

Emergence of mega-regional trade agreements and the imperative for African economies to strategically enhance trade-related South-South Cooperation

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Abstract:

Over the last fifteen years, the number of regional trade agreements have multiplied tremendously and largely as a result of slow progress made in the multilateral trade negotiations. The latest trend towards increased regionalism is the emergence of mega-regional trade agreements (MRTAs). Currently three major MRTAs (i.e. Trans-Atlantic Trade and Investment Partnership (TTIP), Trans-Pacific Partnership (TPP) and Regional Comprehensive Economic Partnership (RCEP)) are envisaged and expected to greatly modifying trading relationships worldwide. Whereas there are developing countries—essentially from Asia and Latin America— amongst the MRTA members, African nations are not part of any of the three rising trade configurations.

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² The authors wish to sincerely thank, Mr. David Luke, Coordinator of ATPC, ECA, for his very valuable comments.

Relying on a Computable General Equilibrium analysis this paper aims at not only assessing the trade impacts that MRTAs are expected to produce on African economies but most importantly exploring various trade arrangements that could help mitigating any possible negative effect on Africa which are expected to arise as a result of the formation of MRTAs.

Findings from the analysis indicate that deepening continental trade integration—by establishing the Continental Free Trade Area (CFTA)—should be seen as a key priority for Africa; it would allow to offset harmful impacts MRTAs would cause on African economies and strongly stimulating intra-African trade. However, results suggest that Africa needs to also start looking beyond its own, and still relatively small, Continental market to expand its trade. Explicitly, African countries should not wait until the CFTA is running up to speed to strategically enhance trade-related South-South Cooperation as the analysis demonstrates that it could clearly offer evident opportunities to support Africa’s structural transformation agenda.

Keywords: regional trade agreements, regional integration, structural transformation, Africa, South-South cooperation, computable general equilibrium model.

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I. Introduction

Over the last fifteen years, the number of regional trade agreements have multiplied tremendously and largely as a result of slow progress made in the multilateral trade negotiations, under the umbrella of the World Trade Organization (WTO). The latest trend towards increased regionalism is the emergence of profound integration partnerships between countries which together make up a major share of the world population and/or GDP, also known as mega-regional trade agreements (MRTAs). In this context, the Nairobi Ministerial Declaration from the Tenth Ministerial Conference of the WTO held on 15-18 December 2015, in Nairobi, Kenya, reaffirmed “the need to ensure that Regional Trade Agreements (RTAs) remain complementary to, not a substitute for, the multilateral trading system”³. Therefore, if MRTAs do not mark the end of multilateralism, they are still a clear expression of the desire by many economies to make progress on their trade integration agendas and thus the need for the multilateral trading system to adjust in a rapidly evolving world trade landscape.

Currently three major MRTAs are envisaged and expected to greatly modifying trading relationships worldwide. The twelve member countries⁴ of the Trans-Pacific Partnership (TPP) have already concluded the first phase of their negotiation process last October 2015 and even signed the agreement on 4 February 2016, in Auckland, New Zealand; ratification process must be completed by “at least six countries that account for 85 percent of the combined gross domestic production of the 12 TPP nations” within the next two years for the agreement to be implemented⁵. Discussions are still ongoing for the other two chief MRTAs, namely the Trans-Atlantic Trade and Investment Partnership (TTIP), between the United States (U.S.) and the European Union (EU), and the Regional Comprehensive

³ WT/MIN(15)/DEC; see https://www.wto.org/english/thewto_e/minist_e/mc10_e/nairobipackage_e.htm.

⁴ Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States and Vietnam.

⁵ See <http://www.reuters.com/article/us-trade-tpp-idUSKCN0VD08S>.

Economic Partnership (RCEP) bringing together 16 Asian economies⁶, but sizeable progress are foreseen for 2016.

Whereas there are developing countries—essentially from Asia and Latin America—amongst the members of TPP and RCEP, African nations are not part of any of the three rising trade configurations. While the effects of MRTAs on third countries are somewhat uncertain at this stage, primarily because not all the provisions under the agreements that are being negotiated are known, it is evident that they will have non-negligible implications on those economies that will remain outside the mega-regional blocs. For instance, the 54 African countries—of which as many as 34 are least-developed countries (LDCs) – will inevitably and directly suffer erosion of trade preferences on MRTA markets following their establishment.

The purpose of this Paper is not only to assess the trade impacts that MRTAs are expected to produce on African economies—which has already been investigated although not to such level of sector and country details⁷– but most importantly to explore trade arrangements that could help to mitigate any possible negative effect on Africa that would arise as a result of the formation of MRTAs. Specifically, the Paper anticipates the establishment of MRTAs in the context of the African Continental Free Trade Area (CFTA), for which negotiations were launched in June 2015 and are expected to be partly concluded by the end of 2017. Furthermore, and looking forward, closer trade linkages between African nations and developing economies in the TPP, the RCEP and beyond are looked at, with a special focus on the potential for such trade-related South-South Cooperation to strategically facilitate Africa’s structural transformation. The analysis will be conducting using a well-know computable general equilibrium (CGE) model.

Prior to presenting into details the methodology and envisaged policy reforms (III), key findings from the modeling exercise (IV), as well as conclusion and policy

⁶ 10 members of the Association of Southeast Asian Nations (ASEAN; Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam) plus 6 other major Asian economies (Australia, China, India, Japan, New Zealand and South Korea).

⁷ See Rollo et al, (2013), ECA and AUC (2014), Guimbard and Le Goff (2014).

recommendations (V), the Chapter offers a thorough investigation of trade flows (II). Specifically, recent trends and current trade flows between Africa and members of the three major MRTAs as well as key partners from outside the emerging regional blocks are investigated. This is extremely important as initial conditions often provide invaluable insights to help envisaging pertinent policy reforms to be analyzed and better understanding the results from the envisaged reforms.

II. Trade flow analysis

Data indicate that the EU remains by far the main export destination for Africa with about 34.5 percent of Africa's total export directed to the EU over the average period 2010-2014. However, the nine countries⁸ from RCEP—that are not also members of the TPP— all together (i.e. RCEP-9) come next at 20.3 percent for the same average period and are clearly becoming more prominent trading partners for African countries; with China alone absorbing 60.6 percent of this share and India 28.1 percent. The four countries⁹ of the TPP—that are not also members of the RCEP— plus the U.S. are significantly behind with only 13.4 percent for the average period 2010-2014; which can be decomposed into 11.3 percent for the U.S. and only 2.1 percent for the other four countries belonging to TPP strictly (i.e. TPP-4). The importance of the U.S. as a major partner for Africa has been considerably reducing; the share of the U.S. in Africa's total exports falling from 16.3 percent in 2010 to just 6.4 percent in 2014. This is impressive compared to evolution of the shares of China and India in Africa's total exports, respectively, passing from 11.6 and 5.1 percent in 2010, respectively, to 13.4 and 6.5 in 2014, respectively. Exports from Africa to China have become nearly as large as African exports towards African partners as the share of intra-African trade is standing at about 14.1 percent for the average period 2010-2014. Countries that are members to both, TPP and RCEP¹⁰ (i.e. TPP & RCEP), as well as those from the Rest of Asia (that are neither in TPP nor in RCEP; especially Turkey, the United Arab

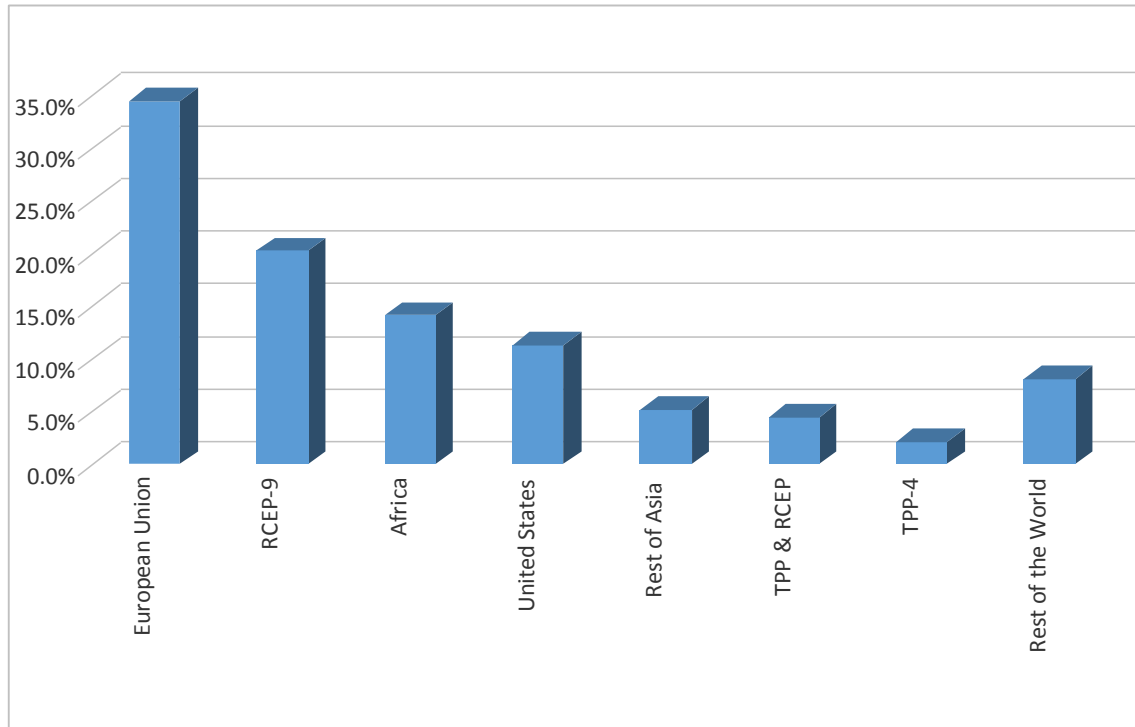
⁸ Cambodia, China, India, Indonesia, Korea, Laos, Myanmar, the Philippines and Thailand.

⁹ Canada, Chile, Mexico and Peru.

¹⁰ Australia, Brunei Darussalam, Japan, Malaysia, New Zealand, Singapore and Vietnam.

Emirates and Saudi Arabia which together attract about 55 percent of Africa’s total exports to the Rest of Asia group) are also becoming non-negligible partners for Africa (see Figure 1).

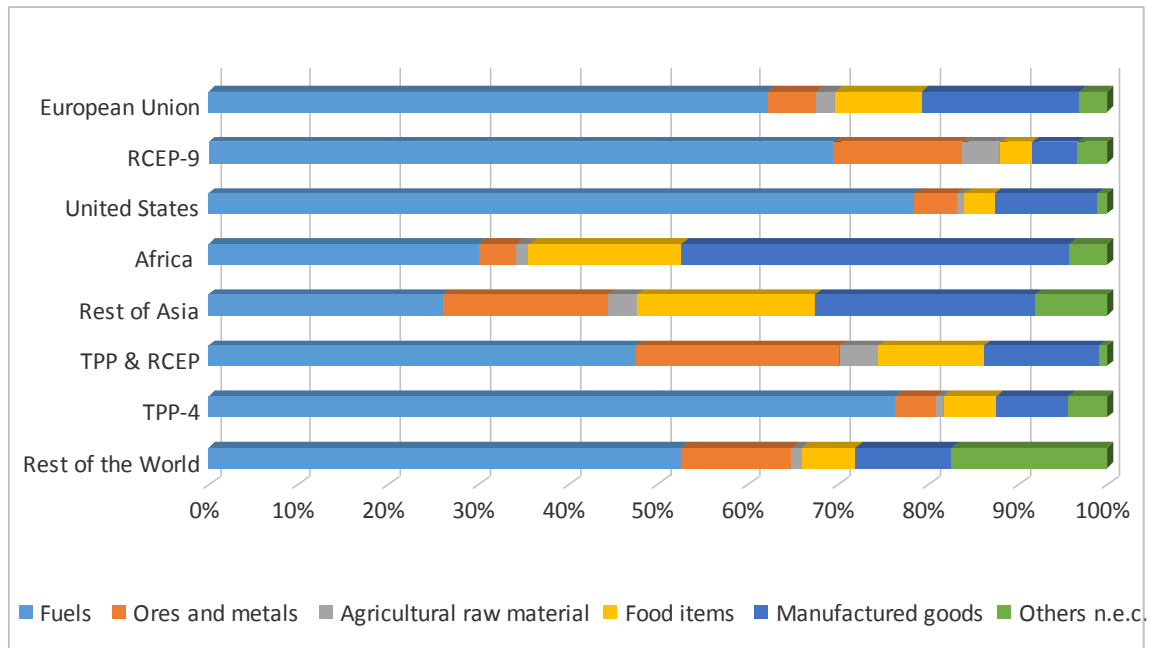
Figure 1: Share of key partners in Africa’s total exports - 2010-2014 - percent



Source: Authors’ calculations based on UNCTADStat; accessed on 15 January 2016

In terms of product composition of Africa’s exports, primary commodities and raw materials (namely fuels, ores and metals, and agricultural raw materials) largely dominate to nearly all above markets (see Figure 2). Fuels alone represent shares of as much as 47.6, 52.7, 62.3, 69.7, 76.5 and 78.5 percent in Africa’s total exports to TPP & RCEP, the Rest of the World, the EU, RCEP-9, TPP-4 and the U.S. for the average period 2010-2014, respectively. Within RCEP-9, China and India are not exceptions as 67.4 and 78.3 percent of Africa’s total exports to China and India, respectively, are just fuels. Such data provide a clear illustration to the still limited industrial content of Africa’s exports and the need for structural transformation to better support Africa’s development through trade.

Figure 2: Share of main products in Africa's total exports by key markets of destination - 2010-2014 - percent

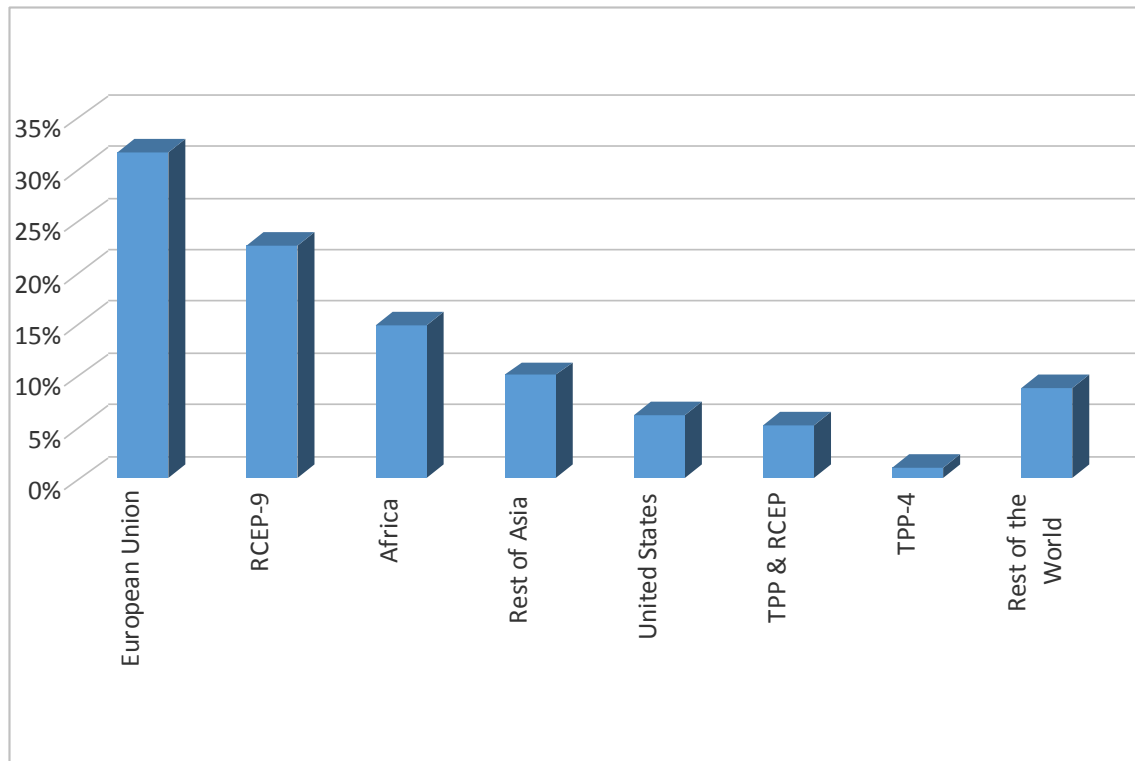


Source: Authors' calculations based on UNCTADStat; accessed on 15 January 2016

However, these characteristics of Africa's exports contrast considerably with those observed for two destinations: Africa and the Rest of Asia. Indeed, and although the shares of fuels in Africa's total exports to Africa and the Rest of Asia are still significant and standing at 30.1 and 26.1 percent over the average period 2010-2014, respectively, export diversification is quite pronounced. For example, intra-African trade is largely dominated by exchanges of manufactured goods (with a share of 43.1 percent), and processed food represents a considerable share as well (at 17.0 percent). In the case of Africa's exports to the Asian countries that are not members of either TPP or RCEP, the shares of manufacture goods and food items are also considerable at 24.5 and 19.8 percent, respectively.

In terms of origin of Africa's imports, similar patterns than in the case of exports are generally observed; with, however, a greater importance of Asian economies (i.e. RCEP-9 and the Rest of Asia) as sources of imports for Africa that should be highlighted (see Figure 3).

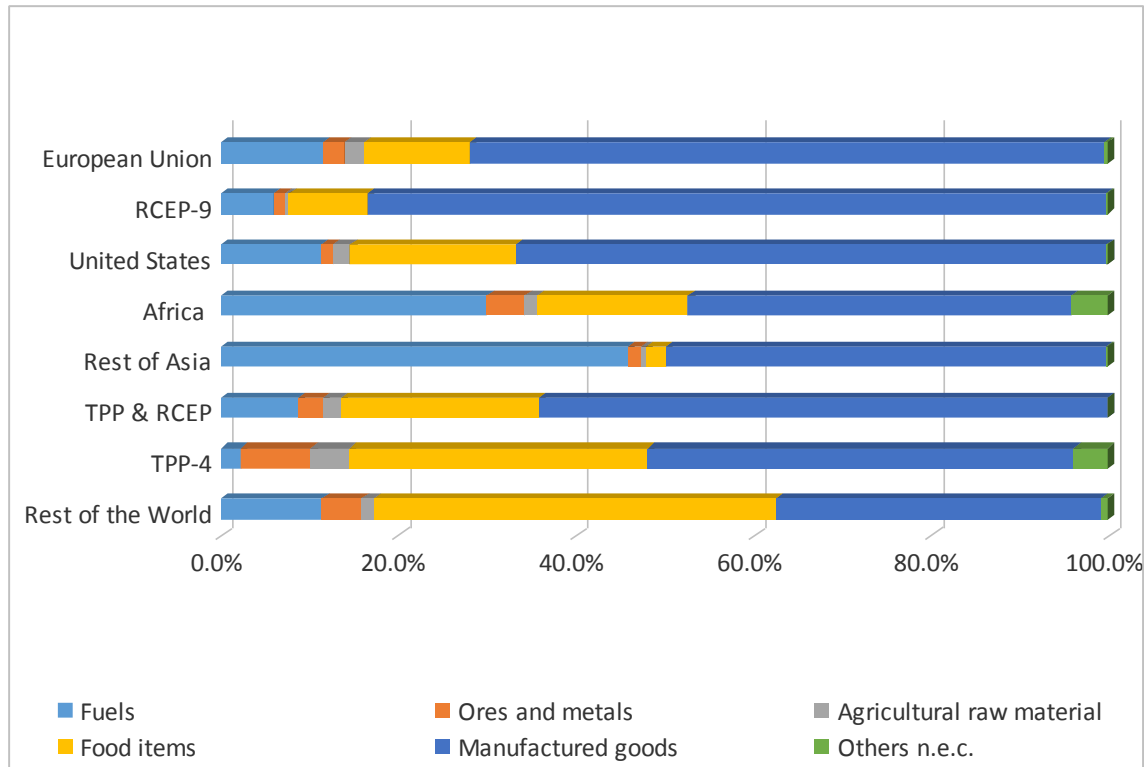
Figure 3: Share of key partners in Africa's total imports - 2010-2014 - percent



Source: Authors' calculations based on UNCTADStat; accessed on 15 January 2016

Nevertheless, in terms of product composition of Africa's imports, the patterns are considerably different than that of Africa's exports; with manufactured goods representing the largest share of Africa's imports whatever the origin. This clearly reinforces the fact that African economies are largely dependant on their external partners to satisfy their industrial needs. Nonetheless, the strong domination of imports of manufactured goods is somewhat less pronounced in the cases of intra-African trade and imports from the Rest of Asia as well as from the Rest of the World (see Figure 4).

Figure 4: Share of main products in Africa's total imports by key markets of origin - 2010-2014 - percent



Source: Authors' calculations based on UNCTADStat; accessed on 15 January 2016

Data, therefore, tend to suggest that exploring deepening of regional integration within Africa but also between Africa and countries from Asia, particularly those which do not belong to the three major MRTA configurations, could be seen as a positive avenue to help diversifying Africa's trade base.

III. Methodology used and policy reforms envisaged for the analysis

Methodology

The analysis is conducted using the well-know MIRAGE¹¹ multi-country multi-sector CGE model in its recursive dynamic version, particularly well suited to assess complex

¹¹ MIRAGE stands for Modeling International Relationships in Applied General Equilibrium.

trade policy reforms. A description of the main model features and assumptions is provided in Annex 1¹².

The model relies mainly on data from the Global Trade Analysis Project (GTAP) version 8.1 database¹³ and the Market Access Map at Harmonized System 6-digit level of product classification (MAcMap-HS6) version 2 database¹⁴.

While MAcMap-HS6 version 2 is for the year 2004, and thus could appear outdated for such work, it should be emphasized that considerable efforts have been made to update tariff information (between the year of the database and the base year, 2015) that are relevant for the exercise and which have been included throughout the baseline. Our updated version of MAcMap-HS6, therefore, reflects the everything but arms (EBA) initiative of the EU, the African Growth and Opportunity Act (AGOA) by the U.S. which was renewed last September 2015 and for a 10-year period, the adoption of the common external tariff (CET) structure by the Economic Community of West African States (ECOWAS) on January 2015, the trade preferential schemes offered by China and India to a number of LDCs, enlargement of the EU to 28 members, any new accession to the WTO between 2004 and 2015, etc.

As the primary focus of the study is on African countries, the country/region decomposition for the CGE model—based on available countries/regions in the GTAP database—is made up 17 African countries and 5 African groups/regions. Are also considered, 13 key relevant trading partner countries/groups for the exercise and in order to match as closely as possible those investigated in the trade flow analysis presented in section II: the European Union, the United States, China, India, Turkey, the United Arab Emirates, Saudi Arabia, a group for TPP countries that do not belong to RCEP and excluding the U.S. (i.e. TPP-4), a group of countries that belong to both TPP and RCEP (i.e. TPP & RCEP), a group for the rest of RCEP countries (i.e. RCEP-9 minus China and India), the rest of Asian countries split into

¹² Full details for the MIRAGE CGE model are provided in Decreux and Valin (2007).

¹³ Description of the GTAP version 8 database can be found in Narayanan et al. (2012).

¹⁴ See Boumellassa et al. (2009) for more details about MAcMap-HS6 version 2 database.

two groups (i.e. Rest of Western Asia and the Rest of Asia), and a Rest of the World group made up all remaining countries¹⁵. This leads to a total of 35 countries/regions. As far as the determination of sectors is concerned we focus on those sectors that are essential for African economies. In total, 20 sectors are considered and broken down into the following main sectors: 11 sectors for agricultural and food, 2 for energy and mining, 5 for industry and 2 for services. More details for the country/region and sector decompositions are provided in Annex 2.

Envisaged policy reforms

In order to assess the trade impacts from the establishment of the three major MRTAs currently being envisaged on African economies, as well as some possible options to mitigate any potential losses for Africa, the following five policy reforms are envisaged:

1. The three MRTAs, namely: TTIP, TPP and RCEP, are all implemented by 2017;
2. TTIP, TPP and RCEP (i.e. scenario 1.) as well as the CFTA are all implemented by 2017;
3. TTIP, TPP, RCEP and the CFTA are all implemented by 2017 (i.e. scenario 2.) followed by a merge of the TPP with the CFTA by 2020;
4. TTIP, TPP, RCEP and the CFTA are all implemented by 2017 (i.e. scenario 2.) followed by a merge of the RCEP with the CFTA by 2020;
5. TTIP, TPP, RCEP and the CFTA are all implemented by 2017 followed by a merge of the RECP with the CFTA (i.e. scenario 3.) and with the rest of Asian economies (not belonging to any of the MRTAs) to form a large Africa-Asia regional bloc by 2020.

The 2017 date for full implementation of the three major MRTAs and the CFTA has been selected to allow for comparisons across scenarios and also being fully aligned with the objective set by African Heads of State and Government to conclude the first phase of the CFTA negotiations by 2017.

¹⁵ See Section II for further country details within each country group.

Trade liberalization in goods only has been considered for all the scenarios. This is due to data limitation as far as barriers in services trade are concerned. Yet, it is expected to properly reflect the fact that by 2017 it is unlikely that liberalization within the MRTAs and the CFTA will have been completed in both goods and services. Whereas it is assumed that full liberalization will take place for the CFTA (as the ultimate objective is to have limited or inexistent exclusion list in a Continental-wide free trade area), sensitive products have been determined for all other cases. Indeed, within the MRTAs, relatively high tariffs in sensitive agriculture commodities often remain¹⁶ and there is a clear reluctance by some countries in the ongoing negotiations of the different MRTA configurations to fully liberalize agriculture¹⁷. Accordingly, sensitive products in agriculture have been determined following the methodology developed by Sebastien Jean et al. (2008). In other words, an index which aims at identifying the commodities which are assumed to be import-sensitive by each member within its mega-regional bloc has been computed. Precisely, the index defines the import-sensitive goods by combining the following three criteria: the products have high initial tariffs, they are highly traded, and they would have a large tariff reduction if their tariffs were to be cut and brought down to 0. As a consequence, higher values of the computed index correspond to the most import-sensitive products. Sensitive product lists is country-specific. It should be noted that for pairs of countries which both belong to RCEP as well as TPP (for example: Japan and Singapore) the sensitive product lists—between the two trading partners—defined for the RCEP is used (as initial protection in agriculture between RCEP members is in average higher than within TPP members¹⁸). Regarding the number of sensitive products, it is determined using the most conservative assumptions from the latest 2008 WTO agricultural market access (AMA) modalities as a basis. Such approach allows complying with a possible agreement on AMA that could come out of WTO negotiations looking forward¹⁹. Appropriately, as

¹⁶ Based on authors' calculations using the MAcMap-HS6 version 2 database; can be made available upon request to the authors.

¹⁷ Japan, for example, considers the TPP a non-starter if the country has to make substantial tariff reductions in products such as dairy, rice, sugar, beef, pork, wheat and barley.

¹⁸ Based on authors' calculations using the MAcMap-HS6 version 2 database; can be made available upon request to the authors.

¹⁹The Nairobi Ministerial Declaration of the WTO (WT/MIN(15)/DEC) states that “many Members reaffirm the Doha Development Agenda, and the Declarations and Decisions adopted at Doha and at the Ministerial Conferences held since then, and reaffirm their full commitment to conclude the DDA on that basis”; see https://www.wto.org/english/thewto_e/minist_e/mc10_e/nairobipackage_e.htm. Therefore, and even if there

trade negotiations in WTO are made on bound tariffs, it is important to note that whenever the cut applied on bound tariffs did not result in a final tariff rate lower than the existing most-favored nation (MFN) tariff rate, then the MFN tariff rate remained in place. In the case of industrial and non-sensitive agricultural products, tariffs are brought down from their current levels to 0.

Furthermore, all the five above defined scenarios are implemented either with or without a worldwide reduction of costs to trade across border in line with the Trade Facilitation Agreement (TFA) of the WTO²⁰. Explicitly, and based on the available data, trade costs are obtained crossing information on: 1) Average number of days required for the export and import processes (World Bank, 2013) and; 2) Export and import weighted average time costs obtained at the GTAP level of sectors and by exporting and importing countries/regions (Minor and Hummels, 2011). Trade costs estimated at the GTAP level of sector and country disaggregation are then aggregated further at the level defined for the CGE model which can be found in Annex 2. 25 percent reductions of these trade costs or “iceberg costs” were then applied, such as concretely customs procedures, port handling and inland transport in import and export processes are assumed to become 25 percent more efficient worldwide by 2020, as compared to that in the base year (i.e. 2015).

Finally, while the reforms are assumed to be effective by either 2017 or 2020, according to the scenario considered, outcomes are given for the year 2022. This is to allow for consistent comparisons across scenarios and also for all variables of the model to properly adjust to shocks. Unless otherwise indicated, these yearly outcomes are given by comparison between each of the scenarios and the baseline (i.e. reference scenario without any of the above defined trade reforms in place) either in percent or absolute changes.

is a strong opposition by some countries, an outcome on DDA issues, including AMA, is not to be excluded in the future.

²⁰ While such option is considered for the modeling exercise, it should be noted that the TFA will only enter into force once at least two-thirds of the WTO members have completed their domestic ratification process. As of 20 January 2016, 67 WTO members (including 10 African countries) out of 164 have ratified the TFA; see https://www.wto.org/english/news_e/news16_e/fac_20jan16_e.htm.

IV. Key findings from the modelling exercise

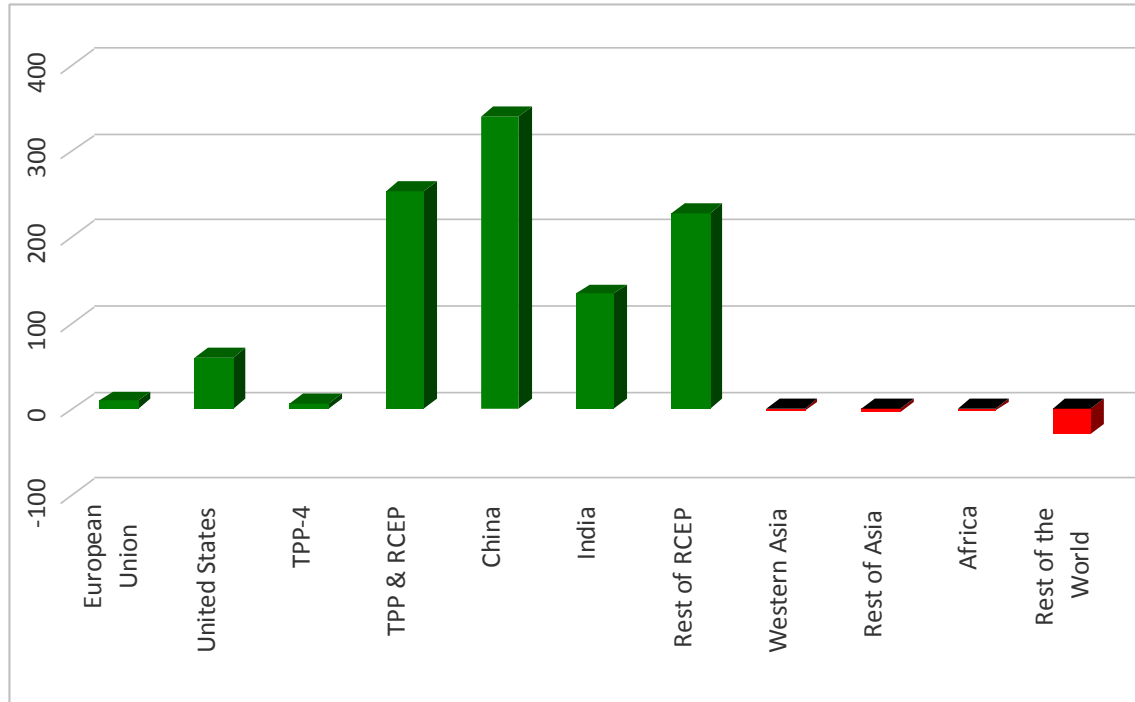
Findings from the CGE analysis indicate that as a result of the establishment of the three major MRTAs, their members would considerably expand their trade. Total exports of MRTA members (i.e. TTIP, TPP and RCEP all together) would increase by above \$1 trillion by 2022 following the reforms—without trade facilitation measures being considered. As illustrated on Figure 5, it should be noted that RCEP countries would grab most of the overall trade benefits associated with the formation of the mega trade deals; with China alone grabbing nearly one-third of the gains.

Consequently, the world trade landscape would be moderately modified as the influence of MRTA members in world trade would slightly increase at the expense of third countries (i.e. outside of MRTA configurations). MRTAs members, together accounting for about 70 percent of world trade in 2022 and in the absence of MRTA reforms, would see their share increasing to nearly three-quarters the same year following implementation of mega trade deals. Thanks to major gains obtained from the trade reforms, China alone would become the largest exporting economy worldwide (with a share of 17.5 percent of total world exports) surpassing the European Union (15.8 percent) if MRTAs were to be implemented. Africa's exports share in world exports, already relatively low today (around 3 percent)²¹ and estimated to reach nearly 5 percent in 2022 without MRTA reforms would be only 4.6 percent that year with MRTAs in place²².

Figure 5: Changes in exports by main regions of destination following implementation of MRTAs - USD billion - 2022

²¹ Authors' calculations based on UNCTADStat; access on 15 February 2016.

²² Estimated shares calculated by the authors based on MIRAGE CGE model.

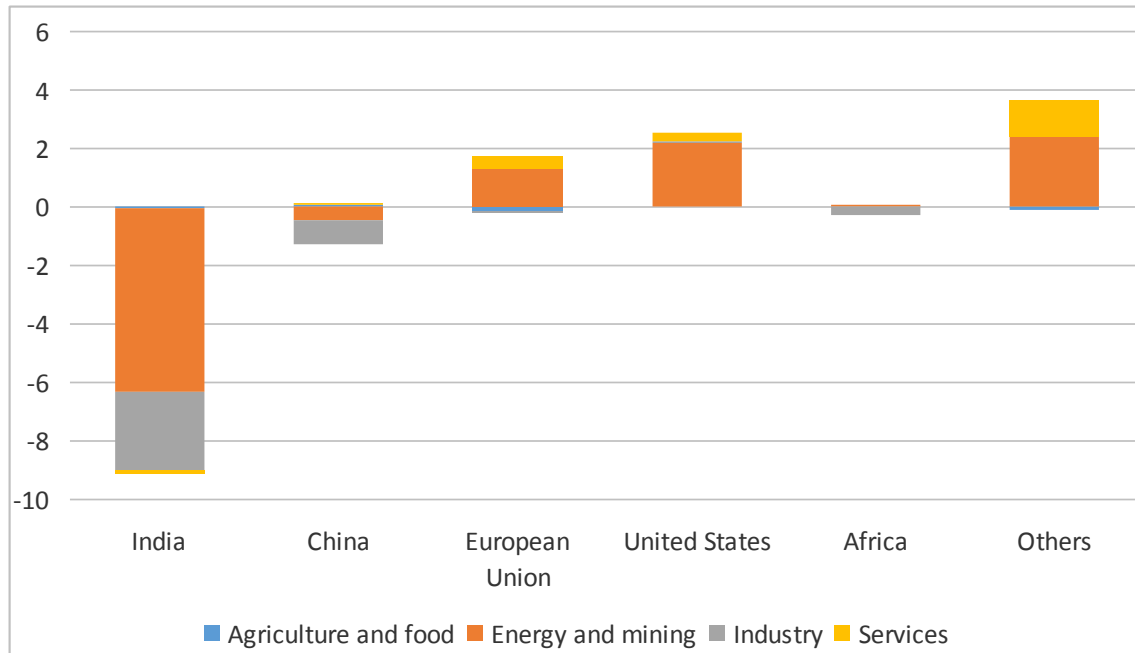


Source: Authors' calculations based on MIRAGE CGE model

The establishment of the MRTAs would undermine prospects for Africa's exports

In this context, third countries all together would see their exports diminishing by USD 39.2 billion. Ensuing higher competition and erosion of preferences on MRTA markets, Africa alone would see its exports reduced by over USD 3 billion (or 0.3 percent) in 2022, as compared to the baseline. While, such trade diversion appears to be relatively marginal for Africa, it must be noted that it corresponds to the net effect. In fact, Africa's exports would essentially shift from RCEP members to other trading partners. Precisely, Africa's exports to RCEP—essentially India and China— would decrease by over USD 10 billion (or 5.4 percent), whereas in the meantime Africa would increase its exports by about USD 7 billion (or 1.0 percent) to other regions, including to members of the TTIP and TPP (see Figure 6).

Figure 6: Changes in Africa's exports by main regions of destination and main sectors following implementation of MRTAs - USD billion - 2022



Source: Authors' calculations based on MIRAGE CGE model

While it is rather logical to find that Africa redirects some of its exports to non-MRTA members when the mega-regional agreements are established, the increase of Africa's exports to TTIP and TPP members may require some explanation. This comes mainly as a result of the formation of RCEP which is expected to boost intra-RCEP trade, and thus RCEP member countries tend to hugely expand their trade with each other and at the expense of some trade with other partners from TTIP, TPP and outside. African countries, in particular thanks to EBA and AGOA initiatives from the EU and the U.S., respectively, are still able to grab some export opportunities on TTIP and TPP markets (especially the EU and the U.S.) where competition with RCEP countries is somewhat reduced in the context of MRTAs. However, wherever Africa's exports expand following establishment of the MRTAs, the gain is hugely concentrated in energy and mining; which is in line with the fact that preferential schemes have so far largely failed to enhance Africa's export diversification and industrialization (see ECA, 2015). Furthermore, such increase simply helps more or less balancing the decrease in Africa's exports of energy and mining to India and China. Most importantly, further reductions in Africa's exports to China and India are found in industrial products, thereby undermining further efforts towards diversifying and structurally transform African economies. Finally, the estimated loss for Africa is surely

underestimated as the analysis considers only reduction of tariff barriers on goods within MRTAs, while these agreements also cover matters related to services, investment and other disciplines. It should be highlighted that this analysis does not intend to provide a full picture of the expected effects of MRTAs on African economies as investment and employment issues, for example, are not looked at due to modelling and data limitations. Yet, the outcomes from the analysis should not be overlooked as they provide, from an African perspective, a detailed picture of the way trade relationships are being affected due to MRTA reforms.

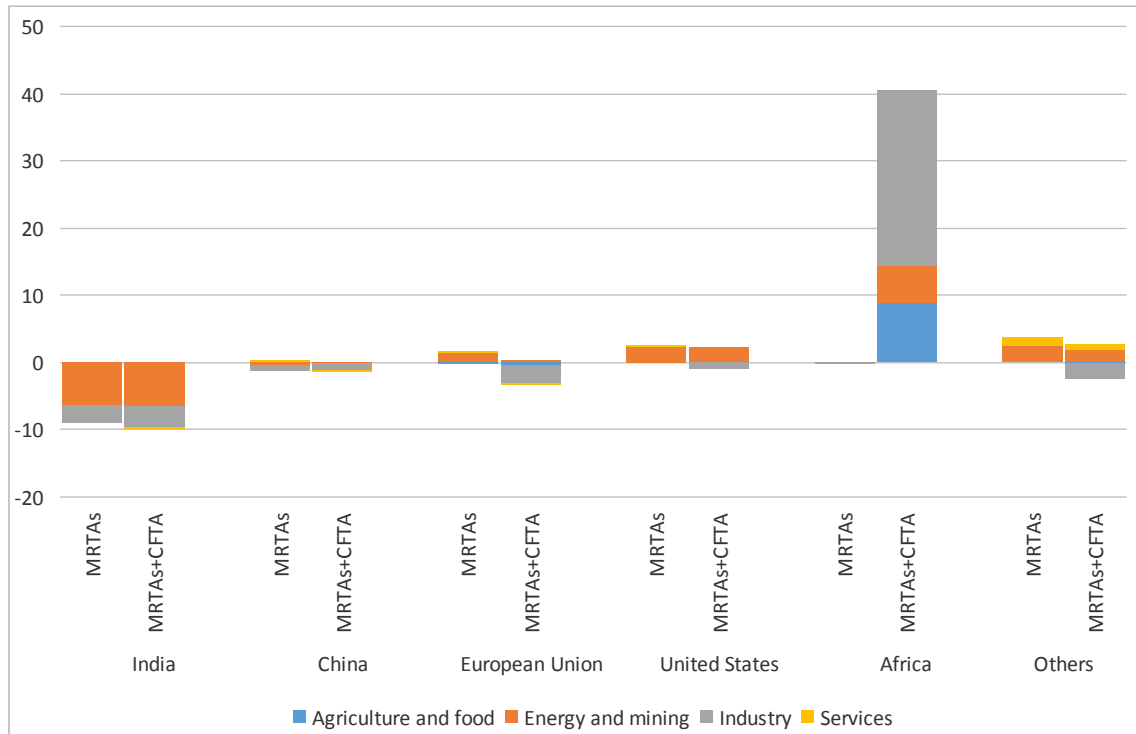
Implementing the CFTA is critical for Africa's trade in the context of MRTAs

In line with the recent official launch of the CFTA negotiations at the AU Summit, on 15 June 2015, in Johannesburg, South Africa, our findings show that an effective implementation of the Continental-wide reform—Africa's own MRTA— in parallel to the other MRTAs would drastically and positively reverse the outcomes for Africa.

Africa's total exports would this time increase by USD 27.5 billion (or 3.0 percent). This net effect can be decomposed into a sharp decrease of Africa's exports to RCEP economies of USD 11.5 billion (or 6.0 percent) and a huge increase of USD 39.0 billion (or 5.3 percent) to other regions. It should be further noted that net expansion of Africa's exports to countries outside RCEP should itself be broken down into an impressive increase of USD 40.6 billion (or 39.9 percent) for intra-African trade and a decrease of USD 1.6 billion (or 0.3 percent) for Africa's exports directed towards non-RCEP countries outside the Continent.

As illustrated in Figure 7, the establishment of the CFTA in parallel to MRTA reforms would divert an additional USD 1.1 billion of Africa's exports away from RCEP countries (essentially India and China) and limit or reduce Africa's exports to other non-African partners consequently to a re-orientation of Africa's exports towards African partners.

Figure 7: Changes in Africa’s exports by main regions of destination and main sectors following implementation of MRTAs with vs. without CFTA in place - USD billion - 2022

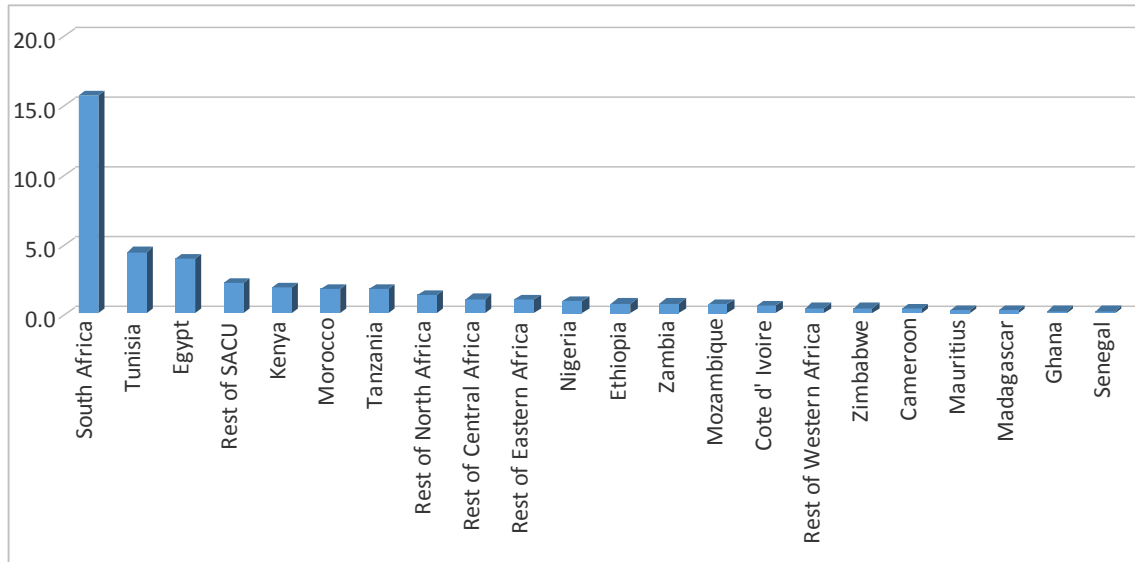


Source: Authors’ calculations based on MIRAGE CGE model

The gain in intra-African trade would benefit all African countries/regions considered in the analysis without exception (see Figure 8). If South Africa would get as much as 38.7 percent of the overall intra-African trade benefits, in absolute terms, it should be indicated that, in percentage terms, South Africa’s exports would actually increase by 52.8 percent which is considerable but still less than countries/regions like Tunisia, Madagascar, Tanzania, Morocco, Ethiopia, Egypt, the rest of SACU and Cameroon with increases of 115.0, 100.6, 96.5, 85.8, 85.7, 61.9, 59.8 and 56.5 percent, respectively (see Figure 9). In fact, despite sizeable gains for South Africa, in both absolute and percentage terms, the influence of South Africa in intra-African trade would actually decrease when the CFTA is established in parallel of MRTAs compared to a baseline without those reforms; the share of South Africa’s exports in total intra-African exports would be 13.4 percent with MRTAs and the CFTA in place against 16.9 percent in the absence of such reforms, in 2022. Therefore, stating that the CFTA would mainly benefit big African economies is not

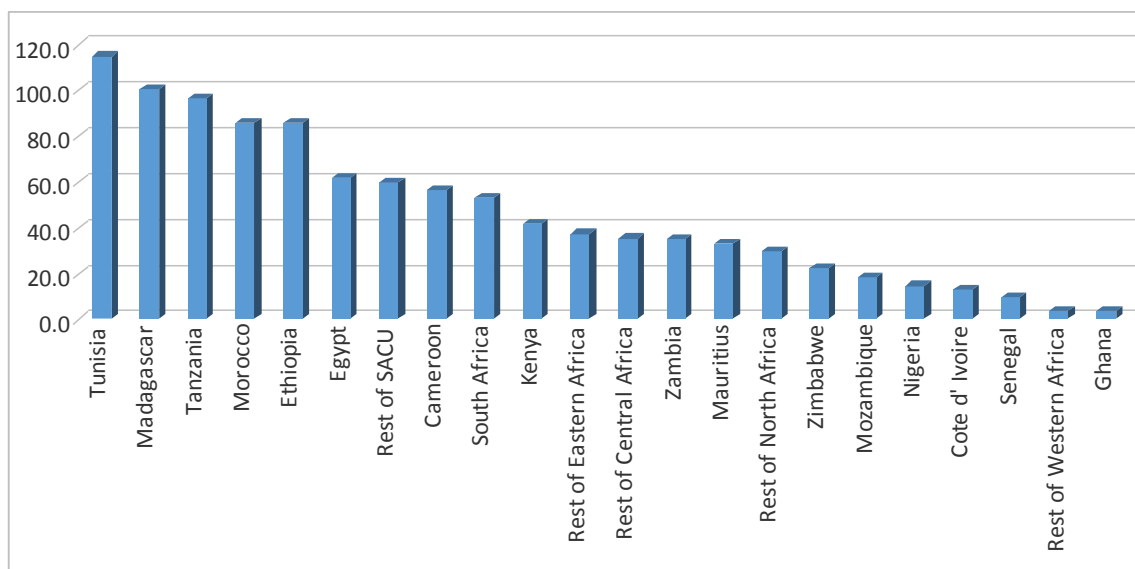
accurate and smaller economies should not fear the Continental-wide reform as far as trade benefits are concerned.

Figure 8: Changes in Africa countries' exports to Africa following implementation of both MRTAs and CFTA in parallel - USD billion - 2022



Source: Authors' calculations based on MIRAGE CGE model

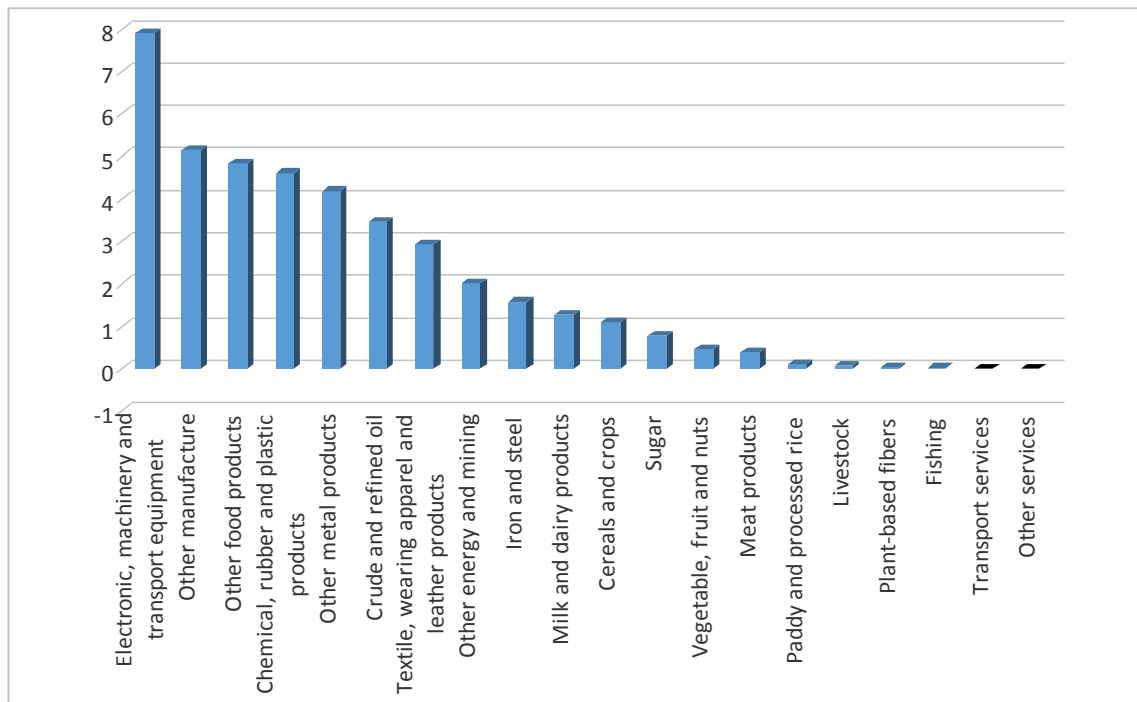
Figure 9: Changes in Africa countries' exports to Africa following implementation of both MRTAs and CFTA in parallel - % - 2022



Source: Authors' calculations based on MIRAGE CGE model

Furthermore, the bulk of the expansion in intra-African trade would benefit industrial products (see Figure 7). Such outcome was to be expected in line with trade flow analysis proposed in section II of this Paper. Indeed, as illustrated in Figures 2, current intra-African trade tends to be dominated by exchanges of manufacture good which contrasts greatly with what Africa exports to the rest of the world²³ and attests of clear potential for industrialization of African economies through deepened continental trade integration. As shown in Figure 10, highest increases following the establishment of the CFTA would be found in electronic, machinery and transport equipment, chemical, textile and metal products as well as processed food. This is generally verified across African countries/regions (see Annex 3), thereby supporting African countries’ industrialization efforts.

Figure 10: Changes in Africa’s exports to Africa by sectors following implementation of both MRTAs and CFTA in parallel - USD billion - 2022



Source: Authors’ calculations based on MIRAGE CGE model

²³ Mainly primary commodities and raw materials; see Figure 2.

Hence, it is critical that the CFTA negotiations that have recently started are successful and result in an effective and rapid implementation of the CFTA to mitigate the possible negative effects expected on African economies from MRTA reforms. More broadly, if the sequencing of trade policy reforms—with a particular emphasis to be placed on the regional integration process first—can be seen as vital to support Africa’s industrialization and structural transformation based on the above results²⁴, Africa also needs to start exploring strategically how to expand its trade beyond the regional/continental market. Indeed, although the regional market is still under-exploited and shows considerable potential to help diversifying Africa’s trade base, it remains relatively small and fragmented. Besides, Africa cannot afford relying on trade preferences granted on its exports by most developed nations but also some emerging economies (including China and India) to build and upgrade the necessary value chains and becoming more competitive in the global trade arena (see ECA, 2015). Looking forward, Africa must start to develop a clear and coherent strategy to expand its trade beyond the Continent and possibly relying less on traditional partners from outside. This will be vital to allow Africa’s share in global trade to possibly increase beyond the mere current 3 percent which has barely evolved for the past two decades²⁵. The rest of the Paper presents key findings of various enhanced trade integration scenarios between Africa and other South-South partners in the context of the mega-trade deals and the CFTA.

Merging CFTA with TPP would offer interesting trade opportunities for Africa beyond the regional market but have limited positive impact on Africa’s export diversification

Once the CFTA and the three major MRTAs are assumed to be in place, tentatively merging the CFTA with TPP would lead to an additional gain of USD 19.5 billion for Africa’s exports in 2022; Africa’s exports increasing by USD 46.5 billion (or 5.0 percent) once CFTA and TPP are merged in the context of the CFTA and MRTAs against USD 27.5

²⁴ See also the Economic Report on Africa (ERA) 2015 of the United Nations Economic Commission for Africa (ECA, 2015).

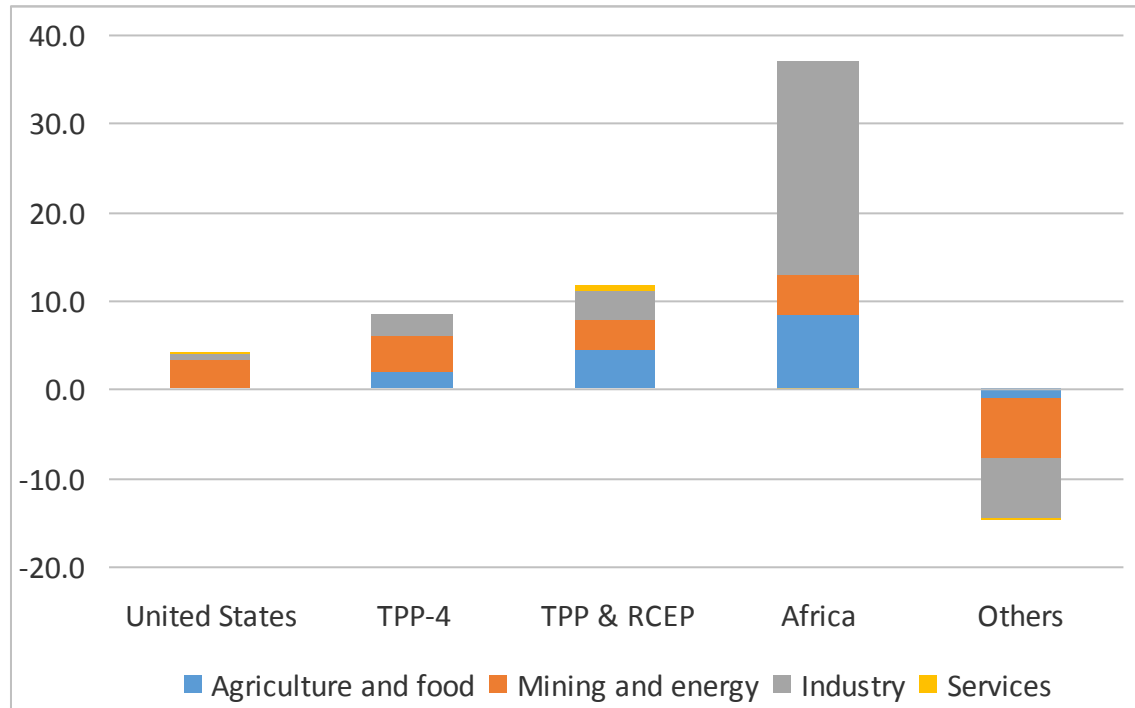
²⁵ Authors’ calculations based on UNCTADStat; access on 15 February 2016.

billion (or 3.0 percent) with only CFTA and MRTA reforms in place, each as compared to the baseline in 2022.

Such reform would create interesting trade prospects for Africa towards the handful of North, Central and Latin American markets belonging to the TPP. Indeed, Africa's exports to the TPP-4 (i.e. Canada, Mexico, Chile and Peru) would increase by 44.6 percent in 2022, relative to the baseline. However, it should be noted that this increase is from a relatively low base and would correspond to a trade expansion of USD 8.3 billion in absolute terms. While this is still very meaningful (and that a deeper integration scheme with other economies from Central and Latin America would likely strongly raise the benefits), it remains lower, in absolute terms, than the increase in Africa's exports towards TPP countries that are also members of the RCEP. Africa's exports to "TPP & RCEP" group, although rising by a lower percentage (i.e. 31.6 percent) than Africa's exports to TPP-4, would increase by USD 11.9 billion. More importantly, half of the expansion in Africa's exports to TPP-4 would be felt in energy and mining when the increase in this sector would only represent about a quarter of the expansion in Africa's exports to "TPP & RCEP" countries. Africa's exports to "TPP & RCEP" would actually be dominated by agriculture and food products (representing about 36 percent of the increase) followed closely by industrial goods (corresponding to nearly 30 percent of the increase). It must also be stressed that following hypothetical merge of TPP and CFTA reforms, Africa's exports to the U.S. would only increase by USD 4.1 billion (or 2.6 percent) with roughly 80 percent of this expansion found in energy and mining products²⁶. Additionally, Africa's exports towards African partners would increase slightly less, and Africa's exports to other countries outside the TPP would be reduced a little further, than in the scenario without merging CFTA and TPP. Nonetheless, the considerably larger net trade creation for Africa under the case where CFTA and TPP are merged would still be a positive outcome, thereby offering broaden export opportunities for African countries beyond the regional market (see Figure 11).

²⁶ See Annex 4 for more detailed results by countries and sectors.

Figure 11: Changes in Africa’s exports by main regions of destination and main sectors following merge of CFTA and TPP in the context of CFTA and MRTAs - USD billion - 2022



Source: Authors’ calculations based on MIRAGE CGE model

Having said that, results have revealed that when merging TPP and CFTA Africa’s export diversification would be enhanced only towards those TPP countries that also belong to RCEP. This tend to suggest that a merge between CFTA and RCEP may well produce more appealing outcomes than merging CFTA and TPP as far as favoring Africa’s transformation agenda is concerned.

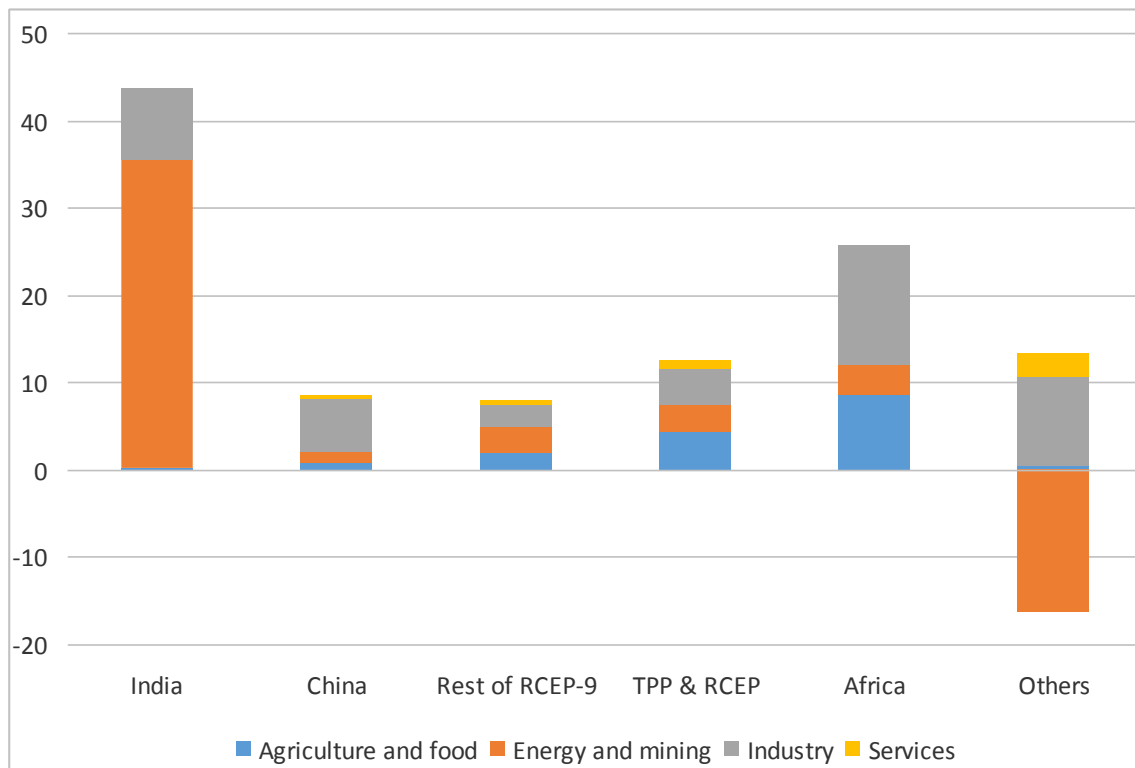
Merging CFTA and RCEP would offset any trade diversion for Africa caused by MRTAs and have non-negligible potential to support Africa’s transformation efforts

As already shown on Figure 6, the entire trade deflection for Africa when the three major MRTAs are to be in place is with RCEP countries, particularly India and to some extent China. Such outcome calls for a reinforcement of trade relationships between African and RCEP economies in the context of MRTAs. Our findings, from a scenario which explores

the potential of merging CFTA and RCEP, confirm that bringing the two vast regional blocks together—leaving aside any possible technical and political considerations rendering unlikely such fusion in the short term— would have a considerable and positive effect on African economies.

Indeed, merging CFTA and RCEP after CFTA and MRTAs have been established would more than triple Africa’s export gains; from USD 27.5 billion (an increase of 3 percent over the baseline in 2022) in presence of only CFTA and MRTAs to USD 95.4 billion (a 10.3 percent increase relative to the baseline in 2022) when CFTA and RCEP are merged after both CFTA and MRTAs have been implemented. The export gains for Africa after merging CFTA with RCEP would also be more than twice as much as the ones obtained when CFTA and TPP are merged instead.

Figure 12: Changes in Africa’s exports by main regions of destination and main sectors following merge of CFTA and RCEP in the context of CFTA and MRTAs - USD billion - 2022



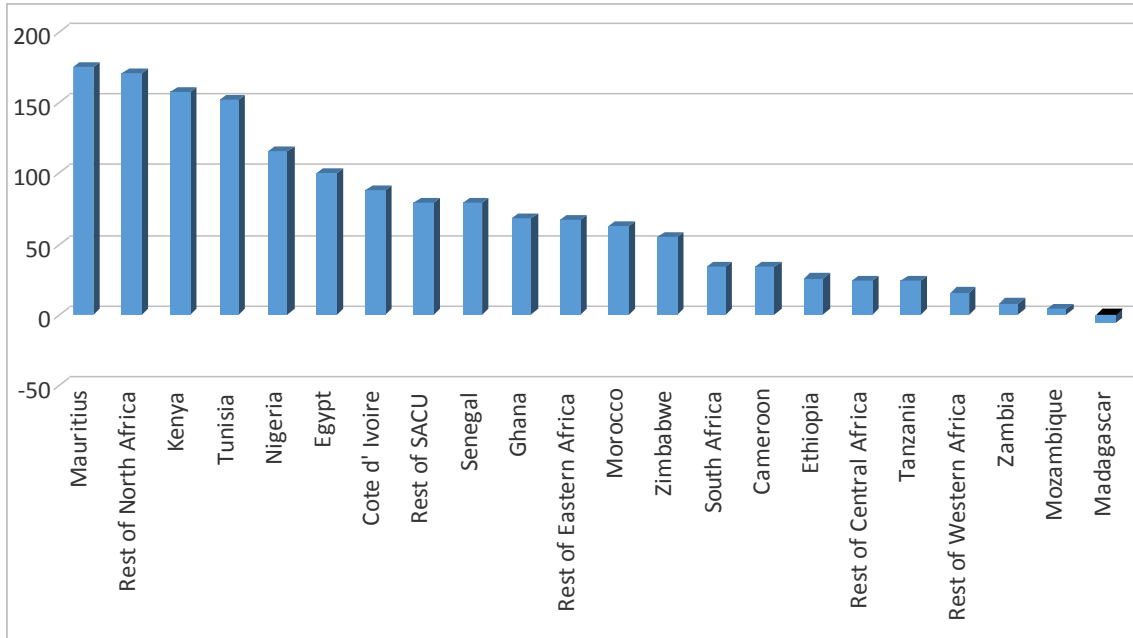
Source: Authors’ calculations based on MIRAGE CGE model

It should be noted that as much as 45.9 percent of Africa's export gains when CFTA and RCEP are merged would be realized towards India alone; with about 80 percent of that share being expansion in exports of energy and mining products (see Figure 12). This is not a revelation considering that currently 78 percent of Africa's exports to India are just fuels²⁷. Nonetheless, deeper trade integration between India and Africa would still generate very meaningful exports gains for Africa as far as industrial goods are concerned; with an increase of USD 8.2 billion for Africa's industrial exports to India, representing nearly 20 percent of total Africa's export gains to India. Yet, the case of India strongly contrasts with the composition of Africa's export benefits to other RCEP countries and particularly China. Whereas Africa's exports to RCEP countries, outside of India, represent a lower proportion at about 30 percent of Africa's export gains (against nearly 46 percent to India) following a merge between CFTA and RCEP, industrial products dominate the increase in exports. Specifically, the share of industrial products in Africa's exports' expansion to the fourteen RCEP countries, leaving aside India and China, would be 31.9 percent and the share for energy and mining would be 29.4 percent. In the case of China, the increase in industrial products is far more pronounced since 71.8 percent of the expansion in Africa's exports to China would be just industrial products, while the share for energy and mining would represent only 15.3 percent. Apart Madagascar, all African countries/regions considered in the analysis would see their exports of industrial products stimulated towards China; for 15 out of the 22 African countries/regions, exports of industrial products to China would increase by more than two-thirds, relative to the baseline in 2022 (see Figure 13). Madagascar would also benefit from the trade reform but essentially thanks to large expansion in its exports of rice towards RCEP countries, other than China and India²⁸.

Figure 13: Changes in African countries' industrial exports to China following merge of CFTA and RCEP in the context of CFTA and MRTAs - % - 2022

²⁷ Average over the period 2010-2014. Authors' calculation based on UNCTADStat; accessed on 15 January 2016.

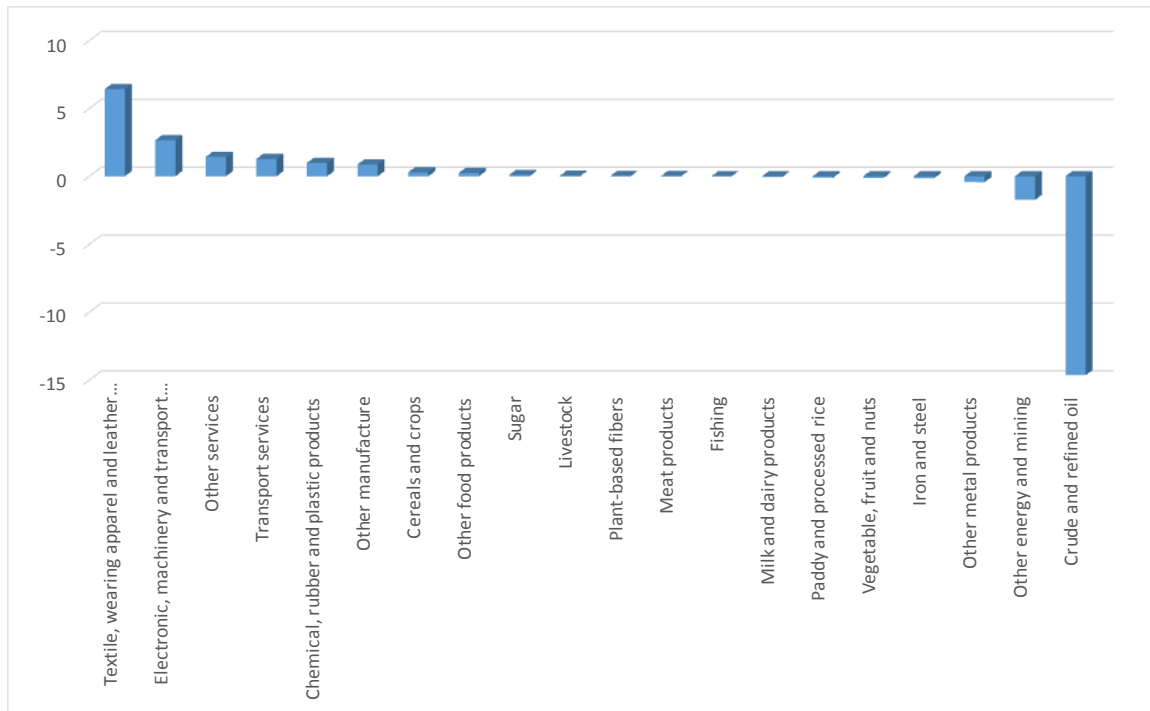
²⁸ See Annex 5 for more detailed results by countries and sectors.



Source: Authors' calculations based on MIRAGE CGE model

Another important element to be highlighted in the findings from the merge between CFTA and RCEP, is the fact that Africa's industrial exports to third countries would also augment. While this is driven by the CFTA reform for intra-African trade as already demonstrated, it is rather striking in the case of other third countries. Interestingly, and following huge increase of Africa's exports of energy and mining to India, African countries tend to replace exports of energy and mining towards non-African third countries becoming relatively more expensive destinations (decreasing by USD 16.4 billion as compared to the baseline in 2022) by some exports of industrial products (increasing by USD 10.3 billion), especially textile and wearing apparel (thanks in particular to existing trade preferences) but also electronic, machinery and transport equipments.

Figure 14: Changes in Africa's exports to non-African third countries by sectors following merge of CFTA and RCEP in the context of CFTA and MRTAs - USD billion - 2022



Source: Authors’ calculations based on MIRAGE CGE model

Hence, potential to support Africa’s industrialization by integrating further with RCEP economies exists, even though increase in exports of energy and mining products would still be considerable, especially towards India.

Integrating Africa and Asia, beyond just RCEP, would produce the most promising outcomes for Africa as far as moving towards more diversified exports is concerned

The trade flow analysis presented in section II of this Paper suggested that establishing closer trade ties between African and Asian economies—beyond just the sixteen RCEP members— could possibly benefit Africa’s trade, especially as far as its diversification is concerned.

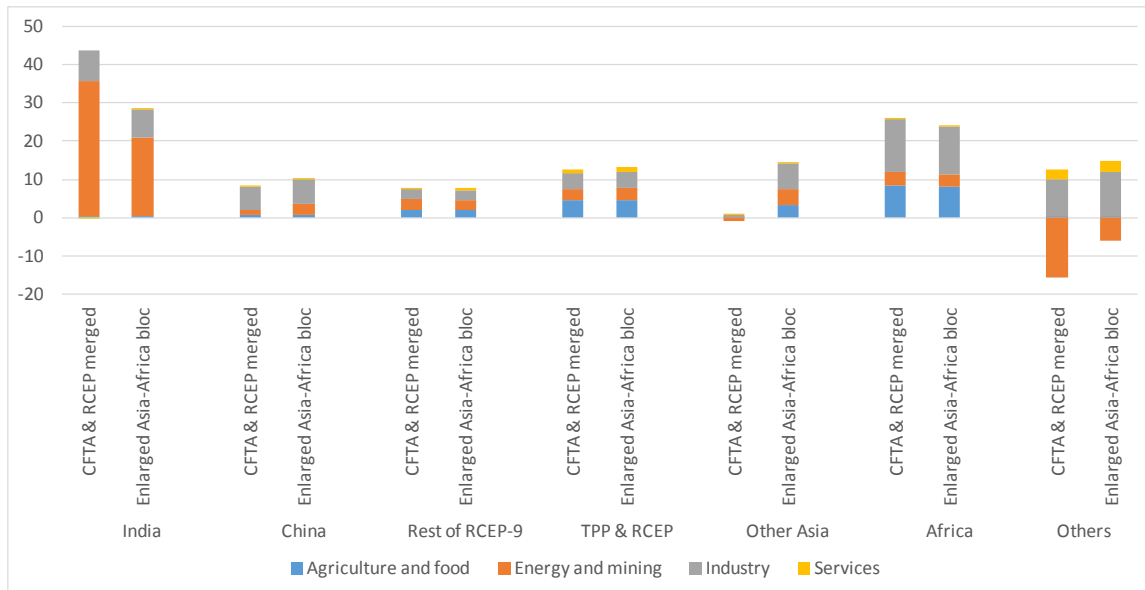
Findings from the establishment of a large regional bloc encompassing Africa, RCEP members as well as the rest of Asian economies, including Western Asia²⁹, show that the

²⁹ Please see remark under Annex 2 for full details of nations included under “Western Asia” and “Other Asia”.

inclusion of Asian nations besides RCEP members into an Africa-Asia bloc would indeed have a substantial impact on Africa's exports. Compared to a scenario where solely CFTA and RCEP are merged, an enlarged Africa-Asia bloc would boost further African exports by USD 11.4 billion; with an expansion of Africa's exports of USD 106.8 billion (or 11.5 percent) relative to the baseline in 2022 against an increase of USD 95.84 billion (or 10.3 percent) when strictly CFTA and RCEP are merged.

As illustrated on Figure 15, these additional export gains for Africa would be mainly coming from new trade opportunities on Asian markets beyond RCEP members. However, it is worth mentioning that, outside of Africa's exports to India, the gains to the rest of RCEP members, obtained (and already presented) under a scenario assuming a merge between CFTA and RCEP, would be preserved when a larger Africa-Asia trade integration scheme is set-up. Under the latter scenario, Africa's exports to India would only increase less for energy and mining products compared to the former scenario, and precisely as a result of some India's imports of crude and refined oils from Africa being replaced by India's imports of the similar commodities from Western Asia, notably from Saudi Arabia. Nonetheless, as Western Asian economies join the broad Africa-Asia FTA and expand their trade with African and other Asian nations, including those members of the RCEP, competition on third country markets tend to become relatively less fierce, thereby allowing African economies to preserve some trade opportunities with countries outside Africa and Asia; justifying why the reduction of Africa's energy and mining exports to "Others" shown in Figure 15 is less pronounced under a broad trade reform between Africa and Asia than following a merge of strictly CFTA and RCEP.

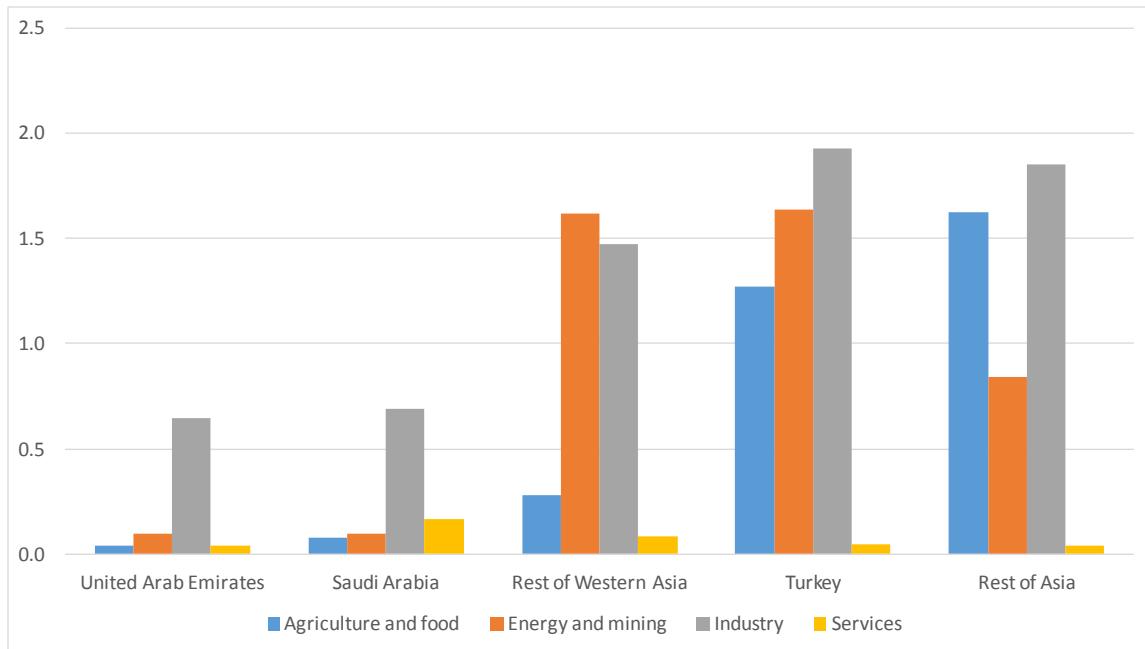
Figure 15: Changes in Africa's exports by main regions of destination and main sectors following the merging of CFTA & RCEP vs. enlarged Asia-Africa bloc in place in the context of CFTA and MRTAs - USD billion - 2022



Source: Authors' calculations based on MIRAGE CGE model

Turning back to Africa's exports directed to Asian countries outside of RCEP—which would be negatively affected under a scenario where rigorously CFTA and RCEP are merged—they would be boosted if a large Africa-Asia trade bloc was to be established; exports from African countries to non-RCEP Asian economies would increase by USD 14.6 billion (or 26 percent) as compared to the baseline in 2022. These trade benefits for Africa would be the largest in industry (with 45.3 percent of Africa's gains from exports non-RCEP Asian countries) followed by energy and mining (29.5 percent) and agriculture and food (22.6 percent). Therefore, and as suggested by the trade flow analysis, integrating with non-RCEP Asian nations would turn out to be a pertinent strategy for Africa to support its industrialization efforts. Nearly all the increase in Africa's exports towards the United Arab Emirates and Saudi Arabia—already well sourced in energy products—would be felt in industrial goods. Industrial products will also dominate Africa's export expansions to Turkey and the Rest of Asia; and still be considerable in the case of the Rest of Western Asia to nearly match increase in exports of energy and mining (see Figure 16).

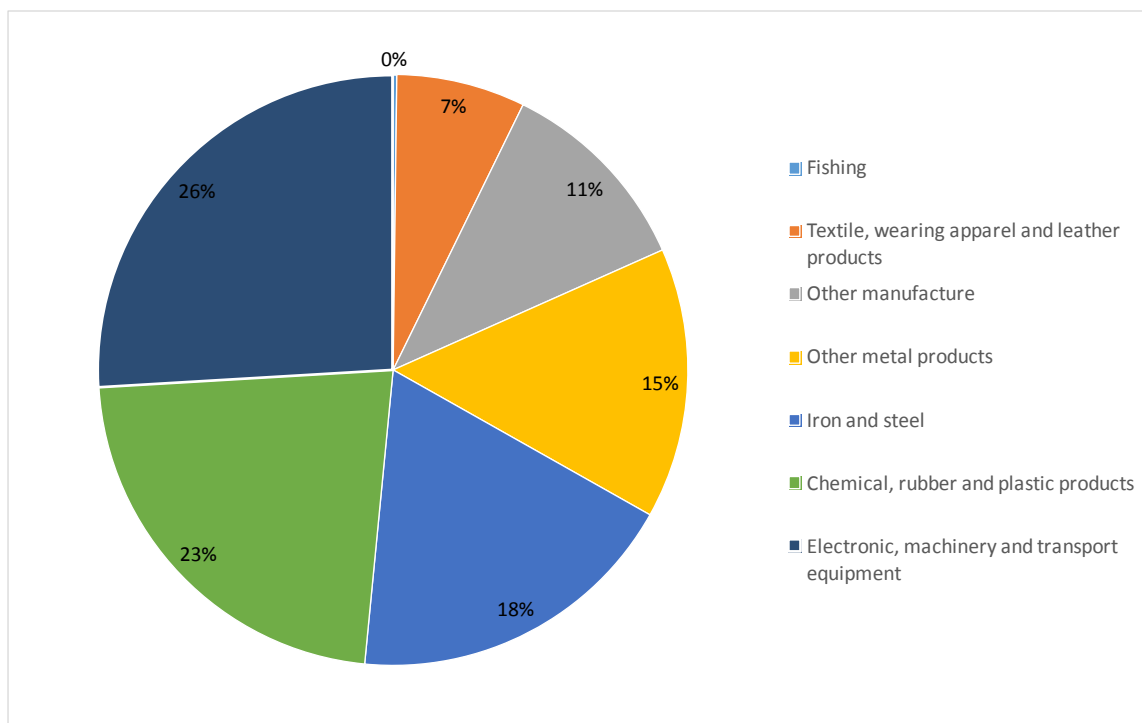
Figure 16: Changes in Africa's exports to non-RCEP Asian countries/regions and main sectors following implementation of an enlarged Asia-Africa bloc in the context of CFTA and MRTAs - USD billion - 2022



Source: Authors' calculations based on MIRAGE CGE model

As indicated in Figure 17, the range of additional industrial products that Africa would be expected to export to non-RCEP Asian economies would actually be ample, including textile, wearing apparel and leather products, metal products, chemicals as well as electronic, machinery and transport equipments. It must also be emphasized that potential for Africa to expand its exports to Asia (excluding RCEP countries) of agricultural and food products, particularly meat products, cereals and crops would be substantial, especially to Turkey and the Rest of Asia (see Figure 16).

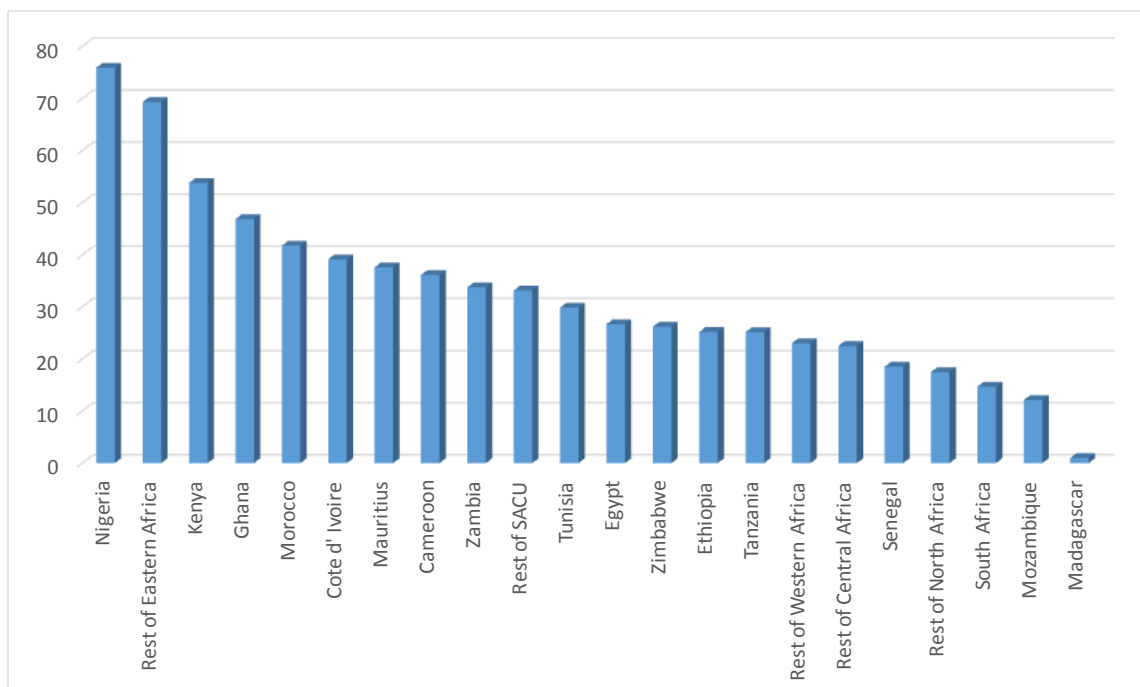
Figure 17: Composition of Africa's industrial export gains to Asia (excluding RCEP members) by industrial sectors following implementation of an enlarged Asia-Africa bloc in the context of CFTA and MRTAs - % - 2022



Source: Authors' calculations based on MIRAGE CGE model

Thus, Africa's trade creation with non-RCEP Asian nations would be quite varied in terms of product composition of Africa's exports, thereby offering bright prospects for export product-diversification of African economies. Furthermore, gains for Africa would not be concentrated in just a few countries. While one could possibly fear that a handful of African countries, such as North African nations having already close trade relationships with Western Asian nations, would grab most of Africa's export gains, all African countries/regions considered in the analysis would benefit (see Figure 18, Annex 6 and Annex 7). For example, Nigeria's exports to Asian economies (outside of RCEP) would increase by 75.9 percent as compared to the baseline in 2022, with exports of meat products being most stimulated; Kenya's exports would augment by 53.8 percent, benefiting metal products, cereals and crops the most; exports from Ghana would raise by 46.8 percent, stimulating exports of milk and dairy products but also a wide range of industrial goods; etc.

Figure 18: Changes in Africa countries' exports to Asia following implementation of an enlarged Asia-Africa bloc in the context of CFTA and MRTAs - % - 2022



Source: Authors' calculations based on MIRAGE CGE model

As a consequence of both wider access obtained by Africa to Asian markets and preferred market access offered by Africa to its Asian counterparts, African countries would tend to trade slightly less with their African partners than under all previous scenarios which also include the CFTA. Of course, the lower increase for intra-African trade would be more than compensated by larger increases for Africa's exports towards outside the continent. Nevertheless, if the expansion in intra-African trade in 2022 is only USD 2.0 billion less under a broad Africa-Asia FTA reform than under a strict merge between the CFTA and the RCEP, it is USD 16.9 billion less as compared to a scenario that envisages the CFTA reform in the context of MRTAs without any integration between Africa and South-South partners from outside the Continent.

Implementing trade facilitation measures on top of tariff liberalization reforms is vital to preserve intra-African trade gains when Africa opens-up with South-South partners and would help boosting further Africa's exports, especially in industrial products

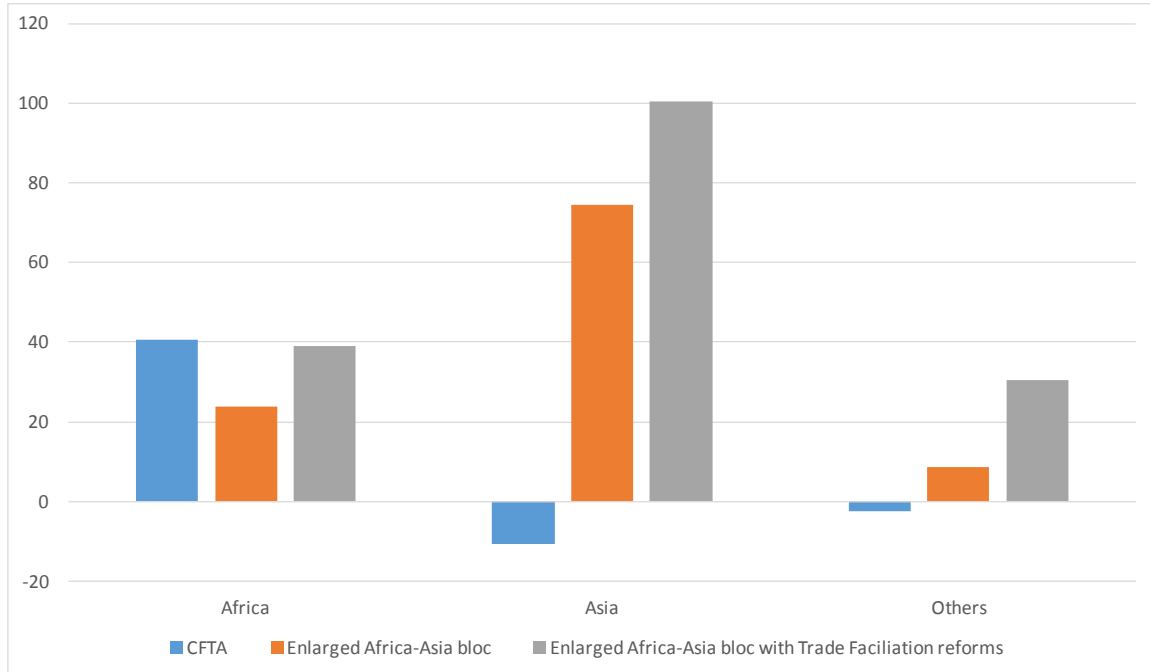
The question is surely not to dispute the necessity for Africa to open-up strategically with South-South partners under reciprocal agreements considering the huge trade benefits that are at stake for Africa; especially in reinforcing trade ties with Asian and particularly Western Asian economies. Yet, for the CFTA to play its role in building a solid African market that can effectively support Africa's structural transformation agenda, it needs to be ambitious and non-tariff barriers must be tackled thoroughly along with trade liberalization efforts in goods but also services³⁰.

Findings from a scenario envisaging the establishment of an enlarged Asia-Africa trade bloc with measures to facilitate cross-border trade³¹ being undertaken in parallel, and in the context of CFTA and MRTA reforms, demonstrate that: 1) Intra-African trade would expand as much as in the scenario where solely the CFTA is implemented along with MRTAs; 2) Africa's exports towards Asian economies but also third countries would remarkably increase further, thanks to worldwide reduction in trade costs—in line with WTO's Trade Facilitation Agreement (see Figure 19). In other words, the trade facilitation reforms would generate additional USD 63.0 billion gains for Africa's exports on top of the USD 106.8 billion brought about by the liberalization of trade in goods within and between Africa and Asia, relative to the baseline in 2022. If the reduction of tariff barriers faced by African countries still matter, especially in certain sectors and vis-à-vis some countries, as illustrated by the results obtained from the various trade reforms analyzed, tariffs are not as significant as they were two decades ago. Thus, the magnitude of the gains generated by a reduction of only 25 percent of just some of the existing non-tariff barriers surely is not a revelation. It should also be noted that 52.9 percent of the extra gains for Africa generated by the trade facilitation reforms would be for just industrial products. Thus, trade facilitation measures would help further increasing the share of industrial products in Africa's total exports, providing extremely positive impetus to Africa's structural transformation efforts. This observation would hold whatever the destination of Africa's exports: Asia, Africa and third countries; thanks to costs to trade across borders reduced not only within Africa but also between Africa and the rest of the world.

³⁰ Liberalization of trade in services was not envisaged in the analysis due to data limitation.

³¹ See section III of this Paper presenting methodology for more details.

Figure 19: Changes in Africa countries' exports by main destinations following implementation of: CFTA alone vs. enlarged Asia-Africa bloc vs. enlarged Asia-Africa bloc with trade facilitation reforms in the context of CFTA and MRTAs - USD billion - 2022



Source: Authors' calculations based on MIRAGE CGE model

Lastly, it should be highlighted that if Africa's global real income would slightly increase by USD 0.4 billion (or 0.2 percent) under an Africa-Asia FTA, relative to the baseline in 2022, not all African countries would actually register positive variations. This would essentially be explained by significant reductions in tariff revenues implied by large tariff reduction vis-à-vis both Asian and African countries. Yet, in the case trade facilitation measures are also implemented in parallel, those short-term fiscal costs would be more than offset, thanks in particular to considerable trade gains engendered by the reforms aiming at easing trade across borders. Consequently, Africa's real income would increase by USD 3.2 billion (or 1.6 percent) as compared to the baseline in 2022, and this time all African countries/regions considered in the analysis would see the positive variations as far as their real incomes are concerned.

Africa’s deeper trade-related engagement with South-South partners will not only be in Africa’s interest

While the analysis grounds itself from an African perspective, it is worth noting that deepening trade integration between Africa and its South-South partners would not just be in Africa’s interest but largely benefits its counterparts as well.

A quick summary of the effects the different envisaged scenarios have on exports of all main countries/regions considered for the analysis is provided in Table 1.

Firstly, as already seen at the beginning of the current section of the Paper on “Key findings from the modeling exercise”, MRTA members would all see their exports increasing following establishment of the main three MRTAs. Conversely, exports would decline for all third countries.

Table 1: Changes in countries/regions’ total exports following implementation of various trade reforms - USD billion - 2022

	Regional bloc configurations	MRTAs	CFTA + MRTAs	CFTA + MRTAs & CFTA and TPP merged	CFTA + MRTAs & CFTA and RCEP merged	CFTA + MRTAs & Enlarged Africa-Asia trade bloc	CFTA + MRTAs & Enlarged Africa-Asia trade bloc with Trade Facilitation reforms
China	RCEP/Asia-Africa	339.1	338.3	335.8	369.4	406.8	723.0
India	RCEP/Asia-Africa	133.3	132.5	131.4	164.3	215.5	295.7
Rest of RECEP	RCEP/Asia-Africa	227.3	226.8	226.0	233.6	245.6	367.8
TPP & RCEP	RCEP/TPP/Asia-Africa	252.4	251.6	261.5	257.2	259.5	424.1
TPP-4	TPP	6.2	6.1	11.4	5.8	5.3	72.6
United States	TPP/TTIP	60.0	59.3	71.0	52.8	45.1	176.4
European Union	TTIP	9.0	4.9	-1.2	-15.0	-39.8	119.8
Africa	CFTA/Asia-Africa	-3.1	27.6	46.5	95.4	106.8	169.1
Western Asia	Asia-Africa	-2.8	-3.2	-3.7	-5.7	55.3	99.5
Other Asia	Asia-Africa	-3.4	-3.7	-4.1	-4.5	119.3	207.4
Rest of the World	none	-29.9	-30.5	-31.4	-31.4	-37.9	132.9

Source: Authors’ calculations based on MIRAGE CGE model

Secondly, when it is assumed that Africa implements its own MRTA—the CFTA—in parallel to the other MRTAs, findings presented previously did point out that Africa’s exports would then increase significantly. However, these large export benefits brought about by

the CFTA to Africa would only marginally affect MRTA members (whose exports would increase insignificantly less than without CFTA in place) and third countries (whose exports would decrease further but in tiny proportions).

Thirdly, merging the CFTA with either the TPP or the RCEP or a vast Asian coalition would vigorously stimulate exports of respective regional bloc members, particularly in the case of a large Africa-Asia FTA; the broader the coalition the bigger the gains for all members (with the exception of “TPP & REP” group³²). For third countries, however, export benefits would be more limited or in some cases reduced (specifically for those countries outside of any mega trade deals). The European Union would be the MRTA members most negatively affected when Africa engages in deeper trade integration with South-South partners. This is not a surprise considering that it is currently the first source of imports for African countries (see Figure 3).

Nevertheless, when trade facilitation reforms are effectively implemented worldwide, all countries—members of any mega trading arrangement or not— would see their exports greatly expanding. The export benefits associated with measures to ease trade across borders would be so large that they would more than offset any possible losses for third countries and help boosting further export gains for members of vast regional trade agreements. A 25 percent reduction of trade costs worldwide undertaken in parallel to the establishment of a large Africa-Asia trade bloc, in the context of the CFTA and MRTAs, would result in a doubling of world exports.

³² Nearly half of the exports from “TPP & RCEP” group already go towards RCEP partners. While this share would expand further if the RCEP is established, competition with African countries on RCEP markets would slightly limit export benefits for the countries of the “TPP & RCEP” group to RCEP as compared to their export benefits when CFTA and TPP are merged and where African countries cannot compete the same way with counties of the “TPP & RCEP” group on RCEP markets. However, it should be highlighted that the reduced trade expansion for countries of the “TPP & RCEP” group is extremely marginal and that they would still be better off in any alliance with African countries than under the sole MRTA scenario.

V. Conclusion and policy recommendations

Findings from the analysis clearly indicate that Africa's CFTA is critical to mitigate expected negative trade effects that the formation of the three major MRTAs—namely, TTIP, TPP and RCEP— would have on African economies. Moreover, the establishment of the CFTA is foreseen to stimulate intra-African trade in industrial products the most. This could not only support Africa's efforts towards greater industrialization but also possibly help African countries building regional value chains as a pre-requisite to move up the global value chains (see ECA, 2015). **Deepening continental trade integration should, therefore, be seen as a key priority for Africa. Furthermore, establishing the CFTA will help bringing trade policy coherence in Africa.** For example, while African countries are in the process of concluding the Economic Partnership Agreements (EPAs) with the European Union (EU), it would certainly be unsatisfactory to have lower tariffs imposed by African economies on their imports from the EU than from their African partners. Hence, the CFTA must be established before the EPAs are fully implemented by strategically using the transitional periods offered under EPA reforms (see Mevel et al., 2015).

However, establishing the CFTA will certainly not be sufficient to ensure that Africa does not remain marginalized on a rapidly changing global trade landscape; Africa's share in global trade is only 3 percent today and it has barely evolved over the last twenty years. In that sense, **Africa needs to also start looking beyond its own, and still relatively small, Continental market to expand its trade.** MRTAs are an obvious expression of the need for many countries to quickly expand their trading relationships outside their own regions, and not waiting that substantial progress—as far as trade liberalization is concerned— are being made within the WTO framework. While surely invaluable, the multilateral trading system (MTS) must adjust to be able to provide a meaningful response to a growing number of larger and larger regional trade agreements so that those do not become a substitute to the MTS but rather complement it as per the objectives emphasized in Nairobi's Ministerial Declaration of the WTO.

Perhaps the most interesting and original element of the analysis undertaken and presented in this Paper is the special emphasis placed on assessing various options for Africa to deepen its trade integration beyond the Continent. Whereas these may sound far easier to design in paper than in reality, they still provide worthwhile messages that can help African countries determine whether greater trade-related South-South Cooperation is a viable pathway looking forward. To that extent, three options are analyzed, each time starting from a situation where the CFTA and MRTAs are assumed to already be in place: 1) Merging CFTA with TPP; 2) Merging CFTA with RCEP; 3) Merging CFTA with RCEP and with the rest of Asian economies—beyond just RCEP members. Findings suggest that if all three scenarios could considerably stimulate Africa’s exports, although in different magnitudes, they do not provide the same scope as far as Africa’s export diversification is concerned. The third option would actually best support Africa’s desired efforts to structurally transform. **While opening-up on a reciprocal basis with RCEP economies would allow Africa offsetting any of its trade deflection provoked by MRTA reforms** (since trade diversion for Africa following MRTAs essentially takes place with India and China), **further integration with non-RCEP Asian economies would create extremely interesting opportunities for Africa’s industrial but also food exports.** Besides, it must be underscored that those integration reforms would not just be in Africa’s interest as they would generate considerable export gains for the other implementing parties.

Yet, any of the three above mentioned integration options would limit intra-African trade benefits generated by the CFTA reform, as African countries would tend to export more towards their South-South counterparts outside the Continent at the expense of African partners. Even though there is no doubt from a trade perspective, as demonstrated by the findings of the analysis, that Africa would gain from opening-up with South-South partners, **the CFTA reform must be ambitious enough to maximize the benefits. Not only a CFTA has to forcefully eliminate tariff barriers to both trade and services within the African Continent but it must be accompanied by an effective reduction in non-tariff barriers as well.** Results show that the adoption of trade facilitation measures aiming at lowering costs to trade across borders worldwide would preserve intra-African trade benefits created by the CFTA reform when Africa engages into deeper integration with

South-South partners. In addition, trade facilitation reforms would improve Africa's competitiveness and help enhancing further Africa's exports, particularly of industrial products, to partners outside the envisaged regional blocs. Obviously, cost implications from trade facilitation reforms should not be overlooked. Therefore, once the TFA enters into force, WTO members must stand ready to honor their commitments to financially and technically assist developing countries in need as well as least-developed countries for them to be able to implement the agreement without delay.

In the current context with major MRTA reforms being envisaged, it is decisive for Africa to first successfully conduct the ongoing CFTA negotiations. When time comes for the implementation phase, African member States will need to respect their engagements to ensure that tariffs on goods and services can be rapidly eliminated and non-tariff barriers energetically combated in parallel. **Nonetheless, African countries should not wait until the CFTA is running up to speed to strategically enhance trade-related South-South Cooperation as it could offer evident opportunities to support Africa's structural transformation agenda. This requires re-prioritizing Africa's engagements and efforts into the various negotiation processes it is currently engaged in. It also calls for increased capacity building provided to African member States and that aim at better designing, negotiating and implementing trade agreements. Greater emphasize must be placed on those trade reforms that seem most capable to respond to Africa's priorities, starting with Africa's regional integration and strategic engagement with South-South partners.**

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Annexes

Annex 1 – Main MIRAGE CGE model features and assumptions

On the demand side of the model assumes, in each region, a single representative agent who allocates a fixed share of its income to savings, and devotes the remaining towards the consumption of goods. A Linear Expenditure System–Constant Elasticity of Substitution (LES–CES) function is used to represent agent’s preferences across sectors. Horizontal (variety) and vertical (quality) differentiations in goods—such as goods produced by developed countries are assumed to be of relatively higher quality than the ones produced by developing countries (i.e. Armington hypothesis)—are allowed in the model.

A Leontief function—assuming perfect complementarity between intermediate consumption and value added—characterizes the supply side of the model. Five factors of production contribute to the value added, namely: unskilled and skilled labor, capital, land, and natural resources. It should be highlighted that skilled labor and capital are expected to be more substitutable between themselves than with other factors. Full employment of factor endowments is assumed through flexible wages that adjust so as to keep constant the level of activity in all regions. Whereas this assumption is strong and imperfectly reflects the reality, especially in the context of African economies, it is motivated by at least three reasons. Firstly, the full employment assumption is arguably more coherent with the medium to long term analysis of trade policy shocks, as the ones analyzed here (see Bouët et al. 2010). Secondly, the reliability of unemployment (and under-employment) rates for African economies—when available—can often raise serious doubts. Thirdly, while assuming fixed nominal or real wages to incorporate the presence of unemployment in CGE models is a feasible option, it is not necessarily more credible than the full employment hypothesis in particular in situations where informal employment is assumed to be very significant, as it thought to be the case in Africa. Indeed, postulating flexible wages could actually be more consistent with the wage determination’s process in developing countries (see Ben Hammouda and Osakwe, 2006). In the case of unskilled labor, imperfect mobility between agricultural and non agricultural sectors is assumed but

perfect mobility is envisaged among each group of sectors. Skilled labor is perfectly mobile between sectors. Rates of variations of labor are exogenously set to the demographic forecast in line with corresponding data from World Development Indicators of the World Bank. Land is imperfectly mobile between sectors. Natural resources and capital are both sector-specific; with natural resources being constant and capital accumulative. Investment is the sole adjustment variable for capital stocks; such as the capital stock for the current year depends on the investment made for the same year and the capital stock from the previous year which has depreciated. Additionally, GDP growth is forecasted and affects total factor productivity³³.

In each region, the current account is maintained constant and fixed to its initial value to ensure the macroeconomic closure of the MIRAGE CGE model. Therefore, any possible disequilibrium of the current account is to be offset by an adjustment of the real exchange rate. In other words, when trade is stimulated by a specific reform (e.g. reduction in tariff barriers) then the real exchange rates appreciate if exports increase more than the imports or depreciate when the exports increase less than the imports.

³³ See World Bank (2005).

Annex 2 – Country/region and sector decompositions

Country/region decomposition

#	Country/Region	Main region	Envisaged regional blocs for the CGE simulations				
			TTIP	TPP	RCEP	CFTA	ASIA/AFRICA
1	European Union	European Union	TTIP				
2	United States	United States	TTIP	TPP			
3	TPP-4	TPP-4		TPP			
4	TPP & RCEP	TPP & RCEP		TPP	RCEP		ASIA/AFRICA
5	China	RCEP-9			RCEP		ASIA/AFRICA
6	India	RCEP-9			RCEP		ASIA/AFRICA
7	Rest of RCEP	RCEP-9			RCEP		ASIA/AFRICA
8	United Arab Emirates	Western Asia					ASIA/AFRICA
9	Saudi Arabia	Western Asia					ASIA/AFRICA
10	Rest of Western Asia	Western Asia					ASIA/AFRICA
11	Turkey	Other Asia					ASIA/AFRICA
12	Rest of Asia	Other Asia					ASIA/AFRICA
13	Egypt	Africa				CFTA	ASIA/AFRICA
14	Morocco	Africa				CFTA	ASIA/AFRICA
15	Tunisia	Africa				CFTA	ASIA/AFRICA
16	Rest of North Africa	Africa				CFTA	ASIA/AFRICA
17	Cote d'Ivoire	Africa				CFTA	ASIA/AFRICA
18	Ghana	Africa				CFTA	ASIA/AFRICA
19	Nigeria	Africa				CFTA	ASIA/AFRICA
20	Senegal	Africa				CFTA	ASIA/AFRICA
21	Rest of Western Africa	Africa				CFTA	ASIA/AFRICA
22	Cameroon	Africa				CFTA	ASIA/AFRICA
23	Rest of Central Africa	Africa				CFTA	ASIA/AFRICA
24	Ethiopia	Africa				CFTA	ASIA/AFRICA
25	Kenya	Africa				CFTA	ASIA/AFRICA
26	Madagascar	Africa				CFTA	ASIA/AFRICA
27	Mauritius	Africa				CFTA	ASIA/AFRICA
28	Mozambique	Africa				CFTA	ASIA/AFRICA
29	Tanzania	Africa				CFTA	ASIA/AFRICA
30	Rest of Eastern Africa	Africa				CFTA	ASIA/AFRICA
31	Rest of SACU	Africa				CFTA	ASIA/AFRICA
32	South Africa	Africa				CFTA	ASIA/AFRICA
33	Zambia	Africa				CFTA	ASIA/AFRICA
34	Zimbabwe	Africa				CFTA	ASIA/AFRICA
35	Rest of the World	Rest of the World					

Remark:

“Western Asia” includes: the United Arab Emirates and Saudi Arabia as well as Bahrain, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, State of Palestine, Syria, Yemen.

“Other Asia” includes: Turkey as well as Afghanistan, Armenia, Azerbaijan, Bangladesh, Bhutan, Georgia, Iran, Israel, Kazakhstan, Democratic People’s Republic of Korea, Kuwait, Kyrgyzstan, Maldives, Mongolia, Nepal, Pakistan, Sri Lanka, Tajikistan, Timor-Leste, Turkmenistan, Uzbekistan.

Sector decomposition

#	Sector	Main sector
1	Paddy and processed rice	Agriculture and food
2	Cereals and crops	Agriculture and food
3	Vegetable, fruit and nuts	Agriculture and food
4	Plant-based fibers	Agriculture and food
5	Livestock	Agriculture and food
6	Milk and dairy products	Agriculture and food
7	Sugar	Agriculture and food
8	Meat products	Agriculture and food
9	Other food products	Agriculture and food
10	Crude and refined oil	Mining and energy
11	Other energy and mining	Mining and energy
12	Fishing	Industry
13	Chemical, rubber and plastic products	Industry
14	Textile, wearing apparel and leather products	Industry
15	Iron and steel	Industry
16	Other metal products	Industry
17	Electronic, machinery and transport equipment	Industry
18	Other manufacture	Industry
19	Transport services	Services
20	Other services	Services

Annex 3 – Changes in African countries’ exports to Africa by sectors
following implementation of both MRTAs and CFTA in parallel - USD millions – 2022

	Paddy and processed rice	Cereals and crops	Vegetable, fruit and nuts	Plant-based fibers	Livestock	Milk and dairy products	Sugar	Meat products	Other food products	Total Agriculture and food	Crude and refined oil	Other energy and mining	Total Energy and mining	Fishing	Chemical, rubber and plastic products	Textile, wearing apparel and leather products	Iron and steel	Other metal products	Electronic, machinery and transport equipment	Other manufacture	Total Industry	Transport services	Other services	Total Services
Egypt	59.76	56.33	82.04	0.51	0.36	136.32	(14.85)	4.85	244.78	570.09	423.48	142.49	565.96	0.52	376.56	235.40	136.04	571.49	813.16	647.92	2,781.09	(0.34)	(6.93)	(7.27)
Morocco	0.19	4.58	4.06	0.22	0.52	491.46	1.12	8.43	425.63	936.19	15.27	65.76	81.03	0.77	56.62	175.68	42.28	52.05	279.75	151.29	758.44	0.99	0.60	1.59
Tunisia	-	12.25	52.66	0.03	0.15	290.64	5.27	16.37	618.93	996.30	6.17	12.30	18.47	0.28	444.30	357.70	82.44	552.53	1,033.65	957.12	3,428.02	(5.88)	(9.21)	(15.09)
Rest of North Africa	0.02	10.97	79.42	-	2.28	2.09	4.89	4.72	96.06	200.44	452.19	16.46	468.65	1.10	154.33	48.80	215.59	44.09	70.27	100.67	634.84	0.78	2.46	3.25
Cote d' Ivoire	(0.95)	176.25	(0.39)	1.03	0.02	(0.47)	(0.39)	0.01	35.60	210.72	184.97	5.21	190.18	0.01	9.86	12.40	(0.42)	4.04	19.68	117.25	162.82	(0.09)	(1.09)	(1.18)
Ghana	(0.01)	0.43	4.73	0.05	0.07	(1.02)	(0.03)	1.95	31.28	37.45	21.61	3.13	24.74	0.13	1.59	3.69	(1.27)	76.70	24.33	24.58	129.73	0.43	0.16	0.59
Nigeria	2.84	19.71	3.43	2.22	0.02	0.48	(0.18)	8.93	29.61	67.05	454.95	23.04	477.99	0.09	38.48	243.54	(0.72)	9.75	30.62	51.38	373.14	0.55	1.39	1.94
Senegal	(0.09)	15.37	0.76	0.33	0.23	(0.36)	(0.07)	0.13	47.39	63.67	8.62	6.26	14.88	0.11	11.20	3.48	2.81	11.78	47.20	7.36	83.95	0.39	0.65	1.04
Rest of Western Africa	(0.18)	77.67	(1.53)	1.39	1.61	3.14	(0.04)	7.57	119.94	209.57	30.95	23.81	54.76	0.62	3.72	(23.69)	0.27	136.91	25.87	1.90	145.60	0.46	0.60	1.06
Cameroon	-	19.45	5.45	1.27	0.34	0.18	(0.03)	2.99	15.59	45.24	131.01	0.08	131.08	0.00	10.23	6.21	0.43	25.29	23.22	120.51	185.89	0.32	0.12	0.44
Rest of Central Africa	0.14	40.80	0.67	1.12	0.96	25.97	6.45	1.41	42.29	119.82	167.70	108.48	276.18	0.03	33.54	12.76	13.75	7.65	138.61	449.44	655.79	1.07	3.80	4.88
Ethiopia	-	49.38	40.51	0.29	22.70	1.60	3.72	0.58	23.76	142.53	-	2.24	2.24	0.92	9.27	35.25	1.21	29.94	18.95	476.55	572.09	(0.01)	(1.24)	(1.24)
Kenya	0.29	111.05	5.90	1.31	0.39	27.21	2.99	114.03	168.50	431.67	9.28	3.73	13.00	0.19	360.36	292.45	165.68	259.63	130.11	208.60	1,417.03	(0.85)	(3.63)	(4.48)
Madagascar	0.02	25.31	0.09	0.15	0.07	0.01	0.03	0.33	0.21	26.21	82.12	33.48	115.60	0.37	(0.34)	67.14	0.00	0.51	3.31	13.43	84.41	0.06	(0.17)	(0.11)
Mauritius	(0.03)	(0.14)	0.19	-	0.06	0.42	2.46	30.27	9.30	42.55	74.82	11.37	86.19	0.03	3.65	94.53	5.71	0.73	14.90	7.48	127.03	1.17	(0.18)	1.00
Mozambique	0.72	128.84	3.39	4.94	0.20	0.35	190.74	0.57	20.05	349.79	2.82	29.14	31.97	0.56	27.14	88.46	12.89	5.02	49.80	77.72	261.59	0.30	(0.08)	0.22
Tanzania	12.07	95.90	14.06	0.56	2.35	26.47	21.89	2.28	187.22	362.81	0.83	297.68	298.50	1.48	303.44	314.37	14.11	55.28	149.71	228.62	1,067.00	0.15	0.11	0.25
Rest of Eastern Africa	3.32	94.55	6.85	5.58	7.95	123.75	18.02	17.43	148.37	425.83	99.19	6.09	105.28	0.10	122.64	66.19	79.35	46.12	122.56	56.45	493.42	1.11	3.93	5.04
South Africa	4.35	123.47	130.38	(0.02)	5.71	108.39	344.63	137.71	2,192.26	3,046.90	1,208.58	908.54	2,117.13	1.12	1,572.01	524.66	634.08	2,028.99	4,561.60	1,237.88	10,560.33	(5.82)	(15.04)	(20.86)
Rest of SACU	0.37	0.21	6.64	(0.03)	(0.74)	7.42	72.73	9.52	264.78	360.90	34.28	226.83	261.10	0.42	998.43	216.42	16.00	4.11	260.12	88.83	1,584.34	(0.87)	(5.47)	(6.34)
Zambia	6.16	(7.66)	0.92	(0.99)	2.04	6.71	92.30	2.29	82.05	183.82	16.94	48.58	65.52	0.07	42.82	85.06	6.65	174.29	51.52	100.58	461.00	0.10	0.20	0.30
Zimbabwe	(0.00)	12.68	0.15	0.97	7.19	1.62	20.13	1.63	17.95	62.33	13.83	16.16	29.99	(0.00)	7.42	40.38	132.45	70.14	20.24	27.53	298.16	0.25	0.26	0.50
Total Africa	89.00	1,067.39	440.37	20.91	54.50	1,252.38	771.77	374.00	4,821.56	8,891.88	3,439.60	1,990.85	5,430.45	8.89	4,587.26	2,900.88	1,559.34	4,167.03	7,889.18	5,153.10	26,265.69	(5.73)	(28.76)	(34.49)

Source: Authors’ calculations based on MIRAGE CGE model

Annex 4 – Changes in African countries’ exports to TPP members by sectors

following merge of CFTA and TPP in the context of both CFTA and MRTAs - USD millions – 2022

	Paddy and processed rice	Cereals and crops	Vegetable, fruit and nuts	Plant-based fibers	Livestock	Milk and dairy products	Sugar	Meat products	Other food products	Total Agriculture and food	Crude and refined oil	Other energy and mining	Total Energy and mining	Fishing	Chemical, rubber and plastic products	Textile, wearing apparel and leather products	Iron and steel	Other metal products	Electronic, machinery and transport equipment	Other manufacture	Total Industry	Transport services	Other services	Total Services
Egypt	2,745.08	(11.40)	5.36	(0.43)	(0.19)	135.90	18.17	11.31	49.17	2,952.99	14.71	1,650.50	1,665.20	0.51	107.22	1,374.69	4.00	10.55	60.68	101.73	1,659.38	81.65	41.02	122.68
Morocco	0.03	6.95	36.01	0.09	0.29	685.61	20.11	4.02	61.36	814.47	152.81	705.60	858.40	2.72	54.47	173.17	0.35	6.66	53.48	10.80	301.64	63.44	79.38	142.81
Tunisia	-	0.59	1.31	0.00	0.04	6.23	6.42	109.29	7.21	131.09	2.65	21.06	23.70	0.10	4.33	131.00	0.10	1.71	3.46	12.26	152.96	(8.38)	(11.65)	(20.03)
Rest of North Africa	53.99	0.46	0.53	0.00	0.02	7.76	1.45	5.72	2.33	72.28	1,965.64	129.73	2,095.37	0.05	24.20	1.71	0.29	1.00	12.32	2.43	42.00	17.40	64.59	81.99
Cote d' Ivoire	0.03	(12.15)	5.24	0.88	0.00	-	-	1.51	12.25	7.76	58.73	0.18	58.92	0.00	3.52	1.98	4.34	0.11	0.08	5.04	15.06	2.75	7.25	10.01
Ghana	0.61	24.43	8.27	0.13	0.20	68.19	-	6.33	8.85	117.00	62.38	15.40	77.79	0.33	4.49	7.79	2.81	1.74	5.96	18.50	41.63	17.04	23.98	41.02
Nigeria	12.22	43.64	16.10	2.18	0.23	(0.01)	0.08	7.53	2.87	84.85	1,801.37	250.65	2,052.02	0.52	13.52	7.97	0.10	4.20	7.85	10.39	44.55	18.86	31.16	50.01
Senegal	1.53	0.21	0.04	0.10	0.07	1.18	0.55	0.79	4.45	8.92	0.14	0.31	0.45	0.46	1.60	0.25	4.05	0.81	3.85	3.28	14.30	9.16	20.03	29.19
Rest of Western Africa	0.70	6.93	1.28	4.91	0.28	2.10	0.80	5.06	85.31	107.38	66.78	93.33	160.10	0.09	22.06	6.00	24.77	2.12	133.05	15.11	203.21	24.81	30.25	55.06
Cameroon	0.01	1.24	0.33	0.89	0.05	0.08	0.04	23.68	0.74	27.06	29.76	0.05	29.81	0.03	0.85	3.18	4.33	0.19	2.98	5.02	16.58	7.18	18.02	25.20
Rest of Central Africa	0.05	4.48	0.94	0.20	0.26	4.21	0.07	4.05	3.97	18.24	1,721.41	74.61	1,796.02	0.07	25.22	11.54	2.89	4.41	4.73	16.18	65.02	22.47	88.37	110.84
Ethiopia	-	(0.54)	6.08	(0.09)	(0.57)	251.29	(0.27)	0.04	1.42	257.35	-	0.08	0.08	0.06	0.34	(2.48)	0.00	0.07	0.34	3.21	1.55	15.14	5.76	20.91
Kenya	0.01	25.93	1.89	0.07	0.28	1.61	1.48	11.59	23.79	66.65	13.93	18.82	32.74	0.11	22.78	64.19	2.88	4.84	32.30	20.72	147.81	19.24	24.56	43.79
Madagascar	429.25	(10.82)	(0.07)	(0.00)	(0.29)	0.02	(0.08)	0.10	(0.63)	417.48	182.28	1.69	183.97	0.03	(0.03)	(19.86)	0.21	0.27	0.10	2.04	(17.25)	(1.12)	(2.57)	(3.68)
Mauritius	-	(0.02)	(0.07)	-	(2.86)	0.54	4.29	418.45	6.47	426.80	74.64	2.45	77.09	(0.05)	4.39	44.56	7.47	1.52	10.43	8.76	77.10	15.11	0.49	15.60
Mozambique	0.03	6.54	0.50	0.09	(0.01)	0.02	(0.00)	0.01	0.79	7.97	-	5.03	5.03	0.03	0.44	1.08	2.00	0.01	1.90	2.05	7.51	6.68	3.76	10.45
Tanzania	0.60	32.58	3.21	0.40	0.57	5.12	1.11	37.64	6.91	88.14	-	183.14	183.14	0.25	4.19	12.01	0.73	14.72	13.01	10.72	55.64	4.36	9.11	13.47
Rest of Eastern Africa	0.19	56.33	3.83	0.55	0.80	27.77	1.49	4.63	21.71	117.29	988.51	9.92	998.43	0.15	24.90	16.64	14.55	43.81	64.95	28.36	193.37	21.18	66.45	87.63
South Africa	(0.00)	13.94	56.39	0.17	(0.09)	(7.00)	(19.17)	14.59	111.92	170.74	183.14	208.48	391.62	1.06	162.24	115.72	283.88	150.13	2,020.23	223.41	2,956.67	11.70	(9.25)	2.45
Rest of SACU	0.00	0.24	0.97	0.01	(0.02)	5.01	(0.88)	13.02	65.62	83.97	56.17	(1.00)	55.17	0.00	333.64	54.79	0.54	10.35	25.94	0.19	425.46	(4.25)	(20.24)	(24.49)
Zambia	0.00	4.06	0.35	-	0.36	1.20	0.31	1.13	1.88	9.30	0.31	14.33	14.64	0.11	0.19	6.97	0.01	110.38	0.87	1.02	119.56	0.98	2.90	3.88
Zimbabwe	-	7.20	0.05	0.59	0.21	0.05	0.28	0.04	0.30	8.70	0.02	1.01	1.02	0.00	0.07	3.80	5.61	87.99	1.71	2.18	101.36	4.00	5.60	9.60
Total Africa	3,244.34	200.82	148.53	10.73	(0.37)	1,196.89	36.25	680.54	478.69	5,996.42	7,375.40	3,385.33	10,760.72	6.64	814.62	2,016.72	365.91	457.60	2,460.22	503.39	6,625.10	349.42	478.98	828.39

Source: Authors’ calculations based on MIRAGE CGE model

Annex 5 – Changes in African countries’ exports to RCEP members by sectors

following merge of CFTA and RCEP in the context of both CFTA and MRTAs - USD millions – 2022

	Paddy and processed rice	Cereals and crops	Vegetable, fruit and nuts	Plant-based fibers	Livestock	Milk and dairy products	Sugar	Meat products	Other food products	Total Agriculture and food	Crude and refined oil	Other energy and mining	Total Energy and mining	Fishing	Chemical, rubber and plastic products	Textile, wearing apparel and leather products	Iron and steel	Other metal products	Electronic, machinery and transport equipment	Other manufacture	Total Industry	Transport services	Other services	Total Services
Egypt	2,841.51	6.05	53.23	(3.50)	2.18	11.45	40.44	13.60	67.92	3,032.87	6,949.16	1,681.82	8,630.99	2.38	265.05	509.32	68.71	81.08	180.67	214.52	1,321.74	168.59	234.56	403.15
Morocco	0.01	24.59	14.47	0.74	7.57	4.70	36.73	35.19	109.93	233.94	122.44	339.79	462.23	7.80	489.56	386.71	14.71	136.14	530.55	36.22	1,601.70	97.17	168.87	266.03
Tunisia	-	6.27	26.61	(0.01)	0.10	4.13	2.82	55.73	26.52	122.17	42.26	26.09	68.35	1.01	137.88	175.66	3.05	35.63	85.94	32.78	471.95	10.51	22.33	32.84
Rest of North Africa	100.51	1.45	1.64	0.01	0.49	3.35	1.93	35.01	12.43	156.82	9,425.72	342.82	9,768.54	0.19	167.76	16.81	18.89	22.30	46.90	13.97	286.81	23.83	96.80	120.63
Cote d' Ivoire	0.01	16.08	11.78	2.37	0.02	-	-	1.94	24.09	56.28	1.98	3.88	5.85	0.01	24.32	3.64	34.35	18.88	1.41	70.83	153.45	5.38	18.26	23.64
Ghana	2.26	68.67	35.13	1.76	0.47	2.71	-	24.18	27.56	162.72	37.98	31.78	69.75	1.63	15.65	9.67	21.65	33.03	23.33	234.08	339.05	36.54	39.49	76.03
Nigeria	15.76	49.52	23.95	5.97	0.07	14.60	0.24	8.82	7.36	126.30	11,329.87	368.64	11,698.51	5.81	72.34	123.68	17.77	353.48	133.97	69.25	776.30	17.91	15.20	33.11
Senegal	1.37	1.18	0.89	2.93	0.48	0.36	0.76	1.30	22.46	31.73	0.13	(0.19)	(0.06)	0.21	(72.80)	1.17	(2.04)	5.77	10.34	7.29	(50.05)	13.93	35.11	49.04
Rest of Western Africa	1.89	24.76	42.12	136.53	0.25	1.79	0.28	9.49	108.80	325.91	858.64	77.19	935.83	0.25	15.29	19.01	96.93	45.56	312.49	95.56	585.10	45.09	42.97	88.06
Cameroon	0.01	4.31	2.19	27.56	0.17	0.10	0.09	4.47	1.26	40.14	7.83	1.24	9.08	0.14	16.19	8.25	23.99	16.50	8.44	67.27	140.77	13.03	35.47	48.50
Rest of Central Africa	0.08	5.65	3.18	4.31	0.58	6.86	0.28	6.92	13.99	41.85	1,934.40	125.56	2,059.96	0.29	14.68	25.79	44.99	654.36	11.28	184.41	935.80	21.83	100.49	122.33
Ethiopia	-	57.97	9.72	1.13	0.27	342.27	0.16	0.73	4.09	416.34	-	63.66	63.66	0.17	2.60	34.87	(0.15)	11.78	1.80	19.47	70.53	58.66	45.91	104.58
Kenya	-	59.31	22.27	1.73	4.07	13.83	0.47	26.55	52.02	180.23	37.27	97.42	134.69	0.86	119.48	181.03	24.22	101.82	23.09	44.76	495.26	61.15	70.45	131.60
Madagascar	1,033.21	(107.79)	(0.69)	(0.14)	(0.61)	(0.02)	(0.24)	(0.03)	(1.54)	922.14	109.37	(26.60)	82.78	0.11	0.11	(0.62)	(11.21)	0.80	(0.27)	(6.37)	(17.45)	(2.25)	(3.91)	(6.17)
Mauritius	-	0.22	1.96	-	0.34	0.54	0.01	8.80	26.30	38.17	291.34	21.37	312.71	0.33	14.27	72.55	24.49	14.29	25.68	20.97	172.58	124.76	(7.76)	117.00
Mozambique	(0.00)	10.78	(6.05)	(0.79)	0.00	0.02	0.00	0.14	1.31	5.41	-	(1.63)	(1.63)	0.05	0.59	(0.03)	(1.11)	1.22	1.23	9.44	11.40	11.73	5.40	17.13
Tanzania	0.88	93.76	4.57	4.96	2.04	5.15	0.98	2.39	25.32	140.06	-	(507.17)	(507.17)	0.63	10.78	22.91	0.16	77.65	20.11	23.74	155.97	7.99	23.83	31.82
Rest of Eastern Africa	0.46	166.26	6.92	10.98	2.68	19.00	0.35	19.05	77.57	303.28	3,742.39	38.35	3,780.74	0.22	44.99	52.15	42.45	48.45	90.09	47.40	325.75	39.37	105.14	144.51
South Africa	(0.00)	72.36	71.84	(3.00)	98.92	7.25	87.58	78.22	187.14	600.30	424.35	4,643.93	5,068.28	4.79	1,034.15	384.27	1,061.78	5,687.60	2,458.67	960.37	11,591.63	30.69	41.32	72.02
Rest of SACU	0.00	2.49	1.06	(0.03)	0.10	1.37	5.38	27.32	93.54	131.23	129.30	61.93	191.23	0.10	342.81	19.02	7.31	45.91	96.88	50.46	562.48	(0.82)	(6.71)	(7.53)
Zambia	0.01	25.41	0.47	1.21	0.28	1.30	(0.02)	0.76	3.89	33.30	0.46	(213.10)	(212.64)	0.56	0.26	5.00	(0.10)	794.59	0.43	1.22	801.97	0.95	2.14	3.09
Zimbabwe	-	59.11	0.08	6.45	0.18	0.06	0.01	0.43	0.29	66.61	0.03	14.09	14.12	0.00	1.69	4.87	16.01	113.14	3.68	2.32	141.72	3.43	7.06	10.49
Total Africa	3,997.96	648.37	327.35	201.17	120.65	440.83	178.26	360.99	892.23	7,167.81	35,444.92	7,190.86	42,635.78	27.55	2,717.67	2,055.74	1,506.84	8,299.99	4,066.72	2,199.96	20,874.47	789.46	1,092.43	1,881.89

Source: Authors’ calculations based on MIRAGE CGE model

Annex 6 – Changes in African countries’ exports to Asian countries (excluding RCEP members) by sectors
following implementation of an enlarged Asia-Africa trade bloc in the context of both CFTA and MRTAs - USD millions – 2022

	Paddy and processed rice	Cereals and crops	Vegetable, fruit and nuts	Plant-based fibers	Livestock	Milk and dairy products	Sugar	Meat products	Other food products	Total Agriculture and food	Crude and refined oil	Other energy and mining	Total Energy and mining	Fishing	Chemical, rubber and plastic products	Textile, wearing apparel and leather products	Iron and steel	Other metal products	Electronic, machinery and transport equipment	Other manufacture	Total Industry	Transport services	Other services	Total Services
Egypt	(56.71)	24.05	33.04	3.82	0.67	29.86	(1.36)	8.55	45.06	85.43	(22.15)	1,313.69	1,290.47	1.23	451.44	110.98	402.68	234.01	541.83	298.74	2,039.70	15.36	38.29	53.64
Morocco	0.00	14.51	3.06	0.09	0.88	23.70	0.79	13.24	69.16	125.38	2.98	187.52	190.48	2.45	240.97	78.97	128.56	24.66	19.63	30.37	524.35	20.11	43.53	63.64
Tunisia	-	1.39	7.90	0.13	0.16	4.81	0.20	8.49	3.58	26.60	0.06	3.77	3.83	1.02	333.06	46.54	4.85	5.50	19.43	18.97	429.21	(6.67)	(4.62)	(11.30)
Rest of North Africa	(0.00)	0.51	3.83	0.00	0.25	0.49	0.04	54.45	1.08	60.67	143.52	1,795.12	1,937.86	3.17	113.39	9.23	319.04	172.55	27.48	6.11	650.84	5.04	35.52	40.53
Cote d' Ivoire	0.00	37.59	0.43	0.18	0.05	-	-	0.71	4.30	43.24	1.21	72.17	73.37	-	3.43	0.57	16.11	2.78	0.10	22.53	45.49	0.40	5.03	5.43
Ghana	0.04	2.98	4.07	1.06	0.11	10.77	-	1.34	5.05	25.40	20.40	171.95	192.31	0.35	3.45	2.96	3.74	4.94	24.15	19.93	59.44	6.09	11.51	17.59
Nigeria	0.94	60.04	15.13	17.70	0.28	-	0.04	773.32	1.83	871.46	3.55	2.54	6.09	0.16	19.22	8.94	0.72	37.24	18.08	16.60	100.95	2.44	21.98	24.42
Senegal	0.13	0.30	0.07	0.17	0.14	1.88	0.09	0.23	3.35	6.37	0.02	0.67	0.69	2.03	1.17	0.48	1.45	11.23	3.30	1.84	21.48	2.63	10.34	12.97
Rest of Western Africa	0.38	3.61	2.02	33.49	7.72	1.53	0.01	1.82	6.82	57.45	16.56	26.89	43.45	0.52	3.74	5.87	19.49	3.39	10.87	8.42	52.24	9.10	13.09	22.18
Cameroon	0.00	21.96	0.92	3.67	0.16	0.00	0.00	26.43	0.20	53.34	15.73	0.08	15.81	0.01	0.59	1.59	5.04	4.10	1.46	17.87	30.66	2.54	10.89	13.43
Rest of Central Africa	0.04	3.84	0.59	2.33	0.73	0.46	0.02	0.74	2.21	10.94	2.23	151.82	154.01	0.01	4.08	5.56	4.11	10.16	5.29	21.88	51.05	4.46	16.01	20.47
Ethiopia	-	75.07	15.61	1.28	7.33	0.66	0.14	55.64	7.20	162.26	-	0.22	0.22	0.10	1.93	5.84	0.09	41.69	8.03	12.25	69.93	9.40	25.57	34.97
Kenya	-	387.34	4.62	0.09	0.49	24.32	0.52	25.35	34.32	476.88	6.91	16.95	23.86	0.22	30.33	63.60	11.82	247.22	41.46	33.22	427.82	8.37	37.40	45.77
Madagascar	(0.11)	(1.64)	(0.55)	-	(0.10)	(0.07)	0.09	(0.01)	(0.05)	(2.45)	(6.01)	10.18	4.16	0.01	0.22	2.86	0.38	(0.57)	1.29	2.52	6.70	(1.80)	(4.19)	(5.99)
Mauritius	-	0.12	0.16	-	0.04	0.02	0.65	0.59	1.29	2.87	17.22	4.97	22.00	0.08	3.98	40.70	4.42	5.28	11.83	5.63	70.93	29.14	(4.61)	23.89
Mozambique	0.00	2.66	0.51	0.62	0.13	0.00	0.00	0.00	0.31	4.24	-	3.29	3.29	0.02	0.07	0.24	0.03	0.78	2.49	0.31	3.93	2.48	1.34	3.80
Tanzania	0.11	10.17	5.66	6.72	2.21	0.54	0.08	2.16	19.85	47.50	-	69.53	69.53	0.13	4.97	10.53	2.80	3.29	10.67	12.25	44.53	1.63	5.00	6.63
Rest of Eastern Africa	0.01	75.11	3.53	13.58	37.71	11.77	1.98	789.04	19.52	950.44	41.02	14.81	55.71	0.46	39.20	8.40	6.86	157.75	56.81	15.28	284.92	10.69	39.09	49.78
South Africa	(0.00)	3.06	23.60	0.09	23.83	3.78	(0.23)	110.30	84.59	248.90	62.21	92.87	154.55	0.03	157.76	47.41	213.04	14.80	789.19	86.76	1,304.30	(6.74)	(21.03)	(27.78)
Rest of SACU	(0.00)	0.04	0.16	0.16	3.53	1.21	(0.01)	12.39	9.38	26.89	0.94	11.50	12.41	(0.00)	5.41	2.33	0.30	(2.03)	68.47	96.77	171.21	(1.56)	(8.22)	(9.78)
Zambia	-	1.68	0.08	0.34	0.08	0.31	0.04	1.69	0.92	5.12	0.15	45.66	45.81	0.07	0.08	2.10	-	231.11	0.57	0.56	234.50	0.39	0.26	0.65
Zimbabwe	-	3.30	0.28	1.13	0.00	0.99	0.00	-	9.06	14.74	0.01	2.95	2.96	-	0.67	0.43	1.05	(0.13)	0.59	1.96	4.56	0.69	0.73	1.41
Total Africa	(55.24)	726.46	124.61	86.47	86.57	116.80	2.98	1,876.57	328.80	3,294.13	304.39	3,994.04	4,297.18	12.07	1,418.29	452.90	1,143.52	1,190.79	1,662.68	730.08	6,594.19	112.65	270.70	383.35

Source: Authors’ calculations based on MIRAGE CGE model

Annex 7 – Changes in African countries’ exports to Asian countries (excluding RCEP members) following implementation of an enlarged Asia-Africa trade bloc in the context of both CFTA and MRTAs - % - 2022

	United Arab Emirates	Saudi Arabia	Rest of Western Asia	Total Western Asia	Turkey	Rest of Asia	Total rest of Asia	Total Asia (excluding RCEP)
Egypt	11.5	12.2	31.5	26.0	21.7	41.3	28.4	26.7
Morocco	25.9	18.5	15.3	17.3	70.3	58.0	63.2	41.7
Tunisia	14.3	9.4	14.0	12.0	46.1	33.9	40.1	29.8
Rest of North Africa	39.8	21.6	28.9	33.0	16.0	34.3	16.4	17.5
Cote d' Ivoire	14.8	12.6	34.6	20.9	23.4	77.2	47.6	39.1
Ghana	27.6	44.7	35.5	37.2	30.5	66.3	58.9	46.8
Nigeria	17.1	9.3	19.8	16.6	8.0	234.5	147.6	75.9
Senegal	20.0	12.9	18.6	17.0	39.9	17.8	22.5	18.5
Rest of Western Africa	7.2	12.3	32.4	17.9	22.7	28.3	26.9	23.0
Cameroon	30.3	16.0	39.3	28.3	58.1	18.6	42.1	36.1
Rest of Central Africa	13.2	18.2	72.6	26.6	14.7	17.4	16.2	22.5
Ethiopia	17.8	16.8	24.0	18.7	59.7	36.4	43.4	25.2
Kenya	73.4	17.7	42.3	49.4	67.2	56.7	57.7	53.8
Madagascar	-3.0	-5.0	-0.8	-3.1	-9.4	14.3	4.8	1.0
Mauritius	60.8	27.1	31.6	32.1	32.2	49.6	43.5	37.6
Mozambique	22.8	7.8	11.3	12.9	0.5	20.4	11.5	12.1
Tanzania	8.7	41.0	46.8	17.7	24.5	50.3	46.3	25.1
Rest of Eastern Africa	29.4	18.3	29.3	25.9	441.0	38.9	180.5	69.3
South Africa	-10.0	16.2	36.8	9.2	7.8	35.5	17.4	14.7
Rest of SACU	2.7	-2.3	45.4	24.7	52.8	36.8	38.3	33.1
Zambia	19.6	34.6	75.1	38.3	15.8	18.7	18.0	33.7
Zimbabwe	14.2	19.1	37.8	28.4	18.7	27.6	23.5	26.2
Total Africa	13.8	17.1	31.5	23.2	20.5	48.5	28.1	26.1

Source: Authors’ calculations based on MIRAGE CGE model