

1. [List of Issue](#)

[5](#)

2. [Volume 7, Issue 1](#)

3. [Intermediate tariffs and intraregional i ...](#)

in: Search

[Advanced search](#)



[Cogent Economics & Finance](#) Volume 7, 2019 - [Issue 1](#)

[Submit an article](#) [Journal homepage](#)

Intermediate tariffs and intraregional intermediate exports: Implications for regional value chains in ECOWAS

[Barnabas Olusegun Obasaju](#)

,
[Wumi Kolawole Olayiwola](#)

,
[Henry Okodua](#)

,
[Oluwasegun Eseyin](#)

&
[Ayodele Victor Ahmed](#)

|
[Robert Read](#)

(Reviewing editor)

Article: 1622179 | Received 13 May 2019, Accepted 19 May 2019, Published online: 17 Jun 2019

- [Cite this article](#)
- <https://doi.org/10.1080/23322039.2019.1622179>



This paper primarily aims at analysing the impact of (intermediate) tariffs on intraregional intermediate exports between 2000 and 2015 with the aim of predicting the likely implications this has for regional value chains within the Economic Community of West African States (ECOWAS). As a secondary objective, the paper investigates whether correspondingly effectively applied tariffs significantly affect other classification of exports—all products, raw products and consumer products. Paying attention to the Heckman Two-step technique, we find that tariffs on intermediate products do not significantly drive intermediate exports, *inter alia*. And as garnered from the auxiliary regression, generally, tariffs are not sufficiently low as to bolster intraregional exports in ECOWAS. The statistical insignificance of intermediate tariffs implicates that the prevailing effectively applied tariff levels is not likely to augur well for formation and strengthening of new and existing value chains in ECOWAS. The need for this regional economic community to consider reviewing tariffs downwards is exigent for both the success of value chains and regional trade integration in general.

Keywords:

- [Tariffs](#)
- [intraregional exports](#)
- [regional value chains](#)
- [panel data techniques](#)
- [ECOWAS](#)
- [C33](#)

PUBLIC INTEREST STATEMENT

This research analyses the impact of intermediate tariffs on intra-regional intermediate exports with the aim of understanding the likely implications this has for regional value chains. This

paper employs different panel data techniques to analyse the impact of intermediate tariffs on intermediate exports within the ECOWAS sub-region. Comparing various panel data techniques, the estimates from the Heckman Two-step technique are prioritised. A major finding is that although intermediate tariffs negatively affect intermediate exports within ECOWAS as expected, the former is not a significant determinant of the latter. This suggests that the current levels of intermediate tariffs are not likely to significantly support the formation of new value chains and the strengthening of existing regional value chains. This calls for downward review of intermediate tariffs charged within the ECOWAS regional economic community.

1. Introduction

The role of regional economic integration (REI) in developing domestic and regional value chains through fostering intra-regional trade and trade facilitation measures has been reiterated in the Global value chain (GVC) literature such as OECD ([Citation2014](#)), OECD & WTO ([Citation2013](#)) and OECD, WTO and World Bank Group ([Citation2014](#)). It is believed that REIs are able to better situate their members at vantage positions where they can maximise their gains from GVCs—gains such as income, output, productivity and employment. The Association of Southeast Asian Nations (ASEAN) is an often cited regional economic community (REC) in this respect as deepening intra-regional trade aids value addition in member countries who consequently become competitive in the global production networks. The Economic Community of West African States (ECOWAS) is expected to also help enhance the gains of her members both in integrating into regional and global value chains and in enhancing their benefits therefrom.

ECOWAS is a REC established by the treaty of Lagos on the 28th of May in 1975. As a trading union, it was set up to create a single but large trading bloc through economic cooperation (ECOWAS, [Citation2015](#)). Some outcomes of REI can help in optimising gains from integrating into GVCs by first developing regional capacity to aid the competitiveness of the products and services of member countries' firms be it in agriculture, industry or services. For instance, REI should aid price advantage by reducing the costs of trade via the removal of tariff and non-tariff barriers within the region. REI also creates market advantages and access as it will be easier to penetrate neighbouring countries' markets at lowered costs. Lowered or zero taxes on exports is also linked to enhanced gains of regional exporters. These and more gains from REI have the potentials of helping regional firms to tap into higher dividends from economies of scale and scope and culminate into building highly competitive regional firms when they eventually enter into global value chains.

In the GVC literature, various studies have harped on the negative consequences of high tariff charges on intermediate goods particularly owing to the fact that this set of goods lend themselves to further value addition in contrast to final goods. In this vein, the cost of intermediate tariffs are multiplied when they cross borders multiple times (Kowalski, Lopez-Gonzalez, Ragoussi, & Ugarte, [Citation2015](#); Lopez-Gonzalez, [Citation2012](#); Obasaju, Olayiwola, & Okodua, [Citation2016](#)). Allard et al. ([Citation2016](#)) and United Nations Economic Commission for Africa (UNECA, 2015) also maintain that regional integration are pivotal to increasing Member States' gains from regional value chains and by extension GVCs.

In ECOWAS, the ECOWAS Trade Liberalisation Scheme (ETLS) is saddled, among others, with the responsibility of clearing tariff and non-tariff barriers to trade within the region. ETLS is a comprehensive trade liberalisation programme put in place early in the existence of ECOWAS. Its implementation was finally launched in 1990 and was meant to occur in different stages: (1) Immediate and full liberalisation of unprocessed goods and traditional handicrafts' trade. 2) Trade in industrial products was meant to be liberalised in phases with the phasing reflective of the developmental stage of the three groups of ECOWAS Member States. Group 1 consists of Cape Verde, Guinea Bissau, The Gambia, Burkina Faso, Mali and Niger; group 2—Benin, Guinea, Liberia, Sierra Leone and Togo; group 3—Ivory Coast, Ghana, Nigeria and Senegal. The aim of ETLS was to progressively reduce and subsequently eliminate all tariff and non-tariff barriers against intra-ECOWAS trade (ECOWAS Vanguard, [Citation2013](#)).

ETLS is designed to create opportunities by opening new markets for goods and services, enhancing the opportunities for investments, eliminating all custom duties thereby making trade cheaper. Thus, it aims at facilitating the transfer of goods through customs thus making trade faster. ETLS also puts in place common rules in respect of technical and sanitary standards. The coverage of ETLS is the unprocessed goods, traditional handicraft products and industrial products (processed and semi-processed products). Since not much capital goods are produced within the region yet, the coverage of ETLS largely incorporates most of the goods produced within ECOWAS. To this end, it is expected that ETLS would be supportive of trade within ECOWAS and the formation of regional value chains through its drive towards the elimination of tariff and non-tariff barriers to trade, among others (ECOWAS Vanguard, [Citation2013](#)).

Going by data provided by the World Integrated Trade Solution (WITS), intermediate exports face varying tariff charges even within ECOWAS. In terms of the weighted average differences in the effectively applied (AHS) tariffs,[Footnote](#)¹ between 2000 and 2015, Guinea and Sierra Leone as reporter countries had the highest value standing, respectively, at 2.71% and 2.68% while Senegal and Cote d'Ivoire had the lowest values of -3.46% and -2.05%, respectively. This implies a weighted average difference of as high as 6.17% between the highest and the lowest charges. Considering more recent periods and the absolute rather than the difference in charges, Gambia imposed the highest charge on intermediate goods, on the average, between 2013 and 2015 while Nigeria faced the highest intermediate charges within the same period. Given the expectations from ETLS, a question that readily comes to the fore is—has the ETLS scheme been able to sufficiently clear tariff barriers to trade to the extent of significantly fostering bilateral flows of intermediate goods within the ECOWAS REC? As a secondary question, is the prevailing tariff levels in ECOWAS supportive of bilateral trade relations in other classes of products—raw materials and consumer/final products? These are the two questions this current study seeks to answer.

2. Literature review

2.1. Brief review of theories

Viewed from the perspective of GVCs, different theories have been put forward to explain the fragmentation of production processes that characterise GVCs. These theories include the

strategic management theory, the international business theory, the globalisation and economic development theory, the industrial organisation theory, the international trade theory, new economic geography/location theory, and so on. Different theoretical views exist as discussed in Todeva and Rakhmatullin ([Citation2016](#)) and Inomata ([Citation2017](#), Todeva and Rakhmatullin ([Citation2016](#)) note that the new trade theory—one of the theories under the international trade theory—has become the workhorse of the GVC proponents. Inomata ([Citation2017](#)) also posits that the new trade theory, despite some of its shortcomings, is commonly adopted in the value chain literature because it may be readily operationalised owing to the availability of data.

In the new trade theory, there is the room for increasing returns to scale (Todeva & Rakhmatullin, [Citation2016](#)). Here, with many goods subject to economies of scale, if a specific country produces just a few goods rather than struggle to produce all it needs, the world becomes able to produce so much of each good. International trade thus allows each country to produce limited goods within its means while also availing countries the opportunity to increase their consumption of goods (Berkum & Meijl, [Citation2000](#)). The role of consumers' love for varieties is particularly important as explained by the new trade theory; this love promotes the need for the differentiation of products in the presence of monopolistic competition. And just as the way consumers can maximise their utility under the “love for variety” approach, it is also possible for firms to reduce costs and produce more outputs via trade in intermediate goods (Lopez-Gonzalez, [Citation2012](#)).

In addition, the new trade theory stresses the benefits from competitive advantages (Asaleye, Okodua, Oloni, & Ogunjobi, [Citation2017](#)) and explains why and how it is possible for countries with similar levels of development (such as ECOWAS countries) to engage in trade—in the sense of “South-South trade.” This is in contrast to the “South-North or North-South trade” in which case what predominates is the international exchange of goods and services between or amongst countries significantly dissimilar in their levels of development and technology. In a nutshell, the new trade theory also describes the possibility of intra-regional trade and the formation of regional value chains. The other value chain theories are however not discounted. For example, the globalisation and economic development theory and the international business theory suggest, as important factors in international value chains, the role of FDI, the quality of institution and research and development, and this current study considers these in the empirical analyses.[Footnote²](#)

2.2. Review of empirical studies

Here, we move from general empirical review to those specific to ECOWAS. Investigating the impact of RTA on trade flows, Baier and Bergstrand ([Citation2007](#)) endogenised the RTA variables and observed a trade-diversion effect of RTAs. Lopez-Gonzalez ([Citation2012](#)) investigated the impact of a free trade area (FTA) on the value of intermediate imports for the Organisation for Economic Cooperation and Development (OECD). Using intermediate imports from the BEC nomenclature and input-output tables for the Trade in Value Added (TiVA) economies, and controlling for the observed endogeneity of free trade agreements using a set of country-year fixed effects, he found that an FTA increases the value of intermediate imports by 25%.

References

1. Afolabi, L. O., Nor Aznin, B., & Mukhriz, I. A. (2015). Regionalism and ECOWAS trade performance: A gravity model approach. *Bogaziçi Journal Review of Social, Economic and Administrative Studies*, 29(2), 59–28.

[Google Scholar](#)

2. Allard, C., Kriljenko, C., . J., Chen, W., Gonzalez-Garcia, J., Kitsios, E., & Trevino, J. (2016). *Trade integration and global value chains in Sub-Saharan Africa: In pursuit of the missing link*. Washington, DC: International Monetary Fund.

[Google Scholar](#)

3. Anderson, J. E. (1979). A theoretical foundation for the gravity equation. *American Economic Review*, 69, 106–116.

[Web of Science @Google Scholar](#)

4. Asaleye, A. J., Okodua, H., Oloni, E. F., & Ogunjobi, J. O. (2017). Trade openness and employment: Evidence from Nigeria. *Journal of Applied Economic Sciences*, 12, 4(50), 1194–1209.

[Google Scholar](#)

5. Baier, S. L., & Bergstrand, J. H. (2007). Do free trade agreements actually increase members' international trade? *Journal of International Economics*, 71, 72–95.
doi:10.1016/j.jinteco.2006.02.005

[Web of Science @Google Scholar](#)

6. Baier, S. L., Bergstrand, J. H., & Feng, M. (2013). Economic integration agreements and the margins of international trade. Retrieved from <https://www3.nd.edu/.../Baier%20Bergstrand%20Feng%20Margins%20and%20EIAs.p>

[Google Scholar](#)

7. Baldwin, R., & Taglioni, D. (2007). Gravity for dummies and dummies for gravity equations. NBER WP 12516, published as “Trade effects of the euro: A comparison of estimators”. *Journal of Economic Integration*, 22(4), 780–818. doi:10.11130/jei.2007.22.4.780

[Google Scholar](#)

8. Baldwin, R., & Taglioni, D. (2011). *Gravity chains: Estimating bilateral trade flows when parts and components trade is important*. Germany: European Central Bank.

[Google Scholar](#)

9. Berkum, S., & Meijl, H. (2000). The application of trade and growth theories to agriculture: A survey. *The Australian Journal of Agricultural and Resource Economics*, 44(4), 505–542. doi:10.1111/ajar.2000.44.issue-4

[Web of Science @Google Scholar](#)

10. Bouet, A., Mishra, S., & Roy, D. (2008). Does Africa trade less than it should, and if so, why?: The role of market access and domestic factors. *International Food Policy Research Discussion Paper no. 770*.

[Google Scholar](#)

11. Cheong, J., Kwak, D. W., & Tang, K. K. (2018). The trade effects of tariffs and non-tariff changes of preferential trade agreements. *Economic Modelling*, 70, 370–382. doi:10.1016/j.econmod.2017.08.011

[Web of Science @Google Scholar](#)

12. Cipollina, M., & Salvatici, L. (2013). Hands-on gravity estimation with Stata, version 2. *AGRODEP Technical Note TN-05*.

[Google Scholar](#)

13. ECOWAS. (2015). Basic information. Retrieved from <http://www.ecowas.int/about-ecowas/basic-information/>

[Google Scholar](#)

14. ECOWAS Vanguard. (2013). The ECOWAS Trade Liberalisation Scheme: Genesis, conditions and appraisal. *National Association of Nigerian Traders*, 2(3), 1–12.

[Google Scholar](#)

15. Egger, P., Larch, M., Staub, K. E., & Winkelmann, R. (2011). The trade effects of endogenous preferential trade agreements. *American Economic Journal: Economic Policy*, 3(3), 113–143.

[Web of Science @Google Scholar](#)

16. Estrella, G. H. (2012). Comparing alternative methods to estimate gravity models of bilateral Trade. *Empirical Economics*, 44, 1087–1111.

[Web of Science @Google Scholar](#)

17. Haq, Z., Meilke, K., & Cranfield, J. (2010). Does the gravity model suffer from selection bias? *Canadian Agricultural Trade Policy Research Network Working Paper no 90884*

[Google Scholar](#)

18. Heckman, J. J. (1979). Sample selection bias as a specification error. *Econometrica*, 47, 153–161. doi:10.2307/1912352

[Web of Science @Google Scholar](#)

19. Helpman, E., & Krugman, P. R. (1985). *Market structure and foreign trade*. Cambridge: MIT Press.

[Google Scholar](#)

20. Helpman, E., Melitz, M., & Rubinstein, Y. (2008). Estimating trade flows: Trading partners and trading volumes. *Quarterly Journal of Economics*, 123, 441–487. doi:10.1162/qjec.2008.123.2.441

[Web of Science @Google Scholar](#)

21. Hunter, L. & Markusen, J. (1986). Per-capita income as a determinant of trade. Centre for the Study of International Economic Relations Working Papers, 8620C. London, ON: Department of Economics, University of Western Ontario.

[Google Scholar](#)

22. Inomata, S. (2017). Analytical frameworks for global value chains: An overview. Retrieved from https://www.wto.org/english/res_e/booksp_e/gvcs_report_2017_chapter1.pdf

[Google Scholar](#)

23. International Labour Organisation (ILO) 2013. Statistics of work and of the labour force - a report for discussion at the meeting of experts in labour statistics on the advancement of employment and unemployment statistics (28 January1 February 2013). Geneva. Retrieved from https://www.ilo.org/wcmsp5/groups/public/—dgreports/—stat/documents/event/wcms_175150.pdf

[Google Scholar](#)

24. Kaiser, H. F. (1958). The varimax criterion for analytic rotation in factor analysis. *Psychometrika*, 23(3), 187–200. doi:10.1007/BF02289233

[Web of Science @Google Scholar](#)

25. Kowalski, P., Lopez-Gonzalez, J., Ragoussi, A., & Ugarte, C. (2015). Participation of developing countries in global value chains: Implications for trade and trade-related policies. *OECD Trade Policy Papers*, No. 179. Paris: OECD Publishing. doi: 10.1787/5js331fw0xxn-en

[Google Scholar](#)

26. Linders, G. M., & de Groot, H. (2006). Estimation of the gravity equation in the presence of zero flows. *Tinbergen institute Discussion Papers 06-072/3*.

[Google Scholar](#)

27. Lopez-Gonzalez, J. (2012). The impact of free trade agreements on vertical specialisation. *Working Paper No. 2012/36*, Swiss National Centre of Competence in Research, Bern.

[Google Scholar](#)

28. Obadiaru, D. E., Oloyede, J. A., Omankhanlen, A. E., & Asaley, A. J. (2018). Stock market volatility spillover in West Africa: Regional and global perspectives. *Journal of Applied Economic Sciences*, 13, 6(60), 1597–1604.

[Google Scholar](#)

29. Obasaju, B. O., Olayiwola, W. K., & Okodua, H. (2016, May 4th–5th). Regional economic integration in West Africa and cocoa beans value chain in Nigeria. Conference Proceedings of the 27th International Business Information Management Association (IBIMA) Conference, Milan, Italy

[Google Scholar](#)

30. Obasaju, B. O., Olayiwola, W. K., Okodua, H., & Adekunle, B. S. (2019). Regional economic integration and the backward integration of ECOWAS sub-region into global value chains. *International Journal of Economic Policy in Emerging Economies*, forthcoming.

[Google Scholar](#)

31. Obasaju, B. O., Olayiwola, W. K., Okodua, H., & Obasaju, U. R. (2018). Does intermediate tariff bode well for trade integration in ECOWAS? *Journal of International Studies*, [11\(4\)](#), 201–213. doi:10.14254/2071-8330.2018/11-4/14

[Google Scholar](#)

32. OECD (2014). Developing countries participation in global value chains and its implication for trade and trade-related policies. Retrieved from www.oecd-library.org/trade/participation

[Google Scholar](#)

33. OECD & WTO (2013). Aid for trade at a glance 2013: Connecting to value chains. Retrieved from https://www.wto.org/english/res_e/booksp_e/aid4trade13_e.pdf

[Google Scholar](#)

34. OECD, W. T. O., & Group, W. B. (2014, July 19). Global value chains: Challenges, opportunities and implications for policy. Report prepared for submission to the G20 Trade Ministers Meeting, Sydney, Australia

[Google Scholar](#)

35. Olofin, S., Salisu, A., Ademuyiwa, I., & Owuru, J. (2013). Determinants of a successful regional trade agreement in West Africa. Retrieved from www.crepol.org/images/my_pdf/july-paper-02.pdf

[Google Scholar](#)

36. Osabuohien, E., Efobi, U., Odebiyi, J., & Fayomi, O. (2017). Financial development, trade costs and bilateral trade flows: Connecting the nexus. In E. C. O. W. A. S. In & D. Seck. (Eds.), *Investment and Competitiveness in Africa* (pp. 153–176). Geneva: Springer International Publishing. doi:10.1007/978-3-319-44787-2

[Google Scholar](#)

37. Shepotylo, O. (2009). Gravity with zeros: Estimating trade potential of CIS countries. *Kyiv School of Economics Discussion Papers* 16.

[Google Scholar](#)

38. Slany, A. (2017). The role of trade policies in building regional value chains – Some preliminary evidence for Africa. *UNCTAD Research Paper No. 11*.

[Google Scholar](#)

39. Sun, Z., & Li, X. (2018). The trade margins of Chinese agricultural exports to ASEAN and their determinants. *Journal of Integrative Agriculture*, *17*(10), 2356–2367. doi:10.1016/S2095-3119(18)62084-2

[Web of Science @Google Scholar](#)

40. Todeva, E., & Rakhmatullin, R. (2016). Industry global value chains, connectivity and regional smart specialisation in Europe. An overview of theoretical approaches and mapping methodologies. *JRC Science for Policy Report*, European Union, EUR 28086 EN. doi: 10.2791/176781.

[Google Scholar](#)

41. Wang, C., Wei, Y., & Liu, X. (2010). Determinants of bilateral trade flows in OECD Countries: Evidence from gravity panel data models. *The World Economy*, [33\(7\)](#), 894–915. doi:10.1111/twec.2010.33.issue-7

[Web of Science @Google Scholar](#)

42. Westerlund, J., & Wilhelmsson, F. (2009). Estimating the gravity model without gravity using panel data. *Applied Economics*, [43](#), 641–649. doi:10.1080/00036840802599784

[Web of Science @Google Scholar](#)

APPENDIX

Table A. Weighted average differences (AHS) of effectively applied tariffs on intermediate goods

[Download CSV](#)[Display Table](#)
[Download PDF](#)

- [Share icon](#)

XFacebookLinkedInEmailShare

Related research

- [People also read](#)
- [Recommended articles](#)
 - [Cited by](#)
2

[The determinants of participation in global value chains: The case of ECOWAS](#)

[Abdoulganiour Almame Tinta](#)
Cogent Economics & Finance
Published online: 20 Oct 2017

Information for

Registered in England & Wales No. 3099067
5 Howick Place | London | SW1P 1WG



Taylor & Francis Group
an **informa** business