Empirical Analysis of Tariff line-level Trade, Tariff Revenue and Welfare Effects of Reciprocity under EPAs with the EU: Evidence from Malawi and Tanzania

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Empirical Analysis of Tariff line-level Trade, Tariff Revenue and Welfare Effects of Reciprocity under EPAs with the EU: Evidence from Malawi and Tanzania

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Abstract

This paper provides a comprehensive quantitative analysis of the comparative effects of full and less than full reciprocity under an EU-ACP Economic Partnership Agreement for Malawi and Tanzania. The paper applies a partial equilibrium model to recent trade and elasticities data to measure the effects. We find that reciprocity will have welfare-enhancing consumption and trade creation effects but these will be overshadowed by strong welfare-lowering trade diversion and tariff revenue losses leading to non-negligible net welfare losses. The rise in Malawi's (Tanzania's) imports from the EU will represent 3.4% (2.2%) of gross domestic product (GDP); tariff revenue will fall by 26% (52%), net welfare loss will be the equivalent of 0.4% (0.2%) of GDP, and losses of imports from the ESA (SADC) (thus undermined regional integration drives) will amount to 0.2% (0.23%) of GDP in Malawi (Tanzania). Excluding 'sensitive' products reduces the effects but significant import growth, tariff revenue and net welfare losses persist. The effects point to major adjustment costs for which the two countries will require assistance for policy and institutional reforms to be able to deal with the adjustment pressures and facilitate reallocation of resources from contracting to expanding sectors.

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1. Introduction

Malawi and Tanzania are members of the African, Caribbean and Pacific (ACP) group of countries currently engaged in negotiations with the European Union (EU) to establish a new framework for cooperation in trade and development, the economic partnership agreement (EPA), to replace the existing arrangements (the Cotonou agreement which succeeded previous Lomé Conventions) which are incompatible with the rules (Article XXIV) of the General Agreement on Tariffs and Trade (GATT). The negotiations were formally launched in 2002 and scheduled to run until 2007; from 2008 the signatories will start implementing the EPA over a period of at least ten years or a little longer.[1]

Under the Lomé Conventions ACP countries are not obliged to reciprocate the preferential duty and quota-free access they enjoy in EU domestic markets for a wide range of agricultural and non-agricultural products except those products for which there are special protocol arrangements (bananas, rice, and sugar). Incompatibility with the GATT rules comes in because this (preferential) treatment is not extended to third parties (even other developing countries, e.g. in Latin America) as required under the "Enabling Clause" of GATT. Subsequently the existing arrangement was successfully challenged at the World Trade Organization (WTO) which succeeded GATT.

Preferences notionally granted under Lomé Convention are deemed to have failed to prevent the marginalization of the ACP countries in the world trading system on a number of counts. Panagariya (2002) amongst others cite the tendency of preferences to be unsuited to creating incentives for commitment to reform in the beneficiary countries once preferences are guaranteed. Perhaps the more compelling reason for failure of the preferences and indeed other trade measures in general is the fact that

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[1] The transition period could last more than ten years. ACP countries have proposed a longer transition period lasting more than twenty years to allow relatively sufficient time for adjustment, *inter alia*. The EU is not averse to the proposal and the jurisprudence in relation to Article XXIV of GATT is not definitive and negotiations under Paragraph 29 of the Doha Mandate might be sympathetic to the ACP proposal for more flexibility in the Article.

until recently little or no serious attention has been paid to the extensive structural rigidities and supply side constraints facing ACP and other least developed economies. It is the result of this that ACP countries are focussing more the development dimension of the EPAs rather than the EU focus on trade aspects and also rules in the context of trade related issues. ACP and other least developed and developing countries have also successfully campaigned to make the Doha Round a 'development Round'.

Under EPAs groups of ACP countries will reciprocate the EU's preferential (duty free) treatment and form free trade areas (FTA) with the EU.[2] FTAs are subject to certain WTO conditions, the most important being that the FTA should "eliminate duties and other restrictive regulations of commerce … on 'substantially all the trade' between the constituent territories in products originating in such territories" (GATT Article XXIV, paragraph 8(b)). The rules do not define "substantially all trade" but it appears that both qualitative and quantitative qualifications are important in determining what proportion of trade can be liberalized and or not. In qualitative terms, "substantially all trade" means that no individual whole sectors can be excluded. The quantitative qualification is that full liberalization of 80-90 percent of bilateral trade is likely to be required (but even this raises some complex questions, e.g. is this 80-90 percent of the trade volume or value before or after liberalization? And does trade relate to imports and exports separately combined or separately?).

The ongoing negotiations are addressing a number of issues including the scope and scale of liberalization (i.e., asymmetry in product coverage, longer transition period), adjustment and long-term development support, initiatives to improve export supply capacity and trade facilitation, technical building capacity in trade policy analysis, measures to safeguard ACP countries' export and industrial development interests, preference erosion, reducing the scale and usage of non-tariff measures or technical barriers in the EU which partly limit ACP countries' access to the EU markets and trade remedial measures.

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[2] ACP countries negotiate EPAs in six regional groups set up according to the continental integration agenda of the African Union (AU) in which regional markets are developed through inter-connectivity through infrastructure development, *inter alia*. Malawi is negotiating in the Eastern and Southern Africa (ESA) group (ESA is a subset of COMESA) while Tanzania is in Southern Africa Development Community (SADC) group.

The objective of this paper is to contribute to the policy discourse on securing the best deals for ACP countries entering economic partnership agreements with the EU using the cases of Malawi and Tanzania, two least developed African countries. The contribution of the paper is in four main respects. Firstly, it is the first comprehensive quantitative analysis for Malawi. Secondly, it is the first to consider the comparative effects of full and less than full reciprocity for both countries. Thirdly, it carries out the analyses and presents findings at product level. This helps identification of some of the most affected products (with respect to tariff revenue losses, net welfare, and import effects (we single out products with domestic and regional import-competing potential). Such products may be considered for the 'sensitive' product status. Admittedly there have been EPA studies covering Malawi and Tanzania but unlike this paper they have been preoccupied with the effects of one-time or instantaneous full liberalization and even that has been dealt with at highly aggregated sector levels. Because of the high levels of aggregation most quantitative EPA studies do not provide information that can be used to identify and analyze sensitive sectors (Milner, Morrissey, and McKay, 2005; Cali and te Velde, 2006).

Fourthly, unlike previous studies this paper treats South Africa as part of SADC in the EPA negotiations. This is a noteworthy development for Tanzania and the rest of non-SACU[3] SADC countries negotiating the EPA. South Africa (and by default BLNS countries) previously signed a separate Trade and Development Cooperation (TDC) with the EU which excluded some of the SADC membership, and was not part of the SADC group negotiating EPAs with the EU. But since the end of 2006 South Africa joined the SADC-EPA negotiating group (in so doing renegotiating its TDC with the EU). The new position of South Africa as part of the SADC for the EPA purposes means that the 'displacement' of those South Africa-originating products for which South Africa is not the dominant supplier to Tanzania vis-à-vis the EU (which we assume to imply South Africa is less efficient than the EU) now counts as part of trade creation whilst the displacement of those products where South Africa is the dominant supplier will continue to count as trade diversion (just like when South

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[3] The Southern Africa Customs Union (SACU) comprises of South Africa and its four neighbouring states of Botswana, Lesotho, Namibia and Swaziland (BLNS). South Africa and BLNS are also members of SADC. The rest of SADC membership is: Angola, Democratic Republic of Congo, Malawi, Mauritius, Mozambique, the Seychelles, Tanzania, Zambia and Zimbabwe.

Africa is treated as part of the Rest of the World (RoW)). This arrangement has implications for tariff revenue and net welfare effects.

The rest of the paper is organized as follows. Following this introduction, the next section presents an overview of the salient issues at the EPA negotiations, and trade policy and liberalization in the Eastern and Southern Africa (ESA) and Southern Africa Development Community (SADC) where Malawi and Tanzania, respectively, are participating in EPA negotiations with the EU. The third section presents a brief survey of the empirical analyses of the likely effects of EPAs. Section 4 presents the countries' patterns of imports and tariff revenue. The empirical methodology and data used in the paper are discussed in Section 5. Empirical results and their interpretation are reported in Section 6. Finally, Section 7 presents the main conclusions and implications of the findings.

2. Overview of Main Issues at the EPA Negotiations and Participation in Regional Economic Blocs

2.1. Overview of Main Issues at the EPA Negotiations

For ACP countries EPA negotiations are guided by the principles set out in a communiqué "ACP Guidelines for the Negotiations of Economic Partnership Agreements" (ACP Secretariat, 2002). Some of the main issues being thrashed out in the negotiations are the following. Malawi and Tanzania and other ACP countries stress the importance of a sustainable EPA outcome which addresses the following concerns: adjustment costs (for example, tariff revenue losses which would seriously undermine public expenditure and therefore poverty reduction; de-industrialization which can worsen unemployment and poverty, and balance of payment crises where import growth outpaces export expansion which in some ACP countries is limited by severe capacity constraints); the social and political implications; institutional and human resource capacities; and, the stability of ACP countries.

The ACP countries are also keen to see that the degree of liberalization that they may be willing to undertake in EPA should be in line with that they might undertake at WTO. At the Hong Kong meeting of Trade Ministers from WTO members it was agreed, among other things, that liberalization should allow flexibilities for

developing countries (DCs) and least developed countries (LDCs). For example, LDCs are exempted from effecting tariff reductions (albeit they are encouraged to increase the binding coverage) cognizant of the serious impacts that such liberalization might have on their economies. Developing countries with low binding coverage are allowed to undertake limited liberalization (i.e. achieve a lower average binding level of 28.5%) as opposed to complete liberalization at the end of the implementation period of the concessions (as is the case in EPAs).

The EU's response to the foregoing seems to be to allow the concerned countries not to enter the EPA and offer them preferential treatment under its Everything But Arms (EBA) initiative. EBA provides preferential access to the EU for LDCs for all products except arms and ammunition, and a few sensitive products (bananas, rice, and sugar) for a temporary period. But the EBA is a non-contractual arrangement that may be withdrawn as the EU deems it suitable, the preference margin and associated income transfer offered will be eroded by the expected reforms of the EU's Common Agricultural Policy (CAP), has more stringent origin rules, does not come with development funds like the EPA, among other shortcomings. The EU's offer to non-LDCs seems to be its 'less preferential' Generalized System of Preferences (GSP) available to all developing and least developed countries. The EU is also tabling liberalization of other issues (e.g. government procurement and investment, intellectual property rights, competition policy, trade and labour standards, consumer policy regulation and health protection) which ACP countries are reluctant to address until they are resolved at the WTO.

The ACP countries also emphasize the need to find means of mitigating the loss of income transfers associated preference erosion. The EU has the largest number of, and increasing bilateral trade agreements with other non-ACP countries and regions which erodes away any preferences margins ACP countries enjoy under the preferential arrangement they have with the EU. Preference margins are important for specific products, and given that most ACP (including EAC) countries have high export concentration incidence in a narrow band of export products, erosion of preference margins on such products has serious implications for export earnings.

ACP countries are also negotiating for elimination of the EU's high tariffs, tariff peaks, tariff escalation, and the 'new' generation of non-tariff barriers, also known as technical barriers to trade (TBT), which include stringent rules of origin, sanitary and phytosanitory controls and quality standards. As tariffs have come down through series of unilateral, regional and multilateral liberalisation initiatives, non-tariff barriers gained in prominence. Thus, unless non-tariff barriers are reduced or eliminated where possible, tariff reduction alone will not deliver significant market access. In addition ACP countries are negotiating for support to develop capacity for compliance.

Origin rules are applied to prevent trade deflection and encourage industrial development in the country receiving preferential market access. To attain originating status the party offering preferential access often requires that some level of local production or conversion of imported elements or local ownership (or joint ownership with EU producers) is satisfied. It is these levels that are contentious when they are set at levels that are very demanding (too high), given the state of resource and technology endowments on the part of some ACP countries like Malawi and Tanzania. In general, if the origin rules are stringent they end up being viewed as protectionist which defeats the purpose of preferential market access. ACP countries want simple and flexible origin rules that would allow application of change of tariff heading and value adding methods with low thresholds conducive to generation of jobs in the ACP countries.

A recent study by ODI (2006) established that typical value addition is often very low (much lower than the EU's existing origin rules thresholds), and varies significantly between products and countries. More strikingly, some EU members have lower levels of value addition than developing countries are required to reach to satisfy origin rules. This finding not only seems to suggest a protectionist motive but also questions the spirit of the argument that origin rules are meant to encourage firms undertake processing that is 'commercially normal'.

2.2. Participation in Regional Economic Blocs

Malawi and Tanzania are members of the Southern African Development Community (SADC) established by a treaty signed in 1992.[4] SADC seeks to promote economic integration through intra-regional trade, *inter alia*. SADC has a number of protocols including a trade protocol which guides regional trade liberalisation and policy harmonisation. A free trade area was planned to be launched in 1996 but only took off in 2000 when 11 out of the 14 members ratified the trade protocol (non-ratifiers were Angola, DRC and Seychelles). Asymmetry in trade liberalisation is observed to safeguard industrial development and tariff revenues interests, *inter alia*. Least developed members allowed to liberalised more slowly than more developed members e.g. South Africa and its neighbours Botswana, Lesotho, Namibia and Swaziland (BLNS countries) who are a customs union.

In terms of progress in respect of trade policy developments, substantial progress has been recorded in harmonisation of customs and trade documentation (e.g. certificates of bills of entry and origin rules). Non-tariff barriers have also come down. However, slow progress areas abound. For example, the SADC is not a full free trade area, and obviously not a customs union which it aspires to achieve. Some members are also slow to implementation tariff elimination - members have taken advantage of the provision that tariff reductions may be slowed or halted where it is deemed to be in the interest of the member country. One of the underlying causes of the slow progress is lack of technical capacity to manage trade reforms and deal with its attendant repercussions in constantly changing regional and global economic environments.

Until December 2006, South Africa was not negotiating an EPA with the EU as part of SADC as it had a trade and development cooperation agreement (TDCA) with the EU. In December 2006 the EU accepted South Africa's request to join the rest of SADC in EPA negotiations and in the process 'abandon' the TDCA. Now that South Africa is part of SADC it means that displacement of its exports in Tanzania contributes to 'trade creation' (under the modelling assumption that SADC is generally less efficient than the EU)[5] and not to 'trade diversion' as before, thereby

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[4] The other SADC countries are Angola, Botswana, the Democratic Republic of Congo (DRC), Lesotho, Malawi, Mauritius, Mozambique, Namibia, the Seychelles, South Africa, Swaziland, Zambia and Zimbabwe.

[5] South Africa is in fact equally or more efficient in a number of product lines than the EU as can be evidenced by its dominant import supplier position in the region for unit cost other than just geographic

affecting welfare outcomes, *inter alia*. This is a non-trivial development (considering that South Africa is Tanzania's second most important source of imports after Saudi Arabia (mainly because of petroleum products)) and it is not addressed in all earlier studies. Since Malawi is not negotiating an EPA under the SADC EPA group the presence of South Africa in the SADC EPA group does not affect the extent of import source substitution (trade creation and trade diversion) due to an EPA for Malawi.

Malawi is member of the Common Market for Eastern and Southern Africa (COMESA) which seeks to deepen an expand integration among its membership by adopting general measures of trade liberalisation – by elimination of all tariffs and non-tariff barriers and setting up a customs union, free movement of goods and factors of production, *inter alia*.[6] A COMESA common external tariff (CET) was planned for 2004 but was delayed as members needed more time to consider its implications. A maximum CET of 30% was proposed but this was above national tariffs of most members and members have discussed the possibility of reducing it to avoid reform reversal in the countries with lower maximum applied tariffs. Following a Summit in May 2007 in Nairobi the CET was lowered to 25% to align it to the bands and thresholds in the EAC customs union – a move that is in line with the agenda of continental integration. In terms of progress in other aspects, not all members of COMESA members have joined the bloc's free trade area (FTA).[7] For purposes of negotiating an EPA with the EU, only Eastern and Southern African (ESA)[8] members of COMESA are involved. Others have different arrangements with the EU.

In addition to SADC Tanzania belongs to another regional economic group, the East African Community (EAC) which is already a customs union. The EAC re-

proximity to the countries of the southern and eastern African regions. For lack of detailed unit cost data at the required level of aggregation it was not possible to single out the exact products where the EU is less competitive than South Africa. Import product shares from the two sources could be used but these ignore some fundamentals (unit cost) that could be playing a more significant role explaining those proportions.

[6] Twenty countries make up COMESA: Angola, Burundi, Comoros, Democratic Republic of the Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Namibia, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia and Zimbabwe.

[7] COMESA FTA countries are: Djibouti, Egypt, Kenya, Madagascar, Malawi, Mauritius, Sudan, Zambia and Zimbabwe.

[8] The ESA group comprises 16 countries: Burundi, Comoros, Congo, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Uganda, Zambia and Zimbabwe.

established by the treaty of Arusha (signed in November 1999 and came into force in July 2000) comprises of two other original members Kenya and Uganda, and new members Burundi and Rwanda which acceded in June 2007.[9] Among the six main objectives of the EAC include the desire to promote sustainable growth and equitable development for its members, and some of the areas of cooperation spelt out in the EAC 2001-05 Development Strategy include cooperation on trade liberalisation and development, and relations with other regional and international organisations. The protocol establishing the EAC customs union became effective in January 2005 and through it members undertake to eliminate inter-EAC tariffs and other charges of equivalent effect, eliminate non-tariff barriers, adopt a common external tariff (CET) and rules of origin, *inter alia*. The EAC CET has three escalated tariff bands: 0% (for capital and other goods in which the EAC does not have a comparative advantage); 10% and 25%.

Trade liberalisation in the EAC is asymmetrical to deal with the differences in the state of industrial development, revenue considerations and the general level of development of the members – Kenya is a developing country whereas the rest are least developed countries. Thus, all goods from Tanzania and Uganda are exported to Kenya duty free but some of Kenya's exports to the former two pay duties; Tanzania and Uganda liberalised all trade between each other. All tariffs against Kenya's exports will be eliminated gradually over a five-year period, attaining a free trade area in the EAC from 2010 onwards. Clearly, the EAC has made progress towards trade liberalisation.

Both Malawi and Tanzania belong to more than one regional integration bloc with each bloc seeking to establish a customs union. This poses problems for the countries when dealing with different regional blocs as well as dealing with the EU in EPAs. The different regional blocs have set themselves different technical targets, for example, common external tariffs, origin rules, *inter alia*. Clearly this will pose significant problems for Malawi and Tanzania to comply with different provisions in the different regional blocs. It poses even more serious problems when the EU EPAs come into the picture. The sooner the countries decided to remain in only one customs

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[9] The first EAC treaty was signed in 1967 and lasted until 1977 following some inter-party political and economic problems, *inter alia*.

union area the better it is for improved trade facilitation, signalling policy stances to investment, among other things.

3. A Survey of Empirical Literature

Theoretical analyses of the effects of preferential trading agreements for the case of a small developing country have been offered in a number of articles inspired by Viner (1950). Recent analyses are found in Laird and Yeats (1986), Panagariya (1998), Greenaway and Milner (2000), and Milner, Morrissey and McKay (2005), among others. Rather than dwell on the theoretical intuition the paper concentrates on the growing body of empirical evidence on the likely effects of EPAs on ACP countries in general and the study countries and surrounding regions in particular. Before presenting the empirical evidence it is worthwhile to bear in mind the methodological issues involved.

Introducing reciprocity would have both dynamic and static effects through processes expounded in international trade theories. That is, eliminating tariffs on goods imported from the EU implies that EU exports to EU-ACP EPA signatory countries become cheaper relative to intra-region and extra-region exports, *ceteris paribus*. Consequently, product and factor markets within and between economies would respond to the new price signals and in the process affect production and consumption substitution with implications for tariff revenue and welfare, *inter alia*.

Empirical analyses of the effects of preferential trade arrangements can be conducted using either general equilibrium or partial equilibrium frameworks, the method used being influenced by either data availability (general equilibrium models are data-intensive) or the desired level of detail (e.g. tariff line level for which partial equilibrium models are the most suitable in this respect), *inter alia*. General equilibrium models have the advantage of taking into account the changes taking place in other countries affected by similar policies and also changes in other sectors within a given economy.

Static effects of reciprocity can be more easily analysed as one can focus on specific economies and sectors in isolation, thereby assuming others remaining constant. This

is, however, its major drawback. Nevertheless, the analyses are quite robust and useful for policymaking (Milner *et al*. 2005). Regardless of which approach is taken, measuring the effects of reciprocity is difficult because of the uncertainties over the exact detail of content and implementation hence, the need to interpret such conclusions with caution because of this and methodological reasons.

Table 3.1 summarizes some of the studies of both dynamic and static effects of liberalisation. Studies analyzing dynamic effects are denoted by 'e' and 'f'; static effects studies are denoted by 'c' and 'g'; those that covered both are denoted by 'a'. The studies have been concerned with determining the gains and losses to the ACP countries in respect of trade created, trade diverted, tariff revenue and welfare effects. Except for a few studies the analyses have focused at the aggregate sector and economy level. Most of the studies find trade impact of EPA is likely to be broadly positive (that is, trade creation to outweigh trade diversion), there will be negative fiscal effects and net welfare losses to some countries but gains to others.

[Table 3.1 About Here]

McKay *et al.* (2000) and Milner *et al*. (2005) considered the possibility of an EPA between the EU and the East African Community (EAC) and concluded that trade diversion with the EAC would negate not only the integration efforts but would at the same time accelerate de-industrialisation. Furthermore, the study found that Kenya would significantly lose its Tanzanian and Ugandan markets. Busse *et al.* (2004)'s study on the potential impacts of EPA on ECOWAS countries found that ECOWAS countries would experience an absolute decline of US$2.2 million. This includes, for instance, US$487.8 million in Nigeria and loss of tariff revenue of up to 20% for Gambia and 80% in Cape Verde.

Tekere and Ndlela (2003) examined the effects of SADC-EU EPA on SADC countries using partial equilibrium analysis and showed that EPA would lead to significant loss of government tax revenue given the significant imports from EU to these countries. The study showed that Tanzania and Namibia may incur loss of up to 37% and 24% decline in tariff revenue, respectively. However, the study also showed that trade creation would outweigh trade diversion effects. Trade diversion in

Tanzania is estimated at US$79 million. Keck and Piermartini (2005) used a CGE model of 15 regions and 9 sectors within the GTAP framework to simulate the impact of EPAs for SADC countries. Their simulation results showed that an EPA with EU will be welfare-enhancing given the increase in real GDP and further gains through increased intra-SADC liberalisation. Most gains will occur in such sectors as animal agriculture and food processing.

All studies agree that tariff revenue losses will be substantial for both countries. Karingi *et al*. (2005) report welfare gains to Malawi (US$2.1 million) and Tanzania (US$8.2 million). In contrast as is shown in Section 6 our study finds significant trade diversion effects outweighing trade creation and in the process fashioning tariff revenue and net welfare losses to both Malawi and Tanzania. It seems plausible that for small economies with insignificant intra-regional trade and heavily dependent on the rest of the world more than they depend on the EU for imports, there are relatively small opportunities for new trade to be created but larger opportunities for switching the sources (i.e. trade diversion) of imports from non-EU to EU producers when relative prices change, *ceteris paribus*.

4. Patterns of Imports and Tariff revenue

The structure of imports of the two countries is reported in table 4.1. The total imports in both countries represent important shares in gross domestic product (GDP); 44% for Malawi and Tanzania's share of 13% which is less than the average for ACP countries of 25%. Both countries recorded high concentration of imports in a few commodities; 5% of 3,609 six-digit Harmonized System (HS) tariff lines accounted for 73% of Malawi's imports, and 72% of Tanzania's imports involved 5% of 4,236 six-digit HS tariff lines.

Tanzania has a higher proportion of imports from the EU (22%) than Malawi (12%) which could mean that Tanzania is more susceptible to the effects of reciprocity than Malawi, *ceteris paribus*. The rest of the world (RoW) is the most important source of imports for both countries. The main RoW countries (for purposes of an EPA) for Tanzania are Kenya, Saudi Arabia, while South Africa (outside the ESA group) is Malawi's single most important imports supplier. South Africa and Kenya have

comparative advantages in a number of products exported within the regions and beyond, and given their proximity (i.e. lower transport costs) to Malawi and Tanzania, respectively, *vis-à-vis* the EU displacement of the exports to Malawi and Tanzania will be welfare-lowering in the two countries.

[Table 4.1 About Here]

For both countries large shares of imports entered at zero rather low rates of tariffs; 91% of Malawi's and 63% of Tanzania's imports from the EU were subjected to tariffs less than 10%. This indicates that the effect of reciprocity on imports and tariff revenue from the EU will be less dramatic, *ceteris paribus*. However, the relative importance of the rest of the world (RoW) as the major source of imports (and tariff revenue) means that there will be greater trade diversion (and its attendant effects) than trade creation, *ceteris paribus* (e.g. for given degree of substitution of products from the EU *vis-à-vis* the RoW).

Table 4.2 shows that although large proportions of all types of imports were subjected to low tariffs (less than 10%), there is some evidence of tariff escalation especially for Tanzania 45% of final goods faced moderate to high tariffs. Some of the tariff lines with high tariffs can be considered good candidates for the list of sensitive products. The total import values across different types of imports show that for both countries large shares of imports are for further use in production either as capital goods, raw materials and intermediate goods.

A further examination of the imports data showed that the largest shares of imports of all categories were imported from the RoW for both countries. The EU out-supplied the regions (ESA and SADC) in which the countries' are negotiating EPAs for all categories of imports except, raw materials and intermediate goods for Malawi and raw materials for Tanzania. The ESA and SADC regions boasts some comparative advantage in the supply of raw materials and intermediate goods used in the countries' industries most of which are engaged in agro-processing. The EPA-driven loss of intra-region trade in raw materials and intermediate goods in which the countries and the regions truly have comparative advantage will have a negative impact on production, employment and welfare. Reciprocity is likely to increase EU's supply of more efficiently produced capital, intermediate final goods which will be recorded as

trade creation. Reciprocity will also lead to diversion of these goods from the RoW to the EU.

[Table 4.2 About Here]

Tariff revenue accounted for significant proportions of international trade tax revenue and total fiscal revenue. Malawi's tariff revenue of 3,044.2 million Malawi Kwacha (MK) (the equivalent of US$39.7 million at 2003 prices) represented 21% of trade tax revenue and 8% of total fiscal revenue. Tanzania's tariff revenue collections of 106.04 billion Tanzanian Shillings (TZSH) (the equivalent of US$97.3 million at 2004 prices) accounted for higher shares: 26% of trade tax revenue and 10% of total fiscal revenue. Trade tax revenue accounted for 41% of total fiscal revenue in Tanzania and 39% in Malawi. This shows total taxes on international trade represent a significant element of the countries' fiscal revenue base. However, given that tariff revenue represents between 21% and 26% in total international trade tax revenue suggests a heavy use of non-tariff means of trade taxation and therefore the 'damage' from reciprocity while important will be less than it could otherwise be.

Tariff revenues on imports from the EU accounted for just 5% of total tariff revenue in Malawi but a relatively significant proportion of 18% in Tanzania. Thus, Tanzania's tariff revenue base looks likely to be more negatively affected by tariff liberalization than Malawi's, *ceteris paribus*. For both countries, imports from the rest of world generated the largest shares of tariff revenue, and this means that greatest impact on tariff revenue is likely to be associated with import source switch away from MFN tariff-paying RoW to duty-free EU sources in the EPAs. Only Tanzania collects non-negligible tariff revenue on imports from regional (SADC) partners; tariff revenue on imports from SADC partners accounted for 12% of its tariff revenue – SADC is not fully liberalized.

ESA and SADC countries have significant production and intra-region export interests in food and beverages, textiles, paper and paper products, trailers and semi-trailers (from South Africa), chemicals and chemical products (from South Africa). This means that their displacement in an EPA would have a negative impact on some

of the important commodities for intra-region trade. Such products would therefore be potential candidates for the 'sensitive products' list.

5. The Model

EPAs will bear both static and dynamic effects within and between the countries involved. The first-best modelling framework for this purpose is the general equilibrium model. One of the popular general equilibrium models applied in such analyses is the General Trade Analysis Project (GTAP) which is a multi-product and multi-country computable general equilibrium (CGE) model. However, due to lack of data disaggregation the majority of African countries are not captured (Karingi, *et al*. 2005). This means that within a regional trade bloc there could be some countries whose information is lumped together as 'rest of the bloc'; obviously one cannot adequately take into account 'second round' intra-regional effects in GTAP models where this problem exists. Milner *et al*. (2005) correctly points out that the database for CGEs lacks commodity detail to take account of the specific sensitive and special products of special interest to both ACP countries and the EU in the context of EPAs. The level of detail (six-digit HS tariff line) that this study deals with clearly renders CGEs unsuitable.

In light of the above problems this study uses a partial equilibrium model as they are not data-intensive, and just like CGEs are versatile to capture static effects on import, tariff revenue and welfare.   The major shortcoming of the partial equilibrium models is they cannot measure the dynamic effects or second-round effects such as interactions between sectors, macroeconomic adjustments, *inter alia*. A couple of partial equilibrium models have been used in empirical trade analyses; for example, the WITS/SMART model applied in Karingi *et al*. (2005) and the Milner *et al*. (2005) model. Both models have the same Vinerian theoretical model. This study follows the recently published Milner *et al*. (2005) model which builds on Greenaway and Milner (2002) but we provide generalizations for the measurement of the effects where there is more than one episode of tariff reduction. Import and tariff revenue effects are principally measured in the same way in both models, but welfare effects in Karingi *et al*. (2005) captures welfare associated with consumption effects only, and is therefore

predictably positive. In Milner *et al.* (2005) welfare effects is as expected an ambiguous result of the summation of, on one hand, welfare-raising effects of increased consumption of cheaper imports and resource-saving import source substitution from the inefficient regional partners to the more efficient EU producers, and, on the other hand, welfare effects due to resource-loss from import source substitution away from the least-cost producers in the rest of the world to relatively inefficient EU producers.

Milner *et al.* (2005) examine the EPA effects for the case of a small home country *j* which is a member of an initial two-country preferential trading area (PTA). Markets are assumed to be perfectly competitive and country *j*'s domestically produced import substitutes are treated as perfect substitutes of imports and there is also perfect substitutability between imports from alternative outside sources (in this case the EU and the rest of the world). In this PTA the partner country supplies *j* at increasing cost conditions while the outside countries (the EU and RoW) supply using different constant cost technologies with the RoW being the least-cost producer. Figure 1 illustrates the impact of reciprocity.

Country *j*'s demand for imports is represented by the line D_j, and the PTA supplies (export) to country *j* along the line S_{PTA}. Free trade supply conditions for the RoW are shown by the line S_{RoW} (a free trade supply schedule for the EU lies anywhere above S_{RoW}). Under non-free trade conditions country *j* imposes most-favoured-nation (MFN) tariff rates on imports from the EU and RoW, thus $P_{EU}^t = P_{EU}(1 + t^{MFN})$ and $P_{RoW}^t = P_{RoW}(1 + t^{MFN})$. Initial cost conditions ensure that $P_{ROW}^t < P_{EU}^t$ (for expositional simplicity we do not show P_{EU}^t in the graph). This price differential will bear both trade creating and trade diverting effects if country *j* adopted discriminatory 'preferential' trade policies towards the EU. The relevant tariff-inclusive supply line is S_{RoW}^t and the resulting total imports for country *j* is $0M_2$, being the sum of imports $0M_1$ from the PTA and M_1M_2 from RoW. Country *j* supply capability is ruled out for simplicity and therefore we can study welfare effects in country *j* using

consumers' surplus with respect to the import demand schedule D_j given as area of the triangle ABP^t_{RoW} plus the tariff revenue on extra-regional imports (area $(a+b)$).

[Figure 1 – about here]

Now assume country j and its PTA partners enter an EPA with the EU in which imports from the EU enter the PTA duty free. Imports from the rest of the world (RoW) continue to be subjected to import tariffs. Suppose the EPA reduces the price of imports from the EU to a level such as P_{EU} lying anywhere below P^t_{RoW} (but above free trade P_{RoW}). Post EPA P_{EU} becomes the relevant supply line which allows total imports to expand from $0M_2$ to $0M_3$ and all of that comes from the EU only. Total import volume can be broken into three distinct components, namely, the increase in import volume M_2M_3 which is a pure consumption expansion effect; M_1M_2 diverted from the RoW, and $0M_1$ displaced from the PTA. In technical terms $0M_1$ represents 'trade creation' arising from the displacement of relatively inefficiently produced PTA goods by the relatively efficiently produced EU goods (though the EU is not the most efficient globally). M_1M_2 is 'trade diversion' as it represents the volume of imports from the relatively inefficient EU producers displacing imports from the relatively efficient (least constant cost) RoW producers (this is diversion between extra-regional suppliers).

At the price level P_{EU} there is a resource loss equal to the potential maximum tariff revenue $(a+b)$ as imports from the EU enter duty free. 'Trade creation' brings about a global resource-saving effect given by area c and relocation of producers' surplus area d in the PTA to consumers both of which increase consumers' surplus by area $(c+d)$. Adding together the welfare-increasing expansion in consumer's surplus, pure consumption effect (area e) and 'trade creation' on one hand, and on the other hand welfare-decreasing trade diversion effects, that is, $(c+d+e-b)$, means that the net welfare effect is ambiguous, depending on the relative strengths of either force. It is clear that the more efficient the EU is the smaller the trade diversion and hence the greater the probability of a welfare-improving EPA, other things remaining the same.

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The import, tariff revenue and welfare effects outlined above can be estimated as set out below. The consumption effect component of import effects can be measured using the elasticity of import demand function – in this case the changes in the import prices are assumed to be caused by changes in *ad valorem* import tariffs:

$$\Delta M_C = \left(\frac{-t_n^{EU}}{1+t_n^{EU}} \right).e_M^D.M_n^{EU} \tag{1}$$

where t_n^{EU} is the MFN tariff rate imposed on imports from the EU in the present period n, e_M^D is elasticity of demand for imports, M_n^{EU} is imports from EU.

Import source substitution effects can be estimated using an imperfect substitution approach:

$$\Delta M^k = \left(\frac{-t_n^{EU}}{1+t_n^{EU}} \right).\sigma_k^{EU}.M_n^k \tag{2}$$

where $0 \le \sigma_k^{EU} \le 1$ is elasticity of substitution between imports from the EU and those from the PTA (k = PTA, in which case equation (2) measures welfare-raising switching of imports from relatively less efficient suppliers from the PTA to more efficient suppliers from the EU); and from the rest of the world (k = RoW, here equation (2) captures welfare-lowering switch of source between relatively less efficient EU and the relatively more efficient RoW)[10], and M^k is the quantity of imports from region k. Source substitution away from the PTA or RoW implies that $\Delta M^k \le 0$.

The total tariff revenue effect can be estimated as the summation of tariff revenue losses due to removal of tariffs on existing imports from the EU, and tariff revenue

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[10] There can be high but not perfect substitution between goods from different sources because of differences in technology endowments, product differentiation, market imperfections including imperfect price transmission. Allowing for less than perfect substitution in empirical work reduces the risk of bias. Milner et al. (2005) argue that one can assume perfect substitution given the large and diverse production structures of EU and RoW, competitive and product homogeneity in agriculture and primary products are appropriate, and where a high level of disaggregation is used in empirical analysis.

lost on imports shifted from the tariff-paying PTA and RoW sources to EU sources which face a tariff t_n^{EU}. This can represented as:

$$\Delta R = t_n^{EU}\left(- M_n^{EU} + \Delta M^{PTA} + \Delta M^{RoW}\right)$$ (3)

The welfare effects associated with the import and revenue effects are estimated using the expression:

$$\Delta W = t_n^{EU}\left(\tfrac{1}{2}.\Delta M_C \quad + \quad \Delta M^{PTA} \quad + \quad \Delta M^{RoW}\right)$$ (4)

where the first term captures the welfare-raising effects of consumption effects due to cheaper duty-free prices; the second term measures the welfare-improving effects of import source substitution away from the relatively inefficient preference-receiving regional partners to the relatively efficient EU producers; and, the last term captures the welfare-reducing effect of import source substitution away from the least-cost producers from the rest of the world to the preference-receiving EU producers.

6. Empirical Results

The methodology set out in Section 5 was applied to six-digit HS import and effective tariff[11] data for 2003 and 2004 for Malawi and Tanzania, respectively. The data were provided by the statistical offices in the two countries. Import data were later checked for consistency with data available from the World Bank. We also used country-specific trade elasticities (import demand and substitution elasticities) estimated by the World Bank (2005), and augmented by further information from Hertel (1997) and Stern *et al*. (1976). Import, tariff revenue and welfare effects were estimated at six-digit tariff line level and aggregated for final reporting purposes at either ISIC two-digit or the broad sectors (agriculture, fishing, mining and quarrying and manufacturing).[12] Summary result tables presented in the main text are extracted from the detailed tables set out in appendix A; tables A1 through A6.

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[11] Also termed "import duty collection rates" or "ex post tariffs" that take into account exemptions, etc.
[12] Six-digit HS level results were circulated to policymakers in both countries to guide them in the construction of lists of sensitive products on the bases of the effects in addition to other considerations deemed important.

The empirical results come in two sets, namely, effects of instantaneous tariff elimination imposed for all products and only non-sensitive products, and effects of phased tariff elimination. The changes follow the tariff reduction scheduling made by both countries to SADC in fulfilment of Article 4 ("Elimination of Import Duties") of the SADC Protocol on trade in goods. The lists of tariff reduction offers to SADC may differ from those submitted for purposes of EPA negotiations. In the absence of lists for EPA negotiations the submissions to SADC serve, however, as reasonable first approximations of the sensitive products in EPA negotiations.[13]

6.1. Imports of Sensitive Products

Table 6.1 shows that for Malawi imports of sensitive products from the EU represented 19% of total imports, but only 8% of bilateral trade (imports plus exports) between the EU and Malawi. The respective shares for Tanzania were 20% of imports and 5% of bilateral trade. The implied 'substantially all trade' (that is, percentage of non-sensitive imports in bilateral trade) available for liberalization (on the basis of the tariff reduction offers the countries made to the SADC) would be substantial for both countries; proportions of 92% and 95% for Malawi and Tanzania, respectively, using 2003 and 2004 as base years. Clearly, both countries have room to increase the number of sensitive tariff lines to reduce the proportion of trade available for liberalisation to some proportion not exceeding 80% - which is what South Africa, a more advanced country, used in its trade and development cooperation with the EU.

[Table 6.1 About Here]

6.2. Import Effects

Tables 6.2 through 6.4 report the import effects of instantaneous elimination of tariffs on imports from the EU. Table 6.2 shows that Malawi's imports will increase by 5,962.454 million Malawi Kwacha (MK) over 2003 imports of MK9,239.989 million if tariffs on all imports are eliminated. This represents a 65% increase. Excluding

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[13] As noted already, the lists of offers to SADC together with the lists prepared at an earlier stage of this study (showing the likely EPA effects at tariff line level) are currently being used in both countries to determine offers to the countries' regional EPA-groups to which they belong for EPA negotiations.

sensitive products leads to a relatively smaller increase by MK3,782.66 million or 41%. The bulk of the overall increase, however, is due to source substitution from the rest of the world (MK5,405.9 million representing 9%); the increase from regional sources (which represents losses by ESA exporters to Malawi) stands at MK345.7 million – or US$4.51 million - representing 4%. Karingi *et al.* (2005, p65) estimate higher trade creation of US$15.12 million for Malawi but like this study trade creation will be far less than trade diversion from the rest of the world (MK5,405.9 million). The 'new' imports of MK210.9 million (if all products are included) represent a small proportion of 0.3% over existing total imports (MK76,650.1 million); the proportion is even smaller at 0.1% if sensitive products are excluded.

Estimates for Tanzania show a similar pattern. For example, table 6.3 reports that Tanzania's imports from the EU will increase by 79% (or 275,990.9 million Tanzanian Shillings (TZSH) relative to existing 2004 imports from the EU worth TZSH 349,146.2 million at 2004 prices) with sensitive products included but by a lower proportion of 46% if sensitive products are excluded. Like for Malawi, a large proportion of this increase will be due to substitution away from existing sources in the region (here SADC's export losses to Tanzania worth TZSH 27,833.1 million) and the rest of the world (estimated at TZSH227,258.4 million which represents costly trade diversion) rather than additional new trade (estimated at TZSH20,899.5 million). Imports rise by only 1% for both cases. Like in the case of Malawi, Karingi *et al.* (2005)'s estimates of trade creation for Tanzania are optimistic – US$63.5 million - but more importantly Karingi *et al.* (2005) also estimate that trade diversion will be greater than trade creation.

Import effects according to broad product category are recorded in table 6.4. For both countries, the absolute values show that large proportions of consumption effects and trade diversion will concern capital goods, whilst for trade creation intermediate and final goods will account for the largest shares. Raw materials (most of which are duty-free) will be the least affected in relation to the other products. In relation to existing imports from the EU, final goods (135%) and raw materials (120%) will record the largest growth for Tanzania, while for Malawi the largest growth will be of raw materials (119%) and intermediate goods (86%).

[Table 6.2 About Here]

[Table 6.3 About Here]

[Table 6.4 About Here]

The estimated displacement of imports from ESA and SADC are smaller than displacements from the rest of the world, but they are significant from the contexts of the existing intra-regional trade flows and specific sectors affected in both countries. The products with significant domestic and intra-region production and export interest in this context (with high increases in absolute terms and relative to pre-EPA levels) include tobacco and tobacco products (363% import rise in Tanzania); food products and beverages; fish and fish products; textiles; chemicals and chemical products (especially for Tanzania); wearing apparel and dressing; footwear, luggage, handbags, leather dressing; and rubber and plastic products (see appendix tables A1 and A2).

Also noteworthy from the results is the significant reduction in the overall effect on Tanzania's agricultural imports if sensitive products are excluded from EPA liberalisation (from MK0.247 million to MK0.003 million, and TZSH4,489.2 million to TZSH739.0 million). Like with other commodities the largest share of agricultural imports increase will be due to switches away from RoW to the EU; where EU producers receive domestic support and export subsidies this would be clearly welfare-lowering. Thus the large reduction in the overall effect as a result of excluding sensitive products can be seen as not only welfare-improving but also useful to allow the development of unsubsidized agricultural production in the both countries and their regions.

Tables B1 (for Malawi) and B2 (for Tanzania) in appendix B report HS six-digit tariff lines with effective tariffs of not less than 20% showing the largest overall import increase in columns (b) and (c), trade creation (or displaced regional exports in columns d and e) and trade diversion (displaced exports from the rest of the world in columns f and g). Displacement of regional (ESA or SADC) exports in Malawi and Tanzania does not auger well with the pursuit of stronger regional integration, whereas displacement of exports from the rest of the world has welfare-lowering

implications as more efficiently produced products from the rest of the world are displaced by less efficiently produced products from the EU. Policy makers could use all the three columns to review their lists of sensitive products including some of the listed products based on the severity of the effects, given their high tariffs (not less than 20%). Appendix D provides a full description of the HS codes (albeit for lack of space we provide two-digit level descriptions and with a website link where six-digit description can be found). Nevertheless, using the HS two-digit description we can tell the narrower description of, for example, HS six-digit code 630900 in table B1 as falling under Chapter 63 using the first two digits.

6.3. Tariff Revenue Effects

Existing (and new) imports from the EU are duty-free post full EPA. Consequently there is a 100% loss of tariff revenue on all non-sensitive imports from the EU for the case of instantaneous tariff removal - see tables 6.5 and 6.6. Further revenue losses by margins of 11% (Malawi) and 25% (Tanzania) are recorded on imports switched from regional suppliers (subjected to preferential tariffs). The respective Malawian and Tanzanian margins of revenue loss on imports switched away from the rest of the world (previously charged MFN tariffs) are estimated at 21% and 44%. The bulk of the imports involved in both cases are manufacturing products – effects on agricultural imports are important in Tanzania.

Tanzania records a substantial overall tariff revenue loss by 52%, being a reduction by TZSH54,811.3 million or the equivalent of US$50.317 million (if all products are treated as non-sensitive) on the existing amount of TZSH106,039.3 million. Tekere *et al*. (2003) using a different year's data estimated that the Government of Tanzania's tariff revenue fall by a smaller margin of 37%. A smaller (but still significant) fall by 24% was recorded for Namibia by Tekere *et al*. (2003). Malawi records a comparatively smaller (26%) fall by MK776.6 million (or US$10.127 million) – Karingi *et al*. (2005) predicted smaller 'optimistic' tariff revenue losses of US$ 7.09 million for Malawi and US$32.49 million for Tanzania. For both Malawi and Tanzania these are substantial losses of what is a significant element in the governments' overall tax revenue.

For both countries the losses are nearly halved (down to 30% and 14%) if sensitive products are modelled. The heavier rate of tariff revenue loss for Tanzania than Malawi's is partly because of its higher tax incidence on imports from the EU – Tanzania has a larger proportion (20%) of its imports from the EU charged applied tariff rates of '10%+above' than Malawi's 5%. It is not surprising that the middle-level tariffs unlike the highest tariffs are associated with the largest total effects since the latter are so restrictive that there are few imports on which to collect the tax. This has implications for determining the list of sensitive products. Stevens and Kennan (2005) point out that if countries choose to exclude from liberalisation only their highest-tariff items, they may find that they have to liberalise on their key revenue-generating items. Thus some products with medium-level tariffs would be considered as well.

In line with the import effects, large revenue effects are estimated to occur in these sectors: food products and beverages, motor vehicles, electrical machinery, machinery and equipment, textiles, and rubber and plastic products if all products are modeled (see appendix table A3). The sectors contributing the largest reductions to tariff revenue losses (hence, seen as some of the major sensitive sectors) are motor vehicles, textiles and food products and beverages if sensitive products are excluded; motor vehicles being listed as sensitive for revenue generation reasons, and the other two for the infant industry protection argument. Tables C1 and C2 in appendix C report some of the HS six-digit products with effective tariffs of not less than 20% showing the largest total revenue effects under conditions where all tariff lines are included. The lists provide policy makers with valuable information to use to review the countries' lists of 'sensitive' products by taking into account the likely tariff-line level total revenue effects of reciprocity of duty free treatment of trade between each of the countries and the EU.

After almost two decades of import tariff reforms there is a heavier reliance on alternative non-tariff instruments of foreign trade taxation in both countries as shown in Section 4. The above revenue losses increase the pressure on these non-tariff instruments. However, as part of the drive to free trade flows with the EU and indeed in the WTO context non-tariff instruments of trade taxation are increasingly becoming the subject of reforms. The fiscal revenue implications for both countries will undoubtedly be significant. That will require shifting the tax base from trade to non-trade activities particularly those activities that could also be revenue-neutral or revenue-enhancing.

Examples of non-tariff instruments which would assume greater importance in revenue generation include value-added tax (VAT) and excise taxes charged on increased imports from the EU, among other commodities. VAT systems are in their infancy stage in both countries, there are possible other fiscal revenue sources that can be mounted, and in any case revenue generation from the taxation systems in place is not at its optimal level due to lack of resources. All these require resources which Milner (2005) estimates to be €40 million for Malawi and €70 million for Tanzania in fiscal adjustment costs; the ESA region would require €825 million while SADC would require €340 million. It is in the best interest of ACP countries that such and other fiscal reform initiatives are firmly in place before full implementation of reciprocity. Fiscal reforms could involve initiatives to broadening the tax base, redress major shortcomings in tax administration through investment in human resource and information technology, modernizing collection and audit procedures, creating a tax compliant culture, and strengthening the institutional framework for tax enforcement. Detailed analyses of the design, scale and implementation of the fiscal reform programs are beyond the scope of this study.

[Table 6.5 About Here]

[Table 6.6 About Here]

6.4. Welfare Effects

Welfare effects are reported in table 6.7. The study estimates net welfare losses of MK792.866 million in Malawi and TZSH29,003.1 million in Tanzania. The losses are mainly influenced by the relatively large substitution of imports away from the lowest cost producer RoW to the EU outweighing the welfare-raising consumption effects of MK13.957 million and TZSH34,628.2 million (due to cheaper duty-free imports from the EU) and substitution away from the relatively high cost regional producers (relative to EU producers) worth MK61.826 million at 2003 prices and TZSH3,917.6 million at 2004 values in Malawi and Tanzania, respectively. Excluding sensitive products significantly reduces net welfare loss but there will still be net welfare losses of MK426.436 million in Malawi and TZSH14,438.9 million in Tanzania. Karingi *et al*. (2005) report that reciprocity will bring welfare gains to Malawians estimated at US$2.106 million and US$8.18 million to Tanzanians. As stated Section 4.1, this finding is based on welfare effects associated with consumption effects only which in our study is estimated to be a small equivalent US$ value of US$0.2 million for Malawi and US$1.6 million for Tanzania mainly

because of the limited scale of trade creation that reciprocity will bring about for Malawi.

From appendix tables A5 and A6 some of the major net welfare losses are recorded for food products and beverages, motor vehicles, electrical machinery, and footwear, luggage and handbags in Tanzania; textiles, motor vehicles, rubber and plastic products, machinery and equipment, and footwear, luggage and handbags in Malawi.

Both countries record welfare losses irrespective of whether sensitive products are excluded or not, but excluding sensitive products does reduce the severity of net welfare losses. Net welfare losses are largely the result of significant substitution of manufacturing imports (and associated tariff revenues) away from 'least' cost producers (the rest of the world) to relatively high-cost preferential EU producers. This source substitution-induced net welfare loss outweighs the welfare benefits from cheaper duty-free imports from the EU and displaced imports from the regions that are produced at a relatively higher cost than do EU suppliers. There are of course other welfare-related effects of reciprocity (e.g. implications for production and employment, etc) but these have not been estimated in this study because of data constraints. In addition to the export diversification and fiscal adjustment costs of EPAs in ACP countries, Milner (2005) also estimates the level of assistance towards 'production and employment' (P&E) adjustment and 'skills development and productivity' (SD&P) enhancement. The respective amounts of adjustment assistance for P&E and SD&P are €20 million and €30 million for Malawi, €40 million and €65 million for Tanzania.[14]

6.5. Relative Significance of the Effects of Reciprocity and Sensitivity Analysis

Table 5.7 summarises the importance of the import, tariff revenue and net welfare effects in relation to gross domestic product (GDP) in the Malawian and Tanzanian economies. Liberalising all products including sensitive products leads to additional imports that are the equivalent of 0.1% and 0.2% of Malawi's (MK173,468.4 million)

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[14] The respective estimated amounts of P&E adjustment assistance for ESA and SADC are €415 million and €217 million, while SD&P would require an estimated €695 million and €255 million. The grand total for adjustment assistance required by ACP countries is estimated at €8,995 million.

and Tanzania's (TZSH12,321,156.7 million) current prices GDP, respectively. Exclusion of sensitive products has some discernible effect in Tanzania but not in Malawi where the ratio remains about the same. On this count reciprocity will have almost the same effect in both countries whether sensitive products are excluded or not. As for the other measures, however, Malawi is likely to recorder greater import source substitution to the EU from non-EU sources and greater net welfare losses in relation to GDP than Tanzania, other things being equal. Tanzania's effects in tariff revenue losses will be almost twice as much as Malawi's losses in relation to pre-EPA tariff revenue. However, in relation to GDP both countries will record almost the same shares of tariff revenue losses.

Given data reliability and methodological concerns the study estimated lower and upper bounds measures around the main results presented in the paper. Lower and upper bound estimates were derived by assuming that the true trade elasticities were perhaps 10% lower or 10% higher than the ones used here. Table 6.9 reports sensitivity results where all products are subject to EPA liberalisation. Reducing trade elasticities by 10% reduces estimates by between 6% and 8% for Malawi and by between 9% and 5% for Tanzania; the respective margins when trade elasticities are raised by 10% are 8% and 5% for Malawi and 8% and 4% for Tanzania. A 10% margin of error can be argued to be conservative and sensible and the resulting deviations from the middle ground results are generally insignificant, thus the middle ground estimates could be within sight of the potential sizes.

7. Conclusions and Implications

The study has applied a partial equilibrium methodology to estimate the likely import, tariff revenue and welfare implications for Malawi and Tanzania of reciprocating the EU's zero tariffs on a wide range of goods imported from the EU in an EPA. The analyses are conducted at the six-digit level of HS trade data; results at this level of disaggregation have already provided a useful contribution to the ongoing work by policymakers in both countries to determine lists of sensitive products for the EPA based on the severity of the effects, among other considerations.

The study's major conclusions are that both countries are likely to record relatively small increases in total imports over the existing levels, but there will be significant import source substitution away from the relatively high-cost producers from their EPA groups and least-cost producers in the rest of the world to EU producers. Manufacturing imports account for the bulk of the import effects in terms of both additional import increases from the EU and substitution away from non-EU sources. The EPA-induced import increases, however, will add pressure on the domestic industries which have already been subjected to significant episodes of unilateral liberalisation (under the structural adjustment programs) and regional liberalisation. Where new trade will be created the import-competition implications will be significant for the specific sectors affected. The affected sectors include tobacco and tobacco products; food products and beverages; fish and fish products; textiles; wearing apparel and dressing; footwear, luggage, handbags, leather dressing; and rubber and plastic products. Interestingly, these are some of the sectors which the countries and ESA and SADC regions recognise they have the potential to develop competitive production to meet regional import demands and for extra-regional exports. Unless these and other similar sectors are provided with support (an enabling environment) to increase production and realise their export potential, it is likely that these import-competing sectors will be undermined by strong competition posed by tariff-free imports from the EU post-EPA.

The displacement of ESA's and SADC exports to Malawi and Tanzania, respectively, can be seen as adding on to the problems which undermine intra-regional trade and regional integration in the ESA and SADC regions. Nevertheless, we need to recognise that the depth of regional integration is fashioned by other non-EPA related factors; small market sizes, physical geographic bottlenecks (e.g. Malawi), lack of or under-developed basic and trade-related infrastructure, overdependence on foreign aid, foreign countries dominance, unrealistic schedules, uneven benefits and political instability (Faber, 2005). Stevens (2006) points out that real integration could be less likely because of a number of factors, for example, wide differences in initial positions (e.g., with respect to tariffs charged on imports from the EU) within EPA negotiating regions which means that harmonisation of approach between ACP states will take a lot of time. This could be compounded by the current situation where it is unclear whether the EU achieves a single liberalisation scheduled to be applied by all

ACP states in each EPA group. Some of the above are clearly areas where the countries need support, for example, aid-for-trade and trade facilitation which are also under negotiation at the WTO in the Doha Round. Channelling some of the EU's EDF resources to export diversification and trade facilitation will usefully address some of the above sources of trade costs, and thus support regional integration.

Furthermore, the study finds that reciprocity will lead to the loss of tariff revenues, a source of revenue which contribute a significant proportion in fiscal resources in both countries. The countries will need support to undertake fiscal reforms to replace any reciprocity-induced tariff revenue losses. The fiscal reforms should entail shifting the emphasis from trade to non-trade tax sources, improving the efficiency of fiscal revenue collecting machinery, *inter alia*. Examples of non-tariff instruments which would assume greater importance in revenue generation include value-added tax (VAT) and excise taxes charged on increased imports from the EU, among other commodities. VAT systems are in their infancy stage in both countries, and there are possible other fiscal revenue sources that can be mounted. In any case revenue generation from the taxation systems in place is not at its optimal level due to lack of resources. Due to the high sensitivity of tariff revenue collections to tariff reductions, it is in the best interest of ACP countries that fiscal reforms are firmly in place before full implementation of reciprocity. Fiscal reforms should aim to broaden the tax base, redress major shortcomings in tax administration through investment in human resource and information technology, modernising collection and audit procedures, creating a tax compliant culture, and strengthening the institutional framework for tax enforcement.

We also find that both countries will record welfare losses irrespective of whether sensitive products are excluded or not. Excluding sensitive products does, however, reduce the severity of net welfare losses. Net welfare losses are largely the result of significant trade diversion effects which swamp the welfare-raising effects of consumption effects (from cheaper prices) and resource-saving trade creation effects. Further adjustment costs are expected to arise from losses of employment and wages, *inter alia*. One way of addressing costs related to employment displacement is to undertake production and employment adjustment programmes and workers skill development and productivity enhancement programmes. These would facilitate

relocation of labour into expanding production sectors. Support for such programmes should be negotiated with the EU. Further observations may be made as below.

The paper has shown that for both countries reciprocity will have significant negative implications domestically and regionally (through reduced exports from regional partners). It is often suggested that when faced with this situation the concerned least developed ACP countries should not enter EPAs but instead opt for the EU's *Everything But* Arms (EBA) in addition to the EU's Generalised System of Preferences (GSP). However, as pointed out in Section 2.1 the EBA is inferior to the EPA in many respects (e.g. does not come with financial aid). EPA signatories will avail of the financial assistance under the EPAs to help resolve some supply side shortcomings which undermine the export potential of some least developed countries. In the final analysis, however, policy makers have to undertake a careful examination of the advantages and disadvantages of EPA and EBA to decide on which option to take. Unfortunately that lies outside the scope of this paper.

The EPA-supported policy reforms will be seen as more credible than if they were unilateral. Through commitments to EPA liberalisation the Malawi and Tanzania countries can overcome 'time inconsistency' and provide credible signals to economic actors (e.g. investors) about the economic policy preferences and the condition of the economies, *inter alia*. These are important as they reduce incentives for policy reform reversals (i.e. deviation from 'first-best' policy) in the face of politically sensitive short-term effects. Binding commitments make withdrawal or policy reversal costly, as it will be followed by loss of market access in the partner countries, among other things. A credible policy reform is one of the important factors for stimulating foreign direct investment which some developing countries find difficult to attract.

EPAs are discriminatory and thus entail costly substitution of imports away from least-cost suppliers to the preferential relatively high cost suppliers. In principle costly trade diversion tendencies can be minimised by extending similar preferential treatment to other trade partners than just the EU. To this end the countries could enter preferential trade arrangements with some of their important trade partners currently treated as part of the 'rest of the world' – for example, the United States, China and Japan. Of course some preferential arrangements could come at the

expense of tariff revenue, amongst other things, which need to be taken into consideration.

Liberalising trade multilaterally offers an avenue for minimising trade diversion and its attendant tariff revenue and welfare losses. Zgovu and Milner (2007) show that multilateral trade liberalisation at WTO can also be welfare-enhancing and tariff revenue-raising (for example, when import volumes increase by a proportionately larger margin than the fall in the tariff, and by shifting imports from preferential regional suppliers to MFN tariff paying sources). However, multilateral trade liberalisation talks at the WTO have left most ACP and other developing countries disillusioned because of the countries limited participation in the negotiations and also more importantly because of the discrimination against agricultural and semi-processed goods in which they have export interests. Wide differences emerged in the level of ambition of offer among the players (United States, EU and Japan) and also by the key 'developing' countries (Brazil, India and China). The current WTO Doha Round of negotiations (started in 2001) was supposed to conclude in 2004 but is not yet concluded, and as the differences widened the Round was suspended in July 2006. The suspension of the Doha Round has left many ACP countries with the EPA as the alternative avenue to liberalisation.

There is consensus among economists that dynamic effects of tariff liberalisation may well outweigh adjustment costs or static effects. The problem with this position however, rests in the fact that it is not easy to state what these dynamic benefits constitute and the manner in which they would arise is rather vague and there is no authoritative evidence linking dynamic benefits to particular cases of integration. Dynamic benefits can be maximised if Malawi and Tanzania were provided with the right support to address not only the weaknesses in their initial conditions (which tend to exacerbate adjustment costs), but also to develop and sustain competitive capacities in the institutions and management, infrastructure, production, marketing and exporting. With improved performance of the EU's EDF and further support from the multi-agency initiatives the countries could benefit from EPA liberalisation in respects of increased competitive production and exporting, regional integration and economic development. But these dynamic benefits may be achieved also through other sources of trade liberalisation.

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Figure 1: Illustrating the Impact of Reciprocity in an EPA
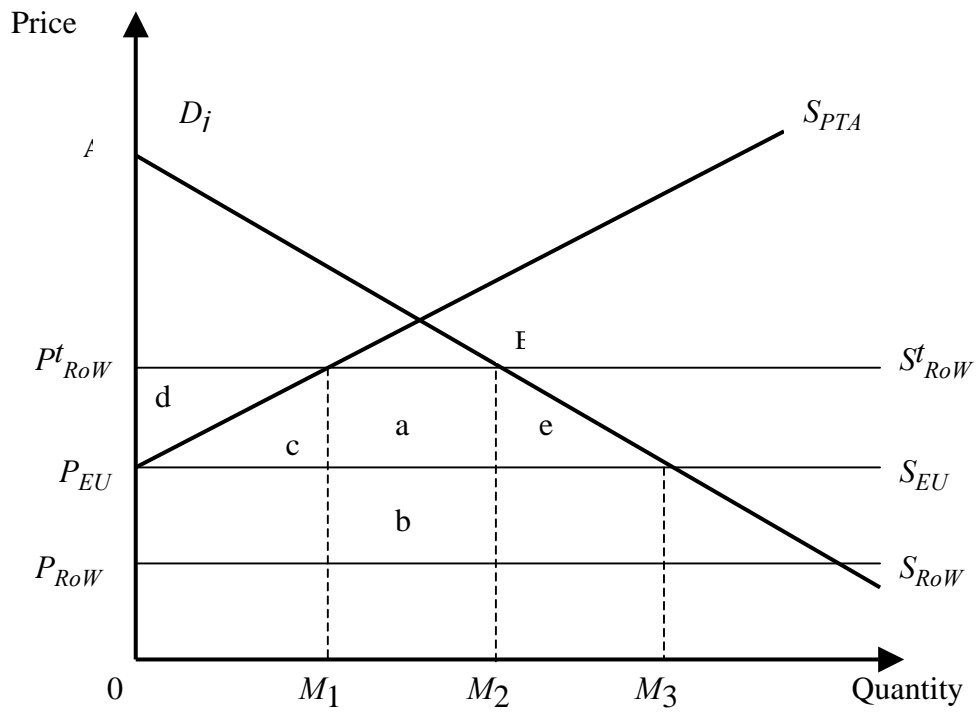
Table 3.1: Effects of EPAs on ACP Countries

Region/Source	Trade creation (TC)/diversion (TD)	Fiscal effects	Welfare effects	Major gainers and losers
Sub-Saharan Africa[a]			Negative (EPA with no regional integration) Positive (removal of intra-SSA barriers or EU-SSA Free Trade Area)	
West Africa [b]	TC larger than TD	Negative	Positive	Nigeria and Ghana (gainers); Cape Verde and Gambia (losers)
West Africa (Gambia) [c]	TC smaller than TD	Negative	Net welfare losses	Gambia loser
Central Africa [a]	TC larger than TD	Negative	Positive	Cameroon, Gabon and DRC (gainers)
EAC [d]	TC smaller than TD for Tanzania and equal to TD for Uganda	Large negative	Small negative for Tanzania; negligible for Uganda	Tanzania (loser)
EAC [e]	TC smaller than TD for all EAC countries	Large negative for all EAC	Large net welfare losses for all EAC countries	All EAC (Kenya, Tanzania and Uganda) losers
COMESA [a]	TC larger than TD	Negative	Positive	Kenya, Mauritius, Sudan and Ethiopia (gainers)
SADC [f]	TC larger than TD	Large negative	Large positive (EPA with regional integration) Small positive (EPA with no regional integration)	South Africa, Zimbabwe and Mauritius (gainers); Zambia, Tanzania, Mozambique, Swaziland (losers)
Caribbean [g]	TC smaller than TD (for simultaneous MFN Tariff cuts < 50%) and TC Larger than TD (for simultaneous MFN tariff cuts > 50%)	Small negative	Small negative (for simultaneous MFN Tariff cuts < 20%) Small positive (for simultaneous MFN Tariff cuts < 20%)	
Pacific [h]	TC larger than TD	Small negative	Small positive	Papua New Guinea and Fiji (gainers)

[a]Karingi, S. *et al.* (2005); [b]Busse *et al.* (2004); [c]Zgovu, E., *et al.* (2004); [d]Milner C., *et al.* (2005); [e]Zgovu, E. and C. Milner (2006); [f]Tekere, M. *et al.* (2003); and, Keck A. *et al.* (2005); [g]Evans D. *et al.* (2006); Gasiorek M. and A.L. Winters (2004), and Greenaway, D. and C. Milner (2003); [h]Roza, V., *et. al.* (2003). *Source: Adapted from Calì and te Velde (2006), Table 1*

Table 4.1: Imports by range of Import duty collection rates (effective tariffs) (millions of local currencies)

Range of duty rate	from EU	Share (%)	from REGION	Share (%)	from R.O.W.	Share (%)	Total imports	Share (%)
Malawi								
0%	4,885.6	53	5,888.1	65	14,116.2	24	24,889.9	32
0.01%-4.99%	3,502.4	38	3,027.9	33	21,383.0	37	27,913.2	36
5.0% - 9.99%	358.6	4	103.0	1	15,343.2	26	15,804.8	21
10% - 19.9%	158.8	2	26.5	0	4,137.5	7	4,322.8	6
20% - 29.9%	332.9	4	63.1	1	3,296.1	6	3,692.1	5
30% + above	1.8	0	1.8	0	23.8	0.04	27.4	0.04
Total	9,240.0	100	9,110.4	100	58,299.7	100	76,650.1	100
Tanzania								
0%	115,190.7	33	52,010.4	26	143,287.5	14	310,488.6	20
0.01%-4.99%	106,421.7	30	53,977.9	27	433,575.6	42	593,975.2	38
5.0% - 9.99%	57,267.4	16	28,808.2	15	132,141.6	13	218,217.2	14
10% - 19.9%	40,128.5	11	46,286.4	23	190,791.2	19	277,206.1	18
20% - 29.9%	29,202.0	8	14,238.5	7	118,941.0	12	162,381.6	10
30% + above	936.0	0.3	1,720.8	1	9,263.8	1	11,920.6	1
Total	349,146.2	100	197,042.2	100	1,028,000.7	100	1,574,189.1	100

Source: Authors' calculations.

Table 4.2: Import categories by range of Import duty collection rates (effective tariffs)

Range of Duty Rate	Capital Goods	Raw Materials	Intermediate Inputs	Final Goods	Total
Malawi					
0%	25	23	45	37	32
0.01%-4.99%	45	32	31	37	36
5.0% - 9.99%	19	43	12	6	21
10% - 19.9%	8	2	7	5	6
20% - 29.9%	3	0	4	15	5
30% + above	0	0	0	0	0
	100	100	100	100	100
Total value (MK)	22,063.7	18,752.8	21,355.0	14,478.5	76,650.1
Category share (%)	29	24	28	19	100
Tanzania					
0%	25	23	19	4	20
0.01%-4.99%	39	68	23	16	38
5.0% - 9.99%	17	2	13	25	14
10% - 19.9%	15	3	34	14	18
20% - 29.9%	4	1	11	40	10
30% + above	0	3	0	1	1
	100	100	100	100	100
Total value (TZSH)	619,569.9	319,018.1	408,901.3	226,699.9	1,574,189.1
Category share (%)	40%	20%	26%	14%	100%

Source: Authors' calculations.

Table 6.1: Imports of sensitive products from the EU

	Malawi (MK, millions)	Tanzania (TZSH, millions)
Imports of sensitive products from EU	1,757.9	68,819.3
Total imports from EU	9,240.0	349,146.2
Bilateral trade with the EU	22,337.8	1,270,650.3
Imports of sensitive products as percent of:		
Total imports from EU	*19%*	*20%*
Bilateral trade with the EU	*8%*	*5%*
Implied substantially all trade	*92%*	*95%*
Number of sensitive tariff lines	181	482

Source: Authors' calculations.

Table 6.2: EPA Effects on Imports in Malawi (millions of local currency)

	Consumption Effects	Trade Creation	Trade Diversion	Total EU imports rise	
				Including Sensitive Products	Excluding Sensitive Products
Agriculture					
(a) Pre-EPA imports	155.150	1,735.617	4,666.283	6,557.050	6,557.050
(b) Import effects	**0.031**	**0.000**	**0.216**	**0.247**	**0.003**
(c): *(b)/(a)*		*0%*	*0%*		
Fishing					
(a) Pre-EPA imports	1.327	0.863	59.334	61.524	61.524
(b) Import effects	**0.264**	**0.000**	**17.853**	**18.117**	**18.101**
(c) : *(b)/(a)*		*0%*	*30%*		
Quarrying & Mining					
(a) Pre-EPA imports	33.361	968.122	696.049	1,697.532	1,697.532
(b) Import effects	**0.121**	**11.205**	**105.199**	**116.525**	**116.525**
(c) : *(b)/(a)*		*1%*	*15%*		
Manufacturing					
(a) Pre-EPA imports	9,050.151	6,405.830	52,878.012	68,333.993	68,333.993
(b) Import effects	**210.446**	**334.449**	**5,282.669**	**5,827.564**	**3,648.031**
(c) : *(b)/(a)*		*5%*	*10%*		
All Sectors					
(a) Pre-EPA imports	9,239.989	9,110.432	58,299.678	76,650.100	76,650.100
(b) Import effects	**210.863**	**345.654**	**5,405.937**	**5,962.454**	**3,782.660**
(c) : *(b)/(a)*		*4%*	*9%*		
Additional imports/current total imports				0.3%	0.1%
Predicted/Current imports from EU %				65%	41%

Source: Authors' calculations

Table 6.3: EPA Effects on Imports in Tanzania (millions of local currency)

	Consumption Effects	Trade Creation	Trade Diversion	Total EU imports rise	
				Including Sensitive Products	Excluding Sensitive Products
Agriculture					
(a) Pre-EPA imports	11,057.5	1,464.6	60,416.2	72,938.3	72,938.3
(b) Import effects	**14.6**	**60.3**	**4,414.3**	**4,489.2**	**739.0**
(c): *(b)/(a)*		*4%*	*7%*		
Fishing					
(a) Pre-EPA imports	29.9	42.8	57.3	129.9	129.9
(b) Import effects	**6.4**	**12.0**	**30.0**	**48.4**	**45.1**
(c): *(b)/(a)*		*28%*	*52%*		
Quarrying & Mining					
(a) Pre-EPA imports	508.7	1,974.3	9,645.5	12,128.5	12,128.5
(b) Import effects	**5.5**	**3.6**	**924.5**	**933.6**	**808.6**
(c): *(b)/(a)*		*0%*	*10%*		
Manufacturing					
(a) Pre-EPA imports	337,550.2	193,560.5	957,881.7	1,488,992.4	1,488,992.4
(b) Import effects	**20,872.9**	**27,757.1**	**221,889.7**	**270,519.7**	**159,771.8**
(c): *(b)/(a)*		*14%*	*23%*		
All Sectors					
(a) Pre-EPA imports	349,146.2	197,042.2	1,028,000.7	1,574,189.1	1,574,189.1
(b) Import effects	**20,899.5**	**27,833.1**	**227,258.4**	**275,990.9**	**161,364.5**
(c): *(b)/(a)*		*14%*	*22%*		
Additional imports/current total imports				1.3%	1.0%
Predicted/Current imports from EU %				79%	46%

Source: Authors' calculations

Table 6.4: Malawi and Tanzania Import Effects (millions of local currency) by Import End-Use under full reciprocity

Import Category	Consump-tion effect	Change	Trade Creation	Change	Trade Diversion	Change	Overall Effect	Change
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Malawi								
Capital goods	123.0	0.6%	61.4	5%	2,199.5	13%	2,383.9	59%
Raw materials	5.3	0%	16.0	1%	520.0	3%	541.2	119%
Intermediates	17.5	0.1%	146.0	5%	1,549.7	9%	1,713.2	86%
Final goods	65.0	0.4%	122.3	5%	1,136.8	12%	1,324.1	49%
Total	210.9	0.3%	345.7	4%	5,405.9	9%	5,962.5	65%
Tanzania								
Capital goods	8,424.4	1%	8,996.9	12%	92,315.0	26%	109,736.3	56%
Raw materials	252.4	0%	675.8	3%	24,060.5	9%	24,988.7	120%

Intermediates	5,490.6	1%	11,106.2	16%	52,803.9	20%	69,400.7	86%
Final goods	6,732.1	3%	7,054.2	25%	58,079.0	40%	71,865.2	135%
Total	20,899.5	1.3%	27,833.1	14%	227,258.4	22%	275,990.9	79%

Source: Authors' calculations.

Table 6.5: Effects on Tariff revenue associated with import effects in Malawi (millions of local currency)

	Consumption Effects	Trade Creation	Trade Diversion	Tariff revenue increase	
				Including Sensitive Products	Excluding Sensitive Products
Agriculture					
(a) Pre-EPA revenue	0.082	0.579	36.993	37.654	37.654
(b) Tariff revenue effect	**-0.082**	**0.000**	**-0.022**	**-0.104**	**-0.001**
(c): *(b)/(a)*	*-100%*	*0%*	*0%*	*0%*	*0%*
Fishing					
(a) Pre-EPA revenue	0.292	0.022	9.580	9.895	9.895
(b) Tariff revenue effect	**-0.292**	**0.000**	**-4.475**	**-4.768**	**-4.758**
(c): *(b)/(a)*	*-100%*	*0%*	*-47%*	*-48%*	*-48%*
Quarrying & Mining					
(a) Pre-EPA revenue	0.117	0.721	15.399	16.237	16.237
(b) Tariff revenue effect	**-0.117**	**-0.155**	**-4.187**	**-4.460**	**-4.460**
(c): *(b)/(a)*	*-100%*	*-22%*	*-27%*	*-27%*	*-27%*
Manufacturing					
(a) Pre-EPA revenue	162.080	34.743	2,783.587	2,980.410	2,980.410
(b) Tariff revenue effect	**-162.080**	**-3.754**	**-601.435**	**-767.269**	**-413.463**
(c): *(b)/(a)*	*-100%*	*-11%*	*-22%*	*-26%*	*-14%*
All Sectors					
(a) Pre-EPA revenue	162.572	36.066	2,845.559	3,044.196	3,044.196
(b) Tariff revenue effect	**-162.572**	**-3.909**	**-610.120**	**-776.600**	**-422.682**
(c): *(b)/(a)*	*-100%*	*-11%*	*-21%*	*-26%*	*-14%*

Source: Authors' calculations

Table 6.6: Effects on Tariff revenue associated with import effects in Tanzania (millions of local currency)

	Consumption Effects	Trade Creation	Trade Diversion	Tariff revenue increase	
				Including Sensitive Products	Excluding Sensitive Products
Agriculture					
(a) Pre-EPA revenue	23.9	145.2	6,230.4	6,399.4	6,399.4
(b) Tariff revenue effect	**-23.9**	**-13.8**	**-802.3**	**-839.9**	**-101.2**
(c): *(b)/(a)*	*-100%*	*-9%*	*-13%*	*-13%*	*-2%*
Fishing					
(a) Pre-EPA revenue	7.1	10.6	9.1	26.9	26.9
(b) Tariff revenue effect	**-7.1**	**-3.0**	**-5.8**	**-16.0**	**-12.2**

(c): *(b)/(a)*	*-100%*	*-28%*	*-64%*	*-59%*	*-46%*
Quarrying & Mining					
(a) Pre-EPA revenue	6.8	103.3	636.2	746.3	746.3
(b) Tariff revenue effect	**-6.8**	**-0.7**	**-58.6**	**-66.0**	**-32.2**
(c): *(b)/(a)*	*-100%*	*-1%*	*-9%*	*-9%*	*-4%*
Manufacturing					
(a) Pre-EPA revenue	18,765.9	12,878.8	67,221.9	98,866.7	98,916.7
(b) Tariff revenue effect	**-18,765.9**	**-3,259.0**	**-31,864.4**	**-53,889.4**	**-32,022.3**
(c): *(b)/(a)*	*-100%*	*-25%*	*-47%*	*-55%*	*-32%*
All Sectors					
(a) Pre-EPA revenue	18,803.7	13,137.9	74,097.7	106,039.3	106,089.3
(b) Tariff revenue effect	**-18,803.7**	**-3,276.5**	**-32,731.1**	**-54,811.3**	**-32,167.9**
(c): *(b)/(a)*	*-100%*	*-25%*	*-44%*	*-52%*	*-30%*

Source: Authors' calculations

Table 6.7: Effects on Welfare associated with trade effects in Malawi and Tanzania (millions of local currency)

	Due to Consumption Effects	Due to Trade Creation	Due to Trade Diversion	Net welfare with Sensitive Products	Net welfare Excluding Sensitive Products
Malawi					
Agriculture	0.001	0.000	-0.032	-0.030	0.000
Fishing	0.033	0.000	-4.463	-4.430	-4.428
Quarrying & Mining	0.006	1.121	-10.520	-9.393	-9.393
Manufacturing	13.916	60.706	-790.633	-716.012	-415.615
All Sectors	13.957	61.826	-805.648	-729.866	-429.436
Tanzania					
Agriculture	1.7	15.2	-676.2	-659.2	-157.6
Fishing	0.8	3.0	-7.5	-3.7	-4.1
Quarrying & Mining	0.5	0.5	-95.6	-94.6	-70.2
Manufacturing	1,704.6	3,898.8	-33,848.9	-28,245.5	-14,206.9
All Sectors	1,707.6	3,917.6	-34,628.2	-29,003.1	-14,438.9

Source: Authors' calculations

Table 6.8: Effects of EPA liberalisation As a Ratio of GDP

	Sensitive products included		Sensitive products excluded	
	Malawi	Tanzania	Malawi	Tanzania
Increase in total imports	0.1%	0.2%	0.1%	0.1%
Increase in imports from EU	3.4%	2.2%	2.2%	1.3%
Fall in imports from the Region	0.20%	0.23%	0.15%	0.15%
Revenue effect	-0.4%	-0.4%	-0.2%	-0.3%
Revenue effect as a ratio of Tariff Revenue	-25.5%	-51.7%	-13.9%	-30.3%
Net Welfare effect	-0.4%	-0.2%	-0.2%	-0.1%

Source: Authors' calculations

Table 6.9: Sensitivity analyses – Effects of reciprocity (including sensitive products) (millions of local currencies)

	Malawi			Tanzania		
	Lower	Middle	Upper	Lower	Middle	Upper
(a): Consumption effects (over existing EU imports)	189.8	210.9	231.9	18,809.5	20,899.5	22,989.4
(b): Trade creation	311.3	345.7	378.8	25,050.0	27,833.1	30,615.9
(c): Trade diversion	4,964.2	5,405.9	5,802.4	208,324.6	227,258.4	244,527.8
(d): Overall increase	5,465.2	5,962.5	6,413.1	252,184.1	275,990.9	298,133.2
Lower or Upper / Middle %	*8%*		*8%*	*9%*		*8%*
(f): Total Pre-EPA	76,650.1	76,650.1	76,650.1	1,574,189.1	1,574,189.1	1,574,189.1
(g): Pre-EPA imports from EU	9,240.0	9,240.0	9,240.0	349,146.2	349,146.2	349,146.2
(i): (a) / (f)	0.2%	0.3%	0.3%	1.2%	1.3%	1.5%
(j): (d) / (g)	59.1%	64.5%	69.4%	72.2%	79.0%	85.4%
(k): (a) / GDP	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%
(l): (d) / GDP	3.2%	3.4%	3.7%	2.0%	2.2%	2.4%
(m): Overall tariff revenue effect	-730.3	-776.6	-815.8	-52,066.6	-54,817.1	-57,182.1
Lower or Upper / Middle %	*6%*		*5%*	*5%*		*4%*
(n): Net welfare effect	-681.6	-729.9	-768.4	-27,150.4	-28,998.9	-30,458.8
Lower or Upper / Middle %	*7%*		*5%*	*6%*		*5%*
(o): (m) / Pre-EPA tariff revenue	-24.0%	-25.5%	-26.8%	-49.1%	-51.7%	-53.9%
(p): (m) / GDP	-0.4%	-0.4%	-0.5%	-0.4%	-0.4%	-0.5%
(q): (n) / GDP	-0.4%	-0.4%	-0.4%	-0.2%	-0.2%	-0.2%

Source: Authors' calculations

APPENDIX A: ISIC two-digit Sectoral level effects

Table A1: Detailed Effects on Imports in Malawi (millions of local currency)

				Total EU imports rise	
	Consumption effects	Trade Creation	Trade Diversion	Including sensitive products	Excluding Sensitive Products
All Sectors	**210.863**	**345.654**	**5,405.937**	**5,962.454**	**3,782.660**
A-Agriculture, hunting& forestry					
01 Agriculture, hunting	0.031	0.000	0.216	0.247	0.003
02 Forestry, logging	0	0	0	0	0
sector total	**0.031**	**0.000**	**0.216**	**0.247**	**0.003**
B – Fishing					
05 Fishing, fish hatcheries & farms	0.264	0	17.853	18.117	18.101
sector total	**0.264**	**0.000**	**17.853**	**18.117**	**18.101**
C - Mining and quarrying					
10 Mining of coal and lignite	0	0	0	0	0
11 Petroleum & natural gas	0	0	0	0	0
12 Mining of uranium & ores	0	0	0	0	0
13 Mining of metal ores	0	0	0	0	0
14 Other mining and quarrying	0.121	11.205	105.199	116.525	116.525
sector total	**0.121**	**11.205**	**105.199**	**116.525**	**116.525**
D – Manufacturing					
15 Food products and beverages	8.638	48.348	291.345	348.331	0.000
16 Tobacco products	0.446	11.093	2.368	13.908	0.000
17 Textiles	51.495	28.269	634.313	714.077	201.073
18 Wearing apparel,dressing & fur	0.735	16.764	150.805	168.305	162.025
19 Footwear, luggage, handbags	1.371	36.265	216.771	254.407	254.204
20 Wood & products of wood	0.222	1.939	24.059	26.220	25.441
21 Paper and paper products	1.156	3.780	51.841	56.778	26.429
22 Publishing, printing, recorded	4.851	0.782	50.512	56.145	44.948
23 Refined Petroleum & nucl fuel	2.000	3.677	380.450	386.127	181.114
24 Chemicals and chemical prodct	6.899	60.275	267.214	334.388	330.730
25 Rubber and plastics products	4.521	42.875	570.452	617.848	617.934
26 Other non-metallic minerals	2.272	3.560	100.312	106.144	106.144
27 Basic metals	0.391	1.409	29.503	31.302	31.302
28 Fabricated metal products	2.856	14.313	277.677	294.845	288.758
29 Machinery & equipment n.e.c.	22.399	16.729	631.711	670.839	669.850
30 Office, accounting, computers	3.466	0.711	29.808	33.984	33.984
31 Electrical machinery	33.619	10.299	308.702	352.620	352.620
32 Radio, TV & communication	2.794	0.882	33.091	36.766	36.766
33 Medical, optical & watches	14.199	0.983	103.954	119.137	119.137
34 Motor vehicles, trailers	42.049	18.486	1,012.264	1,072.800	32.978
35 Other transport equipment	0.208	0.137	1.663	2.007	2.007
36 Furniture; manufacturing n.e.c.	3.860	12.871	113.854	130.585	130.585
sector total	**210.446**	**334.449**	**5,282.669**	**5,827.564**	**3,648.031**

Table A2: Detailed Effects on Imports in Tanzania (millions of local currency)

	Consumption effects	Trade Creation	Trade Diversion	Total EU imports rise	
				Including Sensitive Products	Excluding Sensitive Products
All Sectors	**20,899.5**	**27,833.1**	**227,258.4**	**275,990.9**	**161,364.5**
		10%	*82%*		
A-Agriculture, hunting& forestry					
01 Agriculture, hunting	14.6	60.3	4,414.3	4,489.2	739.0
02 Forestry, logging	0	0.0	0.0	0.0	0.0
sector total	**14.6**	**60.3**	**4,414.3**	**4,489.2**	**739.0**
B – Fishing					
05 Fishing, fish hatcheries & farms	6.4	12.0	30.0	48.4	45.1
sector total	**6.4**	**12.0**	**30.0**	**48.4**	**45.1**
C - Mining and quarrying					
10 Mining of coal and lignite	0	0.0	0.0	0.0	0
11 Petroleum & natural gas	0	0.0	0.0	0.0	0
12 Mining of uranium & ores	0	0.0	0.0	0.0	0
13 Mining of metal ores	0	0.0	0.0	0.0	0
14 Other mining and quarrying	5.5	3.6	924.5	933.6	808.6
sector total	**5.5**	**3.6**	**924.5**	**933.6**	**808.6**
D – Manufacturing					
15 Food products and beverages	2,693.4	7,336.7	25,226.7	35,256.8	18,362.7
16 Tobacco products	713.8	0.2	22.2	736.2	713.8
17 Textiles	2,371.7	397.1	24,243.5	27,012.4	2,190.0
18 Wearing apparel,dressing & fur	112.3	375.8	8,176.0	8,664.1	482.9
19 Footwear, luggage, handbags	338.4	379.5	11,808.0	12,525.9	6,007.1
20 Wood & products of wood	30.5	312.3	634.5	977.3	947.6
21 Paper and paper products	1,243.8	2,241.7	2,763.4	6,248.8	1,624.4
22 Publishing, printing, recorded	137.1	58.5	978.1	1,173.7	1,166.4
23 Refined Petroleum & nucl fuel	11.8	18.0	9,507.3	9,537.1	9,537.1
24 Chemicals and chemical prodct	1,474.3	3,596.7	10,196.7	15,267.7	12,955.0
25 Rubber and plastics products	1,073.2	1,255.5	13,054.2	15,382.9	4,561.9
26 Other non-metallic minerals	886.0	511.3	8,339.9	9,737.2	9,000.0
27 Basic metals	442.0	909.6	5,344.9	6,696.5	4,539.2
28 Fabricated metal products	998.1	1,539.6	8,123.7	10,661.4	8,694.9
29 Machinery & equipment n.e.c.	2,654.7	2,599.0	14,952.5	20,206.2	20,206.2
30 Office, accounting, computers	57.8	15.8	221.4	294.9	294.9
31 Electrical machinery	2,468.2	3,075.3	13,793.6	19,337.0	19,309.7
32 Radio, TV & communication	277.2	483.1	4,845.7	5,606.0	5,606.0
33 Medical, optical & watches	355.7	246.7	2,306.1	2,908.5	2,908.5
34 Motor vehicles, trailers	2,190.9	1,434.2	47,796.4	51,421.6	20,945.2
35 Other transport equipment	3.6	17.4	8.0	29.0	29.0

36	Furniture; manufacturing n.e.c.	338.6	953.2	9,546.8	10,838.6	9,689.2
	sector total	**20,872.9**	**27,757.1**	**221,889.7**	**270,519.7**	**159,771.8**

Source: Authors' calculations

Table A3: Detailed Effects on Tariff Revenue in Malawi (millions of local currency)

	Associated:			Tariff revenue increase	
	with Consumption effects	with Trade Creation	with Trade Diversion	Including Sensitive Products	Excluding Sensitive Products
All Sectors	**-162.572**	**-3.909**	**-610.120**	**-776.600**	**-422.682**
A-Agriculture, hunting& forestry					
01 Agriculture, hunting	-0.082	0.000	-0.022	-0.104	-0.001
02 Forestry, logging	0.000	0.000	0.000	0.000	0
Sector total	**-0.082**	**0.000**	**-0.022**	**-0.104**	**-0.001**
B – Fishing					
05 Fishing, fish hatcheries & farms	-0.292	0.000	-4.475	-4.768	-4.758
Sector total	**-0.292**	**0.000**	**-4.475**	**-4.768**	**-4.758**
C - Mining and quarrying					
10 Mining of coal and lignite	0	0	0	0	0
11 Petroleum & natural gas	0	0	0	0	0
12 Mining of uranium & ores	0	0	0	0	0
13 Mining of metal ores	0	0	0	0	0
14 Other mining and quarrying	-0.117	-0.155	-4.187	-4.460	-4.460
Sector total	**-0.117**	**-0.155**	**-4.187**	**-4.460**	**-4.460**
D – Manufacturing					
15 Food products and beverages	-9.306	-0.136	-45.096	-54.538	0.000
16 Tobacco products	-0.395	0.000	-0.121	-0.516	0.000
17 Textiles	-48.299	-0.046	-116.124	-164.469	-20.532
18 Wearing apparel,dressing & fur	-0.444	-0.249	-9.107	-9.800	-8.857
19 Footwear, luggage, handbags	-1.088	-0.150	-38.823	-40.061	-40.017
20 Wood & products of wood	-0.146	-0.013	-2.838	-2.997	-2.962
21 Paper and paper products	-0.931	-0.085	-4.093	-5.109	-1.317
22 Publishing, printing, recorded	-4.619	-0.180	-5.995	-10.794	-8.912
23 Refined Petroleum & nucl fuel	-1.225	-0.009	-34.703	-35.937	-17.803
24 Chemicals and chemical prodct	-6.395	-0.078	-35.663	-42.136	-41.045
25 Rubber and plastics products	-4.045	-0.152	-55.313	-59.511	-59.513
26 Other non-metallic minerals	-2.155	-0.376	-15.027	-17.558	-17.558
27 Basic metals	-0.225	0.000	-2.590	-2.815	-2.815
28 Fabricated metal products	-2.479	-0.176	-23.814	-26.469	-25.686
29 Machinery & equipment n.e.c.	-18.657	-0.461	-52.345	-71.463	-71.406
30 Office, accounting, computers	-2.726	-0.155	-4.390	-7.270	-7.270
31 Electrical machinery	-15.397	-0.133	-33.625	-49.155	-49.155
32 Radio, TV & communication	-1.968	-0.004	-3.264	-5.235	-5.235
33 Medical, optical & watches	-9.147	-0.077	-2.942	-12.166	-12.166
34 Motor vehicles, trailers	-29.025	-1.157	-99.363	-129.545	-1.491
35 Other transport equipment	-0.176	-0.004	-0.023	-0.203	-0.203
36 Furniture; manufacturing n.e.c.	-3.231	-0.112	-16.177	-19.520	-19.520
Sector total	**-162.080**	**-3.754**	**-601.435**	**-767.269**	**-413.463**

Source: Authors' calculations

Table A4: Detailed Effects on Tariff Revenue in Tanzania (millions of local currency)

	Associated:			Total EU imports rise	
	with Consumption effects	with Trade Creation	with Trade Diversion	Including Sensitive Products	Excluding sensitive Products
All Sectors	**-18,803.7**	**-3,276.5**	**-32,731.1**	**-54,811.3**	**-32,167.9**
	34%	*6%*	*60%*		
A-Agriculture, hunting& forestry					
01 Agriculture, hunting	-23.9	-13.8	-802.3	-839.9	-101.2
02 Forestry, logging	0	0	0	0.0	0
Sector total	**-23.9**	**-13.8**	**-802.3**	**-839.9**	**-101.2**
B – Fishing					
05 Fishing, fish hatcheries & farms	-7.1	-3.0	-5.8	-16.0	-12.2
Sector total	**-7.1**	**-3.0**	**-5.8**	**-16.0**	**-12.2**
C - Mining and quarrying					
10 Mining of coal and lignite	0	0	0	0.0	0
11 Petroleum & natural gas	0	0	0	0.0	0
12 Mining of uranium & ores	0	0	0	0.0	0
13 Mining of metal ores	0	0	0	0.0	0
14 Other mining and quarrying	-6.8	-0.7	-58.6	-66.0	-32.2
Sector total	**-6.8**	**-0.7**	**-58.6**	**-66.0**	**-32.2**
D – Manufacturing					
15 Food products and beverages	-3,040.1	-1,131.4	-4,960.6	-9,132.2	-5,573.8
16 Tobacco products	-38.7	0.1	-2.8	-41.4	-38.7
17 Textiles	-2,224.3	-56.4	-5,010.1	-7,290.8	-263.5
18 Wearing apparel,dressing & fur	-80.7	-73.8	-1,926.0	-2,080.5	-103.4
19 Footwear, luggage, handbags	-348.1	-70.8	-2,571.8	-2,990.8	-1,571.6
20 Wood & products of wood	-26.4	-71.7	-85.1	-183.2	-157.5
21 Paper and paper products	-1,177.7	-253.0	-357.7	-1,788.4	-906.1
22 Publishing, printing, recorded	-106.2	-9.0	-187.1	-302.3	-295.6
23 Refined Petroleum & nucl fuel	-7.5	-1.6	-88.8	-97.9	-97.9
24 Chemicals and chemical prodct	-1,368.6	-447.3	-1,230.0	-3,045.8	-2,513.1
25 Rubber and plastics products	-1,035.3	-156.3	-2,165.2	-3,356.9	-1,251.8
26 Other non-metallic minerals	-909.1	-73.6	-1,474.6	-2,457.3	-2,344.4
27 Basic metals	-303.8	-69.4	-499.9	-873.1	-540.8
28 Fabricated metal products	-971.6	-145.0	-1,306.6	-2,423.2	-2,142.8
29 Machinery & equipment n.e.c.	-2,496.6	-151.1	-1,121.7	-3,769.5	-3,769.5
30 Office, accounting, computers	-57.8	-1.1	-22.0	-80.9	-80.9
31 Electrical machinery	-1,582.2	-233.8	-1,870.9	-3,686.9	-3,678.6
32 Radio, TV & communication	-150.0	-103.8	-710.2	-964.0	-964.0
33 Medical, optical & watches	-262.0	-17.7	-197.3	-477.1	-477.1
34 Motor vehicles, trailers	-2,206.6	-87.0	-4,480.6	-6,774.1	-3,453.0
35 Other transport equipment	-2.5	-0.7	-1.3	-4.5	-4.5
36 Furniture; manufacturing n.e.c.	-370.1	-104.6	-1,594.0	-2,068.7	-1,793.8

| | Sector total | -18,765.9 | -3,259.0 | -31,864.4 | -53,889.4 | -32,022.3 |

Source: Authors' calculations

Table A5: Detailed Effects on Welfare in Malawi (millions of local currency)

		Associated:			Net welfare	
		with Consumption effects	with Trade Creation	with Trade Diversion	Including sensitive products	Excluding Sensitive Products
All Sectors		**13.957**	**61.826**	**-805.648**	**-729.866**	**-429.436**
A-Agriculture, hunting& forestry						
01	Agriculture, hunting	0.001	0.000	-0.032	-0.030	0.000
02	Forestry, logging	0.000	0.000	0.000	0.000	0
	sector total	**0.001**	**0.000**	**-0.032**	**-0.030**	**0.000**
B – Fishing						
05	Fishing, fish hatcheries & farms	0.033	0.000	-4.463	-4.430	-4.428
	sector total	**0.033**	**0.000**	**-4.463**	**-4.430**	**-4.428**
C - Mining and quarrying						
10	Mining of coal and lignite	0	0	0	0	0
11	Petroleum & natural gas	0	0	0	0	0
12	Mining of uranium & ores	0	0	0	0	0
13	Mining of metal ores	0	0	0	0	0
14	Other mining and quarrying	0.006	1.121	-10.520	-9.393	-9.393
	sector total	**0.006**	**1.121**	**-10.520**	**-9.393**	**-9.393**
D – Manufacturing						
15	Food products and beverages	0.450	8.364	-49.010	-40.196	0.000
16	Tobacco products	0.006	0.265	-0.138	0.134	0.000
17	Textiles	5.674	5.654	-143.074	-131.746	-38.948
18	Wearing apparel,dressing & fur	0.078	4.426	-27.760	-23.256	-23.091
19	Footwear, luggage, handbags	0.150	9.105	-55.779	-46.524	-46.522
20	Wood & products of wood	0.007	0.399	-5.652	-5.245	-5.227
21	Paper and paper products	0.032	0.466	-4.426	-3.928	-0.867
22	Publishing, printing, recorded	0.202	0.114	-5.341	-5.025	-3.529
23	Refined Petroleum & nucl fuel	0.011	0.439	-45.010	-44.560	-1.077
24	Chemicals and chemical prodct	0.230	13.859	-37.949	-23.860	-22.883
25	Rubber and plastics products	0.290	8.138	-92.243	-83.815	-83.815
26	Other non-metallic minerals	0.153	0.570	-13.310	-12.587	-12.587
27	Basic metals	0.021	0.044	-5.143	-5.078	-5.078
28	Fabricated metal products	0.187	1.982	-38.434	-36.264	-35.409
29	Machinery & equipment n.e.c.	1.202	1.716	-71.065	-68.146	-68.097
30	Office, accounting, computers	0.266	0.057	-3.016	-2.693	-2.693
31	Electrical machinery	1.511	0.689	-38.494	-36.294	-36.294

32	Radio, TV & communication	0.048	0.046	-2.400	-2.306	-2.306
33	Medical, optical & watches	1.295	0.064	-9.458	-8.099	-8.099
34	Motor vehicles, trailers	1.704	2.746	-124.032	-119.581	-2.149
35	Other transport equipment	0.010	0.026	-0.105	-0.069	-0.069
36	Furniture; manufacturing n.e.c.	0.388	1.537	-18.796	-16.871	-16.871
	sector total	**13.916**	**60.706**	**-790.633**	**-716.012**	**-415.615**

Source: Authors' calculations

Table A6: Detailed Effects on Welfare in Tanzania (millions of local currency)

		Associated:			Total EU imports rise	
		with Consumption effects	with Trade Creation	with Trade Diversion	Including sensitive products	Excluding Sensitive products
	All Sectors	**1,707.6**	**3,917.6**	**-34,628.2**	**-29,003.1**	**-14,438.9**
	A-Agriculture, hunting& forestry					
01	Agriculture, hunting	1.7	15.2	-676.2	-659.2	-157.6
02	Forestry, logging	0	0	0	0	0
	sector total	**1.7**	**15.2**	**-676.2**	**-659.2**	**-157.6**
	B – Fishing					
05	Fishing, fish hatcheries & farms	0.8	3.0	-7.5	-3.7	-4.1
	sector total	**0.8**	**3.0**	**-7.5**	**-3.7**	**-4.1**
	C - Mining and quarrying					
10	Mining of coal and lignite	0	0	0	0	0
11	Petroleum & natural gas	0	0	0	0	0
12	Mining of uranium & ores	0	0	0	0	0
13	Mining of metal ores	0	0	0	0	0
14	Other mining and quarrying	0.5	0.5	-95.6	-94.6	-70.2
	sector total	**0.5**	**0.5**	**-95.6**	**-94.6**	**-70.2**
	D – Manufacturing					
15	Food products and beverages	258.2	1,288.7	-6,236.3	-4,689.5	-2,793.0
16	Tobacco products	219.6	-0.1	-13.6	205.9	219.6
17	Textiles	257.3	74.5	-5,002.1	-4,670.3	-262.3
18	Wearing apparel,dressing & fur	12.8	76.7	-1,728.0	-1,638.5	-103.4
19	Footwear, luggage, handbags	40.8	80.5	-2,449.5	-2,328.2	-922.4
20	Wood & products of wood	3.1	76.4	-133.5	-54.0	-57.0
21	Paper and paper products	88.8	253.6	-368.8	-26.4	42.8
22	Publishing, printing, recorded	9.9	7.7	-147.2	-129.6	-130.2
23	Refined Petroleum & nucl fuel	0.1	0.2	-129.7	-129.3	-129.3
24	Chemicals and chemical prodct	81.9	460.7	-1,795.7	-1,253.1	-454.9
25	Rubber and plastics products	87.3	180.3	-1,817.7	-1,550.1	-284.6
26	Other non-metallic minerals	82.8	92.2	-1,534.2	-1,359.2	-1,234.3
27	Basic metals	27.5	114.3	-727.2	-585.5	-428.2
28	Fabricated metal products	68.3	212.2	-1,223.4	-942.8	-840.1

29	Machinery & equipment n.e.c.	142.8	226.0	-1,532.5	-1,163.6	-1,163.6
30	Office, accounting, computers	2.2	1.2	-17.0	-13.5	-13.5
31	Electrical machinery	169.5	353.6	-2,597.0	-2,073.9	-2,066.2
32	Radio, TV & communication	21.3	78.6	-762.7	-662.8	-662.8
33	Medical, optical & watches	17.4	27.5	-226.3	-181.4	-181.4
34	Motor vehicles, trailers	83.4	102.9	-3,662.5	-3,476.2	-1,429.1
35	Other transport equipment	0.2	1.9	-0.9	1.3	1.3
36	Furniture; manufacturing n.e.c.	29.3	189.1	-1,743.1	-1,524.8	-1,314.3
	sector total	**1,704.6**	**3,898.8**	**-33,848.9**	**-28,245.5**	**-14,206.9**

Source: Authors' calculations

Appendix B: HS six-digit Import effects

Table B1: Malawi-Top 212 HS Six-Digit Products With Effective MFN Tariff Rate Not Less Than 20% and Largest Overall, Displaced Regional and Rest of the World Import Effects

	Overall (MK millions)	Trade Creation (Displaced ESA exports)	Trade Diversion (Displaced RoW exports)	Direct Effects
Sum of import effects for Top 212 with largest effects	2,728.0	211.1	2,427.4	*Not shown*
% in Overall import effect for all products	*46*	*61*	*45*	*Not shown*

(All values in millions of Malawi Kwacha)

	Overall Effect		Displaced ESA exports		Displaced RoW exports			Overall Effect		Displaced ESA exports		Displaced RoW exports	
No.	HS code	Value	HS code	Value	HS code	Value	No.	HS code	Value	HS code	Value	HS code	Value
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	630900	513.003	340220	45.06	630900	454.160	46	961210	12.699	621020	0.182	961210	11.581
2	870290	243.241	640220	31.44	870290	237.590	47	611790	12.138	961210	0.172	961700	11.543
3	271000	205.013	391739	26.58	271000	203.030	48	761699	11.804	321590	0.153	701329	10.415
4	401150	112.666	151219	19.48	401150	112.344	49	620199	11.752	961100	0.149	321490	10.110
5	640220	104.293	630140	17.84	640220	72.178	50	961700	11.597	330590	0.148	180631	9.817
6	340220	100.085	630900	8.251	151219	64.459	51	701329	11.296	850910	0.141	180632	9.697
7	151219	84.165	620199	7.841	850680	57.341	52	180632	10.162	392590	0.139	960629	8.629
8	850680	57.524	340510	6.947	340220	55.010	53	321490	10.152	630710	0.138	830241	8.454
9	630140	55.356	870290	5.270	540769	41.607	54	180631	9.902	360500	0.130	210410	8.333
10	391739	44.883	210410	4.672	330610	37.688	55	960629	9.075	870839	0.128	401212	8.104
11	540769	41.610	960719	4.173	630140	37.500	56	900719	8.820	841330	0.122	650699	7.304
12	330610	39.742	620342	2.783	551321	36.026	57	830241	8.658	840991	0.120	640340	7.299
13	870839	36.462	330610	2.004	870839	35.864	58	401212	8.125	610590	0.117	340510	7.261
14	551321	36.138	271000	1.938	321290	31.902	59	650590	8.064	848340	0.117	691010	7.039
15	321290	33.708	731029	1.923	600199	31.302	60	870893	7.937	610339	0.116	870893	6.984
16	731029	32.453	321290	1.641	400931	30.738	61	650699	7.876	842129	0.105	940510	6.683
17	600199	31.364	620690	1.619	731029	30.500	62	853931	7.506	870892	0.098	650590	6.602
18	400931	30.742	650590	1.461	420222	25.485	63	853921	7.437	842199	0.095	321590	6.260
19	420222	25.709	700711	1.397	400941	24.602	64	640340	7.389	880190	0.091	481710	5.845
20	040690	25.442	040690	1.379	040690	24.057	65	691010	7.082	853931	0.087	870892	5.600
21	400941	24.633	870894	1.239	870880	22.743	66	842290	6.897	848360	0.086	842290	5.581
22	870880	23.110	830710	1.162	441820	20.343	67	700711	6.816	640340	0.080	853921	5.537
23	441820	21.284	210210	0.970	420292	19.475	68	940510	6.766	180690	0.078	850110	5.484
24	620342	20.535	441820	0.934	391739	18.297	69	481710	6.612	870831	0.066	590699	5.441
25	420292	19.487	620419	0.909	620342	17.746	70	321590	6.473	852822	0.058	700711	5.266
26	840991	18.732	620112	0.795	848340	17.745	71	870892	5.881	847340	0.058	330590	5.243
27	848340	18.138	481710	0.749	840991	17.439	72	850110	5.634	851680	0.053	851110	5.050
28	841330	17.982	732620	0.641	841330	17.340	73	590699	5.441	630291	0.046	401610	4.708
29	842129	17.077	701329	0.638	400922	16.660	74	330590	5.395	830590	0.043	392220	4.624
30	871690	16.963	650699	0.569	842129	16.555	75	851110	5.154	870860	0.043	841320	4.351
31	400922	16.673	441219	0.496	871690	16.190	76	620690	5.130	611790	0.038	851140	4.317
32	960719	16.398	610349	0.493	160413	15.760	77	620419	5.092	870810	0.036	854430	4.295
33	160413	15.855	482370	0.490	831000	15.550	78	401610	4.726	731990	0.032	900220	4.263
34	842199	15.777	850720	0.429	842199	14.773	79	700490	4.669	854129	0.031	700490	4.244
35	831000	15.587	180632	0.399	392590	14.363	80	392220	4.668	851140	0.031	848390	4.233
36	940560	15.017	871640	0.393	841590	13.507	81	851140	4.623	392220	0.024	853931	4.223
37	392590	14.517	960629	0.391	940560	13.378	82	854430	4.617	851180	0.024	400932	4.198
38	340510	14.232	870870	0.344	660110	13.106	83	871640	4.577	400932	0.022	360500	3.972
39	210210	13.922	321000	0.291	180690	12.609	84	848390	4.524	321490	0.022	620419	3.951
40	841590	13.551	842290	0.286	848360	12.455	85	841320	4.408	330410	0.020	620199	3.908
41	660110	13.211	854430	0.242	870870	12.321	86	900220	4.269	821194	0.020	620459	3.874

No.	HS code	Value	HS code	Value	HS code	Value	No.	HS code	Value	HS code	Value	HS code	Value
42	210410	13.020	610342	0.224	960719	12.225	87	400932	4.221	830520	0.020	330690	3.750
43	180690	12.832	854451	0.210	210210	12.072	88	360500	4.204	700490	0.019	851150	3.692
44	848360	12.753	420222	0.204	611790	12.065	89	620459	3.886	851110	0.019	570490	3.681
45	870870	12.717	830241	0.191	761699	11.678	90	851150	3.849	940510	0.017	400942	3.486

Continued …. Malawi: Top 212 HS Six-Digit Products With Effective MFN Tariff Rate Not Less Than 20% and Largest Overall, Displaced Regional and Rest of the World Import Effects

(All values in millions of Malawi Kwacha)

	Overall Effect		Displaced ESA exports		Displaced RoW exports			Overall Effect		Displaced ESA exports		Displaced RoW exports	
No.	HS code	Value	HS code	Value	HS code	Value	No.	HS code	Value	HS code	Value	HS code	Value
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(a)	(b)	(c)	(d)	(e)	(f)	(g)
91	330690	3.783	850680	0.016	401162	3.476	143	870831	1.131	401162	0.000	851890	0.939
92	570490	3.684	902920	0.015	620690	3.425	144	930390	1.080	401211	0.000	900719	0.934
93	400942	3.585	401610	0.015	401211	3.375	145	851680	1.048	821192	0.000	420500	0.930
94	401162	3.531	847310	0.014	821192	3.272	146	851890	1.037	870790	0.000	870831	0.930
95	732620	3.444	830230	0.013	871640	3.256	147	731930	1.016	330510	0.000	851680	0.901
96	401211	3.381	853921	0.013	870790	3.207	148	854129	1.011	848490	0.000	900653	0.876
97	821192	3.282	401219	0.012	330510	3.156	149	610339	0.997	610449	0.000	830710	0.875
98	330510	3.252	961700	0.010	401219	3.115	150	420500	0.988	540744	0.000	610339	0.874
99	870790	3.236	611720	0.010	830230	3.060	151	830810	0.941	560290	0.000	854129	0.874
100	870810	3.198	853190	0.008	848490	3.002	152	620112	0.935	551219	0.000	401519	0.778
101	401219	3.187	761699	0.007	870810	2.935	153	853190	0.915	851130	0.000	830590	0.768
102	848490	3.142	400941	0.007	732620	2.768	154	900653	0.877	160414	0.000	940120	0.633
103	830230	3.119	870880	0.006	610449	2.625	155	830590	0.828	851240	0.000	853190	0.621
104	870894	3.057	731930	0.005	540744	2.352	156	401519	0.792	960350	0.000	830170	0.620
105	610449	2.685	700992	0.005	321000	2.065	157	621020	0.744	847030	0.000	621020	0.559
106	850910	2.450	830170	0.005	854451	2.050	158	940120	0.689	853180	0.000	400921	0.500
107	540744	2.438	830120	0.004	700992	2.015	159	961100	0.658	401161	0.000	961100	0.468
108	321000	2.364	831000	0.004	560290	1.974	160	630291	0.649	580190	0.000	961310	0.385
109	854451	2.266	851629	0.004	551219	1.973	161	821194	0.645	841350	0.000	910599	0.377
110	847340	2.230	821000	0.003	851180	1.943	162	830170	0.638	830629	0.000	821194	0.366
111	850720	2.047	401695	0.003	851130	1.873	163	610342	0.547	851290	0.000	620452	0.349
112	830710	2.040	854110	0.001	851629	1.853	164	400921	0.524	851190	0.000	630291	0.342
113	700992	2.021	370710	0.001	630710	1.798	165	910599	0.513	930390	0.000	870860	0.337
114	560290	1.988	850990	0.001	610590	1.781	166	482370	0.506	830810	0.000	610342	0.303
115	851180	1.982	660110	0.001	401695	1.779	167	870860	0.420	851890	0.000	910229	0.300
116	551219	1.975	851690	0.001	851690	1.746	168	961310	0.386	900719	0.000	870821	0.297
117	610590	1.969	854319	0.001	160414	1.744	169	620452	0.369	420500	0.000	240290	0.294
118	610349	1.963	401150	0.000	851240	1.721	170	401210	0.331	900653	0.000	731990	0.287
119	630710	1.938	540769	0.000	850910	1.709	171	731990	0.320	401519	0.000	840729	0.276
120	851629	1.900	551321	0.000	960350	1.707	172	910229	0.307	940120	0.000	910400	0.276
121	851690	1.884	400931	0.000	847030	1.670	173	840733	0.304	400921	0.000	852410	0.268
122	851130	1.879	420292	0.000	870894	1.642	174	870821	0.303	961310	0.000	731910	0.210
123	441219	1.876	400922	0.000	852822	1.626	175	240290	0.302	910599	0.000	850990	0.204
124	851240	1.861	871690	0.000	902920	1.602	176	330410	0.282	620452	0.000	846920	0.192
125	160414	1.854	160413	0.000	847340	1.553	177	910400	0.279	910229	0.000	330710	0.172
126	401695	1.783	841590	0.000	853180	1.524	178	840729	0.277	870821	0.000	847329	0.162
127	847030	1.739	940560	0.000	401161	1.500	179	850990	0.270	240290	0.000	851120	0.160
128	960350	1.716	180631	0.000	830520	1.491	180	852410	0.268	840729	0.000	821000	0.152
129	902920	1.712	401212	0.000	610349	1.466	181	731910	0.228	910400	0.000	160520	0.150
130	852822	1.690	691010	0.000	441219	1.380	182	330710	0.224	852410	0.000	902990	0.149
131	853180	1.659	870893	0.000	847310	1.285	183	854319	0.222	731910	0.000	481690	0.146
132	401161	1.621	850110	0.000	580190	1.278	184	854121	0.209	846920	0.000	330410	0.140
133	830520	1.538	590699	0.000	841350	1.276	185	481690	0.183	330710	0.000	920300	0.138
134	370710	1.397	841320	0.000	850720	1.268	186	851120	0.174	847329	0.000	340530	0.127
135	847310	1.304			370710	1.224	187	847329	0.173	851120	0.000	620112	0.112

No.	HS code	Value	HS code	Value	HS code	Value	No.	HS code	Value	HS code	Value	HS code	Value
136	580190	1.295	900220	0.000	830629	1.217	188	920300	0.160	160520	0.000	401210	0.104
137	841350	1.286	848390	0.000	851290	1.192	189	821000	0.159	902990	0.000	160411	0.098
138	851290	1.247	620459	0.000	830120	1.160	190	160520	0.157	481690	0.000	854319	0.095
139	830629	1.226	330690	0.000	851190	1.121	191	902990	0.154	920300	0.000	611720	0.093
140	846920	1.206	851150	0.000	930390	1.062	192	880190	0.152	340530	0.000	950320	0.078
141	830120	1.179	570490	0.000	731930	0.994	193	340530	0.130	401210	0.000	847321	0.052
142	851190	1.137	400942	0.000	830810	0.940	194	160411	0.121	160411	0.000	160540	0.051

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Continued .... Malawi: Top 212 HS Six-Digit Products With Effective MFN Tariff Rate Not Less Than 20% and Largest Overall, Displaced Regional and Rest of the World Import Effects

(All values in millions of Malawi Kwacha)

	Overall Effect		Displaced ESA exports		Displaced RoW exports			Overall Effect		Displaced ESA exports		Displaced RoW exports	
No.	HS code	Value	HS code	Value	HS code	Value	No.	HS code	Value	HS code	Value	HS code	Value
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(a)	(b)	(c)	(d)	(e)	(f)	(g)
195	611720	0.104	950320	0.000	840733	0.039	204	420310	0.019	420310	0.000	880190	0.005
196	950320	0.104	847321	0.000	854110	0.033	205	521224	0.018	846911	0.000	846911	0.004
197	854110	0.071	160540	0.000	481620	0.022	206	160590	0.016	521224	0.000	521224	0.003
198	160540	0.055	840733	0.000	160412	0.022	207	620510	0.015	854040	0.000	854121	0.000
199	847321	0.053	481620	0.000	160415	0.017	208	580631	0.007	930529	0.000	854040	0.000
200	854040	0.040	160412	0.000	160590	0.010	209	930529	0.006	950621	0.000	580631	0.000
201	160412	0.030	160415	0.000	482370	0.010	210	846911	0.005	810890	0.000	930529	0.000
202	160415	0.028	160590	0.000	620510	0.010	211	810890	0.003	854121	0.000	810890	0.000
203	481620	0.024	620510	0.000	420310	0.008	212	950621	0.002	580631	0.000	950621	0.000

Table B2: Tanzania - Top 500 HS Six-Digit Products with Effective (or Actual) MFN Tariff Rate Not Less Than 20% and Largest Overall, Displaced Regional and Rest of the World Import Effects

	Overall (TZSH millions)	Trade Creation (Displaced SADC exports)	Trade Diversion (Displaced RoW exports)	Direct Effects
Sum of import effects for top 500 with largest effects	96,548.3	6,741.3	82,219.3	*Not shown*
% in all 669 products with duty ≥ 20%	99	87	99	*Not shown*
% in Overall import effect for all products	35	32	36	*Not shown*

(All values in millions of Tanzanian Shillings)

No.	Overall Effect HS #	Value	Displaced SADC exports HS #	Value	Displaced RoW exports HS #	Value	No.	Overall Effect HS #	Value	Displaced SADC exports HS #	Value	Displaced RoW exports HS #	Value
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	630900	19,316.3	040700	377.3	630900	17,024.5	46	851660	389.2	831000	34.8	841583	306.6
2	170111	7,854.3	220290	372.7	170111	7,791.6	47	330499	387.1	330720	34.8	721650	304.9
3	640299	2,846.6	220300	327.0	640299	2,827.3	48	551519	384.8	721632	33.1	071290	304.5
4	151590	2,695.2	220421	296.7	151590	2,694.8	49	392410	379.4	610990	33.0	340111	304.5
5	690890	2,644.0	950430	291.3	110220	2,223.4	50	841829	373.1	721590	32.2	620719	296.5
6	110220	2,225.4	441119	263.6	850610	2,163.5	51	441119	366.7	640590	32.0	392410	292.1
7	850610	2,224.0	330590	250.7	690890	2,117.8	52	040221	357.2	220210	29.1	830241	282.3
8	961700	1,737.6	732690	160.8	961700	1,730.2	53	721650	356.0	170490	28.9	851660	267.4
9	100630	1,498.5	482359	133.7	100630	1,495.3	54	330690	351.9	392350	25.4	110290	253.3
10	521225	1,208.4	330499	132.1	521225	1,207.8	55	210220	346.2	190530	25.1	160100	245.4
11	960810	1,018.7	852330	109.6	960810	1,013.4	56	850690	332.2	940171	24.9	610449	238.9
12	110100	975.7	680911	102.9	110100	971.9	57	950430	331.5	291090	24.2	610349	234.7
13	482359	851.1	690890	102.7	640220	835.4	58	392099	329.7	610349	23.8	853931	220.5
14	841821	842.7	841821	92.1	640590	782.0	59	853922	323.8	220860	22.0	621111	219.7
15	640220	836.5	940161	87.6	691200	688.1	60	841583	320.1	650699	20.5	391910	218.3
16	732690	827.5	340111	83.1	841821	672.2	61	220421	315.6	851679	20.2	392099	216.4
17	640590	821.9	851660	81.4	610990	668.2	62	071290	305.0	190190	19.2	330499	215.6
18	220300	775.6	940560	74.2	620899	645.6	63	830241	302.9	190410	19.0	080410	214.2
19	610990	758.3	200990	74.0	621040	645.2	64	620719	302.7	200970	18.9	441019	207.1
20	330590	736.2	391740	71.1	732690	629.6	65	830910	290.0	151219	18.5	330300	203.0
21	240220	736.2	160250	68.0	940161	619.0	66	853931	280.3	621600	17.5	320910	201.1
22	940161	712.1	170111	62.5	732394	605.4	67	610349	258.8	820411	17.4	960321	197.8
23	691200	704.1	220870	62.1	330610	589.7	68	160100	255.9	841720	16.6	701329	196.9
24	620899	657.2	570500	62.0	681099	581.3	69	110290	253.9	180631	16.6	620459	196.2
25	621040	650.8	620590	55.0	940510	526.0	70	330300	249.6	850940	16.5	040221	190.9
26	220290	614.2	220850	51.6	640419	522.0	71	610449	241.8	960321	16.5	420229	188.1
27	732394	606.8	481720	51.4	854451	508.7	72	701329	240.7	701329	16.2	960910	181.9
28	940510	604.5	040221	50.1	360500	501.0	73	391910	240.2	441019	16.1	841829	180.5
29	330610	597.6	721650	48.8	170410	463.4	74	441019	228.8	640110	15.9	540773	179.2
30	681099	594.1	841830	48.7	170490	451.6	75	621111	221.7	040229	15.7	551511	178.3
31	170490	551.2	630399	48.5	330590	438.4	76	320910	218.7	180690	15.5	852731	175.7
32	640419	532.5	040210	48.3	620590	435.4	77	080410	215.2	620459	15.1	420222	174.0
33	854451	530.8	330510	46.3	190530	432.9	78	960321	214.5	420229	15.0	640510	172.8
34	620590	502.9	630900	45.5	170219	415.1	79	620459	211.5	210210	14.8	611599	172.7
35	360500	502.4	040690	44.5	721070	405.5	80	420229	210.8	640299	14.6	660199	163.9
36	170410	473.0	360300	44.3	620419	399.9	81	570500	203.6	392041	14.4	721061	158.8
37	190530	472.0	392410	44.0	482359	392.4	82	841830	202.3	330300	13.8	681310	155.3
38	040700	456.5	210390	43.7	620590	383.6	83	721061	190.9	210410	13.8	610419	150.9
39	391740	455.1	200980	41.9	190190	368.5	84	200980	190.5	441199	13.7	621390	150.7
40	170219	438.9	321490	40.8	210220	345.6	85	640510	185.6	630710	13.7	200980	146.7
41	190190	431.4	482360	39.4	850690	327.1	86	960910	184.8	821220	13.6	820210	146.6
42	721070	407.8	401310	39.0	391740	325.1	87	540773	184.5	391910	13.4	852712	143.8
43	620419	404.6	841810	37.1	841810	320.7	88	200990	182.3	640230	13.0	330741	142.0

No.	HS #	Value	HS #	Value	HS #	Value	No.	HS #	Value	HS #	Value	HS #	Value
44	841810	401.8	330690	36.2	853922	318.0	89	611599	182.2	700711	12.4	620311	140.6
45	340111	393.5	940510	35.4	330690	315.1	90	852731	179.9	830910	12.4	570500	136.5

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Continued .... Tanzania: Top 500 HS Six-Digit Products with Effective (or Actual) MFN Tariff Rate Not Less Than 20% and Largest Overall, Displaced Regional and Rest of the World Import Effects *(All values in millions of Tanzanian Shillings)*

	Overall Effect		Displaced SADC exports		Displaced RoW exports			Overall Effect		Displaced SADC exports		Displaced RoW exports	
No.	HS #	Value	HS #	Value	HS #	Value	No.	HS #	Value	HS #	Value	HS #	Value
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(a)	(b)	(c)	(d)	(e)	(f)	(g)
91	551511	179.8	640510	12.3	851679	131.2	143	210320	100.8	830120	7.3	910529	78.0
92	660199	177.7	580639	12.3	110419	130.6	144	630140	99.4	180632	7.2	700711	77.8
93	420222	177.0	845020	11.9	852110	130.3	145	220210	98.5	170112	7.2	650699	75.9
94	040210	166.8	620899	11.6	040510	128.9	146	910291	97.4	330710	7.1	151519	73.9
95	850940	162.6	681099	11.5	830910	128.7	147	210390	97.3	200190	7.0	842542	73.6
96	681310	161.9	481960	11.4	940390	127.7	148	180610	97.0	441520	7.0	721590	73.3
97	481840	161.0	721621	11.4	650590	125.6	149	611519	96.6	320910	6.9	870331	72.5
98	851679	159.4	200520	11.3	392042	121.5	150	852311	95.6	200799	6.8	640312	72.0
99	200290	157.4	591000	11.1	340510	121.1	151	701190	95.5	200551	6.7	330491	71.9
100	680911	157.3	853931	11.1	200290	120.2	152	721621	94.5	620520	6.7	670210	71.2
101	820210	156.2	841829	10.8	392190	118.8	153	330510	93.8	630260	6.6	392350	71.1
102	392350	154.6	190120	10.8	610510	116.5	154	940171	92.4	960390	6.5	820720	68.4
103	392190	154.3	820299	10.7	610459	115.8	155	700711	92.2	330610	6.5	620520	67.8
104	650590	153.9	691200	10.6	850940	114.0	156	391731	92.1	391731	6.4	220210	67.5
105	610419	151.4	660110	10.5	680410	113.5	157	660110	91.2	210320	6.4	940429	66.8
106	621390	151.3	842542	10.2	620530	111.5	158	842542	89.9	160414	6.3	392059	66.8
107	852330	151.1	392190	10.2	630510	108.3	159	630499	89.0	200892	6.3	670419	66.0
108	210210	149.2	330749	10.2	210210	104.7	160	701399	88.4	340590	6.3	732599	65.9
109	330741	146.4	950490	10.2	200990	103.8	161	551311	88.2	321100	6.3	760711	65.7
110	852712	145.4	200590	10.2	851640	102.2	162	831000	88.0	620719	6.1	040229	64.8
111	620311	144.6	160100	10.1	151529	102.1	163	330720	87.2	760711	6.0	110313	62.6
112	940390	142.2	071080	9.9	441119	102.0	164	610690	86.4	620339	6.0	621490	62.3
113	401310	136.5	852721	9.9	640212	101.8	165	851631	84.4	320810	6.0	640520	61.5
114	852110	133.5	020736	9.8	640411	100.6	166	821210	84.3	420299	5.9	630399	61.3
115	040510	132.9	190211	9.7	481840	100.6	167	040690	84.2	210500	5.9	852313	61.2
116	392042	132.5	930200	9.6	252321	99.8	168	040229	83.2	721410	5.8	950440	60.6
117	110419	131.2	481840	9.5	630140	98.9	169	180690	81.5	321290	5.7	630260	59.5
118	940560	129.6	732599	9.4	481960	97.8	170	482360	81.4	611592	5.7	940171	58.6
119	340510	129.2	160239	9.4	910291	97.4	171	170112	80.2	701399	5.6	441129	58.5
120	610510	126.2	040310	9.3	611519	96.4	172	760711	78.9	610190	5.6	960310	57.2
121	701339	126.2	611599	9.2	731100	95.0	173	910529	78.5	701110	5.6	521159	56.8
122	481960	117.5	610510	9.2	401310	94.2	174	940429	78.2	621040	5.6	620119	56.3
123	610459	116.1	621210	9.0	701190	93.3	175	330491	77.9	631090	5.4	392062	56.1
124	680410	115.2	392510	8.9	040210	91.2	176	732599	77.8	850920	5.4	620510	55.7
125	851640	114.9	650590	8.8	821220	90.9	177	220820	76.7	040390	5.3	820299	55.7
126	620530	114.8	851640	8.8	180610	90.5	178	870331	75.6	940520	5.3	731812	55.6
127	731100	112.8	830241	8.8	841830	89.6	179	820411	75.4	950370	5.3	691410	55.2
128	630399	112.3	220820	8.8	960390	88.2	180	620520	74.4	620119	5.2	620920	54.8
129	630510	112.1	330410	8.7	151219	87.5	181	151519	74.1	330530	5.2	680911	54.3
130	190219	109.4	160220	8.6	630499	87.1	182	640312	73.8	200899	5.2	961210	54.1
131	151219	108.3	731822	8.4	391731	84.6	183	820299	72.3	680423	5.0	700600	53.6
132	721590	105.6	091099	8.4	701339	83.8	184	670210	71.2	190540	4.9	392510	53.2
133	640411	105.3	731100	8.3	852311	83.4	185	820720	71.1	731812	4.9	441900	52.8
134	821220	105.0	401210	8.1	950490	83.0	186	392059	70.3	950420	4.9	831000	51.8
135	640212	104.8	960719	8.0	610690	82.6	187	220870	69.1	850690	4.9	960711	51.2
136	321410	103.7	850610	7.8	551311	82.5	188	190410	69.1	180610	4.9	180690	50.8

No.	HS #	Value	HS #	Value	HS #	Value	No.	HS #	Value	HS #	Value	HS #	Value
137	650699	103.5	340510	7.8	220290	81.7	189	160250	68.9	170410	4.8	420211	50.2
138	252321	103.2	640419	7.7	821210	81.4	190	420299	68.2	482390	4.7	820540	50.0
139	960390	102.5	580790	7.6	701399	81.2	191	930200	68.1	950380	4.6	660110	49.6
140	151529	102.3	630391	7.5	210320	80.8	192	630260	66.4	392099	4.5	960719	49.4
141	481720	101.9	321410	7.3	721621	80.8	193	670419	66.1	940390	4.5	711719	49.4
142	950490	101.8	721049	7.3	040700	78.2	194	321490	65.6	220600	4.4	621210	49.4

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Continued …. Tanzania: Top 500 HS Six-Digit Products with Effective (or Actual) MFN Tariff Rate Not Less Than 20% and Largest Overall, Displaced Regional and Rest of the World Import Effects *(All values in millions of Tanzanian Shillings)*

	Overall Effect		Displaced SADC exports		Displaced RoW exports			Overall Effect		Displaced SADC exports		Displaced RoW exports	
No.	HS #	Value	HS #	Value	HS #	Value	No.	HS #	Value	HS #	Value	HS #	Value
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(a)	(b)	(c)	(d)	(e)	(f)	(g)
195	950440	65.6	761610	4.4	040630	49.2	247	190540	41.0	852032	2.5	330720	29.6
196	961210	65.0	071090	4.3	321410	49.1	248	621600	40.5	200930	2.5	200930	29.4
197	721632	64.8	620419	4.2	620821	49.1	249	091099	39.4	741510	2.5	420239	29.0
198	392510	63.7	200960	4.1	660191	48.4	250	830230	39.2	610339	2.4	620610	28.9
199	621490	63.5	340520	4.0	420221	48.1	251	631090	38.5	640330	2.4	611592	28.8
200	620510	63.5	640411	4.0	210390	47.5	252	731824	38.1	851631	2.4	580639	28.8
201	110313	62.7	961590	3.9	940591	47.4	253	441199	37.5	481820	2.3	610442	28.3
202	960310	62.3	701339	3.9	611190	46.7	254	841840	37.5	850630	2.3	721632	27.6
203	620119	61.9	854451	3.9	940560	46.3	255	180631	37.1	960910	2.2	040390	26.8
204	640520	61.8	200819	3.8	190219	46.2	256	731822	37.1	330420	2.2	220300	26.6
205	852313	61.7	732510	3.7	481720	45.9	257	950320	36.9	020450	2.2	392041	26.4
206	360300	61.3	110100	3.7	330510	44.0	258	630311	36.9	040630	2.2	830230	26.0
207	441129	61.2	090122	3.7	610829	43.8	259	321290	35.7	620510	2.1	321290	25.9
208	731812	60.7	330491	3.6	611490	43.2	260	480920	35.3	841840	2.1	620341	25.2
209	220850	60.1	620311	3.6	930200	41.8	261	321100	35.1	610690	2.1	850630	25.0
210	621210	59.8	820210	3.6	482360	41.4	262	961590	35.0	210420	2.1	330430	24.7
211	330749	59.6	830230	3.5	940179	41.3	263	611592	34.9	630251	2.0	610469	24.4
212	960719	59.6	680530	3.4	420232	40.6	264	210230	34.9	610711	2.0	732510	24.2
213	482390	57.6	960810	3.3	820411	40.5	265	330410	34.8	081340	2.0	950430	24.1
214	392062	57.2	960310	3.3	482311	40.0	266	850630	34.2	160300	2.0	401695	24.0
215	521159	56.8	090121	3.3	590410	40.0	267	220860	33.6	210230	1.9	330410	23.6
216	691410	56.3	681310	3.2	210330	39.7	268	200970	33.4	741210	1.9	961380	23.2
217	620920	55.5	190230	3.1	401220	39.4	269	960610	33.1	520411	1.9	731822	22.9
218	441900	55.5	200510	3.1	420299	39.3	270	481820	32.9	200310	1.9	621600	22.5
219	700600	55.2	200911	3.1	401210	38.4	271	200930	32.9	851822	1.9	851810	22.4
220	040630	54.9	732181	3.1	401691	38.1	272	570330	32.7	442110	1.9	240220	22.2
221	820540	54.6	040510	3.1	852330	37.9	273	640110	32.6	760900	1.8	321100	22.0
222	420211	53.6	940591	3.1	680520	37.7	274	040390	32.5	621111	1.8	630110	21.9
223	680520	52.4	200710	3.1	940520	37.0	275	590310	32.3	330430	1.8	680430	21.8
224	960711	52.0	100630	3.1	950320	36.6	276	940120	32.2	210330	1.8	392630	21.8
225	940591	50.6	660199	3.0	731824	36.4	277	730650	32.1	820220	1.8	930390	21.2
226	420221	49.7	392042	3.0	482390	35.8	278	291090	31.1	200600	1.7	730590	20.8
227	401220	49.7	200559	3.0	190540	35.4	279	580790	31.1	701190	1.7	731930	20.2
228	711719	49.6	730590	3.0	591000	35.3	280	960329	31.0	160419	1.6	580790	20.2
229	620821	49.3	330520	2.9	040690	35.0	281	620610	30.9	611720	1.6	960329	20.1
230	660191	48.5	630311	2.9	721049	34.1	282	610719	30.5	570110	1.6	590310	19.9
231	611190	47.1	620530	2.9	630311	33.9	283	830520	30.5	200410	1.6	821192	19.6
232	591000	47.1	820540	2.9	210230	32.8	284	721622	30.4	821193	1.5	330520	19.5
233	401210	46.7	420292	2.9	730650	32.1	285	845020	30.2	852460	1.5	680530	19.4
234	392041	46.4	190219	2.9	960610	31.5	286	330430	30.0	570330	1.5	481690	19.4
235	611490	45.5	160420	2.8	190230	31.4	287	420239	29.9	220510	1.5	852721	19.4

No	HS #	Value	HS #	Value	HS #	Value	No	HS #	Value	HS #	Value	HS #	Value
236	190230	44.4	821210	2.8	330749	31.2	288	852721	29.3	200811	1.5	620339	19.4
237	610829	44.2	391722	2.7	631090	31.2	289	610442	29.1	160210	1.5	110329	19.2
238	940520	43.5	220840	2.7	961590	31.0	290	830120	28.9	940190	1.4	392111	19.0
239	590410	42.6	620413	2.7	091099	30.5	291	020736	28.7	680410	1.4	950370	18.6
240	940179	42.6	961210	2.7	940120	30.4	292	961380	28.5	420321	1.4	090930	18.4
241	210330	42.4	392112	2.7	610719	30.4	293	732510	28.5	180620	1.4	830242	18.3
242	721049	42.2	401610	2.7	481820	30.1	294	190120	27.7	722599	1.4	611410	18.3
243	482311	42.0	691490	2.6	841840	29.9	295	210410	27.2	481200	1.4	441520	18.1
244	401691	41.4	821192	2.6	721622	29.7	296	620341	27.0	732310	1.4	020736	18.0
245	420232	41.1	670300	2.5	830520	29.7	297	401695	26.6	960329	1.3	621410	17.9
246	580639	41.0	420211	2.5	570330	29.6	298	680530	26.5	200870	1.3	520832	17.8

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Continued …. Tanzania: Top 500 HS Six-Digit Products with Effective (or Actual) MFN Tariff Rate Not Less Than 20% and Largest Overall, Displaced Regional and Rest of the World Import Effects *(All values in millions of Tanzanian Shillings)*

	Overall Effect		Displaced SADC exports		Displaced RoW exports			Overall Effect		Displaced SADC exports		Displaced RoW exports	
No.	HS #	Value	HS #	Value	HS #	Value	No.	HS #	Value	HS #	Value	HS #	Value
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(a)	(b)	(c)	(d)	(e)	(f)	(g)
299	845012	26.1	482311	1.3	180631	17.4	351	620413	16.9	853922	0.8	620412	11.1
300	040310	25.8	950341	1.3	520420	17.3	352	200799	16.8	731414	0.8	732310	11.1
301	610469	25.7	741521	1.3	190410	17.2	353	610339	16.7	200110	0.7	320810	11.0
302	200520	25.7	852110	1.3	940530	17.1	354	730519	16.5	870331	0.7	080212	11.0
303	620339	25.7	940179	1.3	321490	17.0	355	790700	16.5	610462	0.7	580219	10.9
304	630710	25.4	621410	1.3	741510	17.0	356	200710	15.8	091091	0.7	961610	10.9
305	441520	25.3	960610	1.2	540120	17.0	357	680510	15.5	220190	0.7	851992	10.8
306	851810	25.1	853932	1.2	610461	16.8	358	160414	15.4	090930	0.7	630710	10.3
307	330520	24.8	360690	1.2	190120	16.5	359	200551	15.4	940120	0.7	620930	10.1
308	680430	24.3	090412	1.2	790700	16.4	360	611710	14.6	620920	0.7	420690	10.0
309	950370	24.2	621490	1.2	200559	16.3	361	481610	14.5	070990	0.7	391722	9.9
310	851632	24.1	481690	1.2	730519	16.3	362	481200	14.3	630110	0.7	610462	9.4
311	482040	24.1	392059	1.2	200310	15.8	363	851020	14.2	401695	0.6	910519	9.3
312	730590	23.8	820780	1.2	392112	15.8	364	630391	14.2	090190	0.6	220840	9.1
313	630110	23.4	851810	1.2	220820	15.5	365	910591	14.1	040610	0.6	080620	9.1
314	392630	22.9	200540	1.2	330420	15.5	366	721410	14.1	845012	0.6	210500	8.9
315	821192	22.6	441900	1.2	852033	15.4	367	910299	14.1	210220	0.6	650200	8.8
316	340590	22.3	401691	1.2	761610	15.0	368	830710	13.6	700600	0.6	731910	8.7
317	481690	22.2	360500	1.2	441199	15.0	369	691310	13.4	190420	0.6	845012	8.7
318	392111	22.0	630510	1.1	830120	14.8	370	732392	13.3	580900	0.6	821290	8.5
319	930390	21.9	090500	1.1	330530	14.6	371	940592	13.1	721622	0.6	160411	8.3
320	320820	21.8	732394	1.1	611710	14.4	372	910111	13.1	640312	0.6	340530	8.2
321	830242	21.6	731824	1.1	853932	14.4	373	391722	13.0	200290	0.6	200799	8.2
322	330530	21.6	820720	1.1	340590	14.1	374	330710	12.9	090240	0.6	691390	8.1
323	640230	21.4	610469	1.1	910591	14.0	375	732020	12.9	621390	0.6	820231	8.0
324	482319	21.0	940429	1.1	610339	14.0	376	220840	12.7	071140	0.6	640230	8.0
325	731930	21.0	220900	1.1	620413	13.8	377	681011	12.6	930590	0.5	220860	7.9
326	761610	20.8	691410	1.1	480920	13.8	378	200590	12.6	830242	0.5	845020	7.9
327	180632	20.7	621590	1.1	851020	13.7	379	732310	12.6	821195	0.5	691490	7.7
328	392112	20.3	200580	1.1	930320	13.6	380	701110	12.4	330741	0.5	121220	7.7
329	853932	20.2	580640	1.0	180632	13.4	381	630411	12.0	701321	0.5	081350	7.6
330	680423	19.7	200920	1.0	481610	13.4	382	850920	11.9	940530	0.5	851822	7.6
331	741510	19.7	841583	1.0	680510	13.1	383	961610	11.8	441129	0.5	150990	7.5
332	200559	19.5	961700	1.0	691310	12.9	384	160590	11.7	071290	0.5	820220	7.5
333	852033	19.2	960622	1.0	732392	12.8	385	071340	11.6	930390	0.5	551321	7.3
334	110329	19.2	731814	1.0	482319	12.8	386	200190	11.5	420500	0.5	110630	7.2

No.	HS #	Value	HS #	Value	HS #	Value	No.	HS #	Value	HS #	Value	HS #	Value
335	621410	19.2	821290	1.0	680423	12.6	387	610190	11.4	200791	0.5	670300	7.1
336	090930	19.1	680221	1.0	681011	12.5	388	691390	11.3	160413	0.4	091091	7.0
337	340520	19.0	200940	1.0	940592	12.4	389	150990	11.3	732392	0.4	521139	6.9
338	520832	18.9	640212	1.0	741531	12.3	390	580219	11.2	081110	0.4	701110	6.8
339	610461	18.9	961610	0.9	200710	12.2	391	580631	11.2	852033	0.4	760900	6.8
340	611410	18.3	200820	0.9	340520	12.0	392	620412	11.2	821000	0.4	090240	6.7
341	741531	17.9	200210	0.9	910111	11.9	393	820220	11.2	961380	0.4	961220	6.7
342	200310	17.8	961100	0.9	630411	11.9	394	851822	11.1	960711	0.4	930590	6.6
343	320810	17.8	080410	0.9	040310	11.9	395	080212	11.0	080620	0.4	650100	6.5
344	330420	17.7	200560	0.8	200970	11.8	396	851992	11.0	620930	0.4	640191	6.5
345	940530	17.7	252321	0.8	732020	11.8	397	190211	10.8	170220	0.4	721410	6.4
346	520420	17.5	401220	0.8	640110	11.5	398	081350	10.7	091050	0.4	200940	6.1
347	930320	17.5	821194	0.8	160590	11.4	399	620930	10.6	731910	0.4	291090	6.1
348	210500	17.2	081090	0.8	830710	11.3	400	340530	10.6	950440	0.4	200210	6.0
349	841720	17.1	110422	0.8	071340	11.3	401	071080	10.5	200850	0.4	610711	6.0
350	540120	17.0	020319	0.8	580631	11.2	402	732181	10.5	420239	0.4	570252	5.9

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Continued …. Tanzania: Top 500 HS Six-Digit Products with Effective (or Actual) MFN Tariff Rate Not Less Than 20% and Largest Overall, Displaced Regional and Rest of the World Import Effects *(All values in millions of Tanzanian Shillings)*

	Overall Effect		Displaced SADC exports		Displaced RoW exports			Overall Effect		Displaced SADC exports		Displaced RoW exports	
No.	HS #	Value	HS #	Value	HS #	Value	No.	HS #	Value	HS #	Value	HS #	Value
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(a)	(b)	(c)	(d)	(e)	(f)	(g)
403	701321	10.5	081310	0.4	850650	5.9	452	200892	6.6	611780	0.2	961100	3.6
404	420690	10.3	081350	0.4	600299	5.9	453	360690	6.5	070951	0.2	080250	3.6
405	691490	10.3	930320	0.4	210420	5.8	454	621590	6.5	320820	0.2	821193	3.5
406	610462	10.1	630140	0.4	610190	5.8	455	551341	6.4	071040	0.2	330710	3.4
407	160239	9.9	080930	0.3	160414	5.7	456	731414	6.2	160590	0.2	200600	3.4
408	821290	9.9	910299	0.3	851631	5.6	457	200580	6.2	420690	0.2	040610	3.4
409	670300	9.8	910529	0.3	600293	5.5	458	570252	6.2	680510	0.2	731814	3.4
410	852460	9.8	160411	0.3	722599	5.5	459	600299	6.1	731930	0.1	020319	3.3
411	080620	9.7	110419	0.3	420292	5.5	460	520411	6.0	482319	0.1	741521	3.3
412	910519	9.4	961420	0.3	020210	5.4	461	220600	6.0	681011	0.1	420500	3.2
413	961100	9.3	200840	0.3	220850	5.4	462	950380	6.0	611710	0.1	610811	3.1
414	760900	9.3	392111	0.3	621590	5.3	463	821193	6.0	200490	0.1	200950	3.0
415	940190	9.3	852453	0.3	200510	5.3	464	190420	5.9	151590	0.1	200819	3.0
416	482320	9.2	420232	0.3	360690	5.3	465	200540	5.9	741600	0.1	621290	2.9
417	731910	9.1	830170	0.3	190420	5.2	466	681250	5.8	580219	0.1	200190	2.9
418	160411	9.0	851632	0.3	681250	5.2	467	741521	5.8	071110	0.1	621310	2.7
419	950420	9.0	940592	0.3	220900	5.2	468	190510	5.7	321390	0.1	960622	2.7
420	521139	8.9	200860	0.3	611780	5.1	469	570110	5.6	910519	0.1	442110	2.7
421	650200	8.9	691310	0.3	741210	4.8	470	160413	5.6	091010	0.1	950330	2.6
422	160220	8.9	640191	0.3	200551	4.8	471	020210	5.6	481490	0.1	040900	2.6
423	820231	8.8	630499	0.3	630391	4.7	472	852090	5.6	020210	0.1	180620	2.6
424	850650	8.8	090411	0.2	200540	4.6	473	910700	5.5	681410	0.1	830170	2.6
425	200510	8.7	691390	0.2	200580	4.6	474	200920	5.4	071340	0.1	850920	2.5
426	121220	8.7	741700	0.2	090620	4.6	475	611780	5.4	420221	0.1	852432	2.5
427	420292	8.6	150990	0.2	482320	4.5	476	200820	5.3	821510	0.1	071331	2.5
428	722599	8.2	160416	0.2	120600	4.5	477	200960	5.2	650100	0.1	960190	2.5
429	610711	8.1	482320	0.2	940190	4.5	478	200600	5.1	090620	0.1	551341	2.5
430	091091	8.1	731821	0.2	090111	4.4	479	090122	5.1	701332	0.1	680221	2.5
431	210420	8.0	190510	0.2	200520	4.4	480	680221	4.9	820231	0.1	190510	2.5
432	551321	8.0	640520	0.2	090210	4.4	481	090620	4.7	960850	0.1	071390	2.4
433	600293	7.7	520420	0.2	160413	4.4	482	200911	4.7	090111	0.1	621510	2.4

No.	HS code	MFN %	HS code	Share	HS code	Share	No.	HS code	MFN %	HS code	Share	HS code	Share
434	090111	7.6	200880	0.2	821510	4.4	483	731814	4.6	080910	0.1	611720	2.2
435	220900	7.6	570242	0.2	200920	4.3	484	821194	4.6	360610	0.1	960840	2.2
436	200210	7.5	620341	0.2	210410	4.3	485	120600	4.5	482040	0.1	821195	2.2
437	650100	7.4	081190	0.2	481490	4.3	486	442110	4.5	090810	0.1	930610	2.2
438	741210	7.4	830520	0.2	200820	4.3	487	200791	4.5	081010	0.1	681410	2.1
439	090240	7.4	200120	0.2	852090	4.2	488	071090	4.5	080211	0.1	081340	2.1
440	200899	7.4	040900	0.2	090610	4.1	489	821510	4.5	360410	0.1	620432	2.1
441	841822	7.4	340530	0.2	520411	4.0	490	180620	4.5	091040	0.1	570242	2.1
442	930590	7.3	830621	0.2	901290	4.0	491	481490	4.5	611519	0.1	821194	2.0
443	110630	7.3	680430	0.2	570110	4.0	492	611720	4.4	930610	0.1	091030	1.9
444	680790	7.2	850650	0.2	851632	3.9	493	090210	4.4	852090	0.1	590491	1.9
445	640191	7.1	852731	0.2	950420	3.9	494	040610	4.2	091030	0.1	731821	1.9
446	200940	7.1	071120	0.2	320820	3.9	495	090610	4.1	392630	0.1	200899	1.8
447	852032	7.0	711719	0.2	852032	3.9	496	570242	4.1	120600	0.1	821000	1.8
448	830170	6.9	110412	0.2	960330	3.9	497	020319	4.1	950710	0.0	540752	1.8
449	200819	6.8	950330	0.2	200791	3.7	498	081340	4.1	741531	0.0	120890	1.8
450	961220	6.7	160241	0.2	910299	3.7	499	640330	4.1	091020	0.0	220421	1.7
451	901290	6.7	240220	0.2	100400	3.6	500	960330	4.0	160540	0.0	640330	1.6

Appendix C: HS six-digit Total Revenue effects

Table C1: Malawi - Top 212 HS Six-Digit Products with Largest Tariff Revenue Losses (For Products with MFN not less than 20%) (Total revenue loss for products with MFN tariff not less than 20% = MK471,637,283 representing 61% of overall revenue effect)

No.	HS code	Actual MFN %	Value (MK '000)	Product Share %	No.	HS code	Actual MFN %	Value (MK '000)	Product Share %
1	630900	22	-143,936,866	113.898	54	870892	22	-1,429,844	1.131
2	870290	22	-30,060,927	23.787	55	850110	21	-1,331,081	1.053
3	401150	25	-21,047,313	16.655	56	851110	24	-1,311,403	1.038
4	271000	22	-18,134,548	14.350	57	481710	25	-1,182,726	0.936
5	640220	25	-17,801,991	14.087	58	848390	26	-1,168,399	0.925
6	340220	25	-13,981,438	11.064	59	360500	25	-1,104,734	0.874
7	151219	25	-11,801,927	9.339	60	691010	20	-1,095,728	0.867
8	850680	21	-11,569,062	9.155	61	620419	25	-1,074,082	0.850
9	330610	25	-9,577,420	7.579	62	851140	25	-1,070,006	0.847
10	630140	20	-8,737,092	6.914	63	650590	30	-1,029,946	0.815
11	540769	30	-7,773,451	6.151	64	321590	26	-1,014,405	0.803
12	420222	30	-6,465,743	5.116	65	940510	21	-1,000,309	0.792
13	040690	25	-6,118,263	4.841	66	620342	30	-964,746	0.763
14	870880	20	-5,910,243	4.677	67	620690	20	-937,272	0.742
15	900719	28	-5,091,765	4.029	68	400942	21	-886,150	0.701
16	870839	24	-4,833,838	3.825	69	650699	30	-865,085	0.685
17	842129	24	-4,740,893	3.752	70	847340	27	-821,514	0.650
18	840991	22	-4,650,285	3.680	71	330510	25	-793,567	0.628
19	842199	24	-4,601,827	3.641	72	821192	30	-719,532	0.569
20	420292	30	-4,492,618	3.555	73	841590	25	-706,966	0.559
21	940560	26	-4,159,091	3.291	74	848490	22	-681,519	0.539
22	210210	25	-4,120,428	3.261	75	846920	23	-662,568	0.524
23	160413	25	-4,055,482	3.209	76	850720	25	-650,136	0.514
24	841330	24	-3,698,973	2.927	77	870790	27	-643,099	0.509
25	180690	30	-3,280,033	2.596	78	854430	28	-627,062	0.496
26	961700	21	-3,251,739	2.573	79	870810	23	-615,521	0.487
27	961210	24	-3,049,718	2.413	80	401211	25	-598,045	0.473
28	701329	21	-2,860,728	2.264	81	392220	28	-585,492	0.463

No.	HS code	Actual MFN %	Value (MK '000)	Product Share %	No.	HS code	Actual MFN %	Value (MK '000)	Product Share %
29	842290	27	-2,807,963	*2.222*	82	847030	27	-580,643	*0.459*
30	660110	29	-2,680,896	*2.121*	83	160414	25	-558,737	*0.442*
31	180631	30	-2,647,271	*2.095*	84	851690	21	-527,487	*0.417*
32	848340	22	-2,626,590	*2.078*	85	610590	25	-514,226	*0.407*
33	180632	30	-2,600,548	*2.058*	86	852822	30	-510,066	*0.404*
34	441820	25	-2,539,725	*2.010*	87	551219	25	-504,053	*0.399*
35	870870	22	-2,502,914	*1.981*	88	851130	25	-462,598	*0.366*
36	848360	25	-2,471,589	*1.956*	89	870894	21	-443,895	*0.351*
37	321490	25	-2,332,211	*1.845*	90	851240	25	-432,538	*0.342*
38	401212	28	-2,250,266	*1.781*	91	850910	22	-432,137	*0.342*
39	210410	30	-2,231,341	*1.766*	92	960350	25	-429,652	*0.340*
40	761699	25	-2,229,237	*1.764*	93	853180	24	-418,951	*0.332*
41	831000	20	-2,210,523	*1.749*	94	610349	30	-407,353	*0.322*
42	870893	21	-2,132,845	*1.688*	95	630710	30	-398,406	*0.315*
43	392590	25	-2,084,718	*1.650*	96	851180	25	-395,210	*0.313*
44	853931	23	-1,980,540	*1.567*	97	851629	22	-388,711	*0.308*
45	340510	25	-1,899,726	*1.503*	98	370710	24	-384,616	*0.304*
46	830241	25	-1,787,864	*1.415*	99	391739	25	-380,566	*0.301*
47	700711	25	-1,762,779	*1.395*	100	851150	23	-374,637	*0.296*
48	871640	25	-1,749,693	*1.385*	101	400941	26	-366,065	*0.290*
49	871690	26	-1,651,485	*1.307*	102	401219	27	-364,729	*0.289*
50	620459	25	-1,601,415	*1.267*	103	330690	22	-357,744	*0.283*
51	700490	30	-1,593,868	*1.261*	104	930390	30	-333,445	*0.264*
52	853921	23	-1,579,732	*1.250*	105	732620	24	-326,113	*0.258*
53	330590	31	-1,474,929	*1.167*	106	841350	30	-325,747	*0.258*

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Continued … Malawi: Top 212 HS Six-Digit Products with Largest Tariff Revenue Losses

No.	HS code	Actual MFN %	Value (MK '000)	Product Share %	No.	HS code	Actual MFN %	Value (MK '000)	Product Share %
107	700992	25	-316,474	*0.250*	160	910229	25	-84,000	*0.066*
108	640340	30	-315,292	*0.249*	161	330710	25	-82,946	*0.066*
109	620199	30	-310,129	*0.245*	162	401695	25	-81,263	*0.064*
110	400922	25	-304,069	*0.241*	163	847310	25	-80,548	*0.064*
111	321290	25	-294,982	*0.233*	164	854121	25	-80,479	*0.064*
112	560290	25	-293,334	*0.232*	165	852410	30	-79,357	*0.063*
113	830120	25	-289,964	*0.229*	166	854319	25	-77,430	*0.061*
114	870831	25	-282,048	*0.223*	167	540744	25	-76,588	*0.061*
115	630291	29	-272,542	*0.216*	168	321000	24	-75,825	*0.060*
116	854451	30	-269,083	*0.213*	169	481690	20	-75,603	*0.060*
117	830629	27	-267,029	*0.211*	170	850990	28	-74,603	*0.059*
118	401210	60	-264,540	*0.209*	171	840729	25	-72,884	*0.058*
119	851290	25	-260,917	*0.206*	172	910400	25	-70,991	*0.056*
120	830520	25	-255,690	*0.202*	173	731910	25	-64,410	*0.051*
121	830230	25	-249,779	*0.198*	174	401519	25	-56,871	*0.045*
122	853190	28	-241,265	*0.191*	175	400932	25	-52,918	*0.042*
123	731029	23	-235,971	*0.187*	176	851120	25	-50,445	*0.040*
124	610449	25	-234,476	*0.186*	177	160411	25	-50,102	*0.040*
125	854129	25	-232,732	*0.184*	178	950320	30	-46,334	*0.037*
126	610339	30	-223,682	*0.177*	179	441219	30	-46,054	*0.036*
127	900653	25	-223,055	*0.177*	180	731990	25	-45,689	*0.036*
128	821194	30	-218,576	*0.173*	181	160520	25	-45,612	*0.036*
129	961100	25	-205,631	*0.163*	182	620112	29	-43,366	*0.034*
130	851890	24	-202,215	*0.160*	183	821000	25	-41,287	*0.033*
131	580190	25	-190,894	*0.151*	184	847329	30	-40,077	*0.032*

No.	HS code	MFN	(TZSH)	Product Share	No.	HS code	MFN	(TZSH)	Product Share
132	851680	20	-190,050	0.150	185	340530	25	-36,411	0.029
133	902920	25	-181,865	0.144	186	870821	25	-35,106	0.028
134	840733	25	-175,347	0.139	187	902990	25	-34,308	0.027
135	910599	26	-168,098	0.133	188	880190	25	-32,019	0.025
136	870860	26	-166,047	0.131	189	590699	25	-31,367	0.025
137	960719	25	-164,908	0.130	190	731930	25	-28,179	0.022
138	830710	25	-163,301	0.129	191	920300	23	-24,383	0.019
139	851190	25	-160,623	0.127	192	611720	30	-24,115	0.019
140	841320	25	-156,441	0.124	193	854110	27	-24,062	0.019
141	830170	24	-155,303	0.123	194	621020	30	-20,020	0.016
142	830590	30	-148,642	0.118	195	521224	25	-18,866	0.015
143	401161	26	-138,385	0.110	196	160540	25	-17,324	0.014
144	570490	30	-130,538	0.103	197	160415	25	-16,912	0.013
145	330410	25	-130,341	0.103	198	854040	30	-15,995	0.013
146	830810	25	-126,456	0.100	199	847321	25	-15,984	0.013
147	420500	30	-120,680	0.095	200	160412	25	-14,260	0.011
148	401610	22	-120,195	0.095	201	160590	25	-9,293	0.007
149	940120	24	-118,932	0.094	202	420310	25	-9,221	0.007
150	400921	25	-115,392	0.091	203	482370	25	-8,736	0.007
151	401162	25	-111,494	0.088	204	481620	25	-6,971	0.006
152	960629	30	-106,779	0.084	205	930529	30	-6,678	0.005
153	551321	25	-103,204	0.082	206	580631	25	-6,627	0.005
154	620452	25	-102,589	0.081	207	620510	30	-5,440	0.004
155	961310	30	-97,114	0.077	208	240290	30	-4,636	0.004
156	400931	25	-92,327	0.073	209	900220	25	-3,522	0.003
157	600199	25	-89,103	0.071	210	950621	30	-2,366	0.002
158	610342	30	-88,721	0.070	211	810890	25	-1,797	0.001
159	611790	25	-85,479	0.068	212	846911	25	-647	0.001

Table C2: Tanzania - Top 500 HS Six-Digit Products with Largest Tariff Revenue Losses (For Products with MFN not less than 20%, and effect greater than TZSH 0.5 million) Total revenue loss for products with MFN not less than 20% = TZSH17,758.6 million, representing 32% of total revenue effect.

No.	HS code	Actual MFN %	(TZSH million)	Product Share %	No.	HS code	Actual MFN %	(TZSH million)	Product Share %
1	630900	22	-6,011.881	33.853	51	190219	24	-90.162	0.508
2	170111	31	-2,603.306	14.659	52	340111	24	-89.328	0.503
3	690890	22	-948.640	5.342	53	210220	25	-86.550	0.487
4	640299	24	-705.930	3.975	54	330610	24	-86.423	0.487
5	850610	46	-655.847	3.693	55	220421	24	-84.339	0.475
6	220300	25	-546.540	3.078	56	441119	25	-83.657	0.471
7	961700	24	-440.980	2.483	57	701329	23	-81.116	0.457
8	482359	22	-440.301	2.479	58	481840	20	-79.818	0.449
9	521225	25	-335.947	1.892	59	330300	24	-74.361	0.419
10	100630	25	-311.403	1.754	60	620719	25	-73.507	0.414
11	220290	25	-289.683	1.631	61	320910	30	-72.322	0.407
12	841821	24	-268.319	1.511	62	830241	20	-72.184	0.406
13	841829	23	-240.468	1.354	63	200290	25	-70.726	0.398
14	040221	42	-223.201	1.257	64	392350	25	-67.047	0.378
15	830910	25	-218.063	1.228	65	321410	43	-66.055	0.372
16	610990	24	-209.832	1.182	66	853922	24	-64.717	0.364
17	640590	21	-201.801	1.136	67	701339	25	-64.386	0.363
18	732690	21	-187.685	1.057	68	210210	25	-62.403	0.351

No.	HS code	Actual MFN %	(TZSH million)	Product Share %	No.	HS code	Actual MFN %	(TZSH million)	Product Share %
19	170490	25	-187.079	*1.053*	69	850940	23	-60.685	*0.342*
20	392099	25	-182.652	*1.029*	70	610449	25	-58.048	*0.327*
21	691200	21	-166.753	*0.939*	71	610349	25	-57.486	*0.324*
22	620899	25	-164.080	*0.924*	72	420229	24	-56.827	*0.320*
23	621040	25	-161.307	*0.908*	73	621111	25	-55.882	*0.315*
24	151590	26	-154.837	*0.872*	74	620459	25	-52.906	*0.298*
25	940510	22	-153.073	*0.862*	75	391910	24	-52.450	*0.295*
26	940161	21	-152.630	*0.859*	76	960321	22	-52.086	*0.293*
27	330590	25	-147.293	*0.829*	77	660199	25	-50.752	*0.286*
28	190190	25	-145.013	*0.817*	78	392190	21	-50.676	*0.285*
29	360500	113	-140.455	*0.791*	79	540773	25	-49.549	*0.279*
30	960810	22	-137.057	*0.772*	80	660110	25	-47.241	*0.266*
31	391740	23	-135.634	*0.764*	81	852731	25	-46.965	*0.264*
32	620590	24	-135.528	*0.763*	82	640510	24	-46.422	*0.261*
33	640419	22	-135.039	*0.760*	83	330720	25	-45.277	*0.255*
34	392410	24	-131.468	*0.740*	84	611599	25	-45.234	*0.255*
35	170219	20	-128.448	*0.723*	85	200980	25	-44.852	*0.253*
36	190530	24	-127.099	*0.716*	86	721650	21	-44.460	*0.250*
37	170112	25	-125.535	*0.707*	87	820210	22	-43.759	*0.246*
38	110100	25	-121.605	*0.685*	88	681310	24	-43.040	*0.242*
39	330499	24	-121.234	*0.683*	89	950430	25	-42.306	*0.238*
40	170410	25	-113.138	*0.637*	90	151219	34	-41.805	*0.235*
41	851660	21	-112.848	*0.635*	91	240220	62	-41.571	*0.234*
42	040700	25	-111.142	*0.626*	92	650590	25	-41.534	*0.234*
43	853931	25	-110.456	*0.622*	93	210320	25	-40.668	*0.229*
44	841830	24	-106.329	*0.599*	94	851679	23	-39.806	*0.224*
45	841810	23	-102.790	*0.579*	95	190410	25	-39.541	*0.223*
46	040210	35	-97.162	*0.547*	96	330690	25	-39.439	*0.222*
47	640220	25	-97.104	*0.547*	97	180690	25	-39.328	*0.221*
48	551519	25	-96.740	*0.545*	98	080410	25	-39.219	*0.221*
49	732394	25	-95.831	*0.540*	99	420222	25	-38.542	*0.217*
50	620419	25	-95.482	*0.538*	100	570500	24	-37.995	*0.214*

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Continued … Tanzania: Top 500 HS Six-Digit Products with Largest Tariff Revenue Losses

No.	HS code	Actual MFN %	(TZSH million)	Product Share %	No.	HS code	Actual MFN %	(TZSH million)	Product Share %
101	200990	25	-37.588	*0.212*	151	854451	20	-21.568	*0.121*
102	040510	26	-37.305	*0.210*	152	610690	25	-21.443	*0.121*
103	610419	25	-36.968	*0.208*	153	821210	22	-21.367	*0.120*
104	420299	24	-35.869	*0.202*	154	482040	25	-21.203	*0.119*
105	210390	24	-35.237	*0.198*	155	391731	20	-21.149	*0.119*
106	151529	35	-34.635	*0.195*	156	950440	25	-21.142	*0.119*
107	852110	20	-34.434	*0.194*	157	630499	25	-21.056	*0.119*
108	330741	24	-34.426	*0.194*	158	321490	30	-21.038	*0.118*
109	620311	25	-34.030	*0.192*	159	721621	25	-21.025	*0.118*
110	852311	25	-33.080	*0.186*	160	940429	23	-20.938	*0.118*
111	721070	25	-32.898	*0.185*	161	930200	25	-20.861	*0.117*
112	040690	30	-32.720	*0.184*	162	820299	22	-20.544	*0.116*
113	940560	25	-31.766	*0.179*	163	040630	36	-20.470	*0.115*
114	851640	20	-31.593	*0.178*	164	961210	25	-20.468	*0.115*
115	340510	25	-31.540	*0.178*	165	640212	25	-20.285	*0.114*

No.	HS code	Actual MFN %	(TZSH million)	Product Share %	No.	HS code	Actual MFN %	(TZSH million)	Product Share %
116	820411	24	-31.376	0.177	166	441019	25	-20.116	0.113
117	960390	20	-31.102	0.175	167	190230	24	-19.784	0.111
118	852330	25	-31.018	0.175	168	910529	24	-19.416	0.109
119	851631	24	-30.884	0.174	169	360300	24	-19.344	0.109
120	610510	25	-30.563	0.172	170	841583	25	-19.228	0.108
121	852712	25	-30.345	0.171	171	940390	21	-19.027	0.107
122	320820	41	-30.077	0.169	172	392042	24	-18.992	0.107
123	481720	25	-29.750	0.168	173	392059	25	-18.800	0.106
124	481960	22	-29.505	0.166	174	620520	25	-18.780	0.106
125	960910	24	-29.362	0.165	175	401220	24	-18.213	0.103
126	610459	25	-29.133	0.164	176	820720	23	-18.191	0.102
127	620530	25	-29.033	0.163	177	620510	25	-18.086	0.102
128	630510	58	-28.961	0.163	178	670210	25	-17.730	0.100
129	650699	21	-28.805	0.162	179	760711	25	-17.615	0.099
130	252321	25	-28.775	0.162	180	590310	25	-17.403	0.098
131	680911	21	-28.405	0.160	181	160250	25	-17.230	0.097
132	940171	24	-27.979	0.158	182	960310	22	-16.803	0.095
133	721061	22	-27.565	0.155	183	960329	20	-16.720	0.094
134	401310	20	-27.439	0.155	184	441129	25	-16.651	0.094
135	482390	21	-26.316	0.148	185	480920	25	-16.286	0.092
136	680520	25	-25.783	0.145	186	160100	25	-16.274	0.092
137	220210	23	-25.551	0.144	187	621390	25	-16.105	0.091
138	821220	25	-24.901	0.140	188	731100	21	-15.786	0.089
139	910291	25	-24.356	0.137	189	852313	25	-15.771	0.089
140	330749	25	-23.876	0.134	190	960719	25	-15.661	0.088
141	611519	25	-23.549	0.133	191	220850	25	-15.365	0.087
142	700711	20	-23.533	0.133	192	621210	25	-15.307	0.086
143	551511	25	-23.128	0.130	193	220820	25	-15.289	0.086
144	701190	25	-22.900	0.129	194	621490	25	-14.958	0.084
145	950490	22	-22.881	0.129	195	580790	24	-14.902	0.084
146	220870	25	-22.497	0.127	196	842542	35	-14.773	0.083
147	330491	24	-22.253	0.125	197	731812	25	-14.363	0.081
148	330510	25	-21.892	0.123	198	521159	25	-14.156	0.080
149	180610	25	-21.855	0.123	199	630260	25	-14.145	0.080
150	640411	24	-21.626	0.122	200	620920	25	-13.925	0.078

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Continued … Tanzania: Top 500 HS Six-Digit Products with Largest Tariff Revenue Losses

No.	HS code	Actual MFN %	(TZSH million)	Product Share %	No.	HS code	Actual MFN %	(TZSH million)	Product Share %
201	731822	21	-13.693	0.077	251	961590	25	-8.459	0.048
202	420211	21	-13.351	0.075	252	851632	25	-8.438	0.048
203	960711	24	-13.334	0.075	253	200551	25	-8.381	0.047
204	551311	25	-13.320	0.075	254	570330	25	-8.282	0.047
205	721632	25	-13.304	0.075	255	190120	25	-8.169	0.046
206	321100	25	-13.170	0.074	256	482319	23	-8.123	0.046
207	040229	23	-12.975	0.073	257	640520	25	-8.112	0.046
208	441199	25	-12.957	0.073	258	852460	25	-8.058	0.045
209	630399	21	-12.907	0.073	259	401691	24	-8.038	0.045
210	200520	25	-12.748	0.072	260	210410	25	-8.013	0.045

No.	HS code	Actual MFN %	(TZSH million)	Product Share %	No.	HS code	Actual MFN %	(TZSH million)	Product Share %
211	420221	25	-12.705	*0.072*	261	020736	25	-7.996	*0.045*
212	040310	29	-12.590	*0.071*	262	611592	20	-7.941	*0.045*
213	940591	25	-12.437	*0.070*	263	110220	25	-7.876	*0.044*
214	711719	25	-12.399	*0.070*	264	441900	22	-7.874	*0.044*
215	590410	25	-12.245	*0.069*	265	482311	22	-7.872	*0.044*
216	660191	25	-12.219	*0.069*	266	830520	23	-7.818	*0.044*
217	611190	25	-11.790	*0.066*	267	220860	23	-7.683	*0.043*
218	640312	25	-11.726	*0.066*	268	081350	25	-7.587	*0.043*
219	040390	50	-11.602	*0.065*	269	610719	25	-7.495	*0.042*
220	392041	25	-11.532	*0.065*	270	630311	25	-7.482	*0.042*
221	611490	25	-11.512	*0.065*	271	620610	24	-7.389	*0.042*
222	210330	25	-11.379	*0.064*	272	481820	25	-7.359	*0.041*
223	701399	26	-11.378	*0.064*	273	631090	20	-7.348	*0.041*
224	845020	25	-11.257	*0.063*	274	620341	25	-7.136	*0.040*
225	610829	25	-11.250	*0.063*	275	910299	25	-7.091	*0.040*
226	850630	34	-11.144	*0.063*	276	721049	45	-7.022	*0.040*
227	482360	25	-11.062	*0.062*	277	610442	25	-6.831	*0.038*
228	481200	25	-10.818	*0.061*	278	160414	25	-6.727	*0.038*
229	940179	25	-10.658	*0.060*	279	630710	25	-6.642	*0.037*
230	830120	24	-10.617	*0.060*	280	680221	23	-6.602	*0.037*
231	961380	20	-10.533	*0.059*	281	392111	25	-6.537	*0.037*
232	841840	22	-10.432	*0.059*	282	340590	24	-6.518	*0.037*
233	330430	25	-10.400	*0.059*	283	630110	25	-6.516	*0.037*
234	420232	25	-10.342	*0.058*	284	392630	25	-6.459	*0.036*
235	580639	25	-10.260	*0.058*	285	610469	25	-6.411	*0.036*
236	330410	25	-9.939	*0.056*	286	392510	21	-6.390	*0.036*
237	830230	22	-9.867	*0.056*	287	420239	23	-6.343	*0.036*
238	190510	25	-9.562	*0.054*	288	340520	25	-6.315	*0.036*
239	401210	25	-9.486	*0.053*	289	680430	25	-6.291	*0.035*
240	950320	25	-9.402	*0.053*	290	330530	25	-6.250	*0.035*
241	731824	22	-9.382	*0.053*	291	820540	21	-6.208	*0.035*
242	091099	25	-9.300	*0.052*	292	732510	23	-6.038	*0.034*
243	830242	25	-9.151	*0.052*	293	732599	24	-6.019	*0.034*
244	190540	25	-9.105	*0.051*	294	721590	25	-6.009	*0.034*
245	870331	35	-8.938	*0.050*	295	741531	24	-5.993	*0.034*
246	831000	23	-8.929	*0.050*	296	620119	23	-5.960	*0.034*
247	180631	25	-8.892	*0.050*	297	961100	25	-5.926	*0.033*
248	200970	25	-8.769	*0.049*	298	481690	21	-5.914	*0.033*
249	845012	25	-8.750	*0.049*	299	482320	20	-5.885	*0.033*
250	940120	22	-8.655	*0.049*	300	150990	30	-5.857	*0.033*

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Continued … Tanzania: Top 500 HS Six-Digit Products with Largest Tariff Revenue Losses

No.	HS code	Actual MFN %	(TZSH million)	Product Share %	No.	HS code	Actual MFN %	(TZSH million)	Product Share %
301	200799	25	-5.827	*0.033*	351	321290	25	-4.082	*0.023*
302	930320	25	-5.793	*0.033*	352	731930	23	-4.064	*0.023*
303	200190	25	-5.759	*0.032*	353	611410	25	-4.037	*0.023*
304	210500	21	-5.749	*0.032*	354	732020	25	-4.017	*0.023*
305	640110	20	-5.744	*0.032*	355	401695	25	-3.971	*0.022*

No.	HS code	MFN %	(TZSH million)	Product Share %	No.	HS code	MFN %	(TZSH million)	Product Share %
306	700600	25	-5.737	0.032	356	670419	25	-3.925	0.022
307	821192	21	-5.728	0.032	357	620339	24	-3.881	0.022
308	852033	23	-5.709	0.032	358	850650	37	-3.840	0.022
309	930390	25	-5.648	0.032	359	680790	24	-3.825	0.022
310	701321	25	-5.546	0.031	360	611710	25	-3.786	0.021
311	630140	25	-5.479	0.031	361	110329	25	-3.758	0.021
312	520832	25	-5.465	0.031	362	910111	25	-3.704	0.021
313	680530	25	-5.402	0.030	363	340530	24	-3.685	0.021
314	200930	25	-5.397	0.030	364	071080	25	-3.679	0.021
315	392112	20	-5.335	0.030	365	691390	21	-3.631	0.020
316	620821	25	-5.328	0.030	366	520420	25	-3.592	0.020
317	200590	25	-5.271	0.030	367	851020	25	-3.547	0.020
318	610461	25	-5.249	0.030	368	551341	25	-3.542	0.020
319	830710	21	-5.071	0.029	369	521139	25	-3.478	0.020
320	121220	25	-5.037	0.028	370	691310	25	-3.475	0.020
321	621410	25	-4.988	0.028	371	761610	22	-3.457	0.019
322	852721	23	-4.967	0.028	372	220840	25	-3.454	0.019
323	940190	25	-4.945	0.028	373	200410	25	-3.430	0.019
324	090111	25	-4.860	0.027	374	621600	24	-3.416	0.019
325	320810	45	-4.801	0.027	375	910591	25	-3.368	0.019
326	090930	25	-4.777	0.027	376	600293	25	-3.304	0.019
327	392062	25	-4.777	0.027	377	180632	25	-3.188	0.018
328	940520	23	-4.774	0.027	378	850920	25	-3.153	0.018
329	200310	25	-4.768	0.027	379	160590	25	-3.049	0.017
330	680423	25	-4.708	0.027	380	190211	25	-3.049	0.017
331	851810	21	-4.636	0.026	381	071340	25	-3.046	0.017
332	721622	25	-4.622	0.026	382	701110	25	-3.022	0.017
333	853932	22	-4.615	0.026	383	110412	25	-3.007	0.017
334	820220	24	-4.600	0.026	384	220900	22	-2.996	0.017
335	680510	25	-4.508	0.025	385	721410	35	-2.995	0.017
336	210230	25	-4.499	0.025	386	620412	25	-2.940	0.017
337	200490	25	-4.495	0.025	387	220510	25	-2.940	0.017
338	741510	25	-4.490	0.025	388	580219	25	-2.924	0.016
339	330710	25	-4.467	0.025	389	681099	24	-2.900	0.016
340	330520	25	-4.419	0.025	390	591000	22	-2.899	0.016
341	330420	25	-4.351	0.024	391	200210	25	-2.895	0.016
342	481610	23	-4.335	0.024	392	910700	25	-2.846	0.016
343	630391	25	-4.299	0.024	393	960610	20	-2.839	0.016
344	610339	25	-4.298	0.024	394	851992	25	-2.830	0.016
345	620413	25	-4.295	0.024	395	731414	25	-2.815	0.016
346	200710	25	-4.286	0.024	396	961610	25	-2.811	0.016
347	540120	22	-4.278	0.024	397	610190	25	-2.792	0.016
348	940530	24	-4.150	0.023	398	080212	25	-2.789	0.016
349	732181	22	-4.087	0.023	399	391722	25	-2.778	0.016
350	200559	25	-4.085	0.023	400	830170	24	-2.776	0.016

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Continued … Tanzania: Top 500 HS Six-Digit Products with Largest Tariff Revenue Losses

No.	HS code	Actual MFN %	(TZSH million)	Product Share %	No.	HS code	Actual MFN %	(TZSH million)	Product Share %
401	851822	25	-2.730	0.015	451	040610	31	-1.619	0.009

402	640230	25	-2.715	0.015	452	520411	22	-1.569	0.009
403	620930	25	-2.666	0.015	453	621590	25	-1.554	0.009
404	680410	24	-2.661	0.015	454	071090	25	-1.508	0.008
405	200899	25	-2.623	0.015	455	100400	23	-1.507	0.008
406	160239	25	-2.576	0.015	456	950380	25	-1.504	0.008
407	200570	25	-2.567	0.014	457	600299	20	-1.489	0.008
408	841822	22	-2.550	0.014	458	190420	25	-1.481	0.008
409	080620	25	-2.509	0.014	459	081090	25	-1.476	0.008
410	732310	25	-2.502	0.014	460	850690	49	-1.476	0.008
411	160220	25	-2.496	0.014	461	741210	25	-1.475	0.008
412	091091	25	-2.443	0.014	462	852090	20	-1.425	0.008
413	610462	25	-2.400	0.014	463	730519	25	-1.422	0.008
414	650100	25	-2.392	0.013	464	681250	25	-1.420	0.008
415	551321	25	-2.387	0.013	465	200920	25	-1.418	0.008
416	040410	25	-2.381	0.013	466	961220	25	-1.386	0.008
417	950420	25	-2.321	0.013	467	180620	25	-1.367	0.008
418	200510	25	-2.316	0.013	468	220600	25	-1.359	0.008
419	950370	25	-2.299	0.013	469	540782	25	-1.322	0.007
420	731910	25	-2.287	0.013	470	200600	25	-1.297	0.007
421	090210	50	-2.245	0.013	471	360690	25	-1.279	0.007
422	570242	25	-2.225	0.013	472	611780	25	-1.273	0.007
423	610711	25	-2.223	0.013	473	760900	22	-1.271	0.007
424	910519	25	-2.209	0.012	474	611720	25	-1.256	0.007
425	540752	25	-2.169	0.012	475	930590	21	-1.250	0.007
426	630411	25	-2.089	0.012	476	960850	25	-1.226	0.007
427	210420	25	-2.088	0.012	477	090122	25	-1.222	0.007
428	420292	25	-2.082	0.012	478	200950	25	-1.218	0.007
429	200892	25	-2.068	0.012	479	670300	25	-1.211	0.007
430	732392	25	-2.060	0.012	480	711420	25	-1.200	0.007
431	160413	25	-2.052	0.012	481	090620	25	-1.200	0.007
432	640191	25	-1.890	0.011	482	160241	25	-1.157	0.007
433	200940	25	-1.871	0.011	483	681011	25	-1.153	0.006
434	691490	25	-1.868	0.011	484	090121	25	-1.143	0.006
435	110630	25	-1.848	0.010	485	110419	25	-1.142	0.006
436	730590	25	-1.803	0.010	486	090240	50	-1.132	0.006
437	420690	25	-1.774	0.010	487	630251	25	-1.131	0.006
438	200580	25	-1.771	0.010	488	521151	25	-1.122	0.006
439	200960	25	-1.764	0.010	489	040900	23	-1.120	0.006
440	741521	24	-1.758	0.010	490	610811	25	-1.116	0.006
441	821193	24	-1.751	0.010	491	160419	25	-1.103	0.006
442	200791	25	-1.747	0.010	492	090610	25	-1.059	0.006
443	701332	25	-1.726	0.010	493	960330	25	-1.044	0.006
444	852032	25	-1.711	0.010	494	940592	25	-1.036	0.006
445	570252	25	-1.704	0.010	495	442110	25	-1.031	0.006
446	701391	25	-1.675	0.009	496	650200	25	-1.027	0.006
447	200819	25	-1.641	0.009	497	731814	25	-1.016	0.006
448	901290	21	-1.631	0.009	498	220190	25	-0.982	0.006
449	590491	25	-1.629	0.009	499	731821	20	-0.980	0.006
450	821194	25	-1.622	0.009	500	420500	25	-0.973	0.005

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Continued … Tanzania: Top 500 HS Six-Digit Products with Largest Tariff Revenue Losses

No.	HS code	Actual MFN %	(TZSH million)	*Product Share %*	No.	HS code	Actual MFN %	(TZSH million)	*Product Share %*
501	200911	25	-0.925	*0.005*	523	821000	23	-0.686	*0.004*
502	110290	25	-0.882	*0.005*	524	620432	25	-0.652	*0.004*
503	950330	21	-0.877	*0.005*	525	960190	25	-0.646	*0.004*
504	820231	24	-0.867	*0.005*	526	291090	25	-0.643	*0.004*
505	722599	25	-0.867	*0.005*	527	821195	25	-0.636	*0.004*
506	080250	25	-0.867	*0.005*	528	590320	25	-0.614	*0.003*
507	852432	24	-0.848	*0.005*	529	090500	25	-0.608	*0.003*
508	081340	25	-0.845	*0.005*	530	821290	25	-0.608	*0.003*
509	520839	25	-0.833	*0.005*	531	200870	25	-0.607	*0.003*
510	621290	25	-0.832	*0.005*	532	621510	25	-0.607	*0.003*
511	160411	25	-0.826	*0.005*	533	090412	25	-0.602	*0.003*
512	960622	25	-0.817	*0.005*	534	930610	25	-0.592	*0.003*
513	160420	25	-0.804	*0.005*	535	681410	25	-0.564	*0.003*
514	621310	27	-0.760	*0.004*	536	091030	25	-0.559	*0.003*
515	200540	25	-0.744	*0.004*	537	160210	25	-0.553	*0.003*
516	090230	46	-0.742	*0.004*	538	450310	25	-0.532	*0.003*
517	200820	25	-0.724	*0.004*	539	160300	25	-0.529	*0.003*
518	200110	25	-0.714	*0.004*	540	151519	35	-0.528	*0.003*
519	821510	25	-0.703	*0.004*	541	640330	25	-0.516	*0.003*
520	551623	25	-0.698	*0.004*	542	170191	45	-0.516	*0.003*
521	580640	25	-0.694	*0.004*	543	071120	25	-0.503	*0.003*
522	090420	25	-0.693	*0.004*					

APPENDIX D: The Harmonized System (HS) Classification at Two-Digit Level[15]

SECTION I - ANIMALS & ANIMAL PRODUCTS
Chapter 01 - Live animals
Chapter 02 - Meat and edible meat offal
Chapter 03 - Fish, crustaceans & aquatic invertebrates
Chapter 04 - Dairy produce; birds eggs; honey and other edible animal products
Chapter 05 - Other products of animal origin
SECTION II - VEGETABLE PRODUCTS
Chapter 06 - Live trees, plants; bulbs, roots; cut flowers & ornamental foliage
Chapter 07 - Edible vegetables & certain roots & Tubers
Chapter 08 - Edible fruit & nuts; citrus fruit or melon peel
Chapter 09 - Coffee, tea, mate & spices
Chapter 10 - Cereals
Chapter 11 - Milling products; malt; starch; inulin; wheat gluten
Chapter 12 - Oil seeds & oleaginous fruits; miscellaneous grains, seeds & fruit; industrial or medicinal plants; straw & fodder
Chapter 13 - Lac; gums, resins & other vegetable sap & extracts
Chapter 14 - Vegetable plaiting materials & other vegetable products

SECTION III - ANIMAL OR VEGETABLE FATS
Chapter 15 - Animal or vegetable fats and oils and their clevage products; prepared edible fats; animal or vegetable waxes
SECTION IV - PREPARED FOODSTUFS
Chapter 16 - Edible preparations of meat, fish, crustaceans, molluscs or other aquatic invertebrates
Chapter 17 - Sugars and sugar confectionary
Chapter 18 - Cocoa and cocoa preparations
Chapter 19 - Preparations of cereals, flour, starch or milk; bakers wares
Chapter 20 - Preparations of vegetables, fruit, nuts or other plant parts
Chapter 21 - Miscellaneous edible preparations
Chapter 22 - Beverages, spirits and vinegar
Chapter 23 - Food industry residues & waste; prepared animal feed
Chapter 24 - Tobacco and manufactured tobacco substitutes
SECTION V - MINERAL PRODUCTS
Chapter 25 - Salt; sulfur; earth & stone; lime & cement plaster
Chapter 26 - Ores, slag and ash
Chapter 27 - Mineral fuels, mineral oils & products of their distillation; bitumin substances; mineral wax
SECTION VI - CHEMICAL PRODUCTS
Chapter 28 - Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, of radioactive elements or of isotopes
Chapter 29 - Organic chemicals
Chapter 30 - Pharmaceutical products
Chapter 31 - Fertilizers
Chapter 32 - Tanning or dyeing extracts; tannins & derivatives; dyes, pigments & coloring matter; paint & varnish; putty & other mastics; inks
Chapter 33 - Essential oils and resinoids; perfumery, cosmetic or toilet preparations
Chapter 34 - Soap; waxes; polish; candles; modelling pastes; dental preparations with basis of plaster
Chapter 35 - Albuminoidal substances; modified starch; glues; enzymes
Chapter 36 - Explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations

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[15] The description of HS six-digit level classification can be found at, for example: http://sphere.rdc.puc-rio.br/parcerias/untpdc/eto/standards/hs/index.html

Chapter 37 - Photographic or cinematographic goods

Chapter 38 - Miscellaneous chemical products

SECTION VII - PLASTICS & RUBBER

Chapter 39 - Plastics and articles thereof

Chapter 40 - Rubber and articles thereof

SECTION VIII - HIDES & SKINS

Chapter 41 - Raw hides and skins (other than furskins) and leather

Chapter 42 - Leather articles; saddlery and harness; travel goods, handbags & similar; articles of animal gut [not silkworm gut]

Chapter 43 - Furskins and artificial fur; manufactures thereof

SECTION IX - WOOD & WOOD PRODUCTS

Chapter 44 - Wood and articles of wood; wood charcoal

Chapter 45 - Cork and articles of cork

Chapter 46 - Manufactures of straw, esparto or other plaiting materials; basketware & wickerwork

SECTION X - WOOD PULP PRODUCTS

Chapter 47 - Pulp of wood or of other fibrous cellulosic material; waste & scrap of paper & paperboard

Chapter 48 - Paper & paperboard & articles thereof; paper pulp articles

Chapter 49 - Printed books, newspapers, pictures and other products of printing industry; manuscripts, typescripts and plans

SECTION XI - TEXTILES & TEXTILE ARTICLES

Chapter 50 - Silk, including yarns and woven fabric thereof

Chapter 51 - Wool & animal hair, including yarn & woven fabric

Chapter 52 - Cotton, including yarn and woven fabric thereof

Chapter 53 - Other vegetable textile fibers; paper yarn and woven fabrics of paper yarn

Chapter 54 - Manmade filaments, including yarns & woven fabrics

Chapter 55 - Manmade staple fibres, including yarns & woven fabrics

Chapter 56 - Wadding, felt and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof

Chapter 57 - Carpets and other textile floor coverings

Chapter 58 - Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery

Chapter 59 - Impregnated, coated, covered or laminated textile fabrics; textile articles for industrial use

Chapter 60 - Knitted or crocheted fabrics

Chapter 61 - Apparel articles and accessories, knitted or crocheted

Chapter 62 - Apparel articles and accessories, not knitted or crocheted

Chapter 63 - Other textile articles; needlecraft sets; worn clothing and worn textile articles; rags

SECTION XII - FOOTWEAR, HEADGEAR

Chapter 64 - Footwear, gaiters and the like and parts thereof

Chapter 65 - Headgear and parts thereof

Chapter 66 - Umbrellas, walking-sticks, seat-sticks, riding-crops, whips, and parts thereof

Chapter 67 - Prepared feathers, down and articles thereof; artificial flowers; articles of human hair

SECTION XIII - ARTICLES OF STONE, PLASTER, CEMENT, ASBESTOS

Chapter 68 - Articles of stone, plaster, cement, asbestos, mica or similar materials

Chapter 69 - Ceramic products

Chapter 70 - Glass and glassware

SECTION XIV - PEARLS, PRECIOUS OR SEMI-PRECIOUS STONES, METALS

Chapter 71 - Natural or cultured pearls, precious or semiprecious stones, precious metals and metals clad therewith and articles thereof; imitation jewelry; coin

SECTION XV - BASE METALS & ARTICLES THEREOF

Chapter 72 - Iron and steel

Chapter 73 - Articles of iron or steel

Chapter 74 - Copper and articles thereof

Chapter 75 - Nickel and articles thereof

Chapter 76 - Aluminum and articles thereof

Chapter 78 - Lead and articles thereof

Chapter 79 - Zinc and articles thereof

Chapter 80 - Tin and articles thereof

Chapter 81 - Other base metals; cermets; articles thereof
Chapter 82 - Tools, implements, cutlery, spoons & forks of base metal & parts thereof
Chapter 83 - Miscellaneous articles of base metal
SECTION XVI - MACHINERY & MECHANICAL APPLICANCES
Chapter 84 - Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof
Chapter 85 - Electric machinery, equipment and parts; sound equipment; television equipment
SECTION XVII - TRANSPORTATION EQUIPMENT
Chapter 86 - Railway or tramway. Locomotives, rolling stock, track fixtures and parts thereof; mechanical & electro-mechanical traffic signal equipment
Chapter 87 - Vehicles, (not railway, tramway, rolling stock); parts and accessories
Chapter 88 - Aircraft, spacecraft, and parts thereof
Chapter 89 - Ships, boats and floating stuctures
SECTION XVIII - INSTRUMENTS - MEASURING, MUSICAL
Chapter 90 - Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments/apparatus; parts & accessories
Chapter 91 - Clocks and watches and parts thereof
Chapter 92 - Musical instruments; parts and accessories thereof
SECTION XIX - ARMS & AMMUNITION
Chapter 93 - Arms and ammunition; parts and accessories thereof
SECTION XX - MISCELLANEOUS
Chapter 94 - Furniture; bedding, mattresses, cushions etc; other lamps & light fitting, illuminated signs and nameplates, prefabricated buildings
Chapter 95 - Toys, games & sports equipment; parts & accessories
Chapter 96 - Miscellaneous manufactured articles
SECTION XIX - WORKS OF ART
Chapter 97 - Works of art, collectors' pieces and antiques