

## Attracting FDI in middle-skilled supply chains

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### Abstract

While popular opinion often pictures FDI flowing in search of lowest-wage, lowest-skilled activities in emerging markets, actual FDI to such countries increasingly addresses medium to high-skilled manufacturing sectors. Such FDI might be called “Quality FDI” that contributes to the creation of decent and value-adding jobs, enhancing the skill base of host economies, facilitating transfer of technology, knowledge and know-how, boosting competitiveness of domestic firms and enabling their access to world-wide markets, as well as operating in a socially and environmentally responsible manner. To attract such quality FDI, host countries need mindfully tailored policies. Recent research offers evidence for strategies in developing countries that successfully turned FDI into such quality FDI.

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## Overview

One of the major topics on the current international policy agenda, taking up the UN's Sustainable Development Goals, is to support inclusive and sustainable growth in developing countries, with a special focus on Africa. A number of international initiatives such as the UN's Addis Ababa Action Agenda (AAAA) of 2015, the G20 Africa Partnership of 2017, the refined Joint Africa-EU Strategy (JAES) of 2017, and the envisaged new ACP-EU Partnership Agreement (modernizing the Cotonou Agreement of 2000) repeatedly stress these intentions and seek to bundle efforts both by the developing countries themselves and the international community. Some of the guiding ideas of these initiatives are that the developing countries themselves must take ownership for their development, and that private investment is required to create the long-term employment opportunities so badly needed in Africa and elsewhere. This makes foreign direct investment (FDI) a first-rate tool of choice for such strategies, in Africa as in other developing countries. Admittedly, FDI faces specific dangers of exploiting developing host countries (Box 1), but if managed effectively by these countries, FDI can help integrating

### *Box 1: Types of FDI in developing countries*

For any reasonable analysis of the impact of foreign direct investment on emerging market economies, FDI flows must be divided into at least five separate industry segments, each with distinctive policy and regulatory challenges. These segments include foreign investment in extractive industries, in lowest-skill, lowest-wage manufacturing industries (“sweatshop industries”), in middle-skill, middle-wage manufacturing industries, in infrastructure, and in service industries. Each form of FDI presents such particular kinds of policy challenges for developing-country host authorities, and generates such diverse impacts on the developing host economy, as to undermine the usefulness of any assessment that does not disaggregate the FDI flows. For example:

- FDI in the *extractive sector* may generate substantial government revenues but runs the danger of being managed in a fiscally unsound manner (“Dutch disease”) with lack of transparency and with a considerable amount of corruption (“resource curse”).
- FDI in *lowest-skill manufacturing* may increase employment opportunities for the poorest, but is also suspected to subject workers to dangerous health and safety standards, while decreasing their economic and social agency.
- FDI in *middle- and higher-skilled efficiency-seeking manufacturing* may be more likely to upgrade and diversify the host production and export base, while generating backward linkages and vertical spillovers.
- FDI in *infrastructure* may provide reliable transport, electricity, water and sanitation to businesses and households.
- FDI in *service industries* may crowd “in” or crowd “out” indigenous investment in this still deficient sector, and as this is the most understudied field of FDI, it is open to question, which outcome is more beneficial for host-country development.

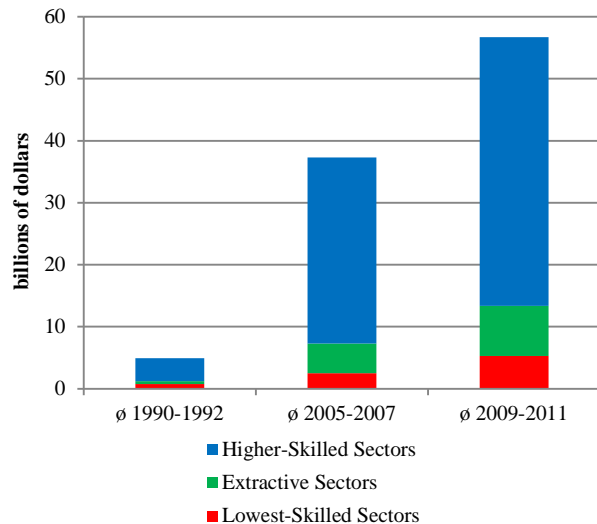
This paper concentrates on FDI in middle- and higher-skilled manufacturing sectors, such as automotive clusters, electronics clusters, industrial and medical products and the like, as the most promising way of stimulating employment and income opportunities in developing economies.

them into the global production chains. It has done so already in the case of many emerging countries.

While popular opinion often pictures manufacturing FDI flowing into developing countries in search of lowest-wage activities and extraction of raw materials, the data show that actually FDI is increasingly directed to medium to high-skilled manufacturing sectors (Figure 1). Such FDI flowing to middle-skilled manufacturing industries might be called “Quality FDI” if it links foreign investors to the local host economy and contributes to the creation of decent and value-adding jobs. Quality FDI should enhance the skill base of host economies, facilitate transfer of technology, knowledge and know-how, boost competitiveness of domestic firms and enable their access to markets, while operating in a socially and environmentally responsible manner. And as skill levels needed by FDI increase so do wage levels. Survey data from FDI in industry sectors such as autos and auto equipment, electronics, chemicals, and industrial equipment – in comparison to garments and footwear – show that foreign investors in higher-skilled activities pay their workers *two to three times as much for basic production jobs*, and perhaps *ten times as much for technical and supervisor positions*, in comparison to what is earned by employees in comparable positions in lowest-skilled MNC operations (ILO 2007).

Developing host countries can and must take an active role in order to attract such quality FDI. They need tailored policies to overcome domestic imperfections that hinder a smooth integration of indigenous and foreign firms into world-wide supply-chain networks. Recent research offers evidence for strategies in developing countries that successfully turned FDI into quality FDI. The idea underlying the following suggestions is to learn the lessons from past experience<sup>1</sup> and to provide policy-makers in developing countries with a toolbox of evidence-based measures.

Figure 1: Manufacturing FDI Flows to Developing Countries



“Higher-skilled sectors” refers to sectors such as chemicals, machinery and equipment (incl. ICT), vehicles and instruments; “Extractive sectors” refers to sectors such as coke, petroleum, rubber products, metals and nonmetallic minerals; and “Lowest-skilled sectors” refers to sectors such as food, beverages, textiles, clothing and wood products.

Source: UNCTAD 2014

<sup>1</sup> For more detail and background see Moran et al. (2016).

## **The suggestions**

1. *Open up markets and allow for FDI inflows.* Reduce restrictions on FDI. Provide open, transparent and dependable conditions for all kinds of firms, whether foreign or domestic, including: ease of doing business, access to imports, relatively flexible labour markets and protection of intellectual property rights.
2. *Set up an Investment Promotion Agency (IPA).* A successful IPA could target suitable foreign investors and could then become the link between them and the domestic economy. On the one side, it should act as a one-stop shop for the requirements such investors demand from the host country. On the other side, it should act as a catalyzer to the host's domestic economy prompting it to provide the top notch infrastructure and the ready access to skilled workers, technicians, engineers and managers that may be required to attract such investors.<sup>2</sup> Moreover, it should engage in after-investment care, acknowledging the demonstration effects from satisfied investors, the potential for reinvestments, and the potential for cluster-development as a result of follow-up investments.
3. *Think carefully about sectors / activities to be targeted.* Investment / location decisions of suppliers may be dependent on those of prime multinational investor into the host economy.<sup>3</sup>
4. *Put up the infrastructure required for a quality investor:* such as sufficient close-by transport facilities (airport, ports), adequate and reliable supply of energy; provision of adequately skilled workforce, facilities for the vocational training of specialized workers, advisably to be designed in cooperation with the investor.<sup>4</sup>
5. *Encourage first-time foreign direct investors.* Foreign firms that are not already part of an extensive network of subsidiaries are more ready to accept linkages to domestic suppliers (see Amendolagine et al. 2015).
6. *Encourage foreign direct investors from diaspora members.* These are also more likely to generate linkages to domestic firms and contribute to the internationalization of the host country (see Boly et al. 2014).
7. *Strengthen backward linkages from FDI to the indigenous economy.* Allow for the competitive pressure of foreign entrants on their local suppliers in order to raise competitiveness of the latter,<sup>5</sup> and allow for multiple forms of direct assistance from foreign

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<sup>2</sup> See, e.g., case studies on the State Development Committee (PDC) of Penang in Malaysia, on the Costa Rican Investment Promotion Agency (CINDE) and on the Motor Industry Development Programme (MIDP) in South Africa (Moran 2014, Barnes et al. 2017). See also Harding and Javorcig (2012) who find that in developing countries targeted sectors receive more as twice as much FDI as non-targeted sectors.

<sup>3</sup> See case studies of the Indian automotive market (McKinsey 2001) and of Wal-Mart entering Mexico (Javorcik et al. 2006).

<sup>4</sup> Same sources as before.

<sup>5</sup> See Godart and Görg (2013) and a case study of Mauritius (Rhee et al. 1990).

- to domestic firms, in the form of training, help with setting up production lines, management coaching regarding strategy and financial planning, financing, assistance with quality control and introduction to export markets (see Javorcik and Spatareanu 2005, Blalock and Gertler 2008, Görg and Seric 2016).
8. *Encourage spillovers from FDI to the indigenous economy.* Local firms set up by managers who had started in multinational firms are more successful and more productive than others.<sup>6</sup> Managers of local firms gain knowledge on new technologies and marketing techniques by studying and imitating their multinational competitors.<sup>7</sup> Similarly, worker movements from multinational to local firms spread knowledge and skills.
  9. *Provide for access to credit;* reform domestic financial markets. Setting-up a business-friendly financial system helps indigenous firms to respond to challenges and impulses from foreign entrants, to self-select into supplier status, and to thereby grow and prosper (see Alfaro et al. 2009).
  10. *Set up a vendor development program to support the match making process between foreign customer and local supplier.* To strengthen the capacity of the domestic economy, it may offer financing opportunities to indigenous suppliers for required investment on the basis of purchase contracts from foreign buyers (see the the Local Industry Upgrading Program (LIUP) of Singapore); or reimburse the salary of a manager in a foreign plant acting as a talent scout among domestic suppliers (see the example of the Singapore’s Economic Development Board (EDB)).
  11. *Shape Export Processing Zones (EPZ) in a way that they spearhead into the domestic economy.* Avoid EPZ regulations discriminating against creation of local supplier relationships. Set up a secondary industrial zone for local suppliers, be it as a geographical site adjacent to formal export processing zones or be it as a legal status allowing for easy foreign-domestic linkages, with, e.g., databanks and “marriage counselors” to assist in supplier selection.<sup>8</sup>
  12. *Refocus the “Who Is Us?” perspective and address related concerns adequately.* “Us” should be understood as the firms that are most beneficial to the domestic economy irrespective of the nationality of their owners, i.e., the firms that create the highest-skilled and highest-paying jobs, the least-expensive products and the most competitive exports.<sup>9</sup>
  13. *Be patient and rely on the gradual structural transformation of the domestic economy.* Investors may come in waves, e.g., first, investors in thermionic tubes, valves and

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<sup>6</sup> See case study of Ghana (Görg and Strobl 2005).

<sup>7</sup> See case studies of Czech Republic and Latvia (Javorcik and Spatareanu 2005) and of 19 sub-Saharan African countries (Boly et al. 2015).

<sup>8</sup> See cases of Malaysia versus Mauritius (Moran et al., 2016).

<sup>9</sup> See the argument about pros and cons of Japanese investment in the United States (Reich 1990).

transistors, then, in television and broadcasting systems, and finally, in computers, computer peripherals, and data processing systems. Along such avenues, FDI may contribute to diversifying and upgrading domestic production.<sup>10</sup>

## **Notes of caution**

1. *Do not insist that all inward FDI be at the most sophisticated technical level.* International firms with middle-level technology can provide benefits and connect up with local suppliers whose capabilities match the foreign firms more closely (see Boly et al. 2015, Pérez-Villar and Seric 2015).
2. *Do not confound supply-chain creation with support for SMEs.* Medium-sized and larger indigenous companies are often more apt to link with foreign investors in win-win scenarios than their smaller counterparts (see UNCTAD 2011).
3. *Do not subsidize specific companies.* Public support should take the more general form of creating reliable infrastructure and offering specific vocational training.

## **The role of external donors and developed countries**

1. *There is still a vital role for external donors such as developed countries and multilateral financial institutions in supporting developing countries.* The explosion of international private sector investment flows has not eliminated the need to support growth-and-development programs in developing countries, even beyond emergency aid and pure poverty reduction programs.
2. *Developed countries should improve the functioning of financial markets worldwide, to enable developing countries harness their FDI.* For instance, better financial market institutions even in FDI source countries help overcoming deficient financial markets in host countries, thus increasing FDI flows to developing countries (see Görg and Kersting 2017, Donaubauer et al. 2016).
3. *Developed countries should intensify support for effective FDI promotion of developing countries.* Targeting large investors pro-actively in particular sectors requires specific and expensive expertise on the side of the Investment Promotion Agencies, with a professional staff to be paid at internationally competitive salaries, the costs of which could be borne by

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<sup>10</sup> See Amendolagine et al. (2013), and the afore-mentioned case studies of Malaysia, Costa Rica and South Africa (Moran 2014, Barnes et al. 2017).

external donors. Moreover, developing countries need help in learning how to use IPAs effectively for marketing their countries to multinational investors.

## **Concluding remarks**

The essence of the suggestions is to advocate a light form of industrial policy: a policy that seeks to hitch FDI to development goals and to generate backward linkages as deep as possible into the host economy. The evidence cited here shows that progress in developing countries can be achieved without either substantial levels of protection or large amounts of direct support.

Sometimes there is concern that FDI in lowest-skilled assembly activities may constitute a race-to-the-bottom in poor working conditions. But the effort to use FDI to upgrade and diversify the export profile of host developing countries in middle- and higher-skilled manufacturing also lead to a *race-to-the-top* in launching host country regulatory reforms, raising host country doing-business indicators, creating public-private partnerships for vocational training, and improving physical and IT infrastructure.

## **References**

- Alfaro, L., Kalemli-Ozcan, S., and Sayek, S. (2009). FDI, Productivity and Financial Development. *World Economy*, 32(1), 111–136. <https://www.hbs.edu/faculty/Pages/item.aspx?num=32202>
- Amendolagine, V., Boly, A., Coniglio, N. D., Prota, F., and Seric, A. (2013). FDI and Local Linkages in Developing Countries: Evidence from Sub-Saharan Africa. *World Development*, 50, 41–56. <https://doi.org/10.1016/j.worlddev.2013.05.001>
- Barnes, J., and Morris, M. (2008). Staying Alive in the Global Automotive Industry: What Can Developing Economies Learn from South Africa about Linking into Global Value Chains? *The European Journal of Development Research*, 20(1), 31–55. <http://www.tandfonline.com/doi/abs/10.1080/09578810701853157>
- Blalock, G., and Gertler, P. J. (2008). Welfare Gains from Foreign Direct Investment through Technology Transfer to Local Suppliers. *Journal of International Economics*, 74(2), 402–421. <https://doi.org/10.1016/j.jinteco.2007.05.011>
- Boly, A., Coniglio, N. D., and Prota, F. A. (2015). Which Domestic Firms Benefit from FDI? Evidence from Selected African Countries. *Development Policy Review*, 33(5), 615–636. <http://onlinelibrary.wiley.com/doi/10.1111/dpr.12130/full>
- Boly, A., Coniglio, N. D., Prota, F., and Seric, A. (2014). Diaspora Investments and Firm Export Performance in Selected Sub-Saharan African Countries. *World Development*, 59, 422–433. <https://doi.org/10.1016/j.worlddev.2014.02.006>

- Donaubauer, J., Neumayer, E., Nunnenkamp, P. (2016). Financial Market Development in Host and Source Countries and Its Effects on Bilateral FDI. Kiel Working Paper 2029. Kiel: Institut für Weltwirtschaft.  
<https://www.ifw-members.ifw-kiel.de/publications/financial-market-development-in-host-and-source-countries-and-its-effects-on-bilateral-fdi>
- Godart, O., and Görg, H. (2013). Suppliers of Multinationals and the Forced Linkage Effect: Evidence from Firm Level Data. *Journal of Economic Behavior and Organization*, 94(C), 393–404. <https://www.ifw-members.ifw-kiel.de/publications/suppliers-of-multinationals-and-the-forced-linkage-effect-evidence-from-firm-level-data-1>
- Görg, H., and Seric, A. (2016). Linkages with Multinationals and Domestic Firm Performance: The Role of Assistance for Local Firms. *European Journal of Development Research*, 28(4), 605–624. <https://link.springer.com/article/10.1057/ejdr.2015.33>
- Görg, H., and Strobl, E. (2005). Spillovers from Foreign Firms through Worker Mobility: An Empirical Investigation. *Scandinavian Journal of Economics*, 107(4), 693–709. <http://www.jstor.org/stable/3441021>
- Görg, H., Kersting, E. (2017). Vertical Integration and Supplier Finance. *Canadian Journal of Economics*, 50(1), 273–305. <http://onlinelibrary.wiley.com/doi/10.1111/caje.12257/full>
- Harding, T., and Javorcik, B. S. (2012). Foreign Direct Investment and Export Upgrading. *The Review of Economics and Statistics*, 94(4), 964–980. [https://doi.org/10.1162/REST\\_a\\_00226](https://doi.org/10.1162/REST_a_00226)
- ILO (2007). *Decent Work: A Perspective from the MNE Declaration to the Present*. Geneva: International Labor Organization (ILO).
- Javorcik, B. S., and Spatareanu, M. (2005). Disentangling FDI Spillover Effects: What Do Firm Perceptions Tell Us? In T. H. Moran, E. M. Graham, and M. Blomström (Eds.), *Does Foreign Direct Investment Promote Development?* Washington, DC: Institute for International Economics, Centre for Global Economics.
- Javorcik, B. S., Keller, W., and Tybout, J. R. (2006). Openness and Industrial Responses in a Wal-Mart World: A Case Study of Mexican Soaps, Detergents and Surfactant Producers. NBER Working Paper (12457). <http://www.nber.org/papers/w12457>
- McKinsey. (2001). India: The Growth Imperative. McKinsey Global Institute. <https://www.mckinsey.com/global-themes/india/growth-imperative-for-india>
- Moran, T. H. (2014). Foreign Investment and Supply Chains from Emerging Markets: Recurring Problems and Demonstrated Solutions. Working Paper Series Peter G. Peterson Institute for International Economics (PIIE) (14–12). [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2534095](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2534095)
- Moran, T. H., Görg, H., Seric, A. (2016). Quality FDI and Supply-Chains in Manufacturing. Overcoming Obstacles and Supporting Development. UNIDO and Kiel Institute for the World Economy, Vienna Investment Conference 2016, Discussion Paper. <http://www.kcg-kiel.org/kcg-policy-paper-no-1/>



- Pérez-Villar, L., and Seric, A. (2015). Multinationals in Sub-Saharan Africa: Domestic Linkages and Institutional Distance. *International Economics*, 142, 94–117.  
<https://doi.org/10.1016/j.inteco.2014.06.001>
- Reich, R. (1990). Who Is Us. *Harvard Business Review*, 68(1), 53–64.<https://hbr.org/1990/01/who-is-us>
- Rhee, Y. W., Katterback, K., and White, J. (1990). *Free Trade Zones in Export Strategies*. Washington, DC: The World Bank Industry Development Division.  
<http://documents.worldbank.org/curated/en/879681468741015724/Free-trade-zones-in-export-strategies>
- UNCTAD (2011). *How To Create and Benefit from FDI-SME Linkages: Lessons from Malaysia and Singapore*. Geneva: United Nations Conference on Trade and Development.  
<http://unctad.org/en/pages/PublicationArchive.aspx?publicationid=455>
- UNCTAD (2014). Skills and Foreign Direct Investment Promotion: What Can an Investment Promotion Agency Do? The IPA Observer(3).  
[http://unctad.org/en/PublicationsLibrary/webdiaepcb2014d2\\_en.pdf](http://unctad.org/en/PublicationsLibrary/webdiaepcb2014d2_en.pdf)

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