Innocents Abroad: Failure of the International Joint Venture with Pyramidal Group Firms

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ABSTRACT

The widely accepted conventional viewpoint of Jensen and Meckling (1976) suggests that large listed firms have diffuse shareholders and no controlling owner. However, recent research shows that large corporate sectors of many economies outside the U.S. and U.K. are dominated by pyramidal corporate groups, not widely held firms. Thus, corporate governance behaviors and agency issues in the context of the pyramid take on new meaning. These pyramidal structures have entrenched controlling insiders who impose exacerbated agency problems to under-informed outside investors, particularly joint venture partners from host countries dominated by widely held firms. The controlling insiders are thought to divert resources between companies they control to advance their private agendas of wealth or utility maximization and not the joint venture. We identify the differences in the agency problems in widely held stand alone firms versus pyramidal firms and expose the pitfalls of joint venturing with firms belonging to pyramidal groups. We show that joint ventures between multinationals based in countries where pyramiding is rare and pyramidal group member companies have significantly elevated failure rates. We infer this reflects the multinationals’ unfamiliarity with the expropriation risks associated with pyramidal groups. Conversely, joint ventures among pyramidal groups are more likely to succeed. We present clinical examples that illustrate the mechanisms that drive such divergent performance in joint venture partnerships. While our results are based on a single industry in a single country, we believe the concerns are general.
1. Introduction

The traditional strategy literature on corporate governance takes the conventional viewpoint of Jensen and Meckling (1976) that large listed firms have diffuse shareholders and no controlling owner.\(^1\) However, a recent surge of studies on international governance reveal remarkable governance differences globally. Such large freestanding widely held firms are actually rare in most countries (La Porta et al., 1999; Claessens et al., 2000; Faccio and Lang, 2002; Barca and Becht, 2001; Morck, Wolfenzon & Yeung, 2005; Stulz, 2005; Morck, 2005). Contrary to the conventional wisdom, the United States and United Kingdom are exceptions at one extreme, where large publicly listed companies are usually stand-alone firms. In this case, they do not control other listed firms; nor do other listed firms control them (e.g., AT&T, Nextel, etc.).

At the other extreme, large listed corporations almost everywhere else belong to business groups (e.g., America Movil, part of the Mexican billionaire Carlos Slim Helú’s group). These governance structures typically take on a pyramidal form, in which a dominant owner votes control blocks in one or more listed firms, which each votes control blocks in many other listed firms, each of which hold control blocks in still more listed firms, and so on. Handfuls of such pyramidal groups dominate the large corporate sectors of many economies in Latin America, Europe, Asia and elsewhere, but are relatively understudied in the strategy literature. (See Morck, Wolfenzon & Yeung, 2005 for a review of the finance and economics based literature on pyramids.) Given these governance structure differences, Jensen and Meckling’s (1976) agency model really only applies well in the large corporate sectors of the United States and United Kingdom, where widely held firms prevail.\(^2\) Elsewhere, the relevant unit for strategic reasoning

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\(^1\) This viewpoint is sometimes incorrectly attributed to Berle and Means (1932). \\
\(^2\) The full picture is, unsurprisingly, more complicated. Germany and Japan have family pyramidal groups, but other structures as well. Many listed Japanese firms belong to *keiretsu*, in which firms with no controlling shareholders
is often the business group, not the firm. Therefore, the broadly accepted agency theory assumptions need revisiting to explicate how the pyramidal group governance structures differ from widely held firms and examine the pitfalls of partnerships between the differing governance structures. This paper aims to accomplish both of the above points.

The importance of pyramidal groups to strategy lies in the relationships between corporate control structures, institutional environments, firm behavior, and firm performance. Initial steps towards exploring these relationships include Khanna & Rivkin (2001), Khanna & Palepu (2000) and Chang and Hong (2002), who report a positive link between business group control and individual firm performance. In this paper, we take a different stance, which demonstrates that pyramidal governance structures can pose an increased expropriation risk for outsiders, particularly the uninformed joint venture partner.

These differences in corporate control have implications for corporate governance, wealth maximization incentives, and normative prescriptions for the behavior of managers within individual firms. In widely held firms, agency problems arise when hired managers (agents) act in their own interests, rather than those of diffuse public shareholders (principals). In this setting, the core agency issue is the separation of ownership and control (Jensen and Meckling 1976). Improved corporate governance entails persuading professional managers to serve public shareholders more faithfully. But in pyramidal group firms, one shareholder, the dominant owner (in most cases a wealthy family), exercises extreme control, appointing top managers and dictating strategy to every firm in the pyramid. This is done through the family’s direct control of voting blocks in a few top tier pyramid firms, which thereby grants them
indirect control in lower tiered firms and the ability to therefore appoint their boards and top managers. Thus, family members or associates control these firms, which, in turn, control voting blocks of other pyramid member firms and so appoint their boards and top managers and control these firms too. The result is a pyramidal structure consisting of dozens, or in some cases even hundreds of firms, all controlled totally by a wealthy family or other dominant shareholder at the pyramid’s apex. Corporate governance problems arise because the dominant owner’s actual ownership stake in firms in the lowest tiers of the pyramid is often times miniscule (Morck, Stangeland and Yeung, 2000). But because of their tiered ownership, they are able to leverage governance control of the firm. This creates incentives for the pyramid’s dominant owner to impose corporate strategies on these firms that benefit himself without regard for their public shareholders or joint venture partners. In this setting, improved corporate governance entails better protecting outside shareholders from the dominant controlling shareholders.

These differences in corporate control have important implications for outside shareholders, particularly joint venture partners. We focus on the case of multinational corporations seeking local partners that are likely pyramidal group firms in many countries. Multinational firms frequently utilize joint venture partnerships with local firms as a competitive strategy for internationalization to overcome its so-called “liability of foreignness”3 – its unfamiliarity with local ground rules, culture, and business practices, and its lack of local “connections”. However, this strategy presents a dual edged sword when considering the newly identified risk associated with misaligned corporate governance behaviors. Multinationals are often unfamiliar with the governance structures (institutions) of firms in foreign economies, and thus misgauge the agency problems and cash flow expropriation risk exposure the joint venture entails. Arguably, the informed manager is aware of such expropriation and protects their

3 “Liabilities of foreignness” is a term adopted by Zaheer (1995) and Zaheer & Mosakowski, (1997) which captures the cost inefficiencies that foreign firms face in host nations. This view builds on the earlier foreign investment research of Hymer (1976) and Buckley and Casson (1976) which point out such liabilities of MNE’s.
investment accordingly. For the uninformed manager, this increased risk of expropriation from pyramidal partners could be devastating. We build upon the theoretical underpinnings of Perkins (2006b) which demonstrates that misapplying dissimilar prior institutional experience increases the likelihood of firm failures abroad. We conjecture that the managers of multinationals, who lack experience with pyramidal groups are blindsided by the strategies of their joint venture co-investors when the latter belong to pyramidal groups. As a result, this adversely affects their firms’ *ex post* returns from those joint ventures resulting from unforeseen exposure to expropriation by a joint venture partner from a pyramidal group. Once these risks become clear, the multinational’s optimal strategy is to abandon the joint venture. Joint venture failures result from the managerial blind spots to the aforementioned critical differences between partnering firms joint venture structures. This argument provides a new explanation, heretofore insufficiently explored in the strategy and international business literatures, for joint ventures remarkably high failure rates.\(^4\)

We conduct a preliminary empirical study based on a data set of 96 multinational subsidiaries’ entries into the Brazilian telecommunications industry from 1997-2004 and find evidence consistent with our conjecture that lack of exposure to pyramidal firms leads to failure. Moreover, data analysis results show that joint ventures between firms with certain combinations of ownership structures are especially apt to underperform. For example, we find that *widely held stand-alone* firms that partner with pyramidal group firms are the most at risk for problems and ultimate failure.\(^5\) Conversely, pyramidal group firms entering joint ventures with other

\(^4\) Common explanations for joint ventures remarkably high failure rates (see Kogut, 1989; Park, 1997) are:
1. Competitive pressure from outside the joint venture agreement (e.g., Park and Russo, 1996),
2. Concerns about protecting intellectual property rights (e.g., Kogut, 1989), and
3. Dissolution once organizational learning ends, or generally when the general usefulness of the joint venture, for this or other purposes, ends (e.g., Nakamura et al., 1996).

\(^5\) Failure is defined as a market exit not resulting from acquisitions, regulatory shifts, geographic consolidation, etc.
pyramidal group firms have the highest incidence of survival. Apparently, these firms understand the incentives of their partnering firms and thus utilize strategic tactics to mitigate the risks of expropriation. Our anecdotal field research including several clinical examples also demonstrates that freestanding widely held firms, which are most likely to lack experience with pyramidal groups, are unusually likely to encounter amplified information asymmetry problems (Jensen and Meckling, 1976), suffer the loss of governance control rights, become exposed to the joint venture partner’s expropriation, and ultimately exit the joint venture relationship due to financial underperformance. We elaborate on these tactics further in section III.

This paper proceeds as follows. In the next section, we define pyramidal groups and discuss how pyramidal group firms differ from other corporate ownership structures. Following, we explain why a pyramidal control structure is particularly problematic for a partnering firm with little exposure to pyramidal groups. In the third section, we provide empirical information on joint venture partnerships in the Brazilian telecommunications industry based on case analyses, executive interviews, and hazard rate estimates. The goal of the section is to articulate and validate our conjecture on the expropriation hazard of foreign joint venture partnerships with pyramidal groups. We hope to expose the generic mechanisms of this expropriation, and also describe the counter measures of joint venture partners familiar with pyramidal groups. We conclude with implications for strategy scholars and foreign investment practitioners.

2. The Mystery of the Pyramid?

2.1 Defining a Pyramidal Group

Pyramidal groups are collections of firms with corporate governance structures that differ markedly from those of freestanding widely held firms in three primary ways.
First, pyramidal groups have one apex firm, or very rarely a few apex firms, with one dominant owner. Often, the dominant owner is a wealthy family; the literature refers to this corporate governance structure as a *family pyramid* (Morck, Wolfenzon & Yeung, 2005; Faccio and Lang, 2002; Claessens, Djankov & Lang, 2000). For example, Carlos Slim Helú, the Mexican billionaire, and his family sit at the helm of the Slim pyramidal group. Although the controlling shareholder is usually a wealthy family, pyramidal groups exist that are ultimately controlled by financial institutions, like the Deutsche Bank group in Germany, or state-owned enterprises (SOE), like the Caisse de Dépôt et Placements du Québec in Canada; see also Fan *et al.* (2005) for examples of SOE controlled in China.

Pyramidal groups should not be confused with stand-alone firms with a dominant owner, like Wal-Mart (primarily owned by Walton family at 38%⁶), nor with firms that have many 100% owned subsidiaries, as is common with real estate businesses in the US (which typically have a separate incorporated entity for each property).

Second, a key indication of a pyramidal group is the network of numerous listed or unlisted holding companies all ultimately controlled by the apex firm’s controlling shareholder. For example, in the case of the Edper Bronfman pyramidal group in Canada, there is a sixteen firm chain of control up the pyramid apex. The key benefit to the dominant owner(s) of pyramidal groups is the ability to leverage the dominant shareholder’s wealth into control over corporate assets worth vastly more by bringing in public shareholders or other investors at multiple levels in a control chain. For most firms in the group, this control is indirect: the ultimate controlling shareholder controls a listed firm that controls another listed firm that controls another listed firm (and so on) that controls the listed firm in question. For example, a family might own 51% of *Holding Company A*, letting other investors own the remaining 49%.

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⁶ Reported by Forbes Magazine, World’s Richest People, 2003; The Walton family owns 38 percent of stock, but no longer is in day-to-day control of the company.
Holding Company A might control 51% of a Manufacturing Firm B, with public shareholders controlling the other 49%. A $1 increase in the value of the Manufacturing Firm B raises the value of Holding Company A by 51¢ and raises the family’s wealth by only 26¢ (0.51 x 0.51). That is, even though the family controls 51% of the votes in the Manufacturing Firm’s annual shareholders meeting, it really only “owns” a 26% equity stake. The family can continue to disproportionally expand the voting versus equity stakes by inserting new holding companies in-between this ownership structure. For example, two holding companies between the family and the manufacturing firm reduces the family’s true ownership stake to 13.26%, but still lets the family command 51% of the votes at its annual shareholders meeting. A chain of \( N \) holding companies reduces the family’s actual investment in the final firm to the fraction \( 1/N \), a very small percentage for even a moderately large \( N \). Super voting shares magnify the effect of leveraging control of the lower tiered firms, and firms with real businesses often double as holding companies, making pyramiding harder to gauge. (For further explanation of the leverage of control of pyramids, see Appendix 1).

Such structures, using either long chains of control or superior voting shares, or both, let the dominant shareholder control a collection of apparently distinct companies (Morck, Wolfenzon, and Yeung, 2005). Leal and Carvalho da Silva (2005) provide systematic evidence of the broadly utilized practices of pyramidal indirect control by demonstrating that the ultimate owners (in most cases the ultimate family) of all Brazilian listed firms retain 85% of the voting rights with only 51% of the equity stakes in the company. Together, these strategies let the dominant owner leverage their substantial, yet limited fortunes into control over corporate empires comprising significant fractions of their countries’ large corporate sectors.

Figure 1 illustrates such a structure. The Slim pyramid controlled by the Carlos Slim Helú family is a seven tiered structure that includes seemingly unrelated firms spanning auto
parts manufacturing and distribution, transportation, water treatment plants, commercial retail (such as Sears Roebuck of Mexico), music shops, eateries, and fixed line and wireless telecommunications services throughout the Americas. The top tiers are majority owned and controlled and managed by the family members while lower tiers have more outside investors. Orient Star and Carso Global Telecom (the third tier of the pyramid) are holding companies controlled by the Slim Family. Via these holding companies set near the apex of the pyramid, the Slim family controls lower tier units of the pyramids through majority direct or indirect ownership rights.

Third, pyramidal groups differ from widely-held firms and other forms of business groups in that the dominant owner of the apex firm typically directly controls the management of all the firms in his pyramidal groups. In this case, the interest of the owner and the manager are one. This is because the board of each firm in the pyramidal group is appointed by the board of its parent firm in the tier above. In essences, this means that the dominant shareholder of the apex firm appoints the board of every firm in the group. These appointees are usually the dominant shareholder himself, his close relatives, or his loyal business associates. To further secure control of operations throughout the pyramid, the dominant owner typically also appoints trusted and loyal associates, including family members, to key executive management positions in all significant firms.
Figure 1. The Slim Helu Pyramidal Group
Each box represents a listed firm. Lines indicate equity control block held by the firm above in the firm below.
For example, in the Slim Helú pyramidal group, the second tier firm *Grupo Carso* is managed by his three sons (Carlos, Marco Antonio, and Patrick Slim Domit)\(^7\). La Porta *et al.* (1999) report that 69% of the pyramidal groups in their sample exhibit this sort of family participation in member companies’ management. More rarely, outside blockholders in pyramid member firms negotiate contracts with the dominant shareholder specifying a division of management positions in the firm in question.

### 2.2 Pyramidal Groups versus Other Groups

Finally, although La Porta *et al.* (1999) show pyramidal groups to be by far the most prominent ownership structures in most countries, other sorts of business groups also exist that are outside the boundaries of the pyramidal group. For example, Japanese *keiretsu* corporate groups are large constellations of major firms, each of which hold tiny equity stakes in all the others. Collectively, these stakes amount to control blocks, so that each firm is “controlled” by all the others, with no wealthy family or other single controlling owner in the picture. The major firms in the *keiretsu* then each serve as apex firms for their own pyramidal groups (Morck and Nakamura, 2005). Broadly, pyramidal groups plus these other corporate groups are refereed to as “business groups” (Khanna & Rivkin, 2001; Khanna & Palepu, 2000; Chang and Hong, 2002) and their inter-firm ties as “group affiliations” (Chang, 2003). Business groups are also sometimes referred to as “conglomerates”, though this is not technically correct. A conglomerate is a single freestanding firm with divisions active in many industries.\(^8\) Large conglomerates in the United States are also generally diffusely held and professionally managed. In this paper, we

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\(^7\) Sourced from Hoovers online and company SEC filings, 2006.

\(^8\) A very recent innovation, so-called tracking stocks issued by US conglomerates, can cause them to resemble pyramidal groups in some ways. Tracking stocks are shares issued by one division of a conglomerate that pay dividends based on the earnings of that division. However, the owners of tracking stock are entitled to the same voting rights as the owners of ordinary common shares. This prevents a dominant shareholder from exercising control in the manner possible in a pyramidal group. See Hass (1996) for more detail.
focus on pyramidal groups, and recognize that not all of our arguments apply fully to these other less usual sorts of business groups.

2.3 *Pyramids Everywhere*

Recent empirical studies show that widely held corporations are commonplace only in a few countries – primarily the United States, United Kingdom, Netherlands and Ireland. Elsewhere, the sorts of dominant controlling shareholders discussed above – usually very wealthy families and occasionally state-owned enterprises (SOE) – are most prevalent. In several high income countries, LaPorta et al. (1999) examine 27 countries and find that, using a 20% definition of control and taking worldwide averages, only 36% of large firms are widely held while 54% belong to pyramidal groups of which 36% are controlled by families and 18% by SOEs. Morck, Stangeland, and Yeung (2000) also report a high incidence of pyramidal group control in large Canadian firms as well. In East Asian countries, Claessens, Djankov and Lang (2000) examine 2,980 firms in nine countries and find a controlling shareholder present in over 67% of the firms. In Western Europe, Faccio and Lang (2002) find similar results in a study of 5,323 firms, of which 37% are widely held firms and 44% family controlled. They, among others, (De Jong and Roëll, 2005) also confirm that corporate structures in the United Kingdom, Ireland, and the Netherlands as in the US, are more skewed towards widely held and freestanding firms. Even in these markets, small and middle sized firms, though virtually always freestanding entities, often also have dominant shareholders (Holderness and Sheehan, 1988).

All these studies concur that dominant owners use pyramidal control structures, often augmented by superior voting shares, to appoint trusted allies in key executive positions and thereby secure control over large numbers of listed corporations. Fogel’s (2004) country study

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9 Morck, Wolfenzon, Yeung (2005) survey all the above mentioned work and consider its implications at both the firm and economy level.
10 While families are important as dominant shareholders, pension funds also register as the largest owners of many of these firms. Pension funds typically avoid direct involvement in day-to-day management to avoid being classified as “insiders” for stock trading purposes.
shows similar trends that reveal the preponderance of the ten largest such entities in most
countries are controlled by super rich families. In Brazil, Portugal, Mexico, and Argentina, the
top ten entities are predominantly pyramidal groups, while in the U.S., U.K., Germany,
Singapore, and Australia, the top ten entities are predominantly widely held firms. Table 1
reproduces her results.

**Table I. Family Control Indices**

Family control indices are based on the largest ten conglomerates in the private sector, and are calculated as the fraction of firms that are
majority-controlled by wealthy families in 1996. $D_V$ and $D_E$ are based on the largest ten domestically owned firms and are labor-weighted and
equally weighted, respectively. $P_V$ and $P_E$ are based on the largest ten conglomerates including foreign subsidiaries, and are labor-weighted and
equally weighted, respectively. Sample includes 41 countries.

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<th>$D_E$</th>
<th>$P_V$</th>
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Understanding this variation in corporate governance across countries is important for
dfirms considering joint venture relationships. Scholars have demonstrated that a lack of
familiarity with the host country institutional environment (i.e., regulatory laws and structures-
Perkins, 2006b; intellectual property rights- Zhao, 2002; political hazards- Henisz, 2000) has

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11 Fogel (2004) combines all the major firms in each pyramidal group into one composite entity. She then ranks
these entities by their employment for each country.
negative implications on firm performance. Corporate governance norms are an important part of a country’s institutional environment and often reflect other institutional constraints like property rights protections and capital market development (La Porta et al., 1999). If joint venture partners misunderstand each other’s governance, they are likely to misconstrue each other’s behavior as well, and perhaps unwittingly expose themselves to avoidable expropriation risks. In the following sub-sections, we describe the basic corporate governance problems associated with pyramidal groups.

2.4 Pyramids and their Secrets

As in Egypt, leverage is critical to building pyramids. Pyramidal groups likewise benefit from leverage that subverts the performance of outsiders tied to the pyramidal structure. The key source of this problem stems from the high leverage of cash flow rights to control rights as the dominant controlling partner has little real equity invested. In fact, Berle and Means (1932) argue that pyramids often generate far more extreme separation of ownership from control issues than exists in most widely held freestanding firms\(^\text{12}\). In the case of the pyramid, the lack of separation of ownership from control leads to a set of corporate governance problems (entrenched agency problems) that are unfamiliar in countries whose corporate sectors are populated by freestanding firms. These problems vary dramatically from the separation between ownership and control in diffused ownership firms (Jensen and Meckling, 1976). Below, we explain how these problems can distort outsider stakeholders and more specifically the joint venture relationships.

\(^{12}\) Berle and Means (1932), discuss pyramiding extensively (1932, Ch. 5) as permitting more extreme agency problems than typically afflict freestanding firms. They report that 22% of the largest 200 firms in the U.S. in 1930 are controlled through a pyramid, while 44% are widely held. Morck (2005) describes how pyramiding was curtailed in the United States during the New Deal. The literature nonetheless often cites Berle and Means (1932) on agency problems associated with widely held firms and then focuses on incentivizing, monitoring, and disciplining managers to remedy these. See also Bonbright and Means (1932).
Corporate governance problems in pyramid member firms and freestanding firms have a common economic origin. However, the way these problems play out in pyramids can be vastly different and, to investors anticipating the normal behavior of freestanding firms, quite surprising. Berle and Means (1932) explain both cases.

Jensen and Meckling (1976) develop Berle and Means’ description of a diffusely held firm as a principal-agent problem of incentivizing appointed managers (agents), responsible for firm decision making, to serve the interests of dispersed shareholders (principals). This has become the focal model of corporate governance problems in US firms (see e.g. Westin et al., 2005). The underlying economics are an information asymmetry problem – the diffuse public shareholders have less information than the managers, and so are unsure how the firm ought to be run. Overlaid on this is a collective action or free rider problem – finding out how the firm ought to be run and making sure it is run that way both cost money. Each individual small shareholder rationally avoids spending money to this end, hoping another shareholder will bear these costs. Since all small shareholders think this way, none monitors or controls the professional managers (Grossman and Hart, 1980).

But Berle and Means (1932) go on to show that, within pyramidal groups, an analogous, but different, principal and agent problem develops – this time as regards the controlling shareholder (a principal who also serves as an agent) and the other shareholders (principals whose interests the controlling shareholder may or may not protect). To the extent that the controlling shareholder of a pyramidal group appoints the boards of all the group’s member firms, he also appoints their top management and, hence, directs their governance.

The controlling shareholder, though a shareholder, has unique ways of extracting income from the firm – so-called private benefits of control (Bebchuk, Kraakman, and Triantis, 2000;
While other shareholders rely on dividend income, the controlling shareholder can appropriate corporate assets for his private use, especially those of firms he controls through long chains of holding companies. As previously mentioned, the controlling shareholder’s real ownership stake is often very low, which increases their incentives for self-optimizing behavior. He can also direct those firms to enter disadvantageous agreements with firms in which his real ownership stake is large. These sorts of transactions between seemingly independent firms that actually have the same ultimate controlling shareholder are called *tunneling* in the finance literature (Johnson et al. 2000) and *self-dealing* in corporate law.

Tunneling tactics include biased applications of transfer pricing, such as opportunistically adjusting invoice prices in intra-group trading of goods and services. Or, the controlling insider can simply direct firms he controls, but in which his real financial stake is slight, to pay for his perks, including corporate jets, country club memberships, or extravagant accommodation in attractive locations.

Tunneling closely resembles the transfer pricing or asset shifting long associated with multinational firms seeking to avoid taxes or governmental expropriation. The key distinction is that tunneling aims to divert to insiders funds that would otherwise go to outside investors. Tunneling entails situations where the insiders’ self interest induces deliberate suboptimal firm performance. Such behaviors are often kept secret because of the tightly coupled relationship with the board members and pyramidal owners. Also, often such tunneled resources are hidden in non-tractable private holding companies that are also owned by the pyramid group.

The control leverage pyramids provide is the key to their governance problems with outside investors. The miniscule actual ownership stakes controlling shareholders actually own in many of the firms in their pyramid again permits an *information asymmetry problem* to interact with a *collective action problem*. As in a widely held firm, the diffuse public
shareholders have less information than the controlling shareholder, and each rationally avoids spending money to acquire and use this information to restrain the controlling shareholder, hoping another shareholder will bear these costs.

The result is a principal-agent problem quite analogous to that in Jensen and Meckling (1976). However, pyramidal group structures impose important differences on this basic framework. Two such critical differences are:

1. The problem arises - despite the fact that each firm in the pyramid has a controlling shareholder in the tiered firm immediately above – because the dominate owner is the same.

2. The problem arises between public shareholders and the controlling shareholder, rather than between generic shareholders and managers.

These principal agent problems in pyramids are often far more extreme than in diffusely held firms (Berle and Means, 1932; Bonbright and Means, 1932). This is because even quite diffusely held firms often have insider ownership of 5% or more. In contrast, the actual ownership of the controlling shareholder in the typical pyramid firm can easily be near negligible. This difference is most important in very large many-tiered pyramids.

In addition to these variations on the well-known principal-agent problems to which freestanding widely held firms are prone, pyramid group firms are subject to other governance problems that are different in kind from those more familiar to researchers in the United States or United Kingdom.

3. The overall magnitude of the information asymmetry problem underlying the familiar principal-agent problems discussed above is larger in pyramidal groups than in freestanding firms. Pyramids are complicated structures made up of dozens or even more seemingly separate firms, each cloaked in its own corporate veil.
4. Pyramids face entrenchment adverse selection issues.

The latter two problems are worthy of elaboration.

**Many Layered Veils**

The affairs within a pyramid are harder for outsiders to fathom than the affairs within a single firm. Pyramids are complex structures of legally distinct corporations, each covered by its own corporate veil, meaning concealed relationship to the pyramidal group. In many cases, private firms interspersed among the listed firms in each tier further obfuscate the structure, for unlisted firms need not disclose their financial affairs to the public. Outsiders, including joint venture partners as well as public shareholders, often fail to appreciate the complicated tiers of control within a pyramid.

For example, *TIW*, a Canadian telecommunications firm, partnered with *Newtel*, a firm in a Brazilian pyramidal group, *Opportunity*. *TIW* was the largest shareholder with a stake of slightly more than 49%, and initially had full control of the board. *TIW* thus effectively managed the joint venture. The Brazilian partners, *Opportunity* and other minority shareholders, which also turned out to be firms in the same pyramidal group, were initially passive. The situation changed abruptly when the pyramid’s controlling shareholder transferred all these stakes in the joint venture to a privately held holding company. These stakes summed to 51%, letting the pyramid’s controlling owner complete an unexpected (to *TIW* at least) takeover of the joint venture. We return to this example below in section 3.4.

Pyramidal groups, when negotiating joint ventures with each other, often explicitly lock in governance rights. For example, the Canadian pyramidal group *BCE* negotiated a governance agreement with *CGI*, a group partner, whereby *BCE* would appoint the CEO, COO and CFO as
long as BCE maintained at least 20% equity participation. As stated in the CGI Group SEC filing SC 13G/A,

“BCE Inc. and Bell Canada, a subsidiary of BCE, are parties to a Second Amended and Restated Options and Shareholders’ Agreement dated, November 18, 1998 with the Messrs. Serge Godin, Andre Imbeau and Jean Brassard, each an executive officer of CGI. Pursuant to such agreement, as long as BCE and/or any of its wholly-owned subsidiaries holds at least 20% of the outstanding share capital of CGI, Messrs. Godin, Imbeau and Brassard will vote their shares in order to elect three BCE nominees to the board of CGI. BCE also has rights with respect to various corporate actions, including: certain extraordinary transactions, non-arm's length transactions with affiliates, the appointment or replacement of the Chief Executive Officer, Chief Operating Officer or the Chief Financial Officer. Such agreement may result in BCE being considered a member of a group with Messrs. Godin, Imbeau and Brassard under Rule 13d-5.”

Foreign firms who fail to appreciate the corporate governance nuances of pyramidal group member firms risk unexpected expropriation of the joint venture profits by their local partner firms’ controlling shareholder(s).

Built for Eternity

The second way in which governance problems in pyramidal groups are qualitatively different from those in freestanding widely held firms is that the controlling shareholder, the agent in the principal-agent problem in a pyramidal group, is entrenched. That is, this controlling shareholder or the appointed manager(s) cannot usually be dislodged by corporate takeovers, proxy challenges at annual shareholder meetings, or any of the other mechanisms that
occasionally depose underperforming professional managers of widely held firms (Morck et al. 1989).

These mechanisms, the so-called *market for corporate control*, check extreme governance deficiencies that depress the share prices of diffusely owned firms enough to render profitable corporate takeovers or other means of enacting corporate *regime change*. Since the controlling shareholder votes a control block in each firm in his pyramid, hostile takeovers and other regime change mechanisms are ineffective.

A change in control in a pyramid member firm requires buying out the controlling shareholder. Since he extracts private benefits of control as well as the normal returns due a shareholder, buying him out costs more than buying shares on the open market. In fact, the more astute the controlling shareholder is at extracting private benefits, the more expensive it is to buy him out. This adds an *adverse selection problem* to the already hearty brew of economic problems that characterize governance in pyramidal groups. Bebchuk, Kraakman, and Triantis (2000) argue that the ensuing race to the bottom ultimately entrusts the governance of pyramid member firms to “the most efficient thieves”.

Consistent with this, Dyck and Zingales (2004) find that observed block premiums, the premiums at which control blocks trade when firms are passed from one controlling shareholder to another, are higher in more corrupt countries. Of course, the controlling shareholder might also require a premium for parting with his shares if he is unusually able and the pyramid member firms are simply more valuable in his hands. Khanna and Palepu (2000) argue that this characterizes Indian pyramidal groups.

The controlling shareholders of pyramidal groups are most likely to extract rents from firms they control, but in which their actual ownership is slight. A joint venture between a foreign firm and a firm low in a pyramidal group is one such case. The actual profits or losses
the joint venture are likely of less importance to the controlling shareholder which resides at the apex of many tiers in the pyramidal structure than the managers of a stand alone firm.

The pyramid’s controlling shareholder might therefore direct the local joint venture partner to undertake apparently value-destroying actions that, despite their harm to the joint venture and its immediate parents, benefit the controlling shareholder in other ways. Since the pyramidal group’s controlling shareholder can use his voting rights (or explicit management agreements) to retain control of the board and of executive decision making, such value destroying measures can be forced through.

In the case of TIW, the pyramid’s controlling shareholder wrestled total control of the joint venture and reduced TIW to a passive supplier of capital. This position makes a foreign joint venture partner especially vulnerable to expropriation. One banker involved in the TIW joint venture deal remarked, “it’s astonishing that they were so naive… to get into a deal with Opportunity [TIW’s joint venture partner] without having some kind of veto when you are providing the bulk of the money is ludicrous. TIW essentially brought the car and brought the gas and handed [Opportunity] the keys”.13

**Joint Venture Strategy – The Dual Edge Sword**

As a result of the above problems, afflicted joint ventures are likely to suffer depressed long-term profitability and early exit by the previously ill informed partner. Our focus is joint ventures between ill-informed foreign firms and pyramidal group member firms.14 Fully informed foreign

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13 Reported by Tyler Hamilton of the *Toronto Star*, April 5, 2003 in an article entitled “Retreat from Brazil”.  
14 A parallel literature about whether pyramidal groups have positive or negative effects on firm performance is not necessarily related to the matters at hand. Many studies, including Thomsen and Pedersen (2000) and Leal and Carvalho da Silva (2005) provide systematic evidence of performance inefficiencies in pyramidal groups, but, Khanna & Palepu (2000) and Khanna & Rivkin (2001) report that pyramidal group member firms in developing countries outperform freestanding peer firms. Underperformance might signal agency problems. But superior performance might also result from socially destructive behavior, such as political rent-seeking or monopolies of various sorts (Morck, Wolfenzon, and Yeung, 2005).
firms would, of course, avoid these problems by avoiding such joint ventures or by negotiating acceptable contractual guarantees in advance. But if enough ill-informed foreign firms enter joint ventures with pyramid member firms, and if enough of the latter take advantage of that ignorance, we might still detect performance distortions in overall statistics on joint ventures.

FDI theory advises foreign firms to seek local joint venture partners to reduce their “liability of foreignness” – the risk of misstep, or even government expropriation, due to unfamiliarity with local institutions. This advice is most urgently preferred to firms entering economies with weak or corrupt institutions, where missteps are likely to be especially costly and where government expropriation is especially likely.

However, this strategy may often be a double edged sword. Evidence suggests that governance problems associated with pyramidal group member firms, such as tunneling, are more extreme in economies with weaker legal systems, and especially those with legal systems less attuned to protecting the property rights of outsider investors (Bebchuk, Kraakman and Triantis, 2000; see also, Burkart, Panunzi and Shleifer, 2003). Joint venturing with local partners in such environments expose the foreign firm to another set of expropriation risks – from the controlling shareholder of the pyramidal group to which the local partner firm belongs. This trade-off may still be economically sensible in many circumstances, with sufficient care to constrain or incentivize the controlling shareholder. However, multinational managers should take care to anticipate the pitfalls of partnering with a pyramid member firm.

2.6 The Curse of the Pyramid

Before proceeding to the data and clinical analyses, we consider why inefficient partnerships between foreign firms and local pyramid member firms might occur.

Unforeseen Danger
Scholars and practitioners alike typically assume multinational’s managers optimize foreign direct investment decisions by calculating risks and returns prior to entry. However, many expropriation risks may be unknown to the manager \textit{ex ante}. We conjecture that this is especially likely if the multinational partners with a local firm with an unfamiliar governance structure, such as (for US based firms) that arising from membership in a pyramidal group.

The decision theory literature (March & Simon, 1958) demonstrates that managers are bounded rationally by unforeseeable information voids. Empiricists provide countless examples of how the bounded rationality problems can affect strategic decision making, such as disruptive technologies (Bower & Christensen, 1996), competitive decision making (Zajac & Bazerman, 1991) and misperceiving competition (Porac et al, 1995). Porter (1980; pg 59) dubs such perceptual limitations as \textit{strategic blind spots}, which he argues occur where a competitor “will either not see the significance of events at all, will perceive them incorrectly, or will perceive them only very slowly”. Likewise, Zajac & Bazerman (1991) make an analogous linkage with blind spots and judgmental mistakes in managerial decision making. We posit that strategic blind spots not only distort managers’ perceptions of reality, but also can inadvertently undermine managers’ strategic intent and lead to suboptimal performance. Porter’s (1980) logic predicts that firms with strategic blind spots, such as widely held freestanding firms lacking experience with pyramidal groups, might be especially slow to comprehend the pitfalls of partnering with a pyramidal group member firm. Thus, joint venture parents unfamiliar with corporate governance in pyramidal groups are more likely to suffer from the agency and expropriation behavior of their partners from pyramidal groups.

Section III provides examples that illuminate managers’ limitations in decision making in this context. But first, we follow this theory further by elucidating another relevant factor in joint venture decisions.
The Odds of Pyramidal Partnerships

Foreign firms might undertake joint ventures with pyramidal group member firms because of selection biases inherent in the sample of available joint venture partners in Brazil. We explore two lines of rationale: strategic selection and compulsory selection.

As noted above, pyramidal groups are prevalent throughout the world, and the intercorporate equity blockholdings that leverage the ultimate controlling shareholder’s governance power are often not transparent to outsiders. The probability of a multinational firm inadvertently or knowingly selecting a joint venture partner that is a member of a pyramidal group is thus substantial in many countries. For example, in the sample described below, we find that over 90% of large Brazilian firms belong to pyramidal groups. That pyramid group firms might offer special inducements further heightens these odds relative to what random selection would predict. In the empirical analysis below, the distribution of available local joint venture partners is significantly skewed towards pyramidal group member firms versus widely held stand alone firms. Thus, any firm seeking to establish a partnership with a local firm in Brazil is more likely to partner with a pyramidal group. Indeed, our data contain no Brazilian joint venture partners not in pyramidal groups.

A compulsory selection bias also arises. By this, we mean that official government mandates requiring joint ventures might be especially common if those joint ventures are likely

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15 Source: Fogel, 2004
16 In addition, we should recognize that pyramidal firm groups are conceivably the private sector’s response to low property rights protection. Burkart, Panunzi and Shleifer (2003) argue that in locations with good institutionalized property rights protection, firms are diffusedly owned well run by managers adequately disciplined by competitive forces on the managerial markets and also by the market for corporate control. Free-riding of minority shareholders of these forces is not a concern in making managers reliable servants of shareholders most of the time. When property rights protection is weak, dominant shareholders emerge and they directly discipline professional managers. In the worse case, the dominant shareholders can trust no professional managers and have to manage the firms themselves. Roe (2003) argue that in locations with poor property rights, special interests, including dominant shareholders, have to emerge and they all participate in multiple bargaining and defenses for their interest. The implication of these arguments is that pyramidal groups are likely strong candidates in helping to defend an investor’s property rights.
to involve pyramid member firms. In many countries, foreign multinationals must comply with national regulations and laws restricting foreign ownership or stipulating the conditions of foreign entry. A foreign entrant may thus be forced to enter a joint venture with a local partner firm as a stipulation for entry into the local market.

For example, the Brazilian Ministry of Communications restricted foreign ownership in the first privatization auction of state controlled mobile phone operators in mid 1997. Foreign firms thus had to form joint ventures to enter this market in the Brazilian telecommunications industry.¹⁷

If restrictions of this sort were imposed randomly across industries, there would be no upward bias in the likelihood of a foreign multinational encountering a pyramid member firm in organizing a joint venture. However, Morck and Yeung (2004) argue that pyramid controlling owners are likely to be especially adept at political rent-seeking – investing in political connections to distort regulations in ways that benefit them. We find this particularly troubling for managers from countries not familiar with pyramidal groups (e.g., U.S., U.K., etc) as many government privatizations and liberalizations are in industries with the most government regulatory intervention (i.e., telecommunications, banking, energy, etc.). Thus, multinationals are likely to enter joint ventures that the controlling shareholders of pyramidal groups view as offering especially lucrative expropriation opportunities.

These biases raise the likelihood that foreign firms partner with pyramid member firms in situations where expropriation is likely to arise. However, they do not bias our analysis below regarding the existence of this problem.

¹⁷ In 1998, the Brazilian government lifted this restriction for subsequent privatizations auctions and licenses.
3. **Empirical Evidence from Brazil**

3.1 *Introduction*

This section combines empirical information, based on both statistical and clinical analyses of pyramidal groups’ behavior in joint venture partnerships and its relationship with joint venture failures. We conducted field research including senior executive interviews (at key Brazilian subsidiaries and at their parent company headquarters in the US, Spain and Portugal) and collection of first hand data on foreign investment into the Brazilian telecommunications industry. The sharp focus reduced our information costs and scope, but allowed us to collect detailed clinical information on multiple companies that share a homogenous market investment experience. Admittedly, collecting information from only one country and one industry undermines the generality of our results; therefore, we are careful with generalizations.

3.2 *Joint Venture Data*

Our dataset includes the entire population of foreign firms entering the Brazilian telecommunications industry from 1997 - 2004. This gives us records for 96 joint ventures and their 66 foreign parents and 25 Brazilian parents. Since some parent firms take stakes in joint ventures that are already formed and others withdraw from on-going joint venture subsidiaries, our 96 joint ventures have 141 *parent combinations* in which both domestic and foreign firms participate. No 100% domestic Brazilian firms are included.

These concepts of *parent combinations* and parent firms’ *participation* in joint ventures clearly do not capture many important aspects of joint venture formations, dynamics, and terminations. However, they are well suited to our purpose – to study how parent firms’ differing governance structures affect their continued participation in joint ventures.

Joint ventures usually have a clear set of parent firms, well defined beginnings, and unambiguous termination dates. However, ambiguities can arise, and we require a clear set of
rules for dealing with them. The following example encompasses all the sorts of ambiguity we encounter, and explains their resolution. Consider three parent companies, A, B, and C that jointly own a subsidiary S in 1998. Suppose C sells its stake to B in 2002, and B sells its stake to A in 2003. Then, A exits the market in 2005.

We record the joint venture’s parent combination ABC as formed in 1998 and ended in 2002, the parent combination AB as formed in 2002 and ended in 2003, and (for completeness) the parent combination A as formed in 2003 and ended in 2005.

We further record the participation of the parent companies A, B and C in the joint venture S as lasting from 1998 to 2005, 2003, and 2002, respectively. Note that if S was formed prior to 1997, the first year of our data, we record it as beginning in that year. However, this only occurred in three observations as the majority of entries occurred post market privatization and liberalization. Prior to this period, the telecommunications industry was a 100% SOE.

We further assembled all company press releases, analyst reports, and public press articles (from ISI Emerging Markets, Lexis-Nexis, and Factiva that mentioned any of our joint ventures) to determine the beginning and exit of each parent firm’s participation in the joint venture, and their representative parent combinations. In almost all cases (88%), we could assign precise dates. In the remaining cases, we could assign only the month in which the parent firm’s participation began or ended, and took the last day of that month as the relevant date. The news records also let us double check the data to understand why each firm exited. This is particularly important as we are examining firm survival and know that all firm exits are not a result of firm failures (Headd, 2003). Through examining each case, we drop ten observations as atypical exits that are not clear firm failures. In five cases, one parent firm is replaced by another that is a member of the same business group. In each case the latter is the group’s telecom firm,

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18 There were three cases of telecommunications foreign investment prior to January 1997. Those three firms are Primus Telecommunications Group – entered in 1994; Matrix – entered in 1996; and Global One – entered in 1996.
and obtains the joint venture stake through equity cross holding restructurings within the group. Since both parent firms have the same ultimate controlling shareholder, it seems unclear that these are exits of the parent firms’ participation. We therefore drop these observations. The Brazilian telecom regulator, ANATEL, limits ownership in each of the 12 geographic regions to forestall a national monopoly. This means that, in some cases, the regulator orders a parent firm to reduce its ownership in one region as a precondition to expanding in another. This occurred in three such cases. These forced withdrawals may well be failures in the sense that the parent failed to foresee and block the regulatory action. But, they are also arguably qualitatively different from all the others, which result from strategic decisions by the parent firms’ managers as regards to the subsidiary in question, rather than potential options elsewhere. We also drop two cases where the parent firm sold off their assets that appeared to be profit-taking sales. Deleting these observations leaves us with 131 parent firm combinations. In the remaining cases, our searches through public news records and interviews with executives showed that the early withdrawal of a parent firm reflects its managers’ disappointment regarding its share of earnings, control rights grievances, or intellectual property utilization.

3.3 Descriptive Statistics

Figures 2 and 3 summarize these data, indicating the distribution of lifetimes of joint venture parent combinations and the distribution of lengths of each parent firm’s participation.

Parent Firms

We classify parents firms’ control as freestanding firms, members of pyramidal groups, or members of other sorts of business groups (such as Japanese keiretsus). To be designated a pyramidal group member, a parent firm must belong to a business group having the key characteristics detailed in section 2.1: tiers of listed firms controlled by other listed firms
culminating at an apex firm with an ultimate controlling shareholder. We follow La Porta et al. (1998) in inferring control from an equity block of 10% or more in the absence of a larger equity block. The ultimate controlling shareholder is a wealthy family, government agency, financial institution, or widely held firm. Most of the Brazilian pyramidal groups are controlled by wealthy families, with the exception of a few that are owned by state-owned banks and pension funds. This information is also derived from public and private company records and interviews with executives. Table 2 summarizes the parent firm control descriptive statistics.

**Figure 2. Joint Venture Parent Combination Survival**

*Histogram showing the proportion of joint venture parental combinations survive one, two, three, … years.*

Proportion Surviving

<table>
<thead>
<tr>
<th>Interval</th>
<th>Days</th>
<th>Years</th>
<th>Beg. Total</th>
<th>Deaths</th>
<th>Lost</th>
<th>Survival</th>
<th>Std. Error</th>
<th>[95% Conf. Int.]</th>
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Figure 3. Distribution of Parent Firm Participation
Histogram showing the proportion of parent firms participation continues one, two, three, … years.

Proportion Surviving

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<th>Interval</th>
<th>Days</th>
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<th>Beg. Total</th>
<th>Deaths</th>
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<th>Survival</th>
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<td>0.3837</td>
<td>0.0698</td>
<td>0.2491 0.5167</td>
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Table 2. Parent Firm Control
Incidence of parent firms classified as freestanding, pyramidal group members, or other group member firms.

<table>
<thead>
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<th>Control classification</th>
<th>Symbol</th>
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<th>Foreign</th>
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<td>37</td>
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<td>25</td>
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<tr>
<td>Other group member</td>
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<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>25</td>
<td>66</td>
<td>91</td>
</tr>
</tbody>
</table>

Table 2 shows that all freestanding (dispersedly owned) firms are foreign. This is consistent with La Porta et al. (1998), who find that pyramidal business groups are more common in countries with weaker property rights protection, like Brazil. Also, Leal and Carvalho da Silva (2005) and Fogel (2004) demonstrate that dispersed ownership is rare in Brazil.

**Combinations of Parent Firms**

Next, the parent ownership combinations of the subsidiaries are classified into five categories: (1) wholly-owned subsidiaries (WO), (2) joint ventures among pyramidal groups (PG/PG), (3) joint ventures with pyramidal group and stand-alone firm(s) (PG/SA), (4) joint venture with pyramidal groups and other business groups (PG/OG), and (5) joint ventures among stand-alone firms (SA/SA). Within our sample, there are no joint ventures among “other business groups” or between “other business groups” and stand-alone firms.

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19 Note that freestanding firms include both widely held firms, like MCI, and firms with controlling shareholders. This is because our focus is the problems that arise in a joint venture when one parent is unaware that the other belongs to a business group or the possibility of the other’s controlling shareholder tunneling wealth out of the joint venture. Of the 37 freestanding parents, 34 are American and all have only one-vote-per-share common equity. Of the others, one Canadian and one Japanese parent are private, and one Canadian parent is listed and has multiple classes of common shares. Dropping observations involving these few firms does not qualitatively change our results. Sixteen out of the 66 parent firms are widely held (14 are stand alone firms and 2 are part of groups).
Table 3. Parent Combination Control Structures

<table>
<thead>
<tr>
<th>Parent Combination</th>
<th>Symbol</th>
<th>Foreign</th>
<th>Mixed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>All parents are freestanding firms</td>
<td>SA/SA</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>All parents belong to pyramidal groups</td>
<td>PG/PG</td>
<td>17</td>
<td>25</td>
<td>42</td>
</tr>
<tr>
<td>Freestanding and pyramidal group parents</td>
<td>PG/SA</td>
<td>6</td>
<td>22</td>
<td>28</td>
</tr>
<tr>
<td>Pyramidal and ‘other group’ parents</td>
<td>PG/OG</td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Total joint venture parent combinations</td>
<td></td>
<td>34</td>
<td>49</td>
<td>83</td>
</tr>
<tr>
<td>Wholly owned by single remaining parent firm</td>
<td>WO</td>
<td>48</td>
<td>0</td>
<td>48</td>
</tr>
<tr>
<td>Total parent combinations</td>
<td></td>
<td>82</td>
<td>49</td>
<td>131</td>
</tr>
</tbody>
</table>

We utilize a parent company’s home country ownership structure (see Table 1 above) as a proxy for each firm’s experience with pyramidal groups. Specifically, we make use of the first column of data in Table 1 (Dv), the value weighted fraction of the ten largest business entities that are family owned, as an indicator of the extent to which a firm originated from a country is familiar with pyramidal structures and the associated corporate governance problems. (Using data from the other columns generates similar results). We then classify a firm as one of the most experienced with pyramids if it comes from a country with a Dv between 100% to 75%, the second most experienced if Dv is between 74% to 50%, the third most experienced if Dv is between 49% to 25% and the least experienced if Dv is less than 25%. We note that there are more elaborated ways to proxy for a firm’s exposure to pyramidal corporate governance problems, e.g., by tracking not just a firm’s home country experiences but also its experiences in investing in other countries. These more elaborated approaches for measuring foreign investment prior institutional experience are explored by Perkins (2006a, 2006b).

3.4 Method

For each of the analyses, we estimate the cumulative hazard rate for each category of joint venture by summing the total number of failures (in our time window between July 1997 and Dec 2004) in a category and then divide the sum by the total time-to-failure in the same category, which is defined as the sum of numbers of years in every parent combination’s survival
spell. For comparison purposes, we also report the same set of statistics for the full sample and for joint ventures that involve local Brazilian partners that involves only foreign partners.

3.5 Results

Our data show that firms from home countries where pyramidal groups are not prevalent are more likely to experience joint venture failures when partnering with firms from pyramidal groups. Our interviews with senior executives and industry experts also reveal very perplexing evidence for joint venture failures. The failures are linked to unpredicted ownership structural conflicts and the ensuing agency and expropriation behavior of joint venture partners. We also find firms familiar with pyramidal groups manage to mitigate the agency and expropriation risks in partnerships with units from other pyramidal groups.

We first examine the subsidiaries’ parent combination failure rates given each parents’ own ownership structure. Table 4 shows the results. The successes (survival) and failures (exited) are reported in columns 3 and 4 while the total number of cases is reported in the last column. The second column reports the cumulative hazard rate.

<table>
<thead>
<tr>
<th>Ownership Structure</th>
<th>Hazard Rate</th>
<th>Successes</th>
<th>Failures</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>WO = Wholly Owned Subsidiary</td>
<td>0.04</td>
<td>41</td>
<td>7</td>
<td>48</td>
</tr>
<tr>
<td>PG/PG = JV Pyramidal group w/ Pyramidal group</td>
<td>0.08</td>
<td>31</td>
<td>12</td>
<td>43</td>
</tr>
<tr>
<td>Brazilian PG vs Foreign PG</td>
<td>0.12</td>
<td>15</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>Foreign PG vs Foreign PG</td>
<td>0.02</td>
<td>16</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>PG/SA = JV- Pyramidal group w/ Foreign Stand-alone Firm</td>
<td>0.27</td>
<td>2</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td>PG/OG = JV- Pyramidal group w/ Other Groups</td>
<td>0.20</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Brazilian PG w/ non-PG foreign firms</td>
<td>0.22</td>
<td>3</td>
<td>21</td>
<td>24</td>
</tr>
<tr>
<td>Foreign PG w/ non-PG foreign firms</td>
<td>0.44</td>
<td>1</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>SA/SA = JV- Foreign Stand-alone Firms</td>
<td>0.26</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>All Joint Ventures Combined</td>
<td>0.16</td>
<td>36</td>
<td>47</td>
<td>83</td>
</tr>
<tr>
<td>Total</td>
<td>0.11</td>
<td>78</td>
<td>53</td>
<td>131</td>
</tr>
</tbody>
</table>

20 This figure represents the hazard rate of all joint ventures combined (e.g., PG/PG, PG/SA, PG/OG, and SA/SA). The point here is that joint ventures are four times more likely to fail than wholly owned subsidiaries at a ratio of 3 to 1 (.05 versus .16 hazard rates respectively).
Descriptive statistics reveal that 53 out of these 131 subsidiary ownership structures failed during 1997-2004, leading to a cumulative hazard rate of 0.11. There are a few other useful observations. First, we find that wholly owned subsidiaries are four times more likely (.04) to survive than joint ventures (.16). This is consistent with our expectations. Stronger firms are more likely to self-select to establish wholly owned subsidiaries as they are less reliant on partners to compete. Hence their subsidiaries expectedly have a higher survival rate.

However, we find two surprising results in the data. First, pyramidal groups partnering with other pyramidal groups (PG/PG) have the lowest failure rates (.08) among all the joint venture ownership structures. This rate is statistically insignificant from the wholly owned subsidiaries’ failure rate (.04). This indicates that pooling of resources may indeed help to overcome liabilities of foreignness and compensate for a lack of ability to enter alone. Note, however, that this pooling of resources apparently does not depend on whether local partners are included as the chance of survival of ownership combinations with and without Brazilian partners has no statistically significant difference (0.17 vs. 0.13) as the last two rows of Table 4 show. We shall revisit this point below.

Second, all other joint ventures ownership combinations in our dataset have high failure rates (PG/SA; PG/OG; SA/SA), .27, .20, and .26 respectively. It is not surprising that the SA/SA combinations do not have a high survival rate. All but three stand-alone firms (two from Canada and one from Japan) are from the US and UK, whose property rights protection is high and public policy regimes are stable and predictable, which is not the case in Brazil. These

<table>
<thead>
<tr>
<th>Local Brazilian Partner</th>
<th>0.17</th>
<th>18</th>
<th>31</th>
<th>49</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Partner</td>
<td>0.13</td>
<td>20</td>
<td>15</td>
<td>35</td>
</tr>
</tbody>
</table>

21 Using the Blossfeld and Rohwer (2002, pg 76-78) suggested methodology to compare hazard rate, there is no statistical significance between the hazard rates of firms with Brazilian joint venture partners versus firms with foreign joint venture partners.
institutional discrepancies are the sources of the liabilities of foreignness well known in the international business literature (see Perkins, 2006b).

However, parents that are PG types themselves ought to be familiar with such institutional environments. The law and finance literature, e.g., La Porta et al. (1998) and Morck et al (2005), points out that pyramidal groups are prevalent in such institutional environments. Indeed, some of these PGs type owners are local Brazilian firms. The PG/SA combination, however, has the most alarming hazard rates of .27 (almost 4 times the rate of PG/PG partnerships). Almost half (46%) of the all failures are reported from this type of ownership structure combination (PG/SA). Their cumulative hazard rate is very similar to the SA/SA joint ventures.

The data supports our theoretical argument and those presented by previous FDI theory. Investing in a foreign location is difficult because firms have to face the liability of foreignness. Hence, firms form joint ventures to pool capabilities to strengthen their competitive position. However, this is a double-edged sword. Forming a partnership with pyramidal firms exposes oneself to corporate governance problems inherent in pyramidal ownership structures, unless one is familiar with these problems and is able to forestall them. The high survival rates of the PG/PG combination indicate each parent’s ability to forestall pyramidal expropriation risks while working together to pool and leverage each other’s strength to enhance the subsidiary’s competitiveness.

An implication of the argument is that among “PG/non-PG” combinations, “foreign PG/foreign non-PG” should have lower survival than “local (Brazilian) PG/ foreign non-PG.” The local pyramidal firm can still help in overcoming the “liabilities of foreignness”. We indeed find this effect in that the joint venture with local (Brazilian) PG/ foreign non-PG outperform
their peer joint ventures that are “foreign PG/foreign non-PG” with cumulative hazard rate of 0.22 versus 0.44 respectively.

Still, the “Brazilian PG/foreign non-PG” combinations have a higher cumulative hazard rate, at 0.22, which has statistically significant difference (p<.01)\(^{22}\) from the rate of the “Brazilian PG/foreign PG” combinations, which is 0.12. The difference indicates that unfamiliarity with pyramidal groups, when forming a joint venture with them, can be hazardous.

Also implied by the above argument is that foreign PG firms are familiar with the Brazilian type of institutional environment so that among “PG/PG” joint ventures, foreign PG type owners forming joint ventures with Brazilian or other foreign PGs should achieve compatible cumulative hazard rate. That is the case, the former parent combination’s cumulative hazard rate is 0.12 while the latter type is 0.02; both are statistically insignificantly different from\(^{23}\) the cumulative hazard rate of the wholly owned subsidiary, at 0.04.

The results imply the following. The pooling of company resources by forming a joint venture can indeed strengthen a subsidiary’s survival. This advantage is most obvious for foreign firms that are not familiar with the host country environment. However, joint venturing can expose a firm to the corporate governance problem inherent in pyramidal firms. The exposed firms are those that are not familiar with pyramidal corporate governance problems.

We further related a parent’s prior exposure to pyramidal groups to its failure rates of joint venture partnership with pyramidal groups in Brazil. The results are reported in Table 5.

\(^{22}\) Using the Blossfeld and Rohwer (2002, pg 76-78) suggested methodology to compare hazard rate statistical significance, we compare the standard errors and confidence intervals of the two categorical stratified groups’ hazard functions. Additional log-rank homogeneity test for survival analysis revealed a similar result of statistical significance at the .01 level.

\(^{23}\) Statistical insignificance determined by using the Blossfeld and Rohwer (2002) test mentioned above.
We find that firms from host countries whose largest business entities are dominated by pyramidal groups experience less failure in joint venture partnerships. Parent firms originating from countries where family pyramidal groups account for more than 75% of the top ten largest corporate entities experience the lowest cumulative hazard rate (.02 rate) while firms from countries where less than 25% of the top ten largest corporate entities are pyramidal groups have the highest cumulative hazard rate (.19). Generally, the cumulative hazard rate has a strong negative correlation with a parent’s home country experiences with pyramidal groups. The results imply that firms from countries such as Mexico, Argentina and Portugal which are all dominated by pyramidal groups (100%, 96% and 85% respectively) experienced low failure while firms from the US where pyramidal groups are virtually absent experience high failure rates. (See appendix II for further preliminary analysis to this point).

<table>
<thead>
<tr>
<th>Table 5 – Categorical Hazard Rates: Parent’s Home Country Experience with Pyramids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyramidal group Concentration</td>
</tr>
<tr>
<td>Countries with 75-100% pyramidal groups</td>
</tr>
<tr>
<td>Countries with 50-74% pyramidal groups</td>
</tr>
<tr>
<td>Countries with 25-49% pyramidal groups</td>
</tr>
<tr>
<td>Countries with &lt;25% pyramidal groups</td>
</tr>
<tr>
<td>Total parent level observations</td>
</tr>
<tr>
<td>Brazilian Partner</td>
</tr>
<tr>
<td>Non-Brazilian Partner</td>
</tr>
</tbody>
</table>

<sup>24</sup> Countries with % top ten firms are controlled by a pyramid; Source: Table 1 here and obtained from Fogel, 2004
<sup>25</sup> Using the Blossfeld and Rohwer (2002, pg 78) suggested methodology to compare hazard rate, there is no statistically significant difference between the hazard rates of firms with Brazilian joint venture partners versus firms with non-Brazilian joint venture partners.
3.6 Clinical Evidence

These statistical observations suggest that a joint venture parent firms with little exposure to pyramidal groups and yet in a joint venture with a unit of a pyramidal group have a high likelihood of exiting the relationship early. Our conjecture is that joint venture parents unfamiliar with corporate governance in pyramidal groups suffer from the agency and expropriation behavior of their partners from pyramidal groups, as we discussed in section II. To empirically examine this idea further, we turn to field studies.

Clinical information gathered from our field research suggests that firms from host countries where pyramidal groups are not pervasive do have blind spots to the possible corporate governance behaviors of their partners from pyramidal groups. They are not aware of their partners’ ability to leverage voting rights and gain control of the joint venture. Or, they inadvertently fail to emphasize control rights at the outset, which leaves them vulnerable to the possible agency and expropriation risks of their controlling partners. The following cases illustrate the point.26

Case 1: TIW and Opportunity Joint Venture – Losing Control

*Telesystems International Wireless* (henceforth *TIW*), a Canadian telecommunications firm entered into a joint venture with a Brazilian pyramidal group, *Opportunity*. At the time this joint venture was formed in 1998, *TIW* was largely controlled by its founder Charles Sirois with control rights at 40% and equity rights of 18%. However, a secondary apex firm of *TIW*, Caisse de depot et placement du Quebec, a government owned pyramidal group, has minority stakes and

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26 Worthy of mention, each of the cases presented (except case 4) highlights the unscrupulous behaviors of the pyramidal partners in the joint venture. What remains a challenge to disentangle is whether the pyramidal owners’ unscrupulous behavior is endogenous to the pyramidal structure or vice versa. The causal chain is unclear. However, the recent research of Bebchuk, Kraakman and Triantis (2000) suggests that the unscrupulous behaviors of pyramidal managers are most likely to occur in environments of weak property rights protection where the lack of legal enforcement or reciprocity for such behaviors is also low.
voting rights in TIW’s operations at 11% and 8% respectively. Given Caisse’s detachment from the firm’s governance, it is unclear how exposed the dominant owner, Charles Sirois was to the aforementioned corporate governance behaviors of pyramidal groups. In our dataset, we classify TIW as stand-alone firm (SA) by definition as the dominant owner has concentrated wealth in the firm; however, this owner has no other tiered networks of firms belonging to the TIW. His exposure to pyramidal groups is likely representative of the average Canadian executive as Canada is comprised of a mix of pyramidal groups firms (D_v = 45%) and widely held firms.

The joint venture, Telpart, was established out of the Brazilian telecommunications market privatization. The initial joint venture agreement deemed TIW as the dominant equity stakeholder at 48.93% with complete control of the board; Opportunity had a clear minority position with 24.06% equity stakes and other Brazilian entities, including pension funds, which owned the rest. According to TIW company reports, their stated ownership placed them at the helm of the joint venture with majority stakes in all six Brazilian subsidiaries (including Telma Celular, Telemapa Celular, Teleamazon Celular, Telespara Celular, Telaima Celular and Telemig Celular; see exhibit below).

\[\text{Exhibit 2: Ownership Structure of TIW's Telemis Acquisitions}\]

Source: Company data

Note that re-classifying TIW as a pyramidal group does not materially change the statistics reported in Table 2.
By 2000, however, events took a new turn and TIW took *Opportunity* to court over its shareholder wrangling in Telpart. Unbeknownst to TIW, *Opportunity* created a holding company, *Newtel* with some of the other Brazilian minority stakeholders of Telpart. *Opportunity* established majority ownership of *Newtel* at 52.94%. Then, *Opportunity* arranged to have *Newtel* create another entity under the pyramidal structure to fully control the other Brazilian minority stakeholders’ voting shares in Telpart. *Newtel*, now effectively controlled by opportunity, creates another company, called *Futurtel* which *Newtel* owns 51.07%. This leverage created by adding more tiers, essentially positions *Opportunity* as the dominant owner with more than 50% control of Telpart through its full control of *Newtel* and *Newtel*’s control of both *Opportunity*’s and other Brazilian minority stakeholders’ voting shares. Immediately after the new ownership scheme, *Opportunity* removed *TIW*’s decision making power from Telpart’s operations. *TIW* took recourse by taking *Opportunity* to court with no avail. According to reports by the Gazeta Mercantile,

“*After no success with battling Opportunity over the new structure, TIW ... secured an injunction annulling Newtel, forcing the re-instatement of the original Telpart contract*”.

The Toronto Star reported,

“*Over the next two years, as many as 20 lawsuits in and outside of Brazil were launched. Walkouts became common at the Telpart board meetings. Opportunity repeatedly made offers to TIW (but) were rebuffed as inadequate. Meanwhile Dantas (Opportunity’s dominant owner at the apex of the pyramid) was calling the shots. The Brazilian was choosing management, appointing directors and approving questionable non-operating expenses. TIW’s influence was quickly waning*”.
TIW was taken by surprise as their once minority stakeholder partner divisively found a means to take over control of the joint venture and raised the “corporate veil” to TIW. TIW was ultimately unsuccessful at regaining board control.

Once TIW no longer had decision making authority, Opportunity’s decision making appeared to be no longer in the best interest of the joint venture. During this time period of turmoil in the partnership, the joint venture’s performance deteriorated. In the first three years of the partnership under the control of TIW, its subsidiaries posted positive net income from 1998-2000. However, as soon as Opportunity took over, profits dropped from R$13 million to -$R7 million in less than a year. By 2002, losses were at a record -$R30 million. Inside sources on the deal stated that, “wrestling control of Telpart from Dantas (Opportunity’s owner) has become too costly, and the uncertainty around the battle was hurting TIW.” Difficult to prove, nobody really knows whether “tunneling” behavior, which benefits Opportunity, took place. One year later, TIW discontinued capital infusions to the joint venture and sold off their stakes to the former partner Opportunity for $US70 million, a fraction of their initial investment.

Two telecommunications executives of competitors summarized the TIW partnership with Opportunity as follows: “It is always about ownership structures. It is all about how to structure the deals. Telemig (one of TIW’s Brazilian subsidiaries) failed in Brazil because they did not know how to work with the Brazilians. They did not understand the ownership laws and how to work this system” quoted by an executive at another firm in a successful joint venture partnership. A second executive familiar with this joint venture reveals the following perspective: “TIW chose the wrong partner and got ripped off... They did not know how to fight for control the right way like Telecom Italia who took their battle to the government and the telecom regulators for control of Brasil Telecom (Telecom Italia’s Brazilian subsidiary)”28.

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28 The sources of the above information: Gazeta Mercantile, Toronto Star and TIW company annual report.
This case clearly illustrates the point of how pyramidal groups can create multiple layers of holding companies to stealthily leverage control. Once control is foregone, TIW\textsuperscript{29} had little institutional protection to reclaim their participation in the joint venture decision making. In this case, the sharp deterioration of the financial performance of the joint venture, Telpart, right after the parent from the pyramidal group secured management control, suggests that “expropriation” may take place. The next case provides more information about this.

Case 2: Bell South and Safra Family Pyramid – pursuing private benefits?

This second case is about two joint venture partners in which one is from a country with almost no pyramidal groups (the U.S.) and their local partner, a unit of a pyramidal group from Brazil (pyramidal groups are prevalent). Bell South of the U.S. joint ventured with a holding company Verbier, a holding company within the Safra pyramidal group. The joint venture, BCP, provided cellular services to the Sao Paulo region, one of the most competitive areas in Brazil. In this case, the ultimate owners of the Safra pyramid apex (brothers Moises and Joseph Safra) also managed the joint venture partnership. Bell South was the majority shareholder at 45.4%, with Safra’s representative ownership at a close 44.5%.

Even though Bell South was the majority stakeholder, they inadvertently relinquished governance rights to Safra in their shareholder agreement. According to an internal document from Bell South, this is their internationalization strategy with the naive intent that both partners should contribute to the joint venture. Safra’s governance rights included provisions to “approve

\textsuperscript{29} TIW learned from this joint venture partnership mistake as subsequent joint venture relationship in Romania, Czech Republic an India made clear provisions for their control rights and minority stakeholder rights. In these three country level subsidiaries, TIW was very careful to safeguard ownership rights and control of the boards by establishing liquidity agreements with their minority shareholders to limit their board intervention, but give them first rights of refusal if TIW opted to liquidate its participation. The irony is that these minority stakeholders were able to leverage equity control based on TIW’s dominant owners stock liquidations, in particular the rights of first refusal in 2003 (as the joint ventures’ profitability were affected by the macroeconomic performance). In 2004, TIW was literally acquired by a second minority stakeholder (Vodafone) through such liquidity rights.
business plans and agree upon decision making as to the timing and amount of cash disbursements which would later sabotage the joint venture’s stability.

According to the former executive at the helm of the Bell South Brazil operations at the time: “first we started off as the decision maker in the partnership. But then, things started to reveal that we did not have the right partner. This was a problem we were nervous about because things all of a sudden started to change.” Bell South quickly learned that Safra often exercised its governance and decision making rights to reject many of Bell South’s preferred firm strategies which Bell South thought would enhance the subsidiary’s value. For example, Bell South planned a mass market strategy to expand the brand and recoup the $2.6 billion investment cost to acquire the telecommunication license; Safra rejected this proposal and instead insisted on focusing on the niche market that would limit the need for additional outside capital to be raised. Bell South wanted to focus on consolidation after the Real devaluation in 1999; Safra disapproved. Further, the joint venture increasingly suffered leaving them with an overwhelming $R4.8 billion in losses. Bell South wanted to infuse the business with capital though a 95% equity offering; however, Safra insisted on debt financing. Over time, the operations grew to be extremely inefficient with accumulations of over $R 4.8 billion in debt by 2001.

In all of these problems, the underlying common thread is Safra’s incentive to maintain their equity stakes and control rights position in the joint venture. By accepting external capital such as capital offerings or parent company capitalization, Safra’s equity stakes would inevitably diminish, along with her dominant control. By only approving business investments that utilize internal capital funding or debt financing secures Safra a joint venture position earmarked by disproportionate equity to control rights proportions that we revealed earlier in section II are most beneficial for firms to extract private benefits from control. A reasonable speculation is

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30 Source: Bell South 1999 Annual report
31 Extracted from an executive interview with the former Bell South President of Brazil.
that Safra may have foregone value enhancing business strategies for the sake of retaining control.

It is useful to describe this speculation more fully. Consider a business strategy I and II, leading to firm value $V_I$ and $V_{II}$. Let us assume that if $V_I > V_{II}$, $V_I$ needs more capital investment than $V_{II}$. The capital injection however affects Safra’s share of observed firm value. Let her share in strategy I and II be $\alpha_I$ and $\alpha_{II}$, respectively, and $\alpha_I < \alpha_{II}$. With more outside capital injection, Safra’s control position is reduced, which threatens Safra’s ability to consume private benefits, which we mark as $B_I$ and $B_{II}$ and assume that $B_I < B_{II}$. Safra’s valuation of business strategy I and II are, respectively, $(\alpha_I V_I + B_I)$ and $(\alpha_{II} V_{II} + B_{II})$. Although the firm’s value is higher in strategy I, Safra may opt for strategy II whenever $(\alpha_{II} V_{II} + B_{II}) > (\alpha_I V_I + B_I)$. (See Bebchuk, Kraakman, & Triantis 2000 for a more in-depth discussion.) Hence, the pyramidal controlling unit’s self-interest may explain Safra’s continuous rejection of Bell South’s suggestions.

As a result of the sequence of events above, a lack of trust between the two partners ensued and yet Bell South cannot effectively change the governance in the joint venture. Therefore, Bell South attempted to buy out their partner in 2001. However, Safra did not accept any of Bell South’s multiple offers. This is a likely outcome as the controlling insider values not just the value of a business but also the “private benefits” associated with controlling the business (see Bebchuk, Kraakman, & Triantis 2000). Not surprisingly, Bell South could hardly find a market price that Safra would accept. Bell South then went to the extreme – in 2002, BCP, the joint venture, had difficulty meeting its quarterly debt payments of $R375 million, Bell South utilized the opportunity to choose to default on the loans. In April of 2002, the Financial Times reported that the default occurred after a disagreement between shareholders, as Joseph Safra, which holds a 44.5% stake in BCP, could not align their strategies of capitalization for the
company’s future. In 2003, creditors sold off the assets of BCP to America Movil of Mexico for repayment. Under the terms of the final agreement, “Bell South will transfer its entire 45.4% stake in BCP (to creditors), while Brazil-based Verbier (Safra’s holding company) will retain an undisclosed minority stake in the wireless operator.”32

This example highlights two relevant issues. First, Bell South, much like TIW lost their span of control that they assumed existed in the early stages of the joint venture. In both cases, the pyramids jostled their way into controlling the decision making within the joint venture. Secondly, partners who are a part of a pyramidal group do not treat a dollar of investment in the joint venture as a dollar; they have their own agendas, a point that stems from the fundamental discrepancy in their control and equity rights. Their behavior is less geared towards the returns on the investment in the joint venture, but rather towards personal benefits and benefits to the apex units in their pyramidal groups.

Case 3: Whom to avoid?

The literature generally reckons that the conflict between shareholders are greater the lower the equity stake of the dominant controlling shareholder (e.g., see Claessens, Djankov, Fan, and Lang, 2002). The controlling insider of a pyramidal group usually has a lower equity stake in lower tier units. This implies that a firm partnering with such a unit faces greater agency and expropriation risks. It follows that the exposed firm would be more likely to exit the partnership quickly given the lower the tier of the partnering unit inside a pyramidal group. Interesting, we find that stand-alone firms and “other group” firms all formed joint ventures with units at the bottom layer of their respective pyramids.33

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32 Source: Espicom online, BellSouth, Verbier hand over control of Brazilian venture to banks, April 15, 2003
33 Firms inside pyramidal groups make more varying choices. There is no clear cut pattern between their survivability as joint venture parents and the pyramidal tier they partner with. Perhaps experienced firms know how to partner with pyramids.
Our case studies reveal several examples of joint venture partnerships at the lowest tier of the pyramidal groups that quickly dissolved. For example, South Korea (SK) Telecom created a joint venture partnership with the Algar Group, a Brazilian conglomerate in 1998. The joint venture partnership was affiliated with a bottom tier firm in the pyramid (see figure below). Because SK Telecom was a minority stakeholder of 30%, it had no governance control or decision making capability. SK Telecom was providing the telecom capabilities and equity stakes without any input to the strategic decision making of the firm. Less than one year into the joint venture partnership, SK Telecom realized it had no control and little information on the operation and earnings of the joint venture. It exited by early 2000.

Here are a bit of the details. At the beginning, SK Telecom, the first telecom provider in the world to commercialize CDMA-based cellular services sought out the privatizations in Brazil as an opportunity to expand the technological platform globally. This joint venture consortium won the local license for cellular with the expectation that SK Telecom would bring this new platform to Brazil through their joint venture partnership. However, as the subsidiary’s expansion plans evolved, SK Telecom found out their joint venture partner changed technology platforms to TMDA and signed an agreement with another partner to deliver such services in their licensed region. Thus, SK Telecom not only effectively lost their ability to control the subsidiary as a technology provider, but also had no control rights to veto such a decision that left SK Telecom in a position to only provide capital to the joint venture partnership.

While this case is one of the more extreme, several other examples include firms such as SBC, Bell Canada, etc., joint venturing with Brazilian pyramidal groups with clauses in the joint venture agreement that eluded to control rights being granted after a tenuous number of years into the partnership.
Case 4: Any hope? The joint venture between Telefonica and Portugal Telecom

However, not all joint venture partnerships with units from pyramidal groups fail. We find that the most stable joint venture partnerships are at the highest tiers within the pyramid. Moreover, most stable cases involve partnership between two pyramidal groups, who are both well informed on corporate governance behavior inside pyramids. The joint venture partners appear to cleverly maintain “multiple points of competition and interactions.” These devices escalate the level of reciprocity for trust and commitment between the partners. This is consistent with the literature. Harrigan (1988) suggests joint venture partnerships are more effective when the bargaining power is evenly matched. Bernheim and Whinston (1990) show
that *multiple simultaneous games* heighten the incentive to cooperate by raising the punishment for cheating and the rewards for cooperation.

An illustrative case is the joint venture partnership between *Telefonica and Portugal Telecom*. *Telefonica* of Spain and *Portugal Telecom* both come from home countries where pyramidal groups are common and both are government controlled pyramids that were established long before market privatization in their respective countries. They have been the most successful at creating mutually beneficial joint venture partnerships in Brazil. The three key distinction of their ownership structures versus those of competitors are (1) the equity and voting share rights are split exactly evenly at 50/50 stakes, (2) decision making of the firms is split between the firms on a property level basis, not overall, and (3) they continually invest in multiple point competition within the bounds of each others’ pyramidal groups through equity stakes in the partners pyramidal group. *Portugal Telecom* and *Telefonica* have 8 joint venture subsidiaries in Brazil including the Vivo brands and Brasilcel which combined represent 60% market share in Brazil. During each joint venture expansion, both firms readjusted their overall ownership stakes to achieve an exact 50%/50% split. Concurrently, they each appointed the leadership teams of the newly formed joint venture with representation from both firms. For example, after the Brasilcel joint venture was completed in 2001, *Portugal Telecom* appointed the CEO and *Telefonica* appointed the Chairperson. Also, as part of the agreement, *Telefonica* increased its stake in Portugal Telecom to 10% while Portugal Telecom increased its stakes in *Telefonica* to 1.5%.
Our final statistical analysis demonstrates that firms that engage in strategies that reciprocate trust are far less likely to fail. We measure reciprocity by the difference in the levels of tiered ownership structures of the joint venture parents. For example, *Algar Group* of Brazil partners with *SK Telecom* at the bottom level of the *Algar* pyramid. The *Algar* pyramid has five tiers above the joint venture partnership while *SK Telecom* only has one tier. The tier difference between the two joint venture partners is four, which is the most extreme case in our dataset. We calculate this measure for each joint venture partnership and find that firms that have the greatest disparity in reciprocity are the most likely to fail, as indicated by their cumulative hazard rate. Firms with the same level of reciprocity rarely experience failure (.01 cumulative hazard rate), while firms with great disequilibrium of reciprocity inevitably fail\(^\text{34}\). See Table 6 below.

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\(^{34}\) The hazard rate is 1.00 for firms with 4 level of difference in the tier structures
Table 6 – Categorical Hazard Rates: Joint Venture Parent’s Tier Differential

<table>
<thead>
<tr>
<th>Tier Difference</th>
<th>Hazard Rate</th>
<th>Success</th>
<th>Failures</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.01</td>
<td>25</td>
<td>1</td>
<td>26</td>
</tr>
<tr>
<td>1</td>
<td>0.14</td>
<td>6</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>0.28</td>
<td>1</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>0.32</td>
<td>0</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>1.00</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Total parent level observations: 32 38 70

We also examine the usage of multiple point competition as a reciprocity strategy. We find that firms that utilize multiple point competition are also more likely to succeed than joint venture partnerships that do not do so. Specifically, we find that firms utilizing multiple point competition strategies virtually never failed\(^{35}\). We capture multiple point competition by examining all of the subsidiaries formed as joint ventures. If any of the joint venture partners utilized strategies of multiple point competition (i.e., cross holdings or competing firms in alternate geographies outside the joint venture region), we coded the data one (1) for multiple point competition strategies and zero (0) for none. See Table 7 below.

Table 7 – Categorical Hazard Rates: Joint Venture Parents Using Multiple Point Competition

<table>
<thead>
<tr>
<th>Multiple Point Competition</th>
<th>Hazard Rate</th>
<th>Success</th>
<th>Failures</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0=No</td>
<td>0.21</td>
<td>14</td>
<td>37</td>
<td>51</td>
</tr>
<tr>
<td>1=Yes</td>
<td>0.01</td>
<td>19</td>
<td>1</td>
<td>20</td>
</tr>
</tbody>
</table>

Total parent level observations: 33 38 71

\(^{35}\) Failure rates of firms using multiple point competition strategies was only .01 while firms not utilizing such strategies was much higher at .21
4. Conclusions and Discussion

This paper reveals key distinctions in the corporate governance and ownership structures of pyramidal groups versus widely held firms. The former is prevalent globally while the latter is the dominant form of corporate ownership only in a few developed economies like the US and UK. From evidence revealed in the Brazilian telecommunications industry, we reveal that the behaviors of pyramidal firms vary dramatically from the classical agency assumptions of Jensen and Meckling (1976). These key distinctions were often overlooked and misconceived particularly by managers of widely held firms. Such blind spots in the managerial decision making process demonstrate the negative impact of utilizing inappropriate knowledge of the institutional environment (Perkins, 2006b). This paper hopes to incite more extensive debate in the strategy literature on the largely overlooked performance implications resulting from differing corporate governance and ownership structures.

The impact of the collision between the governance variations is felt most broadly by multinational firms seeking foreign investments abroad. A second contribution of this study provides an alternate explanation for the high failure rates of joint ventures and generates a greater understanding of the challenges in joint venturing with pyramidal groups. These governance insights suggest refinements to contemporary foreign investment theory, which views international joint ventures as strategies to reduce their “liability of foreignness” (e.g., Kogut and Singh, 1988) and, in particular, to reduce expropriation risk in institutional environments with high political hazards (Henisz, 2000). The general message is that while joint venture partnering may be a way to leverage competitive capabilities and to overcome foreign liabilities, it may expose a parent to agency and expropriation risks of partners who are members of pyramidal groups.
This issue is of great importance for firms that contemplate using joint ventures as an international expansion strategy. Our analyses serve as a warning to investment managers of foreign firms, especially those unfamiliar with local governance problems, might inadvertently subject themselves to expropriation from their partners. In raising this warning, we provide

1. A clear distinction between the corporate governance structures and resulting behavior of pyramidal group firms and those of firms with more familiar governance structures, and
2. Clear examples of the challenges and pitfalls of joint venturing with firms belonging to pyramidal business groups, and suggestions as to how foreign firms might counter these problems.

It is not straightforward to deliver constructive recommendations because our analyses are based on the information from one industry (telecommunication) in one country (Brazil); therefore, we are concerned about the generality of our results. However, we observe a few common themes that are worthy of discussion for managers considering joint venture partnerships with pyramidal groups.

i) Know your partners’ span of control.

Our earlier discussion on how pyramidal groups behave revealed that pyramidal groups generally are savvy in strategically capturing and retaining control. In consideration of a potential partnership agreement, each partner must be well aware of the full span of ownership rights that the other holds. In the case of TIW, they were blind-sided to their partner Opportunity’s control within the joint venture agreement.

ii) Protect and maintain governance control of the joint venture partnership

Given the high risk of expropriation and high agency cost associated with losing control of the joint venture associated, it is essential that any partnership is established with clear
specification of who maintains managerial control of the firm. The most basic strategy should be imposed to become the majority equity stakes holder which in some cases leads to the governance control. For example, we analyze the ownership percentages of each of the parent companies in the pyramidal group and find that parents that have less than 50% ownership stakes are almost three times more likely to exit the joint venture (an incidentally also exit the Brazilian market) than parent firms with ownership stakes greater than 50%.

**iii) Negotiate governance control**

In many cases, this majority equity ownership may not be a sufficient enough condition to preserve governance control. For example, Portugal Telecom’s internationalization strategy in several markets utilizes joint venture partnerships with local firms that assist them with mitigating governmental expropriation risks. Often the local partner (in many cases the government) is not willing to relinquish majority control. In such events, the internationalization executives stated: “when we do not have equity control, we obtain management control through separate management contracts. We never just forfeit to be financial investors”.

**iv) Escalation of commitment through reciprocity**

Many of the successful joint ventures partnerships identified managed to reciprocate trust, foster information symmetries and reduce the illusion of the “veil” that pyramidal groups frequently hide behind. The most effective strategies we observed were jointly appointed boards, multiple point competition within the parent firms and partnerships at the higher levels within the pyramids. Widely held stand-alone firms considering joint venture partnerships with pyramidal groups may consider making these issues explicit in the joint venture agreement. In industries where more specialized “know-how” is an integral source of competitive advantage, the necessities of knowledge sharing with the pyramidal firm can also act to facilitate reciprocal
trust. If the local pyramidal firm is reliant on the joint venture for an ongoing stream of knowledge (i.e., technologically advanced manufacturing processes, etc.), they are incentivized to cooperate in such instances. This consideration was not a significant factor in this study of telecommunication in Brazil as the industry is ripe with effective competition seeking to gain market share.
References:


Chang, S. 2003 Ownership structure, expropriation and performance of group affiliated companies in Korea, Academy of Management Journal, 46(2):238-


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APPENDIX 1: Pyramid Building and the Leverage of Control

The key advantage of the pyramidal group (to its outside shareholders) is the leverage in corporate control it provides, locking in complete control over a multistoried structure of listed firms worth vastly more than would be possible with direct investment in one or the comparable freestanding listed firms. Morck, Wolfenzon, and Yeung (2005) illustrate this leveraged control in Figure 4, in which each grey box represents a listed firm. A family controlled firm holds marginally more than 50% of the shares of firm$_{1,1}$, which in turn holds marginally more than 50% of the shares of each of firm$_{2,1}$ and firm$_{2,2}$. Each of these holds > 50% stakes in another tier of firms, and so on for as many tiers as exist. For each firm in each tier, public shareholders or in the context of this paper, foreign joint venture partners provide the residual < 50% stakes. The family controls all the firms in Figure 4 by virtue of the chains of >50% voting rights leading to each firm. But despite this, the family’s actual financial stake is roughly halved with each added tier of intermediate firms. A $100 fall in the value of firm$_{3,1}$ reduces the value of firm$_{2,1}$ by $50$. This in turn reduces the value of firm$_{1,1}$ by $25$, which reduces the family’s wealth by $12.50$. As Morck, Wolfenzon, and Yeung (2005, p. 666) explain, “The pyramidal structure … lets the family retain absolute control of the eight firms in the third layer of the pyramid, but hold only a 12.5% cash flow stake [(50%)(50%)(50%) = 12.5%].” Obviously, adding more tiers to the pyramid can reduce the family’s actual ownership stake in the lowest tier firms arbitrarily close to zero. Morck, Stangeland, and Yeung (2000) describe pyramids sixteen layers high.

This leverage stretches the family’s wealth into control over firms worth vastly more than the family’s actual fortune. Morck, Wolfenzon and Yeung (2005; pg. 666) do the math:
“Suppose each firm in Figure [4] is worth one billion dollars. The control pyramid lets the family, through its one billion dollar family firm, control fourteen other firms, also each worth one billion dollars. There is double counting in this tally since ... the assets in the higher tier firms are shares in the lower tier firms. But even if only the third tier firms contain actual physical assets, the family has at a minimum leveraged one billion dollars worth of family wealth into control over eight billion dollars of real corporate assets....”

This nicely illustrates the superiority (to the outside shareholder) of a pyramidal group over shareholdings in one (or more) freestanding firm. For instance, a > 50% stake in a single freestanding firm with eight billion dollars worth of assets (the total assets in the eight third tier firms in Figure 4) would cost a bit over four billion dollars, well beyond the family’s reach. Similarly, holding > 50% stakes in each of eight billion dollar freestanding firms (identical to those in the third tier) would cost eight times a bit over one half billion dollars, or again a bit over four billion dollars – still far outside the family’s means. The pyramid provides control of eight $1 billion firms with only an investment of $125 million in each.
Figure 4. A Stylized Pyramidal Group
Each shaded box represents a listed firm. Each line represents an equity stake.

APPENDIX II

We can more formally examine the relationship between failures and joint venture ownership structure by directly estimating the impact of such partner selection characteristics on a parent’s survival in joint venture partnership. For example, we can determine the likelihood of a parent’s failure if they are a pyramidal group themselves, if their partner is a pyramidal group, or if their partner is a Brazilian firm. This approach would be very informative to understanding the tradeoffs in partner selection characteristics and has important implications for foreign investment managers in ex ante decision-making processes. We could specify a log-logistic accelerated time to failure (AFT) model to estimate the instantaneous hazard rates. This model is appropriate because of its monotonically increasing and decreasing distributional assumptions fit most well with dynamic industry lifecycle effects suggested by Hannan & Freeman (1989).

Using the model, we have a direct interpretation of the sign of the regression coefficients $\beta$ for covariate $X_i$. $E[\ln(t)/X_i] = X_i'\beta$, where $t$ is the expected duration of survival, hence a significant negative sign means a covariant lowers the expected duration of survival.

To use this methodology properly, we need to include enough firm level information, e.g., explicit measures for a firm’s financial, marketing, and general managerial strengths. Also, we need to deal with the correlations among observations issue as some parent have multiple investment in Brazil. For example, if a parent A has subsidiaries I and II, the failure or success of I and II are correlated. Moreover, if these subsidiaries have other parents, these other parents’ successes and failures as subsidiary owners are also all correlated. Currently, we do not have enough firm level information and a large enough sample to handle the problems. Hence, such investigation is relegated to future work.

However, if we are willing to turn a blind eye to these problems and just proceed, we find the following: (i) the dummy variable indicating having a Brazilian joint venture partner and the
dummy variable indicating that the parent itself is a pyramidal unit do not affect the expected
duration of survival; (ii) a dummy variable indicating that a joint venture partner is a pyramidal
unit reduces the expected duration of survival; (iii) a cross term dummy variable capturing that
both parents are pyramidal units more than nullifies the effect (ii) and in the net raises the
expected duration of survival. These results are available upon request.