. Third, corporate boards have control over the economic and political policies of the firms they represent. Thus, the behaviour of firms will often reflect the interests of its board of directors. These assumptions allow for an interchange between the interests of the economic elite who control corporations and the behaviour of the firms they control.

The ensuing research on both firm and individual executive behaviour generally supports a view of interlocks as indicators of social cohesion. Mizruchi (1989, 1992) finds that indirect ties between firms through financial institutions are associated with similar donation patterns. In other words, firms that share multiple sources of information exhibit unified behaviour, which supports Useem's (1984) conception of interlocks functioning to improve a firm's 'business scan'. Useem also finds, through a series of interviews, that individuals who sit on multiple boards (whom he deems the 'inner circle' of the capitalist class) are more politically active and class conscious. Mintz and Schwartz (1985) trace the US interlock network and find that financial institutions are the most central firms and that they act to mediate inter-corporate disputes and act in the long-term interests of capital. Finally, Mizruchi (1992) also finds that firms that share directors are more likely to hold the same public positions on policy than two firms that are unconnected, and Burris (2005) finds that directors who are linked through the interlock network exhibit similar political donation patterns.

From the above findings, transnational interlock scholars like Carroll (2010: 33) infer that the increase in the connectivity of the transnational inter-corporate network between 1976 and 2006 is 'evidence of a tendency for the transnational network to become a site of class formation'.<sup>1</sup> At this point, however, it is important to note that the implicit assumption in transnational interlock research that one can directly transfer the consequences of interlocks in a national context to a global context introduces significant complications.

Among scholars of power structure, the view of interlocks most widely employed sees them as mechanisms of communication (Mizruchi 1996). As Mintz and Schwartz (1985: 134) assert, 'interlocking directorates provide enormous potential for information exchange,' but rather than information about specific corporations, 'broad business and economic information is the valued prize of multiple board memberships.' There are two distinct views of how these mechanisms of communication function to influence the behaviour of firms. The first approach views an interlock as an important phenomenon *sui generis* (Mizruchi 1996). Under this conception, the presence or absence of an interlock directly influences the behaviour of the connected firms. The logic behind this is detailed by Mintz and Schwartz (1985: 135), as they explain that having directorate interests in multiple companies places executives who sit on multiple boards 'in a position to identify with the problems of diverse corporations and hence to generate policies reflecting a broad class interest'.

The second approach sees interlocks as important only as reflections of underlying social relations (Mizruchi 1996). That is, interlocks are neutral tools of communication and their presence tells us nothing about how they are used. Thus, the effect of communication is conditional on what is being communicated and towards what ends.

For example, a business community with a great deal of social cohesion and consciousness of class interests may use interlocks to coordinate firm behaviour and mobilize political action. On the other hand, a politically fragmented business community that is unconscious of its class interests may only embed itself in the interlock network to reduce risk and maximize its individual firm's investments.

If interlocks function as direct causal factors, as described in approach one, then it is appropriate to assume that the consequences of interlocks are the same transnationally as they are nationally. If they function as described in approach two, however, there are reasons to believe that the consequences of transnational interlocks may differ from those of national interlocks. This is because underlying national interlock networks are systems of circulation through intermarriage, co-attendance at elite private educational institutions and co-membership of exclusive social clubs that generate social cohesion among economic elites (Mills 1956). According to John Scott (1997), systems of circulation are a feature of almost every national capitalist class, but they are less prevalent between elites of different nationalities. Thus, if the TCC lacks a system of circulation to provide social cohesion, interlocks in the transnational network may fail to build solidarity and organize political action on behalf of class interests. In fact, this is the position Scott (1997: 312) takes regarding the emergence of a TCC – that without circulation, it is not a class-for-itself.

However, as previously discussed, it is a central contention of TCC theory that the TCC is, in fact, a class-for-itself. This disagreement with Scott is explicitly stated by Sklair (2001: 11–12), who argues that members of the TCC having a tendency to 'marry partners and interact mostly with those who live in the same country seems less important than the fact that they also partake differentially in recognizable global patterns of capital accumulation, consuming, and thinking'. Thus, if the claims of TCC theory are correct, we should expect firms with a greater number of interlocks in the transnational network to be more likely to engage in political behaviour on behalf of transnational class interests. This, however, is a hypothesis to be tested, not inferred.

### **Political behaviour on behalf of transnational class interests**

We can break the interests underlying corporate political action into those serving the collective interests of business and those serving the immediate profit interests of the firm. Either the interests of a firm's national class or the interests of the transnational class may motivate the actions that serve collective interests. The central difference between the economic organization of national capitalist classes and the TCC is the extent to which those who own and control corporations have economic interests that transcend national borders. It therefore follows that the central differentiating factor between political behaviour motivated by national and transnational class interests is the extent to which that behaviour is globally oriented. That is, most political action necessarily takes place within a national context and an important political aim of the TCC is to subordinate national interests within the nation-state in order to pursue the class project of capitalist globalization (Robinson and Harris 2000). Thus, firms with

boards motivated by transnational class interests should be more likely to engage in political action in nations outside the one in which they are domiciled, compared with firms motivated mostly by national class interests. The extent to which a firm acting on behalf of its immediate individual interest will engage in political behaviour in a foreign nation depends on the economic interests of the firm in a specific foreign nation and the potential effects of government policies on the firm's profits.

As I elaborated in my discussion on transnational interlocks, executives who sit on multiple firms domiciled in multiple nations theoretically foster the development of corporate policies that reflect the interests of the TCC. Thus, the firms with which these transnational interlockers associate should engage in political behaviour informed by transnational class interests. From this, I derive my first hypothesis:

H1: Controlling for firm-level economic interests, firms with transnational interlocks are more likely to engage in political behaviour in foreign nations than are firms without transnational interlocks.

In my prior discussion of interlocks and class formation, I also elaborated on research on flows of information through the interlock network by Useem (1984), Mintz and Schwartz (1985) and Mizruchi (1992). They demonstrate that the behaviour of firms at the centre of the network is more reflective of the social cohesion built through interlocks than the behaviour of firms at the periphery of the network. If TCC theorists are correct in their assumption that the transnational interlock network is either reflective of, or a causal factor in, the building of transnational capitalist social cohesion, then the following will be true:

H2: The more central a firm is in the transnational interlock network, the more likely it will be to engage in political behaviour in foreign nations.

## **Data and methods**

### *Data sources*

*Sample* The foreign business firms (that is those not domiciled in the United States) in the Global Fortune 500 (G500) in the years 2000, 2002, 2004 and 2006 make up the sample utilized in this study. I attained the sample from William Carroll's (2009, 2010) dataset. It defines the G500 as (1) the 400 largest industrial and commercial businesses ranked by revenue according to the Global Fortune 500; and (2) the 100 largest financial intermediaries ranked by assets according to the Forbes Global 2000.<sup>2</sup> The above sample results in 2154 observations, or firm-years, during the period under study, with 1300 domiciled outside the United States.

Sampling the largest non-US firms in the world at two-year intervals is a strategic choice based on my research question, but this choice is composed of two smaller choices each of which has consequences for the generalizability of the study and, thus, requires explanation. First, the deliberate decision to restrict the sample to the largest firms in the world, rather than to produce a random sample that includes mid-

sized and small firms, limits the generalizability of my findings to large businesses. Limited generalizability, in this case, is not a problem given that theories of transnational class formation also generalize only to the behaviour of large corporations and their owners, executives and directors. The reason for focusing only on the largest business firms when studying issues of power has to do with the disproportionate amount of total business in the world for which members of the G500 are responsible (Carroll 2010). By dominating world economic activity, major corporations structure the choices of small and mid-sized firms.<sup>3</sup> Thus, in terms of power structure, only those at the top are pertinent to the discussion. While focusing on the behaviour of large corporations is theoretically defensible, utilizing the behaviour of companies as a proxy for class behaviour runs the risk of reifying the corporation. It is worth noting in defence of this methodological choice, however, that corporations are legal entities. Although both Sklair (2001) and Robinson (2004) identify the executives and directors who control transnational corporations as the dominant fraction of the TCC, they identify the corporations themselves as the means through which they exercise capitalist power. As Robinson (2004: 55) puts it, 'TNC [transnational corporation] activity *is* transnational capitalist activity.' Thus, it is also theoretically defensible to locate the institutional form of the transnational capitalist class in major global business organizations. In addition, it is also, as Sklair (2001: 36) argues, methodologically necessary because it opens up the TCC to empirical testing.

The second strategic sampling choice I make, which my focus on corporate behaviour only within the US political context necessitates, is only to look at the behaviour of firms domiciled outside the United States, namely foreign firms that clearly orient their political behaviour in the USA globally with a view to influencing politicians in a foreign country. Thus, only through examining the behaviour of firms domiciled outside the USA can I test hypotheses 1 and 2 when measuring behaviour in a US context.

Why, one might ask, should we focus on political behaviour in the United States? Due to its role as the last global hegemonic power before the rise of the transnational state (TNS), Robinson (2004: 129) sees the United States as a prime site of TCC political action. In fact, he argues that many US policies function to promote global capitalism and the interests of transnational capitalist elites (Robinson 2004: 134). The primacy of the neo-liberal paradigm in US foreign policy and its function in serving the interests of global capitalism are indications of this shift in imperialist structures to transnational orientations (Harvey 2005). For example, the United States was instrumental in forming many of the transnational institutions such as the WTO and IMF that Robinson (2004) identifies as important apparatuses of the TNS (McMichael 2001). Furthermore, the United States has the most voting power in the IMF, is the largest shareholder in the World Bank, nominates the bank's president and is one of only five countries with a veto power in the United Nations Security Council. With an outlay of \$698 billion in 2010 (Stockholm International Peace Research Institute 2011), the USA is also responsible for 43 per cent of the world's military spending and its GDP is the highest of any country and is only slightly lower than that of the entire European Union combined (CIA World Factbook 2011). Thus, the United

States' unique position in the world as a global military, economic and political power means that its policies are potentially powerful tools for the transnational elite, thus making it especially influential in transnational business.

The focus on the behaviour of foreign firms in the United States also necessitates one more constraint on the sample: foreign firms can only contribute money to US political candidates indirectly through a subsidiary, division, or affiliate located in the United States. Accordingly, I only include foreign firms with a subsidiary, division or affiliate in the United States. Data on the location of a firm's subsidiaries, affiliates and divisions come from the LexisNexis Corporate Affiliations database. The final sample of foreign G500 firms with a US subsidiary, division or affiliate includes 734 firm-years.

*Firm characteristics* Carroll's (2009, 2010) data include information about individual firms, such as revenue, assets, domicile and primary industry. His information comes primarily from Fortune's Global 500 and Forbes Global 2000 list, but he supplements it with data from annual reports. Carroll did not include data on government contracts. I compiled this data using the website [www.USAspending.gov](http://www.USAspending.gov), which is a searchable database of each federal contract. The database is made public as part of the Federal Funding Accountability and Transparency Act.

*Interlocks and network position* Carroll's data also include a list of every director, by year, for each company in the sample. I took the names of directors from corporate annual reports, available electronically from official corporate websites or from the Mergent Online database. I entered the names of directors and companies into an affiliation network and used UCINET to transform the affiliation network into a matrix. Using the UCINET generated matrix, I was able to calculate network variables such as number of transnational interlocks, number of national interlocks and centrality in the interlock network. For network calculations, I used the full sample of 2154 firm-years.

*PACs* Numerous tactics are available to businesses trying to influence US government policy. Sklair (2001: 27) describes a three-stage model of corporate influence proposed by Ryan et al. (1987). The first stage involves turning public opinion away from unfavourable policies through media campaigns. In stage 2, corporations seek to influence policy formation through tactics such as lobbying and political donations. Finally, once the government has passed legislation, businesses resort to co-opting regulatory agencies or legal means to stop the implementation of undesirable policies.

The tactics used in stage 2 are the most reliably recorded, for corporations must report political action committee (PAC) donations and lobbying activity to the Federal Elections Commission. Accordingly, interlock researchers have used PAC data as a standard means of examining corporate political behaviour (Mizruchi 1996: 285).

PAC donations are a clear representation of the political behaviour that individual corporations engage in directly. Decisions about whether to donate money through a

PAC and to which candidates reflect policies formed in the boardroom and dictated to PAC leaders by the CEO (Clawson et al. 1992). Thus, PAC donations demonstrate the interests of those who control the corporation. As previously noted, because TCC theorists see the inner circle of the executives and directors who control major transnational corporations as the dominant fraction of the TCC, PAC activity is one avenue through which the TCC acts to serve its transnational class interests.

The data on PAC donations originated from the Center for Responsive Politics ([www.opensecrets.org](http://www.opensecrets.org)) and Carroll (2009, 2010) subsequently merged the name of the parent corporation of a PAC with the corporation name.

#### *Dependent variable*

*PAC contributions* This variable is measured in dollars and represents the total amount of contributions made by a foreign firm's US subsidiaries, divisions and affiliates through corporate PACs in a given year.

#### *Independent variable*

*National/transnational embeddedness* The logic of using the behaviour of firms as a measure of class-informed action rests on the premise that corporate directors who are members of the inner circle (because they sit on multiple boards) influence board policies. Thus, a firm with at least one interlock will be more likely to act to further class rather than individual interests than a firm that is isolated from the interlock network and has no inner circle members. Thus, in the national/transnational class dichotomy, a firm with at least one director on the board of at least one other firm domiciled in a different nation (one transnational interlock) is more likely to promote transnational class interests than a firm with directors who only sit on the boards of firms domiciled in the same nation (national interlocks). Thus, we can operationalize the level of interest (of an individual firm, national class or transnational class) a board's policies are likely to reflect as the presence or absence of transnational and national interlocks. Accordingly, I measure the three levels of interest as a series of dummy variables representing firms *isolated* from the interlock network, firms with only *national* interlocks and firms with at least one *transnational* interlock. In my sample of foreign firms with US subsidiaries, divisions or affiliates, there were 169 isolated firms, 169 with only national interlocks and 550 with at least one transnational interlock.

*Degree centrality* Degree centrality, which is the number of interlocks a firm has to other firms in the network, is the most straightforward measure of the inner circle thesis. Useem (1984) argues that firms with several board members belonging to the inner circle of the capitalist class (that is they sit on multiple boards and therefore interlock the firm to multiple other firms) will tend to adopt a class-wide rationality. I have standardized this measure for board size. This is important in the transnational network because the size of corporate boards varies from country to country (Carroll 2010).

*Control variables*

*Number of direct interlocks to US firms* Foreign firms with a large stake in the US economy (either as a consumer market, supplier or for investors) are likely to seek out interlocks with US companies because of resource dependency. This would result in the foreign companies in question having more transnational interlocks and potentially being more central in the network than firms with little economic interest in the USA. Given that I take both the presence of a transnational interlock and network centrality as indicators of transnational class, this raises the possibility that any correlation between these indicators and globally oriented political behaviour may be spurious. Instead, it could be due to the relationship between transnational interlocks to US firms, centrality and economic interest in the United States. To control for this possibility, I measure the number of interlocks each foreign firm has to US firms.

*Assets* This variable is a measure of size. We expect large firms to be more politically active than small ones because they have more assets at risk and thus stand to gain a larger share of any political benefits secured through corporate political activity (Hart 2001; Masters and Keim 1985). Firm size is also an important indicator of resource availability (Boies 1989) and firms are eager to form ties with large organizations to signal their legitimacy to investors (Mizruchi 1996). This could result in large firms being more central in the interlock network than small firms are. I measure assets in units of one million dollars.

*Government regulation* Hart (2001) argues that whether firms seek regulation for protection or in an attempt to eradicate regulations that limit their behaviour, they have an interest in gaining access to the policymakers who are responsible for creating and passing the regulations. To control for this, I created industry dummy variables for highly regulated industries such as transportation, energy, communications and banks or financial services (Masters and Keim 1985). I base the primary industry of a firm on the classifications that Carroll (2010) used to determine primary industry, namely the Standard Industrial Code (SIC) and the North American Industry Classification System (NAICS).

*Federal contracts* Firms that receive large government contracts become dependent on the government, which then also closely regulates them. This provides an incentive to form a PAC, for political contributions provide a selective incentive for legislators to steer contracts to their friends in business (Hart 2001). This variable is the dollar amount of all federal contracts received by a firm in a given year.

*PACs in the previous period* While my dependent variable measures the total amount of donations made through corporate PACs, this decision is influenced by earlier ones. In other words, there are a number of fixed costs associated with establishing a PAC, such as hiring staff (Masters and Keim 1985). In addition, to terminate a PAC it is necessary to file special forms with the Federal Election Committee (FEC). Thus,

firms that do not already have a PAC will be less likely to begin one (and thus be unable to donate money) than firms that have already born the cost of forming a PAC. When the first year falls away from the data, inclusion of a lagged variable usually results in information loss. Therefore, to avoid losing data for the year 2000, I collected data on PAC activity for the 1998 election cycle.

*Year* It is important to control for the effect of time whenever analysing longitudinal data (Allison 2005). However, since one cannot assume that the effects of time are linear, I include dummy variables for the years 2002, 2004 and 2006, with the year 2000 being the reference category.

*Descriptive statistics*

Table 1 shows means, standard deviation, number of cases, minima and maxima for all dependent and independent variables.

**Table 1: Descriptive Statistics: G500 foreign firms with a US subsidiary/division/affiliate, 2000–2006**

	N	Mean	Standard deviation	Min.	Max.
PAC contributions	852	35,725.89	101,769.1	0	881,413
Degree centrality	742	1.29	1.27	.2	6
Transnationally embedded	888	.16	.37	0	1
Nationally embedded	888	.03	.17	0	1
Isolated	888	.81	.40	0	1
US interlocks	888	.24	.99	0	11
Assets (millions)	734	159,347.2	286,011.5	2,736.4	2,000,000
Federal contracts (millions)	888	39.1	326	0	6,710
Transportation industry	888	.15	.36	0	1
Energy industry	888	.11	.32	0	1
Communications industry	888	.06	.24	0	1
Financial industry	888	.25	.43	0	1
PAC in previous time period	888	.24	.43	0	1
Year	888	2002.83	2.25	2000	2006

*Analytic strategy*

To estimate the relationship between transnational centrality and the amount of contributions made by a foreign firm’s US subsidiaries, divisions and affiliates through corporate PACs in a given year, I use multilevel linear regression with random effects. Applied to longitudinal data, multilevel regression measures both how cases change over time and how these changes vary between cases (Singer and Willett 2003).

One complication that arises with longitudinal analysis is the problem of repeated

events. Each observation in my dataset is a firm year, and there are multiple observations for each firm. Traditional regression methods assume that observations are independent of each other, but in the case of panel data, past values for any given firm have an unmeasured effect on current values. Two common approaches for dealing with this problem are to employ either random or fixed effect models. Random effect models can be very efficient, correcting the biased standard errors and coefficients that result from the assumption of independence. The consistency of random effect estimates depends, however, on the difference between within-case effects and between-case effects being random. Fixed effect models, on the other hand, eliminate between-case effects and only look at variation within each case over time, which results in consistent, but inefficient estimation. Fixed-effect models are especially inefficient when there is a lack of change within each case over time (Allison 2005).

Due to the relatively small six-year time frame of my data, many of my time-varying predictors lack large amounts of within-firm change over time, the result being that the use of fixed effects saps most of the explanatory power out of the model. A Hausman test to determine which model is statistically appropriate suggested that a fixed effects approach was more appropriate because differences between within-case and between-case effects are not random.

One solution to situations in which fixed effects are more statistically appropriate than random effects, yet are inefficient, is to employ a hybrid (or multilevel) model that combines some of the virtues of fixed and random effects. The basic idea is to decompose each time-varying predictor into two variables – one that measures within-case variation and another that measures between-case variation. Then one places both parts of each time-varying predictor into a random effects model along with time-invariant predictors. This allows for fixed effects estimates of time-varying predictors, along with between-case estimates and estimates for time-invariant predictors. One can also test hybrid random effects models against a traditional fixed effects model using Hausman to determine if the new model is appropriate. After decomposing the time-varying predictors, the Hausman test ( $P > .050$ ) fails to reject the null hypothesis that differences between the random and fixed effects model are unsystematic, which suggests that the new hybrid random effects model is more appropriate than a fixed effects model. At this point, it is important to note that some have found the Hausman test too global (Allison 2005). In the light of such critiques, I also tested the hybrid random effects against fixed effects by testing whether the within-case coefficients are the same as the between-case coefficients for time-varying predictors. For each covariate, the result is that the test fails to reject the null hypothesis that between-case coefficients are different from within-case coefficients, which provides further statistical support for the choice of the multilevel random effects model.

While the use of a hybrid model with random effects accounts for the problem of serial autocorrelation, the use of network variables also raises the issue of structural autocorrelation. That is, the hybrid regression model assumes that each case in any given year is independent from the other cases. A firm's network centrality score, however, is directly dependent on the scores of the other firms to which it is connected. This raises the possibility that the relationship between centrality and the

dependent variable (PAC donations) is not representative of any unique attribute of the firm, but rather is the random result of network structure, which would result in incorrect standard errors. A way to test for this is to perform a Monte Carlo permutation where the observed centrality scores are shuffled randomly and the regression model is re-run N times (Simon 1997). This is similar to keeping the network structure fixed but reshuffling the occupants of the structural positions. The P value of this test is the proportion of times the relationship between centrality and PAC donations as the result of random shuffling is at least as strong as the observed relationship. In the case of my data, I ran the permutation test 1000 times and the association was never equal to or greater than the observed. Thus, we can say with 99.9 per cent confidence ( $p < .001$ ) that the relationship between centrality and PAC donations is not random, but is actually reflective of deeper attributes of the firms that have those centrality scores.

In addition to a Monte Carlo permutation test, I bootstrapped the standard errors of the hybrid regression model. Bootstrapping derives accurate standard errors by using the sample data to estimate relevant characteristics of the population and then constructing the sampling distribution empirically by resampling from the sample (Fox 1997).

### *Regression diagnostics*

In performing the analysis, I calculated diagnostic statistics to guard against potential violations of the assumptions of multilevel linear regression. One of the main assumptions of linear regression is that all interval-ratio and scale variables are normally distributed. Analysis of the distribution of my continuous variables revealed that the dependent variable (PAC contributions), along with a number of independent variables (degree centrality, US interlocks, assets and contracts) have skewed distributions. After logging these variables, further analysis revealed that the transformation made their distributions sufficiently normal so as not to violate the assumptions of multilevel models. Another important assumption is that outliers do not bias the analysis. No Cook's residuals are above 2.5, indicating that there are no problems with outliers. Finally, the between-case measure of assets and the dummy variable for financial industry both have variance inflation factor scores above 2.5, which suggests that there may be a problem with multicollinearity (Allison 2005). Dropping the assets variable significantly reduces the model fit and changes the findings regarding other predictors, while the financial industry is not a significant predictor of PAC donations. Thus, in all models presented, the financial industry dummy is removed and assets included.

### **Findings and discussion**

First, to perform a basic test of hypothesis 1, I made a two-group mean comparison of PAC donations for firms with at least one transnational interlock compared with firms with no transnational interlocks (this group contains both isolated and nationally embedded firms). Transnationally embedded firms contributed a mean of \$154,628,

which was significantly more ( $T < .001$ ) than the \$8866 contributed by the group with no transnational interlocks. I performed a similar initial test of hypothesis 2, where I ranked all the firms in each year by degree centrality and calculated the mean PAC contributions for firms in the upper quintile and firms not in the upper quintile. Highly central firms (those in the upper quintile in any given year) contribute a mean of \$75,593, compared with the mean of \$24,820 for lower centrality firms ( $T < .001$ ). These findings provide preliminary support for hypotheses 1 and 2 and document that the foreign firms giving the most money to US politicians are the ones most embedded in the transnational interlock network. Of course, neither of these analyses control for individual firm interests. To determine the unique influence of embeddedness in the transnational interlock network on foreign political activity and to rule out potential spurious effects, I estimate the amount of contributions made by a foreign firm's US subsidiaries, divisions and affiliates through corporate PACs in a given year from 2000 to 2006 using multilevel random effects. I present the results of two hybrid random effects models in Table 2.

The test of the full models with all independent variables against the constant only models is statistically significant (model 1, transnational/national embeddedness,  $X^2 = 1603.45$ ,  $p < .001$ ; model 2, degree centrality,  $X^2 = 477.13$ ,  $p < .001$ ). This indicates that the predictors, as a set, reliably distinguish the amount of political contributions made by a foreign firm's US subsidiaries, divisions and affiliates through corporate PACs.

Even with the effects of various individual firm characteristics and interests controlled for, I find that embeddedness in the transnational interlock network is a significant predictor of a foreign firm's political activity. First, transnationally embedded foreign firms contribute significantly more money to US politicians than firms that are isolated from the interlock network (model 1:  $b = 8.51$ ,  $z = 18.88$ ,  $p < .001$ ). While nationally embedded firms also contribute more money than isolated firms do, transnationally embedded firms contribute more than their national counterparts do. This is true even with the number of interlocks to firms domiciled in the United States controlled for. This suggests that when an individual firm's economic interests are controlled for, a firm with at least one member of the transnational inner circle on its board (such as a director who sits on multiple boards domiciled in multiple countries) is more globally oriented in its political behaviour than either of its counterparts. These are a firm with only a national inner circle member (a director who sits on multiple boards all domiciled in the same nation) or a firm with no inner circle members. This is important because the finding that firms transnationally embedded in the inter-corporate network are more globally oriented in their political behaviour than firms unconnected to the transnational network suggests that directors who sit on multiple boards domiciled in different nations develop a transnational class-wide logic. Put differently, this means that a Japanese company that shares directors with Swedish and British companies is likely to give more money to US politicians than a Japanese company that shares directors only with other Japanese companies. In fact, this is the exact case in 2006 with Sony and Mitsubishi Motors. Mitsubishi Motors had nine interlocks to other firms in the G500 network in 2006, but

**Table 2: Multilevel random effects regression estimates of foreign firm's corporate PAC contributions (dollars), 2000–2006**

	Model 1		Model 2	
<b>Transnational class embeddedness</b>				
Transnationally embedded	8.51***	(18.88)		
Nationally embedded	7.45***	(10.51)		
Degree centrality (between case variation)			.78**	(3.10)
Degree centrality (within case variation)			.04	(.13)
<b>Control variables</b>				
US interlocks	.18	(.74)	4.07***	(5.80)
Assets (between case variation)	.03	(.34)	.13	(1.06)
Assets (within case variation)	.71	(1.39)	.89	(1.28)
Federal contracts	.01	(.05)	.04*	(1.98)
Transportation industry	.19	(.48)	-.53	(-.99)
Energy industry	-.15	(-.44)	-.04	(-.10)
Communications industry	-.29	(-.66)	-.40	(-.54)
PAC in the last election cycle	2.17***	(3.98)	4.13***	(4.51)
2002	-.16	(-1.48)	-.45*	(-2.58)
2004	-.19	(-1.09)	-.53	(-1.86)
2006	-.01	(-.02)	-.42	(-1.07)
Number of corporation years (N)	728		716	
Number of corporations	241		238	
Wald chi-square	1603.45		477.13	
R-square (overall)	.863		.668	
R-square (within)	.538		.050	
R-square (between)	.857		.705	
Highest VIF	2.91		2.43	
Mean VIF	1.66		1.41	

Notes:

The first number is the unstandardized regression coefficient, the second number, in brackets, is the Z statistic. Standard errors are bootstrapped. PAC Contributions, Degree Centrality, US interlocks, Assets, and Federal Contracts are logged.

Assets is measured in units of \$1 million dollars, and Contracts is measured in \$1 increments; the year 2000 is the reference category for the year dummy variables; nationally embedded is the reference category for transnational/national embeddedness dummy variables.

\*indicates  $p < .05$ , \*\* indicates  $p < .01$ , and \*\*\* indicates  $p < .001$ .

all are to other Japanese firms. Despite having its Mitsubishi Motors North American subsidiary located in California and Illinois, and making 75 per cent of its global sales in the United States, the firm did not establish a PAC in 2006, and thus gave no money to US candidates. Sony, on the other hand, is also domiciled in Japan and had four interlocks to other Japanese firms in 2006, but they also had two interlocks to

non-Japanese firms (Ericsson, which is domiciled in Sweden, and AstraZeneca, which is domiciled in the United Kingdom). Sony, through its US subsidiaries MGM and Sony Pictures contributed \$229,849 to US political campaigns in 2006. This example illustrates the finding in model 1, which lends support for hypothesis 1: there is a greater likelihood of firms with transnational interlocks engaging in political behaviour in foreign nations than those without them.

In addition to transnationally embedded firms giving more money through US PACs than nationally embedded firms, degree centrality is also a positive and significant predictor of US PAC donations (model 2:  $b = .78$ ,  $z = 3.10$ , and  $p < .050$ ). This lends further support to hypothesis 2: the more central a firm is in the transnational interlock network, the more likely it will be to engage in political behaviour in foreign nations. To put the effect of transnational centrality in perspective, take the most central firm in the network, Allianz AG. Its degree centrality in 2006 was 5.0, which is 3.88 times greater than the 1.29 centrality of the average foreign firm in the network. Thus, based solely on its network centrality, we would expect Allianz to give 188 per cent more money in PAC donations than an average firm ( $3.88^{0.95} = 2.88$ ). Given that the average foreign firm in my sample donated \$35,725, we would expect Allianz to donate \$102,888 to US candidates in 2006. In reality, Allianz donated \$123,750 through its subsidiaries/affiliates/divisions PACs.

The effect of transnational centrality is especially noteworthy given the positive and significant effect I find for US interlocks (model 2:  $b = 4.07$ ,  $z = 5.80$ ,  $p < .001$ ). US interlocks may or may not reflect the economic interests of foreign firms in the United States. It is only through an increase in US interlocks stemming from resource dependence on US firms, however, that a foreign firm's economic interest in the United States can plausibly be related to network centrality. Thus, that transnational centrality is significant, even with the positive effects of US interlocks controlled for, creates considerable doubt over the possibility that the relationship between centrality and political activity is a spurious effect explained away by economic interests.

While degree centrality is a significant predictor, it only explains variation between, but not within, firms. This is consistent with the interpretation of the interlock network as a system of communication created out of a collection of individual and organizational reasons for and responses to director recruitment (Mintz and Schwartz 1985; Mizruchi 1996). As previously discussed, the ends for which communication systems are used depend on the interests of those using them. Firms motivated by transnational class interests will utilize this system of communication to build solidarity and coordinate political action. Thus, one is likely to find the most class-conscious members of the TCC at the centre of the network, which explains the finding that if you compare two different foreign firms, the more central one will generally be more politically active. On the other hand, changes in centrality over time for the same firm can result from the breaking or formation of interlock ties for a combination of individual, organizational and/or intra-class reasons. Changes in centrality that result from individual and organizational aims do not reflect a change in transnational class consciousness and, accordingly, are unlikely to be followed by a change in political behaviour. In addition, the effects of changes in centrality that *are*

motivated by class considerations may be muted by the short time frame of my study. In other words, it is possible that the lags between changes in class consciousness, changes in political behaviour and changes in centrality are longer than the six-year span I am analysing. Thus, I may be underestimating some of the within-firm effects.

## Conclusion

Michael Nollert (2005: 294) argues that verification of the claims of TCC theory depends on evidence of ‘a social network whose members ... pursue common political interests’. I find that foreign corporations in the G500 embedded in the transnational interlock network contribute the most money through corporate PACs to US campaigns. In other words, firms containing members of the transnational inner circle are more likely than firms without transnational interlocks to engage in globally oriented behaviour. This finding also demonstrates a potential fragment in the global business class between nationally embedded firms and transnationally embedded ones, as firms with only national interlocks are slightly less likely to engage in globally oriented behaviour. However, that both national and transnationally embedded firms give more money to US candidates than isolated firms suggests that transnational and national class interests may not be totally incompatible. In fact, basing his argument on the structure of the global interlock network, William Carroll (2010: 129) suggests that transnational and national interests are unlikely to clash. We need further research, however, to analyse fully the differences between national and transnational interlocks.

In addition to the effects of a transnational interlock, firms that are highly central in the interlock network give more money than those on its periphery. My findings support the idea that Granovetter (1985) implied, Mintz and Schwartz (1985) explicitly proposed and the majority of other interlock researchers adopted that the interlock network, as a whole, is a system of communication (Mizruchi 1996).

If we see the interlock network as a system of communication and interlocks as mechanisms of communication that facilitate, but do not cause, political unity and class consciousness, then it logically follows from the finding that transnational centrality is a significant predictor of globally oriented political activity. In other words, a segment of the transnational business community is indeed a class-for-itself. To resume an argument made throughout the article, the ends for which systems of communication are used depend on the interests of those who use them. A politically fragmented capitalist class that is largely motivated by individual profit will use its channels of communication and connections to further the individual economic interests of each firm. Thus, for a business community that is *not* a class-for-itself, network centrality should not be associated with political behaviour outside actions that serve the individual economic interests of firms, and there should be no significant difference between national and transnational interlocks. For a business community that *is* a class-for-itself, however, one would expect to see exactly what I have found, namely that centrality in the interlock network is associated with political action, even when the interests of individual firms are controlled for, and that firms

embedded nationally are less focused on global politics than firms that are embedded transnationally.

While my findings provide some support for the existence of a transnational capitalist ‘class for itself’, it would be an overstatement to say that my study verifies this claim. This article adds one small, albeit important, piece of missing evidence to the larger puzzle of the organization of power and control in global capitalism. To fill in the puzzle further, we need to explore other aspects of political behaviour by the TCC. For example, my data suggest that transnational class interests motivate globally oriented political action, but they do not go so far as to infer that the transnational business community acts in a unified manner. In fact, Robinson and Harris (2000: 43) argue that the TCC fragments along strategic lines regarding ‘how best to structure the new global economy, achieve world order, and assure the long-term stability and reproduction of the system’. Thus, the extent to which the TCC acts collectively is an important empirical question, even in the light of the evidence I present for a politically active transnational business class.

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### **Notes**

1. It is important to note that William Carroll (2010: 227) adopts a middle ground position that does not fully accept or reject the TCC thesis, but questions ‘the extent to which such state capitalists are “on board” as members of the transnational capitalist class’.
2. Carroll (2009) explains that he adopts this purposive sampling, rather than simply using the Global Fortune 500 list, which is ranked solely by revenue, because rankings by revenue are biased against financial capital.
3. This point, namely that small and medium-sized businesses exist in an economic environment created by large firms has been made numerous times in numerous contexts (Mills 1956; Mintz and Schwartz 1985; Perrow 2002; Roy 1997).

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