

Governance and capabilities: Asia's entrepreneurial performance and stock of venture forms

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Abstract Asian economies display large evident differences in their entrepreneurial capabilities and performance. While existing explanations of these differences have largely focused on formal and informal background institutions, we instead emphasize differences in national stocks of venture forms. We suggest that alternate venture forms, because of their different governance characteristics, possess unique entrepreneurial capabilities and pursue distinct opportunities. Consequently, nations must possess a diverse and balanced stock of venture forms and have such forms engaged in the unique and complementary activities for which they are best suited. Viewed in this light, addressing national limitations in entrepreneurial performance requires changes in stocks of venture forms. In developing the policy implications of our analysis, we highlight the past successes and current development challenges of Japan, Korea, Singapore, Hong Kong, Taiwan, and mainland China.

Keywords Entrepreneurship · Corporate governance · Venture forms · Institutionalism · China · NIEs · Japan · Korea · Asia

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The overall progress and transformation of many Asian economies has been impressive and it is no surprise that many have come to recognize Asia as the new global economic powerhouse. Yet, at the same time, Asian countries also differ widely in both the levels of economic progress they have experienced and the trajectories undertaken to achieve such growth. These variations in economic progress reflect important differences in entrepreneurial performance (Wong, Ho, & Autio, 2005) and sets of entrepreneurial capabilities (Terjesen & Hessels, 2009). In this study, we examine how a country's governance infrastructure relates to such entrepreneurial capabilities for three sets of Asian economies: (1) China, (2) the newly industrializing economies (NIEs) of Singapore, Hong Kong, and Taiwan, and (3) the front-runners Japan and Korea. In contrast to other works on national business systems, particularly the varieties of capitalism literature (cf. Carney, Gedajlovic, & Yang, 2009), we do not focus on single dominant or emblematic forms. We instead reason that robust innovation systems depend upon a plurality of venture forms, where each type is engaged in the unique and complementary activities for which it is best suited.

We develop our arguments as follows. In the next section, we describe how the indigenous entrepreneurial capabilities of the aforementioned Asian nations can be traced to their economic histories and their current resulting stock of venture forms (VFs). In the following section, we expound upon the impact such differences in stocks of VFs have on national economic development by describing how and why different types possess particular performance attributes. To do so, we examine the governance characteristics and consequent entrepreneurial capabilities of four common private sector VFs: founder-managed (FMVs), venture capital-funded (VCFs), corporate (CVs), and joint ventures (JVs). Lastly, in the final sections of our study, we discuss how policy makers can seek to modify their stocks of VFs, and consequently influence their nation's entrepreneurial capabilities and performance, by shaping their national governance infrastructures.

The entrepreneurial performance of nations: The case of Asia

Asia represents an important and fruitful area for research regarding the differences in entrepreneurial performance among nations. This is readily seen when one considers the diverse institutional contexts and entrepreneurial forms found in the region (Bruton & Lau, 2008). We discuss the differences among latecomer China and the NIEs of Singapore, Hong Kong, and Taiwan, as well as the front-runners Japan and Korea. The different levels of economic development in these three settings provide an opportunity to analyze the underlying factors that may explain their differences.

Entrepreneurial performance in Asia's economies

If we look at Asia's entrepreneurial performance in terms of economic indicators (see Table 1), it is obvious that large differences exist. In terms of economic growth, latecomer China (with the lowest GDP per capita) has the highest annual growth rate in real GDP, Japan has the lowest, and the NIEs lie somewhere in between. An important source of the economic growth of nations, and their progress in general, is their entrepreneurial performance (Valliere & Peterson, 2009). The importance of

Table 1 Asia's entrepreneurial performance, capabilities, venture forms, and institutional contexts.

	Latecomer China	NIEs Singapore HK Taiwan			Front-runners Korea Japan	
Entrepreneurial performance	Economic growth					
	GDP/Capita ^a	3,259	38,972	30,726	16,988	19,136
	Real GDP growth ^b	9.5	4.5	4.2	5	4
	Output					
	USPTO patents ^c	1,225	399	311	6,339	7,549
	Patents / Mil. ^d	0.6	104	100	310	113
Entrepreneurial capabilities	Input					
	GERD/GDP ^e	1.43	2.31	Not available	2.58	3.23
	–Primarily low cost manufacturing		–Labor intensive low-cost manufacturing strategies			–World leaders in innovation
	–Little spending on R&D		–Exporting manufacturing to low-cost locations			–R&D focused on few sectors:
	–Absence of global brands		–Strong in mastering mature technologies			–electronics
	–Exporting under foreign guidance		–Weak in R&D and global brands			–microelectronics
Prevalent forms						–automobiles
						–Large array of global brands
						<i>Korea more:</i>
						–international technology sourcing
						–risk-taking
						–downstream integration
Institutional context	–Primarily state-owned enterprises (SOEs)		–Primarily family business groups			–Primarily network conglomerates:
	–Foreign wholly-owned subsidiaries		–Government-linked enterprises			– <i>keiretsu</i>
	–Family businesses					– <i>chaebols</i> (family owned)
	–Transition from centrally planned to market economy		–Overseas Chinese with relational networks			–Strong state favoritism and support for conglomerates
	–Fragmentation (regionalization)		–State supports innovation through government-linked enterprises			–Japan: US forbids family-run <i>zaibatsu</i>
	–Favoring of SOEs		–Weak public and private equity markets			–Korea: Independence from Japan in 1945

^a International Monetary Fund. World Economic Outlook Database, October 2009.^b Real GDP growth (annual percent change). International Monetary Fund. World Economic Outlook, April 2010.^c Utility patent counts USPTO 2008.^d Patents granted by USPTO / Mil. people, avg. 2003–2007. World Bank Knowledge for Development Custom Scorecards.^e OECD, Main Science and Technology Indicators (2008/1).

entrepreneurial performance is underscored by the recent attempt of the OECD (2009) to create internationally comparable indicators of entrepreneurial performance. Yet, the OECD's endeavor also highlights that empirically there is still much work to be done. One theoretical rationale for the relationship between economic growth and entrepreneurial performance is based upon Schumpeter's (1934) and Baumol's (2002) view of entrepreneurship as consisting of innovation and a resulting ongoing process of "creative destruction," which improves productivity and hence generates economic growth (Aghion & Howitt, 1998). In this view, temporary monopoly rents, such as those provided by intellectual property rights, are considered an important factor driving innovation. Empirically, studies examining patenting activity as a proxy for the entrepreneurial performance of nations have found evidence to support this link (Salgado-Banda, 2007).

If we consider a nation's entrepreneurial performance in terms of such innovative activities, a clear picture emerges for Asia. Front-runners Japan and Korea have the third (3.39% in 2006) and fourth (3.2% in 2006) highest R&D intensity (GERD/GDP) in the world (Jackson & Debroux, 2008; OECD, 2008b). The NIEs have a lower R&D intensity, and latecomer China's R&D intensity is still much lower, particularly in high-tech industries (Schaaper, 2009) than that of the NIEs and most OECD countries (OECD, 2008a). This is despite a jump in its R&D intensity from 0.6% in 1995 to 1.43% in 2006 and its very large gross domestic expenditure on R&D (GERD) at US\$73.5 billion (third largest in the world). Although patenting data is somewhat problematic because of various methodological issues such as patent quality and industry effects (i.e., the semiconductor industry in Taiwan is responsible for a large portion of total filings), China's position is still significantly behind the others with an average of only 0.6 patents granted by the USPTO per million residents over the period 2003–2007. The use of such innovation data as indicators for entrepreneurial performance has its limitations though, particularly for the lesser-developed countries with weak intellectual property rights protection. Also, such nations are likely at a stage of development where innovative activities may be less vital than other types of entrepreneurial activities such as the reallocation of factors to more productive uses (Porter, 1998). Furthermore, informal economies may engage in entrepreneurial endeavors not covered by these indicators.

The other main theoretical rationale for the link between entrepreneurial performance and economic growth is based on the view of entrepreneurship consisting of new business creation. Proxies for such an activity are typically found in the number of new start-ups or the amount of self-employed individuals (Le, 1999). Studies that have examined the link between business creation and economic growth have mixed findings. Nevertheless, such studies have found that deviations from equilibrium (i.e., too little or too much business creation) have a negative impact on economic growth (Carree, Stel, Thurik, & Wennekers, 2002). An interesting finding is that within start-ups, a group of high growth ventures called Gazelles accounts for a disproportionately large share of new jobs (Henrekson & Johansson, 2009). Yet using start-up data has serious drawbacks. A fundamental problem with the existing data on start-ups and self-employment (as offered by the OECD) is that it fails to recognize that large firms also engage in business creation and the creation of new jobs. Thus, this data is of limited use to us. The Global Entrepreneurship Monitor (GEM) has had similar problems and this was also based

on surveys, which have their drawbacks (Bertrand & Mullainathan, 2001). Notwithstanding these limitations, the use of innovation data as a proxy makes clear that large differences exist in the entrepreneurial performance of nations.

Entrepreneurial capabilities in Asia's economies

A nation's entrepreneurial performance stems from strengths in particular entrepreneurial capabilities (Schreyögg & Kliesch-Eberl, 2007). China's entrepreneurial and innovative activity is rather limited for a country of its size (Meyer, 2008). Its lower levels of R&D and new product development have resulted in an absence of many indigenously developed global brands. Instead, most activity is confined to low-cost manufacturing and the selling and exporting of goods and services under the guidance of foreign partners (Ahlstrom, Nair, Young, & Wang, 2006). It is notable that the partners are largely overseas Chinese (Bruton & Lau, 2008) that rely heavily on imported technology and components, particularly in the ICT sector (Schaaper, 2009). Foreign-owned firms in China are an increasing source of high-tech exports, from 73% in 1998 to 88% in 2005. Yet, although they have a high share of inventive patents at 74% (as compared to 11% for indigenous firms) (OECD, 2008a), they invest little in R&D and focus instead on manufacturing (Schaaper, 2009).

The NIEs of Singapore, Hong Kong, and Taiwan share many characteristics. They have all mastered mature technologies and have been exporting basic manufacturing to lower-cost locations. Yet they remain weak in the initiation of new technologies (Carney & Gedajlovic, 2000) and the launch of global brands. Among the three, Taiwan is doing somewhat better at initiating high-technology business (Bruton, Ahlstrom, & Yeh, 2004). Taiwan has a large PC industry (Mathews, 1997) that recently has shown signs of moving up the value chain with global brands, such as HTC, Acer, and Asustek (Vance, 2009). Yet overall, Taiwanese firms continue to produce low-priced sub-components, preferring to imitate rather than to innovate (Carney & Gedajlovic, 2003). Singapore has a strong electronics industry and has sought to emphasize high technology. However, it has struggled to establish a population of home grown high-technology firms (Mathews, 1999). Similarly, Hong Kong has modernized banking, retail, and trading but its firms invest too little in R&D.

Japan and Korea are world leaders in innovation, particularly in manufacturing, and have an array of well-known brands (Prahalad & Hamel, 1990). Notwithstanding their efficiency in innovation in terms of R&D, their output is often "not commensurate with the substantial investment in R&D" (OECD, 2008b: 132). Also, while Japan has the highest level of venture capital (VC) investment in Asia, it is still very low compared to the United States (OECD, 2008b). Most of their R&D is conducted in-house and is concentrated within a few sectors, namely electronics, microelectronics, and automobiles (Hemmert, 2008). Differences between the two also exist with Korean firms relying more on international technology sourcing, taking more risks, and focusing more on downstream as opposed to upstream integration.

The stock of VFs in Asia's economies

A nation's entrepreneurial capabilities stem from the entrepreneurial capabilities of individual firms. Firms that engage in entrepreneurial endeavors (i.e., ventures) are,

however, not all the same. We suggest that differences in governance forms of ventures cause them to possess different entrepreneurial capabilities. Differences in the stock of VFs are, thus, an important source of differences in nations' entrepreneurial capabilities. The importance of taking a stock approach is underscored by studies that show the complementary role of different forms. Innovation studies, for example, have shown that small and large firms complement each other (Nooteboom, 1994). Henrekson and Johansson (2009), when discussing the strong impact of Gazelles, have cautioned that other venture forms also have a complementary role to play. For Asia, we can relate the entrepreneurial capabilities of the three sets of countries to their unique stock of VFs.

China's weak R&D and new product development capabilities are explained by the continued prevalence of inefficient, state-owned enterprises (SOEs) in its economic landscape (Meyer, 2008). These SOEs act like holding companies with regional companies controlled by local governments. Owing to the lack of headquarters' control over the decentralized subsidiaries, they may fail to operate like single large entities that can compete on the international stage (Meyer, 2008). To compensate for their deficiencies, these SOEs engage in joint ventures (JVs) with foreign firms but often fail to absorb the desired technologies and capabilities (Gilboy, 2004). Consequently, foreign firms have increasingly been allowed to set up wholly-owned subsidiaries in China and are now responsible for the majority of China's exports. However, they now have little incentive to transfer technology and knowledge to local partners. The numerous small private local firms operate in niche markets (Gilboy, 2004) and, as owner-managed ventures, are not likely to invest in firm-specific long-term assets as they limit their flexibility. With the VC market still underdeveloped and subject to major challenges, venture capital-funded (VCV) firms do not yet play a significant role in China's economy (Ahlstrom, Bruton, & Yeh, 2007).

The entrepreneurial capabilities of the NIEs are explained by the fact that "most technology-intensive firms in the Asian NIEs are relatively small manufacturers that are closely held by founding entrepreneurs or their families" (Carney & Gedajlovic, 2000: 265). As these family businesses grow and diversify many have evolved into family business groups (Claessens, Djankoc, & Lang, 2000). These overseas Chinese family businesses are typified by family control, simple structures, centralized governance, internal financing, a lack of advertising and branding, and little R&D (Bruton et al., 2004). These characteristics are largely typical of owner-managed ventures. While it makes such businesses well-suited for labor-intensive industries, they impede fast growth (Bruton et al., 2004; Carney, 1998), particularly in capital- and technology-intensive industries (Zhang & Ma, 2009). Singapore and Taiwan have additionally seen the establishment of government-linked enterprises to promote high-technology development (Wade, 1990). These have particularly pursued JVs and alliances, absorbing mature technology but failing to innovate (Carney & Gedajlovic, 2000). While the VC market is certainly growing, VCVs are still not playing a major role in the NIEs.

Japan and Korea's strong innovation capabilities can be explained by the dominance of large conglomerate network firms called *keiretsu* in Japan and *chaebols* in Korea. As conglomerates, both *keiretsu* and *chaebols* share similar benefits, namely stable financing, insulation from market forces, risk reduction, and reduction of information asymmetries (McGuire & Dow, 2009). The *chaebols* also

enjoyed close governmental ties and, thus, were shielded from foreign competition (Buckley, 2004) while also benefiting from the allocation of the country's resources and cheap credit. As family-owned businesses they diversified into a variety of businesses, although recently some may have over-diversified. Although originally tied to particular families, the *keiretsu* have gradually seen familial connections fade. They exist in two forms, namely horizontal ones covering various industries, and vertical ones centered on a large manufacturer (McGuire & Dow, 2009). Ventures that are spun off tend to become part of the network (Buckley, 2004). While JVs and VCVs are definitely part of the mix in both Japan and Korea, these conglomerates are the dominant vehicles for new venture creation.

The institutional context in Asia's economies

The institutional context, particularly for emerging economies like China, is considered an important determinant for the performance of nations (Peng, Sun, Pinkham, & Chen, 2009; Peng, Wang, & Jiang, 2008). That institutional contexts are tied to national capabilities (Lundvall, Johnson, Andersen, & Dalum, 2002) has been proposed by studies on national innovation systems (Dodgson, 2009). Such studies have analyzed the interaction of firms with multiple other actors and institutions in the larger society and have particularly emphasized "the role of government as [a] facilitator" (Godin, 2009: 493). The importance of the institutional context in Asia for the existence and emergence of particular organizational forms has also been well documented (Carney et al., 2009; Peng & Jiang, 2010) and is, not surprisingly, a major characteristic of management research for Asia (Meyer, 2006). We suggest that the institutional context should also determine the prevalence of particular VFs in a nation's stock of VFs.

The stock of VFs in China is explained by the Chinese institutional context transitioning from a communist to a market economy. As part of the legacy of the centrally planned economy, the SOEs were decentralized and fragmented across different regions and were thereafter brought under the control of regional communist party bureaucrats (Meyer, 2008) who exercised wide discretion in pursuing particular local goals (Gilboy, 2004). For the top managers of SOEs, who have only limited tenure and report to local politicians, there is little incentive to invest in long-term innovative capabilities (Ahlstrom et al., 2006). Private enterprise is hindered by the preferential access to markets, technology, and capital granted to SOEs by government (Gilboy, 2004), is subject to obstruction by officials in SOEs and local government, and operates in an environment that lacks well-defined property rights protection and legal infrastructure (Ahlstrom et al., 2006). This has resulted in private enterprise reducing risk by developing ties with key officials, avoiding long-term investments, and pursuing diversification strategies (Peng & Zhou, 2005). Under such conditions it is no surprise that the most prevalent form of private enterprise in China is the family business (Fukuyama, 1995). The mainland Chinese family business form is similar to its overseas counterpart in its reliance on *guanxi* (social connections) but differs in the limited number of heirs available (Zhang & Ma, 2009). The emergence of private enterprise and the huge market that China represents have attracted much VC, yet its underdeveloped institutions pose major challenges for VCVs, notably in the areas of legal protection, corporate

control, and equity markets (Ahlstrom et al., 2006). By relaxing controls on foreign direct investment (FDI) China has seen a growth of such new forms as wholly-owned subsidiaries at the expense of JVs (Lau & Bruton, 2008).

The prevalence of the overseas Chinese family business forms in the NIEs can be traced back to the emigration of entrepreneurs who fled China due to turbulence in their homeland (Fairbank, 1994) and established a geographically-dispersed network of family members and relatives abroad (Kao, 1993). Those that moved to Singapore, Hong Kong, and Taiwan remained distrustful of the state (Fukuyama, 1995) and such distrust forms the basis of why they kept their family-managed businesses closed to outsiders. When the NIEs started emulating Japan's export-oriented development model, they came to rely heavily on these Chinese family businesses with their extensive relational networks (Carney & Gedajlovic, 2003). Being new to the scene, these family businesses established relationships with Japanese producers who sought local partners to circumvent trade restrictions, thus acquiring process-engineering skills. When exports flourished, the family businesses sought to further reduce labor costs by moving manufacturing to countries with lower labor costs like China. Faced with increasing pressures to innovate and move up the value chain, the NIEs have sought to develop their public and private equity markets to facilitate the establishment of VCVs. Taiwan setup the TASDAQ, Singapore the SESDAQ, and Hong Kong the GEM. Of these, the TASDAQ is fairly well established and has approved rules that make it easier for younger firms with little assets to become listed (Carney & Gedajlovic, 2003). Not surprisingly, among the three, Taiwan has seen the most high-tech investing (Bruton et al., 2004).

Post war Japanese and Korean governments actively promoted the conglomerate form over other business types in order to develop the scale economies needed for reconstruction and ramping up their manufacturing capabilities. Each has their particular reasons for the emergence of their unique conglomerate forms. In Japan, after World War II, the US occupying force made family-run holdings illegal in order to crush pre-war financial cliques that were closely tied to the government (i.e., the *zaibatsu*). This led to the emergence of new linked groups called *keiretsu* (Buckley, 2004). In Korea, the family-run *chaebols*, who had been the beneficiaries of much of the government's economic policies, are still closely associated with the government to this day. Whereas Japan's large conglomerates have flourished since the nineteenth century, as *zaibatsu* or *keiretsu*, Korea's conglomerates only emerged after the country gained independence from Japan in 1945 (Hemmert, 2008).

That the institutional context and governance infrastructure of Asia's economies can explain national differences in entrepreneurial performance and capabilities is well established in the literature. What has been missing to date is an appreciation for the role that a nation's stock of VFs plays in this relationship. We have shown how the entrepreneurial performance and capabilities of Asia's economies can be linked to the prevalence of particular VFs in their countries. We have also shown how Asia's differing institutional contexts and governance infrastructures have facilitated or hindered the emergence of particular stocks of VFs. Any policy recommendations for modifications to a nation's governance infrastructure with the aim to alter its stock of VFs must therefore be based on a proper understanding of the role VFs play. In the next section we seek to enhance such understanding by arguing that it is the governance structure of VFs that causes them to pursue different entrepreneurial endeavors.

Corporate governance, venture forms, and entrepreneurial capabilities

To appreciate the impact of differences in stocks of VFs, let alone make any government policy recommendations, it is necessary to understand what unique capabilities particular VFs possess, as well as why they possess them. We suggest that the corporate governance structure of a VF is what determines its unique set of entrepreneurial capabilities. Prior comparative governance studies have explained differences between organizational forms by focusing on the effects of incentives, which are the rewards and sanctions used to influence behavior, as well as the mechanisms to do so (Eisenhardt, 1989). We, however, also focus on power distribution (Hinings & Greenwood, 2002) and purpose (Biggart & Delbridge, 2004) as recently proposed by Gedajlovic, Lubatkin, and Schulze (2004). By power distribution we mean whether the authority to make decisions is dispersed over many individuals or is concentrated in the hands of one or just a few individuals. By purpose we mean the reason or the legitimacy for existence. For example, the venture can be regarded as a goal in itself (i.e., an institution) (Stinchcombe, 1997), or it can be regarded as a goal attainment device (Mintzberg, 1983). Using this governance perspective—in terms of purpose, power, and incentives—we distinguish four forms (see Table 2): (1) founder-managed, (2) VC-funded, (3) corporate, and (4) joint ventures.

Owing to their specific governance structures, these forms possess unique sets of entrepreneurial capabilities. The entrepreneurship literature suggests that the entrepreneurial capabilities of ventures can be described using the following four dimensions (Timmons & Spinelli, 2003): (1) people, (2) (“non-human”) resources, (3) opportunity, and (4) timing. The first two, people and resources, deal with the venture’s ability to attract resources from strategic factor markets (Makadok, 2001). We reason that a VF’s governance structure affects its ability to secure human and other types of resources because of its strong influence on the types of incentives that can be offered to resource providers. The last two, opportunity and timing, deal with the venture’s capabilities to maneuver in particular contexts. Because of the governance structure of VFs, entrepreneurs in different types of ventures look in completely different places. This influences which opportunities are discovered and how they are evaluated and capitalized on. Using these four dimensions we can thus evaluate the unique capabilities of each of the four VFs (see Table 2).

Founder-managed ventures (FMVs)

FMVs are characterized by the absence of the separation of ownership and control as these are coupled in the hands of the founders (Fama & Jensen, 1983). Since the founder(s) established the firm and supplied the equity, they own almost unquestionable decision rights and this places them in a unique position of power to determine how their business is to be operated (Kelly, Athanassiou, & Crittenden, 2000). This implies that most other employees do not hold decision rights and are thus treated as “outsiders” who would have little influence on important organizational decisions. The coupling of ownership and control grants founders the classic property rights of *usus* (the right to use one’s property as one sees fit), *abusus* (the right to alter, modify, or destroy one’s property), and *usus fructus* (the

Table 2 Governance and entrepreneurial capabilities of venture forms.

		Founder-managed ventures	VC-funded ventures	Corporate ventures	Joint ventures
Governance	Power	Concentrated in hands of founder	Shifted to VC in exchange for resources	Diffused through hierarchy, based upon position and merit; discretion is limited	Shared by independent organizations
	Purpose	Idiosyncratic goals of founder	To lead to a liquidity event (IPO or sale) within 3–5 years	Maximize shareholder wealth	Varied, works best for partners with complementary rather than conflicting goals
	Incentives	Principal and insiders benefit in a variety of economic and non-economic ways Outsiders see benefits accrue to the insiders	Founder, VCs, and employees benefit only when liquidity event occurs	Parent regards venture as one of many growth options Venture members constrained by organizational realities and corporate strategy	Parent shares profit and loss and learns from other partner while preventing the other from learning Employees have few benefits
Capabilities	People	Loyal insiders and lower status outsiders, defined by founder manager	Founder, VCs with leveragable expertise, risk-taking talent	Champion and younger and lower status employees	Younger and lower status employees on loan and constrained
	Resources	Largely supplied by the owner-manager	Staged, conditional financing	Existing resources acquired in periodic budget negotiations	Partner contribution proportional to ownership stake with deviations over time causing tensions
	Opportunity	Individual interest and capability	Specific high-growth markets	Synergetic	Agreed complementarities
	Timing	Intuitive, interstitial narrow context	Moderately paced, moderate context	Championing, complex	Bargaining, very complex

right to the profits generated by an asset). As such, the purpose of the FMV is to achieve the founders' idiosyncratic goals with rarely any need to justify or reveal their decisions to the scrutiny of others. For the founder(s) (i.e., the principals) the ability to benefit from the venture in a variety of economic and non-economic ways constitutes an extremely high-powered incentive. Aside from profit they may also derive subjective utility (Weick, 1979) from their firm from factors such as enhanced status in their communities, the use of a company car, frequent interaction with their home country, or, in the case of a family business, employment for the children of the founder. For the employees of a FMV who are not the founders or part of their family, the incentives are extremely low powered. Stock options are extremely limited as founders do not wish to see their control diluted (Kao, 1993). Promotions only reach so far because top positions are reserved for the founders, or, in the case of the family business, for family members. Thus, the benefits of any extra effort

tend to be appropriated by the founders. As such, apart from salary and job security, there is little benefit for other employees in the venture.

The people involved in an FMV consist of a trusted group of insiders and a group of outsiders who may feel alienated. The insiders have been selected on the basis of the founder's personal considerations rather than meritocratic criteria (Kao, 1993), they display strong loyalty towards the founder (Schulze, Lubatkin, Dino, & Buchholz, 2001), and their relationship can be characterized as one of a strong relational psychological contract (Rousseau, 2004). This allows them to pursue opportunities in environments considered too hostile by other forms (Gedajlovic et al., 2004). The outsiders, who are not part of this inner circle, may feel alienated and display reduced commitment and motivation (Schulze et al., 2001). These outsiders have what could be characterized as a transactional psychological contract (Rousseau, 2004) with the founder and are enticed by little incentives (Chua, Chrisman, & Bergiel, 2009) as they see most benefits accrue to the insider group. Even if talented outsiders were offered better incentives, it is very doubtful that the founder would give up control in order to attract and retain those outsiders (Schulze et al., 2001). We concur with Carney (1998) that these problems seriously inhibit the ability of FMVs to acquire highly qualified personnel in owner-managed firms.

The FMV's resources are constrained. This is consistent with the literature on threshold firms, which indicates that FMVs encounter a "threshold" at which their limited capital becomes insufficient to support the growing scale of the opportunities they pursue (Gedajlovic et al., 2004). The constrained nature of their capital is due to the fact that the founders are the primary suppliers of capital. This grants them the legitimacy to do with the venture as they wish (for instance on the job consumption) and enables them to apply the capital for purposes that other entrepreneurial forms would not condone. For example, founders may use capital from other ventures that they control in the service of a particular venture that is in need of such support. Even when founders are willing to dilute their ownership, the potential abuse of the venture by these founders for their personal benefit creates tension in their relationships with outside minority investors: a principal-principal conflict (Young, Peng, Ahlstrom, Bruton, & Jiang, 2008). The minority investors also fear potential expropriation by the founder through the use of dual-class shares, pyramids, and cross holdings (Claessens, Dasgupta, & Glen, 1998). They therefore demand a significant premium to compensate themselves for this risk. This severely limits the venture's ability to raise outside capital (Gedajlovic et al., 2004) and it consequently limits the amount of disposable funds. Based on the above, we reason that FMVs, in general, have less capital than other VFs but they instead have more flexibility in the usage of capital.

FMVs typically pursue opportunities that are of personal interest to the founders and their selected group of insiders. These choices must also be consistent with their knowledge corridor and be feasible given their resource constraints. That they pursue opportunities within their knowledge corridor and capabilities is consistent with the literature on the prior knowledge and idiosyncrasies of entrepreneurs (Sarasvathy, 2001). That they operate under resource constraints is in line with much of the literature on owner-managers (Mosakowski, 2002), which is why they resort to bootstrapping (Jones & Jayawarna, 2010) or using bricolage (Baker, Miner, & Easley, 2003). We reason that this causes a huge variance in the performance of

opportunities pursued by FMVs, much more so than is the case with other VFs. On the one hand, because of the personal objectives of the founder, the opportunities may result in inferior financial performance (Gomez-Meji, Nunez-Nickel, & Gutierrez, 2001). On the other hand, FMVs can engage in activities other entrepreneurial forms cannot or are unwilling to pursue. This is because they are not under as much scrutiny from outsiders (Randøy & Goel, 2003) and also because they have high-powered (personal) incentives to go after these goals.

FMVs typically make quick decisions using generic resources. This is consistent with agency theory, which points out that founders and their inside circles have no need to justify anything to outsiders and can hence make their own idiosyncratic decisions. Often, the founders will base these decisions on intuition and qualitative considerations, perceiving more formal systems as a potential threat to their authority (Gedajlovic et al., 2004). According to the literature on dynamic capabilities (Eisenhardt & Martin, 2000), their simple rules are particularly well-suited for highly dynamic environments where quick decision-making is essential. In addition, FMVs use generic resources, and this allows them to proceed more quickly. This enables FMVs to pursue ephemeral opportunities that are beyond the reach of other types of ventures, although it simultaneously makes them more prone to failure. As a result, the FMV is less able to deal with complex environments. We reason that FMVs are therefore capable of dealing only with more narrowly defined contexts but that, compared to other forms, they are extremely agile in doing so.

Venture capital-funded ventures (VCVs)

VCVs are independent business-creation endeavors in which founders have given up substantial portions of ownership and control in return for private investment through brokers, called venture capitalists (VCs), in order to finance further development and market commercialization. This financing is mostly staged and dependent upon the successful completion of certain milestones (Chesbrough, 2000). In return for their capital and expertise, VCs obtain power in the venture through their contractual rights and control of the board, which is further enhanced by their ability to offer (or provide access to) needed future investments (Fried & Hisrich, 1995). As VCs need to exit and cash in their investment within a limited time frame, they often demand the right to force an IPO, or sell to another firm or the management (Zider, 1998). The founders are often required to accept severe limitations in decision-making, even though as part owner-managers, they have much broader discretion than managers of corporate ventures (CVs). For example, other than to the VCs, they generally do not have to justify their actions. Given the limited financial resources of startups, the non-founding employees are often rewarded through stock options. Hence, the purpose of the start-up is to act as a goal attainment device, not just for the investors and founders, but also for the initial employees who have some equity in the venture and also seek an exit event to liquidate their stake. This tightly aligns their interests to the venture's performance in the market, with a high upside (if successful) for all involved.

The governance characteristics of VCVs suggest that apart from the founder, they can attract risk-taking talent and VCs with leveragable expertise. This is consistent with the literature on VC. The founders typically provide the labor and core

expertise, and hold the decision rights afforded to top managers (Gedajlovic et al., 2004). These founders are considered the most important (Sahlman, 1997) and often the only element of a new venture about which a lot of information is available (Pennings, Lee, & van Witteloostuijn, 1998). The VCs, besides providing capital, also provide expertise that can be leveraged to the advantage of the venture: “operating services, networks, image, moral support, general business knowledge and discipline” (Fried & Hisrich, 1995: 102). In particular, the VCs’ networks provide access to potential new management (Fried & Hisrich, 1995) and they enlarge the social capital that the venture can build on, a factor shown to increase venture performance (Florin, Lubatkin, & Schulze, 2003). At the same time, this beneficial role of VCs should not be overstated as they work under severe time constraints (Zider, 1998). The rest of the employees consist of highly skilled and talented professionals who are attracted by the high-powered incentives of the VCV (Besanko, Dranove, & Shanley, 1996). The threat of job loss in such ventures further ensures discipline within the group of participants (Fried & Hisrich, 1995). We reason that all of these characteristics allow the VCV to attract talented and entrepreneurial actors.

VCVs are normally undercapitalized and tend to have tied conditional funding. This is in accord with the literature on VC financing, which finds that VCVs attract staged conditional financing (Chesbrough, 2000) from VCs who receive a controlling stake in the venture. Although the VC investors are sought after for their capital, they are also valuable because of their close involvement with the firm (i.e., their contacts and strategic advice) (Graebner & Eisenhardt, 2004). Given the kinds of high-growth opportunities the ventures pursue, VC funding is often the only avenue available to them. The provided VC funding is typically much less than the funding large firms afford their internal ventures and are furthermore usually applied toward accomplishing a liquidity event rather than toward setting up complementary capabilities. For example, while the largest biopharma VC deal in 2009 was US\$146 million (Martino, 2010), large firms like Toshiba invested nearly US\$3.9 billion in flash memory plants (Clenfield, 2010). VCVs need to complete certain milestones (Bigus, 2006) in order to attract additional staged financing (Chesbrough, 2002). We therefore reason that although VCVs can attract larger sums of capital than FMVs (albeit less than CVs), this capital is tied to milestones and, as such, VCVs are typically undercapitalized with respect to the high-growth opportunities they pursue.

VCVs normally pursue opportunities that lie within specific high-growth markets and can be harvested in the foreseeable future, approximately 3–7 years, through a liquidity event. This is consistent with the literature on VCs, which suggests that being in a high-growth industry is even more important than having a great idea in order to secure a profitable liquidity event (Zider, 1998). The incentives of all involved in the venture are aligned in achieving this goal (Arthurs & Busenitz, 2003). Given that there is one overarching goal (a liquidity event) there is much less variance in the opportunities sought to achieve this purpose. Although the opportunities are explorative because of the need to achieve high growth, investors also try to reduce their risk as much as possible which results in ventures that can be less explorative than in FMVs. This explains why VCVs have strict criteria for the opportunities they pursue. Based on this, we reason that the VCV, as opposed to other VFs, will normally refrain from investing heavily in the setup of

complementary capabilities because they have no long-term interest in the venture beyond the exit event.

The decisions of VCVs are typically made reasonably quickly, although less so than the FMV, to ensure the firm is on target for the liquidity event (Chesbrough, 2000). Since the purpose of the venture is an exit, there is typically little to no investment in specialized resources. Hence, we reason that VCVs make quick decisions that ensure a liquidity event within 3–7 years.

Corporate ventures (CVs)

Because new business creation is difficult from within the hierarchical structure of large firms (Keil, McGrath, & Tukiainen, 2009), many of them have created separate units called CVs (Hill & Birkinshaw, 2008) that allow them to emulate some of the characteristics of VCVs (Chesbrough, 2000). Yet in order for CVs to benefit from their embeddedness in the parent firm, such as through the use of its complementary assets (Chesbrough, 2000), their segregation must be limited (Day, Mang, Richter, & Roberts, 2001). Since ownership of the venture rests with the shareholders of the parent firm, venture managers hold fiduciary powers “in trust” (Clark, 1985) and need to justify their decisions (Gedajlovic et al., 2004). The CV’s decision-making power is thus dependent on many stakeholders in the parent with relevant functions or positions. It is also subject to oversight by the board of directors, formal planning procedures, operational rules, and policies (Useem, 1993). The purpose of a CV is tied to that of the parent: maximizing shareholder value (Hamel, 2000). Because venture members own little or no stock in the venture, it serves more as an institution that satisfies the needs of a range of stakeholders including venture members, top management, other divisions, and strategic staff. CVs offer low-powered incentives (Chesbrough, 2000) to their members because they are primarily salary based (Zenger & Lazzarini, 2004). Since venture managers do not possess the same rights to profits as owner-managers, rather than maximizing profit their interests are better served by pursuing growth and diversification strategies (Aggarwal & Samwick, 2003). As for job security, they often have the option of returning to the parent firm should the venture fail.

Governance characteristics of the CVs suggest that they consist of individuals from the parent firm who have been selected through bureaucratic politics. This is congruent with the literature on internal corporate venturing (i.e., Dess, Ireland, Zahra, Floyd, Janney, & Lane, 2003) which suggests that CVs tend to attract the younger, less experienced employees who are more open to a new career venue (IBM, 2005) rather than the more senior experienced managers who already manage a substantial number of employees within the parent firm. Giving up their top positions to participate in a new venture is not very enticing, particularly when managers who invest in the launch of the venture might be replaced by others who reap the benefits of that investment later in the venture’s life cycle (Chesbrough, 2000). As a result, these ventures often consist of a young inexperienced team that lacks legitimacy in the parent firm. The venture tries to make up for this void by persuading senior managers to champion its cause (Kelley, Peters, & O’Connor, 2009). In addition, the pool of employees from which the venture draws its members (that of the parent firm) is often inadequate. The entrepreneurs and innovators have

already left the parent because promotions in the parent tend to be based on “compatible personality, predictability, communications ability, and a record without notable mistakes” (Sykes & Block, 1989: 166). Even if the right kind of participants would exist, the venture fails to attract them because of its low-powered incentives that attract conformist and team-oriented participants rather than the required individualistic and more risk-taking talent (Zenger & Lazzarini, 2004). With diminished risk of job loss (Chesbrough, 2002), any lack of commitment (Fried & Hisrich, 1995) is further exacerbated. Hence, we reason that CVs do not attract the most appropriate people and that their legitimacy will be called into question by stakeholders within the parent.

CVs use complementary resources of the parent that are both leveragable and a source of inertia. This is in line with the literature on related diversification, which indicates that resources should be leveraged across different firm activities though overstretching them should be avoided (Shayne, 2005). It is also in line with the literature on the advantages of large firms (Rothaermel, 2001), particularly their complementary resources (e.g., marketing, manufacturing, logistics) and their disadvantages, which highlights that these same resources can become core rigidities (Leonard-Barton, 1992). It is also consistent with the literature on internal corporate venturing, which indicates that CVs acquire resources periodically in a competitive setting with other initiatives as they engage in the parent’s budgeting cycle. Being part of that large parent enables the CV to tap into much larger quantities of resources than is the case with VCVs, yet, it also limits the resource base on which it can build (Chesbrough, 2000). We reason that while these (complementary) assets can be of huge benefit to the venture they may also constrain it because they have not been set up specifically for the venture, functioning as core rigidities rather than core capabilities.

CVs typically pursue opportunities that are synergistic with the parent firm (Dougherty, 1995). This is consistent with the literature on related diversification which finds that activities (Porter, 1987) or competencies (Clark, 2000) should be leveraged across multiple businesses to create synergies (Campbell & Goold, 1998), although firms must be mindful of implementation issues when doing so (Shayne, 2005). In this respect, setting up ventures that have no synergy with a parent would be senseless because shareholders are perfectly capable of investing in separate independent ventures themselves. That ventures should be synergistic with the parent is also in line with the literature that compares large to small firms and indicates the primary advantage of large firms resides in the complementary assets and capabilities that they provide (Chesbrough, 2000). On this basis, we argue that CVs pursue opportunities that are consistent with the existing resource base of the parent and that this constitutes both a benefit and a disadvantage. It is a benefit in terms of the ability to leverage existing resources; it is a constraint because they are hindered in pursuing opportunities that are unrelated to that resource base.

The CVs’ decision-making is slow and tied to organizational planning cycles. This is consistent with the literature on internal corporate venturing which indicates that CVs need to justify and gain approval for their actions from various stakeholders in the parent firm (Kelley et al., 2009). These stakeholders tend to approve decisions as part of the planning and budgeting process, resulting in tardy decision-making. The purpose of the ventures is to create future business for the

parent, and, as such, decisions have a much longer time horizon than VCVs. In fact, because of the specialized resources that underlie the venture, the decision-making must necessarily involve a longer time horizon. Hence, we reason that CVs are relatively inert in their decision-making.

Joint ventures (JVs)

JVs are a form of external corporate venturing (Schildt, Maula, & Keil, 2005) in which the parent sets up an institutional alliance with another firm in the form of a new legal corporate entity to pursue an opportunity that it finds hard to pursue on its own. Besides contracting, the JV also involves equity sharing (Zollo, Reuer, & Singh, 2002). Rather than specifying the behavior of each party in the venture, “the initial commitments and rules of profit-sharing are specified along with administration procedures for control and evaluation” (Kogut, 1988: 321). Power in a JV is shared by the two independent firms that set it up. Through bargaining they negotiate rules for the shared decision-making as well as who will be involved (Harrigan, 1988). The purpose of the JV is varied because it tries to attain the goals of both parent firms. This works best when the parents’ strategic goals converge and their competitive ones diverge (Hamel, Doz, & Prahalad, 1989). The issue with JVs is that over time the dependence of one partner on the other changes, and this is in part due to learning effects. The JV offers very low-powered incentives to its managers and employees as a result of the tug-of-war between the two masters. The “mutual hostage positions” (Kogut, 1988: 321) that were necessary to align incentives between the two parents are also not very motivational for the workforce. In addition, employees are often more aligned with one of the parents than with the JV per se. Moreover, the potential for the venture to be dissolved in the future looms over the venture creating a disincentive for employees to fully commit to the JV.

The governance characteristics of the JV suggest that, generally speaking, it is staffed with managers and employees from both the partner firms who are not the best of either firm. This is consistent with the literature on JVs, which highlights the different objectives of the partners and hence the fear that the other partner might gain more control over the JV (Chen, Park, & Newbury, 2009). In order to safeguard against this threat, staffing is considered an essential control mechanism. Top management therefore typically consists of managers from the two parents (Li, Tsui, Xin, & Hambrick, 1999) and their incentives are aligned with the parent from which they were drawn rather than with that of the JV (Shenkar & Zeira, 1987). The remaining employees also tend to be aligned with a parent who “inform[s] [them] about what skills and technologies are off-limits to the [other] partner and monitor[s] what the partner requests and receives” (Hamel et al., 1989: 134). Because of these factional loyalties, the JV requires increased monitoring to avoid opportunistic behavior by the other faction (Gerwin & Ferris, 2004). In addition, neither of the two firms, because of the fear of leakage and the long duration of the JV, is eager to provide and lose their best people to the JV (Lorange, 1996). As such, we reason that JVs will consist primarily of younger and lower status employees, who are constrained by their allegiance to one parent in what they are permitted to do.

JVs use resources that are contractually stipulated and they draw on a large, potentially excessive, pool of capital. This is supported by the JV literature, which

indicates that parent companies contribute resources jointly because “it takes so much money to develop new products and to penetrate new markets” (Hamel et al., 1989: 133). The assets contributed by each partner are both complementary and often venture specific (Harrison, Hitt, Hoskisson, & Ireland, 2001), the result of the two firms having had the choice to select their partner. They are in theory provided in proportion to the initially agreed upon ownership stake. This agreement covers not only the initial resource contributions but also those during the course of the venture. It also seeks to protect the firms from undesired resource exchange or information leakage (Gerwin & Ferris, 2004). However, at different points in time, each party makes different resource contributions. Because the *ex-ante* agreed-upon ownership stake stays the same, this often leads to *ex-post* tensions between the two parties, sometimes resulting in their disintegration. We reason that JVs can do things individual firms cannot do because of the ability to pool complementary resources but they face the problem of acquiring new resources once a resource-sharing agreement is made.

JVs primarily pursue opportunities that consist of capabilities that are complementary for each partner (Harrison et al., 2001) and are supplied upon agreement. In this respect, such arrangements are pursued when parents’ competitive goals diverge but their strategic ones converge (Hamel et al., 1989). Thus, JVs necessarily involve exchanging complementary knowledge and capabilities between both partners. Such an exchange is an essential component of a JV agreement. At the same time, this exchange is considered a threat in terms of “unintended, informal transfers of information” (Hamel et al., 1989: 137) from which protection is sought by incorporating safeguards in the agreement. Because the parties are free to choose the partner they desire, the knowledge base is much more specific to the venture than is the case with CVs, which must make do with the existing base of the parent. Thus, we argue that JVs will primarily be successful at pursuing a small set of opportunities, namely those that leverage the complementary yet restricted resource domains of the partners.

JVs are not well suited for making timely decisions. This is consistent with the literature on dynamic capabilities, which highlights that they are subject to extremely complex decision rules (Eisenhardt & Sull, 2001) given that every decision needs to be justified and approved by the two partners. In addition, it is also consistent with the literature on JVs, which indicates that it takes a long time to draw up and renegotiate contracts. These factors make JVs inert and less likely to make truly explorative discoveries (McGrath, 2001).

Government policy and entrepreneurship: Addressing governance infrastructure deficiencies in Asia

Nations must have stocks of VFs that can tackle the range of entrepreneurial opportunities with which they are faced. As we discussed in the prior section, this is because each venture form has certain qualifications that makes it best suited to pursue particular types of entrepreneurial endeavors. The overall entrepreneurial performance of a nation is thus contingent on the contributions of the various types of VFs (i.e., on the composition of its stock of VFs). The balance of its stock of VFs

is determined by the institutional context which, as we have shown, is quite different across the three sets of Asian countries. Changes to this balance are thus contingent on changes in a nation's institutional context.

An important aspect of the institutional context in which government can play an active role is the governance infrastructure, which “comprises public institutions and policies created by governments as a framework for social and economic relations” (Globerman & Shapiro, 2002: 1901). Through policy measures governments can attempt to alter a nation's governance infrastructure, allowing for the emergence of VFs with a different corporate governance structure. Consequently, by changing their governance infrastructure, countries can attempt to change their stock of VFs and therefore their entrepreneurial capabilities and entrepreneurial performance. We say “attempt” as we recognize that the institutional context, in particular the informal context (Estrin & Prevezer, 2009), is not something that is changed merely as consequence of policies having been put in place. Yet, deficiencies (Audretsch, 2004) in the governance infrastructure will need to be addressed if a greater prevalence of certain VFs is to occur. We have highlighted some of these deficiencies in Asian economies in the opening section.

Governments across the world, with some East Asian ones being notable for their industrial policies, have tried to improve their entrepreneurial performance through policies aimed at modifying their governance infrastructure (Minniti, 2008), notwithstanding limitations in doing so (Easterly, 2008). In this regard, Baumol (1990) states that the role of government is to provide conditions that steer entrepreneurs to productive, as opposed to unproductive, entrepreneurial endeavors. Government interventions can be indirect, as when they alter the financial or legal environment, or they can be more directive like when they try to create new industries (Spencer, Murtha, & Lenway, 2009). A recent example of a directive government intervention was Taiwan's creation of the Biotechnology and Pharmaceutical Industries Promotion Office (Wong et al., 2005). In certain cases, interventions have been quite drastic and large-scale, as has been the case in some countries transitioning from centralized communist systems to market-based systems (Keister, 2009; Peng, 2003). However, in such transitions, policies have had a mixed impact on the onset of entrepreneurial behavior (Keister, 2009; Peng & Jiang, 2005). In general, studies have shown that government policies aimed at promoting entrepreneurship remain mixed in their results (Capelleras, Kevin, Greene, & Storey, 2008). Shane (2009) claims this is because policies treat all start-ups as equal and instead calls for a focus on high growth entrepreneurship. We suggest that one reason for these mixed results is that policies need to consider a nation's stock of VFs and their complementarities instead of either assuming that all forms are homogenous or that there is one optimal form.

The kinds of policy measures nations undertake are, of course, strongly related to the stage of development of a country. Industrialization constituted a major stage of development for nations (Chandler, 1977) as it was accompanied by a shift from small to large firms putting factors to more productive use through large-scale manufacturing and lower transaction costs (Williamson, 1975). Porter (1998) describes this shift as moving from a factor-driven to an investment-driven phase. This is then followed by an innovation-driven and next a wealth-driven phase. The shift from an investment-driven to an innovation-driven economy has been

accompanied by the reemergence of smaller more nimble firms that now cooperate in networks to facilitate knowledge sharing. Porter suggests policies in factor-driven economies should focus primarily on enabling free markets for commodities and unskilled labor; in investment-driven ones providing infrastructure, a conducive regulatory environment, and facilitating investments in manufacturing methods; and in innovation-driven ones ensuring investments in R&D and education as well as the regulation of capital markets and judicial systems that support high-tech start-ups (Porter, Sachs, & McArthur, 2001). Another major shift in policy that occurs when economies move from investment- to innovation-driven ones is that the locus of policy changes from the national to the local level (Audretsch & Thurik, 2001) in order to facilitate the formation of knowledge clusters that underlie innovation. With countries being able to leapfrog stages, it comes as no surprise that many advocate for policies that move nations to innovation-driven economies (Goh, 2005). Neglecting a nation's factors while upgrading to innovative activities may, however, put nations at a disadvantage (Davies & Ellis, 2000). In terms of our three sets of countries (see Table 3), China can be considered to be investment-driven, owing to its focus on low-cost manufacturing. The NIEs can be considered to be in transition from investment-driven to innovation-driven economies, although they are experiencing challenges in doing so (Carney & Gedajlovic, 2000). Japan and South Korea

Table 3 Suggested venture forms and policies for Asia.

Phase	China	NIEs	Japan & Korea
Innovation-driven	<ul style="list-style-type: none"> VC-funded ventures Corporate ventures <hr/> <ul style="list-style-type: none"> Risk capital market development Intellectual property protection Cultural norms on investments in entrepreneurship 	<ul style="list-style-type: none"> VC-funded ventures Corporate ventures <hr/> <ul style="list-style-type: none"> Risk capital market development Stronger networks/clusters (i.e., by collaborating with research centers and forming alliances) 	<ul style="list-style-type: none"> VC-funded ventures Corporate ventures for <i>keiretsu</i> and <i>chaebols</i> <i>keiretsu</i> and <i>chaebols</i> <hr/> <ul style="list-style-type: none"> Further risk capital market development More transparent corporate governance measures More fluid labor market
Investment-driven	<ul style="list-style-type: none"> More efficient SOEs JVs (more learning) Foreign subsidiaries Family businesses (more professional) <hr/> <ul style="list-style-type: none"> Investment support Free market reforms More transparent government practices Stricter regulatory environment 	<ul style="list-style-type: none"> Family businesses (more professional) Government linked enterprises <hr/> <ul style="list-style-type: none"> Investment support Promotion of value-added manufacturing 	
Factor-driven	<ul style="list-style-type: none"> More efficient SOEs Family businesses (more professional) <hr/> <ul style="list-style-type: none"> Free market reforms More transparent government practices Stricter regulatory environment 		

can be considered to be largely in the next stage, innovation-driven economies, owing to their focus on value-added products and services.

The VFs we have discussed can be associated with these phases. FMVs are primarily associated with factor-driven economies, although some have managed to find a role in both investment- and innovation-driven economies. JVs are primarily associated with investment-driven economies as vehicles for FDI and a means for acquiring manufacturing technology, although they may perform similar roles in factor-driven economies. VCVs and CVs are primarily associated with innovation-driven economies. It is important to realize that even innovation-driven economies require factors as well as large-scale manufacturing. As Rothaermel (2001) points out, even the smaller networked firms typical of the innovation-driven economies still need to work in conjunction with large-scale firms. Hence, no matter the development stage, VFs still perform complementary roles. This underscores the need for nations to consider their entire stock of VFs when engaging in policy making. Below we reflect on these issues for the three sets of Asian countries.

Overall, latecomer China's low yet fast improving performance (both in terms of GDP/capita and GERD/GDP) can be linked to its strong capabilities in low-cost manufacturing. However, it is held back by its weak capabilities in R&D and product development. This can be related to its stock of VFs characterized by a prevalence of mostly still inefficient SOEs, by foreign wholly-owned subsidiaries that generate the majority of exports, and by domestic family-owned businesses that operate in niche markets. This stock of forms can be explained by China's institutional context, which is still transitioning from a centrally planned to a market economy. Although China has legalized private property and has made numerous changes to its governance structure, for example by making government shares tradable (Hu & Gao, 2009), much of its institutional context still carries the history of the previous era. In order to address its deficiencies in R&D and product development, additional reforms to its governance policies will likely need to be made in multiple areas for changes in the stock of VFs to occur. Changes in the governance of SOEs, as well as China's development of a VC market that is to result in increased levels of venture-funded forms, will need to be accompanied by policies aimed at enforcing intellectual property protection and decreasing the information asymmetry for investors. Further to this, campaigns aimed at influencing cultural norms regarding loans and investments in entrepreneurial endeavors are required.

The NIEs' performance is ahead of China, but behind that of Japan and Korea (in terms of GDP/capita and GERD/GDP). This can be linked to their strong capabilities in certain sectors (e.g., PCs in Taiwan, electronics in Singapore, and banking, retail, and trade in Hong Kong). Their capabilities, however, remain weak in terms of the upgrading of their value chains through R&D and branding. Again, this can be related to their stock of VFs with a prevalence of family businesses, which do not generally invest much in capital and resource intensive industries. Here too the stock of VFs will need to undergo change for the NIEs' R&D capabilities to improve. Increasing collaboration with research centers in order to create new technologies, as opposed to merely assimilating it from foreign firms, is one way. Setting up alliances in such a way that the collaboration results in the development of innovative capabilities and attracts investments in capital and resource intensive industries is another. Yet another option is the further development of their VC markets, which all

three NIEs have embarked on even though there remain institutional factors that constrain the emergence of VCVs.

Front-runners Japan and Korea show the strongest economic performance that can be associated with world-class capabilities in innovation and an array of well-known global brands. This can be explained by their stock of VFs characterized by the dominance of large conglomerate networks, which have made long-term investments in capital and resource intensive industries and whose power base stems from historic ties with their governments. Nevertheless, Japan and Korea's reliance on this particular form has been called into question, in particular because of some recent failures of such conglomerates. Changes to Japan and Korea's stock of ventures have been suggested, particularly through the adoption of US-style corporate governance practices, even though such practices are only partially being adopted (Nakamura, 2009). New start-ups or larger independent firms, which seek resources from external financial and labor markets, have been suggested as more appropriate forms for achieving explorative innovation (Hoskisson, Yiu, & Kim, 2004). While policies are aimed at providing risk capital for such ventures, complementary policies are likely also needed such as those aimed at opening up the internal labor markets and addressing the societal preference for a career with large firms (Hoskisson et al., 2004). More diversity in the types of VFs is likely to occur as a result of the current trend in Japan and Korea towards regionalization of its innovation policy (Kitagawa, 2007).

All of the Asian economies we have discussed display a need for the development of more risk-taking R&D capabilities. To achieve this, their stocks of VFs show a need for an increased prevalence of VCVs. Japan and Korea's large conglomerates, with their internal capital and labor markets, are well suited for the exploitation of R&D (Hoskisson et al., 2004) but highlight a need for VC forms that are good at more risk-taking R&D. The NIEs have a strong prevalence of owner-managed firms (i.e., family businesses) but show a lack of investment in R&D as well as in capital and resource intensive industries. Here too VCVs should in theory be able to provide the desired increased investment in R&D as well as increased investments in capital and resource intensive industries. Larger investments in such intensive industries, though, will need to typically come from VCVs, CVs, or alliances with large foreign firms. China's FMVs and large SOEs, as opposed to Japan's *keiretsu* and Korea's *chaebols*, lack R&D capabilities, suggesting the need for VCVs. The focus on VCVs for achieving growth is not surprising given that they comprise a large portion of the high-growth Gazelles, which have been shown to be responsible for significant growth (Henrekson & Johansson, 2009).

This focus on innovation or risk-taking R&D capabilities, and the desire to shift the stock of ventures to include more VCVs and CVs, is typical for countries in or transitioning into the innovation-driven phase (Carney & Gedajlovic, 2000). With Japan and Korea largely in that phase, the NIEs trying to transition into it, and China aspiring to do so, this should come as no surprise. Yet, addressing deficiencies in innovation should not come at a cost to other parts of the economy, which may be factor- and investment-driven. These may act as complementary segments of the economy to those that focus on innovation (Stieglitz & Heine, 2007) and have a role to play on their own as well. The NIEs, feeling the heat of China's ascent, have certainly adopted policies to promote innovation but have nevertheless also adopted

policies to maintain the strengths of their investment-driven economy. Singapore, for example, has promoted policies that promote higher value-added manufacturing while regionalizing its lower-end manufacturing to surrounding countries with lower cost structures supported by tariff exemptions (Economic Review Committee, 2003). China, owing to its vast geographic area, is abundant with resources and therefore possesses not merely a strong investment-driven segment but also a factor-driven segment of the economy (Zhang, Xing, Fan, & Luo, 2008). These segments still require policies that ensure free-market mechanisms, transparent government practices, and a regulatory environment that support the free flow of capital and commodities and longer-term investments in manufacturing technology. Otherwise, it will remain dependent on inefficient SOEs or foreign firms for investments in those segments.

From a public policy perspective, our basic recommendation is that continued economic growth requires a mixture of venture forms that is appropriate for a nation's developmental stage. In this respect, forms having performance characteristics that are particularly effective at dealing with a business environment at one developmental stage often become dominant and well entrenched by virtue of specific policies and formal and informal institutions that have emerged to support them (Carney & Gedajlovic, 2002). Under such circumstances, both dominant organizations and the policies and institutions that engendered and support them can become powerful hindrances on the ability of a nation's business system to make transitions to more advanced stages of economic development.

As illustrated by Table 3, China, the NIEs, and Japan and Korea are at different developmental stages and thus possess very different formal and informal institutions and stocks of firms. They consequently face very different *specific* developmental challenges. However, our analysis suggests that at a more general level, their policy issues are remarkably similar. In this respect, the basic conundrum facing their policy makers is how and when to wind down support for certain types of forms and step up support for newer forms more capable of dealing effectively with the challenges associated with its current and future developmental needs. At first glance, the problem appears to be basically one of timing where (to use a metaphor) policy makers must decide to start placing their bets on new "horses" or venture forms. However, we view the challenge facing policy makers as much more challenging than simply changing their "betting" patterns on ventures. We reason this to be the case because the "older horses" that were instrumental in bringing a nation to its current state of economic development are often represented by powerful actors (e.g., managers, government officials, plutocrats) having a vested interest in maintaining their dominant role in that nation's system of new business creation.

Even more vexing impediments to change are the many varieties of formal and informal institutions that arise to support dominant forms but also often starve new types of venture forms from the resources they need for their emergence and growth (Carney & Gedajlovic, 2000). For instance, a reliance on government-mediated financing may have been instrumental in jump starting China's economic revolution but such practices also forestalled the emergence of efficient equity markets, which deprived China's young high-tech firms of the sorts of VC they require. In the past, China's public policy was aimed at picking winners but, in the future, China's

economic goals may be further advanced by allowing emerging firms more unfettered access to private sector capital and managerial capabilities. In this regard, government-backed firms in China have legitimized the use of VC in their country but have not been very effective at picking winners (White, Gao, & Zhang, 2005). Having legitimized the use of VC in China an important public objective has already been achieved, and now more suitable forms of VC are beginning to become available to young high-tech firms in China.

The reliance in NIEs on family business groups was born out of their ability to develop informal contracting capabilities in order to deal with ineffective property rights and transaction enforcement mechanisms. However, these capabilities of family business groups have also forestalled the emergence of more effective formal institutions protecting property rights and safeguarding formal transactions (Carney & Gedajlovic, 2000). It is these factors that have disadvantaged indigenous high-tech businesses compared to both business group-affiliated businesses and their counterparts in North America and Western Europe. For these reasons, some finance scholars have called for policies leading toward the dismantling of business groups in order to allow for the development of ventures that are better equipped for handling more complex environments (Almeida & Wolfenzon, 2006).

More generally, policies establishing counterbalancing and even adversarial institutions such as those relating to the enforcement of antitrust regulations, the enabling of markets for corporate control, and the use of power politics are likely needed if new ventures forms are to gain ground. In this respect, Carney (2004: 183) advocates for such adversarial institutions and notes that restructuring processes too often further entrench “*incumbents’ positions since the tools that might dig them out are blunted.*” On this point, we concur with Carney and believe that unless more counterbalancing and adversarial policies and institutions are adopted, many Asian nations will find it difficult to achieve the needed changes to their stocks of venture forms.

Conclusion

From a theoretical perspective, this study contributes to studies on Asia’s economies. Such economies have tended to emphasize one particular prevalent venture form, or a transition from one prevalent form to another, often as part of a description of the institutional context. For example, studies typically emphasize the Chinese family business form in the NIEs or the SOEs in China. This study, however, highlights the importance of assessing the stock of VFs in studies on Asia’s economies because of the unique and complementary roles that different VFs perform in Asia’s economies. Their shifting roles as a consequence of Asia’s changing institutional context and governance infrastructure was also explored. Our study, in taking a stock-of-venture-forms approach, also clarifies why the practice of using start-up or self-employment data for analyzing nations’ entrepreneurial performance is misleading. The contribution that an important part of a nation’s venture stock makes, namely that by CVs and alliances, is excluded in that approach. Additionally, while VFs are part of the institutional context, we have highlighted for Asia how they can also be viewed as distinct and as being shaped by that context, particularly by the

governance infrastructure. This enables highlighting of the role that the corporate governance of VFs plays in the pursuit of opportunities.

Future studies could build on this study by focusing more on the evolutionary stages of entrepreneurial venture discovery and commercialization (Shane & Venkataraman, 2000) and the specific demands on the ownership structure that these stages entail. Studies could also take the entrepreneurial opportunities pursued and the context in which this occurs much more into account than is currently the case. Merely stating that large firms are outmaneuvered by start-ups is therefore of little use. As this study shows, rather than making broad generalizations, it is more useful to understand VFs as being appropriate vehicles for certain kinds of opportunities and situations.

Our discussion needs to be considered in light of certain limitations. We have considered the effect of the institutional context on a nation's stock of VFs but there is also, of course, a reverse feedback effect (Carney & Gedajlovic, 2002). Additionally, our list of VFs is not exhaustive and new forms may arise (Aldrich & Fiol, 1994) that change the region's stocks of VFs. We also have only merely touched on how old forms impede the onset of new ones or how new forms hasten the demise of old forms. All these processes call for additional analysis. We need to understand how Asia's economies and firms, evolving along related path-dependent trajectories, see VFs becoming institutionalized and deinstitutionalized. While we have not examined these dynamic processes, we have taken stock, which is a crucial prerequisite for understanding Asia's transformation if we are to understand the reciprocal influence of Asia's changing institutional context and its changing stock of VFs. With Asia's increasing role on the world stage, it will be most interesting to see how this stock of VFs will be transformed and where these vehicles for change will lead the region in the future.

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