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# THE GLOBALIZATION OF INNOVATION AND ENTREPRENEURIAL TALENT: THE CHANGING CONTEXT OF VENTURE CAPITAL INVESTMENT

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# The Globalization of Innovation and Entrepreneurial Talent: The Changing Context of Venture Capital Investment

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#### Abstract

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## 1 Introduction

Venture capitalists find, fund, and assist *high-impact entrepreneurs*—individuals whose firms are instruments of Schumpeter's (1939) "creative destruction" and the "creation of new economic spaces" (Acs, 2008). These entrepreneurs form firms characterized by a lack of substantial tangible assets, the expectation of several years of negative earnings, and extremely uncertain prospects. Venture capitalists provide these high-potential ventures with capital, advice, contacts, and experience. They bring to the table a host of financial and organizational "technologies" including screening capabilities, due diligence processes, staged financing, investment syndicates, compensation contracts, and corporate governance practices. Through these activities, venture capitalists help bring unproven, innovative ideas to market, overcoming the uncertainty and risk associated with new business development (Berger & Udell, 1998; Gompers & Lerner, 2001; King & Levine, 1993).

An examination of recent patterns of venture capital investment suggests that the venture capital industry is in the early stages of a profound transformation catalyzed in part by the globalization of high-impact entrepreneurship (Acs, Morck, & Yeung, 2001; McDougall & Oviatt, 2000). In the past decade international participation has become an increasing component of venture deals (Aizenman & Kendall, 2008). In the last five years, U.S. venture capital firms increased international investment activity, as Table 1 details. This change in the allocation of early-stage venture investment has important implications for the financing of young firms, the speed of innovation and technological transformation, and the locus of long-term economic growth.

# Table 1 Time Series of Cross-Border Investment by U.S. Venture Capital Firms

The sample is 24,326 rounds of venture financing from the set of firms that received their first round of venture finance after January 1, 1980 to December 31, 2007. The table shows the round year, the number of cross-border rounds, the count of new venture capital firms making their first cross-border investment, the count of new portfolio firms receiving cross-border investment, the total amount of investment in thousands of 2007 dollars, and cross-border investment represented as a percentage of total U.S. venture investment.

Year	Number of rounds	Number of cross- border rounds	New venture capital firms making investment	New portfolio firms receiving investment	Amount of Investment (T \$US)	Cross- Border Investment (T \$US)	Cross- Border Investment as % of Total Investment
1980	113	1	1	1	779297	600	0.08%
1981	178	1	1	1	1719322	4595	0.27%
1982	166	1	1	1	1167006	13402	1.15%
1983	294	1	1	1	2164085	1485	0.07%
1984	325	6	4	6	2054618	8196	0.40%
1985	325	3	3	2	3235563	6456	0.20%
1986	340	6	4	5	2487413	38832	1.56%
1987	539	11	5	8	3818567	38051	1.00%
1988	511	10	4	8	3566571	56155	1.57%
1989	561	17	6	15	3410363	194796	5.71%
1990	563	21	2	20	3394723	286854	8.45%
1991	451	18	3	17	3519737	233613	6.64%
1992	519	23	2	21	3296816	244528	7.42%
1993	449	26	4	22	2934770	135277	4.61%
1994	500	29	6	29	2994212	109325	3.65%
1995	772	49	12	42	5780596	345457	5.98%
1996	1069	52	10	47	7041125	327308	4.65%
1997	1198	57	9	54	7691384	265674	3.45%
1998	1414	96	21	88	10187456	847039	8.31%
1999	1948	165	34	153	13438393	1049983	7.81%
2000	2639	304	50	279	18873699	2099777	11.13%
2001	1509	158	32	136	9391162	770701	8.21%
2002	1194	110	18	91	7155296	907809	12.69%
2003	1130	90	12	76	8164334	1758831	21.54%
2004	1313	117	15	107	7822323	945015	12.08%
2005	1294	105	17	92	7048623	560450	7.95%
2006	1500	147	14	132	7729981	885241	11.45%
2007	1600	154	19	138	8502639	963032	11.33%

We are in the midst of a significant shift in the locus of innovation, entrepreneurial activity, and economic growth driven in large part by changes in stock and flows of human capital (Florida, 1997; 2005). The financing of high-impact entrepreneurial firms now occurs in a "post-American world" (Zakaria, 2008) one in which innovation, talent, and consequent entrepreneurial activity are no longer the exclusive provenance of well-known centers of innovation (Bresnahan, Gambardella, & Saxanian, 2001; Carlsson, 2006; Florida, 2005a; Howells, 1999). Changes in innovative capability driven by flows of talent, capital, and entrepreneurial opportunity have the

potential to alter the geography of venture investment and its associated regional development. As Olson (1982) notes, some established regions cannot adapt, and other regions enjoy propulsive development. We are now learning that Schumpeter's "creative destruction" effects are as much geographic as they are technological and organizational.

# Table 2 Geographic Patterns of U.S. Cross-Border Venture Capital Investment

Data are 1142 rounds of venture financing by U.S. venture capital firms that received venture financing between January 1, 1992 and December 31, 2007. The data are organized by region, providing number of rounds, amount of financing in thousands of 2007 dollars, the regional percentage expressed as a percentage of the total amount and total rounds over five-year windows (1992-1997, 1998-2002, 2003-2007) and across the entire sample (1992-2007).

	1992-1997			1998-2002			2003-2007			1992-2007		
	Rounds	Amount	% Total	Rounds	Amount	% Total	Rounds	Amount	% Total	Rounds	Amount	% Total
Asia (excluding												
China and Japan)	59	461,468	32.13%	69	1,191,845	21.02%	19	200,110	3.96%	147	1,853,423	14.52%
Australia												
New Zealand	4	19,497	1.31%	5	5,728	0.10%	2	31,891	0.63%	11	57,116	0.46%
Canada	12	108,078	7.39%	64	522,288	9.28%	47	440,781	9.00%	123	1,071,146	8.96%
Central/												
Eastern Europe	4	38,774	2.79%	16	135,316	2.39%	4	44,482	0.88%	24	218,572	1.76%
China	7	53,374	3.85%	24	231,378	4.10%	111	1,145,360	23.39%	142	1,430,112	12.71%
Western Europe	45	370,799	26.26%	173	1,395,772	24.80%	71	858,395	17.20%	289	2,624,966	21.55%
India	5	28,837	2.08%	35	253,246	4.60%	30	169,083	3.50%	70	451,165	3.85%
Israel	15	75,145	5.43%	45	345,201	6.18%	27	288,551	5.95%	87	708,898	6.00%
Japan	2	7,005	0.48%	16	147,999	2.64%	6	1,072,898	20.79%	24	1,227,902	10.54%
Latin America/												
Caribbean	2	13,840	0.94%	24	327,503	5.67%	5	51,899	1.00%	31	393,242	3.10%
United Kingdom	27	250,752	17.32%	105	1,075,606	19.22%	62	661,101	13.69%	194	1,987,459	16.55%

Table 2 helps to underscore the significant growth in early-stage venture investment by U.S. firms by highlighting the shift in the geography of venture capital allocations. After a period of relative diffusion, cross-border venture capital investment is concentrating again, and that concentration is more intense than in previous years. Where before cross-border venture capital transactions occurred in roughly equal measure across Asia, Canada, Western Europe and the United Kingdom, the new geography of venture capital investment is distributed in two regions: China/Japan (roughly 43 percent) and Europe/UK (roughly 20 percent). In 2000, cross-border deals in China represented a fractional amount of the top twenty countries for U.S. cross-border investment, with Europe and Canada garnering the lion's share. Today, the story has changed. In 2007, China attracted almost half (46 percent) of all early-stage venture investment by U.S. venture capital firms. In 2008 venture capital allocated to early-stage firms located outside of the United States rose another five percent to 13.4 billion dollars, with an increasing amount of that investment heading to the energy sector and emerging markets. This activity comes at the expense of Europe, which experienced a fifteen percent drop in investment in 2008 (Dow Jones VentureSource, 2009).

Until extremely recently, the impact of globalization on venture capital investment has been relatively limited, and has not necessitated a significant amount of adaptation by firms or the industry as a whole. While financial globalization has most certainly increased the amount of capital available for early-stage investment in high-impact entrepreneurial firms (Megginson, 2004), the differential in returns of U.S. venture capital firms compared to returns of their foreign counterparts (Murray & Marriott, 1998) ensured that U.S. firms had plenty of capital to invest, which they did—locally (Aizenman et al., 2008; Chen, Gompers, Kovner, & Lerner, 2009; De Clercq, Fried, Lehtonen, & Sapienza, 2006). In the last five years, however, the process of globalization has accelerated and its character has changed in ways that are likely to impact where venture capital is put to work, rather than simply where it is aggregated and managed.

After a half-century of funding firms that exist for the purpose of commercializing breakthroughs and transforming industries, venture capital may be in the early stages of a

transformation of its own. This activity "represents a puzzle" (Kenney, Haemming, & Goe, 2007) in two respects. First, it confounds earlier work found that venture capital in the United States grew organically out of the high-tech complex (in particular Silicon Valley) and the social structure of innovation itself (Florida & Kenney, 1988b). In this view, aligned largely with the history of venture investment, early successful entrepreneurs and early angel investors grew into more formal, institutional venture investors. For example, Florida and Kenney (Florida et al., 1988b) found that very view key players relocated from financial hubs such as New York, Boston, or Chicago to these new investment hubs, preferring instead to ship their capital to those locations and serving as limited partners. Second, venture capital investment is typically conceptualized in extant research as a local business, in large measure due to the requirement of venture investors to monitor portfolio firms closely (Gompers, 1995; Sorenson & Stuart, 2001) and the crucial importance of syndication and alliance networks (Hochberg, Ljungqvist, & Lu, 2007a; Hochberg, Ljungqvist, & Lu, 2007b). As detail emerges demonstrating that venture capital investment is globalizing, evidence is emerging that suggests that, contrary to predictions, venture investors do not view investment in distant firms as riskier (Guler & McGahan, 2006), and are not adapting their investment practices or management strategies to account for the potential for increased risk. While the venture capital canon has provided great insight into the structure and operations of the idealtypical venture firm, existing work provides few answers as to why a venture capital firm might choose to internationalize; what mechanisms influence a firm's ability to do so; and how (or if) venture capital firms might evolve their investment and management strategies in response to changes in their competitive landscape.

This chapter examines what we know about globalization, high-impact entrepreneurship, and venture capital investment. Its main contribution is to link these literatures together and to examine the results of that union, highlighting what we know and what remains to be done.

Our work is structured as follows. Section two contrasts the venture capital canon with a parallel body of work examining questions in international venture capital investment, and the challenge that the globalization of venture investment presents to this state of affairs. Section three draws from the globalization, innovation management, and human capital literatures to put the recent acceleration of cross-border venture investment in context. Section four proposes that insights from economic geography and entrepreneurship literatures provide a theoretical framework for understanding highgrowth new firm formation around the world. Section six explores the implications for venture capital research in a "post-American" world of diffused innovation, talent, and entrepreneurial activity. Section seven summarizes and concludes.

#### 2 Venture capital research: a tale of two literatures

Venture capital scholarship can be divided into two general categories. The first also the most well developed and influential—focuses on the activities and dynamics of the venture capital market in the United States. The seminal work in this stream represents the venture capital canon, and that literature has been covered in detail in this Handbook in previous chapters. Through this work we have gained significant insight into how venture capital firms raise the funds they invest (Gompers, 1996) screen prospective projects (MacMillan, Siegel, & SubbaNarashima, 1985; Shepherd & Zacharakis, 1999) make investments (Gompers, 1995; Hellmann & Puri, 2002) and exit portfolio firms (Brau, Francis, & Kohers, 2003; Lerner, 1994). And we have a clear picture of the venture capitalist as an active investor who assumes a monitoring role for the innovative entrepreneurial firm (Lerner, 1995; Sapienza, Amason, & Manigart, 1994) and uses specialized knowledge to add value to their portfolio firms (Gifford, 1997; Hsu, 2004, 2006; Sapienza, Manigart, & Vermeir, 1996; Wang, Wuebker, Han, & Ensley, 2009).

A second literature compliments and contrasts this first stream, focusing almost exclusively on venture capital as it occurs outside of the United States. This literature receives comparatively little scholarly attention (Wright, Pruthi, & Lockett, 2005). These two literatures have evolved in parallel, with very little overlap (Cornelius & Persson, 2006). Each follows a distinct research program, employing its own theoretical perspectives and examining an idiosyncratic set of research questions.

The reason for this divide is that the international aspects of venture capital investment "have not been an important research topic for U.S. for scholars" (Kenney et

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al., 2007). International venture capital investment represented a vanishingly small amount of overall investment—approaching zero—through the end of the 20th century and into the 21<sup>st</sup> (Aizenman et al., 2008). Cross-border activity by U.S. venture capital firms was largely confined to *ad hoc* "missionary efforts" (Kenney et al., 2007). Reflecting this perspective, international venture capital received only a passing mention in major reviews of the literature (Cornelius et al., 2006; Gompers et al., 2001, 2004b; Wright & Robbie, 1998).

In contrast to the activities of U.S. firms, Asian and European venture capital organizations internationalized early. Aizenman and Kendall (2008) note that in the case of both venture capital and private equity outside of the United States, cross-border participation has been (and remains) commonplace. The European Venture Capital association estimates that around 30% of the amount invested by European venture capital firms in 2003 was transacted outside of the home country (EVCA, 2004). In the case of venture capital firms in the United Kingdom, that percentage increases to almost 50% (Manigart et al., 2006). International venture capital research evolved to address research questions raised by these investment patterns (Wright et al., 2005; Wright et al., 1998). The evolution of this literature matched the spread of venture capital around the world, and growth in this literature continues to this day. In the 1990s, only 29% of venture capital research was undertaken outside of North America. However in the past five years, more than half of the research on venture capital has been completed by scholars outside the United States, largely in the European Union but includes representatives from every continent (Cornelius et al., 2006).

Early "international venture capital" research was exploratory and descriptive in nature, focusing on detailing the inception, evolution, and performance of domestic venture capital industries. A stream of predominantly qualitative research examined the inception and evolution of national venture capital industries outside the United States (Avinimelech, Kenney, & Teubal, 2004a; Clark, 1987; Dossani & Kenney, 2002; Manigart, 1994). Other international venture capital scholars used interview and surveys to complete cross-country comparisons of national environments (Sapienza et al., 1996; Wright, Lockett, & Pruthi, 2002a). A thin stream of research incorporated surveys and in-person interviews to examine questions related to cross-country differences in firm

operations (Bruton & Ahlstrom, 2003; Bruton, Dattani, Fung, Chow, & Ahlstrom, 1999; Bruton, Fried, & Manigart, 2005; Pruthi, Wright, & Lockett, 2003; Sapienza et al., 1996; Zacharakis, McMullen, & Shepherd, 2007). Taken as a whole, this work provides a rich picture of the development of domestic venture capital in the United Kingdom, Asia, Japan, and India (Avinimelech & Teubal, 2004b; Clark, 1987; Dossani et al., 2002; Ooghe, Manigart, & Fassin, 1991).

An important finding from these studies is that, despite significant effort by governments and regional policy-makers, U.S.-style venture capital investment has not diffused easily (Hege, Palomino, & Schwienbacher, 2003; Murray et al., 1998). Efforts to stimulate venture capital domestically have met with mixed results (Gompers et al., 2001). Even technologically advanced countries such as Germany and Japan have struggled to develop a vibrant venture capital industry, and this in spite of strong government and corporate backing (Becker & Hellmann, 2005; Kenney, Han, & Tanaka, 2004).

The "tale of two literatures" detailed above—U.S. research on one hand, and international venture capital research on the other—underscores the lack of convergence in theoretical perspectives and research programs. While scholars believe that both perspectives have provided valuable insight into venture capital investment, both literatures have developed and operated largely in parallel, with researchers operating in either one domain or the other. The seminal work on venture capital investment has been written by financial economists using samples of U.S. firms, employing theoretical perspectives based on neo-classical economics (Cornelius et al., 2006). In contrast, international venture capital research has been largely descriptive, survey-based, and incorporates theory familiar to management scholars (Cornelius et al., 2006; Wright et al., 2005). Institutional theory is the dominant theoretical perspective in this stream of research (Bruton et al., 2003; Bruton et al., 1999; Bruton et al., 2005; Zacharakis et al., 2007).

Until recently, there has been no reason to integrate these two literatures. The rise in cross-border investment by venture capital firms over the past decade—and the recent rise of cross-border investment by U.S. firms in particular—has changed this state of affairs. For the first time, these two literatures are examining a question of mutual interest.

#### From cross-country comparisons to "crossing borders"

At the time of this writing, the bulk of scholarly research on cross-border investment by venture capital firms is neatly tucked into the well-developed and active stream of international venture capital research (Wright et al., 2005). At the end of the 20<sup>th</sup> century international venture capital scholars began noting the existence of a "new phenomenon...[that] funds were increasingly being raised for investing in foreign markets" (Sapienza et al., 1996: 451). More recently, Wright, et al. (2005) note in their review of the international venture capital literature that research on venture capital firms "crossing borders" represents a major research gap. International venture capital scholars note that due to lack of comparable statistics and collection standards, very little financial data exists to empirically examine this question (Wright et al., 2005). While development of regional venture capital organizations has improved data accessibility and quality to some extent, major challenges remain, and it is argued that this hampers progress in this domain (Kenney et al., 2007; Megginson, 2004).

While it is true that international venture capital scholars have recently begun to research "crossing borders" (Kenney et al., 2007; Wright et al., 2005) challenges to the development of this literature remain. First, research remains largely descriptive and exploratory, due to the data constraints noted above. Second, studies often focuses on the broad class of private equity investment, rather than the financing of high-impact entrepreneurial firms (Baygan & Freudenberg, 2000; Hall & Tu, 2003). Third, it often contains itself to a very narrow collection of cross-border investment activities, deals originated and executed in Europe. Research examining the cross-border investment activities of U.S. venture capital firms is confined to a clutch of exploratory research and a few working papers (Aizenman et al., 2008; Guler et al., 2005; Guler et al., 2006; Kenney et al., 2007).

While the first two issues are challenging, it is the third that is particularly troubling. Narrowly focusing on deals transacted in Europe is unlikely to reveal

interesting or novel aspects of cross-border venture capital investment. Despite the fact that U.S. venture capital firms invest a smaller proportion of the total amount of venture capital in cross-border deals, the amount U.S. firms do invest swamps cross-border investment by all individual countries, most regions, and represents close to half of all cross-border investment to date (Aizenman & Kendall, 2008). Since a significant portion of the funds raised by non-U.S. venture capital firms come from U.S. institutional investors—which often include venture capital firms—the total impact of U.S. venture capital is likely to be much higher.

Despite its importance, we know very little about cross-border venture capital investment generally, and next to nothing about the internationalization activity of U.S. firms. The outcome of this state of affairs is that for the most simple and straightforward questions—for example, "do larger venture capital firms engage in cross border investment, or remain close to home"—scholars have failed to tender a simple, straightforward answer. Answering these basic questions represents an important first step. The recent increase in cross-border investment by U.S. firms provides scholars with opportunities to engage in empirical work using well-developed and accepted sources of venture capital data.

Beyond the data and the sample, cross-border venture capital investment raises a number of challenges related to theoretical development. Venture capital scholarship has largely failed to shake off its reputation as being largely descriptive and atheoretical (Wright et al., 1998) and many studies seem to treat theory as a post-hoc bolt on to "explain" an observed phenomenon. International venture capital research seems to have a particular bias against "Anglo-American" theoretical approaches in both current research and for a future research direction (Wright et al., 2005). As noted by Cornelius and Persson (2006) in their bibliographic analysis of the venture capital literature, the differences between finance and management researchers are quite profound. It is not immediately clear that the theoretical perspectives used in international venture capital investment are suitable for examining the salient issues in this domain. In response, international venture capital scholars have proposed incorporating insights from the resource-based view, dynamics capabilities, and network theory (Wright et al., 2005).

The "Anglo-American" perspective has challenges of its own. In this literature, venture capital investment has been conceptualized as a local phenomenon (Sorenson et al., 2001). As Kenney, et al., (2007) notes, the internationalization of U.S. venture capital firms is puzzling because the conclusion one would draw from received research is that it is unlikely to happen often, or at scale. Increased distance and variation in institutional infrastructures introduces additional uncertainty and risk (Lerner, 1995; Sorenson et al., 2001) and, thus, cross-border venture capital investment ought to exacerbate agency problems (Gupta & Sapienza, 1992). Investing in distant firms potentially adds a host of new challenges as well. Firms investing out-of-country must often compete with regionally dominant and well-established national firms. Evidence suggests that these entrenched and well-networked firms have a local advantage and are difficult to displace (Hochberg et al., 2007a). Venture capital firms may have to do additional work to understand local conditions, and the legal and institutional environment in the target country influences the ability to extract economic returns from the innovative ideas that they finance (Bruton et al., 2005). Thus, venture capitalists are likely to respond by adapting both screening, monitoring, investing, and contracting behavior in a way that reduces these agency problems.

In defiance of theory, the preliminary findings suggest that our understanding of how (or if) U.S. venture capital firms adapt is incomplete. Comparisons across countries (Sapienza et al., 1996) and between foreign and domestic firms (Pruthi et al., 2003) do not show strong support for the idea that venture capital firms generally, or U.S. firms specifically, engage in more detailed or context-specific screening or monitoring behavior (Sapienza et al., 1996; Pruthi et al., 2003).

The internationalization of venture capital firms offers scholars with the opportunity to examine altogether novel research questions resulting from this change in investment activity. For example, some working papers explore how syndication ties with foreign venture capital firms influence investment (Mäkelä, 2004) new venture internationalization (Mäkelä & Maula, 2005) and exit market selection (Jääskeläinen, 2005). From this point of view, local investors play a certification role regarding potential opportunities for incoming investors and, by being in close proximity to the investments, also provide monitoring and value-added activities that a distant partner cannot provide

(Mäkelä & Maula, 2008). These relationships are reflected in the syndication ties between foreign and local venture capital firms, where the local firm invests in the earliest stages and foreign capital arrives in later stages (Jääskeläinen, 2005). A major contribution of this new research is that it provides an example of cross-border capital "added value" for both the foreign and local firm that may drive both to partner, rather than to compete.

The surge in cross-border investment generally, and U.S. venture capital internationalization specifically, has recently attracted scholarly interest. This attention is welcome, and in our view well overdue. A coherent research program is likely to emerge over the next decade, and a diversity of theoretical perspectives and empirical approaches will help this literature—largely isolated and parochial—link itself to broader perspectives and more potent research questions. Cross-border venture capital investment, sitting at the intersection of two literatures concerned with the activities of venture capital firms, provides a fertile context for scholarship. It could not come at a more opportune time. Venture capital firms, operating largely in sheltered local markets, are now preparing for a new competitive context. And venture capital scholars—their research also largely sheltered and local in scope—must take into account global changes that they, to a large extent, have been able to safely ignore until now.

#### 3 The globalization of innovation, talent, and high-impact entrepreneurship

What explains the recent and dramatic acceleration of cross-border venture capital investment worldwide, and the increasing internationalization of U.S. venture capital firms? We are proposing that the context in which venture capital investment occurs has changed; that this change is persistent; and that venture capital firms will be compelled to develop capabilities that allow them to compete successfully in it. While internationalization for U.S. firms has indeed been slow going (Kenney et al., 2007) recent empirical work provides compelling evidence that the globalization process is now well on its way (Aizenman et al., 2008).

But what, exactly do we mean by the globalization of venture capital and what does it imply for venture capital firms? Understanding this context is crucial to develop hypotheses that detail the capabilities that support internationalization efforts or successful cross-border investment. This section draws from the scholarly literature on globalization and innovation to detail how research in these domains provides insight for venture capital scholarship.

#### The globalization of goods, capital, and firms

Broadly speaking, globalization refers to the web of linkages and interconnections between states, societies, and organizations that make up the present world economic system (Acs & Preston, 1997). The typical conceptualization of globalization—the movement of capital that provides a "celestial mechanism of discipline" (Zakaria, 2008) for corporations and nation-states—is incomplete for our purposes as it fails to capture its historical arc. Though the actual dates at which different phases of globalization began remains a matter of debate (McCann & Acs, 2008) its recent conceptualization as having occurred in three phases over several centuries (Friedman, 2005; Maddison, 2007; Steger, 2003) is satisfactory for our purposes.

The first wave of globalization occurred much earlier in economic history. Innovations in shipbuilding and navigation in the fifteenth century enabled goods to become mobile (Maddison, 2007). Over the course of the nineteenth and twentieth century, trade barriers lowered, markets deregulated, and domestic economies were exposed to the rigors of international competition and competitive advantage. Economic historians point to the massive waves of migration, with Europeans moving by the tens of millions to the Americas and Australia, and the disruptive influence of cheap grain from the Americas and the Ukraine as examples of this first major wave of globalization (Jacks, Meissner, & Novy, 2006). The beginning of the Great War (1914-1918) put an untimely end to this process (Maddison, 2007).

A second wave of globalization began at the end of the Second World War and continued through the end of the century (Friedman, 2005). This movement towards global integration, inaugurated in the early 1940s and accelerating through the 1990s, can be best understood as an extension of the division of labor and specialization across national borders, and is considered by many scholars to be a key to understanding recent

economic history. The integration of financial markets has been a very significant aspect of this process and has received significant attention in recent years (Bekaert & Harvey, 1995; Campbell & Hamao, 1992; Huang & Wagjid, 2002; Obstfeld & Taylor, 2003). Financial integration, combined with the advances in communication technology that dramatically decreased transaction costs for firms, globalized companies (Cairncross, 1997; Obstfeld et al., 2003) and helped to create the "flat world" that we live in today (Friedman, 2005). Differences across regions—labor and manufacturing costs, policy regimes—combined with a dramatic drop in communications costs and integration of trade and investment policies enabled jobs to go to where people were, in contrast to the first wave, where people migrated to where the jobs were.

While this second wave of globalization influenced aspects of the venture capital cycle, it did not warrant significant adaptation by the industry as a whole or U.S. firms in particular. Financial globalization accelerated the free movement of capital. In principle, the globalization of capital markets enables funds earmarked for early-stage investment to be invested in venture capital firms all over the world. In practice, however, U.S. venture capital firms saw an influx of early-stage capital, following the example of New York and Chicago, which also shipped capital to these regions (Florida & Kenney, 1988a; Florida et al., 1988b). Not unexpectedly, venture capital investment continued to occur locally, primarily in two geographic regions in the United States and overwhelmingly in Northern California.

Today, we are in the midst of a third wave of globalization. The most recent wave of globalization influenced venture capital fund-raising. We are suggesting that this current wave—the globalization of innovation and talent—will engender a new effect, contouring its allocation as well.

#### The globalization of talent, innovation, and entrepreneurship

Scholars cite technological change through the diffusion of research and development by multinational enterprises as a driving force in economic growth (Acs, Audretsch, Braunerhjelm, & Carlsson, 2009; Aghion & Howitt, 1998; Audretsch & Thurik, 2002; Grossman & Helpman, 1991; Murphy, Schleifer, & Vishny, 1991; Romer,

1986; Solow, 1956) enabling more and more nations to reach a medium-to-high stage of economic development and establish the conditions in which regional clusters of innovation can thrive. Research demonstrates that these activities have been necessary, but not sufficient, conditions to ignite high-impact entrepreneurship and a vibrant domestic venture capital industry (Gompers et al., 2004b). However the maturity of these regional clusters of innovation, along with the proliferation of global research and development centers by top-tier multinational firms, has created a climate with the drive to attract (and support) mass movements of talent. This movement of talent has the potential to create the conditions necessary for new firm formation and to attract the attention of venture capitalists.

Scholars have noted that globalization has significantly increased the mobility of these highly talented individuals (Antras & Helpman, 2004; Lewin & Peeters, 2008; Manning, Massini, & Lewin, 2008). That being said, the mobility of this talent has not historically been of particular concern for venture investment. Akin to the lessons learned in our survey of the globalization of venture capital investment, while in principle talent is more mobile than every before, in practice "mobility" has historically means that it has become easier than every before for talent to get from "anywhere else" to the centers of innovation located in the United States (Freeman, 2006; Martin, 2005). Labor "mobility" of this type has worked out quite well for U.S. venture capital firms, as they have funded this highly educated and local talent pool (Audretsch, 2007; Auerswald, 2006; Hill, 2007).

Recent work has underscored the importance of this process for technology-driven economic growth in the United States (Autor, Levy, & Murnane, 2003; Hill, 2007; Lee, Florida, & Acs, 2004; Murphy et al., 1991) and scholars are quite right to do so. More than half of the start-ups in Silicon Valley have one founder who is an immigrant or first-generation American (Saxenian, 2002). Surveys of technology and engineering companies started in America from 1995-2005 indicate that somewhere between sixteen and twenty-five percent of these firms employed an immigrant as a chief executive or chief technologist in the founding team (Hart, Acs, & Tracy, 2009; Wadhwa, Saxenian, Freeman, Gereffi, & Salkever, 2009).

In recent years, however, it has become more difficult for these traditional hubs of

innovation and entrepreneurial activity to retain the world's best and brightest (Chanda & Sreenivasan, 2005; Lieberthal & Lieberthal, 2003; Saxenian, 2006; Zwieg, 2005), as demonstrated by the flow of high-potential immigrant talent from the United States to India and China (Hart et al., 2009; Wadhwa et al., 2009). Florida (2005b) documents the exit of U.S.-born foreign nationals. These "new Argonauts" (Saxenian, 2006) are leaving the United States for overseas opportunities at an increasing rate (Wadhwa et al., 2009). The National Science Foundation (2008) reports that stay rates for students completing graduate education in the United States and returned to India and China, and 100,000 more are expected to make the return trip over the next five years (Wadhwa et al., 2009). Companies are increasingly sourcing and using talent in globally dispersed locations (Antras et al., 2004; Lewin et al., 2008; Manning et al., 2008) that correspond to the development of new science and engineering clusters located in or around new urban centers (Bresnahan et al., 2001; Carlsson, 2006; Florida, 2005a; Howells, 1999).

A central concern of those who interpret events through the narrow perspective of immigration policy (Zakaria, 2008) or innovation policy (Auerswald, 2006; Gompers & Lerner, 2004a; Hart, 2003; Hill, 2007; Kenney et al., 2007) suggest that the main issue here is that talent is heading "home". Evidence suggests, however, that a broader trend is afoot. Drew Faust, the current president of Harvard University, notes that "China, India, and Singapore…have adopted biomedical research and the building of biotechnology clusters as national goals. Suddenly those that train in America have significant options elsewhere" (Faust, 2008). For the first time in a half-century, there are significant options other developed, "spiky" regional innovation hubs capable of attracting and supporting the creative class (Florida, 2005b; Saxenian, 1994). These individuals are the high-impact entrepreneurs of the future (Acs, 2008; Baumol, Litan, & Schramm, 2007) and venture capitalists depend on them to start the innovative, high-growth firms they fund (Acs & Armington, 2006a; Lee et al., 2004; Saxenian, 2002; Shane, 2008).

As a result, the innovative activity that attracts venture capital investment seems to be diffusing globally (Cantwell, 1995; Engardio & Einhorn, 2005; Ernst, 2005), and doing so at an increasing rate. Opportunities to work on interesting technology and get paid well for it are now abundant all over the world (Porter, 2000). In the case of certain technologies, to be on the cutting edge one relocates to Haifa, Berlin, or outside Beijing (Ernst, 2002). Global-class technology is being developed all over the world (Reddy, 1997; Zhou & Leydesdorff, 2006). For a number of the most promising technologies the United States is no longer the clear technical or market leader, and in some cases up to a decade behind other nations (Hill, 2007). Some have estimated that the U.S. lags by more than a decade in renewable energy technology, which in three years has become the third largest venture capital investment category behind software and biotechnology. In this emerging sector, the United States leads only in venture capital allocated. *Where* is it being allocated? Europe and Asia. A multitude of renewable energy startups operate worldwide, the majority of which are located outside the United States (Friedman, 2008).

Recently, scholars have noted the "seemingly unlimited availability of science and engineering talent in emerging economies and the increasing difficulty of finding such talent in advanced economies" (Manning et al., 2008). In the case of multinationals, who have diffused increasingly complex business processes including research and development, engineering, and product design (Engardio et al., 2005; Lieberman, 2004; Patel & Vega, 1999; Subraminiam & Venkatraman, 2001) they are now hiring and using talent with these crucial skills and at increasing rate (Lewin et al., 2008). Small and medium-sized businesses are not immune to the influence of these trends (Acs et al., 2006a; Acs, Morck, Shaver, & Yeung, 1997; Lu & Beamish, 2001; Wright, Westhead, & Ucbasaran, 2007) and are partnering with external service providers to augment their limited research and development capability. This talent pool—always mobile, now relocating—represents the global pool of high-impact entrepreneurs. New high-growth firms will form where these individuals agglomerate.

Fred Wilson of Union Square Ventures, a New York City-based venture capital firm, notes that in the late 1990s he would "look at a deal if it was between 34th Street and Canal Street and between 1st Avenue and 10th Avenue" (Wilson, 2008). Those days are over. The Union Square Ventures portfolio now includes startups in Paris, London, and Berlin. More than half of the U.S. venture capital firms surveyed by Deloitte Touche Tomatsu's Technology, Media & Telecommunications Group in 2006 indicated that they planned to expand their investment focus internationally in the next five years (Brightman, 2007). Today is an open question as to whether future breakthroughs in crucial next generation technologies will occur in Beijing, Burlingame, or greater Berlin. In response to these changes, U.S. venture capital firms—long accustomed to investing close to home—are now compelled to invest in distant ventures and develop global strategies.

Until extremely recently, the impact of globalization on the venture capital industry has been relatively limited, and has not necessitated a significant amount of adaptation (Gompers & Lerner, 2004). In the last five years, however, the process of globalization has accelerated and its character has changed in ways that are likely to impact the *allocation* of venture capital, not merely its aggregation. After a half-century of funding firms that exist for the purpose of commercializing breakthroughs and transforming industries, venture capital seems to be in the early stages of a transformation of its own.

Merely detailing these trends begs an important question, which the globalization and innovation literature has not resolved: why would the mobility of talent and the geographic dispersion of innovation—which, as detailed above, is heading to established overseas firms or the research outposts of established multinationals—have *any impact on the establishment of high-impact entrepreneurial firms in that region*?

Scholarship to date assumes—inappropriately, given the depth and breadth of development in the entrepreneurship literature—that the globalization of innovation implies, in some mystical way, the advent of entrepreneurial activity. Talent does not move overseas simply to start a new entrepreneurial firm. As detailed above, these individuals are going to established companies and research labs where they get paid for being the superstars that they are. Innovation is reflected in increases in patenting rates, which is a feature of developed firms with resources that can support and fund the patent process; this data does not describe the typical high-growth entrepreneurial firm working on a shoestring budget.

Thus an explanation for the formation of high-impact entrepreneurial firms is required for any credible "globalization of innovation, talent and entrepreneurship" narrative. The following paragraphs synthesize insights from economic geography and entrepreneurship to provide that explanation.

# 4 Talent, knowledge spillovers, and venture capital investment

The knowledge-based view of the firm argues that competitive differences between firms are the result of the creation and application of privately held, tacit knowledge (Teece, Pisano, & Shuen, 1997). Scholarly research and the history of technology highlight the fact organizations often do not succeed in transforming their scientific or industrial knowledge into what Arrow (1962) called *economic knowledge* due to a plethora of reasons including a lack of managerial resources (Penrose, 1959) organizational inertia or risk aversion (Cyert & March, 1963) an overweening focus on existing customers (Christensen & Bower, 1993) and agency issues (Jensen & Meckling, 1976). A substantial portion of the knowledge created by an incumbent firm may languish, unexploited. Knowledge, however, is distinct from other resources given its characteristics as a public good. It is non-rival, and non-excludable, thus creating opportunities for spillovers. And since organizations engaging in knowledge work lead to the development of human capital (Yli-Renko, Autio, & Sapienza, 2001) a crucial conduit for knowledge spillovers—especially the kinds that drive high-impact entrepreneurship—is talent (Coff, 1997). While top talent likely starts out in established firms, not all of it ends up staying there. The Knowledge Spillover Theory of Entrepreneurship (Acs, Audretsch, Braunerhjelm, & Carlsson, 2009) provides a theory for understanding that process, and the knowledge filter (Braunerhjelm, Carlsson, Acs, & Audretsch, 2010) outlines the mechanisms that enable potential entrepreneurs to exploit new knowledge in the context of a new firm.

An important insight of the Knowledge Spillover Theory of Entrepreneurship is that the opportunity for entrepreneurs to exploit new knowledge is significantly related to both the ability of the incumbent firm to exploit that knowledge completely, and thus reap the rewards and the cost and benefit to a prospective entrepreneur in exploiting that knowledge. The greater the knowledge filter, the greater the gap between new knowledge and economic knowledge. It is this knowledge filter that creates a space for the entrepreneur to bring new innovations to market. As Arrow (1962) notes, knowledge is valued differently by different actors. If the gap in the valuation of the expected return between the incumbent firm and the inventor is sufficiently large, and the barriers involved with starting a new business sufficiently low, the employee may decide to leave the incumbent organization and establish a new firm.

The history of technological entrepreneurship is replete with examples of this phenomenon: the "Traitorous Eight" defecting from Shockley Semiconductor and forming Fairchild (Shurkin, 2006), which begat the many "Fairchildren" firms such as Intel (Berlin, 2001); Steve Wozniak, who had to be pried out of his job at HP to focus on Apple Computer (Wozniak & Smith, 2006); and more recently, Sabeer Bhatia, who himself hunkered down at Apple Computer while figuring out HotMail, the first webbased e-mail service (Bronson, 1998). For a high-impact entrepreneur, the first "seed investor" is most often the firm at which they are currently working.

Two aspects of the knowledge filter are of particular interest in relationship to venture capital investment. The first relates to the mobility of labor within a country or a region. Unsurprisingly, studies investigating the role of the knowledge filter in new firm formation have shown that labor mobility is an important source of these spillovers (Audretsch & Stephan, 1996). In a survey of immigrant entrepreneurs in Silicon Valley, Saxenian (2002) finds that over half had set up subsidiaries, joint ventures, or other business ventures in their home country, and that more than eighty percent said they shared information about technology with people back home. Globalization and entrepreneurship are related. Saxenian (2002) documents how the activities of entrepreneurs in the United States fuel the emergence of entrepreneurial networks in other regions. And, since successful high-impact entrepreneurs often become venture capitalists themselves, these findings foreshadow changes to how and where venture capital funds are raised (where will the new limited partners come from); which venture organizations and regions that capital is aggregated (what firm-specific resources are important for venture capital firm success, and are they a source of advantage or easily gained); and where those venture capital funds are disbursed.

A second filtering mechanism—barriers to entrepreneurship—is currently conceptualized in the literature primarily as the institutional environment, primarily as regulations and incentive structures (Braunerhjelm et al., 2010; Carlsson et al., 2007). However in the case of high-impact entrepreneurship it might also be useful to consider

the overall cost of starting a technology business—e.g. relative changes in operating leverage for businesses across regions, policy regimes, and industries. Today, most nascent information technology companies require very little money to prove their viability, so much so that larger venture capital firms have been put in the curious position of having to struggle to find deals capable of consuming allocated capital. Advances in development tools, infrastructure, and communications protocols and the innovations built on top of them such as on-demand computing power and storage has enables scores of technology startups to create incredibly high operating margin businesses. Startups can do a whole lot more, with a whole lot less capital, than every before. The nature of operating leverage in technology business has changed, yet, again. These two factors are likely to reduce the knowledge filter for high-impact entrepreneurs, and each has an amplifying effect on entrepreneurial activity.

We believe that the diffusion of innovation and talent and the consequent globalization of high-impact entrepreneurship are inexorable forces, the result of a natural, normal movement toward greater balance in global innovation capabilities (Auerswald, 2006). Regional centers of innovation stocked with multinational corporations now routinely produce global-class technology (Reddy, 1997; Zhou et al., 2006), and this process is accelerated by the migration of talent educated largely in the United States to these new regional centers of innovation (Ernst, 2002; Porter, 2000). The cost of starting entrepreneurial firms in the information technology and biotech sectors has declined, and will continue to do so.

The development of breakthrough innovation in new nations; the global dissemination of talent; the rise of the multinational organization; the economics of startups; and the reality of knowledge spillover-driven entrepreneurship compel venture capital firms to consider global strategies and to make cross-border investments. To do so successfully they must develop strategies for the internationalization of investment and management of distant firms.

#### 6 Venture capital research in a post-American world

The venture capital literature provides little guidance as to how its focal phenomena

might internationalize. This is quite surprising, given two decades of research by international venture capital scholars and the opportunity that the study of internationalizing venture capital firms provide for developing the international business agenda (Buckley & Lessard, 2005; Peng, 2004; Wright et al., 2007). In light of this paucity of research it has been suggested that other literatures must be tapped to provide the appropriate conceptual frameworks for analyzing the internationalization of venture capital firms beyond a mere description of the phenomena. A logical first starting point would be the international business literature, where several theories for internationalization have been proffered and where venture capital scholars first turned for insight (e.g. Hall & Tu, 2003; Pruthi et al., 2003; Wright et al., 2002; Manigart et al., 2006).

A key insight of traditional international business research is that multinationals face a substantial "liability of foreign-ness" which leads to non-trivial costs. Transaction cost theory (Coase, 1934) suggests that firms choose the least-cost international location for each activity they perform, and grow by internationalizing markets, bringing interdependent activities under common ownership and control up to the point where the benefits of further internationalization are outweighed by the costs. The benefits of international expansion are new market opportunities, through which the firm leverages what it produces over a broader array of markets (Kim, Hwang, & Burgers, 1993; Vernon, 1966), increasing growth and profitability (Buckley & Casson, 1976; Geringer, Beamish, & da Costa, 1989) and the chance to stabilize firm earnings through economies of scope (Caves, 1982). Thus, internationalization, despite its costs, increases the chance of firm survival (Hitt, Hoskisson, & Kim, 1997; Hitt, Hoskisson, & Ireland, 1994; Sapienza, Autio, George, & Zahra, 2006). Building on this original insight, stage models of internationalization (Johanson & Vahlne, 1977)—with their intellectual antecedents in the behavioral theory of the firm (Cyert et al., 1963) and Penrose's (1959) theory of firm growth—depict a gradual process in which firms respond to pressures to internationalize with marginally increasing resource commitments to enter new markets.

This perspective is plausible enough as stories go, but not a particularly good fit for the venture capital context. The traditional stage model of internationalization struggles to explain the early internationalization of smaller firms (McDougall, Shane, & Oviatt, 1994; Oviatt & McDougall, 1994) or the rationale for internationalization in the case of knowledge-intensive firms (Autio, Sapienza, & Almedia, 2000; Hitt, Bierman, Uhlenbruck, & Shimizu, 2006). Venture capital firms are both. Further, the limitations and applicability of transaction cost theory outside of the manufacturing sector has been questioned (Dunning, 1988). Although Zacharakis (1997) has developed a theoretical application of the transaction cost approach to exporting by smaller firms, this is unlikely to apply to services firms without a great deal of shoehorning, and venture capital scholars are doubtful as to its applicability to venture capital firm internationalization (Wright et al., 2005).

Given that internationalization in the services sector differs significantly from manufacturing (Anand & Delios, 1997; Brouthers & Brouthers, 2003; Domke-Damonte, 2000) and also demonstrates significant within-sector heterogeneity (Buckley, Pass, & Prescott, 1992; Miller & Parkhe, 1998) it is not surprising that some scholars have proposed that venture capital firms may have characteristics resulting in distinctive implications for their international behavior (Wright, Lockett, & Pruthi, 2002b; Wright et al., 2005). Given the tour of the literature above, is also unsurprising that venture capital scholars—those most aware of the linkages between international business and venture capital investments—have been slow to adopt frameworks from international business in venture capital investment (Wright, et al., 2005).

If the internationalization literature has been found wanting, what about the emerging body of work examining the internationalization of smaller firms from an entrepreneurial point of view? The inability of traditional internationalization theories to explain why some small firms internationalize has led to the development of a stream of work incorporating internationalization and entrepreneurial theory (Hitt & Barkus, 1997; McDougall et al., 2000; Oviatt et al., 1994; Zahra, 2005; Zahra & George, 2002). This perspective is grounded in the logic of opportunity recognition (Shane & Venkataraman, 2000) and depicts internationalization activity as the reflection of the capacity of the top managers of the firm and/or a strategic response to opportunities unseen by competitors. In this view, firms are engaged in the act of creatively discovering and exploiting opportunities that lie outside of the firm's domestic market in the pursuit of competitive advantage (Zahra et al., 2002).

Viewing the internationalization of venture capital firms from this perspective affords some clear advantages. Interviews with venture capitalists conducted by Haemmig (2003) highlight the significant discretion that individual general partners have over fund decisions (and thus the decision to internationalize) and their perspective that international investments are made in response to an opportunity, in contrast to research modeling internationalization choice as part of an overarching strategic logic (e.g. Guler and Guilén, 2005). Studies examining the internationalization of other professional services firms suggests that they, too, do not undertake a systematic analysis of the international markets before entry (O'Farrell, Moffat, & Wood, 1995; O'Farrell & Wood, 1994, 1998; Westhead, Wright, Ucbasaran, & Martin, 2001).

While there is a great deal of overlap between the central concerns of entrepreneurship and venture capital research—in particular the logic of opportunity recognition, the role of cognition, and the importance of managerial discretion in strategic decision-making—this literature remains in its nascent stages and has not developed enough to serve as a comprehensive framework. Even its advocates acknowledge that a unifying and clear theoretical direction has not yet been presented (Acs, Dana, & Jones, 2003; Autio, 2005; McDougall et al., 2000; Wright et al., 2007; Young, Dimitratos, & Dana, 2003). As the international entrepreneurship literature develops, this perspective may afford deeper insights. The contribution of this work cannot be understated, however, as it has helped to pave the way for the incorporation of important perspectives in strategic management, in particular the resource-based view, into the international business literature (Peng, 2001). And it is in this well-developed and theoretically rich literature venture capital scholars may find traction. In its static conception, the resourcebased view emphasizes the idea that resource superiority is crucial to overcome the cost associated with internationalization, and its focus on the role of resource availability influencing the mode of internationalization the form in which firms conduct international business is a crucial insight in a venture capital context. This perspective also represents a promising way forward for understanding internationalization activities of venture capital firms (Wright et al., 2005) and the outcomes of those actions on entrepreneurial firms (Fernhaber & McDougall, 2009) because firm-specific capabilities enable or limit markets into which firms can enter and the profits that firms can expect,

and contour how they can contribute to the development of their portfolio companies (Hellmann et al., 2002; Hsu, 2006).

Like the international business literature, the venture capital literature has been historically characterized as phenomenon-driven and theoretically bereft (Wright et al., 1998). Scholars currently pursue a diversity of topics from multiple disciplines, largely from one or two dominant perspectives (Cornelius et al., 2006). Opportunities exist for venture capital research to have a lively give-and-take with the strategy and international business literatures, gaining from them and contributing to them. It is relatively unsurprising, therefore, that the resource-based view has been identified as a potentially fruitful theoretical perspective for cross-border venture capital research, and scholars have called for work in this area (Wright et al., 2005). We agree with the insight of Wright and his colleagues, and also believe that extending the insights of the resource-based view with the capabilities literature will turn out to be most fruitful.

# 7 Concluding Remarks

Many of the challenges facing venture capitalists in the process of funding entrepreneurial firms are inextricably wedded to the activity itself (De Clercq et al., 2006; Gompers & Lerner, 2000). Early-stage venture capital investments are inherently uncertain. These inherent issues lead to a higher cost of capital for debt and equity financing (Jensen et al., 1976) and are a crucial part of the rationale for the existence of professional venture capital in developed economies (Auerswald, 2006; Berger et al., 1998; Gompers et al., 2001; King et al., 1993).

Venture capital firms have evolved a series of structural and contractual mechanisms to overcome challenges inextricably wed to the financing of high-impact entrepreneurial firms. This perspective helps to explain, at least in part, why venture capital firms have been (in contrast to the hopes of international venture capital scholars) historically more alike than different. There has been a striking commonality to how venture capital firms are organized, staffed, and compensated (Gompers & Lerner, 1999; Manigart et al., 2006; Sahlman, 1990), as the challenges inherent to venture investing have led to uniform approaches for investment and management decisions (Hall & Hofer,

1993; Pruthi et al., 2003; Zacharakis et al., 2007). All over the world venture capital firms are built on the U.S. model (Avinimelech et al., 2004a; Murray et al., 1998) and often employ professionals educated and trained in United States (Dossani et al., 2002 Kenney, 2004 #186; Kenney et al., 2007). Perhaps local firms may not necessarily have an advantage in terms of their organizational form or their approach to investment. The evidence emerging from studies focusing on cross-border venture capital investment suggests that this may be the case.

Scholars most familiar with the venture capital industry believe that we will see significant changes in the next decade (Aizenman et al., 2008; Gompers et al., 2001; Kenney et al., 2007; Megginson, 2004; Wright et al., 2005) in part driven by the globalization of innovation, talent, and entrepreneurship. While there is a growing realization among scholars that changes are afoot, much work remains to be done. Our scholarly conception of venture capital investment—characterized as a local business due to agency issues (Gompers, 1995; Sorenson et al., 2001) and strong institutional influences (Bruton et al., 1999; Bruton et al., 2005) has not yet addressed many issues raised by the increasing globalization of venture capital fundraising, allocations, and investment in entrepreneurial firms. Mounting evidence suggests that U.S. venture capital firms do not adapt investment or syndication patterns to account for the increased risk in cross-border deals. What is unclear is whether this is due to lack of interest (Haemmig, 2003), more intensive screening and due diligence processes, as suggested by Guler & McGahan (2006) changes in contracting activity (Cumming, 2008), the opening of a branch office to facilitate local monitoring (Wright et al., 2005) or the development of capabilities (such as alliances or partnerships) or organizational forms (like franchises) that mitigate the risks associated with cross-border investment in new ways. For those in the business of scholarly investigation of venture capital, what we currently think we know about investment, monitoring, and value-added activity may need to be reconsidered, extended, reworked, and ultimately integrated with the broader literatures and theoretical perspectives.

At present there is no theory of international venture capital investment, highlighted by the major research gap in cross-border investment noted by those most familiar with the subject (Wright et al., 2005). After almost twenty years of research on

various aspects of international venture capital investment and a substantial body of research across disciplines such as finance, economics, strategy, entrepreneurship, international business and economic geography scholars still have a patchwork of explanations for why venture capital firms engage in cross-border investment, why they invest in one country over another, what contractual and structural mechanisms actually matter, and what theoretical framework is suitable for analysis. The parallel development of venture capital literature—one stream focusing on the U.S. and the other on "international investment" outside of the United States—today seems needlessly parochial, especially given the mounting evidence that the theories that inform our understanding of venture capital practices are incomplete.

These changes have also disclosed novel opportunities for research in venture capital scholarship, in particular the incorporation, articulation and development of new theory. Although the globalization of venture capital investment is an increasingly important aspect of venture capital research, scholars at the forefront of this investigation readily acknowledge that we lack theories capable of explaining or predicting firm investment and management activities in an increasingly global context (Gompers et al., 2004b; Kenney et al., 2007; Megginson, 2004; Wright et al., 2005).

A half-century of financial and technological globalization has enabled more people than ever before to apply their creativity to create breakthroughs in medicine, communications, materials, and social systems. We are learning to harness that creative energy to the capital markets in the form of entrepreneurship, supporting individuals as they develop innovative businesses that generate wealth or novel organizational structures that increase our well being. One can hope that the new class of complex, interrelated challenges disclosed by what has come before can be solved by the world's best and brightest—wherever in the world they can be found.

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