Country-level implications of AfCFTA Agreement's implementation on inequality and poverty

Paper selected for presentation at 2023 Global Economic Analysis Conference

Version 1 – 15 April 2023

Simon Mevel (United Nations Economic Commission for Africa, UNECA), ***Stephen Karingi*** (UNECA) and ***Souleymane Sadio Diallo*** (Centre Ivoirien de Recherches Economiques et Sociales, CIRES)

Keywords: *Africa, preferential trade agreements, poverty, inequality, CGE, microsimulation.*

Background

The Agreement Establishing the African Continental Free Trade Area (AfCFTA) entered into force on 30 May 2019. Trading under the Agreement began on 1 January 2021. However, the first trade actually took place following the launch by the AfCFTA Secretariat in early October 2022 of the Guided Trade Initiative (GTI), involving 8 pilot countries (i.e. Cameroon, Egypt, Ghana, Kenya, Mauritius, Rwanda, Tanzania and Tunisia). The GTI is expected to test and subsequently facilitate implementation of the AfCFTA Agreement by all State parties. As of 15 April 2023, 54 of the 55 African Union (AU) member States had signed the AfCFTA Agreement; of which 44 had ratified it.

It is against this backdrop that the United Nations Economic Commission for Africa (ECA) and the Centre for International Research and Economic Modelling (CIREM) of the Centre d'Etudes Prospectives et d'Informations Internationales (CEPII) undertook a new comprehensive assessment of what the economic implications of the ongoing implementation of the Agreement would be. The analysis relies on computable general equilibrium (CGE) modelling. ECA then went a step further to use findings from the CGE analysis, along with collected household surveys data, to feed into a microsimulation model for inequality and poverty analysis at country-level.

Methodology in brief

The CGE modeling is based on the latest MIRAGE-e computable general equilibrium model, [1] the GTAP 10.1 database,[2] and the latest Market Access Map database on bilateral protection information for the year 2014, defined in the Harmonized Commodity Description and Coding System for products at the 6-digit level.[3]

For the AfCFTA reform, in the CGE framework, we assumed trade in goods to be liberalized in line with negotiated modalities, plus a cut of 50 per cent on actionable trade barriers in the five negotiated priority sectors (i.e. business, communication, financial, tourism, and transport) as well as health and education services (which have received greater attention owing to the Covid-19 crisis), and a 50 cut of actionable non-tariff barriers.

[1] See http://www.cepii.fr/PDF_PUB/wp/2013/wp2013-39.
[2] See https://www.gtap.agecon.purdue.edu/databases/v10/index.aspx.
[3] See MAcMap-HS6; http://www.cepii.fr/cepii/en/bdd_modele/presentation.asp?id=12.

Key aggregate variables from global CGE model (e.g. evolution of global consumption) served as inputs to a non-parametric microsimulation model, which captures individual income distribution and consumption patterns as informed by detailed household survey data.

The following 12 countries are covered under the microsimulation exercise: Cameroon, Cote d'Ivoire, Ethiopia, Kenya, Morocco, Namibia, Nigeria, Rwanda, Senegal, Tanzania, Uganda, and Zimbabwe.

Key findings

The CGE results reveal that successful implementation of the AfCFTA Agreement is expected to positively impact Africa's global GDP, output, trade and welfare.[4]

Trade-related implications (CGE analysis)

It is worth noting that foreseen benefits would in fact be largely concentrated in intra-African trade. Indeed, with the AfCFTA Agreement in place, intra-African trade could be around 35% higher than in absence of AfCFTA, in the year 2045. All main sectors are expected to substantially benefit. Nonetheless, and whereas intra-African trade in agrifood, industry and services sectors would increase in relatively similar proportions and by around 40%, the increase in energy and mining would be substantially lower and about 16%.

Therefore, and since the composition of intra-African trade is currently dominated by industry (which interestingly contrasts with Africa's trade with the rest of the world as Africa mainly exports fuels and other primary commodities to the rest of the world),[5] the effective implementation of the AfCFTA Agreement would help Africa industrialize and diversify away from energy and mining. In turn, this is anticipated to help build Africa's resilience and potentially reduce its current trade dependence from external partners, which is critical in light of the vulnerabilities exposed out of the Covid-19 pandemic and the conflict in Ukraine, and to mitigate the potential negative impacts of future external shocks.

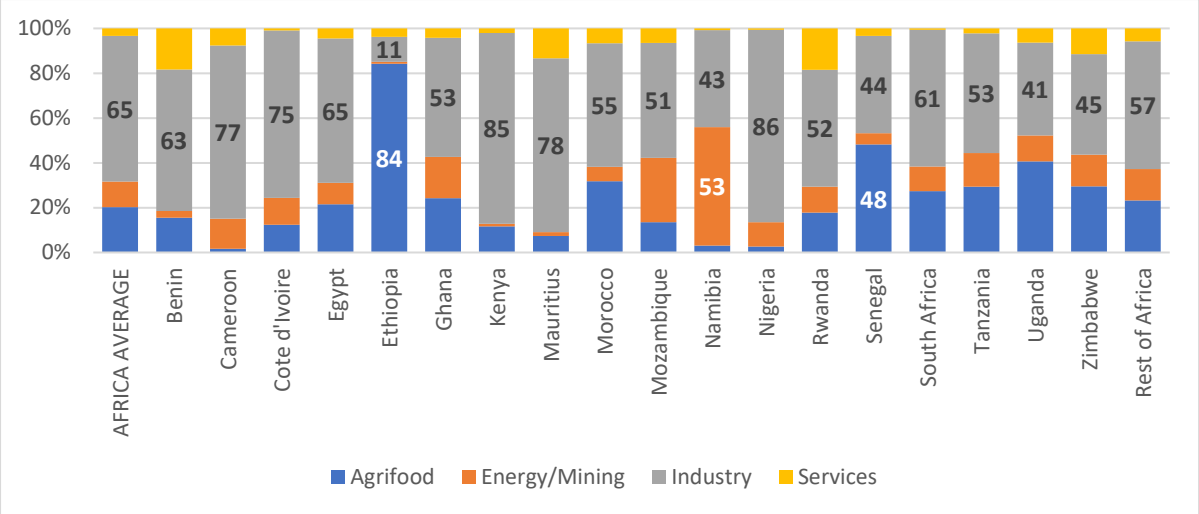
The overall trend towards more industrialized economic structures is confirmed at country-level as the bulk of the absolute gains in countries' exports to the rest of Africa following AfCFTA Agreement's implementation would be for industrial products, apart from a few exceptions (see Figure 1).[6]

Figure 1: Distribution of absolute gains by main sectors in African countries' exports to Africa with AfCFTA implemented (compared to absence of AfCFTA) – 2045

[4] See https://uneca.org/sites/default/files/keymessageanddocuments/en_afcfta-infographics-11.pdf and https://repository.uneca.org/bitstream/handle/10855/46750/b11999160.pdf?sequence=1&isAllowed=y

[5] See https://repository.uneca.org/bitstream/handle/10855/46750/b11999160.pdf?sequence=1&isAllowed=y.

[6] Even in those few countries (i.e. Ethiopia, Namibia and Senegal) where industry would not account for the largest share of the benefits, gains would still be sizeable in industry in absolute but especially in relative terms.



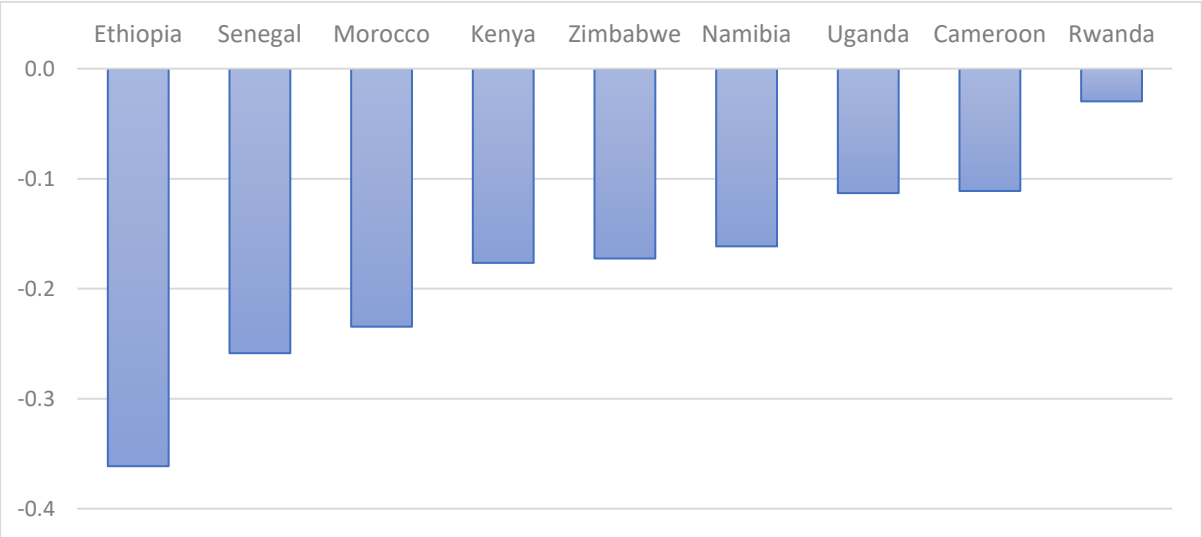
Source: ECA and CIREM (2021)

Inequality and poverty implications (microsimulation)

Those meaningful projected gains from the realization of the AfCFTA for African countries are expected to lead to positive implications for the reduction of both inequality and poverty in Africa. Indeed, an extension of ECA's empirical analysis shows how inequality as well as poverty (globally and by socio-economic characteristics) would be impacted following successful implementation of the AfCFTA Agreement, in those countries where required detailed household survey data was obtained and analysis already completed.[7]

At national level, the AfCFTA is expected to help reduce inequality in all African countries analyzed so far, as revealed by their relatively lower respective calculated Gini indexes with than without AfCFTA in place (see Figure 2).[8]

Figure 2: Change in Gini index with AfCFTA (as compared to absence of AfCFTA) – % point – 2045



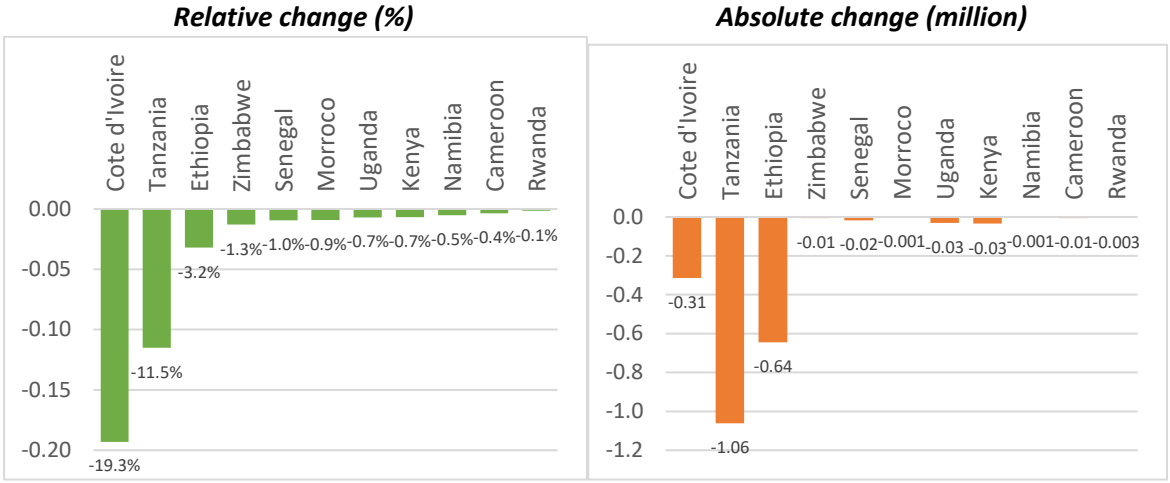
Source: ECA (forthcoming)

[7] Work is still ongoing with twelve country-specific pieces being produced for: Cameroon, Cote d'Ivoire, Ethiopia, Kenya, Morocco, Namibia, Nigeria, Rwanda, Senegal, Tanzania, Uganda, Zimbabwe.

[8] The Gini index helps assessing the income distribution in the population. Lower values show less variance/dispersion/inequality among the population. Here, by computing it in 2045 with vs. without AfCFTA, we find lower values (although the gap is modest) in presence of AfCFTA than in absence of it; thus greater inequalities without AfCFTA.

Similarly, the implementation of the AfCFTA Agreement is forecasted to contribute to lowering poverty in all African countries investigated (see Figure 3).[9]

Figure 3: Change in number of people living under extreme poverty ($1.9/day/person) with AfCFTA (as compared to absence of AfCFTA) – 2045



Source: ECA (forthcoming)

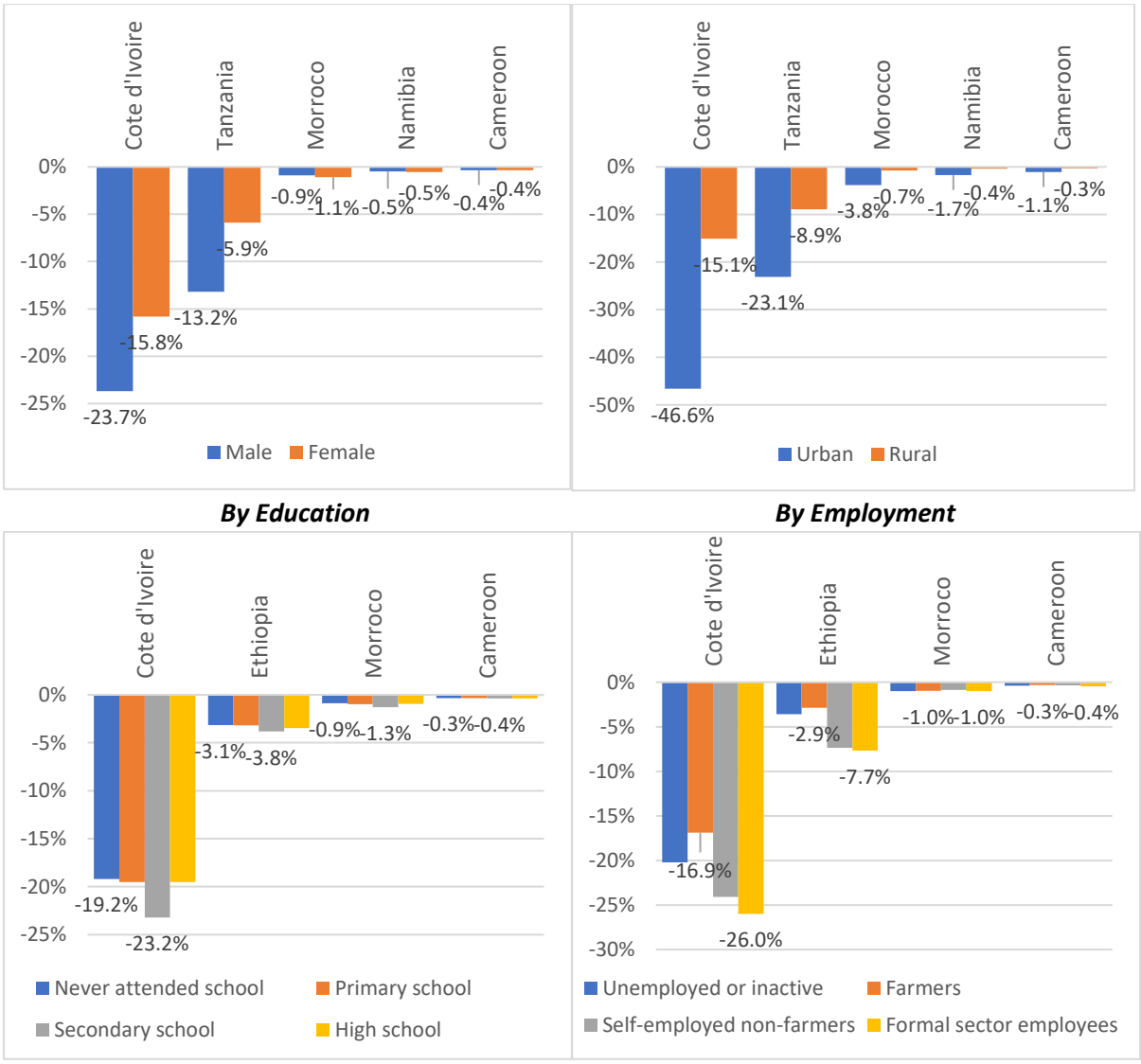
For instance, the number of people living under extreme poverty (based on international poverty line of US$ 1.9/person/day) in Ethiopia would be about 3.2% lower with AfCFTA than without AfCFTA, in 2045. This would represent 0.64 million less people living under extreme poverty in Ethiopia, in 2045, as a result of the AfCFTA Agreement's implementation.

Those findings clearly indicate that while the AfCFTA is expected to help reduce poverty, the overall impact may be relatively moderate and strongly varies across countries. Nonetheless, decomposing the effects based on socio-economic characteristics provides additional meaningful insights. As a matter of fact, and as it could be somewhat expected, results indicate that people living under extreme poverty with low levels of education and/or not employed in the formal sector would be lifted out of poverty in relatively lower proportions than those with higher levels of education and/or employed in the formal sector. However, and quite daunting, females and people living in rural areas (where poverty tends to be more prevalent in Africa) would tend to benefit relatively less than males and people living in urban areas, from the AfCFTA reform as it is currently designed and as far as poverty reduction is concerned (see Figure 4).

Figure 4: Change in number of people living under extreme poverty ($1.9/day/person) with AfCFTA (as compared to absence of AfCFTA) – Relative change – % – 2045

By Gender ***By Area***

[9] It should be noted that due to technical constraint to solve the poverty model in the case of Cote d'Ivoire, the results are slightly amplified compared to other countries. It is explained by the fact that the wealthiest 10% of the population is fixed over time (against traditionally 5% in other countries), implying that the benefits from the simulated reform is concentrated in a relatively smaller segment of the population (90% against 95% in other countries), leading to larger poverty gains.



Source: ECA (forthcoming)

The "poverty-reducing" impact of the AfCFTA is further supported by the findings of another research by ECA,[10] which uses historical macroeconomic data to show that greater intra-African trade would promote poverty alleviation on the continent. However, the study also reveals that, to harness the benefits of enhanced intra-continental trade for poverty reduction, countries must improve the quality of governance, foster business-friendly financial and regulatory systems, and promote infrastructure development particularly in the ICT and energy sectors. The implementation of the AfCFTA agreement should therefore be complemented with specific actions as highlighted in the Action Plan for Boosting Intra-African Trade (BIAT) adopted by the AU Heads of state and government in 2012.

Conclusion and recommandations

ECA's latest modelling work on the impacts of the AfCFTA demonstrates that effective implementation of the Agreement would help boost intra-African trade in all main sectors, with clear opportunities to

[10] "Regional integration and poverty reduction in Africa: Do complementary policies matter?" (ECA, forthcoming). Lead author: Dede GAFA, Fellow, Regional Integration and Trade Division (RITD), ECA.

promote industrialization through trade. The AfCFTA is further expected to contribute to inequality and poverty reduction, from the sample of countries analysed. Nonetheless, it should be noted that the overall impact on poverty and inequality would be relatively modest and uneven across countries as well as across individuals within a country, based on their socio-economic characteristics. Indeed, following implementation of the AfCFTA, poverty will still be predominantly rural and the decline in poverty will generally be greater for males than females. Crossing all findings based on explored socio-economic criteria, women living in rural areas with limited education and employed in the informal sector would tend to benefit the least from the AfCFTA Agreement as it currently stands.

Ongoing negotiations on the design of an AfCFTA Protocol for women and youth in trade are therefore critical to ensure a more inclusive AfCFTA Agreement. Elements to be considered for the Protocol could, among others, include specific actions aimed at: formalizing women traders and ensuring greater incomes to them, facilitating their access to trade finance, granting better access to young women and girls to education–especially for jobs in the industrial and services sectors that are expected to substantially benefit from AfCFTA Agreement's implementation.