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RESEARCH ARTICLE

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Foreign Direct Investment vs. Foreign Portfolio Investment

The Effect of the Governance Environment

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Abstract:

- We examine the effect of a country's governance environment on the foreign investment it attracts. We classify countries based on the dominant mode of governance into three types: (1) rule-based (strong public rule of law), (2) relation-based (weak rule of law and strong informal networks), and (3) family-based (absence of both public rules and informal networks).
- We then examine how different governance types affect foreign investment patterns among 45 countries. Our main argument is that the choice of investment—direct or portfolio—is influenced by the type of property protection associated with different governance modes.
- We find that rule-based countries attract the lowest amount of FDI relative to the total amount of foreign investment, and they have the largest stock market size relative to their economies.
- Our study contributes to the foreign investment literature by bringing the governance environment into the equation and more successfully explaining why some countries have relatively large foreign direct investment ratios and relatively small foreign portfolio investment ratios.

Keywords: Governance environment · Foreign investment · Rule-based · Relation-based · Family-based · FDI

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Introduction

Foreign investment has been an engine of economic growth in an increasingly globalized world economy, and has been one of the most important subjects in the study of international business. Scholars of international business have accumulated an expansive knowledge of the subject. However, there are some deficiencies in the literature. First, most research on foreign investment has focused on foreign direct investment (FDI), whereas the topic of foreign indirect investment, or foreign portfolio investment (FPI), has received less attention (Li and Filer 2007). This leads to a second deficiency in the literature. The relationship between foreign direct investment and indirect investment has not been sufficiently examined. When the proportion of FDI as a percentage of the total foreign investment into a country versus the level of the rule of law of the receiving country is plotted, it is clear that countries with a lower level of the rule of law have a higher proportion of FDI (Li and Filer 2007). Third, the effect of governance environments that lack the rule of law has not been sufficiently examined. Recently, Li and Filer (2007) used a relatively new framework of governance environments which classified countries into "rule-based" and "relation-based" environments in order to examine the effect of the governance environment upon the proportion of FDI. They found that in the incoming foreign investment, rule-based countries have a smaller proportion of FDI than do relation-based countries.

While Li and Filer (2007) made a contribution in bringing governance environment into the model to predict the relative sizes of FDI and FPI, a major drawback in their governance framework was that it was limited to two types of countries: rule-based and relation-based. As Li (2009) later pointed out, the two categories were far from exhaustive. Countries that have a strong public ordering[1] (i.e. rule-based) are usually the ones with mature market systems and advanced democracies, such as the United States and Western European countries; and countries that lack public ordering and yet have extensive informal relation-based social networks include many Asian countries such as China, Taiwan, and Indonesia. Left unexamined in the Li-Filer framework are the countries that have neither public ordering nor extensive informal social networks. For instance, according to Li's (2009) new classification, Argentina, Brazil, and Russia are neither highly rule-based nor relation-based, but belong to a category which he terms "family-based" (we will explain this in more detail later). Many of the least developed countries, such as some of the low-income African countries, may also belong to this third category. In fact, this group includes a large number of countries, but receives relatively little attention from either policy makers or scholars. More importantly, these countries can benefit significantly from increased foreign indirect investment.

If we group foreign investment according to the updated governance classification of Li (2009) (namely, rule-based, relation-based, and family-based), we can clearly see that some interesting differences exist among the three groups of countries (see Table 1). While there is almost no difference among the three types of countries in the volume of FDI inflow, the variation in FDI as a proportion of total foreign investment (FDI/FI) is quite obvious: the average FDI/FI ratio of family-based countries is highest, followed closely by that of the relation-based countries. Overall, the FDI/FI ratio of relation-based and family-based countries is almost twice that of rule-based countries.

Table 1: Classification and comparison of foreign investment of different countries

Category	N	FDI ($ billions)		FDI/FI (%)		FDI/GDP (%)		FI ($ billions)	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Rule-based	20	1.42	1.72	47.19	27.14	5.47	13.63	3.93	5.59
Relation-based	6	1.51	2.21	81.79	15.29	3.92	6.05	2.07	3.07
Family-based	14	1.43	2.18	86.92	19.97	4.2	9.33	1.97	3.75
Overall average	40	1.44	1.9	65.76	30	4.8	11.21	2.99	4.72

Six countries, Ghana, Iran, Taiwan, Trinidad & Tobago, Vietnam, and Zambia, are excluded from the sample because they lack FDI data

Why do the family-based countries attract so little indirect (portfolio) investment? The prior literature suggests that it is because of their low economic development level, less developed financial markets, their geography, and/or culture (Bhardwaj et al. 2007; Jones and Teegen 2001; Loree and Guisinger 1995). These are certainly factors to consider in the investor preference for FDI. But does the governance environment play a role? If the governance environment plays a role, how and why does it play a role?

In an attempt to fill these gaps in the literature, we adopt Li's (2009) new classification of governance environments to explain why some countries attract more and some attract less FDI.

Theory Development and Hypotheses

Mode of Investment: Direct versus Indirect

Foreign investment includes two categories: direct investment and portfolio investment. In direct investment, investors invest capital into a firm for a return on the investment and the right to participate in the management of the firm. In contrast, in portfolio investment, investors purchase securities (such as stocks and bonds) for a return on their investment. The management, ownership, and control is what distinguishes FDI from portfolio investment (Ball et al. 2002, p. 69). Generally, if an investor controls more than 10% of the shares of a firm, it is considered direct investment (Ball et al. 2002, p. 69; Hill 2003, p. 204). However, the line between direct and indirect investment is increasingly blurred. In the literature, the term "portfolio investment" is used more commonly. We use the terms "indirect investment" and "portfolio investment" interchangeably in this paper.

In direct investment, the investor directly oversees his/her investment; the investor has firsthand information on the operations and does not need to rely on financial reports issued by someone else, such as an accounting firm or a board in which he/she has no control or access. In other words, the direct investor is an "insider" of the firm. Thus, in direct investment, the risk of being misinformed or being expropriated by other insiders is substantially reduced (Goldstein and Razin 2006). Even in a governance environment

that lacks fair and efficient public ordering (e.g., low quality public financial information and weak financial regulation), an investor can still effectively protect his/her investment by taking private actions. Furthermore, if one has a good relationship with the political ruler(s), the protection can be extremely effective and favorable.

In contrast, for portfolio investments, such as buying securities (stocks and bonds) in the secondary markets, the investor has no direct control over his/her investment[2]; nor does he/she have firsthand information about the operations. The investor has to rely on publically available information, such as annual reports or brokerage firms' recommendations, to make investment decisions, thus making the investor an "outsider." For such investment, the lack of a good public governance environment is especially harmful. First, in societies lacking in public ordering, reliable public information tends to be insufficient, and general trust is usually low. There are lower accounting and auditing standards, and less transparent operations of publicly listed companies. What makes this even worse is that financial information is easily altered by insiders. Second, since checks and balances are lacking and the press lacks freedom, a powerful dictator may manipulate the political system of a society with a poor public ordering, and the dictator may tend to view the country as his private property (Olson 1993). He may make state policies to favor industry leaders and businesses with whom he has strong relations. The Philippines under the administration of Ferdinand Marcos is a good example. Under a dictatorship situation like this, minority shareholders, such as indirect investors, are in a very disadvantageous position.

The Literature on Foreign Investment

Foreign direct investment has been extensively studied by international business scholars. They have provided many theoretical rationales for FDI, such as the costs of doing business abroad and internalization (Hymer 1960; Kindleberger 1969), the product-life-cycle theory (Vernon 1966), firm specific competitive advantage (Buckley and Casson 1976; Caves 1971), the "Uppsala Model" (Johanson and Vahlne 1977; Johanson and Wiedersheim-Paul 1975), risk diversification (Rugman 1979), the eclectic paradigm (Dunning 1980), and the liability of foreignness that highlights the MNE subsidiary's disadvantages in a host country (Kostova and Zaheer 1999; Zaheer 1995). These theories suggest various determinants of potential FDI patterns such as country-level determinants (e.g., economic and political stability, host government policies, market size, gross domestic product, cultural distance, tax rates, wages, corruption, and production and transportation costs (Hofstede 1980; Nigh 1985; Root and Ahmed 1979), industry-level determinants (e.g., sales growth, asset intensity, growth in the number of firms (Luo 2001), and firm-level determinants (e.g., knowledge protection, global integration, host country experience (Luo 2001).

In this paper, we focus on the effects of socioeconomic and political factors on the patterns of FDI, especially the effect of the macro environment. One of the main foci in the literature is on how different governance environments, such as the legal system, affect the willingness of investors to invest and the protection of their investments. La Porta et al. (1998) found that countries with better legal systems tend to have a smaller number of diversified investors. English and Moore (2002) found that a firm's stock value

was negatively affected by the announcement of its foreign investment in a country with ambiguous property rights. Globerman and Shapiro (2003) found that governance infrastructure—including the nature of the legal system—is an important determinant of FDI. Specifically, more impartial and transparent legal systems and a better protection of property rights attract more FDI. Quizi (2007) found that economic freedom is a significant and robust determinant of FDI. Kapuria-Foreman (2007) found that increasing the protection of property rights, reducing government intervention, and lowering barriers to capital flows and foreign investment are likely to increase FDI. Seyoum and Manyak (2009) connected the presence of transparency to an inward flow of FDI. They found that both private and public transparency have a positive influence on inward FDI.

While most studies found that good institutions or democratic institutions would increase FDI, and that weak institutions impede FDI (Busse and Hefeker 2007; Jensen 2008; Mehic et al. 2009; Seyoum 2009), many other scholars question this, for example, "China attracts massive FDI despite global media spotlighting its institutional infirmities" (Fan et al. 2009).

Still others believe that the influence of institutions on FDI flows is contingent. For example, Li and Resnick (2003) argued that democratic institutions have conflicting effects on FDI flows. On the one hand, democratic institutions hinder FDI inflows by limiting the oligopolistic or monopolistic behavior of multinational enterprises, facilitating indigenous businesses' pursuit of protection from foreign capital, and constraining host governments' ability/desire to offer generous financial and fiscal incentives to foreign investors. On the other hand, democratic institutions promote FDI inflows because they tend to ensure more credible property rights protection, thus reducing risks and transaction costs for foreign investors. Hence, the net effect of democracy on FDI inflows is contingent on the relative strength of these two competing forces. Ali et al. (2010) found that institutions do not have a significant impact on FDI in the primary sector, but that institutional quality matters for FDI in manufacturing, and particularly in the services sector. Baird (2010) found that the quality of the state's governance infrastructure signals an investment-friendly environment and attracts FDI.

Pajunen (2008) used a methodological approach of fuzzy-set analysis to analyze why countries with different degrees of membership in different institutional constraints either attract or do not attract FDI. His findings show that institutional factors have diverse influences. Similar institutions may even be associated with different outcomes if different regional categories of countries are examined. Countries may be neither attractive nor unattractive depending upon the presence or absence of a single institutional factor.

Although these studies examined how different governance environments affect the FDI patterns, they still did not directly address the relationship between direct and indirect investment. Three studies provided some insight into these issues. Itay and Razin (2005) found that there is a higher ratio of FDI to FPI in developing countries relative to developed countries. They argue that the hands-on nature of FDI investors enables them to obtain special information about the operations of the firm. Albuquerque (2003) argued that in developing countries, due to the poor enforcement of financial contracts, indirect investment is more vulnerable to expropriation[3]; and that FDI usually has a large component of intangible assets (know-how and technology) that is harder to seize, making it more difficult to expropriate than FPI. Li and Filer (2007) are among the first to

examine the effect of governance environment on the variation in FDI and FPI. They used a framework of rule-based versus relation-based governance environments and found that in countries with a weak, rule-based governance environment, investors prefer direct to indirect investment, because the former can be better protected by private means.

Our study builds upon Li and Filer's (2007) study and uses the newer framework of governance environment developed by Li (2009), distinguishing not only rule-based and relation-based environments, but also environments that are neither rule-based nor relation-based. We use this new framework to examine the effect of the three types of environments on the variation in foreign investment flows, and we believe that this new framework can help to explain the puzzle of why some countries attract more FDI while others attract more FPI.

Governance Environments

We define governance as "a mechanism people use to protect their interests in social and economic exchanges" (Li and Filer 2007). From the institutional perspective, when actors (people or firms) select a governance mechanism to protect their interests, they need to take social conditions into consideration. In societies with fair, open, and effective legal systems, actors resort to the courts or public arbitration for a ruling if disputes arise. On the other hand, if the law is biased and the judges are corrupt, then people will be less likely to choose the public rules as a means of settling disputes. They will instead tend to seek private means to resolve exchange disputes. This institutional environment is called the "governance environment." This governance environment is "the set of political, economic, and social institutions that facilitate or constrain the choice of governance mechanisms" in a society (Li and Filer 2007, pp. 82). Like the legal tradition of a country (La Porta et al. 1998), the governance environment is a result of the political and economic evolution of a country.

Li et al. (2004) classified the governance environment of countries into two categories based on how people protect their property rights and contracts—rule-based and relation-based governance environments.

A Rule-Based Governance Environment

In most developed societies, firms and individuals generally rely on public rules—laws and government regulations—to resolve disputes and enforce rights and contracts. This reliance on public ordering is called a rule-based environment. A rule-based governance environment is defined by the following conditions: the public rules governing economic exchanges (such as laws, state policies, and regulations) are made in a just and fair way; rule-making, rule-adjudication, and rule-enforcement are separated in function; rule-enforcement is unbiased and efficient; and the public information infrastructure (such as accounting, auditing, and financial rating) is highly reliable, transparent, and accurate. Therefore, a well-functioning rule-based system requires a large investment in legal infrastructure, including a law-making body, a court system, and a credible and powerful enforcement arm, all of which are costly and time-consuming to build. This environment

is more conducive to trade and prosperity because it reduces the marginal transaction costs per exchange and promotes impersonal exchange (North 1990, 2005).

A good example of a rule-based governance society is the United States. The United States has a three-branch rule-making, rule-adjudication, and rule-enforcement government. First, it has a well-established law-making body, the Congress, an election system which selects all representatives in all fifty states, and an infrastructure that supports the operations of the law-making in Congress. The public rules such as laws, state policies, and regulations governing economic exchanges are made fairly. Second, it has an autonomous and well-functioning court system ranging from the local courts to the Supreme Court. To support the court system, it has an efficient education system which trains a large number of judges, lawyers and other legal workers with high professional and ethical standards. Third, it has a law enforcement branch—the executive branch of the government, including a professional police force. Rule-enforcement is fair and efficient. In addition, the public information infrastructure such as accounting, auditing, and financial rating is highly reliable and accurate. Because of these conditions, citizens and organizations in the society rely predominantly on public ordering in governing transactions (Li 2009).

A Relation-Based Governance Environment

In contrast, a relation-based society is defined by the following characteristics: public rules (laws, government policies, and government regulations) are less fair; there are no checks and balances between separate legislative, judiciary, and executive branches of the government; courts and judges are controlled by a ruler or small elite; and public information is controlled by the state and is not trustworthy. It is vital to a relation-based society that there be closely knit informal networks. People tend to use these personal networks to protect themselves and to settle disputes. Because business can be conducted and governed efficiently by well-functioning social networks maintained by private players, the relation-based governance system does not incur the large fixed costs compared with the cost structure of the rule-based system. This environment is more restrictive for trade, and can diminish the potential prosperity by increasing the marginal transactions costs per exchange, and restricting impersonal exchange (North 1990, 2005).

For example, in Thailand, a relation-based society, there exists a class of powerful businessmen called "*chao pho*," or godfather (Phongpaichit and Baker 2000). They "cultivate close links with local officialdom…to secure the licenses, permits, land deeds,…,to corner the lucrative government contracts" (p. 37). These godfathers also provided "some measure of security, justice…more speedily and more accessibly than officialdom." "Whenever these [ordinary] people have any problems they go to the *chao pho*" (p. 47). Similar private social networks have also existed in Malaysia. Historically, because the government was unable to provided many public services, residents, especially the Chinese there, began to form "sherh-hui-tarng," commonly known as "secret societies," to help each other in political, economic, and legal matters (Siaw 1983) (pp. 108–111). Vietnam, as a seasoned business writer summed up, relied on an "informal system of rule by people, rather than rule by law…" (Hiebert 1996) (p. 80). (Li 2009, pp. 8).

This two-mode governance framework is relatively concise (Judge and Li 2007), and it has begun to be used by scholars in social sciences and business management. Political economists have used the framework to analyze patterns of economic development and China's transition to a market economy (Bathgate et al. 2006), as well as trade expansion and contract enforcement (Dixit 2009a, b; Lu 2011), and alternative governance systems in industries (Diederen et al. 2004).

In business and management studies, researchers have used this and other related frameworks to study contract enforcement (Zhou and Poppo 2010), hiring practices (Sue-Chan and Dasborough 2006), expatriate manager performance (Claus et al. 2011), the governance of incomplete markets (Li et al. 2010), the use of relationships in business (Bickenbach and Liu 2010), the distribution of shareholdings (Gilson 2007), the governance of state-owned firms (Hua et al. 2006), and unethical marketing practices **(**Marta and Singhapakdi 2005**).** In information systems and accounting, the framework has been used to study the use of information and communication technology (Mitra 2009) and XBRL (a web-based real time business reporting language) adoption intentions of managers (Pinsker 2008). In international business studies, scholars have used the framework to study currency forecasts and capital budgeting (Alon and Drtina 2006), market size evaluation (Alon 2006), and FDI flows (Seyoum 2009; Seyoum and Manyak 2009).

However, Li and Filer (2007) realized that many societies do not have extensive informal social networks to support a relation-based system, thus lumping all non-rule-based societies into the relation-based group is not correct. They modified Li et al. (2004) notion of a relation-based system by using the term "private ordering" "to describe the opposite of a rule-based governance system," for "'private ordering' is less restrictive than 'relation-based' in the sense that private ordering includes all types of non-public ordering" (Li and Filer 2007). Li (2009) further articulated this idea and used the term "family-based" to describe the non-rule-based societies that do not rely on an extensive informal social network (Li 2009). The key concept that helps develop this distinction is trust.

Broadly speaking, there are two types of trust according to whom people trust: generalized trust and particularized trust. Generalized trust refers to confidence or faith in most people, including strangers. Particularized trust refers to confidence only in specific people who are close. When people do not have too much faith in strangers, they rely on people they know well, such as family members or close friends. Such trust is called particularized trust. Scholars of trust generally believe that a high level of generalized trust serves as the foundation for mature democracies (rule-based societies). Non-democratic societies (non-rule-based societies) usually lack generalized trust and tend to rely on particularized trust (Bjørnskov 2006; Uslaner 2002).

People place different levels of particularized trust in different people, depending upon the relationship. The highest level of trust is usually placed on the direct members of the family—spouse, parents, and children. The next circle tends to include relatives such as in-laws, cousins, and other close kin. Friends, neighbors and co-workers form a third circle.

Particularized trust in a society that goes beyond family members and extends to second and third circles (neighbors, friends, and friends' friends) is called *extended particularized trust*. On the other hand, if people trust no one but themselves and their family

members (with no choice), this narrow particularized trust is called *nuclear particularized trust*, borrowed from the sociological term "nuclear family".

The existence of extended particularized trust indicates the existence of extended informal social networks (Li 2009). In China, for example, friends and friends' friends are knitted into extended social networks by a *guanxi* culture. People rely on *guanxi*, or such extended informal social networks, to conduct business and to protect property rights. Thus, countries having a relatively high level of *extended particularized trust* are *relation-based*. Correspondingly, countries that associated with nuclear particularized trust are *family-based*.

A Family-Based Governance Environment

This governance type refers to societies in which both effective public ordering and extensive informal network are lacking. They have a low level of generalized trust and also a low level of particularized trust. People and firms predominantly resort to family members (nuclear particularized trust) to protect their interests in social and economic exchanges. Because of this environment, impersonal exchange is expected to be the most restrictive, and thus the potential prosperity is diminished by the increasing marginal transactions cost per exchange (North 1990, 2005).

The Philippines under the administration of former President Ferdinand Marcos was a good example. Many industries were controlled by either Marcos himself, or his close friends or family members. It was very difficult for outsiders to enter this circle or do business with circle insiders. For example, in the cigarette industry, two companies were headed by Marco's friends. One company, the Philippine Tobacco Filters Corporation, was owned by his close friend, Herminio Disini. Another company, Fortune Tobacco, was owned by another Marcos ally, Lucio Tan. In 1975, Marcos imposed a 100% import duty on all cigarette filters. But these two companies were allowed a 90% duty reduction. Through this way, Marcos and his associates monopolized the cigarette industry. It was almost impossible for other tobacco companies to compete with these two firms because of their special duty reduction.

Similarly in the sugar industry, all sugar exports were monopolized by the Philippine Exchange Company in 1974, which was headed by Marcos's college friend Robert Benidicto. Benidicto monopolized the domestic sugar market with support from Marcos and subsidies from state funds. Sugar farmers and producers knew that Benidicto benefited greatly from the margin between domestic prices and international prices, but they could do nothing about it.

In the 1970s, Marcos imposed a tax on all sales of coconuts and copra. He assigned his close friend Manuel Conjuangco to collect this tax. By doing this, Conjuangco and Marcos extorted the tax revenues and used the money to buy banks and fund acquisitions of their oil pressing mills (Wedeman 1997, 2002). The head of the state and his cronies monopolized an industry and imposed a tax or surcharge on all products of the industry. In this way, they stole money from the state coffers and from outsiders.

To summarize, in this study we adopt a new three-type classification of the governance environment, including (1) rule-based governance, as originally proposed by Li et al. (2004), (2) relation-based governance, as modified by Li and Filer (2007) and Li (2009),

Type of trust		Domain of trust	Corresponding governance environment
Generalized trust		Most people, including strangers, foreigners, people of different religion	Rule-based; to a lesser extent relation-based
Particularized trust	*Extended* Particularized trust	Neighbors, people who are introduced by someone you know	Relation-based
	Nuclear Particularized trust	Only one's family	Less relation-based; more family-based

Fig. 1: Type of trust and governance environment (Source: Li 2009, p. 27)

which excludes the non-rule-based societies that do not have extensive information social networks, and (3) family-based governance, as defined in Li (2009) based on the type of particularized trust (see Fig. 1). This three-type governance environment framework has been employed to explain the different trade patterns between countries (Wu et al. 2011).

Foreign Investment and Governance Environment

As stated earlier, in non-rule-based societies (e.g., relation-based or family-based), the legal system is not transparent or fair, and the state is unable to enforce laws impartially. As a result, people cannot rely on public ordering to protect their investments. Direct investment allows an investor to directly protect his/her assets, which is especially useful when public protection is ineffective. Similarly, Bhardwaj et al. (2007) argue that there is a positive relationship between FDI and the personal trust level in a country, because personal trust nurtures cooperative relationships and reduces opportunism. Therefore foreign investors who are looking to engage in portfolio investment tend to choose societies which are rule-based for the better protection of their investment. On the other hand, investors who would like to engage in direct investment are better equipped to protect their investment through private means and are more attracted to relation-based economies. Thus, we hypothesize:

Hypothesis 1 (H1): Foreign investors are more likely to choose direct investment when they invest in relation-based societies and family-based societies, and are less likely to choose direct investment when they invest in rule-based societies, ceteris paribus.

In contrast, rule-based societies, which have a well-developed public information infrastructure, a high level of public trust, and fair and efficient public protection, offer bet-

ter protection for indirect (portfolio) investments than do non-rule-based societies. As a result, rule-based societies tend to have a large portfolio investment market (such as publicly traded stock markets and bond markets). Based on this rationale, we have:

Hypothesis 2 (H2): The size of the stock market relative to the size of the economy tends to be larger in rule-based societies than in relation-based societies and family-based societies, ceteris paribus.

In non-rule-based societies (both relation-based and family-based), public rules are less fair because they are usually biased in favor of certain privileged groups; government operations are secretive; and public information and the media tend to be controlled and manipulated by the state. Thus, people investing in non-rule-based countries tend to choose direct investment.

As we mentioned, the particularized trust level is different in relation-based and family-based countries. In relation-based countries, there is usually a thick and strong relational network. Neighbors, friends, and friends' friends are closely knit by an extended particularized trust. If an investor has connections with the insiders (such as powerful politicians in the country), he/she will be able to get access to insider information, and enjoy informal and effective protection for their investments.

Similar to relation-based societies, family-based countries lack trustworthy public information and effective public ordering. The legal system is not transparent or fair, and the state is unable to enforce laws impartially. What we want to emphasize is that in contrast to the relation-based countries, in family-based societies the particularized trust is relatively low. People do not have much confidence or faith in anyone. But in order to conduct business, they have to rely on some people, usually their family members. For example, in Russia, "The system is not based on law, it is based on personal connections, likes and dislikes, in many cases, on marriages" (BBC World Service Podcast 2009). During the 1990s, when Russia was under the presidency of Boris Yeltsin, many business oligarchs began as well-connected entrepreneurs who started from nearly nothing and got rich through participation in the market via connections with government officials. Some of them had very close connections with President Yeltsin, or the Yeltsin inner circle, or "family", including Boris Berezovsky, Mikhail Khodorkovsky, Alex Konanykhin, Mikhail Fridman, Vladimir Gusinsky, Vitaly Malkin and Vladimir Potanin (BBC News 2007; Mikoyan 2006; Mueller 2005; Wikipedia 2011).

In the case of the Philippines, many industries were monopolized by the close friends or family members of Marcos. These close friends and family members formed a small circle. And what is especially worth noting is that this small circle was separate from all other circles, rather than being knitted into extensive and overlapping networks as in relation-based countries. Marcos did not trust anyone outside of this circle. Obviously, it was virtually impossible for outsiders to enter into this small family circle.

Logically, it is very difficult for investors to protect their investments, especially portfolio investments which rely primarily on public information (company financial reports and public auditing) and public enforcement. Without effective public protection and in the absence of extensive informal networks, an investor must hold onto his/her assets tightly—which implies direct investment. In this sense, if there is any difference between the relation-based and family-based business environments, it would be that investors in

family-based economies will rely more on direct investment. Following this reasoning, we propose:

Hypothesis 3 (H3): Foreign investors are more likely to choose direct investment when they invest in family-based societies than in relation-based societies, ceteris paribus.

In a similar vein, while both relation-based and family-based societies have underdeveloped public information infrastructure and a relatively low level of public trust, the extensive informal networks and the extended particularized trust that exist in the relation-based society may help the relation-based societies develop more "spontaneous sociability" (Fukuyama 1995: 29) which is conducive to developing cooperative relationships. Such informal social networks may to some degree fill the holes in formal public institutions. Thus we may argue that extended particularized trust, extensive social networks, especially good relations with insiders (important government officers and/or company managers) in relation-based countries play some positive role in the protection of portfolio investment. For family-based societies, the absence of such informal networks and extended particularized trust tend to further restrict the portfolio investment market. Thus, we argue that:

Hypothesis 4 (H4): The size of the stock market relative to the size of the economy will be larger in relation-based societies than in family-based societies, ceteris paribus.

Methods

Measuring the Governance Environment

Following the method of Kaufman et al. (1999, 2002), Li and Filer (2007) aggregated a Governance Environment Index (GEI) based on different dimensions. They draw "political rights" and "the rule of law" from Kaufman et al. (1999, 2002) and added three additional dimensions: quality of accounting standards; free flow of information; and public trust. The sources for the five indicators are the World Bank, IMF, Freedom House, and other well established international surveys such as the World Value Survey (Li and Filer 2007). Li and Filer (2007) found that high correlations exist among some of the five dimensions of the governance environment. If they were all put in the model as separate regressors, multicollinearity concerns would arise, thus, they chose to use a summary index (GEI) to represent these five dimensions. Each of the five components of the GEI was standardized to a mean of zero and a standard deviation (SD) of one by subtracting the mean from the value and then dividing by the SD of the values. The GEI for each country is the sum of the five standardized components. A high GEI indicates a country is more rule-based, while a low GEI indicates a country is more relation-based. Li and Filer calculated the GEI for 44 countries for which all the five indicators are available.

Li (2009) extended this classification into three categories: rule-based, relation-based, and family-based. First, Li used the same five indicators as Li and Filer (2007) and updated them using data from 2005–2008[4]. Similar to Li and Filer (2007), Li calculated the GEI

Table 2: Governance Environment Index (GEI) by country (Source: Li 2009)

Country	GEI	Country	GEI
Finland	6.41	Taiwan	−0.13
Sweden	6.18	Romania	−0.63
Netherlands	5.70	Thailand	−0.84
Germany	4.53	India	−0.85
United Kingdom	4.35	Ukraine	−0.86
Switzerland	4.34	Indonesia	−1.10
New Zealand	4.04	Bulgaria	−1.75
Hong Kong	4.02	Mali	−1.81
Australia	3.73	Peru	−1.92
South Africa	3.11	Brazil	−2.06
United States	2.30	Zambia	−2.64
Cyprus	2.28	Turkey	−2.75
Slovenia	2.23	Argentina	−2.75
France	1.97	Malaysia	−2.91
Japan	1.79	Egypt	−3.04
Poland	1.32	Moldova	−3.43
Spain	1.18	Philippines	−3.53
Ghana	0.95	Colombia	−3.69
Italy	0.94	Morocco	−3.70
South Korea	0.24	Mexico	−3.71
Trinidad & Tobago	0.12	Russia	−4.34
Chile	0.12	Vietnam	−5.19
		China	−5.92
		Iran	−8.13

The GEI index is based on five indicators at the country level: political rights, rule of law, quality of accounting standards, free flow of information, and public trust

for 46 economies for which all of the five indicators were available (See Table 2). There are 22 economies with positive GEIs and 24 economies with negative GEIs. Since the average GEI is zero, an economy with a positive GEI can be thought as rule-based, and an economy with a negative GEI score is considered non-rule-based. Among the non-rule-based economies, some rely on extensive informal social networks (i.e., relation-based), and others do not have extensive informal social networks and rely primarily on family ties (family-based). However, the GEI index can only distinguish between rule-based and non-rule-based economies. In order to further distinguish between relation-based and family-based societies among the non-rule-based societies, Li examined the dominant type of particularized trust in a society. As we discussed earlier, while relation-based

Table 3: Clustering of more relation-based versus more family-based countries on trust (Source: Li 2009)

Country	Cluster	Country	Cluster
China	1	Argentina	2
Indonesia	1	Brazil	2
Malaysia	1	Bulgaria	2
Mali	1	Colombia	2
Mexico	1	Egypt	2
Taiwan	1	India	2
Thailand	1	Iran	2
Vietnam	1	Moldova	2
Zambia	1	Morocco	2
		Peru	2
		Romania	2
		Russia	2
		Turkey	2
		Ukraine	2

1 = more relation-based; 2 = more family-based; the Philippines is excluded from this table because of missing data

societies have a high level of *extended* particularized trust, family-based societies rely on *nuclear* particularized trust.

Based on this idea, Li (2009) performed a cluster analysis of countries with negative GEI scores, which are the 23 non-rule-based economies[5], by using a number of trust-related variables from the World Value Survey (2005), including generalized trust (V23), trust in family (V125), trust in neighborhood (V126), and trust in people one meets for the first time (V128). The results of the cluster analysis are shown in Table 3.

On average, as compared to those in Cluster 2, Cluster 1 countries have (1) a higher level of generalized trust; (2) a slightly lower level of trust in family, and (3) a higher level of trust in the neighborhood and in people one meets for the first time. They fit the description of relation-based countries. In comparison, Cluster 2 countries have a slightly higher trust in family and a lower trust in other trust measures. These are countries in which most people do not rely on public rules or extended private relations.

Since clustering solutions may differ based on the method, the clustering variables, and the number of clusters, Li (2009) further examined the robustness of his clusters by using different methods, different sets of clustering variables, and different numbers of clusters. While the memberships vary slightly, some members are always clustered together. Countries that are always included in Cluster 1 (the relation-based type) are China, Taiwan, Vietnam, and Indonesia, while Morocco, Iran, and India consistently clustered in the second cluster.

Li (2009) also confirmed this clustering pattern by simply ranking these countries by one of the most discriminating trust questions from World Value Survey 2005, Question V47, "Do you think most people would try to take advantage of you if they got a

Table 4: Ranking of relation-based countries and family-based countries (Source: Li 2009)

Country	Trust Score (see note below)
Relation-Based	
Vietnam	6.16
China	5.92
Indonesia	5.09
Taiwan	5.08
Thailand	4.53
Mexico	4.46
Mali	4.33
Malaysia	4.12
Zambia	4.01
Family-Based	
Moldova	3.88
Russia	3.65
Peru	3.63
Ukraine	3.60
Egypt	3.36
Colombia	3.26
Argentina	3.12
Brazil	3.10
Romania	3.07
Bulgaria	2.82
Iran	2.80
Turkey	2.75
India	2.35
Morocco	2.02

The scores are the average answers to survey questions in each country. A high score means that people in a country incline to agree that "people try to be fair", indicating the country is more relation-based; A low score means that people in a country tend to agree that "people try to take advantage of me," indicating it is less relation-based. The Philippines is excluded from this table because of missing data

The trust score of 4.0 is used as the breakpoint between relation-based and family-based. Statistically, the trust score is normally distributed, with a mean of 4.0. After we grouped the countries based on the score of 4.0, we did a clustering analysis using the original variables and derived a two-cluster solution. The clustering solution gave a classification identical to the division based on a breakpoint of 4.0, thus supporting the 4.0 breakpoint

chance, or would they try to be fair?" Relation-based countries have a higher percentage of respondents who believe that people try to be fair (see Table 4).

Dependent Variables

We use various dependent variables in our models to test the above hypotheses. To test the foreign investment hypotheses (H1 and H3), we specify the dependent variable as the share of foreign direct investment in relation to the economy's total foreign investment position (FDI_FI). A smaller value of FDI_FI means that there is a greater proportion of foreign portfolio investment in the total foreign investment.

To test the stock market hypotheses (H2 and H4), we specify a measure of market depth and size by using market capitalization. The first specification uses this capitalization measure relative to the economy's GDP (CAP_GDP). In an alternative specification, we consider the market capitalization measure alone and control for the size of the economy on the right-hand side of the equation.

Control Variables

Our choice of control variables is based on previous studies. There is a rich literature on the determinants of foreign direct investment. Globerman and Shapiro (2003) found that the foreign exchange rate affects direct investment flows and that the existence of English common law in a country exerts a positive effect in attracting direct investment from the United States. La Porta et al. (1998) found that the different legal traditions (English common law and different families of Continental law) have different effects on investor protection. Based on the two studies that are the most relevant to our study, we include the foreign exchange rate (FXRATE) and the legal tradition index in our models. Following La Porta et al. (1998), we specify four legal traditions: (1) English common law tradition, (2) French civil law tradition, (3) German civil law tradition, and (4) Scandinavian civil law tradition. We use dummy variables to represent the four legal families: ENG_LAW, FRE_LAW, GER_LAW, and SCA_LAW. The default, or the omitted category is other countries with an unspecified legal tradition. To test the stock market hypotheses, we include GDP and the age of the stock market (AGE) as additional controls.

We also include market openness as a control variable based on the previous literature. In certain countries foreign investors may have no access to portfolio markets and thus any investment they make must be in the form of direct investment (Li and Filer 2007). We add a dummy variable OPEN with the following specification: OPEN is equal to 0 if any of the following controls on foreign investment exists: (1) a ceiling on the percentage of foreign ownership in a particular stock, (2) restrictions on the repatriation of income and earned interest, or (3) direct control preventing the entry of foreign investors into the market, and OPEN equal to 1 if the market is generally accessible to foreign investors.[6]

When we test the stock market hypotheses (H2 and H4), we also create a dummy variable for Hong Kong. Hong Kong is a special case because it is strongly based on the English tradition with mature public rules and is at the same time heavily influenced by the Chinese relation-based culture. Furthermore, Hong Kong is a city-state whose economy is highly dependent on international trade and finance. During the past decade, as Hong Kong's manufacturing industry moved to the mainland, its service industry—mainly finance and trade—has grown rapidly and now accounts for about 90% of the territory's GDP. For these reasons, we employ a special dummy variable for Hong Kong.[7] Detailed descriptions of all these variables and their sources are shown in Table 5.

Table 5: Data sources and variable definitions

Variable	Data source	Variable description
FDI	Cumulative foreign direct investment (FDI) (billions of US$) (2005–2007 average)	International Financial Statistics (IFS) (IMF 2009)
FDI_FI	FDI as % of total foreign investment	IFS
CAP_GDP	Market capitalization of listed companies as % of GDP (2005–2007 average)	World Development Indicators (WDI) World Bank (2008)
CAP	Market capitalization of listed companies (billions of US$) (2005–2007 average)	WDI
GEI	Governance Environment Index. It reflects the governance environment between 2005 and 2008	Li (2009)
Rul	Dummy variable. This equals 1 if a country is rule-based, otherwise 0	Li (2009)
Rel	Dummy variable. This equals 1 if a country is relation-based, otherwise 0	Li (2009)
Fam	Dummy variable. This equals 1 if a country is family-based, otherwise 0	Li (2009)
ENG_LAW	Dummy variable. This equals 1 if a country's legal system originated in the English common law tradition (1998), otherwise 0	La Porta et al. (1998)
FRE_LAW	Dummy variable. This equals 1 if a country's legal system originated in the French civil law tradition (1998), otherwise 0	La Porta et al. (1998)
GER_LAW	Dummy variable. This equals 1 if a country's legal system originated in the German civil law tradition (1998), otherwise 0	La Porta et al. (1998)
SCA_LAW	Dummy variable. This equals 1 if a country's legal system originated in the Scandinavian civil law tradition (1998), otherwise 0	La Porta et al. (1998)
GDP	Gross domestic product (billions of US$) (2005–2007 average)	IFS
FXRT	Change in foreign exchange rate (local currency per US$), 2004–2007. It is the average rate of change of the exchange rate from 2004–2005, 2005–2006, and 2006–2007. A positive FXRT means that the local currency is rising against the U.S. dollar	WDI
AGE	The number of years the stock market had been in existence as of 2006	International Encyclopedia of the Stock Market (Sheimo et al. 1999)

Table 5: (continued)

Variable	Data source	Variable description
OPEN	Dummy variable. This equals 1 if none of the following foreign investment restrictions are in place: (1) ceiling on the percentage of foreign ownership in a particular stock, (2) restrictions on the repatriation of income and earned interest, or (3) direct controls preventing entry of foreign investors into the market, otherwise 0	OECD's FDI regulatory restrictiveness index: revision and extension to more economies (OECD 2006), Implementing the e-APEC Strategy: progress and recommendations for further action (Lee 2004) and country reports (UNCTAD for multiple years)
Dhk	Dummy variable. This equals 1 if the location is Hong Kong, otherwise 0	

Findings

We first calculate the descriptive statistics and a correlation matrix (see Table 6) for all independent variables in order to identify any high correlations that may cause multicollinearity problems. The highest correlations in absolute value terms are between Rul and FDI_FI and between Rul and GEI, which are −0.86 and 0.86, respectively. But neither combination of variables is used in the same regression. The second highest correlation is 0.76 between GEI and FDI_FI. The Variance Inflation Factor (VIF) is calculated for each independent variable. All VIF values are well below the cutoff value of 10, thus ruling out any serious multicollinearity concerns.

Tables 7 and 8 summarize our data analysis. Table 7 reports the data analysis results for the FDI hypotheses (H1 and H3). Four specifications are used to examine these hypotheses and to illustrate the robustness of the results. Model 1 is the Li and Filer (2007) model examining the influence of GEI, legal structure, exchange rate changes, the log of GDP, and the openness of the financial market to possible portfolio flows on the log of foreign direct investment (FDI). In Model 2, we use the same control variables as above, but replace the influence of GEI with two dummy variables, Rel and Fam. Model 3 and Model 4 regress the dependent variable, the FDI to total foreign investment ratio, on the same set of independent variables used in Models 1 and 2.

The results for Model 1 and 2 illustrate an incomplete picture based on models with FDI in the levels as the dependent variable. The estimates of all governance environment measures, GEI, Rel and Fam, are insignificant. The governance environment cannot explain the flows of the total value of FDI. When the dependent variable is changed to relative size of FDI over total foreign investments (Models 3 and 4), the two governance variables become highly significant, and the adjusted R-squares increase dramatically (from around 0.2 in Models 1 and 2–0.7 in Model 3 and 0.8 in Model 4). In Model 3, the coefficient estimate of GEI, which is negative and highly statistically significant, shows

Table 6: Means, standard deviations, and correlations for model variables

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 FDI	143.54	190.22	1.00															
2 FDI_FI	65.76	30.00	−0.13	1.00														
3 CAP_GDP	87.09	107.19	0.57	−0.29	1.00													
4 CAP	227.22	320.14	0.28	−0.10	0.11	1.00												
5 GEI	−0.05	3.41	0.10	−0.76	0.40	0.14	1.00											
6 Rul	0.49	0.51	0.16	−0.86	0.37	0.12	0.86	1.00										
7 Rel	0.20	0.41	0.12	0.30	−0.10	−0.11	−0.39	−0.41	1.00									
8 Fam	0.31	0.47	−0.26	0.69	−0.33	−0.05	−0.63	−0.76	−0.28	1.00								
9 ENG_LAW	0.20	0.41	0.04	−0.06	0.45	0.11	0.26	0.16	0.15	−0.27	1.00							
10 FRE_LAW	0.29	0.46	0.10	0.11	−0.21	−0.01	−0.27	−0.20	0.05	0.18	−0.40	1.00						
11 GER_LAW	0.11	0.32	−0.09	−0.43	0.09	0.20	0.25	0.33	−0.13	−0.25	−0.19	−0.25	1.00					
12 SCA_LAW	0.04	0.21	0.00	−0.27	0.05	0.06	0.43	0.22	−0.09	−0.17	−0.13	−0.17	−0.08	1.00				
13 AGE	107.23	95.62	0.17	−0.35	0.16	0.08	0.54	0.39	−0.22	−0.25	0.11	0.07	0.25	0.10	1.00			
14 FXRT1	−2.64	3.31	−0.01	−0.19	0.24	−0.16	0.11	0.20	−0.05	−0.17	0.03	−0.03	0.37	−0.04	0.05	1.00		
15 GDP	188.68	217.32	0.08	0.23	0.09	0.12	0.09	−0.09	0.18	−0.03	0.13	0.18	−0.21	0.03	0.23	0.16	1.00	
16 Open	0.342	0.481	0.07	−0.55	0.37	−0.11	0.49	0.35	−0.28	−0.17	−0.01	0.06	0.29	0.33	0.52	0.21	0.02	1.00
17 Dhk	0.026	0.162	0.58	−0.04	0.86	−0.13	0.18	0.16	−0.06	−0.12	0.30	−0.12	−0.06	−0.04	0.03	0.22	0.04	0.23

Table 7: Data analysis results of FDI hypotheses

Dependent variables	Model 1		Model 2		Model 3		Model 4		Model 4a	
	Log(FDI)		Log(FDI)		FDI_FI		FDI_FI		FDI_FI	
Independent variables										
(Constant)	9.397†	(0.974)	9.546†	(1.038)	62.155†	(8.425)	51.205†	(7.146)	90.630†	(8.024)
GEI	0.050	(0.132)			−6.572†	(1.142)				
FXRATE	−0.093	(0.119)	−0.107	(0.121)	−0.400	(1.028)	0.562	(0.831)	0.562	(0.831)
ENG_LAW	0.869	(0.982)	0.770	(0.967)	−0.071	(8.496)	−3.348	(6.652)	−3.348	(6.652)
FRE_LAW	1.554*	(0.810)	1.533*	(0.819)	−10.251	(7.009)	−8.200	(5.634)	−8.200	(5.634)
GER_LAW	0.583	(1.418)	0.496	(1.417)	−17.738	(12.265)	−16.918*	(9.749)	−16.918*	(9.749)
SCA_LAW	2.733	(1.840)	2.686	(1.748)	−1.810	(15.913)	−13.294	(12.028)	−13.294	(2.028)
Log(GDP)	0.196*	(0.136)	0.217**	(0.139)	3.215***	(1.176)	1.528*	(0.955)	1.528*	(0.955)
Open	−2.029***	(0.788)	−1.975***	(0.763)	−6.156	(6.813)	−12.940***	(5.254)	−12.940***	(5.254)
Rel			−0.146	(0.973)			39.424†	(6.699)		
Fam			−0.608	(0.818)			43.663†	(5.632)	4.238	(6.821)
Rul									−39.424†	(6.699)
R-Square (%)	0.158		0.142		0.677		0.792		0.792	
F-Value	1.92*		1.719		11.230†		17.484†		17.484†	
N of countries	40		40		40		40		40	

Six countries, Ghana, Iran, Taiwan, Trinidad & Tobago, Vietnam, and Zambia, are excluded from the sample because they lack the FDI data

*$p<0.1$; **$p<0.05$; ***$p<0.01$; †$p<0.001$

Standard errors are in parentheses; the tests are one-tailed tests for Log(GDP), Open, Rel, Fam, and Rul

that the more rule-based a country, the smaller FDI investment will be as a share of the total foreign investment. When GEI is replaced with two dummies (Rel and Fam) as in Model 4, the coefficient estimates of both dummies are positive and highly statistically significant. In this model, the default is rule-based governance. It shows that in rule-based countries the FDI-total foreign investment ratio will be small, compared to the relation-based and family-based countries. So H1 is strongly supported.

Since the estimates of both the relation-based dummy and the family-based dummy are positive and significant and the coefficient estimate of the family-based dummy is larger than that of the relation-based dummy, it is apparent that the family-based countries attract more FDI relative to total foreign investment than do relation-based countries, exactly as hypothesized in H3. To further compare the estimates of the relation-based dummy and family-based dummy statistically, we rerun Model 4 and use the relation-based category as the default (shown in Model 4a). Compared with relation-based countries, rule-based countries attract significantly less FDI (relative to total foreign investment), a finding consistent with H1. However, the estimate on the family-based country dummy is positive but insignificant. Thus we cannot conclude that H3 is supported.

Table 8 presents the data analysis results of the stock market size hypotheses H2 and H4. To test these hypotheses, we use two alternative specifications of the size of the stock market: market capitalization of listed companies in U.S. dollars (CAP) and market capitalization of listed companies as a percentage of GDP (CAP_GDP). In the models that use CAP (Models 5 and 6), we also control for the effect of GDP, since the capitalization of the market is likely to depend on the size of the economy. In all these models, we control for the length of time the market had existed as of 2006 (AGE).

Models 5 and 6 use absolute market capitalization as the dependent variable. Estimates of all governance environments measures, GEI, Rel and Fam, are insignificant once again, showing that governance environment cannot explain the absolute value of market capitalization. However, when the dependent variable is changed to market capitalization as a percentage of GDP (as in Models 7 and 8), the regressions are more significant and the adjusted R-squares increase markedly (from around 0.17 to around 0.82). In Model 7, the estimate of GEI is positive and statistically significant, showing that the more a country relies on public ordering (more rule-based), the larger the market capitalization relative to the size of the economy.

When GEI is replaced with two dummies (Rel and Fam) to measure governance environments in Model 8, estimates of both of these two dummies are negative and statistically significant. In these regressions, the default case is that of rule-based governance. It means that in rule-based countries, the relative market capitalization will be higher, compared to relation-based and family-based countries. Hence H2 is supported.

The coefficient estimates of both dummies (Rel and Fam) are negative and significant, but the estimate of the relation-based dummy is relatively smaller than that of the family-based dummy, implying that the market capitalization is greater in the family-based economy than it is in the relation-based economy. This is opposite to the direction we proposed in H4. Thus H4 is not supported.

Table 8: Data analysis results of stock market hypotheses

Dependent variable	Model 5		Model 6		Model 7		Model 8	
	Log(CAP)		Log(CAP)		CAP_GDP		CAP_GDP	
Independent variables								
(Constant)	1.485*	(0.831)	1.430	(0.893)	50.254***	(14.274)	63.043†	(16.483)
GEI	−0.068	(0.137)			5.109*	(2.888)		
AGE	−0.001	(0.005)	−0.003	(0.004)	−0.054	(0.094)	−0.032	(0.087)
ENG_LAW	2.483**	(1.046)	2.617	(1.029)	71.377***	(22.111)	78.132***	(1.466)
FRE_LAW	1.966**	(0.854)	1.950**	(0.855)	21.918	(18.028)	23.727	(17.791)
GER_LAW	2.197	(1.408)	2.301	(1.403)	70.178**	(29.024)	67.170**	(28.700)
SCA_LAW	3.435*	(1.903)	3.309*	(1.722)	43.101	(39.870)	58.959	(35.538)
Log(GDP)	0.278**	(0.143)	0.265**	(0.145)				
Dhk	−5.019**	(2.280)	−5.147**	(2.276)	537.419†	(47.938)	535.377†	(47.159)
Rel			−0.303	(1.022)			−40.335**	(21.123)
Fam			0.746	(0.834)			−33.799**	(17.044)
R-Square (%)	0.170		0.173		0.822		0.827	
F-Value	2.104*		2.003*		29.452†		26.837†	
N of countries	44		44		44		44	

Two countries, Taiwan and Mali, are excluded from the sample because they lack market capitalization data

Standard errors are in parentheses; the tests are one-tailed tests for Log(GDP), Open, Rel, Fam, and Rul

*$p<0.1$; **$p<0.05$; ***$p<0.01$, †$p<0.001$

Discussion and Conclusion

Foreign investment has been extensively studied in the literature. However, most studies focus on foreign direct investment. Foreign portfolio investment has largely been ignored and the relationship between direct and portfolio investment unexamined. In addition, the effect of the governance environment, especially the governance environment that lacks the rule of law, has not been sufficiently examined. Recently, Li and Filer (2007) brought a new aspect of the governance environment into the literature. They examined the effects of institutional environment quality on foreign investment and explored the different influences of the rule-based and relation-based governance environments on foreign investment. However, Li and Filer left out countries which had neither a strong public ordering nor extended informal social networks. These non-rule-based and non-relation-based countries are relatively poor but large in number. Identifying factors that may hinder investment flows and effectively dealing with these factors is not just an academic exercise, but is beneficial to the economic development in these countries and to foreign investors who are investing or plan to invest in these countries.

Our study addresses this deficiency. Drawing on Li's (2009) updated framework of the governance environment, we add the family-based governance environment, along with the rule-based and relation-based governance environments, to the analysis of the patterns of foreign investment across countries. Our study sheds light on the family-based economies in the following way.

We find that family-based countries tend to have a lower portfolio to total foreign investment ratio, much like relation-based countries. Our explanation for this pattern is that due to the lack of the effective rule of law, foreign investors prefer to participate in the management of their investments in order to reduce the information noise and expropriation risks faced by portfolio investors. We also find that rule-based countries have the largest stock markets relative to their economies because of their better public ordering, the flip side of the very same reason that makes investors choose direct investment in non-rule-based countries. We should qualify these findings by noting that there are other variables, such as the level of economic development, the level of the development of financial markets, the level and quality of infrastructure, geography, and culture that also help determine the proportions of foreign investment that go into FDI and portfolio investment. Nonetheless, we have found here a new variable, the governance environment, that is a significant determinant of the mix of foreign direct investment and foreign portfolio investment.

Our finding helps explain the puzzle of why some countries attract relatively more FDI and others attract relatively more portfolio investment, a puzzle which the previous literature has failed to explain even after taking into account the level of GDP and other factors such as culture, geography, and legal systems. We show that the governance environment explains why there are still many countries that attract little foreign investment thereby limiting their productivity and prosperity even though foreign investment is an engine of economic growth worldwide.

In addition to the contributions to the literature, our study provides useful policy implications. Our findings suggest that in formulating foreign investment policies, governments and investors should pay close attention to the governance environment. The finding that

rule-based countries tend to have smaller FDI to total foreign investment ratios than those of family-based and relation-based countries is important for policy makers. The implication is that countries with low levels of foreign investment trying to attract investment should not only evaluate their investment policies, but also evaluate their governance environment. Foreign investment policies can be changed relatively quickly, but it will take much longer to improve the governance environment, especially the cultural components such as trust. This is a fact that both the government and multinational corporations must realize and be prepared to deal with.

While our study is an early attempt to understand how the governance environment affects the mode of investment, there are important issues relating to this topic that require future investigation. For example, we need to look at the dynamics of the governance environment across countries over time. As our framework suggests, relation-based countries need to evolve into more rule-based as their scale and scope of economic activities expand. What are the patterns or paths of such an evolution? How should government formulate policies to facilitate the transition and minimize interruptions in the political, economic, and social institutions caused by the transition? What are the governance mechanisms firms use to protect their operations in societies undergoing rapid transition in governance environment? These areas need the urgent attention of international business scholars not only for their theoretical significance, but also for their practical importance because many countries are in the process of transition and in need of guidance.

Endnotes

1 Public ordering means the reliance upon formal public legal codes for rules and adjudication. In contrast, private ordering means the reliance on informal and relational networks. The concept of public ordering is the opposite of private ordering. These two concepts are from Peerenboom (2002).

2 Investors may have full control in the short term by simply selling their investment. However, they do not have control in the long-run.

3 Expropriation here refers both to governmental expropriation and expropriation by private parties. Indeed, most of the danger in this era is in private expropriation—theft. In the case of China there are many schemes for stripping investors of their portfolio assets, including stock manipulation, the misrepresentation of facts, and the manipulation of company assets by major shareholders. These dangers should not be underestimated, and the government does *not* do a good job of protecting portfolio investors. The same is true for Russia, much of Africa, parts of Latin America, and in many other parts of the developing world. On the other hand, if foreign investors own a company and its physical assets, they have more control over those assets, both tangible and intangible.

4 The GEI index includes five indicators. Some indicators are not collected in one year, but over a period of time. For example, the public trust variable is collected from World Value Survey (2005). However, among the 60,570 responses to this survey, about 21.7% were surveyed in 2005, 34.8% in 2006, 36% in 2007, and 7.5% in 2008. For those indicators collected every year, such as, political rights, and the free flow of information (we use press freedom to measure this), we used the data in 2006. So, it is more accurate to say that the data on GEI reflects the governance environment between 2005 and 2008, with a greater focus on 2006.

5 The World Value Survey (2005) does not have V125, V126 and V128 for the Philippines, so we excluded the Philippines for the cluster analysis.

6 Given our data requirements we attain modest sample sizes of 40 and 44 countries. While this is about 20% of the world's 195 countries, it should be pointed out that the sample represents about 70% of the world population. As to the possible issue of sample selection bias, it should be noted that there is a bias in the sample toward larger, more-developed societies and away from smaller, less-developed societies. Given that most less-developed societies tend to be relation-based and family-based, and that they generally have less-developed capital markets, they would tend to have more FDI and less portfolio investment. Thus, if we were somehow able to collect the data from those underrepresented societies, we would expect the direction of our results here to be amplified.

7 We ran the models with and without the Hong Kong dummy variable. There are no significant differences between the two specifications in terms of the overall results of the models and the estimates of the variables of interest.

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