



Governments, reciprocal exchange and trust among business associates

Alaka N Rao¹, Jone L Pearce¹
and Katherine Xin²

¹Graduate School of Management, University of California, Irvine, USA; ²China Europe International Business School (CEIBS), Shanghai, China

Correspondence:

AN Rao, Graduate School of Management,
University of California, Irvine,
CA 92697-3125, USA.
Tel.: +1 949 824 4628;
Fax: +1 949 824 8469;
E-mail: anrao@uci.edu

Abstract

Both Pearce and Molm have conducted research in interpersonal trust. Here we apply their work to international business by deriving hypotheses from their work, some compatible, some conflicting. We test them with data from managers in China, the United States, Hong Kong and Thailand using measures from the World Bank, *World Competitiveness Report*, and Transparency International and managerial interviews. We find support for Pearce's arguments on the effects of governmental facilitation on managers' trust in their business partners, and for extensions of Molm's work on reciprocal exchange to international field settings. For the conflicting hypotheses, results support Pearce's arguments that the structural assurances of facilitative governments lead to higher levels of trust in business associates.

Journal of International Business Studies (2005) 36, 104–118.

doi:10.1057/palgrave.jibs.8400116

Keywords: trust; social exchange; governments; guanxi

Introduction

Trust has long been central to the many branches of the social sciences. This wealth of attention has produced a multitude of conceptualizations and approaches, with this variety imported into the multidisciplinary multicultural field of international business. Frustration with this variety has led to calls for many different solutions, mostly calls for one approach over others (Barber, 1983; Zucker, 1986; Hosmer, 1995; Lewicki and Bunker, 1996). However, Bigley and Pearce (1998) suggest that conformity should matter only when different approaches to trust address the same problem. We have discovered one such single problem of trust with conflicting predictions: the effects of structural assurances on interpersonal trust. The predictions derived from research based on laboratory experiments are at odds with the context-focused work of those conducting comparative international research.

The varied perspectives of international management have enriched our understanding of the complex dynamics involved in international work, and have made the field a vibrant one. However, heretofore differing perspectives rarely have been brought together. Despite Platt's (1964) call for more strong inference research based on conflicting alternative hypotheses, in international management such tests have rarely been performed. In this paper, we test alternative hypotheses derived from two theories: one is a comparatively new model in international

Received: 26 November 2003

Revised: 25 June 2004

Accepted: 6 July 2004

Online publication date: 25 November 2004



management that predicts how differences in governments affect managerial trust, and the other is laboratory-based research on trust creation in interpersonal exchange relationships. The former proposes that weak, non-supportive governments provide few structural assurances and so undermine interpersonal trust. Alternatively, the latter argues that structural assurances that reduce risks in transactions have the perverse effect of reducing, not increasing, interpersonal trust. Here we report, first, the development of better measures of the key constructs of government facilitation and reciprocal social exchange; second, a more complete test of key predictions of the governmental-effects model regarding interpersonal trust; third, an extension of laboratory work on reciprocal exchange and interpersonal trust to field settings; and finally, a head-to-head test of these conflicting predictions.

Facilitative governments

Pearce (2001a, b) proposed a way of conceptualizing differing governmental effects on managerial behavior and organizations that is briefly described here. She argued that governments may range from those that facilitate independent organization to those that impede independent organization. Facilitating governments are supportive of organizations, and provide predictable laws and regulations that these governments are capable of enforcing, that is, structural assurances supporting exchanges. Governments that are relatively less facilitative are less supportive of organizations, more erratic and weaker.

Building on the work of North (1990), Redding (1990) and Fligstein (1996), Pearce (2001a) suggests that non-facilitating governments affect organizations and the behavior of their participants in several ways. North (1990) proposed that governments can reduce unpredictability in economic exchange by establishing stable structures for human interaction. As economic exchange increases in complexity – that is, involving more numerous exchanges among more specialized individuals, across greater expanses of space and time – unpredictability increases. When economic exchanges are simple, and involve local trade with repeated same-party dealings among those who share a common set of values, informal arrangements such as tradition, religious precepts and ritual are sufficient to sustain them. Yet, as complexity increases, traditions do not suffice. Fligstein (1996) summarizes these ideas in a model elaborating the importance of governments in providing stable and reliable conditions under which

organizations form, compete, cooperate and exchange. Further, Fligstein (1996) suggests that governments can vary in their capacity to intervene. That is, some governments cannot maintain sufficient control over their own officials to ensure reliable enforcement. Many governments do not have the capacity to enforce their laws, and such incapacity can be doubly costly – both in the absence of this necessary facilitating function and in the unpredictability of erratic, partial enforcement. An ineffective, or non-facilitative, government consequently creates an environment characterized by greater uncertainty, and more political and financial risk for independent organizations.

Thus, North (1990) and Fligstein (1996) propose that predictable, strong governments are necessary to complex organizations. Pearce (2001a) added ‘supportive’ to these two dimensions of government facilitation. Many communist governments were sufficiently strong and predictable, but they were hostile to independent organization. Independent organizations did exist under communism, often operating in what has been called the black market, but such organizations are necessarily different from their counterparts that can operate within the law (see Pearce, 2001a). It is the case that non-communist governments also might impose excessive legislative burdens or create market-unfriendly policies, producing quite non-supportive governments for independent organizations. These differences have been widely noted and called by different names, such as governance quality, rule of law or structural assurances, among many others. Here Pearce’s (2001a) term ‘facilitative government’ is used because it focuses on governmental effects on organizing.

Facilitative governments and personal relationships

How to organize if governments are non-supportive, erratic or weak? Pearce (2001a) proposed that if governments create a hostile environment hindering independent businesses, managers will develop networks of mutually committed personal relationships to manage the critical dependencies created by non-facilitative governments. While there are many reasons why governments may impede or fail to facilitate independent organization, when such failure occurs it is proposed to lead to organizations that are dependent on personal relationships. Without facilitative government, impersonal relationships are insecure, and when government does not support impersonal dealings,

organizing is more likely to depend on personal relationships. A hallmark of modern societies has been the institutional arrangements that can produce impersonal transactions among strangers – when the scope of business activity expands beyond what can be accommodated by a friendship or kinship circle (Weber, 1947; Parsons and Smelser, 1956; Zucker, 1986). If governments are unwilling or incapable of providing the infrastructure to support extensive impersonal exchange, individuals have no choice but to continue to rely on the only means available to them – the personal relationships they build themselves. Without the structural assurance provided by facilitative governments, individuals need to rely on a return to traditional practices, albeit with organizations that may superficially look like modern, complex organizations (Pearce, 2001a).

Dependence on personal relationships in organizing under less facilitative governments serves several purposes: protection, information and dependence management. First, if laws and regulations are not reliably enforced, cultivating personal relationships with government officials is the only way to protect oneself from governmental power. This argument is supported by the research of Gambetta (1988), who describes how the personal ties characteristic of the Sicilian Mafia served to protect those living under a weak government. Unpredictable government officials may expropriate businesses, and levy unexpected taxes and fees, as well as possibly threaten one's personal safety. Personal relationships with the powerful, often government officials, provide the only protection available under non-facilitative governments. Furthermore, reliance on those embedded in one's kinship, youth or friendship circle lends greater assurance and stability when conducting business exchange. By contrast, those who live under the protection of a more facilitative government are freer to work with strangers who might help with a new market or provide funds; they do not need to cling to those who can protect them from the threats posed by erratic governments unable to control their officials.

In addition to protection, facilitative governments support organizing by providing useful information. When that information is not freely available to all, personal relationships with those in a position to know are particularly useful. As Khanna and Palepu (1998) argue, a valuable supporting action of governments is the maintenance of conditions supporting information flows

useful in organizing. In emerging markets there are problems with inadequate financial disclosure, and an absence of intermediaries such as investment bankers, venture capitalists and an active business press. In societies with facilitative governments, credit and capital suppliers can rely on extensive databases and regulatory bodies allowing a more accurate assessment of risk. In countries without facilitative governments personal introductions mean that the introducer stands behind the people being introduced, providing information about their reliability. Those with personal relationships know one another, producing information about their performance unavailable elsewhere.

Finally, when governments are non-facilitative they become a critical dependency that must be managed to ensure the organization's survival (Pfeffer and Salancik, 1978). When government officials administer laws in personal, rather than impersonal ways, they make the government officials themselves a critical dependency. Their benevolence and goodwill must be maintained if the organization is not to be mired in audits, seizures of assets or other interference at the discretion of these officials. If government weakness means that officials can use the coercive power of government for their own interests, those organizing become dependent on the personal beneficence of officials. Such relationships are built and sustained by such practices as sharing profits through partnerships, paying officials 'special fees' or through providing a scholarship for the official's daughter to attend college in California.

Thus, Pearce (2001a) proposed that mutually committed personal relationships come to dominate organizations under non-facilitative governments. Personal relationships secure protection, are a reliable source of information, and can be used to manage the critical dependence on weakly constrained government officials. Xin and Pearce (1996) reported that government officials are more likely to be listed as executives' most critical business relationships for privately owned businesses under the less facilitative government of China. The increased importance of personal relationships under less facilitative governments has been further found by Whiteley *et al.* (1996), Pearce and Branyiczki (1997) and Pearce (2001a).

To summarize this argument, the greater managers' dependence on others, the more likely they are to cultivate a personal relationship with those on whom they depend. Under non-facilitative governments, personal relationships became more



critical because they become the primary available way to build and sustain organizational work. Individuals rely on those whom they have known for a long time through youth, family or communal ties. Facilitative government and other structures of modernism are intended to build substitutes for personal relationships when complexity and scope require extensive impersonal exchanges with strangers. When those substitutes are not available, personal relationships are all that is left. Relationships provide protection and needed information, and convert asymmetric dependence to mutual dependence. Although personal relationships are useful for virtually any dependency, they are particularly well suited to managing the insecurity posed by non-facilitative governments. Such environments are significantly more threatening and opaque, and so the protection and information that relationships with the powerful provide become indispensable. While less facilitative governments have implications for many aspects of organization and management, here we focus on their effects on trust.

Facilitative government and reciprocal exchange

What is the nature of these mutually dependent relationships? Insight can be gained by drawing on the work of social exchange theorists, who have long distinguished two types of exchange: reciprocal and negotiated. They were introduced by Emerson (1981), and have been subject to extensive theoretical development and empirical research (e.g., Bacharach and Lawler, 1981; Cook and Yamagishi, 1992; Lawler and Yoon, 1996; Molm *et al.*, 1999, 2000). In reciprocal exchange, acts are performed without knowing if and when the other will reciprocate in the future: 'contributions to the exchange are separately performed and non-negotiated... exchange relations develop gradually – or fail to develop – as beneficial acts prompt reciprocal benefit' (Molm *et al.*, 2000, 1399–1400). Alternatively, negotiated exchanges are agreements, often explicitly negotiated. Further, Molm suggests that negotiated exchange is a reflection of a larger system of structural assurance in which the partners' expectations are based on 'knowledge of an incentive structure' (Molm *et al.*, 2000, 1397). Molm *et al.* (2000) further developed this typology by undertaking to test Blau's proposal that social, or reciprocal, exchange would produce more trust and commitment to the relationship than would negotiated exchange; they found support in a series of laboratory experiments. They argued that this is

because the explicit assurances of negotiated exchange reduce opportunities to display trustworthiness, and so provide little potential to produce trust.

Social psychologists, such as Molm and her colleagues, have examined the relationship between reciprocal social exchange and trust through controlled laboratory experiments. The two types of exchange – negotiated and reciprocal – were experimentally manipulated in otherwise sterile environments, isolating the causal relationships between reciprocal exchange and trust. We propose that patterns of business relationships in different national settings can be characterized by differences in the extent to which they are dominated by reciprocal or negotiated exchanges. The mutually dependent reciprocal relationships should be more prevalent under less facilitative governments. This is because reciprocal relationships should be more particular and more open ended, existing over a longer period of time. With foundations in youth and kinship ties, rather than more impersonal business associations, reciprocal relationships among business associates should be more common under non-facilitative governments. Sahlins (1972) and Ekeh (1974) have argued that sharing and helping behavior and a long-term reciprocity orientation occur in ultrasocialized exchange environments where kinship, clan or communal ties are strong. In these exchanges, reciprocity is frequent, indirect and repeated (Kachra and White, 2003). Kollock (1994) found some support for this in a series of bargaining experiments, where a condition of greater uncertainty (in the quality of goods being sold) created greater trust and commitment among trading partners. In addition, the weakness and unpredictability of non-facilitative governments means that negotiated exchange would produce few structural assurances. Following the previous arguments, we propose that reciprocal exchange is more characteristic of business relationships under less facilitative governments.

H1: The less facilitative the government the more likely managers will be to characterize their most important business relationships as reciprocal exchanges.

When working relationships are more reciprocal, then, following Molm and her colleagues, we would expect the participants to have relatively more trust in one another. They suggest this is because 'the risk and uncertainty of [reciprocal]

exchange provide the opportunity for partners to demonstrate their trustworthiness' (Molm *et al.*, 2000, 1396). She and her colleagues who have studied reciprocal exchange in laboratory settings report that reciprocal exchange does indeed produce more trust than does negotiated exchange, because the incentive structures of negotiated structural assurances mean that partners' actions are attributed to the incentives, rather than to the trustworthiness, of the partner. Here we propose to see whether these relationships are replicated in international field settings. If so, this would open the rich social exchange theory and research to international managerial applications.

H2: The more reciprocal the exchange, the greater will be managers' reported trust in their business associates.

Facilitative government, reciprocal exchange and trust

In contrast, those working in international settings have reported that the weaker structural assurances of non-facilitative government result in less interpersonal trust. While organizing dependent on personal relationships has long been recognized, and has been called organizing by trust (Arrow, 1974; Bradach and Eccles, 1989), many who have observed behavior in relationship-dependent societies have remarked on the lack of interpersonal trust among the participants. For example, Yang (1994) describes the long process of testing that her fellow students underwent in establishing their relationships with one another in the People's Republic of China. She argues that the slow development of relationships and self-disclosure among Chinese students was sustained by living under a government in which betrayal by one's fellows at the time was a real possibility. Similar descriptions of wary, distrustful relationships are found in scholarly descriptions of workplaces operating without facilitating governments: Banfield (1958) in Southern Italy; Voslensky (1984) in the Soviet Union; and Haraszti (1977) in a Hungarian factory in the communist period. Pearce *et al.* (2000) reported that employees working under the non-facilitative government of transitional Lithuania reported less trust in one another than did comparable employees working under the more facilitative United States government. Thus, those who have described their observations of interpersonal relationships in organizations dependent on

personal relationships in societies without facilitative governments describe these relationships as wary and distrustful. It seems that participants' mutual dependence on one another is not necessarily, or even particularly, associated with trust in one another.

Why should those working in organizations under non-facilitative governments distrust others more than those working under facilitative governments? Pearce *et al.* (2000) suggested it is because the absence of universalistic organizational practices fosters organizational fragmentation into the mutually suspicious and distrustful 'fiefdoms' described by Boisot and Child (1988). Further, Gambetta (1988) proposed that unpredictability in sanctions leads to distrust and restricted cooperation. Personal relationships are partial, incomplete and unsatisfactory solutions to the organizational problems posed by non-facilitative governments, producing distrust and wariness among those who must work in these organizations. Pearce (2001a) suggests that such relationships are better described as relationships of mutual dependence rather than of trust. This echoes Yamagishi and Yamagishi's (1994) proposition that those bound in mutually committed relationships have less trust in one another. In this way they can account for the persistent finding of lower interpersonal trust in Japan (with more managers bound by mutually committed business relationships) compared with managers and employees in the United States (who are less bound to one another). In addition to the descriptions of distrust under non-facilitative governments provided by Boisot and Child (1988), Gambetta (1988) and Redding (1990), Pearce (2001a) and Pearce *et al.* (1998, 2000) reported that co-workers' trust in one another was lower among those working in the less facilitative governments of China, Southern Italy, Hungary and Lithuania than in the United States, respectively.

Banfield (1958), Gambetta (1988) and Putnam (1993) propose that such environments produce what psychologists would call generalized distrust. They provide rich descriptions of how the absence of impersonal governmental assurances fosters a general distrust of others that becomes self-perpetuating. Putnam's (1993) classic study provides a detailed analysis of how new regional governments became subordinated to the powerful patrons in Southern Italy, in which distrust was general. Other organizations would be expected to reflect this generalized distrust as well. More formally, distrust among co-workers is proposed to reflect the

societal-level distrust associated with non-facilitative governments described by Banfield (1958), Gambetta (1988), Redding (1990) and Yang (1994). The strong relationship between generalized trust in others and the trust in institutions of law and order (a central feature of non-facilitative governments) has been found by LaPorta (1997), Inglehart (1999), Inglehart and Baker (2000) and Rothstein (2002). Indeed, Rothstein (2002) has argued that if people believe that institutions responsible for handling treacherous behavior are fair and effective, then they will believe that the chance of others getting away with treacherous behavior is small. Thus, individuals will believe that more people can be trusted.

While such consistent results are suggestive, these researchers did not test their underlying arguments that generalized distrust drives personal distrust among organizational participants. Most of the above work was descriptive. The one exception, Pearce and her colleagues, studied trust among co-workers, with facilitative government left unmeasured and inferred based on fairly gross categorizations among countries. Here we provide a more comprehensive test of these arguments by directly measuring government facilitation, drawing on the large databases compiled by the World Bank, Transparency International and the *World Competitiveness Report*, as well as directly measuring the generalized trust that non-facilitative governments are proposed to induce. Here we directly test the effects of relative government non-facilitation on generalized trust. This allows a testing of the means by which non-facilitative government affects work-related interpersonal attitudes and behavior.

H3: The less facilitative the government the lower generalized trust in others.

The above hypotheses, if supported, present us with a logical contradiction. The less facilitative the government, the greater managers' reliance on reciprocal exchange in their business relationships (Hypothesis 1). Molm and her colleagues have found that reciprocal exchange is associated with higher levels of trust (Hypothesis 2). Greater government facilitation is exactly the kind of 'mechanism that reduces risk in transactions' that Molm argued reduces interpersonal trust: 'As our results show, however, assurance has a price: a decline in trust' (Molm *et al.*, 2000, 1425). Thus, she and her colleagues propose that the structures designed to reduce risk have the perverse effect of reducing trust by restricting opportunities to dis-

play trustworthiness. This conflicts with the arguments of Banfield (1958), Gambetta (1988), Putnam (1993) and Pearce (2001a), studying international settings, who have argued that an absence of assurance structures such as facilitative governments will foster distrust, not trust.

While employees under the non-facilitative governments of transition Lithuania and Hungary report lower co-worker trust than their American counterparts (Pearce *et al.*, 2000), co-worker relationships may not be the only, or the most important, relationships characterized by distrust. Redding (1990) and Pearce (2001a) both emphasized that personal relationships were strategically critical to operating businesses under non-facilitative governments, suggesting that trust among business partners, suppliers and customers would be more heavily affected by non-facilitative governments. After all, co-workers are in more frequent personal interaction, which can build a personal trust that overpowers the generalized distrust in the environment. Some support for the greater importance of executives' external relationships was provided by Xin and Pearce (1996), who found that the comparatively less protected independent company executives in transition China did rely more on their personal relationships for protection than did state-owned company executives. While reciprocal personal relationships are critical to providing the minimal protection and information when facilitative governments cannot, following Yamagishi and Yamagishi (1994) and Pearce (2001a), we would not expect that these mutually dependent personal relationships would necessarily be trusting ones. As Pearce suggested, they are more aptly characterized as mutual hostage-taking rather than as trust-based. Here this argument is tested.

H4a: The less facilitative the government the lower managers' trust in their most important business associates.

Thus, we have contradictory alternative predictions. Pearce proposes that facilitative governments produce trust among those who must conduct business with one another, whereas Molm and her colleagues and Kollock (1994) have found that assurance structures, such as facilitative governments, result in lower levels of interpersonal trust among partners. If these authors are correct we should expect that trust in business associates should be higher, the less facilitative the government.

H4b: The less facilitative the government the greater managers' trust in their most important business associates.

Hypotheses 4a and 4b are directly contradictory, allowing what Platt (1964) calls the 'crucial experiment', one that allows us to get the sort of clean result that best advances our understanding.

Method

The data for these tests were gathered from three sources. First, the Facilitative Government Index (FGI) was created for 49 countries developed from archival data from the World Bank, Transparency International and the *World Competitiveness Report*. Second, Generalized Trust was taken from data from the *World Values Survey* for 32 countries. Third, a second sample consisting of managers' self-reported reciprocal exchange and trust in their business associates was gathered through structured interviews. Drawing on data from these varied sources, we constructed two different samples to test the hypotheses.

First sample: archival data

The first sample consists of those 32 countries for which we had World Bank, Transparency International, *World Competitiveness Report* and *World Values Survey* data, and consists of two variables, FGI and Generalized Trust.

Facilitative government index (FGI)

We drew on archival data from the World Bank (Kaufmann *et al.*, 2000), Transparency International (2001) and the *World Competitiveness Report* (WEFIMD, 1995) to create a measure of government facilitation based on the broadest possible range of sources and methods. Cross-country measures of a wide range of aspects of the quality of governance were collected from these three sources. Researchers at the World Bank compiled over 300 indicators to measure the fundamental governance concepts of voice and accountability, political instability and violence, government effectiveness, regulatory burden, rule of law and graft (Kaufmann *et al.*, 1999, 2000). Their data were drawn from several types of sources: polls of experts, country ratings produced by commercial-risk rating agencies and similar organizations, and cross-country surveys of residents carried out by international non-governmental organizations. These aggregate indicators permitted cross-country comparisons of 173 coun-

tries. (See Kaufmann *et al.*, 1999, 2000, for more complete description of the methods and samples.)

Transparency International (2001) constructed a composite index measuring the perceptions of corruption within countries by surveying academics, country analysts and business managers and leaders. The Corruption Perceptions Index (CPI) draws on 14 surveys from seven independent institutions, such as the Freedom House, the Political and Economic Risk Consultancy, Hong Kong and the Economist Intelligence Unit. (see Lambsdorff, 2001, for a more complete description of the methods and samples.) Lastly, we drew on statistical indicators and survey data from the *World Competitiveness Report* (WEFIMD, 1995). Researchers at the World Economic Forum and Institute for Management Development assessed a country's competitiveness by combining statistical indicators from international and regional organizations, private institutions and national institutes with survey data of executives in top and middle management in 49 countries. A 130-item questionnaire was distributed to 21,000 executives who were representative of the business structure in their country (see (World Economic Forum and Institute for Management Development), 1995, for a more complete description of the methods and samples). After combining archival data from Transparency International and the *World Competitiveness Report* with World Bank measures, complete data measuring government facilitation were obtained for 49 countries. As these archival sources contained broad measures of governance quality, we factor-analyzed 39 items from the three sources together to identify a distinct, internally consistent factor that reflected the concept of facilitative government. We first conducted an exploratory principal components factor analysis with oblique (direct oblimin) rotation, which accounted for the expected intercorrelations. Conducting an EFA comprising 39 items across $n=49$ would normally capitalize on chance and sampling error. However, in this study n =countries (and not individuals). The 49 countries represent a virtual population census of countries with complex organizations.

Exploratory factor analysis results revealed that the first three factors (of the seven factors that were produced) accounted for 79.14% of the variance in the data. After eliminating items that cross-loaded and factors containing a single item, we conducted another principal components analysis of 24 items, resulting in three factors (Appendix A1). All three factors had eigenvalues greater than 1, and moderate

intercorrelations (with the highest being 0.41 between factors 1 and 2). The first factor conformed to the theoretical concept of facilitative government and so was identified as the FGI. The other two governance factors are not used. To construct this index, all items were first standardized, and then an average score was computed for each country. Appendix A1 provides the factor loadings and interitem consistency coefficients for the scales, with FGI having an $\alpha=0.98$. Appendix B1 reports the FGI score for all countries for which we have complete data.

The final 13-item FGI consisted of three measures of the perception of corruption, specifically 'graft' from the World Bank data, 'CPI score' from Transparency International and 'the prevalence of improper practices in the public sphere' from the *World Competitiveness Report*. These items measure the extent to which public officials exercised government power for private gain and reflect weak government. Next, predictability is captured by assessments of the extent to which citizens of a country are able to participate in the selection of governments, indicators of political instability and violence, and political risk rating measuring perceptions of the likelihood that the government in power will be destabilized or overthrown by unconstitutional or violent means. Finally, the FGI includes an overall indicator of government weakness captured by reports of the quality of bureaucracy and public service provision, the competence of civil servants and the credibility of government's commitment to its policies. FGI contains items measuring the perceptions of rule of law, confidence in the fair administration of justice, the protection of intellectual property, measures of regulatory burdens, price controls and financial risk ratings for each country as well.

Generalized trust

Generalized trust was assessed using secondary survey data gathered from the World Values Survey (World Values Survey Group, 1994). The data collection for this survey was designed to enable cross-national comparison of values and attitudes of mass publics in 43 countries around the world. In our study, we used data on only those 32 countries for which we also had measures of relative government facilitation.

Random and quota sampling techniques were used to survey adult citizens 18 years of age and over. The average age of respondents was 41.29 years (s.d.=16.79). The majority of the sample was

female (52%) and employed (60%). The socio-economic status of the interviewees ranged from upper-middle class (45%) and skilled manual workers (33%) to unskilled workers (22%). A total of 44,994 individuals across our sampled 32 countries responded to this single-item measure, which asked individuals: 'Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?' (World Values Survey, 1994). Responses were coded 0='can't be too careful' and 1='most people can be trusted'. In all, 36.7% of respondents reported that 'most people can be trusted'. This single-item measure undoubtedly has limitations (Norris, 2001) owing to its double-barreled construction. However, researchers have argued that it nonetheless 'taps feelings about the trustworthiness of the generalized other' (Putnam, 2000, 137), and have continued to use this item as a standardized measure of generalized or societal trust in multiple surveys, including the NORC General Social Survey (1972–1998), National Election Survey (1969–1998) and Mentoring the Future (1976–1998) (Paxton, 1999; Inglehart and Baker, 2000; Putnam, 2000; Norris, 2001; Uslaner, 2002). Thus, validation of this measure has been provided by its use in numerous studies over the past 20 years. Individuals' generalized trust scores at the country level are combined with the FGI score for each country to constitute the first sample, used to test Hypothesis 3.

Second sample: structured interviews with managers

The second sample, used to test Hypotheses 1, 2, 4a and 4b, was constructed by first surveying 399 managers from China, Hong Kong, Thailand and the United States, and then assigning country-specific FGI scores to each respondent in the sample. For example, the FGI for China is -0.539 (see Table 1), and so this value was assigned to all 168 Chinese business relationships. To collect structured interview data, executive-education

Table 1 FGIs and trust in business associates for sample 2 countries

Country	FGI	Trust in business associate
China	-0.539	3.673
Thailand	-0.249	3.716
Hong Kong	0.917	3.868
United States	1.187	4.102

$R=0.21$, $p<0.01$.

students who worked as managers in each country were asked to provide demographic and work history information and complete a questionnaire about their three most important business associates, excluding their subordinates. All of those asked to complete the surveys did so. Respondents included supervisors and directors from a broad range of organizations and industries, including financial services, telecommunications, pharmaceuticals, manufacturing and medical services. In this sample, 42% worked in publicly traded companies, 32% worked in privately held and 13% worked in state-owned companies. These organizations ranged in size from 30,000 employees and \$100 billion in total annual revenue to eight employees and \$5000 in annual sales. The average age of the respondents was 31.67, their mean tenure in the organization was 5.31 years and they were predominantly male (71%). Since two of the countries (Hong Kong and China) share the Chinese culture (and many of the Thai managers were ethnic Chinese), this sample helps to isolate culture from relative government facilitation.

Each respondent was asked to identify three non-subordinate business associates who were most useful to them in either solving day-to-day problems or achieving long-run career success. Interviewees then completed a series of 39 questions about each relationship that they had identified, resulting in data on 1187 business connections. The English version of the survey was translated into Chinese, with the back-translation independently confirmed (Brislin, 1986). This instrument has been validated in a previous study (Xin and Pearce, 1996) as well as used in two field tests with business students in China.

Reciprocal exchange

The concept of reciprocal exchange is prevalent in the laboratory-based social-exchange literature, but this construct has yet to be measured in a field setting. To measure the extent to which the exchange relationship was characterized as reciprocal, we conducted a principal components factor analysis with varimax rotation with items reflecting both reciprocal and negotiated exchange. We proposed a two-factor structure rather than extremes of the same dimension based on Blau's and Molm's theoretical arguments, which contend that both forms of exchange can coexist in the same social context, where some exchanges are negotiated and others left implicit. We attempted a comprehensive sampling of aspects of reciprocal

exchange. Sahlins (1972), Blau (1964) and Ekeh (1974) have argued that reciprocal exchange occurs in ultrasocialized exchange contexts, such as families, clans and communities where reciprocity is ongoing and unending, and the relationship consequently develops over long periods. We attempted to capture these ideas in our scale by, first, measuring the long-term nature of the relationship by asking respondents how long they had known their business associate. Next, items that captured the close kinship and communal basis on which the relationship had been founded were included by asking managers whether they had known their business associate through youth and family networks rather than solely through the course of business. These items were dichotomous in nature. Lastly, we measured the extent to which reciprocal exchanges are characterized by helping and sharing behavior and close emotional ties, because previous research (Blau, 1964; Sahlins, 1972; Ekeh, 1974; Molm *et al.*, 2000) has indicated theoretical support for this aspect of reciprocal exchange. As an example, we asked respondents five questions measured on a five-point Likert scale that captured the close personal nature of their relationships (such as, 'This associate provides help without me having to ask for it'). In contrast, items in the negotiated exchange scale measured the extent to which the relationship was characterized by bargaining and conflict, as suggested by the work of Blau (1964) and Molm *et al.* (2000). Eigenvalues for these two factors were 2.82 and 1.86, accounting for 36% of the variance. All items loaded on one of two factors, ranging from 0.70 to 0.44, but only the reciprocal exchange scale demonstrated an acceptable $\alpha=0.72$ in this sample. To construct this measure, all items were first standardized by creating standard scores (*z*-scores) using SPSS. The mean *z*-score was 0, and the standard deviation was 1 for all items. Next, the nine standardized items were averaged to compute the scale. The mean for this scale is negative owing to the large variance present in the item 'length of time the respondent has known the business associate'. Appendix C1 lists all items composing reciprocal exchange. This measure consists of both continuous and dichotomous items. To determine reliability, we used the coefficient alpha statistic, which is usually based on the Pearson's correlation coefficient. Other coefficients of association (such as the π coefficient or point-biserial correlation) are simplified versions of the Pearson's correlation and mathematically equivalent to it, according to

Cohen *et al.* (2003). These coefficients of associations did not display any distributional anomalies and so seemed appropriate for use in computing the coefficient alpha.

Trust in business associate

The measure of trust in business associate was assessed by a single interview item asking respondents about the extent to which they trusted each business contact (1=deeply distrust to 5=trust completely). The mean level of trust was 3.92 (s.d.=0.84). This questionnaire-based measure was taken from Xin and Pearce's (1996) structured interview question. Their earlier variant was associated with other variables as predicted, providing some confidence in its validity.

Analyses

To test Hypothesis 3 – the impact of facilitative government on generalized trust – we regressed FGI on Generalized Trust in the first sample. To test Hypotheses 1–4b, we conducted three separate regressions in the second sample. In each analysis we sought to determine the nature of the relationship between the single independent variable and the dependent variable.

Results

Tables 2 and 3 present descriptive statistics and intercorrelations among variables used to test Hypotheses 1–4b.

Table 2 Means, standard deviations and correlations for the first sample

Variable	Mean	s.d.	1
1. FGI	0.42	0.80	
2. Generalized trust	36.7%		0.143**

n=44,994.
**p<0.01.

Table 3 Means, standard deviations and correlations for the second sample

Variable ^a	Mean	s.d.	1	2
1. FGI	0.58	0.72		
2. Reciprocal exchange	-0.002	5.01	-0.12**	
3. Trust in business associate	3.92	0.84	0.21**	0.50**

n=1187.
**p<0.01.
^aVariables were constructed from standardized items.

Hypothesis 1 states that the less facilitative the government, the more managers will rely on reciprocal exchange relationships with their most important business associates. In Table 4, we see that FGI was negatively related to reciprocal exchange, as predicted. Thus, the less facilitative the government the more likely managers are to characterize their relationships with their most important business associates as reciprocal exchanges. Similarly, the data in Table 4 indicate support for Hypothesis 2. Reciprocal exchange and trust in managers' most important business associates were positively related. In fact, there is a striking 25.3% common variance between trust in the associate and the extent to which the relationship is characterized as reciprocal. This supports the generalization of Molm *et al.*'s (2000) research on reciprocal social exchange to these cross-national comparisons of managerial trust.

For Hypothesis 3, it was expected that the less facilitative the government the lower would be generalized trust in others. Results in Table 5 indicate support for this hypothesis. Facilitative government was positively associated

Table 4 Regression of facilitative government and reciprocal exchange on interpersonal trust^a

Variables ^b	Reciprocal exchange	Trust in business associate	Trust in business associate
FGI	-0.12**		0.21**
Reciprocal exchange		0.50**	
Adjusted R ²	0.014	0.253	0.042
F	17.93**	399.88**	52.5**
n	1187	1187	1187

**p<0.01.
^aValues are standardized regression coefficients.
^bTaken from our sample of executives (sample 2).

Table 5 Regression of FGI on generalized trust^a

Variables	Generalized trust ^b
FGI	0.143**
Adjusted R ²	0.02
F	934.27**
n	44,994

**p<0.01.
^aValues are standardized regression coefficients.
^bTaken from the World Values Survey.

with generalized trust in others ($\beta=0.143$, $P<0.01$). Citizens from the relatively less facilitative governments reported lower trust in others in society across the 32-country first sample. This provides independent confirmation for the idea that non-facilitative government is associated with generalized distrust, and supports the argument that generalized distrust, itself, plays a part in the reported lower levels of trust in co-workers reported by Haraszti (1977), Boisot and Child (1988), Gambetta (1988), Redding (1990), Yang (1994), Pearce *et al.* (2000) and Pearce (2001a).

Hypotheses 4a and 4b are the conflicting alternative hypotheses. Hypothesis 4a proposed that relatively less government facilitation would be associated with lower managers' trust in their most important business associates. As can be seen in Table 4, facilitative government was positively related to managers' trust in their business associates. Hypothesis 4b was refuted; not only was the assurance of facilitative government not associated with lower trust but also managers were significantly more likely to trust their most important business associates when working under facilitative governments. Taken together, the results of the tests of these two hypotheses provide support for the government-effects model that non-facilitative government is associated with less generalized trust in others as well as less trust in managers' most important business associates, and that Molm *et al.*'s (2000) findings do not generalize to international differences in governmental structural assurance.

Discussion

We found support for all of the unopposed hypothesized relationships between government facilitation, generalized trust, reciprocal exchange and managers' trust in their most important business associates, with the competing hypothesized positive relationship between facilitative government and interpersonal trust supported. As expected, a representative sample of those living in countries with more facilitative governments reported greater generalized trust in others. Managers reported greater reciprocal exchange relationships in non-facilitative governments, and the greater the reciprocal exchange in these relationships the greater their trust in their business associates. However, reciprocal exchange relationships with associates were insufficient to overcome the more powerful effects of facilitative government on managers' trust. Non-facilitative governments

contributed to managers' distrust in their business associates in ways that could not be completely overcome by building close, open-ended, long-term reciprocal relationships.

The results presented above suggest three major conclusions. First, our results demonstrate empirical support in the field for the association of reciprocal exchange and trust in others. The causal relationship from reciprocal exchange to trust has been established in laboratories. Yet, as Molm *et al.* (2000) acknowledge, actual relationships can be complex blends of reciprocal and negotiated exchange. This demonstration that managers reported substantially greater trust in their most important business associates if they also characterized the relationships as ones of reciprocal exchange helps to establish the practical application of social exchange typologies in international management. This opens the way for further research on managerial relationships with their business associates to draw on the rich social exchange literature.

Second, these results provide insight into the role of governmental differences in the development of exchange relationships and trust. In this four-country sample, we found that managers seek to mitigate their relative lack of government facilitation by building reciprocal-exchange relationships with business associates. These relationships are ones in which reciprocal acts of help, advice and approval are exchanged over time. These exchanges, where the nature of the return is unspecified and future obligations are diffuse, allow managers to organize under the unfavorable condition of non-facilitative governments. Managers create mutual dependence and webs of favors that build at least the minimal levels of predictability they need to conduct business.

Third, we did not find that structural assurances such as facilitative governments reduce interpersonal trust, but rather the reverse; this generalization from the experimental laboratory to the field is refuted in this four-country sample. An environment with a weak rule of law and high levels of corruption obstructed the development of trust, despite managers' attempt to build reciprocal exchange relationships. The pernicious effects of non-facilitative governments on managerial trust continued to hold despite the power of reciprocal exchange. Surrounding oneself with close network connections built up over time, or from one's youth or family, fails to suppress the detrimental trust consequences of non-facilitative governments.

These results support the idea that managers will seek to build relationships of mutual dependence to create sufficient trust to do organizational work, but that such efforts do not completely overcome the trust-damaging effects of non-facilitative governments.

These results are a refutation of Molm *et al.*'s (2000) provocative generalization that structural assurances reduce trust. While their laboratory findings are irrefutable, their generalizations to field settings, particularly to assurances from governments with their life-or-death consequences, are not. We found that in countries such as China and Thailand, with comparatively less facilitative governments characterized by weak rule of law, high levels of corruption, and greater political and financial risk, individuals were less trusting of others. High levels of trust were highly correlated with low levels of corruption and a high degree of judicial efficiency, echoing the work of LaPorta (1997), Inglehart (1999) and Inglehart and Baker (2000). This study, when added to the many other descriptive works, strongly suggests that the case was overdrawn. After all, laboratory settings are themselves strong settings, ones with substantial structural assurances. In the practical matter of conducting business, managers have ample opportunities to demonstrate trustworthiness, and no structural assurances are ever complete enough to make trust irrelevant (Arrow, 1974). Organizational work under non-facilitative governments is perilous, and the building of whatever trust might be possible via reciprocal personal relationships appears to be the only viable way to conduct any business at all. While such reciprocal personal relationships allow sufficient trust to take some actions, they appear not to be sufficient to completely compensate for the generalized-trust-destroying effects of non-facilitative governments.

Others who have noted the lower levels of generalized trust in some societies (e.g., Banfield, 1958; Gambetta, 1988; Redding, 1990; Putnam, 1993) have suggested that culture accounts for these differences. Pearce (2001a) argued that such cultural adaptations are strongly influenced by government facilitation. These results, using a culture-neutral measure of government facilitation developed from economics and polity-based measures in settings in which two of the samples came from the same Chinese culture (but with differing levels of government facilitation), lends support for the centrality of governments in managerial

behavior. After all, Inglehart and Baker (2000) also reported that changes consistent with the development of more, and of less, facilitative government in the past decades resulted in shifts in values. In the past decades, there have been numerous momentous government changes, and the way governmental changes may change cultures appears to be a promising topic for scholars of international business. Certainly, culture is a multifaceted concept (Geertz, 1973), and the role of governmental facilitation is worthy of additional exploration.

Our study is not without its limitations. Single-item measures of unknown reliability were used to assess generalized trust and managerial trust in business associates. While both have successfully reflected their nomological network in previous studies, multi-item scales would give us more confidence in these measures. In addition, we relied on a new scale to assess reciprocal exchange. As with any new measure, further tests in additional samples would help to establish our confidence in it. Lastly, data for our study were based on a small sample of only four countries to test Hypotheses 1, 2 and 4. Future research might focus on broadening the sample of countries, which would allow more sophisticated statistical tests of our hypotheses, such as multilevel modeling (HLM), and increase the generalizability of our findings.

In spite of these limitations, the results of our study have important implications for those who study international management. The first contribution is the development of a reliable and comprehensive index of relative government facilitation. Pearce (2001a) has argued that government facilitation affects a host of managerial and organizational practices, beyond the trust in associates studied here. The complete country listing in Appendix B1 allows other researchers to test their own ideas regarding the role of relative government non-facilitation. This work also contributes to the literature on social exchange by directly measuring the types of exchange characteristic of exchange-based personal relationships. Drawing on the theoretical arguments of Blau (1964), Sahlins (1972) and Emerson (1981), and the laboratory work of Molm and her colleagues (1999, 2000), we constructed a scale to measure reciprocal social exchanges. These supportive findings suggest that the application of social exchange ideas to international management holds great promise.

Finally, this study sheds light on the pervasive effects of governments. These tests supported the arguments of those who contend that ineffective governments with a weak rule of law, high levels of graft and low levels of accountability create uncertainty and undermine the development of trust throughout society, reflected in working organizational relationships. Not only are citizens cautious about engaging with strangers in the public sphere in these opaque environments but also even trust in close business associates is compromised. Forming mutually reciprocal relationships with business contacts does lend the modicum of trust and

stability necessary to conduct some business, but, as we have shown, it is not sufficient. Governance structures are not only fundamental to expanding exchange relationships beyond one's immediate community or engaging in more complex economic activity but they are also crucial to establishing trust in one's own closest business associates and partners.

Acknowledgements

We wish to thank Editor Terri Scandura and the anonymous *JIBS* reviewers for their suggestions.

References

- Arrow, K. (1974) *The Limit of Organization*, Norton: New York.
- Bacharach, S. and Lawler, E. (1981) *Bargaining: Power, Tactics, and Outcomes*, Jossey-Bass: San Francisco.
- Banfield, E.C. (1958) *The Moral Basis of a Backward Society*, The Free Press: Glencoe, IL.
- Barber, B. (1983) *The Logic and Limits of Trust*, Rutgers University Press: New Brunswick, NJ.
- Bigley, G. and Pearce, J.L. (1998) 'Straining for shared meaning in organization science: problems of trust and distrust', *Academy of Management Review* 23(3): 405–421.
- Blau, P. (1964) *Exchange and Power in Social Life*, Wiley: New York.
- Boisot, M. and Child, J. (1988) 'The Iron Law of Fiefs: bureaucratic failure and the problem of governance in the Chinese economic reforms', *Administrative Science Quarterly* 33(4): 507–527.
- Bradach, J.L. and Eccles, R.G. (1989) 'Price, authority, and trust: from ideal types to plural forms', *Annual Review of Sociology* 15: 97–118.
- Brislin, R.W. (1986) 'The Wording and Translation of Research Instruments', in W.J. Lonner and J.W. Berry (eds.) *Field Methods in Cross-Cultural Research*, Sage: Beverly Hills, CA, pp: 137–164.
- Cohen, J., Cohen, P., West, S. and Aiken, L. (2003) *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*, 3rd edn. Lawrence Erlbaum Associates: Mahwah, NJ.
- Cook, K. and Yamagishi, T. (1992) 'Power in exchange networks: a power dependence formulation', *Social Networks* 14(3–4): 245–265.
- Ekeh, P.P. (1974) *Social Exchange Theory*, Harvard University Press: Boston.
- Emerson, R.M. (1981) 'Social Exchange Theory', in M.R. Rosenberg and R. H. Turner (eds.) *Social Psychology: Sociological Perspectives*, Basic Books: New York, pp: 30–65.
- Fligstein, N. (1996) 'Markets as politics: a political-cultural approach to market institutions', *American Sociological Review* 61(4): 656–673.
- Gambetta, D. (1988) 'Mafia: The Price of Distrust', in D. Gambetta (ed.) *Trust*, Basil Blackwell: New York, pp: 158–210.
- Geertz, C. (1973) *The Interpretation of Cultures*, Basic Books: New York.
- Haraszti, M. (1977) *A Worker in a Worker's State*, Penguin: New York.
- Hosmer, L. (1995) 'Trust: the connecting link between organizational theory and philosophical ethics', *Academy of Management Review* 20(2): 379–403.
- Inglehart, R. (1999) 'Trust, Well-Being and Democracy', in M.E. Warren (ed.) *Democracy and Trust*, Cambridge University Press: Cambridge, pp: 88–120.
- Inglehart, R. and Baker, W.E. (2000) 'Modernization, cultural change, and the persistence of traditional values', *American Sociological Review* 65: 19–51.
- Kachra, A. and White, R. (2003) *Reciprocity: a synthetic concept between the economic and social perspectives on exchange*, Paper Presented at the Academy of Management Meeting: Seattle, WA.
- Kaufmann, D., Kraay, A. and Zoido-Lobaton, P. (1999) *Governance matters*, World Bank, Working Paper No. 2196.
- Kaufmann, D., Kraay, A. and Zoido-Lobaton, P. (2000) *Aggregate indicators*, World Bank, Working Paper No. 2195.
- Khanna, T. and Palepu, K. (1998) *Policy shocks, market intermediaries, and corporate strategy: the evolution of business Groups in Chile and India*, Harvard Business School, Division of Research Working Paper.
- Kollock, P. (1994) 'The emergence of exchange structures: an experimental study of uncertainty, commitment, and trust', *American Journal of Sociology* 100: 313–345.
- Lambsdorff, J.G. (2001) *The Transparency International Corruption Perceptions Index 2001: Framework Document*, Transparency International: Berlin.
- LaPorta, R. (1997) 'Trust in large organizations', *American Economic Review* 87(2): 333–338.
- Lawler, E. and Yoon, J. (1996) 'Commitment in exchange relations: test of a theory of relational cohesion', *American Sociological Review* 61(1): 89–108.
- Lewicki, R. and Bunker, B. (1996) 'Developing and Maintaining Trust in Work Relationships', in R. Kramer and T. Tyler (eds.) *Trust in Organizations: Frontiers of Theory and Research*, Sage: Thousand Oaks, CA, pp: 114–139.
- Molm, L., Peterson, G. and Takahashi, N. (1999) 'Power in negotiated and reciprocal exchange', *American Sociological Review* 64(6): 876–890.
- Molm, L., Takahashi, N. and Peterson, G. (2000) 'Risk and trust in social exchange: an experimental test of a classical proposition', *American Journal of Sociology* 105(5): 1396–1427.
- Norris, P. (2001) *Making democracies work: social capital and civic engagement in 47 societies*, Paper Presented at EURESCO Conference.
- North, D.C. (1990) *Institutions, Institutional Change and Economic Performance*, Cambridge University Press: Cambridge.
- Parsons, T. and Smelser, N.J. (1956) *Economy and Society*, The Free Press: Glencoe, IL.
- Paxton, P. (1999) 'Is social capital declining in the United States? A multiple indicator assessment', *American Journal of Sociology* 105(1): 88–127.
- Pearce, J.L. (2001a) *Organization and Management in the Embrace of Government*, Lawrence Erlbaum Associates: Mahwah, NJ.

Pearce, J.L. (2001b) 'How we can learn how governments matter to management and organization', *Journal of Management Inquiry* **10**(2): 103–112.

Pearce, J.L. and Branyiczki, I. (1997) 'Legitimacy: An analysis of Three Hungarian-West European Collaborations', in P.W. Beamish and J.P. Killing (eds.) *Cooperative Strategies: European Perspectives*, The New Lexington Press: San Francisco, pp: 300–322.

Pearce, J.L., Branyiczki, I. and Bigley, G.A. (1998) 'Procedural Justice as Modernism', *Applied Psychology: An International Review* **47**: 371–396.

Pearce, J.L., Branyiczki, I. and Bigley, G.A. (2000) 'Insufficient bureaucracy: trust and commitment in particularistic organizations', *Organization Science* **11**(2): 148–162.

Pfeffer, J. and Salancik, G.R. (1978) *The External Control of Organizations: A Resource Dependence Perspective*, Harper & Row: New York.

Platt, J.R. (1964) 'Strong inference', *Science* **146**: 347–353.

Putnam, R.D. (1993) *Making Democracy Work*, Princeton University Press: Princeton, NJ.

Putnam, R.D. (2000) *Bowling Alone*, Simon & Schuster: New York.

Redding, S.G. (1990) *The Spirit of Chinese Capitalism*, Walter de Gruyter: New York.

Rothstein, B. (2002) 'Social Capital in the Social Democratic State', in R.D. Putnam (ed.) *Democracies in Flux*, Oxford University Press: New York, pp: 291–331.

Sahlins, M.D. (1972) *Stone Age Economics*, Aldine-Atherton: Chicago.

Transparency International (2001) '2001 Corruption Perceptions Index', [www.document] <http://www.transparency.org/cpi/index>. (accessed 25 June 2001).

Uslaner, E. (2002) *Moral Foundations of Trust*, Cambridge University Press: NY.

Voslensky, M. (1984) *Nomenklatura*, Doubleday: Garden City, NY.

Weber, M. (1947) *The Theory of Social and Economic Organization*, A.M. Henderson and T. Parsons (trs. and eds.) Oxford University Press: New York.

Whiteley, R., Henderson, J., Czaban, L. and Lengyel, G. (1996) 'Trust and contractual relations in an emerging capitalist economy', *Organization Studies* **17**: 397–420.

World Economic Forum and Institute for Management Development (1995) *The World Competitiveness Report*, EMF Foundation: Geneva.

World Values Survey Group (1994) *World Values Survey*, Inter-University Consortium for Political and Social Research: Ann Arbor, MI.

Xin, K. and Pearce, J.L. (1996) 'Guanxi: connections as substitutes for formal institutional support', *Academy of Management Journal* **39**(6): 1641–1658.

Yamagishi, T. and Yamagishi, M. (1994) 'Trust and commitment in the United States and Japan', *Motivation and Emotion* **18**(2): 129–166.

Yang, M.M. (1994) *Gifts, Favors and Banquets: The Art of Social Relationships in China*, Cornell University Press: Ithaca, NY.

Zucker, L.G. (1986) 'Production of trust', *Research in Organization Behavior* **8**: 53–112.

Appendix A1

Factor loadings for FGI (pattern matrix) can be seen in Table 6.

Table 6 Factor loadings for FGI (pattern matrix)

Item	FGI	Internal organization effectiveness	Nationalism/traditionalism
Graft ^a	0.97	−0.01	0.07
Government effectiveness ^a	0.94	0.04	0.06
CPI score ^b	0.91	0.09	0.10
Rule of law ^a	0.89	0.17	−0.06
Political instability and violence ^a	0.90	−0.03	−0.10
Voice and accountability ^a	0.94	−0.27	−0.24
Political risk rating in country ^c	0.87	0.05	−0.22
Intellectual property is adequately protected in your country ^c	0.78	0.27	0.00
Regulatory burden ^a	0.84	−0.01	0.37
Improper practices (bribery/corruption) do not prevail in public sphere ^c	0.75	0.26	0.14
Full confidence in the fair administration of justice in the society ^c	0.66	0.35	0.00
Financial risk rating ^c	0.66	0.40	−0.19
Price controls affect pricing of products ^c	0.69	−0.03	0.52
Managerial rewards encourage long-term orientation ^c	0.02	0.89	−0.09
Retraining willingness ^c	−0.01	0.88	−0.05
Companies enjoy public trust ^c	0.07	0.79	0.17
Society values competitiveness ^c	−0.05	0.85	0.09
Companies invest sufficiently in the training of their employees ^c	0.26	0.77	−0.29
Industrial relations between managers and employees are generally productive ^c	0.33	0.73	0.01
Employees truly identify with company objectives ^c	0.25	0.76	−0.10
Fiscal policy encourages entrepreneur ^c	−0.20	0.73	0.21
Foreigners are treated equally to citizens in all respects ^c	−0.17	−0.04	0.86
Women have similar career opportunities as men ^c	−0.03	0.14	0.71
National protectionism does not prevent foreign products/services from being imported ^c	0.47	0.01	0.69
Eigenvalues	13.18	3.43	2.39
Alpha	0.98	0.94	0.71

^aWorld Bank.

^bTransparency International.

^cWorld Competitiveness Report.

Appendix B1

For a complete FGI country listing, see Table 7.

Table 7 Complete FGI country listing

Country	FGI ^a	Country ranking
Argentina*	-0.064	34
Australia	1.243	11
Austria*	1.155	15
Belgium*	0.670	22
Brazil*	-0.528	41
Canada*	1.283	9
Chile*	0.684	21
China*	-0.539	43
Colombia	-0.668	45
Czech Republic*	0.172	30
Denmark*	1.480	3
Egypt	-0.274	38
Finland*	1.441	4
France*	0.790	19
Germany*	1.233	12
Greece	0.072	32
Hong Kong	0.917	18
Hungary*	0.357	27
Iceland*	1.066	16
India*	-0.465	39
Indonesia	-0.913	47
Ireland*	1.166	14
Israel	0.601	24
Italy*	0.262	29
Japan*	0.749	20
Jordan	-0.102	36
Korea, Rep.*	0.100	31
Luxembourg	1.023	17
Malaysia	0.294	28
Mexico*	-0.558	44
Netherlands*	1.403	5
New Zealand	1.569	1
Norway*	1.316	8
Peru	-0.529	42
Philippines	-0.509	40
Poland*	0.006	33
Portugal*	0.655	23
Russian Federation*	-1.351	49
South Africa*	-0.067	35
Singapore	1.389	6
Spain*	0.504	26
Sweden*	1.34	7
Switzerland*	1.517	2
Taiwan	0.584	25
Thailand	-0.249	37
Turkey*	-0.761	46
United Kingdom*	1.269	10
United States*	1.187	13
Venezuela, RB	-1.075	48
Mean	0.425	
s.d.	0.810	
Range	2.920	
Median	0.584	

*Countries for which the WVS measure of generalized trust was also available.

^aValues are standardized FGI scores.

Appendix C1

Items in reciprocal exchange scale ($\alpha=0.72$) is provided in Table 8.

Table 8 Items in reciprocal exchange scale ($\alpha=0.72$)

1. This associate and I have a strong personal relationship.
2. The associate provides help without me having to ask for it.
3. No matter whether it would benefit me or not I would continue to work with this associate.
4. I really feel that this associate's problems are my own.
5. My relationship with this associate is more social than work related.
6. Number of years you have known this associate.
7. I know this associate through my family network.
8. I know this associate through my youth network.
9. I know this associate through business (reverse coded).

About the authors

Alaka N Rao is a doctoral student in Organizational Behavior at the Graduate School of Management, University of California, Irvine. Her research interests focus on social exchange, risk and reciprocity in interpersonal relationships.

Jone L Pearce is Professor of Organizational Behavior, Graduate School of Management, University of California, Irvine. She received her PhD from Yale University, and conducts research on workplace interpersonal processes, such as trust, and how these processes may be affected by political structures, economic conditions and organizational policies and practices. She has published two scholarly books and over 80 journal articles.

Katherine Xin is Professor of Management and Michelin Chair in Leadership and Human Resource Management at the China Europe International Business School (CEIBS), Shanghai, China. She is also on the faculty at Hong Kong University of Science and Technology. Her recent research focuses on organizational culture and performance in China.

Accepted by Professor Nicolai Juul Foss and Torben Pedersen, Departmental Editors, 6 July 2004. This paper has been with the author for two revisions.