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Research Report

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

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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.

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In addition, one needs to discuss who benefits.¹ 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.²

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.³ 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

¹ Holger Görg and David Greenaway, "Much ado about nothing? Do domestic firms really benefit from foreign direct investment?," *World Bank Research Observer*, vol. 19 (2004), pp. 171-197.

² 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," *Journal of Business Research*, forthcoming.

³ Ibid.

enforcement is especially relevant, given the expansion of strong IPRs,⁴ 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.⁵

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 growth⁶ 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.

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⁴ Cameron Hutchison and Moin A. Yahya, "Infringement & the international reach of U.S. patent law," *Federal Circuit Bar Journal*, vol. 17 (2008), pp. 241-278.

⁵ Declan McCullagh. "Google: Time to ditch our current software patent system?," *CNet News*, August 20, 2012, available at: http://news.cnet.com/8301-13578_3-57496747-38/google-time-to-ditch-our-current-software-patent-system.

⁶ E.g., Sander Wennekers and Roy Thurik, "Linking entrepreneurship and economic growth," *Small Business Economics*, vol. 13 (1999), pp. 27-56.

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