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Non-tariff measures: lifting CFTA and ACP trade to the next level

Abstract

The African, Caribbean and Pacific Group of States (ACP) are exploring the opportunities of a free trade agreement. Most ACP members are African countries which are currently negotiating the Continental Free Trade Area (CFTA). With the exception of North Africa, an ACP agreement would extend an African CFTA to include the Caribbean and Pacific members of the ACP group of countries. In this analysis we show that while trade can be significantly improved by removing all remaining tariffs, this can be undermined if five to ten per cent of tariff lines are chosen to be exempt. Furthermore, the gains from addressing non-tariff measures offer greater scope to increase trade. Both an African free trade agreement and extending it to include the Caribbean and Pacific countries will generate positive gains. Negotiators should focus on reducing non-tariff barriers and harmonizing regulatory measures that outweigh the impact of tariffs.

Key words: Trade, ACP, CFTA, Non-tariff measures, Welfare

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1. Introduction

The African, Caribbean and Pacific Group of States (ACP) are exploring the opportunities of a free trade agreement. The group of 79 developing countries was established to negotiate and implement cooperation treaties with the European Union but formed its own political identity in 1975. The EU has been negotiating Economic Partnership Agreements (EPAs) with five regions in Africa, the Caribbean and the Pacific to replace the existing preferential rules to make the ACP-EU relations compatible with WTO rules. Many ACP countries also have free trade agreements with other ACP countries as well as with third parties such as PACER in the case of Pacific countries. The 54 member States of the African Union have agreed to establish the Continental Free Trade Area (CFTA) with the aim of substantially reducing the barriers to trade between the member countries. The 48 African ACP members account for 85 per cent of ACP trade. Negotiations have focused on the speed at which tariffs are removed and the extent to which various products may be regarded as sensitive and exempt from reductions. Ten to fifteen per cent of tariff lines have been suggested as an appropriate proportion of sensitive products, depending on the development status of the country. However, negotiators are unlikely to agree to this because for some countries ten per cent of tariff lines cover all imports. At the other extreme, exemption of one per cent of tariff lines would seem to be overly ambitious, and is also unlikely to be the basis for agreement.

We use a well-known computable general equilibrium (CGE) model to quantify the impacts on trade and welfare for liberalization scenarios in Africa (CFTA) and the entire ACP group. We begin with full tariff eliminations for all products in the CTFA and then compare the outcome to a CFTA with exemptions for five per cent of products. These exemptions reduce the increase in trade by more than 60 per cent. We then show that the potential benefits of tariffs reductions are by far outweighed by eliminating non-tariff barriers and promoting the convergence of regulatory measures, an area also considered in the CFTA negotiations. This suggests that negotiators should focus on non-tariff measures rather than exemptions for sensitive products. Extending the CFTA to include Caribbean and Pacific countries would lead to relatively small additional gains, although addressing non-tariff measures provides greater scope for increases in trade.

We run six scenarios. Three involve the CFTA alone. The first is complete removal of tariffs (scenario CFTA). The second allows for exemptions for five per cent of sensitive products (scenario CFTAx). The third quantifies the impact of reducing non-tariff barriers without tariff reduction (scenario CFTAn). The remaining three scenarios replicate the first three but extend the analysis to the whole of the ACP region, that is, including the Caribbean and Pacific countries (scenarios ACP, ACPx and ACPn). The results are summarised in figure 1, for both groups of countries. African countries as a group gain \$3.6 billion per annum from the complete elimination of applied tariffs but even a modest exemption of five per cent of products reduces these gains to \$1.5 billion. Reducing the trade distorting effect of NTMs leads to gains of \$20 billion. For the Caribbean and Pacific countries, they gain \$620 million from entering a free trade agreement with Africa, but once again the gains are reduced by two thirds if exemptions are permitted.

Removing tariffs and addressing non-tariff measures within Africa makes good sense. Extending the agreement to across the Pacific or Caribbean increases the gainsby a modest amount.



Figure 1. Welfare gains from reducing tariff and addressing non-tariff measures

Source: GTAP simulations.

2. Simulating tariff and non-tariff reductions

Methodology

By examining tariff changes at an industry or tariff line level, it is possible to make a reasonable estimate as to their likely effects on imports and, perhaps, exports.¹ However, looking at tariffs alone is insufficient. Because many firms sell their output to other firms as intermediate inputs, lower prices in one sector are beneficial to downstream sectors. For example, the removal of tariffs on textiles makes a country's apparel sector more competitive. Such interactions should be taken into consideration in assessing a policy change. Where a large number of variables are involved, computational models are necessary to take account of the interactions. Trade models are used to make estimates of the possible effects of changes in trade policy on a number of economic variables, such as production, exports, imports, tariff revenues, wages, employment and welfare. The value of the models is in providing an understanding of the interplay of different economic forces, and in enabling comparisons of the relative impact of different policies. They can often help to highlight unexpected or counter-intuitive outcomes, which can assist policy-makers in their choice of policy options and/or development of support measures.

The standard GTAP model is used here. It is a static, multiregional, multisector, CGE model in which perfect competition and constant returns to scale are assumed.² Bilateral trade is handled via the so-called Armington assumption that differentiates imports by source. Input-output tables reflect the links between sectors. GTAP is ideally suited for analysis of free trade agreements, involving the preferential liberalisation of bilateral tariffs, which are likely to have international and intersectoral effects. The input-output tables capture the indirect intersectoral effects, while the bilateral trade flows capture the linkages between countries. A shock or policy change in any sector has effects throughout the whole economy. Tariff support for one sector, such as agriculture, tends to have negative effects on downstream sectors (food) by raising

¹ UNCTAD's SMART model, available in WITS, can be used to calculate changes in imports at the tariff line level. However, the model's authors warn against aggregating the changes in imports because there is no accounting for substitution effects between products.

² The GTAP model is documented in Hertel (1997). See Chapter 2 in particular for a description of the structure of the model. A useful introduction to the use of GTAP can be found in Burfisher (2011).

prices and costs. Changes in policies in sectors such as rice tend to have relatively important economy-wide effects because many workers provide inputs into production and many consumers purchase the product. Support in one market often has an effect on others because each sector competes with the others for factor inputs, capital, labour and land, CGE models attempt to capture these effects.

Assessing effects of tariff reductions is straightforward in CGE models. There are two commonly used ways of introducing NTMs in a CGE model. The first involves treating the measures as a tariff. The estimated ad valorem equivalents are fed into the model database and reduced in a counterfactual simulation. The difference between the baseline and a counterfactual simulation reveals the trade impact of the non-tariff measures. This approach assumes the NTMs generate rents which are captured by the importer and hence the rent is transferred to consumers when the distorting effect of NTMs is removed.³

The second approach is a productivity shock. This is applicable where there are no rents captured, such as many SPS, TBT and other regulatory measures which create efficiency losses. Andriamananjara et al. 2003 refer to this as institutional frictions or 'sand in the wheels'. Regulatory cooperation through harmonization or mutual recognition reduces the cost of trade between two countries.

The ad valorem equivalents of the NTMs used here (Cadot et al., 2015) allow to distinguish between technical NTMs such as SPS and TBT and traditional NTMs such as quotas and price measures, often called NTBs. We model regulatory cooperation on technical measures as productivity shocks and removing NTBs similar as tariff changes.

Both types of shocks can be implemented bilaterally or multilaterally depending on whether the barrier affects all countries or can be specified bilaterally.

Scenarios

Six different scenarios are used to analyse the effects of the CFTA and a possible extension to ACP. These are listed in table 1.

Table 1. Alternative scenarios				
	· · ·	• • • •		
No.	Label	Description		
1	CFTA	Full tariff elimination in the CFTA		
2	CFTAx	Tariff elimination with exemptions in the CFTA		
3	CFTAn	Addressing non-tariff measures in the CFTA		
4	ACP	Full tariff elimination in the ACP		
5	ACPx	Tariff elimination with exemptions in the ACP		
6	ACPn	Addressing non-tariff measures in the ACP		

The simulations in this study assume the standard closure. This implies that quantity of land, capital and labour used within each country is fixed, although these factors may move between sectors at no cost. In other words, the level of unemployment remains unchanged. All the adjustment in the labour market occurs through real wages rather than employment. It has been shown that the labour market assumptions have limited effects on the other variables such as trade.⁴ The above scenarios have also been run with the assumption of unemployment resulting in slightly higher welfare gains.

³ Alternatively, it is be possible to assume that initial rents are captured by exporters.

⁴ See e.g. Vanzetti and Peters (2013).

The GTAP database is aggregated into 49 countries and regions of which 36 are countries and regions within Africa. The ACP countries are disaggregated as much as possible. Other regions are aggregated. The 28 members of the European Union are treated as one region. The economy is divided in to 45 sectors, with almost all goods sectors disaggregated as much as the database will allow.⁵ There are eight labour types. The aggregation of regions, sectors and labour are listed in Appendix table 1.

The data

The GTAP database used here is Version 10. This has a base year of 2014. It reflects existing applied bilateral tariffs as notified to WTO at the time, including preferential tariffs as agreed in a myriad of free trade agreements. The specified tariff line cuts for each country are fed into a software package, Tariff Analytical and Simulation Tool for Economists (TASTE).⁶ TASTE is a tariff database consisting of 5052 bilateral tariffs in each of 236 trading regions. TASTE is used to calculate the shocks that are in turn fed into GTAP.

One problem we have is that the TASTE database is available for Version 9 of GTAP (2011) but not Version 10 (2014). This is not a problem when eliminating all tariffs between CFTA or ACP countries, as this can be done within GTAP, but it is a constraint when calculating exemptions for sensitive products. To work around this problem we use TASTE to calculate the reductions in tariffs for the regions and sectors in Version 9 of GTAP, and we apply the same proportionate cuts to Version 10 of GTAP.

A potential limitation here is there may have been further tariff reductions since 2014. On the other hand, some negotiated and announced tariff reductions may not have been implemented.

3. Existing barriers to trade

Tariffs

Average MFN tariffs in ACP countries vary a great deal, from zero to 33 per cent. North and Southern African tariffs are rather low while West, Central and Eastern Africa tend to have higher tariffs. A customs union exists in West Africa but external tariffs are high. Average tariffs of Caribbean and Pacific countries vary as well. Many have simple average tariffs of around 10 per cent with slightly lower trade weighted tariffs. Average tariffs in Africa on imports from the rest of Africa are shown in figure 1 for agriculture and industrial (non-agriculture) tariffs. Agriculture tariffs tend to be twice as high as industrial tariffs.

Trade is also fragmented, with many countries having little or no trade with several other African countries, or only importing 200-300 items. This is important for the selection of sensitive products. Negotiators have expressed an interest in exempting from tariff reduction ten per cent of the tariff lines. For some countries, such as Zambia, this could cover all intra-African imports.

⁵ Paddy and processed rice are aggregated to avoid a divide-by-zero problem in the simulation.

⁶ See Horridge and Laborde (2008) for documentation.



Figure 2. Intra-African agricultural and industrial tariffs

Source: GTAP database Version 10.

Non-tariff measures

UNCTAD has made a determined effort to list non-tariff measures in various countries and to estimate ad valorem equivalents from those listings. However, as yet, it does not have ad valorem equivalents (AVEs) of non-tariff measures for individual ACP countries or regions. Instead, we use estimates for Africa as a whole estimated by Cadot et al. (2015). We assume the NTMs estimated for Africa are applicable to each country. The absence of country specific data means each country has the same value for a given product or sector.

For the Caribbean we use NTM estimates taken from South America and for Pacific countries we use Asia estimates. The ad valorem equivalents estimated by Cadot et al. (2015) for Africa are shown in table 2. Data for Latin America and Asia are somewhat similar. The SPS and TBT AVEs are modelled as productivity shocks. The others are treated as tariffs.⁷

Regulatory NTMs have benefits, for example in limiting the spread of infectious diseases and pests, and therefore it is unrealistic to remove them completely. Some measures may be too entrenched to be negotiated away. That leads to a challenging decision about what proportion of NTM-related trade costs may be removed. Knebel and Peters (forthcoming) estimate that about a quarter of the trade distorting effect of technical NTMs can be removed through regulatory cooperation. In our simulation, we therefore assume that a quarter of the existing cost effects of SPS measures and TBT can be reduced. Outright non-tariff barriers, such as quotas and price controls, are fully eliminated.

⁷ For more details see Vanzetti, Peters and Knebel (2016). Walmsley and Minor (2015) suggest a third approach, based on the willingness to pay to avoid delays for goods passing through customs.

	SPS	ТВТ	Other
	%		
Animals	9.5	4.2	4.6
Vegetables	14.2	2.7	2.3
Fats & oils	7.8	0.2	3.9
Beverages and tobacco	11.4	5.8	2.9
Minerals	4.6	8.2	1.8
Chemicals	5.6	5.8	2.9
Plastics	0.1	8.1	1.3
Leather	5.4	5.5	3.6
Wood products	4.3	6.7	0.6
Paper	0	9	0.8
Textile and clothing	0	6.4	2.5
Footwear	0	9.2	3.3
Stone and glass	0	8.3	4.3
Pearls	0	3.1	6.2
Metals	0	9.6	4.8
Machinery	0	11.3	10.4
Vehicles	0	9.2	4
Optical and medical	0	11.1	6.1
Arms	0	5.9	9.5
Miscellaneous	0	12.6	3.9

Table 2. Ad valorem equivalents of non-tariffs measures in Africa

Source: Cadot et al. (2015).

4. Results

Welfare and trade

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