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Editor-in-Chief: Karl P. Sauvant (Karl.Sauvant@law.columbia.edu)

Managing Editor: Matthew Schroth (mas2443@columbia.edu)

Increasing vertical spillovers from FDI: ideas from Rwanda[*]

by

Victor Steenbergen and Ritwika Sen[**]

A subset of countries in sub-Saharan Africa recently has experienced large increases in FDI inflows. East Africa, in particular, has emerged as an important FDI destination, seeing a 26% increase in the number of FDI projects between 2014 and 2015. Empirical evidence however indicates that the realization of anticipated benefits, particularly job creation and the deepening of domestic industrial capabilities, from FDI is not an automatic process. Consequently, an emerging challenge faced by East African Community (EAC) governments (and others) is developing appropriate institutional and policy frameworks to maximize positive spillovers associated with FDI inflows. An emerging literature finds that FDI is associated with learning spillovers through demands for higher-quality inputs that incentivize local suppliers to upgrade their technology and acquire prerequisite skills.[1] Benefits may also accrue from trade spillovers; and foreign entry into domestic markets may push up quality or drive down prices. This can improve input demand, thus benefitting domestic client firms.[2] For both effects, empirical evidence suggests FDI is more likely to generate vertical spillovers (for local buyers/suppliers) than through horizontal intra-industry interactions.[3]

This *Perspective* examines institutional frameworks the Government of Rwanda is developing to attract the "right" FDI spillovers. Rwanda's experience conforms to literature on FDI spillovers for sub-Saharan Africa (and other developing countries). It suggests that three main policy channels can help maximize vertical spillovers: mapping and attracting FDI with greater linkages, deepening FDI's supply chain linkages through local sourcing and supporting domestic firms' absorptive capacity for spillovers. Each will be discussed, in the context of commutable ideas for other countries.

While East Africa's governments welcome virtually all investment, prioritizing industries that are widely connected across the economy helps develop local supply chains. The identification of priority industries can be aided by research to map out interconnections of firms within an economy. For example, a mapping of supplier-buyer relationships across firms in Rwanda revealed that mining and agriculture are less connected to other firms via local purchases than services and manufacturing are.[4] Services linkages are particularly important. This is consistent with recent findings that, for the EAC, improved access to services spurs manufacturing productivity, as firms intensively use backbone services (telecommunications, transport, finance).[5] The manufacturing industry also produces essential inputs for other industries (e.g., building materials for construction, fertilizer for agricultural production). EAC countries would thus expect to see larger economic spillovers from FDI in services and manufacturing than from other industries (e.g., mining). Linkage mapping helps to identify priority industries for investment, and thereby may enable governments to attract more appropriate FDI through their respective investment promotion agencies (IPAs). Industries explicitly targeted by IPAs are associated with more than twice the FDI inflows relative to non-targeted industries.

Domestic sourcing of goods and services by MNEs is impeded by informational asymmetries, among other factors. IPAs can help by developing linkages between foreign affiliates and local suppliers. "Local Content Units" within IPAs can leverage their knowledge of domestic industrial capabilities and match these to the requirements of incumbent/prospective investors. The Ethiopian Investment Commission, for example, offers continuous support for the integration of local firms into supply chains of large MNEs.[6] This facilitation approach forces governments to identify local content solutions that align with MNEs' business interests, and so holds more promise than the widely discredited regulatory mandates for value-addition tried in Latin America in the past. Moreover, MNEs also can be incentivized to source locally, using "Equal Footing Policies" (used in Taiwan and the Republic of Korea). These extend fiscal benefits to domestic suppliers of intermediate goods by offering duty-free access to imported inputs (to spur competitiveness) and by extending MNEs' tax credits. Rwanda is contemplating such approaches in its forthcoming "Made in Rwanda" policy.

The participation of local firms within the supply chains of MNEs is further constrained by low productivity, skills deficits and an inability to meet required quality standards. Providing technical and managerial support for building domestic firms' capabilities to meet required quality standards to supply foreign affiliates can be an effective industrial policy. A promising method adopted by Rwanda is to bring together fragmented local suppliers in "Community Development Centers" (CDCs) to raise productivity through training, certification and conglomeration effects. This government-funded initiative lowers the cost of providing targeted capacity-building and promoting spillovers of technical and process know-how. Rwanda is currently constructing eight different agricultural CDCs, with plans to link each closely to international agro-processing firms. This reflects both the potential and challenges of strengthening FDI spillovers: the expected learning benefits from such supply-chain linkages are high, though Rwanda is finding it difficult to identify enough "anchor firms" willing to bear the initial risk of establishing in a new CDC. Time will tell whether this new approach will succeed in strengthening FDI spillovers.

Every country must develop its own sources of economic growth. However, following Rwanda's efforts to map and attract highly connected firms, assisting MNEs with information to build local supply chains and fostering the upgrading of domestic firms to meet MNEs' quality standards hold the promise of increasing vertical supply chain spillovers associated with FDI. These are important lessons for increasing the benefits from FDI in East Africa and beyond.

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[**] Victor Steenbergen (victor.steenbergen@theigc.org) and Ritwika Sen (ritwika.sen@theigc.org) are Country Economists at the International Growth Centre's offices in Rwanda and Uganda, respectively. The authors are grateful to Anne Miroux, Peter Nunnenkamp and Hsia Hua Sheng for their helpful peer reviews.

[1] B. Javorcik, "Does foreign direct investment increase the productivity of domestic firms? In search of spillovers through backward linkages," *The American Economic Review*, vol. 94 (2004), pp. 605-627.

[2] T. Farole and D. Winkler, eds., *Making Foreign Direct Investment Work for Sub-Saharan Africa: Local Spillovers and Competitiveness in Global Value Chains* (Washington, D.C.: World Bank, 2014).

[3] Javorcik, op. cit.

[4] *See* J. Spray and S. Wolf., *Industries without Smokestacks in Uganda and Rwanda* (Helsinki: UNU-WIDER, 2016)

[5] B. Hoekman and B. Shepherd, *Services, Firm Performance, and Exports: The Case of the East African Community* (London: IGC, 2015).

[6] R. Sen and S. Logan "Maximizing the impact of FDI on domestic industrial capabilities and job creation," (2016) https://www.theigc.org/publication/maximising-the-impact-of-fdi-on-domestic-industrial-capabilities-and-job-creation/.

For further information, including information regarding submission to the *Perspectives*, please contact: Columbia Center on Sustainable Investment, Matthew Schroth, mas2443@columbia.edu.

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