

A GENERAL EQUILIBRIUM ANALYSIS OF THE POTENTIAL EFFECTS OF THE AFRICAN CONTINENTAL FREE TRADE AREA ON THE MALAWI ECONOMY

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Paper to be presented at the 2022 GTAP Annual Conference

15th April 2022

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ABSTRACT²

Malawi has been pursuing regional integration at the bilateral, regional and multilateral level for the past four decades. Currently, Malawi is participating in negotiating the African Continental Free Trade Area (AfCFTA). Regional integration has always generated debate among stakeholders as regards its impact on the economy. While some advocate for regional integration arrangements, others are worried that trade openness will bring competition and harm the economy. The current study, therefore, investigated the potential economy-wide effects of AfCFTA on Malawi's gross domestic product (GDP), trade, industry output, demand for labour, and economic welfare of the population.

The study employed the Global Trade Analysis Project (GTAP) model with the GTAP 10 database, the Malawi Revenue Authority (MRA) 2014 tariff book tariff levels, and Malawi tariff offer under AfCFTA for counter-factual simulations.

Findings show that AfCFTA will have mixed short-term effects on Malawi. Simulation results indicate that the AfCFTA will increase the gross domestic product (GDP) and welfare on the Malawi population. For example, the 2034 liberalisation scenario shows that GDP may change by 0.71 percent while welfare may increase to USD162.61 million. Impact on trade (imports and exports) is minimal while the effect on industry output and demand for labour is mixed. These findings may be useful in informing the formulation of policies and negotiation positions since negotiations for the AfCFTA are still ongoing.

Key words:

African Continental Free Trade Area (AfCFTA); Regional integration; Non-tariff measures (NTMs); Gross domestic product (GDP); welfare.

Acknowledgements:

The author would like to thank a team of PhD supervisors at the University of Malawi namely Associate Professor Ronald Mangani, Dr. Exley B.D. Silumbu and Professor Chinyamata Chipeta for the guidance and comments in the development of this paper. The support of the entire teaching staff of the Department of Economics is also copiously acknowledged.

² This paper is being submitted only to facilitate Conference discussions and should neither be quoted nor published without consent of the author. It is still a work in progress and as such nothing presented in this draft is final.

1.0 Introduction

Malawi has been pursuing regional integration since 1980s. Currently, Malawi is a member of several bilateral, regional and multilateral integration arrangements. At the bilateral level, Malawi has trade agreements with Mozambique, Tanzania, Zambia, South Africa, Botswana, Kenya, India, China and Brazil, among others and is negotiating new bilateral trade agreements with South Sudan, the Democratic Republic of Congo (DRC), and the United Arab Emirates (UAE). Regionally, the country belongs to both the Southern African Development Community (SADC), Common Market for Eastern and Southern Africa (COMESA) and is also participating in negotiations aimed at establishing the Tripartite Free Trade Area (TFTA) involving SADC, COMESA and the East African Community (EAC). At the continental level, Malawi is part of the African Continental Free Trade Area (AfCFTA) negotiations which is expected to create a market for about 1.2 billion people (Obida, 2019). At the global (multilateral) front, Malawi is one of the founding members of the World Trade Organisation (WTO) and is a beneficiary of the generalized system of preferences (GSP) such as the Everything but Arms (EBA) initiative of the European Union and the African Growth Opportunity Act (AGOA) of the United States of America (USA) and the European Union - African, Caribbean and Pacific (EU-ACP) economic partnership - the yet to be negotiated Economic Partnership Agreement (EPA) with the EU.

In Malawi, regional integration has always generated debate as regards its impact on the economy. There are mixed reactions among different stakeholders including the private sector, civil society organisations (CSOs) as well as policy makers. While some stakeholders advocate for the joining of regional integration arrangements, others are coy citing competition that may come with trade openness. This debate is also rife among policy makers with some arguing in favour of regionalism as it is anticipated to increase market access for local products, among many other benefits. As observed by McDaniel, Christine A., Kenneth Reinert, and Kent Hughes (2008), *“Trade liberalization and globalization create new opportunities yet remain controversial subjects because competition invariably causes dislocations.”* In addition, UNCTAD, 2022 observed that export potential under the AfCFTA is concentrated in three major economies of Egypt, morocco and South Africa with very little potential trickling down to African least developed countries (LDCs)³. Given this perspective, the

³ Malawi is among the 33 LDCs on the African continent. Other LDCs are Angola, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Lesotho, Liberia, Madagascar, Mali, Mauritania, Mozambique, Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, South Sudan, Sudan, Tanzania, Togo, Uganda, and Zambia.

current study wanted to understand the economy-wide effect of the African Continental Free Trade Area on Malawi by focusing on the following questions:

- (i) How will AfCFTA affect Malawi's GDP?
- (ii) What will be the impact of AfCFTA on Malawi's trade (imports and exports);
- (iii) How will the AfCFTA affect the industry-level production/output?
- (iv) How will the AfCFTA affect demand for labour in different sectors? and
- (v) What will be the effect of AfCFTA on welfare of the population?

The following sections provide a brief on the evolution of regional integration in Africa in general and in Southern Africa in particular. Thereafter, the paper reviews existing literature on the subject followed by the methodology that was used in this study. Findings of the study are then discussed before concluding and recommending policy options for Malawi.

1.1 Evolution of Regional Integration in Africa

Regional integration in Africa dates back to 1889 when the first agreement⁴ was signed between the British Colony of the Cape of Good Hope and the Orange Free State Boer Republic. The SACU agreement was formalized in 1910 and it was extended to the Union of South Africa and the British High Commission Territories (HCTs) that included Basutoland (now Lesotho), Bechuanaland (now Botswana), South West Africa (now Namibia) and Swaziland (now Eswatini) to form the SACU that exists to this day⁵. According to Mlipha & Kalaba (2019), SACU is considered the oldest regional integration arrangement (RTA) not only in Southern Africa but the whole world. Another early regional integration attempt involved the East African Community (EAC) which started as a customs union between Kenya and Uganda in 1917, then Tanganyika joined in 1927⁶ (Omoro, 2008).

Malawi experienced some early collaboration with other countries between 1953 and 1963 during the Federation of Rhodesia and Nyasaland under the British Protectorate. Established in August 1953, the Federation provided a framework for economic development of the region by, among others, attracting investments and facilitating economic diversification (Rosberg, 1956). As an economic integration

⁴ This agreement was the genesis of the Southern African Customs Union (SACU).

⁵ Membership of SACU have been stable since the 1910 agreement despite several reforms along the way. Current members of SACU are Botswana, Eswatini (formerly Swaziland), Lesotho, Namibia and South Africa.

⁶ EAC was temporarily disbanded in 1977 following disagreements among the members only to be reintroduced in 1999. Currently, EAC has five members after Rwanda and Burundi joined the organisation in 2007. The Democratic Republic of Congo (DRC) may become the sixth member of the EAC once negotiations are completed.

arrangement, the Federation controlled finance and trade policies for the region. While framers of the Federation wanted the economic benefits to be enjoyed by all the three national governments, Malawi (then Nyasaland), was solely used as a supplier of manual labour to the mines in both Northern Rhodesia (now Zambia) and Southern Rhodesia (now Zimbabwe).

At the continental level, regional integration initiatives emanated from efforts to harness economies of scale considering fragmentation of individual African economies which are mostly characterised by poor infrastructure, vulnerabilities to shocks and dependence on exports of low value primary products (Omoró, 2008; Muthoni, 2016 and Makaka, 2018). Proliferation of regional integration in Africa was also as a result of perceived economic benefits from regional integration initiatives in other parts of the world such as the European Union.

In view of the above, the Organisation of African Unity (OAU) – now African Union (AU) – encouraged member states to establish and strengthen regional economic communities (RECs) through the Lagos Plan of Action (LPA) and the Abuja Treaty⁷. According to Hartzenberg (2011), the LPA encouraged self-reliance of African states by promoting the coming together of the economies. Through the Abuja Treaty, the OAU foresaw the creation of the African Economic Community (AEC) by 2028 with eight RECs as building blocks. The RECs that were recommended to be part of the formation of AEC are the Arab Maghreb Union (AMU), the Community of Sahel Saharan States (CEN-SAD), the Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC), the Economic Community of Central African States (ECCAS), the Economic Community of West African States (ECOWAS), the Inter-Governmental Authority on Development (IGAD), and the Southern African Development Community (SADC).

Despite evident efforts to establish RECs across Africa, successes of these institutions in realising their pre-established goals has been limited (Ehigiamusoe and Lean, 2018). RECs are currently at different levels of integration. For example, while the EAC is now a common market, COMESA, now a customs union, is yet to establish a common market. ECOWAS is now a monetary union and SADC is still in a process of becoming a full customs union. Many factors, including national policies that are unsupportive of regional integration, policy reversals, perceived revenue losses from elimination or reduction of customs duties, multiple memberships and perceived loss of national sovereignty, have contributed to dismal performance of RECs across Africa (COMESA Secretariat, 2014).

⁷ The Lagos Plan of Action was adopted in 1980 and the Abuja Treaty was signed in 1991 but came into force in 1994.

1.2 The African Continental Free Trade Area (AfCFTA)

The decision to establish the African Continental Free Trade Area (AfCFTA) was made in 2012 during the 18th Ordinary Session of the Assembly of Heads of State and Government of the African Union which was held in Addis Ababa, Ethiopia. Subsequently, negotiations were launched in June 2015 in South Africa and were supposed to be concluded by December 2017 but contentious issues such as rules of origin, tariff concessions and specific commitments on trade in goods and services have prolonged the negotiations⁸.

This notwithstanding, the AfCFTA agreement was launched at an Extra-Ordinary Summit on 21st March 2018 in Kigali, Rwanda, where 44 countries, including Malawi signed the agreement. The AfCFTA agreement entered into force on 30th May 2019 after the 22nd ratification was done on 29th April 2019⁹ and trading under the AfCFTA officially started on 1st January 2021.

Different studies have revealed that the AfCFTA would increase intra-African trade from the current 14.6% increasing African manufacturing exports. Geda & Yimer (2019) postulates that the AfCFTA would boost intra-African trade by 25 to 30 percent in the coming decade. It is also anticipated that a successful AfCFTA will also have a significant impact on several sectors including manufacturing and industrial development, tourism, intra-African cooperation and economic transformation.

According to the Government of Malawi (2019), a successfully implemented AfCFTA will enable Africa to generate a combined consumer and business spending of \$6.7 trillion by 2030. It is expected that Africa's expanded and more efficient goods and labor markets will significantly increase the continent's overall ranking on the Global Competitiveness Index. Increased market access, in turn, is expected to enhance the competitiveness of industries and enterprises, the exploitation of economies of scale, and the efficacy of resource allocation. Apart from creating a market of more than 1.2 billion people with a combined Gross Domestic Product (GDP) of more than US\$3.4 Trillion, the AfCFTA is anticipated to expand intra-African trade and enhance competitiveness of African industries through simplified cross-border trade and economies of scale, respectively.

⁸ As of March 2022, the AfCFTA was yet to agree on the rules of origin (ROO) that would guide trade under among the State Parties.

⁹ Article 23 of the AfCFTA stipulates that for the agreement to enter into force, 22 countries are supposed to ratify the agreement. As of 5th February 2022, 54 countries had signed the agreement and 41 member states had deposited instruments of ratification. Malawi deposited instrument for ratifying the AfCFTA on 15th January 2021.

2.0 Literature Review

This section reviews existing literature on the implications of regional integration on national economies. The current study defines regional integration as a process of reducing restriction on international trade, factor mobility and increasing economic activities among members (Bong & Premaratne, 2018).

This section, therefore, reviews both theoretical and empirical literature. While the theoretical review looks at the theory behind regional integration, the empirical review focuses on studies that have been conducted on the subject area. While reviewing studies that have studied effect of regional integration on economies, focus of this section is to identify the gap that still exists in the literature, especially in relation to Malawi thereby establishing an area that the current study focused on.

2.1 Theoretical Review

Theoretically, regional integration follows the classical theory of international trade¹⁰ which postulates that countries engage in trade in order to improve economic welfare. In line with this thinking, in 1776, Adam Smith, in his article, *An Inquiry into the Nature and Causes of the Wealth of Nations*, recommended free international trade to allow countries trade in goods that they produce efficiently in exchange for goods that are produced efficiently by others. In Smith's reasoning, countries would benefit by freely trading in goods that they have an absolute advantage.

Theory of regional integration, as it is known today, can be traced back to the seminal work of Viner in the 1950's which was later modified and expanded by different thinkers including Mead (1956) and Lipsey (1957 & 1960). Since then, different researchers have tended to use these initial theories to test the impacts of regional integration arrangements on different economies and regions.

Viner observed that joining of a customs union results in either trade creation or trade diversion. He defined trade creation as a substitution in consumption of higher cost, domestically produced goods in favour of lower-cost goods produced by the other country's new partner. He also defined trade diversion as a shift in imports by a country from low-cost producer outside a customs union to a relatively higher cost producer within the customs union, as a result of the elimination of tariffs from the partner. Thus, a customs union would be trade creating if member states replaced a high-cost

¹⁰ Classical theories of trade are from the perspective of a country, or country-based whereby countries do trade. Classical theories include mercantilism, absolute advantage, comparative advantage, Factor proportions theory, Leontief Paradox.

producer within their individual economies to an efficient producer within the trading bloc and it would be trade diverting if due to the customs union, member states are favouring a high cost producer¹¹ from within the trading bloc while excluding an efficient producer.

While Viner's customs union theory focused on the effects of regional integration, Balassa (1961) described different level of economic integration which include free trade area, customs union, common market, economic (monetary) union, and complete economic integration (political union or federation). According to Balassa (1961), these steps would represent different degrees of integration rather than lumping all integration efforts as a single stage. He defined a free trade area (FTA) as an integration stage where participating countries abolish tariffs (and quantitative restrictions) against each other's trade while maintaining individual country tariffs against non-members. A customs union was defined as a stage where, apart from eliminating tariffs, member states maintain a common external tariff (CET) among non-member countries. While in a common market members allow free movement of factors of production on top of non-restrictive trade, an economic or monetary union harmonises economic, monetary, fiscal, social and counter-cyclical policies. Balassa (1961) postulated that the final level of economic integration, which also represents the deepest level of integration, is the political union (federation), where there is total economic integration characterised by unification of policies (including economic, fiscal and other policies) as well as creation of a supranational institution to which participating countries cede their authority. With the clear distinction of different levels of economic integration, Balassa (1961) was confident that the theory of economic integration can be taken to be part of international economics. He further noted that clarification of different economic integration stages had expanded the field of international trade theory as it now included issues of "*factor endowments, coordination of economic policies, etc., which are not discussed in traditional theory*" (Balassa, 1961).

The static theory of integration continued to dominate explanation on the occurrence of regional integration arrangements for some time but later economists started questioning the proliferation of FTAs despite minimal static effects. As such, they turned to general equilibrium models to understand the drive of regional integration. Studies by different researchers including Scitovsky (1958), Lipsey (1960), Wemelsfelder (1960) and Janssen (1961) revealed that there was more to static effects that could explain successes in regional integration which was evident in high growth for countries that

¹¹ Alternatively, high cost producers are favoured because they are not being charged tariffs otherwise they could not survive competition before the union.

were joining RECs in those years. Further studies by Balassa (1961), Thorbecke (1963) and Kreinin (1964) confirmed that apart from the static effects, which had a well-grounded theory, investments and technological progress also facilitated growth of economies within FTAs. Brada and Mendez (1988) concluded that the dynamic effects, presented as different phenomena (often unrelated to the integration agenda), are responsible for the growth of integrated economies. The dynamic effects were put into two broad categories of factor inputs and technology effects. Thus, the dynamic integration theory posits that regional integration increases the rate of growth of factor inputs leading to more rapid growth (Kimbugwe, Perdakis, Yeung & Kerr (2012). It further suggests that even where the factor input growth remains unchanged, technology progress increases output growth which results in high economic growth for integrated economies.

2.2 Empirical Review

Regional integration has generated a lot of interest among researchers and different studies have assessed implications of regionalism on economies. In general, countries engage in regional integration because of perceived benefits which include enhanced regional trade, high economic growth and general welfare improvement for the people in the participating countries. Through increased openness, regional integration improves competition, reduces transaction costs, allows countries to benefit from economies of scale, attracts foreign direct investment (FDI) and facilitates macroeconomic coordination (Kahouli & Kadhraoui, 2012). In addition, Ametoglo & Ping (2016) asserted that countries in Latin America created RECs to boost economic growth, trade and sustainable development. This subsection is, therefore, dedicated to reviewing some of the empirical studies that have assessed the effects of regional integration on participating economies.

Some researchers have resorted to using general equilibrium modeling¹² which, apart from tackling economic issues in different regions and sectors, also takes into account different factors of production in the economy thereby addressing the challenge of model specification bias. Several studies have been conducted using the general equilibrium approach and the following is the review of some of these studies.

Qi & Zhang (2018) used the CGE modeling technique, the Global Trade Analysis Project (GTAP) model, to assess the economic impacts of the China-Australia Free Trade Agreement (ChAFTA) on

¹² General equilibrium models are also called real models as they are deemed to be closer to the real-world setup.

both the Australian and Chinese economies and the rest of the world. The study showed that China and Australia could benefit by fully or partially implementing the ChAFTA and the benefits would be in the form of increased GDP growth rates, exports, factor prices and economic welfare. However, the rest of the world would be at a disadvantage on account of the resultant trade diversion effect of the ChAFTA as the new RIA would favour member countries.

Studying the welfare impact of the South Asian Free Trade Area (SAFTA) on the Pakistan economy, Khoso, et al. (2011) used the GTAP model to analyse the data. This study assessed the potential economic costs and benefits of the Pakistan-India trade in exporting various consumer goods. Different trading scenarios including normal trading relations with India and the full SAFTA implementation were simulated. The findings of the study revealed that the Pakistan economy would generate net export benefits on the SAFTA grounds.

Siriwardana & Yang (2008) also employed the CGE model using GTAP to quantify the economic effects of the Australia-China Free Trade Area (ACFTA) which was still being negotiated at the time of the study. Four scenarios were examined namely the flexible and fixed current account positions for the short run and long run. Welfare effects emanating from the formation of the proposed RIA were estimated using equivalent variation (EV) and real consumption. The results of the study showed that ACFTA would result in positive welfare effects for both Australia and China. This is also the conclusion that future studies such as Qi & Zhang (2018) showed almost a decade later. This shows the consistency of results for CGE models.

Closer to home, Lewis, et. al., (2003) also used CGE modeling (the multi-country CGE model) to analyse the impact of trade liberalisation in SADC economies. The study tested different simulations including (i) enforcing SADC FTA, (ii) utilization of unilateral access to the EU market, and (iii) establishing an FTA with the EU. The findings showed that the proposed FTA between SADC and the EU would result in overall trade creation and that it would improve the welfare of the participating countries unlike the FTA between the EU and South Africa.

Estrada, Park, Park and Park (2011) used the CGE approach to assess different regional integration arrangements with three other large economies of the Asian region (China, Japan and the Republic of Korea) that would give maximum returns to Association of East-Asian Nations (ASEAN) FTA. The study found that joint integration with the three economies was far much beneficial than FTAs with each one of them independently. Additionally, the study concluded that the dynamic effects of the

ASEAN +3 FTA (i.e. FTA between ASEAN and the other three economies, China, Japan and the Republic of Korea) were higher than the static effects of integration arrangement (Yang & Zarzoso, 2014). Kitwiwattanachai, Nelson & Reed, (2010), in the study on the quantitative impact of alternative East Asian FTA using the CGE approach, observed that member states would gain higher welfare and more economic impacts from the East Asia FTA multilateral agreement than from the bilateral integration. In the CGE framework, economic welfare is often calculated as the Equivalent of Valuation (EV) of the household consumption entailing that it measures how much a household spends to access the same good before and after an RTA (Kitwiwattanachai, et. al., (2010)). In some circumstances, economic welfare is explained in terms of trade creation, trade diversion or even the terms of trade attainable after implementing the FTA.

Archarya, Hölscher & Perugin (2012) studied the effects of trade liberalisation on inequalities in Nepal using a CGE approach. The study employed a Generalised Algebraic Modelling System (GAMS) in the environment of the Mixed Complementary Programming (MCP) solver. While revealing that industry reallocation does not conform to the classical trade theory expectations of factor intensity and abundance after liberalisation, the study concluded that liberalisation may still be a necessary condition for poverty alleviation albeit evident signs of perpetual income inequality. In this regard, the study found that trade liberalisation would lead to household income inequality due to differences in growth rates of income between the richest group and the poor. The richest group of the population experienced faster income growth unlike the rest of the population suggesting continued challenge of income inequality in Nepal. This notwithstanding, the study showed that liberalisation helped some poor households to experience some considerable level of income growth entailing that liberalisation would still be helpful in reducing extreme poverty in developing countries. The study further revealed that policy makers need to be cautious when advocating liberalisation since simultaneous trade and exchange rate liberalisation showed detrimental effects on growth of the Nepalese economy. This was on account of appreciation of the domestic currency which may have resultantly also negatively affected income inequality and poverty among the population.

3.0 Methodology

To analyse the potential economic costs and benefits of the African Continental Free Trade Area (AfCFTA) in Malawi, the Global Trade Analysis Project (GTAP) model was used. The GTAP model has been chosen on account of its ability to capture economy-wide effects of regional integration not only in a multi-country and multi-sector general equilibrium frameworks but also among different factors of production (Qi & Zhang, 2018).

The GTAP model has proven successful as a generic, broad-based general equilibrium model and has widely been used by researchers to analyse the impacts of free trade arrangements (FTAs) in many economic aspects. The current study, therefore, used this counterfactual approach to assess the economy-wide effects of the AfCFTA on Malawi. Specifically, simulations focused on the effects of import tariff adjustments triggered by negotiations of the AfCFTA. In addition simulations on the liberalisation of non-tariff measures (NTMs) was also modelled. Using the CGE theory, the adjustments are translated through the price mechanism that is inbuilt in the GTAP model thereby generating results of the policy simulation.

3.1 Simulation Scenarios

The agreed negotiation modalities under the AfCFTA, as well as the interests of Malawi in these negotiations, determined simulation scenarios for the current study. In the ongoing AfCFTA negotiations, modalities for tariff liberalization define the scope of liberalization of trade in goods as well as the approach to be used. In a nutshell, member states have agreed to improve upon the levels of market access as agreed in their respective regional economic communities (RECs). This entails that for Malawi, liberalisation commitments at the AfCFTA are built on existing commitments under SADC, COMESA and the Tripartite FTA arrangements.

In view of the above, the study simulated liberalisation scenarios based on the market access offers that have been made by Malawi during the AfCFTA accession. In addition, liberalisation of NTMs, that reflected the level of tariff liberalisation under the AfCFTA ratification process, were used. The study performed simulations for three liberalisation periods namely: 2021, 2027, and 2034 thereby reflecting progressive liberalisation commitments under the AfCFTA.

3.2 Data and Sources

The study used a multi-country, economy-wide (global) database – GTAP 10 database¹³ – which has the most recently updated data for different countries and sectors. The database was aggregated into six sectors namely (i) agriculture, (ii) mining (extraction), (iii) processed foods, (iv) light manufacturing, (v) heavy manufacturing, and (vi) services. This disaggregation helped to assess how different sectors of the economy would be affected by the AfCFTA. In order to identify tariff liberalisation commitments, the study used market access offers for Malawi within the AfCFTA ratification framework. The Malawi Revenue Authority (MRA) 2013-2014 tariff book was used to update¹⁴ the base tariffs in the GTAP 10 database. This was done to ensure that base tariffs in the database were reflecting actual level of protection that prevailed when the database was compiled in 2014. For the non-tariff measures, the study used NTMs advalorem tariff equivalents (NTM-AVEs)¹⁵ compiled by the UNCTAD study of 2015 and employed the iceberg approach to liberalising NTMs.

According to Walmsley and Strutt (2021), the iceberg methodology decomposes an NTM into three components namely: an NTM as an equivalent to a tax on imports where the importing country gets the rents; (tms), an NTM as an equivalent to a tax on exports where the exporting country gets the rents (txs); and an NTM as an equivalent to an iceberg cost that reduces the amount received by the importer (i.e., importer bears the cost) (ams). In this case, a shock to AMS is defined as

$$\frac{[(\text{final AMS}) - (\text{Initial AMS})]}{[\text{Initial AMS}]} \times 100 \text{ and shock to ams} = \frac{\left[\left(\frac{1}{1 + \frac{\text{final AVE NTM}}{100}} \right) - \left(\frac{1}{1 + \frac{\text{initial AVE NTM}}{100}} \right) \right]}{\left[\frac{1}{1 + \frac{\text{Initial AVE NTM}}{100}} \right]} \times 100.$$

The study, therefore, adopted this approach to liberalising NTMs.

¹³ GTAP 10 database has a base of 2014 and covers 121 countries, 65 sectors and 20 aggregate regions representing 98% of the world total production and 92% of world population.

¹⁴ The alertax facility in GTAP was used to update the base tariffs in the database so that they reflect the actual level of protection that prevailed in Malawi at the time the database was compiled.

¹⁵ NTMs data is very scarce and UNCTAD conducted a study that estimated how NTMs affect trade in Africa.

4.0 Findings of the Study

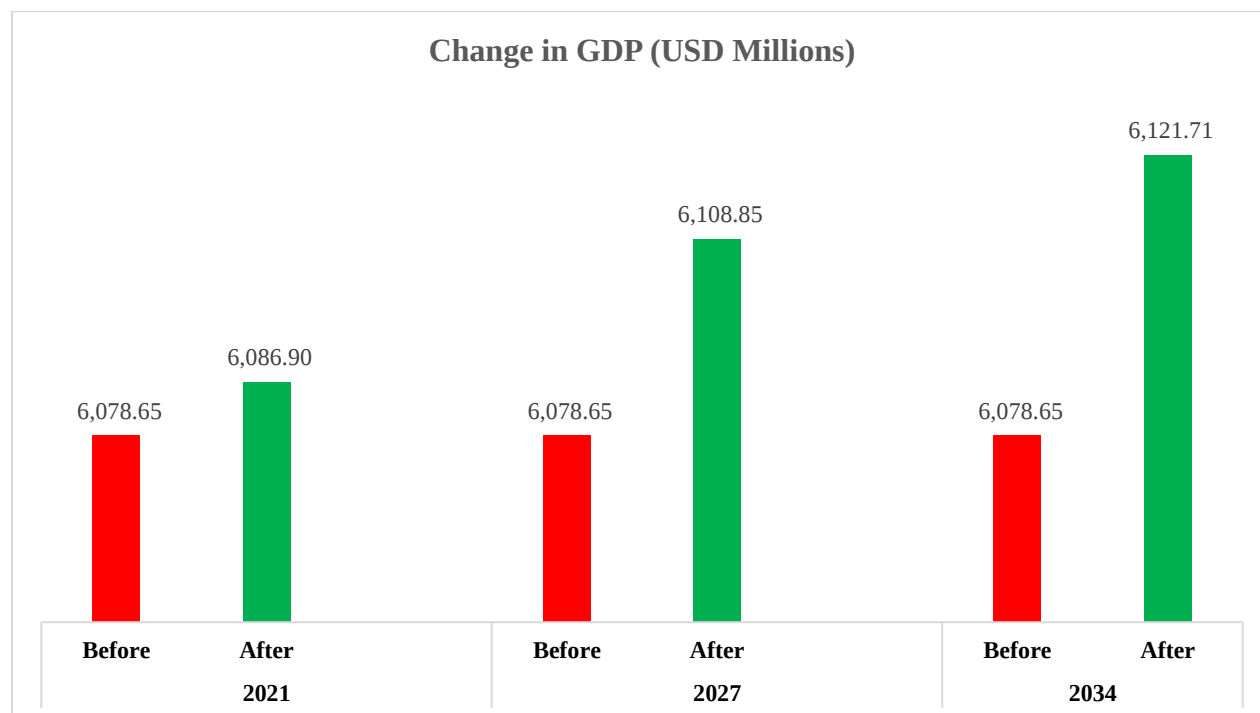
Simulation results show that the African Continental Free Trade Area (AfCFTA) will generally improve key macroeconomic outcomes for Malawi. The results are a reflection of a combined tariff and nontariff measures liberalisation that Malawi intends to implement from 2021 to 2034¹⁶. This section, therefore presents the findings.

4.1 Changes in Gross Domestic Product

Simulation results of the three liberalisation scenarios (2021, 2027, and 2034) show that the AfCFTA will slightly increase the country's GDP. For example, the 2021 scenario gives a 0.14 percentage increase of GDP as real GDP increases from USD6,078.65 before liberalisation to USD6,086.90 after liberalisation. The economy registers a further increase in GDP in the 2027 liberalisation scenario when GDP increases by 0.5 percent. Under these liberalisation scenarios, though still small, the largest increase in GDP is registered in the 2034 scenario when real GDP increases by 0.71 percent having moved from USD6,078.65 before liberalisation to USD6,121.71 after liberalisation. The slight increase in real GDP may be an indication that the economy may not benefit much from regional integration if Government policies remain unchanged. The AfCFTA, therefore, is not a panacea to Malawi's economic growth and development challenges and, as such, the country needs to implement deliberate policies to benefit from AfCFTA.

¹⁶ Malawi has committed to effect deep tariff liberalisation from 2021 to 2034. However, the actual tariffs will depend on the ongoing market access offer negotiations among State Parties of the AfCFTA.

Figure 4.1: Changes in Real GDP due to AfCFTA (2021, 2027, 2034)

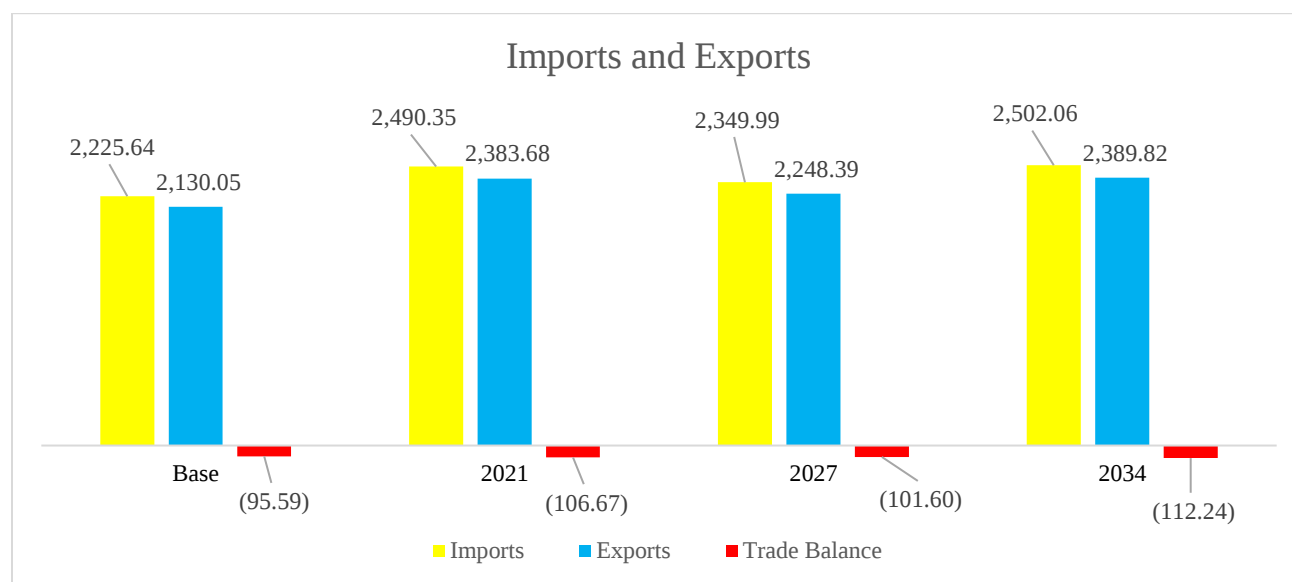


Source: Author's simulations using GTAP 10 database

4.2 Changes in Malawi's Trade (Imports and Exports)

On the changes in Malawi's trade, the simulations show that total trade will remain relatively constant following implementation of liberalisation commitments under the AfCFTA. Figure 4.2 shows a very slight increase in both imports and exports in all the liberalisation scenarios when compared with the baseline. This notwithstanding, the scenarios exhibit some level of instability in the overall trade balance which keeps worsening with each deep liberalisation. For example, in 2021, 2024, and 2034, trade balance worsens to USD106.67 million, USD101.60 million, and USD112.24 million, respectively. While the trade balance looks small, the implications on the country's foreign exchange rate can be significant. As such, there is need to develop policies that will help to promote production and exports of non-traditional products in order to bridge the gap between imports and exports.

Figure 4.2: Imports and Exports – Million USD (2014, 2021, 2017, 2034)



Source: Author's simulations using GTAP 10 database

A closer look at the trade dynamics among the products gives some confidence that not all is lost. As shown in Table 4.1 below, all the sectors are showing an increase at the import and export front meaning that the AfCFTA will generally increase both imports and exports. Although imports are shown to be increasing at a higher rate than exports, the difference in the change is not alarming. This notwithstanding, the country need to fight the appetite for imports and start producing more for exports.

Table 4.1: Percentage Changes in Imports and Exports (2021, 2027, 2034)

	Imports			Exports		
	2021	2027	2034	2021	2027	2034
1 Agric	19.85	28.27	61.41	20.31	29.66	63.85
2 ProcFood	17.27	17.78	37.64	17.31	17.90	37.70
3 Extraction	3.99	7.16	46.22	4.51	6.61	42.48
4 LightMnfc	12.39	6.26	13.43	12.37	6.22	13.29
5 HeavyMnfc	10.83	2.84	6.39	10.83	2.77	6.12
6 Services	12.65	7.17	15.83	12.65	7.17	15.83
Total	11.89	5.59	12.42	11.91	5.56	12.20

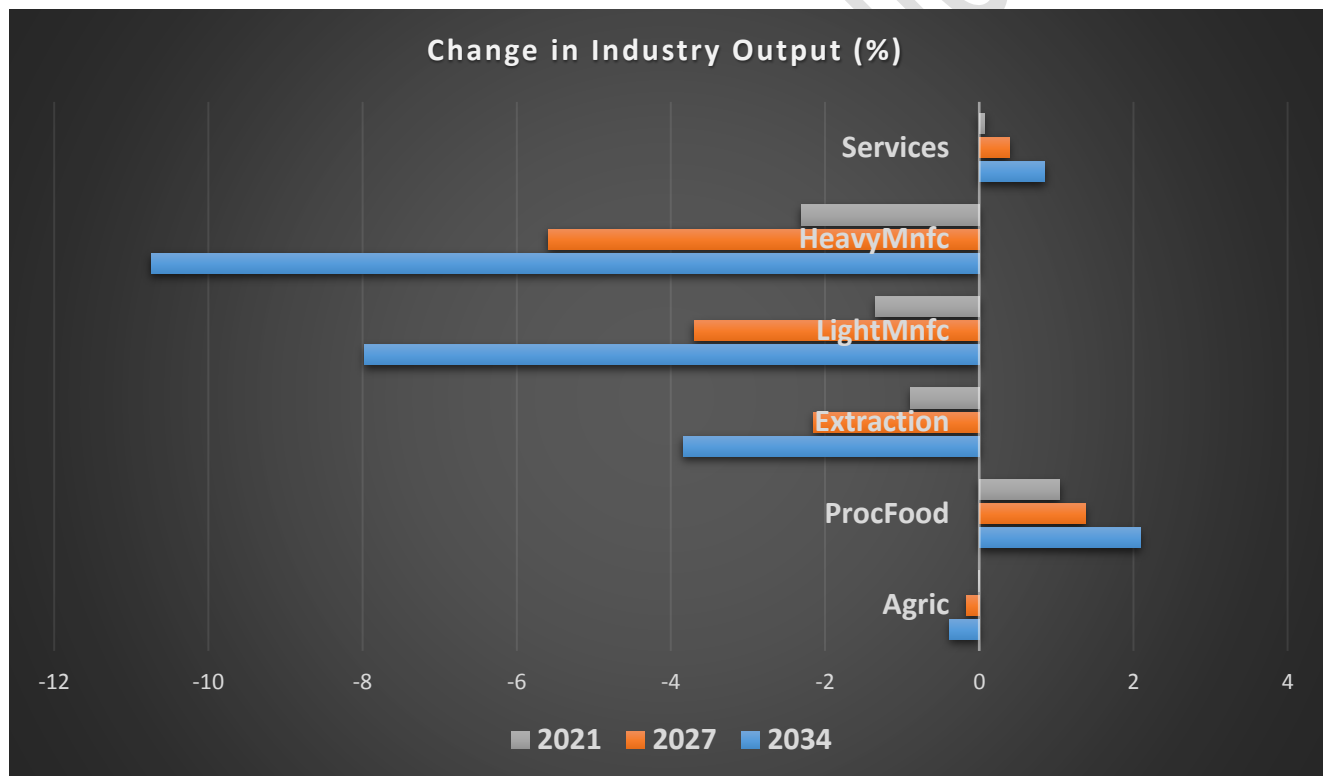
Source: Author's compilation using Simulation Results

4.3 Changes in Industry Output

Simulation results for all the three liberalisation scenarios shows mixed results for industry output. As shown in Figure 4.3, output will generally decline following implementation of liberalisation commitments under the AfCFTA. While processed foods and services show an improved level of

output across all the liberalisation scenarios, heavy and light manufactures will experience significant deterioration, followed by mining and agriculture. This should be a concern to the country as this is an indication that Malawi may turn into a trading ground for foreign products and there is a risk that domestic industries may not stand the competition that may emanate from deep integration under the AfCFTA. While increased output in the manufacturing sector shows improvements in all the scenarios, declining agriculture production may entail that raw materials to support the booming manufacturing sector may have to be imported. The results also show that deep integration is associated with big changes in output. For example, the 2034 scenario shows the worst reduction and improvement in output across all the sectors. This shows that while some sectors may benefit from AfCFTA integration, others will lose out.

Figure 4.3: Percentage Change in Industry Output (2021, 2027, 2034)



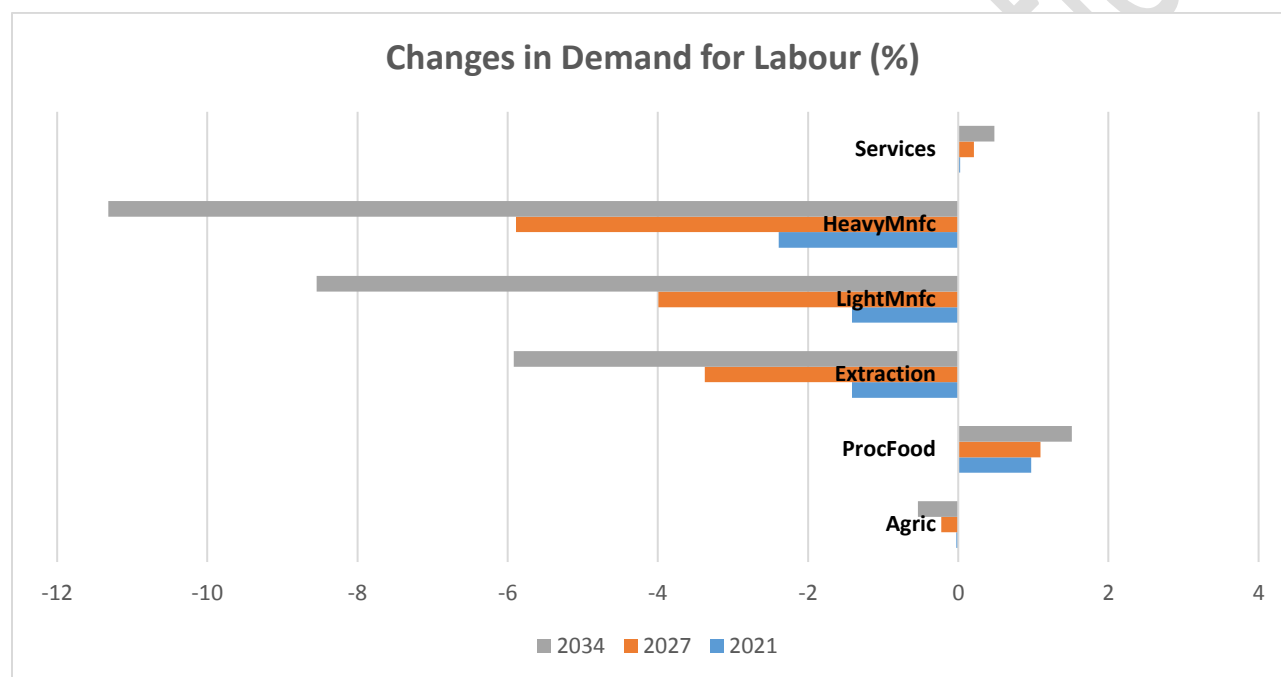
Source: Author's simulations using GTAP 10 database

4.4 Change in Sectoral Demand for Labour

Results of simulations of different AfCFTA liberalisation scenarios show mixed changes in demand for labour in the modelled sectors. As shown in Figure 4.4, processed foods and services are the only sectors that will generate additional labour in all the liberalisation scenarios. This means that the short-term effects of AfCFTA will be a general reduction in demand for labour in heavy manufacturing,

light manufacturing, mining and agriculture with heavy manufacturing bearing the brunt. This may be a sign that the AfCFTA will encourage relocation of industries to other countries within Africa as will be assured of market access into Malawi. As shown in Figure 4.4, deep integration is associated with further reduction in demand for labour in Heavy Manufacturing, Light Manufacturing, extraction and agriculture. While this may be a sign that Malawi may be specializing in food processing and services, there is need to consider improving the doing business environment in order to attract investors in the declining sectors and create jobs for the population.

Table 4.4: Change in Sectoral Demand for Labour (2021, 2024, 2034)

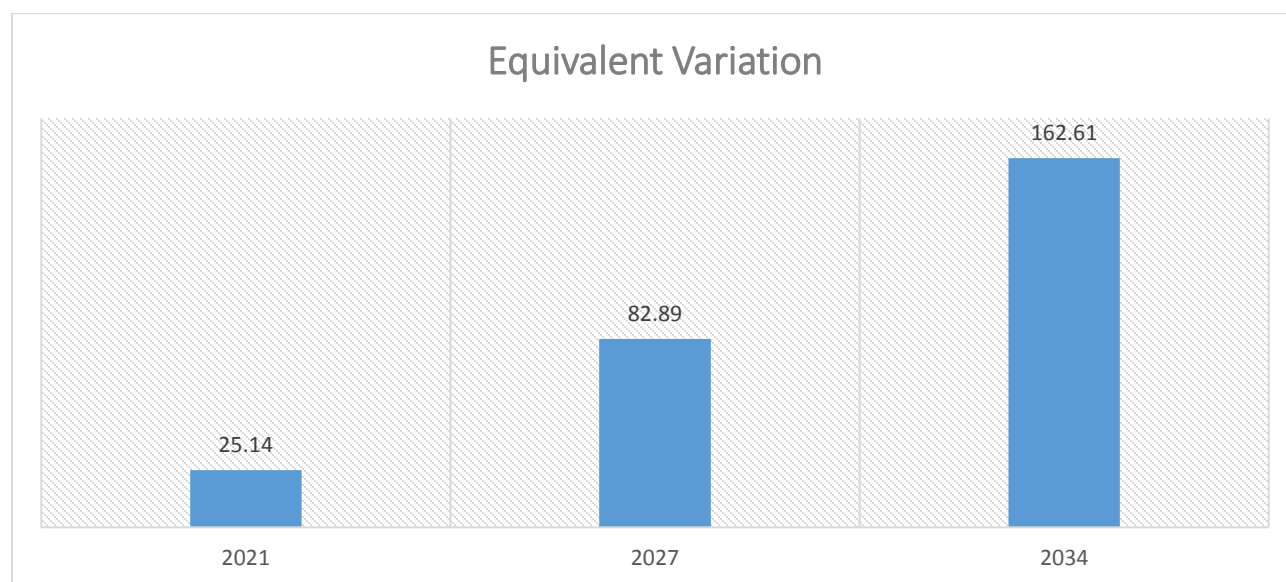


Source: Author's simulations using GTAP 10 database

4.5 Welfare Impact of AfCFTA on Malawi

The simulation results show that the three liberalisation scenarios will have positive effect on welfare for the population in the short term. As shown in Figure 4.5 below, the ambitious liberalisation (2034) scenario, at USD162.61 million, has the greatest improvement in welfare compared to the 2027 and 2021 scenario. This shows that, for Malawi, the AfCFTA is expected to be welfare improving and that the highest improvement in welfare will be attained with deep integration.

Table 4.2: Welfare Impact on Malawi - US\$ Millions (2021, 2027, 2034)



Source: Author's simulations using GTAP 10 database

Further analysis shows that improvements in welfare will emanate from allocative efficiency, terms of trade effect, and investment-savings effect. As shown in Table 4.2, in all the liberalisation scenarios, terms of trade effect makes the largest contribution to welfare improvement followed by the allocative efficiency (except in 2034) followed by investment-savings effect and finally technology effect.

Table 4.2: Breakdown of improvements in equivalent variation (Welfare) – USD million

	Allocative Efficiency	Endowment Effect	Technology Effect	Terms of Trade Effect	Investment-Savings Effect	Total
2021	5.76	0	2.5	12.44	4.44	25.14
2027	20.96	0	9.34	40.06	12.53	82.89
2034	25.8	0	17.48	90.38	28.2	161.87

Source: Author's simulations using GTAP 10 database

CONCLUSION AND POLICY RECOMMENDATIONS

Since the 1980s, Malawi has been actively participating in different levels of integration including bilateral, regional, and multilateral. To date, Malawi has a number bilateral cooperation agreements and belongs both SADC and COMESA integration arrangements as well as the Tripartite FTA involving SADC, COMESA and the EAC. At the multilateral front, Malawi is one of the founding members of the WTO and at the continental level, the country is actively participating in negotiations for the AfCFTA.

The framers of AfCFTA portrayed a number of good things that would be attainable following successful implementation of AfCFTA including generating Africa's combined consumer and business spending of \$6.7 trillion by 2030, increasing the continent's overall ranking on the Global Competitiveness Index, increasing market access for African tradable commodities expanding intra-African trade and enhancing competitiveness of African industries.

This notwithstanding, regional integration has always generated debate among different stakeholders in Malawi. While some argue that regionalism is good for the economy, others think that competition that comes with openness would kill the country's infant industries. In view of this, the current study wanted to assess economy-wide effects of the AfCFTA on Malawi. To do this, a CGE model (GTAP model) and the GTAP 10 database and Malawi's market access offer under the AfCFTA was used to simulate three liberalisation scenarios (2021, 2027, and 2034) to understand how these scenarios would affect the economy.

Findings of the study show that the AfCFTA will increase the gross domestic product (GDP) and welfare on the Malawi population. Impact on trade (imports and exports) is minimal while effect on industry output, demand for labour is mixed. On changes in GDP, the study shows that the 2034 liberalisation scenario will generate the highest increase followed by the 2027 scenario and finally the 2021 liberalisation scenario suggesting that deep AfCFTA integration will be good for Malawians. Welfare gain is the highest under the 2034 liberalisation scenario when Malawi is expected to effect deep cuts in import tariffs.

Imports and exports before and after AfCFTA liberalisation remain relatively stable while industry output and demand for labour show some improvements in processed food and services sectors only.

In view of the above findings, the following recommendation can be considered for policy implementation.

- (i) There is need to develop productive capacities of the economy to address production bottle necks including weak supportive infrastructure to investments. The sectors that are declining are a manifest of existing production challenges such that the AfCFTA would not address the existing challenges hence need for deliberate policies to address these binding constraints.
- (ii) There is need to develop policies that will compensate sectors that may lose from regionalism. As observed, the AfCFTA will benefit some sectors while other sectors will be worse off.
- (iii) Malawi needs to develop negotiation skills that will enable negotiators get favourable trade deals given the country's economic fragilities. Malawi would benefit more from the AfCFTA if she is able to get better trade deals from the ongoing AfCFTA negotiations.

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