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# Global Value Chains and Resource Corridors: The Nexus is Regional Integration

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# Global value chains and resource corridors: The nexus is regional integration



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**To be more involved in the global value chains, sub-Saharan African countries should intensify their regional integration efforts. A first step in this direction can be implementing cross-border resource-based development corridors.**

## The end use and beyond

Global value chains (GVCs) have led to a growing interconnectedness between economies through the segmentation of the production processes and specialisation of countries into tasks activities within those value chains. Today, more than 70% of global trade is made of intermediate goods and services. This evolution of the production process is the result of technological progress, cheaper transportation and communications and the liberalisation of trade.

While participating in GVCs carries the risks of being exposed to international crises and external shocks, it is clear that there is a positive correlation between this participation and the level of income, economic development and diversification.

For a low-income country with a limited manufacturing capacity and a large unskilled labour force, hoping to increase its income level by participating in this global trade through an involvement in the intermediary segments of the production chain can appear somewhat easier than trying to participate through the production of a whole product.

However, countries participate at different levels in GVCs. Some countries will be very involved because they are the home of the lead firms or the suppliers of very specialised tasks and others won't have enough comparative advantages to be part of the game.

Those comparative advantages are either pre-determined by such factors as the geographic location or the resource wealth of a country or they can be enhanced by sound and targeted government intervention in, for instance, building human capital to increase the absorptive capacity of the workforce, bridging the infrastructure gap that hinders the productivity of potential suppliers, facilitating access to finance, reducing the cost of doing business and improving the investment climate more generally to attract foreign investors while unlocking the potential of the domestic economy.

## **GVCs and regional integration**

Achieving those public policy objectives for a small and poor economy might be difficult, but regional integration can assist in that regard. Indeed, regional integration allows leveraging economies of scale to deploy infrastructure at the least cost, experience sharing to better understand how to best elevate the absorptive capacity of a country's workforce and institutional resource pooling when those resources are scarce.

In fact, regional integration and the creation of regional value chains can give a region a competitive advantage in terms of participation in the GVC: for example, the East African Community (EAC) has been more successful in increasing its participation in GVCs as a regional trading bloc as compared to the rest of sub-Saharan Africa, which remains less economically integrated (in 2014, the share of exports with embedded foreign value added is 23%

in the EAC as compared to 15% in sub-Saharan Africa; IMF, 2015).

Regional integration has been on the agenda of the African governments for a long time and has however, made little progress.

## **Regional integration through resource corridors**

An opportunity to accelerate regional integration could come from what is called the 'resource-based spatial development corridors'.

A resource-based spatial development corridor is a transport corridor financed by the high cargo volume and high cash flow of a resource project that enables the development of (1) other types of infrastructure (power lines, optic fibre cables, water distribution infrastructure) by leveraging economics of scope; and (2) other less profitable sectors of the economy (such as agriculture and forestry) by leveraging economies of scale.

According to the Spatial Development Initiative adopted by the South African government and NEPAD, the spatial development corridor approach leverages the anchor resource projects for more integrated growth along transport and service corridors, ensuring that the benefits of the high-rent investments translate into widespread development outcomes.

Africa presents a few interesting examples of cross-border spatial development corridors anchored on resources projects including: the Nacala corridor crossing Zambia, Mozambique and Malawi and anchored on the coal province in Tete, Mozambique; the Lapsset corridor anchored around the development of a deepwater port at Lamu on Kenya's north-east coast and an oil and gas pipeline linking South Sudan, Ethiopia and Kenya – and probably, Uganda – to the new Lamu port; and the Sundance corridor anchored on the iron ore deposits in Nabeba (Republic of Congo) and Mbarga (Cameroon) mines and linking to a greenfield deep water iron ore terminal at Kribi, Cameroon. Those cross-border corridors can, under certain enabling conditions, be a catalyst of regional integration.

There are several reasons for this. One relates to the profit maximisation objective of the resource companies: if the shortest route to the sea is across a national border, those companies are likely to favour such a route to avoid the additional capital expenditure that would be required to reach a port within the country's borders (see the long controversy on this issue between the government of Guinea and the mining companies owning resources in Nimba and Simandou near the border with Liberia). Needless to say the cross-border solution is required if the resources are located in land-locked countries. Furthermore, such cross-border transport solutions are likely to be cost-competitive and efficient given the companies' incentive to minimise costs by maximising the efficiency of the logistics chain from pit to port to ensure the reliable and timely delivery of the resources which can, in turn, benefit other cargos being transported along the same route. Finally, having two or three governments collaborate around the more limited objective of operationalising a corridor can be a corner stone for the broader regional integration agenda.

What is interesting here is that there is a feedback loop between regional integration and spatial development corridor. While the latter leads to the former, it is also true that the former leads to the latter. Indeed, regional integration can be a catalyst for turning a mere logistic corridor into a development corridor through sharing the use of the corridor. Resources companies will generally resist opening up the access to their infrastructure to other users given the potential coordination costs and losses in efficiency to their operations.

However regional integration can help make the business case for shared use: regional integration leads to a cross border aggregation of demand for transportation, energy, water and ICT, which helps achieve economies of scale and the smooth institutional collaboration of governments reduces the coordination costs and the cost of doing cross-border business.

## **An interaction with challenges**

Nevertheless, a number of practical challenges exist around realising the potential of this mutually beneficial interaction between spatial development corridors and regional integration.

Those challenges relate to the soft infrastructure requirements, which are as important to solve as the actual planning and development of hard infrastructure. For instance, implementing successful

shared use of infrastructure arrangements require setting up an independent and impartial regulator that makes informed and predictable decisions when market failures arise. In addition, successful cross-border infrastructure arrangements pre-supposes some harmonisation of legal regimes in relation to border and customs procedures, as well as of the regulations governing the operations of the cross-border infrastructure more generally. Finally, such cross-border corridors need to be supported by a strong commitment to inter-governmental cooperation (e.g. Azerbaijan, Georgia and Turkey's treaty in relation to the cross-border oil pipeline). Creating an enabling environment for cross-border spatial development corridors is unlikely to succeed without consideration for the political economy on both sides of each border.

Containing the political economy requires aligning the key interests involved in the corridor: the various government ministries of the country owning the deposits, the resource company that is the anchor of the corridor, the smaller resource companies seeking access to the infrastructure, the non-mining sectors that also want to benefit from this infrastructure, the truck companies that fear the competition of another transport corridor, the financiers of the project that consider cross border infrastructure as being risky and the neighboring governments that may benefit from infrastructure investments in the country or may see a diversion of cargo being transported through the country (Toledano et al., 2014). Beyond the supranational planning efforts by the regional economic communities, from the Maputo corridor to the Antafogasta port in Chile to Bolivia corridor to the Chinese- Kazakhstan corridor passing through the Arctic circle corridor, it is clear that the alignment of private interests with public interests is key to making a cross-border corridor work, which will in turn be the anchor for further regional integration.

## **Aligning public and private interests**

Aligning public and private interests might require some thought to be put into the ownership model of the corridor. Take, for instance, the Arctic Circle where the Ofoten and Ore lines constitute a cross-border multi-purpose railway line, connecting the mines (in Kiruna, Svappavaara and Malmberge) of the Swedish mining company Luossavaara-Kiirunavaara Aktiebolag (LKAB) and the Northland Resources' mine in Kaunisvaara to the ice-free Port of Narvik in Norway. For a long time, the Norwegian Governments resisted the integration of the mine-railway concessions fearing the discontinuation of the passenger railway services. LKAB was paying excessive access fees to the state-owned operators and threatened to divert the traffic to a Swedish port if the countries were not giving it the operations of the railways. Eventually, the countries understood that only LKAB was able to increase efficiency sufficiently to make the cross-border corridor commercially viable. The governments, however, retained the ownership of the tracks to ensure the continuation of the multi-purpose traffic.

The lesson learned here is that while the willingness of a resource company to get access to the shortest route to the sea can be the driving force behind bilateral or trilateral integration, this willingness however, will be stronger if the company owns the whole logistic chain from pit to port in order to prevent poor border management systems from exacerbating the coordination problem

involved in a multipurpose corridor. Nevertheless, the experience proves that imposing shared use on an integrated ownership model can be challenging for the regulatory authorities (Toledano, 2012).

A solution that could solve this conundrum and that can be particularly suited in times of low commodity prices is to set up a special purpose vehicle (SPV) that separately owns the rail and port for one or several resources projects, while being in a long term off-take agreement with those projects. The resource owners would also serve as major shareholders in the SPV. Once again, the cross-border pooling of institutional resources and solution engineering capacity could alleviate those regulatory and operational challenges. This is where resource corridors and regional integration mutually reinforce each other.

Seeking alignment of public and private interests by devising innovative models in the pursuit of higher development outcomes that would result from the chain of effects, corridor – regional integration – higher participation in the GVC will go a long way towards achieving the Sustainable Development Goal 17 that is about “strengthening implementation through revitalised global development partnerships.”

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#### *References:*

*International Monetary Fund (2015). Regional Economic Outlook. Sub-Saharan Africa: Navigating Headwinds. World Economic and Financial Surveys, April 2015. Washington DC.*

*Toledano, Perrine, Sophie Thomashausen, Nicolas Maennling, and Alpa Shah (2014), A Framework to Approach Shared Use of Mining-Related Infrastructure, Columbia Center on Sustainable Investment, Columbia University, available at: <http://ccsi.columbia.edu/2014/01/28/consultative-drafts-of-a-framework-to-approach-shared-use-of-mining-related-infrastructure>*

*Toledano, Perrine (2012). Leveraging Extractive Industry Infrastructure Investments for Broad Economic Development: Regulatory, Commercial and Operational Models for Railways, and Ports, Columbia Center on Sustainable Investment, Columbia University, available at: <http://ccsi.columbia.edu/files/2014/05/CCSI-Policy-Paper-Leveraging-Mining-Related-Rails-and-Ports-for-Development-May-20121.pdf>*

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*Photo: Trucks outside Kampala, Uganda, East Africa. Credits: [Robert Lutz/CC](#).*

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