12-3-2012

Inward foreign direct investment: Does it enable or constrain domestic technology entrepreneurship?

Saurav Pathak  
*Michigan Technological University*

Andre O. Laplume  
*M很想 Technological University*, adaplum@mtu.edu

Emanuel Xavier-Oliveira  
*M很想 Technological University*, emolivei@mtu.edu

Follow this and additional works at: [https://digitalcommons.mtu.edu/business-fp](https://digitalcommons.mtu.edu/business-fp)

Part of the *Business Commons*

Recommended Citation
Pathak, S., Laplume, A. O., & Xavier-Oliveira, E. (2012). Inward foreign direct investment: Does it enable or constrain domestic technology entrepreneurship?. *Columbia FDI Perspectives, 84*.  
Retrieved from: [https://digitalcommons.mtu.edu/business-fp/150](https://digitalcommons.mtu.edu/business-fp/150)

Follow this and additional works at: [https://digitalcommons.mtu.edu/business-fp](https://digitalcommons.mtu.edu/business-fp)

Part of the *Business Commons*
Inward foreign direct investment: Does it enable or constrain domestic technology entrepreneurship?

by

Saurav Pathak, André Laplume and Emanuel Xavier-Oliveira*

Whether or not foreign direct investment (FDI) is essential for domestic technological and economic development remains a contentious question. The controversy is illustrated by comparing the Celtic and Asian Tigers experiences from 1995 to 2000. Based on IMF and World Bank data in constant prices, Ireland and China averaged an annual growth rate of 8% in GDP per capita. However, FDI per capita grew at an average pace of 98% per year in Ireland, while in China it decreased by 1% -- absolute values averaged US$ 3,397 versus US$ 144, respectively. This suggests that, rather than a one-policy-fits-all approach, customized policies are more appropriate; and, if any generalization can be made, it should be based on a country’s stage of economic development.

Contributions of FDI to any economy may not be realized immediately, rather they may be outcomes of years of experimentation. In addition, the benefits of FDI may in part depend on (1) the stage of economic development and (2) interaction with other institutions. FDI is likely to affect developing countries in the efficiency driven stage differently than developed countries in the innovation driven stage.

* Saurav Pathak (sauravp@mtu.edu) is the Berquist Assistant Professor of Entrepreneurship and Innovation at the School of Business and Economics, Michigan Technological University; his research examines the contextual influences on individual-level entrepreneurial actions by recognizing the multi-level nature of entrepreneurship. André Laplume (aolaplum@mtu.edu) is an Assistant Professor of Management at the School of Business and Economics, Michigan Technological University; his research assesses how organizations balance exploration and exploitation over time in varying environments to achieve competitive advantage through innovation. Emanuel Xavier-Oliveira (emolivei@mtu.edu) is a Senior Lecturer of Economics at the School of Business and Economics, Michigan Technological University; his research interests include interdisciplinary issues of economic growth and development, such as barriers to technological adoption, entrepreneurship and fiscal policy. The authors wish to thank Francisco Sercovich and an anonymous reviewer for their helpful peer reviews. The views expressed by the authors of this Perspective do not necessarily reflect the opinions of Columbia University or its partners and supporters. Columbia FDI Perspectives (ISSN 2158-3579) is a peer-reviewed series.
In addition, one needs to discuss who benefits.\footnote{Holger Görg and David Greenaway, “Much ado about nothing? Do domestic firms really benefit from foreign direct investment?,” \textit{World Bank Research Observer}, vol. 19 (2004), pp. 171-197.} Surely, FDI brings with it the potential for added tax revenues from capital and labor income, but what are its effects on technology entrepreneurs? To the extent that technology-based ventures are important drivers of economic development, techno-entrepreneurs should be considered when formulating policies. FDI may foster technology-based entrepreneurship in developed countries, while hampering it in developing countries. This difference may be the result of the mechanisms at play, namely, crowding effects and knowledge spillovers.\footnote{For details on the mechanisms and relevant empirical results, see our “Technology entrepreneurship in emerging economies: The influence of intellectual property rights, foreign direct investment and barriers to technological adoption,” \textit{Journal of Business Research}, forthcoming.}

The first mechanism -- crowding effects -- directly affects the choice of technology entrepreneurship as a career choice in host countries. For example, crowding effects in the labor and product markets can reduce levels of technology entrepreneurship in developing countries.\footnote{Ibid.} Many of the best candidates for domestic technology entrepreneurship in developing countries may choose to work for the higher wages of more technologically advanced multinational enterprises (MNEs) rather than starting their own firms that would compete against these often better-endowed players. Crowding effects can also shift the type of entrepreneurship pursued, away from horizontal competition with MNEs (which tends to be more technological) toward vertical entrepreneurship, i.e., forward and backward linkages related to foreign affiliates. By contrast, crowding effects in the product market may result in changes in perceptions about opportunities. The presence of large MNEs may stifle the ambitions of potential techno-entrepreneurs by increasing the salience of competitive threats. In sum, crowding effects in the labor and product markets may reduce the net gains that entrepreneurs can expect from entering into technology ventures.

The second mechanism -- knowledge spillovers -- brings best practices, technology and specialized knowhow to host countries. However, governments in such countries often comply with demands to guarantee the enforcement of intellectual property rights (IPRs) because MNEs prefer to establish foreign production facilities in countries that protect their technology from imitation. More importantly, such provisions are usually tied into such agreements as the Trade-related Aspects of Intellectual Property Rights agreement administered by the World Trade Organization. Consequently, strong IPR enforcement buffers the magnitude of knowledge spillovers that can be expected from MNEs to domestic firms and entrepreneurial ventures. Reductions in spillovers are particularly worrisome for domestic technology-based ventures, given that most innovations result from the recombination of existing components, many of which are likely to be covered by IPRs. In fact, most new ventures are based on ideas that their founders acquired while working for previous employers. This potential downside of FDI in the presence of IPR
enforcement is especially relevant, given the expansion of strong IPRs, both in content and in reach, even as increasing popular criticism of IPR policy, especially software patents, points out that enforcement may stifle innovation rather than encourage it.

Considering the mechanisms highlighted above may influence policy in developing countries, in particular those debating moves to strengthen or weaken institutions that are relevant to FDI, by noting potential effects on technology-based entrepreneurship. After all, technology entrepreneurship has been strongly linked to economic growth and therefore represents an important driver of development, especially for emerging markets hoping to enter the innovation-driven stage. These concerns offer a cautionary counterpoint to the many calls in this publication for increasing FDI, arguably at any cost.

The material in this Perspective may be reprinted if accompanied by the following acknowledgment: “Saurav Pathak et al., ‘Inward foreign direct investment: Does it enable or constrain domestic technology entrepreneurship?’, Columbia FDI Perspectives, No. 84, December 3, 2012. Reprinted with permission from the Vale Columbia Center on Sustainable International Investment (www.vcc.columbia.edu).” A copy should kindly be sent to the Vale Columbia Center at vcc@law.columbia.edu.

For further information, including information regarding submitting to the Perspectives, please contact: Vale Columbia Center on Sustainable International Investment, Jennifer Reimer, jreimer01@gmail.com or jreimer@lyhplaw.com.

The Vale Columbia Center on Sustainable International Investment (VCC – www.vcc.columbia.edu), led by Lisa Sachs, is a joint center of Columbia Law School and The Earth Institute at Columbia University. It seeks to be a leader on issues related to foreign direct investment (FDI) in the global economy. VCC focuses on the analysis and teaching of the implications of FDI for public policy and international investment law.

Most recent Columbia FDI Perspectives

- No. 82, John Kline, “Evaluate Sustainable FDI to Promote Sustainable Development,” Columbia FDI Perspectives, November 5, 2012.
- No. 81, Ilan Alon and Aleh Cherp, “Is China’s outward investment in oil a global security concern?,” Columbia FDI Perspectives, October 22, 2012.
- No. 80, Jo En Low, “State-controlled entities as ‘investors’ under international investment agreements,” Columbia FDI Perspectives, October 8, 2012.

---

• No. 76, Perrine Toledano and Julien Topal, “A good business reason to support mandatory transparency in extractive industries,” Columbia FDI Perspectives, August 13, 2012.
• No. 75, Alex Berger et al., “Attracting FDI through BITs and RTAs: Does treaty content matter?,” Columbia FDI Perspectives, July 30, 2012.
• No. 74, M Sornarajah, “Starting anew in international investment law,” July 16, 2012.

All previous FDI Perspectives are available at http://www.vcc.columbia.edu/content/fdi-perspectives.