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RTAs and WTO compatibility: Catch me if you can?
The case of EPA negotiations

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Abstract

There is an ongoing debate about best ways to assess the compatibility of RTAs with WTO rules and the possible negative impact that the proliferation of RTA formation may have on individual members and on the stability of the multilateral trading system as a whole. Therefore, rules defining the WTO compatibility of RTAs are one of the issues under in the WTO Doha negotiations. Taking the current EPA negotiations between ACP and EU as an example, this paper examines two sorts of questions: (i) the implications for developing country members of the current proposals to tighten the rules on WTO compatibility of RTAs; (ii) the impact that the proliferation of RTA formation may have on non-RTA members and on the stability of the multilateral trading system as a whole. More specifically, the paper assesses quantitatively using a partial equilibrium framework the implications for ACP countries of some of the proposals to reform GATT Art. XXIV, in particular the "substantially all trade" criteria. Based on a CGE approach, the paper then looks at the implications of EPA negotiations on third countries and its linkages with the ongoing Doha negotiations, in particular on how the future EPA agreements could be non-trade diverting, in line with Ohyama-Panagariya-Krishna version of the Kemp-Wan theorem.

JEL classifications: F13, F15, F17

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Introduction

Regional trade agreements (RTAs) continue to proliferate unabated in parallel, and apparently with greater success than the Doha round of multilateral negotiations. The exact number of RTAs currently in operation worldwide is not known precisely. However, various assessments (including WTO estimates) place the total number of RTAs between 250 and over 300. RTAs constitute an important development strategy for many developing countries to foster regional trade and economic integration, but they have to be consistent with WTO rules then prevailing in order to contribute to building an open, predictable and transparent equitable multilateral trading system. These new developments in RTA formation have led to a renewed interest in RTAs, with many academics questioning the impact RTAs have had on members and third countries.

Developing countries are also major players in this trend, being partners in more than half of all the RTAs formed as part of the 'new wave of regionalism'. North-South RTAs with reciprocal commitments between developed and developing countries are becoming more frequent in all regions. From a development perspective, the EPAs are perhaps among the most significant RTAs currently under negotiation, given the number of countries and issues involved (special and differential treatment (SDT), deep integration measures and asymmetries between developing and developed country members, etc). As a result of this proliferation and given the increasing number of North-South RTAs, there is a debate about how, and whether, to reform Art XXIV to take into account the specificities of North-South RTAs, in particular on issues like flexibility and SDT for developing country members.

This debate is evident in the case of EPAs, with the proposal made by the Africa, Caribbean and Pacific (ACP) Group of States for GATT Art XXIV reform being in contrast with some proposals made by non-EPA members, like Australia. The ACP countries have been negotiating economic partnership agreements (EPAs) with the European Union since September 2002, in order to change the non-reciprocal ACP-EU trade relations into reciprocal free trade agreements (FTAs) consistent with existing disciplines of the WTO on regional trade agreements (RTAs). The negotiations have progressed but have also met with important difficulties. One factor affecting the negotiations is the ongoing WTO Doha negotiations, which may include possible modifications to rules affecting RTAs. This is important to the ACP States and the EU, as the WTO disciplines set the benchmarks against which the WTO compatibility of RTAs, like future EPAs, would be reviewed and judged. The impasse of the Doha negotiations brings an added complication into the EPAs negotiations, which according the scheduled calendar for the EPAs negotiations, need to be finalized by 1 January 2008. Given these emerging complexities, concerns are emerging not only with regard the ability to maintain the original timeframe but also concerning of the possibility to shape EPAs according to the future rules on WTO compatibility of RTAs.

The WTO compatibility of these EPAs is an important element in the overall negotiating strategy of ACP countries. They would need to pay particular attention to managing positively the interface between EPAs, the WTO and ACP regional integration processes. In this regard, one key challenge for ACP States is to introduce a special and differential treatment element in the WTO compatibility procedure under the GATT Art. XXIV. A straightforward way to ensure WTO compatibility and SDT flexibility would be to reform the GATT Article XXIV

accordingly, as part of the Doha round of negotiations. Ideally such changes would need to come into effect prior to the EPA formation. This would mean that EPAs should not be concluded until after the Doha negotiations have been completed and SDT introduced into GATT Article XXIV. Such concerns with regional trade liberalization is not only specific to the EPAs, but to the international trading community at large in terms of the rise in North-South RTAs and would need to be addressed in providing global legitimacy and WTO compatibility of such agreements.

But, whereas negotiators have difficulties in applying or reforming the current WTO rules, there is a theoretical argument based on the Kemp-Wan theorem (and its subsequent extensions) prescribing a set of conditions that ensure the compatibility between multilateralism and regionalism. Kemp-Wan (1976), and subsequently Ohyama (1972) and Panagariya-Krishna (1997), *inter alia*, argued that for any proposed customs union or free trade area there exists a set of common external tariffs that would leave the new trading bloc's trade with non-member countries unchanged, so that the welfare of the latter countries would not be affected and any improvement to the welfare of the integrating countries would strictly add to world welfare. The Kemp-Wan model (1976) endogenises the setting up of the common external tariff after the formation of a customs union in such a way that leaves unaffected the rest of the world. Under these conditions, with an endogenously chosen CET, a customs union would be welfare increasing leading to trade creation for members and no trade diversion for non-members. The original Kemp-Wan condition was further extended to the case of FTA formation by Panagariya and Khrisna (1997).

Hence, these theoretical results suggest that, when the post-RTA tariffs are endogenized along the lines of Kemp-Wan conditions, regionalism can be a "building block" for the multilateral trading system.[1] Despite its appealing conclusions, the Kemp-Wan welfare-improving criterion for RTA formation is often considered of little practical value in the real world of trade negotiations, since RTA members usually do not lower their external tariffs vis-à-vis non-RTA members at the same time with the RTA formation. However, in the case under consideration in this paper, the simultaneous unfolding of both EPA and Doha negotiations, as well as the current debate on the reform of GATT Art. XXIV, offers an opportunity to consider whether the tariff cuts envisaged in the Doha round by EPA members would indirectly make EPAs Kemp-Wan compatible. Thus, the Kemp-Wan welfare-improving criterion becomes of direct relevance for the main issues raised earlier in the context of the GATT Art. XXIV reform, concerning the proliferation of regionalism in recent decades and the relationships between regional trade arrangements and multilateral trading system.

This paper takes the case of EPA as an example to show the relevance of these theoretical predictions and to clarify two main issues. Firstly, the paper will assess the various proposals for Art XXIV reform and their implications for the EPA members. In particular, the paper looks at how to reconcile the more stringent criteria put forward by certain WTO members with the recognized principles of "less than reciprocity" and special and differential treatment for developing countries. Secondly, to respond to the concerns of non-members, the paper will assess the Kemp-Wan admissibility of the proposed EPAs in the context of the Doha negotiations.

Consequently, the paper is organized as follows. The next section presents briefly the three reform proposals : ACP, EU and Australia and their main features (SDT, SAT requirements).

[1] See Bond et al. (2004) for a more detailed discussion of the specific conditions necessary for the "building bloc" scenario to be achieved.

Based on this discussion, section 3 uses a partial equilibrium framework to assess the degree of flexibility under different Art. XXIV reform proposals and identify potential sensitive sectors for ACP countries. In section 4 the attention turns to the impact of EPA formation on non-members and how could potential trade diversion be eliminated. In doing so, this section uses a CGE model with endogenous tariff formation to calculate the amount of trade liberalization that EPA members need to undertake vis-à-vis non-members in the context of the ongoing Doha negotiations. Section 5 concludes by offering several recommendations that could reconcile the existing proposals for reform of GATT Art. XXIV.

The analysis is also important for the broader trade and development debate. As encapsulated in the United Nations Millennium Development Goal 8, international trade can contribute to the generation of resources and development gains that could help developing countries achieve the MDGs. In this context, efforts need to focus on addressing the special problems of the LDCs and other vulnerable developing countries, many of which are also ACP countries. Therefore, the impact assessment of EPAs should also bear in mind the broader implications for the achievement of MDGs in ACPs. Furthermore, the UN Millennium Declaration also calls for greater coherence at various levels and between all stakeholders to promote development and poverty eradication. Hence, the debate over the compatibility of RTAs with WTO rules should also reflect this universally agreed objective and ensure that regional trade agreements involving developing countries are given the appropriate flexibility to promote such broader development goals.

2. Reforming the GATT Art. XXIV: catch me if you can

The Doha work programme adopted by the 4th WTO Ministerial Conference in paragraph 29 called for "negotiations aimed at clarifying and improving disciplines and procedures under the existing WTO provisions applying to regional trade agreements"[2] while taking into account "the developmental aspects of regional trade agreements". In accordance with this mandate, negotiations on rules have been pursued in the Negotiating Group on Rules on procedural, transparency and systemic aspects. One of the motivations for the reform of the WTO Art. XXIV is that in parallel with the proliferation of RTAs, the WTO members have been for the most part unable to use the provisions contained in Art. XXIV to reach consensus on whether an RTAs is compatible with WTO rules and principles or not. Furthermore, with a few notable exceptions (like the *Turkey Textile* case), WTO rules have not been used to « catch » those RTAs that fall short of the conditions imposed to make them compatible with the other WTO rights and obligations.

Therefore, given the *de facto* lack of enforceability of the current Art XXIV, and the ability of most WTO members to "free ride" on this relative legal deficit, WTO members agreed that one objective of the current round of negotiations should be the clarification and strengthening of the rules governing the WTO compatibility of RTAs. Hence as part of this process, several WTO members have submitted proposals for the strengthening of several critical aspects for the enforceability of Art. XXIV, such as "substantially all trade" (SAT) criteria, transition periods, etc.

While most submissions by WTO Members emphasized the need for WTO disciplines to be more stringent and effective, the ACP proposal has focused on flexibility aspects for developing countries regarding primarily "reciprocity" in a North-South RTA. The issue of

[2] WT/MIN(01)/DEC/1.

"reciprocity" and reciprocal trade relations under the EPAs is seen as a major challenge by ACP States and hence the need for "less than full reciprocity" and SDT in North-South RTAs is one of the main objectives of the ACP proposal to reform Art. XXIV. At present, there is no *de jure* SDT for developing countries in meeting the requirements set out in existing GATT Article XXIV disciplines. Explicit SDT treatment is absent from these rules although it is a key principle for the multilateral trading system. Thus introducing SDT into GATT Article XXIV on a *de jure* basis will provide the requisite supportive legal framework in the WTO for the formation of North-South RTAs with SDT features. It will also modernize the GATT Article XXIV and render it relevant in responding to the new phenomena of North-South RTAs in the WTO era. *De facto*, it has been argued that there is some flexibility in GATT Article XXIV that can be helpful to developing countries in justifying flexibility that they could secure in North-South RTAs. This *de facto* flexibility arises from the loose definition presently of "substantially all the trade" criteria for liberalization of mutual trade between parties; the fact that the transition period for interim arrangements can be extended, on exceptional basis, beyond 10 years; and that so far no judgment has been passed by the WTO Committee on Regional Trade Agreements on the conformity or not of any of the notified and examined RTAs. However, it should be noted that such existing flexibility is currently applied to all parties and not just developing countries. Moreover, developing countries' experiences with "best endeavour" SDT provisions has been their minimal usage and thus the need for legally binding, operational and effective SDT provisions.

In contrast to GATT, the General Agreement on Trade in Services (GATS) of the WTO in its Article on economic integration agreements, which is a counterpart to GATT Article XXIV, explicitly provides for SDT treatment for developing countries in meeting the criteria of services liberalization under economic integration agreements (under GATS Article V:1). Furthermore the GATS recognizes a distinction between economic integration agreements that involve developed and developing countries on the one hand or North-South agreements (GATS Article V:3(a)), and those involving only developing countries or South-South agreement (Article V:3(b)). In both, differential and more favourable treatment is provided to developing countries. For example GATS Article V:3 (a) provides that "where developing countries are parties to an agreement", "flexibility shall be provided for regarding conditions set out in paragraph 1", in respect of "substantial sectoral coverage" and "absence or elimination of substantially all discrimination… either at the entry into force of that agreement or on the basis of a reasonable time-frame". As the GATS is a more recent and modern agreement as compared to GATT Article XXIV, it highlights the lacuna in GATT Article XXIV in addressing SDT provisions.

The clarification and improvement of SAT requirement has been at the centre of the systemic issue debate on RTAs in the GATT 1947 era and, not surprisingly, in the WTO Negotiating Group on Rules under the Doha negotiations. This ambiguity has lead to different practices and interpretations and hence the search for greater clarity. A core pillar of the ACP submission is to introduce SDT into the SAT requirement in respect of the removal of duties and other restrictive regulations of commerce (ORRCs) among members of an RTA. It proposes that appropriate flexibility shall be provided to developing countries in meeting the SAT obligation in respect of trade and product coverage, including through the application of a favourable methodology and/or lower (i.e. differentiated) threshold levels in the measurement of trade and product coverage. As regards the application of ORRCs, the ACP Group submission seeks a flexible interpretation for developing countries so that their scope for using trade remedies, such as safeguards, is not undermined by their participation in an RTA.

Two approaches to measuring the "substantial" in the SAT requirements were proposed by WTO members: one based on trade volume and another, based on the number of tariff lines. The *tariff line approach* aims to ensure comprehensive coverage of all major sectors and pre-empt the exclusion of some sectors, like agriculture. Thus, the tariff line approach is seen as more stringent in that it does not allow such flexibility as would have been available under a trade volume based approach. The *trade volume approach* consists in measuring the share of the intra-RTA imports (value) that are free of duties (and ORRCs eventually) in the total intra-RTA import value. These measures could be applied separately or jointly to determine the SAT compatibility.[3]

One of the most stringent proposals for measuring SAT compatibility was submitted by Australia. The Australian proposal suggests a tariff line measurement of SAT (with some trade volume criteria) that is based on a benchmark comprising the elimination of duties and ORRCs of at least 70% of all tariff lines at HS six digit level on entry into force of an agreement, and 95% of all tariff lines at HS 6-digit levels 10 years following the enactment of the agreement. The Australian proposal further argues to interpret SAT as requiring no exclusion of any *"highly traded" products* and "*significant exports"*. "Highly traded" products are defined as HS 6-digit tariff lines accounting for at least 0.2% of total imports from RTA partners or alternatively those ranked among the top 50 imports of each RTA party. "Significant exports" are defined as those HS 6-digit tariff lines accounting for at least 2 percent of a party's total global exports in value.

In contrast, the EU suggested to base the measurement of SAT on a trade coverage approach based upon the aggregate total bilateral trade of RTA partners (rather than individually), as opposed to a tariff line approach. It has subsequently conceded that any future SAT benchmark should derive from the calculation of the combined average of both methods.

Therefore, one important question that is raised by the current efforts to reform the GATT Art. XXIV is how to reconcile, on the one hand, the attempt by the ACP countries to introduce flexibility and SDT as part of the assessment of WTO compatibility, with the other proposals to strengthen and clarify the rules applicable to RTAs under GATT Art. XXIV, in particular to the SAT requirement. Hence, using a partial equilibrium methodology, the next section will assess in a preliminary fashion the impact of various SAT proposals on ACP States, as well as the likely impact of EPAs on trade creation, tariff revenue implication, consumer surplus, and welfare etc. Based on this methodology, it will be possible to see the extent to which more stringent SAT requirements, like the ones proposed by Australia, will reduce the flexibility needed by ACP countries in EPA negotiations.

3. Substantially All Trade - A Numerical Analysis

There are several possibilities to assess the WTO compatibility of RTAs, in terms of SAT requirements. For instance, SAT requirements have been analysed in Stevens and Kennan (2005), based on two initial assumptions, one about the proportion of imports that can be excluded from liberalization and the other that the country will wish to exclude the products that currently face the highest tariffs. Excluding the products currently protected by the highest tariffs could be justified on tariff revenue considerations but also under the assumption that the elimination of highest tariffs would have major economic implications. The assumption made

[3] Another issue in this debate is whether the SAT should be measured individually for each party to an RTA or collectively.

about the proportion of trade that can be excluded from liberalization is based on an overall level of liberalization by the EPA partners (EU and ACP States) of 90%, loosely interpreted as the SAT benchmark by some countries. For instance, under an intra-RTA balanced trade assumption, if the EU liberalizes 100% of its trade, ACP States would only need to liberalize 80% of their trade.

Another approach to assess the likely impact of EPAs on future developing country members is through computable general equilibrium (CGE) models. For instance, Keck et al (2005) have used the GTAP model to estimate the impact of the EPAs on the SADC sub-region in a very comprehensive manner. But the high level of product and country aggregation (in particular unavailability of some ACP countries as individual countries in the GTAP database) limits the usefulness of CGE modelling in estimating EPAs. Moreover, CGE analysis is unable assess the SAT requirements at HS6 digit level, like in the case of SAT requirements.

Therefore, to assess the SAT requirements, we use a partial equilibrium framework to assess the implications of EPA compatibility with various SAT criteria on the trade and development prospects of ACP countries. This methodology is used in the case of Tanzania, as an illustrative example that could be applied to any ACP country.

3.1. The model and simulation scenarios

The model used to estimate the various effects of the EPA initiative is the SMART model. SMART is a simple *ex ante* partial equilibrium model, measuring the first-round impact of trade policy changes (Laird and Yeats, 1986). Unlike the general equilibrium analyses, the model does not account for economy-wide effects of trade liberalization or inter-industry effects. However, the advantage of partial equilibrium model is the very detailed level of analysis. Working at this disaggregated level the SMART model allows considerable precision in identifying sensitive products and countries affected by the EPAs.

The most important effects estimated by the model are the trade creation and diversion effects. Trade creation effects capture the increase in imports by RTA countries resulting from the tariff cut and the corresponding decrease in domestic prices, which are assumed fully reflect the tariff changes. Trade diversion measures the extent to which imports from preference-receiving countries will substitute current imports from third countries. Imports from alternative foreign suppliers are assumed to be imperfect substitutes and export supply elasticities are not assumed to be infinite.[4]

To estimate the trade creation and trade diversion effects, the model uses a number of variables from different databases. For preferential market access liberalization (as in the case of EPA) the model uses applied tariff data for each trade regime applicable to different trade partners. The SMART model uses information on elasticities of import demand, export supply and substitution (between foreign suppliers – 'Armington' elasticities). Elasticities on import demand are gathered from a literature search, and the data has been subsequently updated with other more recent information.

[4] For further details on data and methodology, see Laird and Yeats (1986).

3.2. Simulation results

Several criteria were taken into account to assess the likely impact of various EPA scenarios, based on SAT requirements that are currently under discussion at the WTO:

- 80% liberalization of current EPA trade flows (the EU proposal)
- 70% liberalization of tariff lines (the Australian proposal)
- 95% liberalization of tariff lines at the end of interim period (the Australian proposal)
- Accounting for “highly trade products” (the Australian proposal)
- Accounting for “significant exports” (the Australian proposal)

In order to assess the impact of the Australian definition of SAT on the way in which EPAs could be designed so that economic benefits are maximized, several additional steps are required. The EU trade profile has to be scrutinized in order to identify "highly traded" and "significant exports". The "highly traded" products would vary across ACP countries, depending upon the sub-grouping in question. The EU "significant exports" will nevertheless be common to all EPAs.

Using the SMART simulations, these SAT criteria suggested in different proposals under discussion at WTO and their impact on the EPA liberalization scenarios can be assessed against various benchmarks that trade policy makers could consider during EPA negotiations. For instance, ACP countries could try to shape EPAs in such a way that the likelihood for unsustainable import surges is minimized. Similarly, some ACP countries and subgroups could be interested to know which liberalization scenario minimizes tariff revenue losses. Lastly, one could be interested in identifying products that would lead to maximization of welfare and consumer surplus.

Three benchmarks were used to select the “sensitive” products that could be still protected under EPA in the case of Tanzania: (i) import surges; (ii) tariff revenues; (iii) welfare and consumer surplus effects. For each benchmark, both the EU and Australian SAT requirements were taken into account, to assess whether such requirements would effectively reduce the “policy space” needed by ACP countries and sub-groupings in EPA negotiations.

Another approach to identify "sensitive products" while complying with SAT requirements is to identify those products that have the highest level of tariff protection (Stevens and Kennan, 2005).

Import surges and adjustment costs

As mentioned before, one benchmark that ACP States could use to tailor their negotiation positions under EPAs would be to ensure that unsustainable **import surges,** likely to impose significant adjustment costs to their economies are minimized. As a proxy for products and sectors likely to face such major adjustment costs, we identify “sensitive” products that have the highest increase in trade flows, while complying with the various SAT conditions, e.g. 80% of initial trade flows (the EU proposal), 70% of tariff lines at the entry into force (Australian proposals), etc.

Import surge minimization can be done either with regard to: (i) *overall imports*, in which case absolute import surge values would be used, or (ii) a *line-by-line approach*, targeting for

protection those products with the highest in-line import surge, compared to their original levels.

An *overall import surge criterion* would rely on a neutral cross-sectoral approach, where product-specific import surges are compared against overall estimated import surges. By doing so, products with the largest absolute import increase would be considered "sensitive". Since many of these products would also have pre-EPA high levels of imports, an absolute import surge criterion would limit the list of "sensitive product".

When using such an overall import surge approach, in the case of Tanzania for instance, avoiding likely import surges under the 20% exclusion benchmark (EU proposal), results in only 9 HS6 products being targeted (Table 1). As the simulation results reported below suggest, by earmarking these 9 products (with import increases ranging from 1.7-5.3%) as "sensitive", it would allow Tanzania to protect its domestic market from import surges worth of $US13 million (24% of total estimated import surges) and $US7.2 million in forgone tariff revenue (25% of total tariff revenue losses). However, at the same time, by applying this criterion Tanzania is also deprived from more than $US 2 million in consumer surplus, i.e. 28% of the total estimated consumer surplus.

Table 1. Tanzania – "Sensitive products" minimizing overall import surges

Description	HS Code	Imports before EPA ($ 000)	Import increase ($ 000)	Import increase, as % of total imports
Crude materials, inedible, except fuels	630900	31,356	2,796	5.2%
Food and live animals	210690	20,980	1,609	3.0%
Machinery and transport equipment	870323	43,128	1,540	2.8%
Machinery and transport equipment	851780	6,813	1,363	2.5%
Machinery and transport equipment	870422	15,263	1,210	2.2%
Manufact goods classified chiefly by material	401120	20,721	1,199	2.2%
Machinery and transport equipment	851750	17,739	1,150	2.1%
Machinery and transport equipment	843149	40,452	1,143	2.1%
Machinery and transport equipment	870423	9,276	936	1.7%
Total		205,729	12,947	24%

Source: Authors' calculations, based on SMART

This suggests that, under this scenario, Tanzania will comply with SAT by the EU benchmarks but not necessarily with the Australian proposal. The Australian proposal would require EPA members to liberalize at least 70% of tariff lines at the entry into force, a condition that Tanzania could clearly fulfil, while applying the import surge minimization criterion. Tanzania would also comply with the Australian suggestion for end-of-the-period EPA coverage.

However, further investigations should be performed to ensure that Tanzania complies with other requirements, such as liberalization of all "highly traded" products (i.e. products where

EU import shares are higher than 0.2%), as well as “significant exports” (i.e. products accounting for more than 2% in total EU exports) by the end of the 10-year transition period for the EPA agreement.

What would these additional criteria suggested by the Australian proposal mean for the ways EPAs are negotiated? Let's look firstly at EU "significant exports". The Australian proposal requires that products at HS-6 digit accounting for more than 2% of total EU exports to the world should not be excluded from EPA liberalization. When looking at the actual EU export pattern in 2004, for instance, only 3 products will be concerned by this new additional criterion: Medicines, Other (HS code 300490); Motor vehicles (HS codes 870323 and 870332). As EU "significant exports" are common across all EPA partners, this criterion is unlikely to impose major difficulties, at least in terms of number of products to be liberalized, to any ACP country. In the case of Tanzania, for instance, these three “significant exports” represent 6.6% of total Tanzanian imports from EU and simulation results suggest that their full liberalization would increase current import levels of these products by only 3%.[5]

Yet, the “significant export” criterion will not allow Tanzania to include motor vehicles (HS code 870323) among its “sensitive products” by the end of the transition period, as this is one of the EU “significant export”, based on present trade values.[6] However, ACP countries could ask for flexibility on this item and prevail themselves of the past experience with motor vehicles liberalization under other agreements negotiated by the EU. For instance in both EU-South Africa and EU-Mexico FTA motor vehicles were considered, at least partially, "sensitive products". In the case of South Africa for instance, the sector was subject to a separate liberalization schedule. Moreover, the evolution of the reform process of this sector under way in South Africa was monitored and discussed by the parties, allowing for future tailoring of the agreement to the evolving economic conditions in South Africa.[7] In the case of EU-Mexico as well, duties on motor vehicles from the EC were eliminated on a different liberalization schedule. Moreover, a TRQ (tariff rate quota) was introduced by Mexico on motor vehicles originating in the EC. The in-quota tariff was gradually reduced and subsequently eliminated in three years after the entry into force of the agreement. The out-quota tariff is 10% and is scheduled to be eliminated at the end of 2006.

The “highly traded products” criterion, in the case of Tanzania, would require the liberalization of some 99 products where imports from EU account for more than 0.2% of total EU exports to Tanzania. A close inspection of the affected products shows that all “sensitive products” identified using this benchmark would need to be liberalized under the “highly traded products” criterion. In the case of Tanzania, this criterion has major implications for its ability to apply the overall import surge benchmark. If the “highly traded products” criterion is applied, this means that all ACP countries with similar effects as Tanzania would *de facto* lose one policy option currently available, i.e. to tailor the future EPAs based on overall import surge minimization.

When a *line-by-line import surge* minimization is taken as a selection criterion for the products representing 20% of total trade flows, much more products could be considered “sensitive”. In

[5] It should be noted that motor vehicles face an MFN applied tariff of 25% in Tanzania, whereas medicines face only a 5% tariff.

[6] However, if trade patterns change sufficiently enough during the transition period, EU “significant exports” might be different at the end of the period and motor vehicles could still be maintained as “sensitive products” by Tanzania.

[7] See for instance Article 11, paragraph 5, and Article 12, paragraph 7, of the EU-South Africa FTA.

the case of Tanzania, simulation results suggest that 486 HS6 product lines, i.e. 33% of tariff lines, with import increases ranging from 8-89%) could be excluded from liberalization.[8] This would reduce by 58% the total import surges and by 52% the tariff revenue losses. On the other hand, when these products are considered "sensitive", consumers will be deprived of 67% of total consumer surplus likely to be generated by EPA.

The line-by-line import surge minimization benchmark in Tanzania favours a scenario that is fully compatible with the "significant export" criterion, as there is no common product among "sensitive products" and EU "significant exports".

Table 2. Tanzania – "Sensitive" and "highly traded products" under the line-by-line import surge benchmark

Description	HS code	Imports before EPA ($ '000)	% of total imports	Import increases ($ '000)	as a % of initial imports
Manufact goods classified chiefly by material	681091	2355.7	0.2%	653.6	27.7%
Machinery and transport equipment	851780	6813.0	0.7%	1362.9	20.0%
Beverages and tobacco	220300	2470.2	0.2%	490.8	19.9%
Machinery and transport equipment	847290	2375.1	0.2%	430.4	18.1%
Miscellaneous manufactured articles	940360	3432.4	0.3%	581.4	16.9%
Manufact goods classified chiefly by material	480255	5610.7	0.5%	922.9	16.4%
Machinery and transport equipment	848180	2803.4	0.3%	420.5	15.0%
Machinery and transport equipment	840999	5370.7	0.5%	787.4	14.7%
Beverages and tobacco	220290	2098.0	0.2%	300.6	14.3%
Manufact goods classified chiefly by material	481910	4889.6	0.5%	690.2	14.1%
Miscellaneous manufactured articles	392690	2830.4	0.3%	373.2	13.2%
Machinery and transport equipment	854459	5215.2	0.5%	657.3	12.6%
Manufact goods classified chiefly by material	690890	6620.7	0.6%	802.4	12.1%
Machinery and transport equipment	852990	4479.7	0.4%	476.7	10.6%
Machinery and transport equipment	870423	9276.3	0.9%	935.7	10.1%
Miscellaneous manufactured articles	370239	6700.6	0.6%	639.4	9.5%
Machinery and transport equipment	870324	3564.6	0.3%	338.7	9.5%
Machinery and transport equipment	870899	6464.8	0.6%	590.0	9.1%
Crude materials, inedible, except fuels	630900	31356.3	3.0%	2795.7	8.9%
Manufact goods classified chiefly by material	401110	3807.9	0.4%	335.9	8.8%
Machinery and transport equipment	851790	3901.7	0.4%	331.5	8.5%
Total		122436.9	11.7%	14917.1	12.2%

Source: Authors' calculations, based on SMART simulation results.

But unlike the overall import surge approach, it seems that a liberalization scenario based on a line-by-line criterion for "sensitive products" would not comply with one of the additional conditions suggested by the Australian submission, i.e. liberalization of 70% of tariff lines at the entry into force of EPA, unless some 10% of the "sensitive products" previously identified

[8] The highest import surges are witnessed by products in HS chapters 94, 95, and 96, all of them with initial levels of imports well below the average levels.

are liberalized as well. Furthermore, under the end of transition period Australian proposal, Tanzania could only select some 73 products as “sensitive”, when the final EPA agreement will be fully enforced.

Furthermore, as in the case of overall import surge benchmark, the line-by-line benchmark does not fulfil the “highly traded products” criterion. Out of 486 “sensitive products” identified previously, 21 products cannot be maintained as “sensitive” (Table 2). Although they represent a relatively small number of the total “sensitive products” list and have below all-sensitive product average trade increases, these 21 products account for more than half of the trade covered by the initial “sensitive” list.

Several conclusions can be drawn from the impact assessment based on import surge benchmarks used above. Overall, it seems that, if a cautious liberalization approach is adopted, a line-by-line approach is more appropriate in tailoring EPAs to the specific development needs of ACP States than using an overall import surge criterion. However, in both cases, the “highly traded products” criterion is a major constraint, particularly in the case of overall import surge benchmark where all original “sensitive product” would be incompatible with this criterion. Even in the case of line-by-line approach, half of the initial trade covered by “sensitive products” would have to be subject to EPA liberalization.

Tariff revenue losses

As pointed out in the literature, another benchmark for the “sensitive products” that can be excluded from liberalization is to minimize **tariff revenue losses**. Unlike the case of import surges where different economic objectives could be targeted under an *overall* versus *line-by-line* approach, in the case of tariff revenue loss minimization, this distinction becomes irrelevant.

The policy objective of ACP countries would therefore be the minimization of overall tariff revenue losses. Following this criterion in the case of Tanzania, the simulation results have led to the identification of the following “sensitive” products (Table 3). However, this liberalization scenario would be completely unfeasible if the “highly traded products” criterion is applied as suggested by the Australian WTO proposal, since all "sensitive" products would account for more than 0.2% of total Tanzanian imports from the EU. This suggests that the "highly traded products" criterion would reduce in a very significant way the flexibility sought by ACP countries in EPA negotiations and nullify the SDT proposal under the GATT Art. XXIV reform.

As in the case of overall import surges benchmark, these “sensitive products” need to be assessed against other SAT requirements. Thus, when compared with the EU “significant exports” criterion, with the exception of one product (machinery and transport equipment - HS code 870323) all other products can be included on the sensitive list. The sensitive products obtained based on tariff revenue loss minimization could also comply with the requirement for 70% initial liberalization levels. Thus, ACP countries can minimize tariff revenue losses while at the same time complying with several SAT criteria, with the exception of "highly traded products".

Table 3. Tanzania - "Sensitive products" minimizing tariff revenue losses

Description	HS Code	Imports before EPA ($ '000)	Import increase (%)	Tariff revenue losses ($ '000)
Crude materials, inedible, except fuels	630900	31356.3	9%	-2118.61
Food and live animals	210690	20979.7	8%	-1544.79
Machinery and transport equipment	843149	40452.2	3%	-1095.84
Manufact goods classified chiefly by material	480255	5610.7	16%	-735.24
Manufact goods classified chiefly by material	481910	4889.6	14%	-573.53
Machinery and transport equipment	870323	43128.0	4%	-557.56
Beverages and tobacco	220300	2470.2	20%	-530.68
Food and live animals	110710	7341.6	7%	-512.74
Machinery and transport equipment	851780	6813.0	20%	-511.34
Manufacture goods classified chiefly by material	690890	6620.7	12%	-506.03
Machinery and transport equipment	870422	15263.5	8%	-503.51
Manufact goods classified chiefly by material	681091	2355.7	28%	-497.57
Miscellaneous manufactured articles	370239	6700.6	10%	-486.38
Machinery and transport equipment	854459	5215.2	13%	-458.49
Subtotal		199,196.95		-10,632.31
% of grand total		19.1%		36%

Source: Authors' calculations, based on SMART

Welfare and consumer surplus maximization

One of the main expected benefits of trade liberalization is welfare improvement and increases in consumer surplus, as a result of lower prices and presumably better quality products originating in the EU, once EPA is in place. Therefore one of the benchmarks trade policy makers could consider is to ensure that trade liberalization leads to **consumer surplus maximization**, when various SAT requirements are applied conservatively.[9] Thus, under the EU SAT approach (i.e. 80% of initial trade flows), if consumer surplus is taken as a benchmark to be maximized then, the simulation results identified 383 products yielding the highest consumer surplus. These products should therefore be considered as "priority products" to be liberalized, if consumer welfare is to be maximized.

However, when the additional criteria suggested by Australia are taken into account, several changes occur. Thus, based on the "highly traded products" criterion, an additional set of 98 products with low consumer welfare effects would have to be liberalized, adding very little to the overall development impact of EPAs. Furthermore, given that a large majority of products would not be required to be liberalized under this benchmark, the 70% tariff line criterion would not be fulfilled. That criterion would require the liberalization of further 548 tariff lines.

[9] In theory, based on this criterion, ACP countries should liberalize 100% of their trade with EU from the entry into force of the agreement.

In sum, given the rather skewed current import structure of Tanzania from EU, the consumer welfare benchmark could reach relatively high levels with relatively low levels of liberalization by Tanzania, judging in particular the Australian SAT requirements. Therefore, one could imply that the developmental impact of EPAs, at least from a consumer welfare perspective, can very well be achieved while preserving sufficient “policy space” in terms of EPAs negotiations.

Combining various benchmarks

Given that various benchmarks, each following a rather different economic rationale, could be used to identify "sensitive products" while complying with SAT requirements, one useful exercise would be to single out products that could at the same time lead to the attainment of multiple benchmarks. For instance, in the case of Tanzania, products included in Table 4 are common both on the "sensitive products" list that would minimize import surges, as well as "sensitive products" minimizing tariff revenue losses. These products, accounting for 7% of initial Tanzanian imports from the EU, would reduce total potential import surges by 17%, while at the same time reducing total tariff revenue losses by 22%. Yet, joint optimization of several benchmarks is not always a straightforward exercise of comparing previously determined "sensitive products" under each benchmark. For instance, if trying to jointly optimize two other benchmarks (e.g. maximizing consumer welfare and minimizing tariff revenue losses) there is no common "sensitive product" that could do both.

Table 4. Tanzania - Common "sensitive products" minimizing import surges and tariff revenue losses

Description	HS Code	Imports before EPA ($ '000)	As a % of total imports	Import increase ($ '000)	As a % of initial in-line imports	Change In Revenue ($ '000)
Beverages and tobacco	220300	2470.169	0.2%	490.787	20%	-530.675
Miscellaneous manufactured articles	370239	6700.6	0.6%	639.37	10%	-486.383
Manufact goods classified chiefly by material	480255	5610.721	0.5%	922.908	16%	-735.241
Manufact goods classified chiefly by material	481910	4889.552	0.5%	690.151	14%	-573.525
Crude materials, inedible, except fuels	630900	31356.303	3.0%	2795.744	9%	-2118.614
Manufact goods classified chiefly by material	681091	2355.694	0.2%	653.583	28%	-497.565
Manufact goods classified chiefly by material	690890	6620.652	0.6%	802.367	12%	-506.033
Machinery and transport equipment	851780	6813.004	0.7%	1362.916	20%	-511.343
Machinery and transport equipment	854459	5215.245	0.5%	657.303	13%	-458.494

Source: Authors' calculations, based on UNCTAD SMART simulation results

Another alternative approach to joint optimization is to maximize the **net trade creation effect**, given that in doing so several criteria (e.g. tariff revenue loss, consumer and producer surplus)

are jointly optimized. Maximizing net trade creation effects offer a relatively simple way to mitigate various, often divergent, economic objectives that ACP countries should pursue during EPA negotiations. In the case of Tanzania, for instance, taking trade creation as a benchmark for selecting "priority" or "sensitive products", we could identify 234 products at HS6 level that, as in the case of consumer welfare, should **not** be included in the "sensitive products" category.

4. Making EPAs Kemp-Wan compatible

So far we have seen what are the various proposals to reform the GATT Art. XXIV, both from a developmental perspective (ACP proposal) and to make it more operational (Australian proposal). We have also seen what specific elements of the various proposals, i.e. the SAT requirement could mean for a developing country engaged in a complex negotiation of a North-South RTA.

As mentioned earlier, one of the rationales to tighten the WTO rules applicable to RTA formation and the evaluation of their compatibility was the concern of some WTO members that the surge in RTA formation might lead to a “stumbling block” effect and implicitly to a deterioration of global welfare. Therefore, one important question refers to the conditions that would render EPAs welfare-increasing, in the sense of the Kemp-Wan theorem. For this purpose, a CGE framework can be applied to obtain the endogenous tariffs needed to maintain the import levels from non-EPA members constant and thus eliminate trade diversion.

As Gilbert and Wahl (2001) noted, the Kemp-Wan admissibility of RTAs has rarely been tested in a CGE context. Apart form Gilbert and Wahl (2001) that looks at this issue in the context of several RTAs in the Asia-Pacific, Waschik (2005, 2006) also assesses the implications of Kemp-Wan conditionality of Australia-US FTA and China-Australia FTA. Gilbert and Whal (2001) found that, by endogenizing the external tariffs of RTA members, it is possible to create RTAs that are globally welfare-improving. They also found that the estimated welfare impact on members was smaller under the Kemp-Wan rule than with exogenous tariffs, and that in some cases the welfare implications for some RTA members are negative (under both Kemp-Wan or standard assumptions).

Waschik (2005, 2006) performs similar CGE analyses with endogenous tariffs to estimate the Kemp-Wan tariff reductions needed in the case of US-Australia FTA and China-Australia FTA. He also carries out a sensitivity analysis with regard to Armington elasticities and he found that tariff changes necessary to eliminate trade diversion are quite robust to changes in the Armington elasticity.

The following section assesses the Kemp-Wan compatibility of EPAs, using a CGE model with endogenous tariffs.

4.1. Model, data and simulation scenarios

The CGE model used to estimate the Kemp-Wan endogenous tariffs is that developed under the Global Trade Analysis Project (GTAP) as described in Hertel (1997). GTAP is a widely used ex-ante evaluation tool for trade policy analysis. The paper uses the standard static, perfect competition, constant returns to scale version of GTAP. The original GTAP6 database is aggregated in 20 regions and 19 sectors (see annexed tables for details). Within each region,

consumers have the same non-homothetic preferences, according to which allocate income between private consumption, public consumption and savings. Products originating from different countries are perceived as different by consumers (Armington differentiation). The elasticity of substitution between any pair of domestic and imported goods is constant within each sector, and the elasticity of substitution between each pair of imported goods originating from different countries is twice higher than that between domestic and foreign goods. The production side of the model assumes fixed production coefficients between primary inputs and intermediate inputs. As for intermediate inputs, they are also assumed to be 'Armington differentiated', with constant substitution elasticities. Production factors are fully employed. Labour is mobile across sectors and immobile internationally. Households' savings finance investment, and investment does not affect the current capital stock. Countries can borrow and lend abroad.

The database used in the simulations is the GTAP version 6. As mentioned in the documentation of the GTAP 6 database, protection data includes now a large number of existing RTAs, including the current ACP-EU preferential regimes, i.e. ACP, EBA, GSP). The original GTAP6 database was updated from the 2001 base year, to take into account EU enlargement and existing WTO commitments.

Four simulation scenarios are tested. The first scenario (base1) assumes the elimination of merchandise tariffs between the EU and each of the EPA regions. Given that in many cases the intra-ACP trade is not fully liberalized, in the second scenario (base2), in addition to these tariff elimination, intra-ACP trade is also liberalized (e.g. intra-SADC, COMESA, CEMAC, Caribbean, etc). For these two simulation scenarios the 'standard' GTAP closure is adopted: total world savings add up to total world investment and expected rates of returns on savings are equalized across world regions. The trade balance of different regions is thus determined endogenously, and reacts to trade policy shocks.

The two Kemp-Wan scenarios use a modified GTAP closure, where the tariffs applied by EPA members on each commodity imported from non-EPA regions are endogenized and the imports from non-EPA regions are made exogenous. In doing so, the endogenous tariffs will adjust to keep the imports from non-EPA regions constant at their pre-EPA levels and thus avoid trade diversion, in line with the Kemp-Wan condition. Like in the case of the base scenarios, two Kemp-Wan scenarios will be simulated : one with intra-ACP full tariff liberalization (Kemp-Wan2) and one without (Kemp-Wan1).

As in Waschik (2005, 2006), by simulating a base and a Kemp-Wan scenario, it is possible to disentangle the trade creation and trade diversion effects on non-members. Thus, the results of the base scenarios occur from both trade creation and diversion effects, whereas the results from the Kemp-Wan scenarios account only for trade creation. The difference between the two sets of scenarios represents the impact attributable to trade diversion only.

It should also be noted that several caveats apply to these simulations. Due to data limitations and to the fact that only a few African countries are individually included in the GTAP6 database, not all EPAs could be simulated separately. Thus, due to the structure of GTAP database, it was not possible to simulate separately three of the African EPAs (West Africa, Central Africa, Eastern and Southern Africa). [10] Furthermore, EPAs are more than just tariff liberalization, as discussed in this paper. ACP and EU are trying to conceive EPAs as more

[10] Several other limitations and caveats should be made in connection to the use of CGE models in the case of African countries. For a detailed discussion see Hammouda and Osakwe (2006).

than just purely trade liberalization agreements, dealing with developmental aspects and aiming to introduce "deeper" integration measures or mutual cooperation on such as competition policy and consumer protection, investment, trade facilitation and customs cooperation, government procurement, as well as dispute settlement, standards (TBT, SPS), intellectual property rights, genetic resources, traditional knowledge and folklore. The Pacific has proposed an investment cooperation agreement to encourage inflow of EU investment in the Pacific. Therefore the welfare impact of EPA formation should not be considered as a comprehensive assessment. Another overlooked aspect is that preferential market access is affected by less than full utilization rates of such preferential access. The utilization rates data is not available for all the RTAs included in GTAP but existing data suggest that sometimes low utilization rates may significantly reduce the impact of RTA formation.

4.2. Simulation results

In all scenarios, we investigate the potential for trade creation and diversion due to merchandise tariffs removal between ACP regions and the EU. Welfare results of these simulations are reported in Table 5. With the exception of Rest of Africa (RoA), the simulation results suggest an increase in welfare in all other EPA regions, with values ranging from $US 94.6 in the base scenario in the Pacific region to over $US 5 billion in the EU in the base2 scenario.

Table 5 Welfare results, by scenario (in $US million and %)

	Base1		Base2		Kemp-Wan 1		Kemp-Wan 2	
	($US million)	%	($US million)	%	($US million)	%	($US million)	%
Ocean_Dev	-126.7	-0.1	-133.2	-0.2	-62.6	-0.1	-61.9	-0.1
Pacific	**94.6**	**0.9**	**146.7**	**1.5**	**542.1**	**10.4**	**697.2**	**13.4**
China	-109	-0.1	-128.9	-0.1	-12.8	-0.1	-17.3	-0.1
Asia_Dev	-366.7	-0.1	-443.6	-0.1	-170.9	-0.1	-204	-0.1
EastAsia	-86.7	-0.1	-94.4	-0.1	-41.5	-0.1	-40.7	0
SouthAsia	-141.4	-0.2	-172	-0.2	-38.9	-0.1	-43.6	-0.1
NAFTA	-571.4	-0.1	-661.6	-0.1	-431	-0.1	-436	-0.1
Andean	-61.8	-0.1	-57.5	-0.1	-27.2	-0.1	-23.3	-0.1
Mercosur	-187.9	-0.1	-199.2	-0.2	-63.6	-0.1	-56.1	-0.1
SouthAm	-23.8	-0.6	-23.7	-0.6	-0.3	-0.1	-0.2	0
CentralAm	-29.9	-0.1	-29.4	-0.1	5.1	0.0	6.6	0.0
Caribbean	**145.4**	**0.1**	**181.5**	**0.2**	**268.8**	**0.3**	**298**	**0.4**
EU	**5181.7**	**0.2**	**5010.6**	**0.2**	**3864.2**	**0.0**	**3934**	**0.04**
EFTA	-137.8	0.0	-136.3	0.0	-63.8	-0.1	-53.1	-0.1
Europe_R	-51.5	-0.1	-56.6	-0.1	-8.6	0.0	-7.5	0
CIS	-119.6	0.0	-109.5	0.0	-52.7	-0.1	-49.1	-0.1
Med	-349.8	-0.1	-332.6	-0.1	-179	-0.1	-151.3	-0.1
SADC	**526**	**0.0**	**772.3**	**0.5**	**1411**	**1.7**	**1497.3**	**1.9**
RoA	**-186.5**	**-2.0**	**-37**	**-1.7**	**-806.4**	**-4.5**	**-757.2**	**-4.4**
RoW	-4.3	-0.3	-4.3	-0.3	-40.9	-3.1	-36.5	-2.8
Total	**3392.8**		**3491.2**		**4091**		**4495.5**	

Source: Model results.

In percentage terms, the largest welfare improvements occur in the in the Kemp-Wan scenario (Pacific region -13.4% and SADC – 1.9%). Generally, intra-ACP trade liberalization leads to

an increase in welfare in all regions (base2 compared to base1 scenario, and Kemp-Wan 2 compared to Kemp-Wan1 scenario). As we would expect, all non-members are worse off due to trade diversion (i.e. the welfare losses are systematically higher in the base scenario than the corresponding Kemp-Wan scenario). But, regardless of scenario, the welfare effects for non-EPA members are marginal, with usually a reduction by -0.1% in the welfare level prior to EPA formation. Apart from non-EPA members, the Rest of Africa would also see its welfare level reduced, between -1.7% (base2 scenario) and -4.4% (Kemp-Wan2 scenario).

Welfare losses of non-members due solely to trade diversion (the difference between the base and the Kemp-Wan scenarios) are also very small, suggesting that trade diversion would not be a major concern in the case of EPA, even in the case of exogenous tariffs.

Table 6. Endogenous tariff changes, under the Kemp-Wan scenarios

Region	Pacific		Caribbean		EU		SADC		RoAfrica	
Sector	Scenario 1	Scenario 2	Scenario 1	Scenario 2	Scenario 1	Scenario 2	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Cereals	0.0	0.0	-8	-11	-2	-1	-8	-11	**-17**	**-20**
Vegetables, fruit, nuts	-0.9	-0.9	-10	-10	-20	-20	-7	-7	**-18**	**-22**
Sugar cane, sugar beet	-2.7	0.0	**-26**	**-30**	-7	-6	**-23**	**-30**	**-41**	**-47**
Plant-based fibres	0.0	0.0	-2	-2	-1	-1	-10	-10	-13	-12
Other Crops	**-21.2**	**-21.2**	-8	-8	-2	-2	-6	-10	-9	-9
Animal products	-3.9	-6.7	-7	-7	-1	-1	-12	-12	-13	**-17**
Forestry and Fishing	-7.9	-6.0	-7	-7	-4	-4	-1	-1	-6	-7
Meat, oils, fats	**-17.4**	**-26.4**	-12	-12	**-36**	**-36**	-12	-12	**-18**	**-18**
Dairy products	**-17.8**	**-35.6**	-14	**-16**	**-21**	**-21**	**-18**	**-18**	**-17**	**-19**
Processed rice	0.0	0.0	-11	-14	-14	-14	-9	-12	-15	**-18**
Sugar	0.0	**-44.4**	-14	-14	**-65**	**-65**	**-30**	**-30**	**-16**	**-16**
Beverages and tobacco products	**-29.3**	**-42.7**	**-17**	**-17**	-5	-5	**-24**	**-24**	**-21**	**-21**
Oil and minerals	-3.9	-9.1	-3	-3	0	0	-2	-2	-7	-7
Textiles, clothing, leather	-11.9	-29.7	-12	-12	-2	-2	-14	-14	-22	-22
Wood and paper	-9.3	-20.6	-10	-11	0	0	-10	-11	-16	-17
Chemical,rubber,plastic prods	-11.4	-34.4	-8	-9	0	0	-6	-8	-13	-14
Minerals and metal products	-11.2	-14.7	-10	-12	-1	-1	-9	-11	-17	-18
Other Manufactures	-9.7	-12.9	-9	-10	-1	-1	-8	-9	-12	-14

Source: GTAP simulations

Legend: Estimated Doha tariff cuts

For ACP countries, envisaged tariff cuts on agricultural products (as included in their negotiating proposals) range from 15-30%, depending on the initial protection rate.

For EU, envisaged tariff cuts on agricultural products (as included in their negotiating proposals) range from 20-60%, depending on the initial protection rate.

For NAMA, the final Doha tariff will depend on the coefficients chosen in the tariff cutting formula.

The welfare results presented in the previous section can be decomposed into distinct sources. Allocative efficiency, terms of trade effects, and investment-savings balance are the major

determinants of welfare changes. In both Kemp-Wan scenario, for the EU and Caribbean, the allocating efficiency gains are the most important. In the case of SADC, the largest welfare gains occur from terms of trade effects. However, the results are rather different from Rest of Africa. In addition to significant terms of trade losses, the investment-savings balance effects are negative and of significant magnitude in the case of Rest of Africa, almost entirely offsetting the welfare gains stemming from allocative efficiency.

Let's turn now the reductions in tariffs to ensure that the envisaged EPAs are Kemp-Wan compatible. Table 6 contains the maximum tariff cuts required for each sector and EPA importing region.[11]

As mentioned earlier, the simultaneous negotiations of EPAs and the WTO Doha Round allows us to consider that de facto EPAs have the potential to comply with Kemp-Wan criterion, should the final Doha tariff cuts be equal or larger than the endogenous tariff cuts obtained from the Kemp-Wan scenarios. This tentative comparison between endogenous EPA tariff cuts and Doha negotiations is burdened by several difficulties. Firstly, as McMillan (1993) argued, Kemp-Wan compatibility should be assessed at the most disaggregated level possible. Secondly, at this point, given the impasse in the Doha negotiations, it is rather difficult to estimate the range of final tariff cuts WTO members will agree to undertake on an MFN basis. Furthermore, WTO negotiations reduce bound tariffs, whereas the endogenous tariffs reported in Table 6 are applied tariffs, and hence the "water in the tariff" (particularly in agriculture) may further complicate this comparison.

However, several considerations can be made with regard to the potential of Doha negotiations to render the EPAs Kemp-Wan compatible. Thus, based on the existing negotiating positions submitted by the ACP group, the envisaged linear tariff cuts on agricultural products would range from 15-30%, depending on the initial protection rate (the higher the initial protection rate, the higher the cut). Similarly, for the EU, the envisaged tariff cuts on agricultural products range from 20-60%, depending on the initial protection rate. For NAMA, the final Doha tariff will depend on the coefficients chosen in the tariff cutting formula, which at the time of writing, were less clear than the proposals concerning agricultural negotiations. However, if one takes the 10-15 proposal as Swiss coefficients for developed and developing countries, respectively, one could compare the new endogenous tariffs with final applied MFN tariffs for each of the sectors concerned.

For illustrative purposes, the analysis is carried out only on agricultural goods, the ones that prove a thorny issue in most RTA formation. The shaded numbers in table 6 suggests sectors where the tariff cuts resulting from the Doha negotiations, based on the current parameters, might not be sufficient to ensure a Kemp-Wan compatible outcome. The region with the most problematic sectors is Rest of Africa, while the Caribbean and the EU are the regions with the smallest number of problematic sectors. In terms of cross-sectoral comparison, beverages and tobacco, as well as diary products seem to be the sectors where the Doha negotiations may lead to a suboptimal outcome in terms of Kemp-Wan criterion.

One other consideration should be taken into account. As mentioned in the previous section, according to the general principles used in the application of the current GATT Art. XXIV, several "sensitive sectors" can be eliminated or liberalized gradually over longer periods,

[11] The tariff cuts required for the Kemp-Wan compatibility vary widely, in certain cases the Kemp-Wan tariff changes required being positive. This reflects the structure of the GTAP database, where tariffs are weighted and the rates therefore differ by source country.

without compromising the WTO compatibility, as long as the SAT requirements are respected. This is the case for sugar, for instance, which has been considered by the EU as a “sensitive sector” subject to longer transition periods. Therefore, until real liberalization occurs within EPA, even if the endogenous Kemp-Wan tariff cut required for sugar (65% tariff cut) vis-à-vis non-EPA members is not attained as part of the Doha negotiations, this will not mean that the Kemp-Wan criterion is not fulfilled, as the sectors has not been liberalized and no trade diversion occurred. The same logic could apply to other “sensitive sectors”, in addition to the criteria used in the previous section to identify sectors with high degree of sensitivity.
This Kemp-Wan logic of sectoral exclusion may be an alternative to the existing “catch me if you can” logic prevailing in the current negotiations aimed at making the GATT Art. XXIV rules more stringent.

5. Conclusions

The analysis undertaken in this paper illustrated a few clear methodological points that could be followed by WTO members in order to derive sound policy guidance, as far as existing proposals for WTO compatibility of RTAs is concerned. In the case of the SAT requirements, the partial equilibrium analysis should be performed on a case by case basis, for each ACP sub-grouping involved in EPA negotiations. In the case of Tanzania example discussed above, for instance, the following conclusions were derived. Firstly, the analysis has shown that identifying "sensitive products" while complying with "substantially all trade" criterion can be done by using various development benchmarks to select the “sensitive” sectors. Similarly, it has shown that some of the SAT conditions are, at least in the case of Tanzania, easier to comply with than others. However, some newly proposed SAT criteria, in particular the "highly traded products" criterion, would significantly reduce the flexibility available to ACP countries to negotiate WTO-compliant EPAs.

One further complication arises in the case of the SAT criteria for EPAs. EPAs, unlike most existing RTAs would be a grouping-to-grouping RTA. This requires a further clarification of the SAT requirements. For instance, all SAT requirements (80% of total trade, 70% of tariff lines, "highly traded products", "significant exports", etc.) could be defined at *group* level or at *country* level. So far, at least as part of the WTO RTA examination process, there are no cases of grouping-to-grouping RTA being examined and assessed in terms of "substantially all trade" or other GATT Article XXIV conditions. In the absence of such precedent, one could assume that SAT requirements should apply at group level (e.g. across Eastern and Southern Africa or Caribbean regions) rather than at the level of each country member of the particular ACP sub-grouping forming an EPA. This approach is justified by at least two reasons. Firstly, in the case of the EU, in all examinations the SAT requirement is considered at group level and not at country level. Therefore, any ACP sub-grouping currently forming, or aiming for, a custom union or a more advanced form of regional integration should also comply with the SAT requirements as a group. This would introduce additional flexibility to some ACP countries, at least in the transition period. Secondly, EPAs are bilateral agreements signed by various groups of ACP countries on one side, and the EU on the other. EPAs are not and therefore, for the purpose of SAT requirements or any other GATT Article XXIV conditions should not be considered as a hub-and-spoke combination of bilateral agreements but rather as a single bilateral agreement.

One way to make these SAT requirements more ACP-friendly, would be to assess the impact of different threshold values for each requirement, in addition to the ones contained in the

Australian submission. For instance "highly traded products" could be defined as products accounting for 1% or 2% of intra-RTA trade, with numerical targets to be tailored to each ACP EPA regional configuration. By relaxing the definition of "highly traded products" this criterion could be taken on board, while preserving the "policy space" needed by ACP countries.

Finally, ACP countries could come up with their own proposals to define special and differential flexibility on SAT requirements, based on the various benchmarks discussed above. Various other SDT elements can also be considered.

As an alternative to the current debates on the reform of the GATT Art. XXIV, this paper used an empirical way to assess the compatibility of future EPAs with a well-known theoretical benchmark: the Kemp-Wan theorem. This theoretical prediction has an indirect practical value since the EPA negotiations are taking place in parallel with the Doha negotiations and thus MFN tariff reductions may eliminate the negative welfare effects associated with trade diversion. Based on a CGE model with endogenous tariffs, the paper argued that the potential for trade diversion and welfare losses for non-EPA members is quite limited. However, as predicted in the literature and in line with other simulations of EPAs, the results suggest that the Kemp-Wan endogenous tariff condition is not sufficient to “lift up all the boats”: the “Rest of Africa” region may experience non-negligible welfare losses and a severe deterioration in its trade performance as a result of EPA formation.

When looking at the sectoral disaggregation of the endogenous tariff cuts necessary for Kemp-Wan compatibility, in a few sectors the tariff cuts envisaged in the Doha negotiations seem to be insufficient. Therefore, instead of focusing on a “catch me if you can” approach to the reform of the GATT Art. XXIV, WTO members could find a common ground in the Kemp-Wan compatibility criterion, which would allow not only the needed development flexibility for developing countries willing to form North-South RTAs, but also a more beneficial outcome for the rest of the world.

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Annex 1. Regional and sectoral aggregations

Regional aggregation

Code	Comprising
Ocean_Dev	Australia; New Zealand.
Pacific	Rest of Oceania.
China	China; Hong Kong.
Asia_Dev	Japan; Korea; Taiwan; Singapore.
EastAsia	Rest of East Asia; Indonesia; Malaysia; Philippines; Thailand; Vietnam; Rest of Southeast Asia.
SouthAsia	Bangladesh; India; Sri Lanka; Rest of South Asia.
NAFTA	Canada; United States; Mexico.
Andean	Colombia; Peru; Venezuela; Rest of Andean Pact.
Mercosur	Argentina; Brazil; Chile; Uruguay.
SouthAm	Rest of South America.
CentralAm	Central America.
Caribbean	Rest of FTAA; Rest of the Caribbean.
EU	Austria; Belgium; Denmark; Finland; France; Germany; United Kingdom; Greece; Ireland; Italy; Luxembourg; Netherlands; Portugal; Spain; Sweden; Bulgaria; Cyprus; Czech Republic; Hungary; Malta; Poland; Romania; Slovakia; Slovenia; Estonia; Latvia; Lithuania.
EFTA	Switzerland; Rest of EFTA.
Europe_R	Rest of Europe; Albania; Croatia; Turkey.
CIS	Russian Federation; Rest of Former Soviet Union.
Med	Rest of Middle East; Morocco; Tunisia; Rest of North Africa.
SADC	Botswana; South Africa; Rest of South African CU; Malawi; Mozambique; Tanzania; Zambia; Zimbabwe; Rest of SADC; Madagascar; Uganda.
RoA	Rest of Sub-Saharan Africa.
RoW	Rest of North America.

Sectoral aggregation

Description	Comprising
Cereals	Paddy rice; Wheat; Cereal grains nec.
Vegetables, fruit, nuts	Vegetables, fruit, nuts; Oil seeds.
Sugar cane, sugar beet	Sugar cane, sugar beet.
Plant-based fibers	Plant-based fibers.
Crops nec	Crops nec.
Animal products	Cattle,sheep,goats,horses; Animal products nec; Raw milk; Wool, silk-worm cocoons.
Forestry and Fishing	Forestry; Fishing.
Oil and minerals	Coal; Oil; Gas; Minerals nec.
Meat, oils, fats	Meat: cattle,sheep,goats,horse; Meat products nec; Vegetable oils and fats.
Dairy products	Dairy products.
Processed rice	Processed rice.
Sugar	Sugar.
Beverages and tobacco products	Food products nec; Beverages and tobacco products.
textiles, clothing, leather	Textiles; Wearing apparel; Leather products.
wood and paper	Wood products; Paper products, publishing.
Chemical,rubber,plastic prods	Petroleum, coal products; Chemical,rubber,plastic prods.
Minerals and metal prod	Mineral products nec; Ferrous metals; Metals nec; Metal products.
Manufactures	Motor vehicles and parts; Transport equipment nec; Electronic equipment; Machinery and equipment nec; Manufactures nec.
services	Electricity; Gas manufacture, distribution; Water; Construction; Trade; Transport nec; Sea transport; Air transport; Communication; Financial services nec; Insurance; Business services nec; Recreation and other services; PubAdmin/Defence/Health/Educat; Dwellings.