

Expanding the Benefits of Trade to sub-Saharan African Firms Through Trade Facilitation Initiatives

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Abstract

Firms across sub-Saharan Africa still suffer from a large variety of on-the-border and behind-the-border trade barriers. This paper empirically investigates how reducing these trade-related costs and constraints through trade facilitation reforms would increase firms' trade participation and propensity. With data from the World Bank's Enterprise Surveys and a two-stage selection model, the paper suggests that improving customs clearance, government regulations, trade financing and energy and telecommunication infrastructure contributes to significantly increase both trade margins for exporting and importing firms. Furthermore, importers tend to be more responsive than exporters, suggesting an

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adverse short-term adjustment of the balance of payments. The results also indicate a sizable distributive effect, as larger and smaller firms gain differently depending on the reforms and the trade flows. Additionally, firms in sub-Saharan Africa appears to be more responsive to a changing environment than their counterparts in the rest of the developing world, owing to the greater trade-related constraints, uncertainty and risk that they face; which suggest that firms in the sub-continent are very resilient and not averse to international trade. All of these could add to the ongoing debate over how to better harness the trade potential of sub-Saharan African firms.

Introduction

International trade tends to be very costly in sub-Saharan Africa (SSA), as opposed to the rest of the developing world. For example, when it comes to exporting "a shipment of 15 metric tons of the economy's top non-extractive export product", it takes, on average, 97.3 hours to comply with border requirements, which is far above the world average (SSA excluded) of 45.4 hours. The corresponding cost is US\$605.8, against US\$333.3 elsewhere. These figures are indicative of the low quality of trade processes, a large magnitude of trade costs and, consequently, a low trade performance of firms in the sub-continent as opposed to the outside world. They also provide a rational for the renewed interest in the recent World Trade Organization (WTO) agreements on trade facilitation, which African countries have eagerly embraced.

To the extent that trade facilitation is able to "ease the flows of goods across borders", through the "simplification and harmonization of international trade procedures", there is a significantly large potential for the continent to gain from international trade. In fact, a growing body of empirical evidence has suggested that facilitating trade tends to translate into a variety of benefits to African firms. For example, Seck (2016) has suggested that African firms tend to respond more to a changing environment compared to their counterparts in the developing world. More specifically, improving trade environment would benefit both exports and imports, but to a different degree depending on firms' size. Additional benefits of measures aiming at facilitating trade include an increase in the survival rate of exporting firms (World Bank, 2012), more export diversification along the product lines and, consequently, a reduced vulnerability to foreign shocks (Dennis & Shepherd, 2011), a reduction of the incidence informal trade (Lesser & Moise-Leeman, 2009), and an increased competitiveness of the whole economy (Spence & Karingi, 2011).

Source: Author's calculations from the 2018 World Bank's Doing Business data. Quotes are from the annual report.

² Source: WTO, at www.wto.org/tradefacilitation (accessed on 25 August 2016).

This paper aims to assess the extent to which firms in sub-Saharan Africa would respond to improving various dimension of the trade environment in terms of export and import participation (extensive margins) and intensity (intensive margins). It adds to this mounting evidence that trade facilitation tends to benefit firms in sub-Saharan Africa. It recognizes that trade transaction costs are made of many dimensions. As opposed to the existing literature, this paper therefore considers a wide range of trade facilitation indicators, ranging from customs efficiency (time and costs to comply with border or customs requirements) to the quality of the telecommunication and energy infrastructure, trade finance, as well as other trade-related government regulations.

Shedding light on how each one of this broader set of trade facilitation measures would impact firms' behaviour could constitute a welcome addition to both the existing literature focusing on Africa, and the policy context of budget-constrained government, complex legal and regulatory framework, as well as limited capacity to assess what to do and how when it comes to trade reforms. Furthermore, by comparing sub-Saharan African firms with their counterparts in the rest of the developing world, as far as international trade is concerned, the paper will provide answers to long-lasting questions of "whether Africa is different" (Innow & Kirkpatrick, 2009) and "why don't African manufacturers export more?" (Clarke, 2005).

The empirical approach is based on an econometric model that accounts for the self-selection of firms into exporting and importing, as well as the propensity to trade. The two-stage approach is first concerned with the probability of trading, and then with trade intensity. Firm-level data from the World Bank's Enterprise Surveys are used, with a combined sample of close to 50,000 firms from 92 developing economies at various points in time from 2010 to 2018. About a quarter of those firms are from 29 SSA countries.

The results suggest that, overall, an improvement in any dimension of the trade environment has the potential to increase the likelihood that non-trading firms enter exporting or importing. Existing trading firms are also found to positively react to trade facilitation initiatives. The results also indicate a great deal of heterogeneity among firms (with respect to size), between exports and imports, as well as between SSA and non-SSA firms, which point to the political economy of trade reforms.

Methodology and data

There is ample evidence that clearly indicate that trading firms are in the minority (see Greenaway & Kneller, 2007; Eaton et al., 2004; Tybout, 2003, for extensive reviews). The same goes for SSA firms. To the extent that trade environment tends to be less friendly in the sub-continent, one would expect far fewer firms to participate in international trade, and most of them either sell to or purchase at domestic markets.

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A typical firm-level dataset on trade is therefore a mixture of zero and positive trade values (non-trading and trading firms). Therefore, modelling firms' behaviour needs to account for the self-selection into international trade, in addition to the degree with which trading firms exchange with the rest of the world.

Conclusion and policy recommendations

Reforming the trade environment offers a great deal of benefits to firms when it comes to international trade. Firms in SSA which appear to benefit greatly would be able to increase their presence in foreign markets as well as their performance. As such, a rationalization of customs procedures and the regulatory framework in general, an improvement in energy and telecommunication infrastructure, and a more inclusive trade financing should be at the heart of public policies aiming to promote industrialization and reduce the marginalization of the sub-continent in the global trade arena.

Despite the greater trade-related constraints that firms across the sub-continent face, they tend to be less averse to international trade. In effect, they appear to be at least equally likely to participate in cross-border trade, and they tend to trade more intensely once they enter exporting or importing than their foreign counterparts in the developing world.

To the extent that public reforms aiming to facilitate trade are very costly, a clear prioritization among the various components of the trade environment is crucially needed, especially in the context of SSA countries where governments' resources tend to be very limited. The reforms also need to account for the sizable distributional effect, both within and across countries, as firms of different size, on the one hand, and SSA and non-SSA firms, on the other hand, tend to respond differently to any change in the various dimensions of the trade infrastructure. This heterogeneity raises the issue of the political economy of trade facilitation reforms, which in the end must be dealt with simultaneously within the national context as well as in multilateral forum such as the World Trade Organization.

References

Aitken, B., G.H. Hanson and A.E. Harrison. 1997. "Spillovers, foreign investment and export behavior". *Journal of International Economics*, 43(1-2): 103–32.

Bernard, A.B., J.B. Jensen and P.K. Schott. 2003. "Falling trade costs, heterogeneous firms and industry dynamics". NBER Working Paper No. 9639. National Bureau of Economic Research, Cambridge.

- Bernard, A.B., J.B. Jensen and P.K. Schott. 2006. "Trade costs, firms and productivity". *Journal of Monetary Economics*, 53: 917–37.
- Clarke, G. 2005. "Beyond tariffs and quotas: Why don't African manufacturers export more?" World Bank Policy Research Working Paper No. 3617. The World Bank, Washington, D.C.
- Correa, P., M. Dayoub and M. Francisco. 2007. "Identifying supply-side constraints to export performance in Ecuador: An exercise with investment climate survey data". World Bank Policy Research Working Paper No. 4179. The World Bank, Washington, D.C.
- Dennis, A. and B. Shepherd. 2011. "Trade facilitation and export diversification". *The World Economy*, 34(1): 101–22.
- Dollar, D., M. Hallward-Driemeier and T. Mengistae. 2006. "Investment climate and international integration". *World Development*, 34(9): 1498–1516.
- Eaton, J., S. Kortum and F. Kramarz. 2004. "Dissecting trade: Firms, industries and export destinations". NBER Working Paper No. 10344. National Bureau of Economic Research, Cambridge.
- Fugazza, M. and A.C. Molina. 2011. *On the Determinants of Export Survival*. UNCTAD Policy Issues in International Trade and Commodities Study Series No. 46. United Nations Conference on Trade and Development, Geneva.
- Greenaway, D. and R. Kneller. 2007. "Firm heterogeneity, exporting and foreign direct investment". *The Economic Journal*, 117: 134–61.
- Greenway, D., N. Sousab and K. Wakelina. 2004. "Do domestic firms learn to export from multinationals?" *European Journal of Political Economy*, 20(4): 1027–43.
- Hoekman, B. and B. Shepherd. 2015. "Who profits from trade facilitation initiatives? Implications for African countries". *Journal of African Trade*, 2: 51–70.
- Hoekstra, R. 2013. "Boosting manufacturing firms' export? The role of trade facilitation in Africa". IEE Working Paper No. 197.
- Hummels, D.L. and G. Schaur. 2013. "Time as a trade barrier". *American Economic Review*, 103(7): 2935–59.
- Innow, T. and C. Kirkpatrick. 2009. "Trade facilitation and manufactured exports: Is Africa different?" *World Development*, 37(6): 1039–50.
- Koenig, P., F. Mayneris and S. Poncet. 2010. "Local export Spillovers in France". *European Economic Review*, 54(4): 622–41.
- Lesser, C. and F. Moise-Leeman. 2009. "Informal cross-border trade and trade facilitation reforms in sub-Saharan Africa". OECD Trade Policy Working Paper No. 86. Organization for Economic Co-operation and Development, Paris.
- Li, Y. and J. Wilson. 2009. "Trade facilitation and expanding the benefits of trade: Evidence from firm-level data". ARTNeT Working Paper Series No. 71. Asia-Pacific Research and Training Network on Trade.
- Melitz, M.J. and S.J. Redding. 2014. "Missing gains from trade?" *American Economic Review*, 104(5): 317–21.
- OECD. 2005: The Costs and Benefits of Trade Facilitation. Paris: OECD.
- OECD. 2009. Overcoming Border Bottlenecks: The Cost and Benefits of Trade Facilitation. OECD Trade Policies Studies. Organization for Economic Co-operation and Development, Paris.

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Seck, A. 2016. "Trade facilitation and trade participation: Are sub-Saharan African firms different?" *Journal of African Trade*, 3(1-2): 23–39.

- Seck, A. 2017. "How facilitating trade would benefit trade in sub-Saharan Africa". *Journal of African Development*, 19(1): 1–26.
- Seck, A. 2019. "Heterogeneous bribe payments and firms' performance in developing countries". *Journal of African Business:* 10.1080/15228916.2019.1587806.
- Spence, M.D. and N. Karingi. 2011. "Impact of trade facilitation mechanisms on export competitiveness in Africa". UNECA African Trade Policy Centre Work in Progress No. 85. United Nations Economic Commission for Africa, Addis Ababa.
- Tybout, J.R. 2003. "Plant and firm level evidence on "new" trade theories". In E.K. Choi and J. Harrigan, eds., *Handbook of International Trade*. Oxford, UK: Blackwell.
- World Bank. 2012. *Surviving: Pathways to African Export Sustainability.* The World Bank, Trade Division, Washington, D.C.



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