

The Influence of Macro Structure on the Foreign Market Performance of Transnational Firms: The Value of IGO Connections, Export Dependence, and Immigration Links

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This study assesses macro, state-centered structural influences on the foreign host market performance of transnational firms, highlighting sanctioning and monitoring. We hypothesize that transnational firms from home countries that have more structural links to a focal host country through (1) common membership in inter-governmental organizations, (2) the host's export dependence, and (3) immigration will be better able to allay concerns about value appropriation vis-à-vis both public and private actors in that host country. Those transnational firms will have more incentive to create value in that host country and should experience greater success in economic exchange there. Regression results, based on the 2000–2001 relative sales performance of foreign transnationals from a variety of home countries operating in six large host countries across more than 35 industries, confirm that our three indicators of structure have positive, direct, and independent effects on transnationals' foreign market performance. Dependence and immigration enable sanctioning and monitoring and, beyond capabilities and trust, are additional mechanisms in explaining transnationals' foreign market performance. ●

Control and value appropriation matter greatly to transnational firms because their units in foreign host markets are exposed to discrimination, misappropriation, and even nationalization. For example, apparently because of distrust, the United States Congress and the State Department decided in 2006 to prohibit certain uses of IBM personal computers because they are now fabricated under the ownership and control of the Chinese transnational Lenovo. Also in 2006, the French telecom operator Vivendi learned to its surprise and great chagrin that \$2.5 billion it invested in Poland in a three-way partnership with Deutsche Telecom and a Polish entrepreneur had mysteriously disappeared into what has become a two-way venture that left Vivendi with zero equity and the same amount of cash back. These are just two among many illustrations of misappropriation, distrust, and collateral discrimination in the international realm.

Pertinent to understanding these problems of control in the international realm is a burgeoning literature in which organization scholars, drawing on network and institutional theory, have begun exploring the influence of macro, state-centered structure on international exchange and diffusion. By structure, following Zukin and DiMaggio (1990), we refer to non-transient social relations and frames shared among actors and between actors and the social field in which they operate or intend to operate. These include groupings, connections, rank and status orderings, dependencies, and power asymmetries, as well as social frames such as beliefs, conventions, norms and expectations, and rules. In pioneering work, scholars have argued and shown that inter-governmental organizations, such as the European Union or the Organization for Economic Cooperation and Development, can foster trust and the diffusion of exchange-stabilizing norms among member nations and economic actors within those nations (Ingram, Robinson, and Busch, 2005; Drori, Jang, and Meyer, 2006). In this literature, exchange has been shown to diffuse norms

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(Guler, Guillén, and Macpherson, 2002; Drori, Jang, and Meyer, 2006). The underlying economic sociology is that structural relations and frames, via processes of structural and cognitive embeddedness, influence actors' behavior by inhibiting their impulse to pursue short-term and atomistically calculating selfish ends in economic exchange (Granovetter, 1985; Zukin and DiMaggio, 1990; Baum and Dutton, 1996; Palmer and Biggart, 2002). Selfish discretion is delegitimated, openness and integration are adopted as proper, and the international realm is rendered more predictable. Thus, even without institutional convergence (Guillén, 2001), the macro structure constituted by a global web of inter-governmental organizations (IGOs) and trade relations has been argued to inspire trust and diffuse norms among economic actors in the international realm.

But knowing that participation in international institutions and norms of openness can support and stabilize exchange in the international realm is not the same as concluding that the current supply of global governance meets current demand, especially to the satisfaction of transnational firms. When economic actors are not members of the same nation state, the risk they perceive abroad and actually experience still remains heightened (Kindleberger, 1986; Greif, 2006). As the two illustrations above suggest, control and value appropriation concerns related to the malfeasance of public and private actors abroad still loom large. Although some sociologists have proposed and shown that the supply of exchange-stabilizing institutions in the national realm tends to rise in response to demand (Zucker, 1986), others have maintained that, in the international realm, there is now and will remain in the foreseeable future a genuine paucity of credible global governance (Fligstein, 2005). The supply and scope of exchange-stabilizing governance is limited by the extent of enforcement. So long as nations value the norm of sovereignty, market-opening projects can hardly be equated with market-integrating projects. Little of the new economic sociology has taken up this question. Fligstein (2005: 192, 195) explained that "ease of entry . . . is only one issue. . . . [Governments] also protect their internal market . . . [and resist] rules that undermine their sovereignty. This forces firms to consider forms of governance alternative to state-created supranational structures." To what alternatives do transnationals turn to cope with incomplete and uneven global governance? To what extent can heterogeneity in access to those alternatives help us explain and predict, over and beyond traditional factors, heterogeneity in transnationals' foreign market performance? This paper theorizes and tests answers to those questions.

Macro structure can and does influence economic exchange in the international realm (Guler, Guillén, and Macpherson, 2002; Ingram, Robinson, and Busch, 2005; Drori, Jang, and Meyer, 2006). Current structural explanations, as noted above, emphasize trust and norms as mechanisms that can support and stabilize exchange. In explanations that center on trust and norms, the influences of structure operate through exchange partners and the social field (i.e., through second and third parties), and it is those other entities' behavior and actions that allay focal actors' concerns about control. But it is

## Foreign Market Performance

likely that structure also influences exchange in the international realm through (first party) sanctioning and monitoring, which are distinct additional mechanisms.

Beyond having connections via supranational organizations, states in the international realm are also related by heterogeneous patterns of export dependence and immigration links, two underexplored but consequential dimensions of macro structure. The export dependence of a host on home country furnishes the home country with power that may be translated into economic sanctions. Such a potential to sanction can help transnationals headquartered in a focal home country to protect their interest against the malfeasance of public actors in dependent foreign host countries. As U.S. Secretary of the Treasury Henry Fowler said to transnational managers in 1965, "It is impossible to overestimate the extent to which private American ventures overseas benefit from our commitments, tangible and intangible, to furnish economic assistance to those in need and to defend the frontiers of freedom . . ." (Levitt, 2002: 100). Separately, immigration links between host and home countries can foster not only greater trust but also support superior strategic control via superior monitoring of operations in the host market. Monitoring can help transnationals protect their interest against the malfeasance of private actors abroad.

Macro structure should be important to both "horizontal" and "vertical" transnational firms. Horizontal transnationals are firms that operate abroad mainly in the quest to secure and expand markets. In contrast, vertical transnationals are firms that operate abroad in the quest for raw materials, efficient lower-cost labor, or location-specific competencies (see Caves, 1996: chap. 1). In this study we focus on those horizontal, market-seeking transnationals. Horizontal transnationals from different home countries operating in any given host vary in their performance. We propose that three dimensions of macro structure—IGO connections, export dependence, and immigration links—will enable and support three corresponding social mechanisms—trust, sanctioning, and monitoring—that could explain that variation. These mechanisms should shape transnational managers' orientations (such as fear of expropriation or commitment to a region) that would then affect resource allocation choices and economic actions in the host market (including the quantity, quality, and speed of know-how transfer and reliance on local content). These economic choices and actions would affect value creation and, ultimately, performance in the host market. By this logic, given heterogeneity in macro structure, transnationals from home countries that have more structural relations with a focal host country can be predicted to experience greater success in economic exchange there. To test our predictions, we studied the 2000–2001 relative sales performance of foreign transnationals from a variety of home countries operating in six large host countries across more than 35 industries.

### THE RELATIVE PERFORMANCE OF TRANSNATIONAL FIRMS IN FOREIGN HOST MARKETS

The foreign expansion and performance literature on transnational firms over the past 50 years has accumulated in roughly

three waves. A first wave has analyzed the emergence of transnationals, emphasizing technology and marketing capabilities as critical factors in successful foreign expansion. In this line of argument, the greater the stock of product, process, and marketing capabilities and routines, the better a firm's prospects of prevailing over local players in foreign host markets. Heterogeneity in technical and marketing capabilities, hence, was said to predict transnational expansion (Hymer, 1976; Buckley and Casson, 1976). In a second wave, scholars argued that transnationals needed to organize for both local responsiveness and global integration and that formal organization ought to be supplemented by informal processes. This wave, led by more management-oriented scholars (Prahalad and Doz, 1987; Bartlett and Ghoshal, 1989; Zaheer, 1995), called attention to heterogeneity in transnationals' organizational capabilities and models (e.g., multinational, international, and global) as a predictor of performance. A third wave of research drew attention to varieties of capitalism (Whitley, 1992; Redding, 2005) and examined the influence of institutional and cultural similarities across home and host markets (Kostova, 1999; Perkins, 2005). This stream of research has contended that greater institutional isomorphism across home and host countries facilitates the transfer of organizational routines (Kostova, 1999), lessens the costs and need for adaptation, and smoothes relations with stakeholders in the host country. Also, when a transnational operates in a foreign host market whose norms and conventions are similar to those at home, then joint decision making and cross-border coordination should be more efficient (Gómez-Mejía and Palich, 1997).

A common thread running through these three waves of research explaining the foreign market expansion and performance of transnationals is an emphasis on value creation capabilities, which includes firms' strengths in product, process, marketing, and distribution innovation. The premise is that value creation disadvantages for transnationals arise in foreign markets because of distance and difference between home and host countries (Hymer, 1976). Firm-level capabilities and resources and cultural and institutional closeness between the home and host countries are accordingly predicted to compensate for or reduce these disadvantages and thus explain heterogeneity in the host market performance of transnationals.

### **Heterogeneity in Value Appropriation of Transnationals**

Although heterogeneity in transnationals' capabilities and value creation is undoubtedly important, it is unlikely to be sufficient to explain their relative foreign market performance. Heterogeneity in value appropriation also matters. Value appropriation refers to a firm's ability to capture current and protect future profits. Considering technology, organization, and home-host similarities, even when two transnationals are able to create equal value in a given host market, their actual value creation and relative performance there can be predicted to be systematically different if one of them is able to appropriate more of the value it creates in that host market.

The anticipated value appropriation in a given host market is pivotal because it will influence transnationals' intended value

## Foreign Market Performance

creation and delivery there. This expectation is consistent with the fundamental economic tenet that actors' value creation in a given setting is largely endogenous to their anticipated value appropriation in that setting (North, 1990). To deliver value in a given host market, transnationals have to transfer proprietary intellectual and financial capital into that host market, localize the sourcing of inputs (materials and labor) to achieve cost levels that can permit the competitive prices necessary to penetrate the host market and, on the output side, adapt home-driven initial product and service offers to conditions specific to the host market. Necessary as these activities of transfer, localization, and adaptation are for creating value in the host market by delivering locally adequate benefits at locally reasonable prices, like all resource allocation decisions, they tend to be costly and the consequences often irreversible. It stands to reason therefore that the more confident a foreign transnational is that it will appropriate an equitable proportion of any value it creates in a given host market, the more confidently, adequately, and rapidly it will commit to and undertake the transfer, localization, and adaptation necessary. On the contrary, the more uncertain the value appropriation appears in a given host market, capabilities notwithstanding, the less inclined a transnational will be to create and deliver value in that host market. In turn, other things being equal, the less well that firm will perform in the host market. To understand transnationals' foreign market performance more fully, we must consider factors that influence their relative value appropriation risks and advantages in foreign host markets.

Value appropriation risks in the international realm arise from exposure to malfeasance from both public and private actors (Kindleberger, 1986; Kobrin, 1987, 1988; Henisz, 2000). In general, the principal public actor is the state. Though there are various strands and controversies in the literature on the nature of states (Waltz, 1979; Keohane, 1989; Wendt, 1999), a central assumption is that in modern society, states are significant actors that have interests and agency, a fact recognized by international law, which grants legal character to states (Stopford, Strange, and Henley, 1991; Meyer et al., 1997; Gereffi, 2005). As Wendt (1999: 10) explained, "Decision-makers routinely speak in terms of national 'interests,' 'needs,' 'responsibilities,' 'rationality,' and so on, and it is through such talk that states constitute themselves and each other as agents."

On the one hand, "constructivists" argue that state interests and behaviors are likely to be conditioned by prevailing institutions and ideas, including modernity and globalism (Wendt, 1999; Drori, Jang, and Meyer, 2006). On the other hand, as "neorealists" maintain, this has not taken away the instinct of sovereign states to survive and enhance their relative standing (Vernon, 1971; Keohane, 1989; Fligstein, 2005). Nor has it fundamentally altered the intuition that the international system is primarily still one in which each nation looks out for its own interests (i.e., a self-help system) and that self-help is not a passive posture (see Fligstein, 2005, for a review). The point is that there is a power imbalance between transnational firms and host governments. In this imbalance, transnationals tend to come out on the short end.

They depend on the host government and in some cases acutely so. Further, this is one dependence that transnationals cannot internalize: they cannot merge with or acquire host governments. Moreover, if host governments perceive that their domestic interests are divergent with those of a foreign transnational operating in their jurisdiction, they may react to that divergence by reopening negotiations, as EADS is discovering in the United States, by initiating a domestic purchase, as has occurred in the energy sector in Russia, or by outright nationalization, as in Venezuela and Bolivia.

Foreign transnationals are not only exposed to the discretion of public actors abroad, they also face control risks with private actors, such as local employees, partners, customers, and suppliers. For instance, GE's finance entity was taken advantage of by its "partner" in Brazil, as was Danone in China, Vivendi in Poland, GM in Russia, and Daimler in Japan. For the foreign transnational, the challenge is more than one of identifying suitable local exchange partners—employees, suppliers, banks, lawyers, and customers. That challenge, as Hymer (1976: 34) observed, might be addressed by a one-time outlay for search costs. Rather, a more persistent challenge is that of ensuring that shirking and opportunism by local exchange partners is and will remain contained (Hennart, 2001; Eden and Miller, 2004). Relying exclusively on imports from home might be a way around the dilemma of trusting local employees and suppliers, but as transnational executives well know, in general, local labor and materials are crucial to cost competitiveness in the host market. Internalizing all host market exchange abroad might mitigate concerns about control, but it will almost certainly and unacceptably compromise value creation. At the same time, sanctioning private actors in a foreign host market can be challenging, as Danone is discovering in China. Once value has been diverted from a transnational by a private host actor, redress, like the offending host actor, may be out of reach in the host setting. Especially when aberrant host actors don't have foreign exposure, there is no easy basis for retaliation.

The fundamental control problem in such interactions is conflict between the interests of the focal actor and those actors to whom the former has delegated activities or entered into exchange with. The interests of the focal and other actors may be opposed, and value appropriation becomes an issue. In theory, output-based incentives or centralization might be remedies (Child, 1973). In practice, however, in organizations of any reasonable size, dispersion, and complexity, those remedies are often infeasible or not optimal (Zukin and DiMaggio, 1990: 25). Accordingly, resolving the control problem is understood as a continuous challenge with a central role for monitoring and evaluation (Child, 1973; Ouchi, 1977; Ashford and Cummings, 1983). To be sure, as argued in the broader literature on control, trust can play a remedial role (Bradach and Eccles, 1989). It is precisely when trust is absent or weak, as in the international realm, that "monitoring . . . [becomes a] major concern; [and] what was seen as excessive supervision becomes seen as necessary" (Zucker, 1986: 92).

In relations abroad with private and public actors, transnational firms perceive and experience more control risk than in

## Foreign Market Performance

a domestic setting because the basis for conflict is not over whether there are gains in the economic exchange but, rather, over the distribution of gains and ancillary consequences (Vernon, 1971; Stopford, Strange, and Henley, 1991). Concerns about value appropriation and the distribution of gains provoke distrust and discrimination. The paucity of global governance and credible enforcement sustains the condition. Hence transnationals fear and face a greater risk of experiencing inequity in exchange in their foreign operations (Hymer, 1976: 34–35), as did Vivendi at the hands of its Polish and German joint venture partners in Poland. It is not just because the rules abroad are weaker or different than at home; rather, it is because access in host markets to rule makers and to fair treatment tends to be uneven and weaker for foreigners. Such discrimination is not limited to so-called sensitive industries such as agriculture, airlines, and energy. It extends to food (as evidenced by the still-born takeover attempt by Pepsi of Danone in France), retail (for example, restrictions in India on foreign transnationals in this sector), autos, ground shipment, pharmaceuticals, and so on.

Even in a given host country, however, the value appropriation risks perceived and actually experienced may vary systematically across transnationals from different home countries. An important and observable source of systematic heterogeneity in transnationals' value appropriation may therefore be the macro structure in which a transnational's home and host nations are embedded.

### The Influence of Macro Structure

In economic sociology, the terms context, structure, and embeddedness tend to be used interchangeably to refer to extra- or supra-actor factors that influence actors' behavior in a manner that stabilizes exchange and explains patterns of outcomes (Zukin and DiMaggio, 1990; Baum and Dutton, 1996). These influences operate separately from the narrow, strictly transaction-centric, atomistic calculus of cost and benefit efficiency. Thus explanations of actors' economic behavior and outcomes that invoke context, structure, and embeddedness go beyond the logic of standard neoclassical economics.

The concept of structure is challenging to define (see Sewell, 1992). By structure, following Zukin and DiMaggio (1990), we refer to non-transient social relations and social frames shared among actors and between actors and the social field in which they operate or intend to operate. By social relations, we refer to groupings, connections, and dependencies, and by social frames, we refer to conventions, norms, and rules. Structure is related to but different from context and embeddedness. Context refers to the background, and it highlights the character of the field within which two or more actors engage in social exchange. Context may be characterized by an absence or presence of some structure, and the structure may be more or less elaborated and established. Embeddedness refers to the cross-level processes by which existing and emerging structure (i.e., social relations and frames) in the focal field influences, enables, and constrains actors' behaviors. We regard embeddedness as the operative

process by which structure influences and explains, beyond standard economic factors, socioeconomic outcomes at both the actor and the field level. In Zukin and DiMaggio's (1990) four-category classification of "structures of capital," their structural and political embeddedness categories correspond to our social relations, and their cultural and cognitive embeddedness categories correspond to our social frames. Although influences no doubt run eventually in both directions (Sewell, 1992; Entwisle et al., 2007), it is assumed that the social relations and frames that constitute structure at a given point in time are generally beyond the instantaneous manipulation of the affected actors. Given a set of actors, structure is always construed at the "supra-actor" level. For economic behavior in the cross-border international realm, the pertinent structure is at the state-state level, what we refer to here as macro, state-centered structure. Three indicators of macro structure—inter-governmental (IGO) connections, export dependence, and immigration links—are likely to have effects on transnationals' foreign market performance.

**IGO connections.** IGOs represent concrete, formal, and relatively durable expressions of mutually aligned intentions in regard to future and ongoing interactions in a given domain among signatory nations, their firms, and citizens. Meaningful single agreements, let alone significant treaties, are born with extreme difficulty (e.g., the General Agreement on Trade and Tariffs) and sometimes have to be preceded by a precipitating crisis (e.g., WWII and the subsequent emergence of Europe's regional agreements that constitute the EU). Still, once inter-governmental organizations and arrangements come into existence, members' uneven adherence to the spirit of the IGO notwithstanding, they tend to foster a web of social relations and diffuse norms among member states (Ingram, Robinson, and Busch, 2005). IGO connections is hence an observable if imperfect indicator of mutually favorable intentions among states.

Though one may posit several arguments for a positive influence of IGO connections on transnationals' host market performance, one of the most important is reducing uncertainty. The uncertainty is not so much about incomplete information as about asymmetric information. What are the intentions of public actors in the host country under consideration? In a given host market, can a focal transnational trust public actors not to exercise value-diverting discretion? IGO connections can help transnationals assess and corral such uncertainty. Existing work suggests that one potential consequence of IGO connections is the evolution of trust among member entities. In work on trust among nations, Inglehart (1991: 148) proposed the notion of "societal learning" and explained that a high frequency of interactions, as is typical in functioning IGOs, is "conducive to a sense of mutual responsiveness and trust." Periodic face-to-face meetings within IGOs constitute forums for dialogue and negotiations. As argued in network sociology, interaction can infuse even technical discussions with a social quality, which in turn can nourish trust and empathy (Granovetter, 1985). Especially when actors do not reside in proximity to one another, the venue of IGOs can foster familiarity and, in turn, trust

## Foreign Market Performance

(Ingram, Robinson, and Busch, 2005). Such trust, built on an experience of fruitful interactions is referred to as "process-based" trust (Zucker, 1986). Ingram, Robinson, and Busch (2005) provided persuasive empirical support for this sociological argument. They found that in promoting international economic exchange, connections between states through social IGOs such as UNESCO matter as much as those through economic IGOs such as the OECD. Because social IGOs do not directly involve economic interests, their influence in fostering international exchange is attributable at least in part to process-based trust.

But the effects of IGOs are not due entirely to process-based trust. To lesser or greater extents, IGOs have resources for fact finding and dispute resolution, if not enforcement. A leading illustration is the nexus of IGOs that constitute the European Union. There is little doubt that the development of the EU would inspire confidence in German firms operating in France or French firms operating in Germany. Such confidence, wherein a third-party organization commands some legitimacy to constrain the discretion of second parties in a manner that should reduce the uncertainty of the first party (the focal actor), is referred to as "institution-based" or "impersonal" trust (Zucker, 1986; Shapiro, 1987). In theorizing on the potential influence of IGO connections on transnationals' foreign market performance, this trust mechanism too is apropos, because it addresses concerns about control and value capture. Again, supportive evidence comes from Ingram, Robinson, and Busch (2005), who reported empirical evidence that IGOs with more elaborate bureaus have greater influence in fostering international exchange.

Whereas network sociology arguments emphasize social relations and structural embeddedness, institutional theory emphasizes the diffusion of exchange-stabilizing social frames via interconnectedness. In this institutional theory-based logic, IGOs diffuse norms of professionalism and non-discrimination (Drori, Jang, and Meyer, 2006). The legitimacy of parochial perspectives is diminished and displaced by the adoption of a more liberal market orientation (e.g., efficiency, non-intervention, non-discrimination, reduced policy volatility). In the wake of this cognitive reorientation and embeddedness, transnationals' risk exposure recedes, and they have more confidence in their expectations for equity in exchange and value appropriation abroad.

For a transnational to perform well in a foreign market, it must engage with confidence in transfer, localization, and adaptation. These resource allocation decisions are typically sizable and asynchronous with realized return. The uncertainty and risk that transnationals face in such resource projection decisions tend to be diffuse and challenging to insure against. Bereft of conventional economic insurance, transnationals grope for alternatives. It is rational for a transnational to perceive less uncertainty the more evidence there is that its home government has been capable of establishing mutuality and interacting productively with a given host government. IGO connections serve credibly as such evidence. Moreover, multiplexity in IGO connections suggests that there are multiple overlapping interests between home and a given

host country. Multiplex home-host IGO connections indicate high mutuality and can hence foster transnationals' expectations of stable interactions. Control concerns should, accordingly, tend to be lower for transnationals from home countries that are more interconnected via IGO membership to a focal host country. Value appropriation in that foreign market becomes more predictable, and transfer, localization, and adaptation are more likely to occur in the necessary quantity, quality, and speed. Other things being equal, one can then anticipate superior host market value creation and superior transnational host market performance. Accordingly, we propose:

**Hypothesis 1 (H1):** In a focal host country, the relative market performance of transnational firms' originating from those home countries with whom the host country has more inter-governmental organization (IGO) connections will be superior.

However useful they may be, IGOs are by no means a panacea. In an article arguing the limitations of institutional trust, Shapiro (1987: 635) declared, "By definition, the principals of impersonal trust are vulnerable and impotent." It is clear that the need and demand for credible exchange-stabilizing institutions does not contemporaneously elicit a proportional and corresponding supply. This condition in the international realm likely leads transnational firms to seek other credible control supports and systems. Two additional and distinct patterns of macro structure that ought to bear on transnationals' value appropriation, and hence their performance in foreign host markets, are export dependence and immigration links between home and host countries.

**Export dependence.** A significant macro structural relation among nation states is the pattern of dependence among them. Though states are sovereign, they may depend on specific other states to provide them with markets, security, energy, etc. Thus "to be sovereign and to be dependent are not contradictory conditions" (Waltz, 1979: 96). Although states may desire autonomy and self-sufficiency, their security fears and economic aspirations may lead them to establish relations with and even become knowingly dependent on certain other nations (e.g., Japan and the United States; African states and China). Such relations are forged selectively, and heterogeneity characterizes the macro structure of one state's dependence on another. A core tenet of resource dependence theory (Pfeffer, 1987) is that patterns of dependence among actors predict patterns of inter-actor power. The behavioral consequence is that actors will tend to comply with those interests that have relatively more power, and "[host] policies that conflict with the interests of [relevant foreign powers] are apt to be costly . . ." (Koechlin, 1995: 98). For instance, as long as Japan depends disproportionately on the United States, say, for security or as a destination for Japanese exports, then the United States will anticipate that Japan will bend more readily to (or at least resist less) demands emanating from Washington. This unpleasant reality moved a venerated Japanese entrepreneur (the co-founder of Sony) to pen a famous protest book entitled *The Japan That Can Say No* (Morita and Ishihara, 1991).

A corollary of resource dependence theory is that an "ego" that perceives power by virtue of "alter's" dependence is

## Foreign Market Performance

likely to exploit that power to its advantage (Mizruhi and Yoo, 2002). As Fligstein (2005: 662) wrote, "Pressure on states can come from . . . other states (and, by implication, [those other states'] firms)." Transnationals from certain home nations might be in a better position to stabilize exchange relations within a focal host nation because their home nation has the potential to sanction the host nation. Importantly, to project constraint and elicit compliance, the actual exercise of power is not necessary; power's credible presence is sufficient. Public actors in the dependent host market appreciate that if foreign transnationals experience inequitable treatment in the host market, they may and will appeal to their home governments to intervene on their behalf. This echoes Stopford, Strange, and Henley's (1991) "triangular diplomacy" concept (see also "two-step leverage" in Gargiulo, 1993). Public actors in a dependent host nation can hence be expected to temper if not contain discriminatory urges toward transnationals headquartered in supportive home countries. They may even favor transnationals from those home countries.

Thus dependence translates into constraint—soft or hard—and the exercise of discretion becomes bilaterally qualified. Accordingly, the macro structure of a host's dependence on a transnational's home country opens an uncertainty-reducing umbrella of power-based bilateral control, under the shelter of which that transnational can operate more confidently. This should stimulate transfer, localization, and adaptation (i.e., strong value creation and delivery) in the host market and, ultimately, should be reflected in the transnational's relative host market performance.

There are several dimensions along which the interests of one state might depend on the acts and orientation of another. It is well known for example that foreign aid (as Japan has conferred on China), sale of sensitive technology (as the United States now proposes to India), or soft loans (as Germany made during the Cold War to Russia) all engender some degree of dependence and can sustain some degree of state-on-state power (Kuziemko and Werker, 2006). But those indicators of dependence tend to be associated disproportionately with developing countries. We therefore focus on the host country's export dependence on the transnational's home country. All states care about markets abroad for their home firms; some theories of imperialism are even rooted in this urge (Waltz, 1979). Because growth and employment are highly valued internal economic targets, exports are considered important for all nations. Export dependence is well-suited therefore to indicate state-on-state sanctionability and should be reflected in transnationals' market performance in the host country:

**Hypothesis 2 (H2):** In a focal host country, the relative market performance of transnationals originating from those home countries on whom the host country has greater export dependence will be superior.

**Immigration links.** Another significant macro structural relation among nation states is the pattern of immigration and resulting links of common ethnicity among them (Aharoni, 1966; Zucker, 1986; Greif, 1993; Kugler and Rapoport, 2007).

Links of common ethnicity, referring to ancestors' national origins, support social cohesion and "characteristic-based" (i.e., in-group) trust. Feelings of trust are expected to be higher within than across ethnic groups due to homophily and positive in-group bias (Zucker, 1986), social closure (Waldinger, 1990; Greif, 1993), and acquired familiarity (Kotkin, 1992). Consistent with these arguments, in recent work, Guiso, Sapienza, and Zingales (2006: 31) reported that the level of trust Americans have toward others depends in significant part where ancestors originated. In parallel, and akin to Aharoni (1966), Kugler and Rapoport (2007) showed that even in recent data, skilled immigration and transnationals' foreign investment tend to be complements. Taken together, as Waldinger (1990: 403) wrote, "the social structures of the ethnic community provide a mechanism connecting organizations to individuals and stabilizing [exchange] relationships." By this logic, "Capitalists may gain control of their work force by selective [ethnic] recruitment . . ." (Zukin and DiMaggio, 1990: 26).

A second mechanism through which immigration links may support transnationals in their foreign host market operations is the use of expatriate managers. Strategic control theory explores how organizations protect against shirking and dissipation by subordinate agents. In this literature, monitoring and supervision are core remedies, especially when, as in the case of transnationals, dispersion and complexity render centralization and output control suboptimal (Ouchi, 1977; Ashford and Cummings, 1983; see also Zucker, 1986). In such circumstances, Shapiro (1987: 639) alluded to the need to "entrust a second tier of agents to be gatekeepers . . . and watchmen." In line with the preceding, in the literature on transnationals, Kobrin (1988: 72) has argued that "strategic control in a mature [transnational] depends on control over personnel and the informal organization." Likewise, international human resource scholars have proposed that "all the tools of global [control] are associated with a heavy reliance on expatriate managers" (Evans, Pucik, and Barsoux, 2002: 102). Then delegation to locals is more likely to take place within a "trust but verify" approach in which a transnational's host market value appropriation is protected even while value creation there improves. One empirical study of expatriation in European transnationals reported that control was "the *central* rationale for a majority of [transnationals]" and that "[transnationals] trust their 'own' people . . . more than they trust the locals they employ" (Brewster, 1991: 33). This finding squares well with the propensity of transnationals to dispatch home nationals to staff the chief financial officer, controller function in foreign markets.

Nevertheless, access to and the viability of the expatriate monitoring mechanism is unlikely to be uniform. It might be relatively more feasible for transnationals from certain home nations to mobilize headquarters personnel to a focal host nation and, in consequence, to have superior monitoring and supervision there. In particular, beyond the high costs involved and firm-level differences in size and resources, the actual ability to deploy expatriates is likely to be influenced by the pattern of immigration links among nations. Identifying

## Foreign Market Performance

and successfully deploying trusted personnel to a focal host country is more likely when immigration links exist in either direction between the transnational's home and a focal host nation. The social confidence (and the avoidance of social isolation and anxiety) of expatriates is more likely to be high when large numbers of "their people" already live and thrive in the focal host country. For example, an Indian expatriate family, net of any hardship wages, is likely to find the social circumstances of living in the United Kingdom more inviting than those, say, of living in Germany or Japan. In that case, expatriates' family relocation and private life concerns, which have been identified as a critical factor in the failure of expatriate assignments (see Yurkiewicz and Rosen, 1995: 47; Evans, Pucik, and Barsoux, 2002), become more workable issues. If the expatriate family can settle well in the host country, then the mobilization of trusted and loyal headquarters staff, especially for the prolonged periods necessary to make monitoring and feedback credible, becomes more feasible. Thus the macro structure of immigration links reduces uncertainty for transnational firms. When a transnational's control concerns vis-à-vis private actors in a focal host market are allayed because there is greater trust and because its own personnel are more readily deployable there to monitor and supervise operations, then it has a good basis on which to interact more confidently with local entities and can enjoy attendant cost advantages. The confident transfer of headquarters technology and knowledge to that focal host market and resultant advantage there, by the same logic, can be predicted to be higher. Based on these arguments, we submit:

**Hypothesis 3 (H3):** In a focal host country, the relative market performance of transnationals originating from those home countries that have had greater immigration flows to or from that host country will be superior.

## METHOD

Empirical analysis exploring the influence of macro structure on heterogeneity in the foreign performance of transnationals calls for subsidiary-level host market data for foreign transnationals originating in multiple home countries, but transnationals are not required to and seldom publish country-by-country operating information on sales, let alone on profits or assets. We therefore undertook a considerable and to our knowledge novel data gathering effort relying on research assistants in foreign host countries. Local language databases, local market research, and, in a few cases, firm-level interviews were the primary sources for the foreign transnational host market data. We supplemented these with information from public sources, including Hoovers, Compustat, and transnationals' annual reports. Budget constraints allowed us to research only one host country at a time. In this manner, we assembled market-specific information on transnationals for the years 2000–2001 in six host markets—Brazil, China, India, Mexico (four of the largest developing countries), and Japan and the United States (the two largest developed countries). We focused on these six host countries because of their large size and ability to attract transnationals and because they provide considerable variation in our independent and control variables.

All six countries were hosts to transnationals from the key home regions of Europe, North America, and Asia. In a majority of cases, competing transnationals came from different home countries. Among the 23 home countries represented in our data, the U.S.A., the U.K., Japan, Germany, France, Switzerland, the Netherlands, Sweden, Canada, Spain, and South Korea were the most prominent. We coded a transnational's home nationality based on the country of the headquarters of the ultimate beneficial owner. In the calculus of state structure and interests, the locus of decision rights is important, and that typically is retained in headquarters (Stopford, Strange, and Henley, 1991). Our data pertain to 332 parent firms, including 47 of the 50 largest transnationals in the *World Investment Report* (2001) list. In terms of estimated total sales, the 332 parent transnationals in our study report worldwide revenues of some \$8.3 trillion (at year 2000 exchange rates), and they employ some 28 million people. By way of comparison, in 1999, the top 100 transnationals had total sales of \$4.3 trillion and some 13 million employees (*World Investment Report*, 2001).

Seeking variation in industries, we cast as broad a net as possible. On average, we were able to gather information on more than 35 industries, not necessarily the same ones, in each host market. The industries ranged from automobiles, beer, and chemicals to commercial banking, hotels, and hypermarkets, covering manufacturing and services. Appendix A lists the industries in our data. Within each industry we gathered information on all the leading foreign transnationals operating in each host market, yielding a total of 738 observations. Established transnationals in these industries appear in our data in one or more host countries. Certain industries, such as banking, pharmaceuticals, and automobiles, were populated by several transnationals operating in each host market; many others, such as consumer goods, hypermarkets, and tires, often reflected an oligopolistic structure with two or three major players. In certain instances, there was only a single foreign transnational firm operating in a given industry in a host market (e.g., Zara in Mexico, McDonalds in India). We excluded those singles from the analysis because we needed comparable transnationals to construct indices of relative performance and relative advantages. After dropping single transnationals and instances in which one or more critical data items were unavailable, we were left with 622 usable observations for our regressions.

### **Dependent Variable: Relative Host Market Performance**

We measured a transnational's relative host market performance using its relative host market local sales. Although market-seeking transnationals may aim to optimize the present value of profits in the host markets in which they operate, and we might have considered using profit information, profits are challenging if not impossible to observe and especially problematic to compare. Transnational firms are not required to publish profits on a country-by-country basis. Indeed, "financial data are not available in any regular form for [foreign] subsidiaries" (Tallman, 1991: 78). More problematically, due to transfer pricing, related to distinct bilateral tax arrangements, it is not meaningful to compare

## Foreign Market Performance

host-market-specific accounting profits across transnationals from different home countries. Contending that what is called for is "a measure of performance more closely related to the market . . . [that can] provide a direct comparison of the success of the [transnationals] in competition with each other," Tallman (1991: 78), evaluating the strategies of foreign transnationals operating in the U.S., relied on host market sales. Supporting his approach, one longitudinal study of firm performance by Khanna and Palepu (2000: Table 3) reported firm sales as the most statistically significant and consistent predictor of return on assets. This relationship is supported also in more recent empirical work (e.g. Sakakibara and Yamawaki, 2008).

Following Tallman (1991), we focus here on transnationals' relative host market local sales. Transforming absolute local sales to relative local sales is essential for three reasons: it allows us to include in the same analysis relative performance measures of transnationals that operate across vastly different industries (e.g., automobiles and detergents); likewise, it allows relative performance comparisons of transnationals in vastly different host markets (e.g., the United States and China); and it obviates the need for industry-specific purchasing power-adjusted national exchange rate conversions. Examining relative host market penetration is especially apropos given that our study focuses on market-seeking transnationals. Transnational executives that we met during the course of this study identified readily with relative host market sales as an indicator of relative host market performance. Market standing was salient to them particularly to calibrate their local competitiveness and also, they noted, because it correlated with relative profits. Accordingly, we are confident that, for our purposes, transnationals' relative host market sales are not only acceptable but even suitable as an indicator of their relative performance in a host market.

Concretely, our dependent variable is a continuous measure (0, 1) of foreign transnationals' relative host market performance in a given industry and host market. To compute this measure, we took a given transnational's host market local (non-export) sales and divided that figure by the total local sales achieved by foreign transnationals in that same industry and host market. Our dependent variable thus indicates the relative host market prominence of the foreign transnationals in our sample. To illustrate, among foreign transnationals operating in 2001 in the retail and commercial banking sector in Japan, Citibank's estimated local revenues were 182 billion yen; for Deutsche Bank, 157; ABN Amro 121; and BNP Paribas, 84. Transformed into our dependent variable, transnational foreign market relative sales, Citi takes the value 0.34, Deutsche 0.29, ABN 0.22, and BNP 0.15. Likewise, among foreign transnationals operating in the household products industry in Japan, Procter & Gamble reported revenues of 64 billion yen and Unilever 14, which, in the case of these observations, translates into 0.82 and 0.18 for the dependent variable.

## Independent Variables

*IGO connections.* Following Ingram, Robinson, and Busch (2005), we calculated *IGO connections* based on the total

number of IGOs in which the transnational's home and host countries share joint membership. As in Ingram, Robinson, and Busch (2005), we extracted IGO membership data from Pevehouse, Nordstrom, and Warnke (2004). To minimize cross-section-driven bias, we used the average value of this measure over a three-year period. To avoid concerns related to potential simultaneity, we used membership data for the years 1991 to 1993. This precedes our 2000–2001 dependent variable measure by nearly a decade and thus obviates questions of simultaneity. Our results are nevertheless robust to the use of IGO membership data from alternate time periods. To avoid misleading impressions on the magnitude of influence, we scaled this variable by its standard deviation.

*Export dependence.* We calculated *export dependence* as the home share in total exports from the host, divided by the home share in total exports from the world. The data are from the NBER-U.N. Trade Database (see Feenstra et al., 2005). If the numerator is greater than the denominator, then this ratio will be greater than 1 and, compared with the world, the host is treated as more export dependent on the home. This calculation is akin to what is used in international economics to measure revealed advantage. As in the construction of IGO connections, to obviate issues of simultaneity and concerns about cross-section-driven bias, we used the average value of this measure over a three-year period between 1991 and 1993. Our results are also robust to measures of export dependence for other time periods.

*Immigration links.* We measured *immigration links* as a simple average of two categorical variables that we created to indicate the extent and significance of immigration flows from home-to-host and host-to-home countries. We assigned a value of 2 if immigration was significant enough to be considered formative of the destination country's people (e.g., Britain–United States); a value of 1 if immigration was sizable but not formative (e.g., Japan–Brazil); and a value of 0 otherwise (e.g., France–China). The term formative connotes that the immigrant influx populated the destination country in a constitutive manner. Among our six host countries, the three in the Americas (Brazil, Mexico, and the United States) received formative immigration from specific countries in Europe. Subsequent immigration, barring few exceptions (such as Mexico to the United States), was relatively smaller and occurred much later. Our base figures on immigration came mainly from historical demographic data in national sources in each host country. We complemented these figures with data from the *2006 United Nations Demographic Yearbook, Special Census Topics, vol. 3—International Migration Characteristics*. We also reviewed information contained in the *OECD Database on International Immigration, MPI International Immigration Data*, the IPUMS database, sources in scholarly articles that use immigration (e.g., Rauch and Trindade, 2002), and news reports. Appendix B shows the resultant matrix of values for immigration links among the host and home countries in our sample.

All right-hand side variables (including the control variables described below) enter the regressions in relative terms, taking values between 0 and 1. A value of 1 indicates that on

## Foreign Market Performance

the indicator in question, compared with rival foreign transnationals operating in the same host market in the same industry, the transnational under consideration possesses the relative advantage (or at a minimum has no relative disadvantage). A value less than 1, say 0.7, indicates that compared with the lead foreign transnational in the same industry and host market, the transnational under consideration has, on that same indicator, a relative disadvantage (in this case, of 30 percent).

## Control Variables

We treated as control variables and included in our regressions several conventional factors, some of which we touched on above, that can explain heterogeneity in transnationals' foreign market performance.

**Firm level controls.** A principal source of heterogeneity in transnationals' relative performance derives from certain firm-specific characteristics. Accordingly, drawing on the data sources mentioned above, we included four firm-level control variables. Our first control is a proxy for *firm-specific capability*, which, following Dunning (1980), we measured as revenue per employee at the worldwide (i.e., enterprise) level.<sup>1</sup> As discussed earlier, capabilities occupy a central place in transnationals' foreign expansion and performance (Hymer, 1976). Capabilities are embedded in tacit knowledge and routines and are reflected in productivity differences across firms. Because tacit knowledge and routines are relatively more transferable within a firm across countries than across firms, there is a potential and, in fact, an expectation that the market consequences of productivity differences will be propagated across borders. Nevertheless in competition among foreign transnationals in a host market, capability differences are not likely to be as large as they might be between foreign transnationals and purely local firms.

A second firm-level control is *firm experience in host country*, which we measured as years since the transnational's entry into the host market. Several theories of transnationals' behavior and performance have emphasized experiential learning through which, by operating in the host market, relevant patterns are deciphered and eventually responded to in more and more optimal ways (see Zaheer and Mosakowski, 1997; Barkema and Vermeulen, 1998; Henisz and Delios, 2002). In this explanation, greater experience confers relative advantages. A third control we included is *firm size*, which proxies for resources and age-since-founding effects. Transnationals such as General Motors and Hyundai Motors or Citibank and Standard Chartered might operate in the same industry, but they dispose of different levels of resources. This variable, which we measured by transnationals' worldwide employment, ensured that we controlled for resources and associated capacity for outlays toward R&D or acquisition of going concerns in the host country. A fourth firm-level influence on host market performance is the extent to which the transnational adopts a local versus global strategy (Prahalad and Doz, 1987; Zaheer, 1995). Local responsiveness is believed to aid effectiveness; a more global approach is expected to aid efficiency. To factor this in, we drew on

### 1

In the transnational literature, firm-specific advantages are typically proxied by research and development/sales and advertising/sales ratios (Delios and Beamish, 2001), but service firms seldom report R&D/sales ratios. Using that measure would mean dropping a considerable proportion of our observations. Further, a vast proportion of transnationals do not separate out advertising expenditures; they report only sales and general and administrative expenses. Therefore, following Dunning (1980), we resorted to transnationals' worldwide revenue per employee, which was more attractive than the alternatives because (1) it was observable for all transnationals, including service firms, (2) per-worker benchmarks are standard in productivity comparisons, and (3) the measure resonates with executives as a reasonable indicator of their firms' relative capabilities. Further, revenue per employee "is a widely used measure of organizational productivity" in management and economics (Huselid, 1995: 651).

Bartlett and Ghoshal (1989) and created a categorical variable labeled *firm local responsiveness strategy*, which takes the value of 3 for European transnationals (regarded as the most oriented to local responsiveness), 1 for transnationals from Asia (including Japan, S. Korea, Hong Kong, etc., regarded as the most oriented to the global approach), and 2 for transnationals from the U.S., Canada, Australia, and South Africa (viewed as adopting an international approach in the middle).<sup>2</sup>

**Country-level controls.** In a given industry and host country, a number of country-level factors may play a role in explaining transnationals' foreign market performance. For example, the intensity of competition in the United States and the U.K. may in general be higher than in France and Germany. A certain home nation might have a significantly larger home market than another home nation. Such factors might play a systematic role in the competitiveness of transnationals abroad. To account for such unobserved heterogeneity in home-context-based factors, we included home country dummies in all our regressions.

We also controlled for a number of effects of home-host country-dyads. It is plausible that heterogeneity in transnationals' host market performance might be caused by heterogeneity in the closeness between home and host nations on certain dimensions. Two of these pertain to physical geography. First, it is possible that, other things being equal, when there is a *shared land border* between home and host, transnationals can operate with shared and hence more efficient facilities. Second, *geographic closeness* might be expected to drive down operating and control costs associated with spatial distance. We used the inverse of the Great Circle distance between capital cities in the home and host countries to measure geographic closeness. The data for both variables pertaining to physical geography came from the CEPII (French Research Center in International Economics) database.

Further, some scholars have conjectured that when transnationals expand abroad into host markets with similar levels of economic development as at home, they might enjoy an advantage in terms of familiarity with customers' budgets and consumption patterns (see Caves, 1996). To account for these potential home-host taste similarities, we included *economic closeness* as a control variable. We proxied economic closeness as the inverse of the absolute difference between home and host country purchasing-power adjusted per capita income for the year 2000. The data came from the *World Development Report* (2002). To account for differences in trade flows between home and host nations, we also included a variable labeled *bilateral trade flow size*. Presumably, if B's trade to A is significantly larger than C's trade to A, there is greater likelihood for better logistical and information links to exist between B and A than between C and A. Using the NBER-U.N. Trade Database, we measured this variable as the value of trade between 1991 and 1993 among home and host countries.

Next, we controlled for institutional similarities across home and host countries. In keeping with the literature (Scott, 2001; Greif, 2006), we regard institutions as enabling constraints

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This variable also proxies the level of internationalization that transnationals from various home regions might have. Data in the United Nations' *World Investment Report* (2000) show clearly that in terms of foreign sales, employment, and assets, European transnationals are the most internationally exposed (with an average transnationality index of 62), followed by transnationals based in the U.S., Canada, Australia, South Africa (47), and then by Asian, mostly Japan-based, transnationals (38).

## Foreign Market Performance

that are socially constructed, durable, and more or less self-enforcing. As noted earlier, transnational scholars have proposed that institutional similarities, including those pertaining to culture, can enable smoother cross-border coordination of transnational foreign operations and that greater institutional similarity will drive superior host market performance for transnationals (Perkins, 2005). Institutional similarities can be assessed along multiple dimensions. In this study, drawing on Jepperson and Meyer (1991) and Scott (2001), we treated institutional similarity along two subcategories: norms and conventions. Norms refer to values and extra-functional preferences and have connotations of appropriateness and legitimacy. Norms pertain to societal uncertainty, and adherence to norms elicits social fitness (Meyer and Rowan, 1977). Conventions relieve coordinative uncertainty (e.g., on which side of the road to drive), and they are constituted by agreements on symbols (vocabulary) and rules (grammar). We constructed a composite measure of similarity in *norms* by aggregating and averaging the values taken by five constituent proxies: culture (Hofstede, 2001); work-related values (Inglehart, Basanez, and Moreno, 1998); social axioms (Leung and Bond, 2004); religion, based on classification in La Porta et al. (1999); and political systems classification (statism-corporatism) in Jepperson (2002). We constructed a composite measure of host-home similarity in *conventions* by aggregating and averaging the values taken by two constituent proxies: official language (Katzner, 2002) and legal systems (LaPorta et al., 1999).

**Industry-level controls.** We included a variable to control for cluster advantage (i.e., industry-specific competitiveness (Porter, 1990; e.g., for the U.S. in computers). Using data from the World Trade Database (*Statistics Canada*), we calculated this variable based on the home country's world export share in the industry under consideration. Inclusion of this variable did not change the results, but it reduced the sample size considerably because country-by-industry export shares in service industries are not readily available. For this reason, we dropped this variable. Finally, we included industry-host country dummy variables to control for unobserved heterogeneity at the industry-host level.

We did not control for mode of entry for several reasons. First, the variables included in the study (firm-specific capabilities, size, cultural closeness, etc.) are the same ones regarded as driving the mode of entry decision (see Kogut and Singh, 1988; Xu and Shenkar, 2002; Campa and Guillén, 1999). Second, mode of entry is an endogenous variable and, as argued in Shaver (1998), it is incorrect to include it directly in a model of performance. Each transnational decides and pursues the entry mode that is most suitable for it in a particular host market. If acquisitions were generally better in terms of host market performance, most if not all transnationals would pursue only that mode, which is of course not the case. In reality, the transnationals (both high and low performers) in our study had entered the large host markets in our study through a plethora of modes. Frequently, a given transnational invested in the same host market via different modes (e.g., Wal-Mart and Carrefour made multi-mode entries in Brazil and China).

Table 1 presents sample statistics and bivariate correlations for the study variables.

Table 1

Means, Standard Deviations, and Bivariate Correlations															
Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Relative host market sales (log)	-1.44	1.07													
2. IGO connections	.93	.08	.06												
3. Export dependence	.59	.35	.12	.46											
4. Immigration links	.42	.47	.12	.21	.48										
5. Firm-specific capability	.59	.28	.06	.12	.24	.08									
6. Firm experience in host country	.68	.32	.38	.10	.12	.14	-.07								
7. Firm size	.53	.33	.23	.07	.02	.04	-.09	.14							
8. Firm local responsiveness strategy	.83	.22	.05	-.29	-.59	-.20	-.20	.01	.01						
9. Shared land border	.07	.26	.07	.23	.33	.27	.01	.07	.02	-.23					
10. Geographic closeness	.70	.30	.08	.41	.43	-.04	.09	.12	.02	-.01	.26				
11. Economic closeness	.70	.27	.04	-.05	-.21	-.22	.03	.00	-.01	.21	-.13	.06			
12. Bilateral trade flow size	.45	.41	.13	.43	.85	.57	.25	.15	.11	-.59	.36	.22	-.30		
13. Norms	.59	.14	.11	-.09	-.11	.02	-.04	.09	-.03	.40	-.03	.25	.21	-.16	
14. Conventions	.33	.35	.04	-.09	.03	.23	-.11	-.00	-.05	.32	.06	-.06	.17	-.06	.58

### Model

Our dependent variable, *relative host sales*, is a ratio that is always positive and bounded at 1. Accordingly, we could run Tobit regressions for this dependent variable. The range of our relative values is delimited, however, not because we were unable to observe non-positive or greater-than-1 occurrences but because these are the arithmetic bounds of relative shares. In this situation imposing a concordant functional form on the estimation process has been recommended. Following studies in which such shares are a dependent variable (e.g., Cooper and Nakanishi, 1988; Gensch and Soofi, 1992), we imposed a logit functional form on the base elements of this dependent variable, which yields the following log-linear function to be estimated:

$$\log \left( \frac{s_{ij}}{\sum_j^n s_{ij}} \right) = \beta' (X_{ij}) + \gamma_i + \epsilon_{ij}$$

where *i* refers to industry by host country, *j* to the focal firm, *s* to host sales, and *X* to the vector of independent and control variables. We estimated this model including dummies ( $\gamma$ ) for every industry-host country pair to address interdependence of error terms.

Given that we examined the relative market performance of only foreign transnationals that were actually present in our six host markets, and given that there are many firms that could have been but were not present in those six host markets, there is an issue of potential selection bias. In principle, such a bias ought to work against and not in favor of finding support for our value appropriation propositions. After all, if

## Foreign Market Performance

transnationals realize and anticipate value appropriation challenges abroad, then those feeling ill-equipped are unlikely to enter, while those entering are likely to be sufficiently well-equipped. Self-selection and survivor bias ought to make a standard empirical test more, not less stringent.

Nevertheless, the results we report below are based on Heckman-corrected two-stage regressions that first estimate a selection model and then a performance model (Heckman, 1979). The first-stage equation (the selection model) determines a foreign transnational's entry in a given industry into a host country, where the dependent variable is equal to 1 if the transnational is present and 0 otherwise. To estimate the selection model, we exploited the fact that the transnationals in our study were not present uniformly in all the six markets we studied. We constructed a sample for all potential entries by taking all transnationals in our data active in at least one host country and extrapolating to all six host markets, excluding focal transnationals' home countries. By this method, we obtained a sample of 1,365 observations. We then estimated the selection model on this sample using all covariates defined above that are related to entry decisions (except those observed only post-entry, such as a firm's experience in the host country). The results of the first-stage estimation allowed the calculation of lambda (inverse-Mill's ratio), which we then included with all other covariates in the second-stage, performance regression. It is these second-stage regression results that we report below.<sup>3</sup>

## RESULTS

Table 2 presents the main regression results. These results offer strong support for our central hypotheses. Controlling for conventional factors, transnationals from home countries that have greater structural relations to a focal host country in terms of IGO connections (H1), export dependence (H2), and immigration links (H3) experience greater success in economic exchange in that host country. The coefficients on our three indicators of macro structure all take positive signs, as predicted, and are statistically significant in all models. The innovation in these results is not just in columns 2, 3, and 4, but especially in column 5, which shows that these three indicators of structure have independent effects on transnationals' foreign market performance.

In quantitative terms, with a caveat that our data and empirics be regarded as exploratory, the results indicate that a one-standard-deviation increase in IGO connections, export dependence, and immigration would affect, respectively, an 18, 28, and 17 percent of the standard deviation increase in transnationals' host market performance. These are sizable effects, as shown by contrasting these to the substantive effects of firm-level control variables. Computations indicate that a one-standard-deviation increase in transnationals' capabilities, host market experience, and size would affect, respectively, a 9, 18, and 27 percent of the standard deviation increase in transnationals' host market performance. Thus, in relative terms too, the influence of macro structure variables is substantial. To further contrast the substantive effect of macro structure variables against firm-specific variables, we reestimated our regressions using an aggregate measure

3

Although we do not report them here, standard Tobit regressions produce qualitatively identical results. The results reported are also robust to clustering standard errors by host country and home-host dyads.

Table 2

**Heckman–Corrected Log Share Ratio Regressions Explaining Foreign TNFs' Relative Host Market Sales in Six Host Countries, 2000–2001\***

Variable	1	2	3	4	5
Firm-specific capability	0.33* (0.18)	0.36** (0.18)	0.35* (0.18)	0.29* (0.18)	0.34* (0.18)
Firm experience in host country	0.67*** (0.12)	0.65*** (0.12)	0.67*** (0.12)	0.61*** (0.12)	0.61*** (0.12)
Firm size	0.73*** (0.16)	0.75*** (0.16)	0.80*** (0.16)	0.70*** (0.16)	0.77*** (0.16)
Firm local responsiveness strategy	3.98* (2.52)	4.36* (2.51)	5.08** (2.56)	4.53* (2.50)	5.48** (2.53)
Shared land border	-0.21 (0.30)	-0.11 (0.30)	-0.49 (0.32)	-0.46 (0.31)	-0.54 (0.33)
Geographic closeness	0.63** (0.28)	0.01 (0.34)	0.44 (0.29)	0.84*** (0.29)	0.23 (0.37)
Economic closeness	-0.01 (0.28)	-0.09 (0.28)	0.07 (0.28)	0.15 (0.28)	0.11 (0.28)
Bilateral trade flow size	0.50 (0.36)	0.39 (0.36)	0.01 (0.40)	0.37 (0.36)	-0.06 (0.39)
Norms	-0.25 (0.62)	-0.27 (0.61)	0.13 (0.63)	-0.16 (0.61)	0.10 (0.63)
Conventions	0.32 (0.30)	0.38 (0.31)	0.16 (0.31)	0.08 (0.31)	0.06 (0.32)
Lambda	0.19 (0.29)	0.23 (0.29)	0.35 (0.30)	0.21 (0.29)	0.35 (0.30)
IGO connections (H1)		0.36*** (0.11)			0.23** (0.12)
Export dependence (H2)			1.09*** (0.37)		0.83** (0.37)
Immigration links (H3)				0.49*** (0.13)	0.36** (0.14)
Wald $\chi^2$	958.62***	975.67***	961.48***	992.22***	1008.64***

\*  $p < .10$ ; \*\*  $p < .05$ ; \*\*\*  $p < .01$ ; two-tailed tests.

\* Standard errors are in parentheses;  $N = 1365$ ; 622 uncensored; home dummies and industry-by-host dummies are included in all models.

(calculated as an unweighted simple average) of our three constituent macro structural indicators. The results of this exercise suggest that a 10 percent disadvantage in transnational-level characteristics (viz., transnationals' capabilities, experience, and size) could be "compensated" for by a 13 percent advantage in the home-host macro structural relations considered here.

Brief observations are in order regarding the main control variables. First, consistent with extant theory, heterogeneity on firm-specific factors (transnationals' capabilities, experience, size, strategy) matter a great deal. Second, geographic closeness is always positive but is significant only in certain models. One explanation could be that our sample includes transnationals in service industries. When we ran a separate regression with only manufacturing transnationals, geographic closeness was positive and statistically significant.<sup>4</sup> Third, estimated coefficients on bilateral trade flows are not significant in these models. Again, this may have to do with the fact that our sample includes service transnationals. When we

#### 4

Another explanation could be that many IGOs of consequence have a regional bias (e.g., NAFTA). As a check, we ran a regression in which we replaced the IGO connections variable with a variant that counted membership only in international IGOs—those IGOs whose titles contain the term global, international, multilateral, or world. In that regression, geographic closeness was consistently statistically significant.

## Foreign Market Performance

estimated the model with manufacturing transnationals only, bilateral trade flows are (as one would expect) positive and statistically significant. In the services-transnationals only model, the bilateral trade flows coefficient is negative but insignificant. In the pooled sample regression, the net effect appears to be a wash.

Lastly, in our sample, similarities in host-home institutions (i.e., norms and conventions) are not significant. This is not different from the cultural paradox result reported in other studies (e.g., O'Grady and Lane, 1996; Gómez-Mejía and Palich, 1997; Luo, 2001). Considering that U.S.-headquartered transnationals lead in Japan, that U.K.-headquartered transnationals lead in India, that depending on the industry, European- or U.S.-based transnationals may perform well in China, and so forth, one perhaps ought not be too surprised by the absence of statistical significance on these culture and norms proxies. Those home and host countries are scarcely close on any of Hofstede's or other measures of culture.<sup>5</sup> Our indicator of similarity in host-home conventions is not significant either. In auxiliary regressions, however, when we replaced the composite measure of conventions with a stand-alone measure of home-host "common official language" (coded based on the CEPII Database), the coefficient turned positive and statistically significant (without changing our main results). This would support the special importance in cross-country research accorded to language (see, e.g., Inglehart, 1991; Cavalli-Sforza, 2001).

## Robustness Checks

The results reviewed above accord well with all three of the hypotheses we proposed. Still, confidence in our interpretation of the findings would be stronger if some support could be established for the mechanisms theorized. Attention to alternative explanations and measures would likewise be reassuring. With this objective, we conducted supplementary empirical analyses exploiting available data and exploring pertinent interaction effects.

**IGO connections.** For IGO connections, we theorized trust and the diffusion of norms as the central mechanisms underlying its influence on a transnational's host market performance. But it is reasonable to ask whether power, rather than trust and diffusion of norms, is the underlying mechanism here. Perhaps IGOs embody the designs of large countries and indirectly proxy home country power, although the home country dummies that are already included in the regressions ought, in principle, to capture this effect. Also, in the main regressions, IGO connections takes the same sign and significance even when it is entered along with a separate indicator of home-on-host power (i.e., export dependence). Still, to the extent that country power is an underlying mechanism here, an indicator such as home country size should moderate the influence of IGO connections, such that transnationals from larger home countries ought to be influenced less by the IGO variable. Counter to this expectation, in supplementary regressions including an interaction term IGO connections  $\times$  Home country size (the latter proxied by price-adjusted Gross National Product figures from the

5

Even in regressions in which we included individual elements of norms separately, almost none reached statistical significance. The "social complexity" component in the social axioms advanced by Leung and Bond (2004) was an exception. Because their novel construct was challenging to understand, let alone interpret, we decided to defer further exploration to future research.

*World Development Report*, 2002), the interaction coefficient did not take statistical significance. Likewise, if power were the primary mechanism underlying IGOs, a transnational's size itself might moderate the influence of this macro structural link. Large transnationals wield some and occasionally considerable power over host governments. Yet, as with the previous interaction term, supplementary analysis indicated no statistical significance for an IGO  $\times$  Transnational size interaction term. Finally, we also checked whether large countries were more likely to participate in IGOs. Here, too, supplementary analysis did not support this conjecture (if anything, the opposite was the case). These results suggest that the influence of IGOs is not primarily a power story.

To rule out power as the primary mechanism explaining the influence of IGO connections is not the same as ruling in trust and diffusion. We attempted to probe the validity of our explanation by checking whether IGOs matter more in signatory host nations that could be considered more trustworthy (or credible). After all, IGOs, to a large extent, denote intent and imply, but rarely guarantee commitment. Inglehart (1991) reported that countries with higher per capita incomes enjoy greater trust and credibility among foreigners. Accordingly, we investigated an IGO  $\times$  Host per capita income interaction term (with data from the *World Development Report*, 2002). This interaction term was positive and significant, suggesting that the influence of IGO connections is higher the more credible the signatory nation. We also checked this finding by interacting, in place of host per capita income, a proxy for host country adherence to Rule of Law (data from *Governance Matters V*, 2006). This yielded the same result. The preceding interaction effects corroborate that trust rather than power is a mechanism underlying IGO connections.

**Export dependence.** To measure state-on-state dependence, we used export dependence in the regressions discussed above. Export dependence may be accorded relatively more weight given that "opportunity costs are higher for exporters because supply does not easily respond to a loss of markets, a reduction in demand" (Dorussen, 2006: 91). Further, export dependence tends to be more general (e.g., Canada–U.S.), while import dependence tends to be sectoral (e.g., U.S.–Saudi Arabia). Yet exports and imports are both accorded importance in the international relations literature (Waltz, 1979; Kadera and Sorokin, 2004). As a check, we ran separate regressions using import dependence instead. As we report in column 2 of table 3, this alternate measure of dependence has a positive and significant coefficient.

Exports and imports aside, an entirely separate indicator of state-on-state power is security dependence. It is a reality that certain states depend on other leading states for their security. Waltz (1979: 94) pointed out that "states use economic means for military and political ends . . . and military and political means for the achievement of economic interests." The presence of American troops in Europe and Japan can hardly be unimportant in the treatment that American transnationals expect to receive in those host markets. We ran separate regressions to see how this alternative measure

## Foreign Market Performance

Table 3

### Alternative Measures for Dependence and Immigration in Heckman-Corrected Log Share Ratio Regressions Explaining Foreign Transnationals' Relative Host Market Sales in Six Host Countries, 2000–2001\*

Variable	1	2	3	4
All control variables from table 2	Included	Included	Included	Included
IGO connections	0.23** (0.12)	0.15 (0.12)	0.27** (0.12)	0.23** (0.12)
Export dependence	0.83** (0.37)			0.78** (0.39)
Immigration links	0.36** (0.14)	0.36** (0.14)	0.31** (0.15)	
Import dependence		1.29*** (0.33)		
Arms procurement dependence			0.26*** (0.13)	
Immigration links (dummy)				0.34** (0.15)
Wald $\chi^2$	1008.64***	1021.00***	1020.59***	993.94***

\*  $p < .10$ ; \*\*  $p < .05$ ; \*\*\*  $p < .01$ ; two-tailed tests.

\* Standard errors are in parentheses; N = 1365; 622 uncensored; home dummies and industry-by-host dummies are included in all models.

of dependence would perform. Because there was so little variation in the presence of home military troops in the host countries in our sample (only U.S. troops in Japan), we measured security dependence based on country source-destination patterns of arms procurement (with data from the *SIPRI Arms Transfers Database*). As we report in column 3 of table 3, this security dependence indicator is positive too and as statistically significant as the export dependence indicator.

Finally, we wish to clarify that despite a high simple correlation between export dependence and trade flows, the latter do not proxy the former. Although both variables are increasing in host-to-home exports, their other components are not automatically related. In other words, trade dependence is related to but is not the same as trade significance, which is a function of the overall economic size of nations. This assertion is supported by the fact that even in the baseline model 1 in table 2, bilateral trade flows are not statistically significant. Further, even when we drop bilateral trade flows in the other models, the results for export dependence remain unchanged. This means that potential multicollinearity is not driving these results.

**Immigration links.** Immigration links could be associated with other explanations than trust and monitoring. One explanation could be that immigration drives similarity in tastes, which in turn could be driving transnationals' host market performance. The economic closeness control variable included in all regressions is meant to proxy taste similarities. More broadly, our data cover a wide range of industries—from banking and cement to chemicals, pesticides, and telecommunications. It is difficult to imagine that over such a wide variety of industries (including compressors, elevators, and hotels) the taste mechanism is what explains the

influence of immigration in our regressions. Another possible explanation is the diffusion of norms and conventions, especially language. A large number of immigrants could engender home-host cultural and linguistic closeness, which, in turn, facilitates transnationals' home-host knowledge transfer and coordination. But we controlled explicitly for home-host closeness on culture and conventions, including language. Given that our comprehensive indicators for norms and conventions are not significant even in the baseline model, it is unlikely that their effects on transnationals' performance are masked or absorbed by our immigration links variable.

Still another immigration-related influence could be search information that directly facilitates transnationals' value creation abroad. Immigrants can convey information on their home country and develop business networks that favor economic transactions between their home and host countries, but the two variables we measured—bilateral trade and transnational experience in the host market—ought to capture such information advantages much more directly. Importantly, if information benefits were what explained the significance of immigration links in our regressions, then one would expect that smaller transnationals would benefit relatively more from this structural relation (i.e., that the coefficient on the interaction term Immigration links  $\times$  Transnational size should be negative). Large transnationals dispose of greater resources and should hence be more able to underwrite the costs of acquiring host market information. Yet this interaction term takes exactly the opposite sign, suggesting larger transnationals benefit more from immigration links. Work by Rauch and Casella (2003) also showed that the value of information that immigration furnishes resides less in search (for business connections) and more in control (i.e., value appropriation) pertaining, in their research, to the quality of the heterogeneous goods being exchanged.

To further assess our trust and monitoring explanation, we explored the interaction between immigration and transnationals' host country experience. One would expect that the fragility and unfamiliarity that characterize the early years in a host market (because what's what and who's who are neither clear nor settled) evolve over time to workable levels of predictability and definition. Second-hand information gets confirmed or disconfirmed, elaborated, and eventually displaced by first-hand experience. Accordingly, to the extent that immigration links are about trust and monitoring, the longevity of a transnational's experience in a focal host market ought to diminish the influence of this link. This conjecture was supported in supplementary analysis. The interaction term Immigration links  $\times$  Transnational host experience was negative and statistically significant. Similarly, we examined whether the influence on a transnational's host market performance was different depending on the direction of immigration flows. To the extent that trust and monitoring are primary underlying mechanisms, we expected immigration in either direction to help. Home nationals may be dispatched by transnationals to a host country, or home residents who emigrated from a host (e.g., Chinese Americans) may also be dispatched to a host. A supplementary analysis

## Foreign Market Performance

confirmed that immigration flows in both directions have a positive and statistically significant influence on transnationals' host market performance. Accordingly, after weighing the evidence for plausible alternative interpretations, we feel confident in the trust and monitoring explanation for the influence of immigration links.

Finally, we examined whether the results are sensitive to how we operationalized the immigration link variable (as a categorical variable). Reasoning that the intensity and nature of immigration can be expected to affect the strength and generality of binational trust and the feasibility of monitoring, we coded this as a categorical (0-1-2) variable, assigning the high value in the few situations in which immigration was "formative" (as in the cases of British immigration into the U.S.A. or Italian immigration into Brazil). One possible concern with this measure is that it could cause our immigration measure to become conflated with cultural closeness, though we directly control for both cultural and institutional closeness in our regressions. Still, to further verify our results, we ran separate regressions with immigration coded simply as a binary 1-0 variable (1 for any significant immigration links and 0 otherwise). The results (shown in column 4 of table 3) were identical to those obtained when immigration was coded as a categorical variable, except that the model fit declined, suggesting that the categorical coding of immigration better explains heterogeneity in transnationals' host market performance.

**Role of history.** In the above analysis, we did not broach the question of historical ties among nations. It is interesting to ask to what extent historical ties explain both the pattern of transnational host market performance and the focal macro structure (of IGO connections, export dependence, and immigration) in this study. Econometrically, the question would be, are historical ties an omitted variable that causes both Y and the focal X? The omission of a variable that is related theoretically and empirically to both the independent variables and the dependent variable can contribute to the variance in elasticities of independent variables. Given that historical ties can be expected to have a positive influence on transnationals' host market performance, and given that one also expects structural relations between countries to be denser in the presence of historical ties, the omission potentially inflates the reported coefficients.

Although historical ties are challenging to quantify, one observable proxy is colonial contact between home and host countries. Coded as a binary variable (using the CEPII database), this takes the value of 1 if there was colonial contact between home and host countries, and 0 otherwise. Using this, we modeled elements of structure on history and geography and obtained a linear decomposition of structure into state-dependent and time-varying components. Using data on all our country-pairs, we first estimated elements of macro structure as a function of factors used in gravity models: geographic distance, shared land border, common official language, common legal system origin, and colonial contact. In this analysis, the most significant predictor of all three structure elements was geographic distance. Those regressions gave us fitted (i.e., predicted) values for each of

the three constituent elements of macro structure and residuals (i.e., the difference between the actual values and predicted values). Then, as a second step, we reestimated our main regressions using these fitted values and residuals. Fitted values ought, in principle, to capture the part of the current structure determined by historical and geographical factors, and the residuals ought to capture any effect above and beyond the independent effects of these elements. In an analysis not shown here, fitted values for export dependence and immigration link were statistically significant and had coefficients twice as large as those of the residuals. This suggests that these two elements of macro structure are indeed influenced by historical and geographical ties (Rangan and Drummond, 2004). Yet for our three macro structural elements, the residuals were all also positive and significant. This confirms the presence of independent effects in addition to those attributable to history and geography. To do a stronger test, we introduced colonial contact directly into our main regression. As expected, colonial contact was itself highly significant. Nevertheless, all three structural elements had a positive and significant influence on transnationals' relative host market performance.

Taken together, the results of these supplementary analyses indicate that colonial relations influence both macro structural elements and transnationals' host market performance, but colonial relations do not displace the independent and significant effects of macro structure on transnationals' host market performance. Moreover, colonial relations have an immense bandwidth, from power to more subtle influences such as language, ideology, and religion (North, 1990; Abernethy, 2000), which makes them less satisfying from a theory development and explanation standpoint. Further, colonial relations are increasingly superseded by other alignments of interests and dependence (e.g., Spain–Mexico vs. the U.S.–Mexico).

## DISCUSSION

Microeconomic postulates of rationality dictate that in a given market, the firm that creates and delivers the best value for the money will lead in that market. In its emphasis on superior firm-specific abilities, the conventional literature on transnational firms is entirely consistent with this paradigm. Firms with better developed capabilities will be prominent in their home markets because they create and deliver more value, and they should be more likely to enter and operate in foreign host markets for the same reason. Still, as Hymer (1976) noted, foreign markets present a distinct challenge. Even a transnational that has highly developed capabilities at headquarters might be reluctant to project that capability into a foreign market if it perceives it will not be able to appropriate fair returns to those capabilities.

In this uncertain international realm, efficiency makes way for macro structure to influence economic outcomes. The results of this study support the effects of macro structure: heterogeneity in transnationals' foreign market performance is explained not just by capabilities and experience but also by the heterogeneous macro structure in which nations are

## Foreign Market Performance

embedded. Concretely, transnationals from home countries that have more structural relations with a focal host country will be in a better position to allay concerns about value appropriation there. They will have greater control and confidence in operating there. They will be more prone to transferring know-how and adapting their offers in that host market. They will be more likely to rely on local content and enjoy correspondingly lower relative costs there. Such transnationals will be commercially able to offer mid-market products as opposed to only high-cost, high-quality premium products. Consequently, they should experience greater success in economic exchange there.

## Contributions

Our work contributes to theory on transnationals and to international economic sociology. Existing work on transnationals' foreign market performance has emphasized differences in value creation (i.e., heterogeneity in capabilities and experience) among transnationals operating in a given host market. We approached from a different angle and focused on the influence of relative differences among transnationals in host market value appropriation (i.e., control) and how macro structure can mediate heterogeneity. We thus extend conventional economic analysis of transnationals with an important sociological complement and offer a more complete explanation of the foreign market performance of transnational firms. Importantly, our work goes beyond transaction costs and internalization remedies that are standard in economic treatments of transnationals (e.g., Rugman, 1980; Hennart, 1982) and deepens the sociological analysis of control in the international realm by considering the social and political context in which transnational firms operate (Smelser and Swedberg, 2005; Walsh, Meyer, and Schoonhoven, 2006).

In terms of international economic sociology, the system of nation states is still fundamental in world society today, as reflected by the state-centeredness of the work in this literature (Meyer, 2000; Fligstein, 2005; Ingram, Robinson, and Busch, 2005; Polillo and Guillén, 2005). The mechanisms emphasized in existing work revolve around trust and norms. But there are other mechanisms—in our work, sanctioning and monitoring—enabled by structure that also merit development and to which we attended. Our development advances a logic in which actors' power and self-interest are supported by structure rather than being contained by it. This not only heeds the call to treat power and interest more explicitly in discussions on structure (DiMaggio, 1988; Palmer and Biggart, 2002), it also deepens the "residual" category of political embeddedness (Zukin and DiMaggio, 1990), which is particularly apropos in the international realm (Jacobson, Lenway, and Ring, 1993; Henisz, 2000). If we are to avoid a needlessly oversocialized construal of structure in the international realm, such theory deepening is important.

Our work also contributes to empirics in both the structure and the transnational literature. In existing work, the influence of structure in the international realm is theorized to have consequences at the micro level (Guler, Guillén, and

Macpherson, 2002; Ingram, Robinson, and Busch, 2005). In the empirics, however, these pioneering studies tend to measure dependent variables (e.g., practice diffusion, exchange) at the macro (i.e., country) level. We take this work further and offer the first empirical evidence linking macro structure to micro (firm-level) outcomes in the international realm. We innovate also by focusing on transnationals' host market performance rather than the more typical trade flows. In terms of the literature on transnationals, existing empirical studies have examined micro outcomes, but they have seldom attended explicitly to macro structure. Compared with conventional and even recent empirical work on the foreign performance of transnationals, to our knowledge, this is the first study to assess simultaneously the influence of firm, country, and structural factors, and to do so in a multi-home, multi-host, multi-industry setting. The variety in our data allowed us to adopt a non-binary approach to foreignness in performing our analysis. Finally, although immigration is an acknowledged facet of globalization (Meyer, 2000) and has been shown to influence international exchange (Rauch and Trindade, 2002), to our knowledge, this is the first work to theorize and explore its influence on transnationals' foreign market performance.

### **Limitations and Future Research**

This study, like any other, has limitations, some of which suggest avenues for future research. First, our work is based on a snapshot in terms of patterns in transnationals' sales in foreign host markets. Given the thrust of our proposed theory and the nature of alternative explanations, a cross-sectional approach covering multiple industries, home and host countries was more appropriate than a longitudinal approach. Moreover, the years 2000 and 2001 are not prone to any obvious bias in the patterns we were interested in. Also, microeconomic research indicates that market shares demonstrate stability (Sutton, 2007). Despite the shortness of our data panel, this analysis hence stands to illuminate and advance existing work on macro structure. Nevertheless, it would be useful in future research to explore the ideas in this paper with richer multi-year data. Further, going beyond the relative sales measure, it would also be useful to explore indicators of a transnational's host country commitment, such as extent of production facilities and wholly owned subsidiaries. Second, though we studied an interesting and empirically attractive set of six host countries, it would be even better if the set were larger and included host countries from Europe and Africa. Third, as in existing work theorizing the influence of macro structure on economic outcomes in the international realm (Guler, Guillén, and Macpherson, 2002; Ingram, Robinson, and Busch, 2005; Drori, Jang, and Meyer, 2006), we theorized about mechanisms that we did not directly measure. Logical theory development, scrupulous inclusion of control variables, and careful exploration of alternative mechanisms in the robustness analysis were all meant to compensate. But case-study and field research tracking the experience of one or a few transnationals might be one way to observe structural influences at the level of granularity necessary to pin down and confirm the theorized mechanisms.

## Foreign Market Performance

Fourth, with the exception of our remarks on the role of history, we have scarcely discussed the origins of macro structure. Leaving this for future research, here we would just speculate that structure is a result not only of an initial random distribution of resources, power, space, and accidents of history (e.g., the voyages of discovery, famines and emigrations, technological developments, and shifts in ideologies) but also of national interest and agency. Structure at a given time tends to reflect the prevailing interests and relative power of actors. As interests or relative power change, structure will also tend to change (Greif, 2006). By the same token, alignments of interests may be reevaluated and macro structure might shift. For instance, though India was "non-aligned" for much of its post-independence existence, for a variety of interests, from information technology to nuclear technology, it is now seemingly more aligned with the United States than ever before. A Chavez-led, oil-rich Venezuela has treated U.S. transnationals less favorably than an earlier more dependent Venezuela. This is not to say that the structures of relationships across nations change rapidly (they don't), just that they may change at a pace that exceeds change in institutional factors such as culture and language. Given that the problem of trust and value appropriation in international exchange is considerable and undiminishing, the origins of macro structure merit better understanding.

Fifth, though it was important to include immigration links, we lament the paucity of granular and standardized data on bilateral immigration. A continuous measure of bilateral immigration would afford a more accurate appreciation of the empirical influence of this link. Beyond better measures of quantity, more critically, insight into the mechanisms underlying immigration's influence on transnationals' performance would be enhanced by measures of immigration quality. In Latin America, Europeans and their descendants tend to occupy key positions in industry and government. In the U.S., immigrants from Mexico have tended to occupy lower-status positions. To what extent and how do these differences influence the story? A focused study, even only on a smaller region or an even more micro study at the firm-host level, would be extremely complementary and helpful to broad brush studies, including ours. For now, however, results show that even our gross measure of immigration is useful and meaningful, especially when considered in light of work in control theory and international human resources (and given the inclusion of control variables such as trade and geography). This work should stimulate more refined research on the influence of immigration on transnationals' foreign market performance.

Sixth, it also remains to understand how and with what effect transnationals attempt to influence macro structure and how they approach the formulation and implementation of related non-market strategies (Baron, 2005; Fligstein, 1996). Greater understanding on such matters could inform and eventually contribute to a normative theory of focused internationalization.

Last but not least, we acknowledge that our discussion in this study has concentrated on host market value appropriation concerns from the standpoint of foreign transnational

firms. In reality, actors in the host market as well experience value appropriation concerns arising from the self-maximizing behavior of foreign transnationals. This valid other vantage point merits attention in future research.

## CONCLUSION

In the nearly three decades since the influential publications of Meyer and Rowan (1977), DiMaggio and Powell (1983), and Granovetter (1985), the micro sociology of context, structure, and embeddedness has been developed extensively (e.g., DiMaggio and Powell, 1991; Nohria and Eccles, 1992). That work has successfully stemmed the tide of undersocialized efficiency- and transaction-centric explanations of economic behavior and outcomes. Now, as the international realm grows more important and as the nation state becomes more prominent as an actor and circumscriber, there is a burgeoning literature developing a corresponding macro sociology of context, structure, and embeddedness (Guler, Guillén, and Macpherson, 2002; Fligstein, 2005; Ingram, Robinson, and Busch, 2005; Drori, Jang, and Meyer, 2006). Our study draws on and is oriented to this promising literature.

Scattered endowments and a biology of utility explain the drive for international exchange. But exchange is uncertain and actors seek control. In response, economics, focusing on transactions, has proposed a theory of contracts. Yet contracts are invariably incomplete. Regarded as a necessary evil even in the domestic setting, contracts are more challenging to enforce in the international realm. Sociology, in contrast, focusing on the embeddedness of actors, has proposed a theory of context and structure. Structure elicits attention in economic sociology because it transforms the context in which actors interact (Biggart and Delbridge, 2004). The central idea is that, actor-level attributes aside, social relations and frames that structure the context can enable, constrain, and influence actors' behavior. In this vein, structure can be predicted to influence the pattern of outcomes in exchange systematically.

Susceptible to shifts though structure may be, the demand for structure does not automatically or contemporaneously elicit a proportional and corresponding supply of structure. Nowhere is this paucity more evident than in the international realm. As Fligstein (2005: 184) said, "In international markets the political arenas are less well formed and there are great barriers to cooperation across societies with different interests and different legal and political institutions." Fligstein's first use of the term "different" is intended to mean "separate." The second use is intended to mean "dissimilar." Making this distinction is crucial if we are to understand the behavior and experiences of transnational firms as they operate and compete in foreign markets.

In response to the growth in and potential of transnational exchange, more elaborated and more credible trust- and norms-infusing macro structures are emerging in the international realm. The effectiveness of such structures, albeit impeded by uneven enforcement, is already visible today. At the same time, the norms of globalism and modernity that

such structures diffuse are still too frequently superseded by more innate norms of sovereignty and the protection of national interest, as seen in retrograde developments even within the EU or concerns related to the inbound foreign investment of "sovereign wealth funds." Still confronted with considerable uncertainty, transnational firms leverage certain other aspects of macro structure to protect their interests abroad. In this study, we have shown the value of three of these. As globalization continues, we may discover others.

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## Foreign Market Performance

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## Foreign Market Performance

### APPENDIX A: Industries Covered in the Data, by Host Country

SIC	Industry	Brazil	China	India	Japan	Mexico	U.S.
20	Processed foods	2	3		3	3	3
2047	Pet food				2	2	
2066	Chocolate products			2			
2082	Beer	2	5	2	2	2	6
2085	Spirits						3
2086	Soft drinks	2	2	2	2	2	2
2111	Tobacco	2		2	2	2	2
26	Stationery products			2			
26	Packaging					2	
26	Forest and paper products				2	3	6
28	Chemicals	5	3	3	5	5	6
2813	Industrial gases			2	2		2
2834	Pharmaceuticals	5	6	9	9		3
2841	Household products	2	2	2	2	2	3
2842	Cleaning products			2			
2844	Cosmetics	2			3	3	3
2879	Pesticides & agricultural chemicals		3	4			2
2892	Explosives			2			
2911	Petroleum	3	3		3		3
2992	Lubricants			3		2	
3011	Tires	3	3	2		3	4
32	Glass products			3	2		3
32	Construction materials	2				2	4
33	Steel					4	5
33	Aluminum	3			2		3
34	Wires & cables			2			
34	Boilers			2			
34	Ball bearings			3			
35	Heavy industry	3	4			2	4
354	Machine tools			2			
3531	Earth moving machinery			2			
3534	Elevators	3	5	2	2	2	3
3563	Compressors			2			
3571	Computers	7	4	2	3	5	2
3577	Printers	2	3	2	2	2	
3585	Air conditioners			2			
36	Electronic equipment			2			
36	Consumer electronics	2	3				5
362	Switching apparatus			3			
363	Household appliances	3	6	2	3	3	2
364	Electrical appliances			2			
3621	Motors & generators			2			
3632	Refrigerators			2			
3651	Television sets			3			
3661	Mobile phones	2		4		3	4
3663	Telecommunications equipment	6	5	4		4	4
3669	Networking products			3			
3691	Dry cells			2			
37	Defense and aerospace						2
3711	Automobiles	5	6	4	4	7	3
3713	Commercial vehicles		2	2			2
3714	Auto parts			5	3		3
3721	Commercial aircraft		2				3

*(continued)*

**APPENDIX A (continued)**

SIC	Industry	Brazil	China	India	Japan	Mexico	U.S.
3751	Motorcycles			2			2
384	Medical instruments	3	3		4		
3861	Photographic equipment	2	2	2	2	2	2
3861	Office machines	2		2		2	2
39	Personal grooming products	2	2	2	3	2	
45	Express mail	2	4				2
4724	Travel agencies	2				2	
481	Telecom services	6					
4812	Mobile telecom services			2		2	4
4813	Wireline telecom services					2	
4899	Internet ISP	2					
49	Gas					2	
49	Electricity	4		2		5	2
5311	Department stores	2				2	
5399	Hypermarkets	2	3		3	2	
5411	Food retailers						3
56	Apparel retailers				3		2
5812	Restaurants		2		2	2	
6021	Retail and commercial banking	6	3	15	4	5	7
6141	Consumer finance	3					
62	Investment banking	4	2		4	3	5
6211	Stock brokering					2	
63	Insurance	3	3			5	6
6311	Life insurance				4		
6321	Non-life insurance				2		
6411	Insurance brokering					3	
7011	Hotels	2	4	2			3
73	Financial information				2		4
7311	Advertising		3		4	3	2
7371	Software programming			4			
7372	Software		2		2	2	
7383	Media and news syndicates		4				3
7389	Catering						2
8742	Management consulting		4		5	2	
8748	IT services and integration		2		4	4	
	<b>Transnationals</b>	113	113	136	106	119	151
	<b>Industries</b>	37	34	48	35	42	46

## Foreign Market Performance

### APPENDIX B: Coded Values for Immigration Links among the 23 Home and 6 Host Countries in the Data\*

Home Countries	Host Countries					
	Brazil	China	India	Japan	Mexico	U.S.
Brazil	–	0.0	0.0	0.5	0.0	0.0
China	0.0	–	0.0	0.5	0.0	0.5
India	0.0	0.0	–	0.0	0.0	0.5
Japan	0.5	0.5	0.0	–	0.0	0.5
Mexico	0.0	0.0	0.0	0.0	–	1.0
U.S.	0.0	0.5	0.5	0.5	1.0	–
Australia	0.0	0.5	0.0	0.0	0.0	0.0
Austria	0.0	0.0	0.0	0.0	0.0	0.0
Belgium	0.0	0.0	0.0	0.0	0.0	0.0
Canada	0.0	0.5	0.5	0.0	0.0	1.0
Denmark	0.0	0.0	0.0	0.0	0.0	0.0
Finland	0.0	0.0	0.0	0.0	0.0	0.0
France	0.0	0.0	0.0	0.0	0.0	0.5
Germany	0.5	0.0	0.0	0.0	0.0	1.5
Hong Kong	0.0	1.0	0.5	0.0	0.0	0.0
Ireland	0.0	0.0	0.0	0.0	0.0	1.0
Italy	1.0	0.0	0.0	0.0	0.0	1.0
Luxembourg	0.0	0.0	0.0	0.0	0.0	0.0
Netherlands	0.0	0.0	0.0	0.0	0.0	0.5
Norway	0.0	0.0	0.0	0.0	0.0	0.0
Portugal	1.0	0.0	0.0	0.0	0.0	0.5
South Africa	0.0	0.0	0.5	0.0	0.0	0.0
South Korea	0.0	0.5	0.0	0.5	0.0	0.5
Spain	1.0	0.0	0.0	0.0	1.5	0.5
Sweden	0.0	0.0	0.0	0.0	0.0	0.0
Switzerland	0.0	0.0	0.0	0.0	0.0	0.5
Taiwan	0.0	1.0	0.0	0.5	0.0	0.5
Thailand	0.0	0.0	0.0	0.0	0.0	0.0
U.K.	0.0	0.0	0.5	0.0	0.0	1.5

\* Values are computed as the unweighted average of home-host and host-home immigration and range from 0 to 2.