Rent-Seeking in SADC Trade Liberalization: Rules of Origin and Other Barriers to Trade in Wheat Products

Hennie Erasmus and Frank Flatters
April 2003

This paper was prepared under the auspices of the World Bank Netherlands Partnership Program (BNPP). It is based in part on earlier work for the SADC Secretariat and for the Government of Namibia which was supported by USAID and the European Union respectively. We are grateful to BNPP for facilitating the updating and completion the work in its present form. Numerous officials in SADC member states and the Secretariat, representatives of private firms in wheat-related industries, and researchers in the SADC region provided valuable information and many useful insights through interviews, workshops, seminars and informal discussions. They would not all agree with all the analysis and conclusions presented here. For that reason their inputs are even more greatly appreciated. Robert Kirk of the SADC Secretariat deserves special thanks for his participation in the earlier stages of this work. The views expressed in the paper are those of the authors and should not be attributed to the World Bank, USAID, the European Union, the SADC Secretariat, any of its member states or any of the staff or officials of these organizations. Hennie Erasmus is a Trade and Investment Specialist at the SADC Secretariat and Frank Flatters is Professor Emeritus of Economics at Queen's University, Canada. Comments are most welcome and can be sent to HErasmus@sadc.int and/or ff@thai.com.

Rent-Seeking in SADC Trade Liberalization: Rules of Origin and Other Barriers to Trade in Wheat Products

Hennie Erasmus and Frank Flatters

1. Background

SADC member states have chosen regional integration as part of their strategy for global participation. While not a first best strategy, regionalism can complement more general trade and investment liberalization. Whether SADC assists in taking advantage of the new opportunities depends on how the SADC Trade Protocol is actually implemented.[1]

There are two quite different visions of SADC, and the policy directions chosen by member states in implementing it will depend on which of these visions is felt to be appropriate (see Flatters 2001). The two visions and the alternate policy directions are well illustrated in the evolution of rules of origin and other measures governing trade in agricultural products under the Trade Protocol.

- The first vision is of SADC as a fortress within which member states can develop themselves through privileged access to an enlarged market area that remains protected from and relatively isolated from external markets.
- The second vision sees SADC as a platform for directly improving the competitiveness of individual members in international markets and/or for improving consumption opportunities of their citizens. Regional integration is seen as part of a more general strategy for full and meaningful participation in global markets.

The vision that has driven the development of the SADC Trade Protocol so far has been distinctly inward-looking. Rules of origin and other provisions of the Trade Protocol have been far more responsive to fears of external (international and regional) competition in domestic markets rather than by a desire to capitalize on opportunities for improving international competitiveness and participating in global markets.

The rules of origin that were first agreed by SADC were simple, general and consistent with those in other developing country PTAs, including COMESA. Goods would qualify for SADC tariff preferences if they were wholly obtained or produced in the region, underwent a single change of tariff heading, contained a minimum of 35 percent regional value-added, or included non-SADC imported materials worth no more than 60 percent of the value of total inputs used.

There then emerged pressures for exceptions to these rules. The arguments for these exceptions were varied, but many of them boil down to attempts to increase protection in domestic markets. This has led to a regime characterized by 'made-to-measure' sector-specific rules of origin that are far more restrictive than first agreed.

Rules of origin have been among the more contentious issues in SADC Trade Protocol negotiations. Indeed, even three years after implementation of the Protocol, rules have not yet been agreed in several key sectors. Preferential trade also continues to be bedevilled by slow tariff reduction schedules and a variety of other non-tariff barriers.

After more than three years of discussion, and two and a half years after implementation of the SADC Trade Protocol, agreement has yet to be reached on rules of origin for trade in wheat flour and its key products. In the absence of agreed rules, preferential trade cannot take place.

[1] Other work has focused on 'hidden' barriers to market access under various external trade arrangements such as AGOA and Cotonou. Among the measures identified have been SPS requirements and rules of origin (see for instance Brenton 2003, Matoo *et al* 2002 and Otsuki *et al* 2000). Without diminishing the importance of such external constraints, the purpose of this paper is to examine self-imposed trade barriers, especially rules of origin, that are likely to be serious impediments to intra- SADC trade, regardless of practices elsewhere.

This paper analyzes and interprets economic issues that have arisen in negotiations over rules of origin in this sector. It does so primarily from the perspective of the market and policy environments that prevailed during the discussions. It also presents an update on recent events and some of their implications. Rent-seeking behaviour by key stakeholders is shown to have succeeded in stalling progress in regional trade liberalization and even to have created new trade barriers. Incorrect but nevertheless plausible sounding claims about support for agriculture have been manipulated to support policies that provide large returns to particular parties but deliver none of the promised benefits to the alleged target beneficiaries. As is so often the case, it is the under-represented consumer that pays the price.

Rules of origin are an essential element of regional trading arrangements. But their use as protectionist devices can also undermine and subvert the benefits of the trade liberalization they are meant to support. This is one of the great dangers of regionalism as a strategy for global integration.

2. Introduction to the Issues

2.1 Rules of Origin[2]

Rules of origin are required in any preferential trading arrangement (PTA) in order to *authenticate* that goods claiming tariff preferences actually originate in an eligible country. The rules are a means of preventing 'trade deflection' or 'tariff jumping' – importing products from outside the PTA into a member country with a relatively low external tariff and re-exporting them under PTA tariff preferences into another member with a higher external tariff on the goods. The importance of rules of origin for this purpose obviously depends on the height and intra-PTA variance of external tariffs. The greater are the height and variance of external tariffs of PTA members, the greater will be the danger of tariff jumping.

The basis for rules of origin in most PTAs is the definition of a minimum level of processing or manufacturing within the region as a requirement for any import to gain preferential treatment. The SADC Trade Protocol includes both general conditions stipulating that simple packaging, assembly and labeling, for instance, are insufficient to confer originating status (Rule 3 of Annex I to the Protocol), and specific rules for all chapters of the HS tariff code. The specific rules define a minimum level of locally originating costs, a maximum level of import content, or certain specific types of manufacturing or processing activity. For most primary products, the rule is that they must be wholly produced in a member state.

A second purpose for which rules of origin are sometimes used is to encourage certain regional activities or to protect them from potential competition arising from the formation of the PTA. This is the *protective* effect (intended or unintended) of rules of origin. This protection can be of two forms – preventing the emergence of regional competition as a result of regional trade liberalization, and encouraging regional production of intermediate or primary products.

- Restrictive rules of origin deprive producers of access to raw materials or intermediate products from low cost international sources and hence can raise the cost of producing a product for sale in the PTA.[3] If they have any effect at all, they force producers to source inputs locally when they would not otherwise have done so, forcing them into production patterns and cost structures that impede their competitiveness. Raising the costs of regional producers in this way can frustrate their ability to take advantage of regional preferences. In other words, restrictive rules of origin can be used to shield existing producers from new regional competition (and to deprive consumers from potential benefits of regional tariff reductions).

[2] This section draws on Flatters 2002.

[3] Producers are free, of course, to source raw materials wherever they wish, subject to import regulations and taxes in their own countries. But if they do not meet the requirements of the PTA's rules of origin, they will not qualify for preferential access to other markets in the PTA.

This is sometimes rationalized as a defensive measure to protect producers from cost-raising effects of their own countries' MFN import tariffs on raw materials and intermediate inputs. Forcing potential regional competitors to operate under the same policy-induced handicaps as those in some other member has no economic rationale. At best it makes the PTA irrelevant for internationally competitive producers who source materials from the best international sources. At worst, it induces producers to adopt high cost, internationally uncompetitive production methods, not for normal economic reasons, but simply to satisfy the rules of origin.

- Strict rules of origin can induce producers to use regional raw materials, thus giving protection and encouragement to the producers of such goods. Such an incentive is necessary only to the extent that their local/regional production costs are higher than international prices of the same goods. Therefore, the burden of rules of origin designed to encourage regional production of raw materials and intermediate inputs will be borne in the form of higher costs by downstream user industries, making them less competitive internationally and forcing them to charge higher prices domestically. Such a strategy can 'work' only if members' external tariffs on finished products are high enough to make it worthwhile to use regional materials when they would not otherwise have been used. In the longer run, however, such a strategy is self-defeating since it reduces rather than increases the global competitiveness of regional producers and deprives consumers of the benefits of trade liberalization.

There is no question that rules of origin can have substantial protective effects. However, to reduce tariffs on regional trade only to replace them with less transparent and often more restrictive rules of origin is a questionable way to achieve the benefits of trade liberalization.

2.2 Proposed Rules for Wheat and Wheat Flour in SADC

There have been two longstanding proposed rules of origin for wheat flour (*ex* HS tariff heading 1101). These are:

> Proposal 1: *Manufacture in which at least 70 per cent by weight of the material used must be wholly obtained in the region.*
>
> Proposal 2: *Manufacture in which the value of all the imported materials used does not exceed 65 per cent of the ex-works price of the product.*

The second of these is much less restrictive than the first.

Subsequently, several further types of proposals have been put forward. The most significant of these is:

> Proposal 3: *Manufacture in which flour has undergone a process involving a change in tariff heading of materials used.*

This is even simpler and less restrictive than the other two rules, requiring only that flour has been milled in the region, with no restrictions on the source of the wheat that is used. This proposal arose out of a SADC-commissioned study on the implications of alternative rules of origin, but has now been adopted as the preferred position of a number of member states.

Decisions on rules of origin for downstream flour products such as pasta and biscuits (contained in HS Chapter 19) have awaited final determination of rules on flour. However, a number of the rules that have been proposed are at least as restrictive as the most stringent ones that have been suggested for flour. That is, some stakeholders have proposed rules for pasta and biscuits that would require significant use of locally produced flour and/or wheat.

These proposals must be understood against a background of large variations in production capacities and in the regulatory environments for these products in SADC member states. Several members produce significant amounts of wheat, although none are self-sufficient. Others produce almost no wheat at all. South Africa is by far the dominant producer, both in terms of total production and of the proportion of domestic demand that can be met from local production.

Some member states provide considerable protection to local wheat growers and others provide none. Similarly, there are large variations in the amount of protection given to downstream producers of flour and its products. It is useful as well to bear in mind that the regulatory environments facing these industries in some member states, especially South Africa and other members of the Southern African Customs Union (SACU),[4] have undergone rapid and significant change in recent years.

Variations in production capacities and in protectionist legacies have led to corresponding differences in policy stances with regard to liberalization of intra-SADC trade in these products. Member states with large and protected wheat and wheat flour industries have tended to resist liberalization of intra-SADC trade. In particular, they have tried to insist on restrictive rules of origin as a means of insulating their producers against competition from other member states.

Even in member states that have resisted liberalization, however, there are significant and growing interests whose focus extends beyond national markets. This is especially true in certain downstream industries. These producers compete in regional and world markets and have a strong interest in a more liberal trading environment. The conditions that permit them to compete in international markets – especially unrestricted access to key raw material inputs – would not apply if SADC markets were governed by high tariffs, stringent rules of origin and other restrictions.

A great deal of the debate about rules of origin in these sectors has centred on wheat. How much is wheat being protected under current arrangements and how might this change as a result of SADC free trade under different rules of origin? Can or should the Trade Protocol be used to promote expansion of wheat growing in SADC? What is the true wheat growing capacity in SADC? The discussion has also been influenced by the well known distortions in international wheat and flour markets arising from protection and subsidy policies in major producing countries.[5]

There are also questions about downstream milling industries. In particular, what are the implications of wheat policies on the competitiveness of flour milling in different member states and how might this change as a result of SADC free trade under different rules of origin? Less attention has been paid to the implications of these policies and of alternative arrangements for trade liberalization under SADC for consumers of flour and flour products in member states. The ultimate burden of protection of wheat and wheat flour falls on consumers of these products, especially bread.

Less openly discussed, but of equal or maybe even greater importance have been questions about the types and extent of existing protection of milling industries in SADC. How much protection is currently enjoyed by different SADC milling industries? How will this protection be affected by intra-SADC free trade under different rules of origin? What are the implications of the use of non-tariff import barriers on wheat flour and its products in a number of member states and what plans are there for phasing these out as part of the SADC trade liberalization process? What is the rationale and what are the implications of differences in the tariff phase-down schedules among the member states?

In the context of many of these issues, rules of origin have tended to be the instrument of last resort for member states or stakeholders that are dissatisfied with other dimensions and perceived inequities of the Trade Protocol. As a result, rules of origin are being proposed for all kinds of purposes that are unrelated to their true economic purpose – to authenticate that goods claiming SADC tariff preferences actually result from economic activity in a qualifying member state.[6]

[4] The members of SACU are Botswana, Lesotho, Namibia, South Africa and Swaziland. The four members outside of South Africa are often referred to as the 'BLNS states.'

[5] While these policies might be unfair to SADC wheat producers, they also provide potential benefits to consumers and users of these products in SADC. Generally speaking, the effect of these policies on the world wheat price tends to be considerably overstated in many policy discussions. Regardless of their impacts, however, it needs to be recognized that these distortions in world markets are far beyond the control of SADC or its member states. For the purposes of policy decisions at the SADC level, they might best be treated as exogenous.

[6] See Flatters 2002.

3. The Market for Wheat and Wheat Flour in SADC

Wheat is by far the most important element in the cost of flour production. Although there are other minor inputs, the remaining costs are primarily labour and capital.

SADC is not self sufficient in wheat production. Outside of South Africa and Zimbabwe, only modest volumes of wheat are produced within SADC. Indeed even in South Africa and Zimbabwe it is necessary to import wheat in order to meet the requirements of the flour millers. Within SADC wheat is also grown in Lesotho, Namibia, Tanzania and Zambia. Estimated production, consumption and import demands are shown in Table 1.

For a number of reasons, including data collection difficulties and annual production variations arising from climatic and other conditions, these figures are indicative only. Nevertheless, certain broad patterns can be discerned and are consistent with most informed perceptions.

Table 1
Wheat Consumption, Production, Imports and Exports in SADC (2000-2001)

Country	Consumption ('000 tons)	%	Production ('000 tons)	%	Imports ('000 tons)	%	Exports ('000 tons)
Botswana	78	2	1	0	81	4	3
Lesotho	70	2	5	0	74	4	9
Malawi	60	2	2	0	58	3	0
Mauritius	103	3	0	0	133	7	30
Mozambique	180	5	0	0	180	10	0
Namibia	60	2	6	0	57	3	3
South Africa	2,500	64	1,800	79	830	44	130
Swaziland	40	1	0	0	40	2	0
Tanzania	250	6	90	4	190	10	30
Zambia	115	3	70	3	45	2	0
Zimbabwe	420	11	300	13	190	10	70
Total	3,876	100	2,274	100	1,878	100	275

Source: Figures based on interviews and information received from SADC-FANR, National Chamber of Milling, Food Balance Sheet and SAGIS.

SADC wheat imports have been increasing over the past decade. This trend is expected to continue since demand for wheat flour is income elastic and there are very limited prospects for growth of internationally competitive wheat production in the region.[7] Indeed production of wheat within South Africa might even decline if the current levels of protection are reduced. South Africa, Zambia and Zimbabwe all supply more than 60 per cent of their total domestic demand for wheat.[8] Tanzania supplies 36 per cent and all the remaining SADC countries grow less than 10 per cent of their total domestic requirements.[9] Three countries – Mauritius, Mozambique and Swaziland – grow less than one per cent of their total domestic requirements.

[7] There have been many discussions and some agronomic studies of the wheat growing potential of the region. These have resulted in claims that growing conditions in certain regions would support a 'wheat belt' capable of meeting all of southern Africa's wheat demands. Regardless of the agronomic merit of such claims, there is no possibility that such production increases would be an *economic* proposition in any foreseeable future. More importantly, as will be seen in the discussion below, such arguments are irrelevant to the choice of a rule of origin for wheat flour trade in SADC.

[8] This abstracts from the impact of recent politically induced economic difficulties in Zimbabwe.

[9] As a result of large new public investments in irrigation facilities, a decrease in the world price of cotton and a rise in the price of wheat, Namibia experienced a significant increase in domestic wheat production in 2002. With a continuation of these irrigation investments over the next few years, it is possible that Namibia might

Over the past twenty years the majority of SADC Member States have provided import protection to domestic flour producers. In many countries wheat flour and wheat products have been protected by a combination of both tariffs and non-tariff measures. Table 2 shows member states' MFN duty rates on wheat and wheat flour in early 2002.

South Africa and Tanzania provided significant tariff protection to domestic wheat growers. Zambia and Zimbabwe, the other two wheat-growing members, levied only modest tariffs on wheat imports. With the exception of Mozambique, which imposed a modest 2.5 percent tariff, none of the other Members levied import duties on wheat. The zero wheat tariff members include the BLNS countries, despite their membership in SACU and hence their commitment to a uniform import duty regime with South Africa. Zero tariff treatment in these cases is achieved through a duty rebate program aimed at maintaining world price parity for this basic foodstuff.[10]

Table 2
Most Favoured Nation Tariffs in SADC (Feb 2002)

Country	MFN Tariff On Wheat	MFN Tariff On Flour
Botswana	0	10% + R294/ton
Lesotho	0	10% + R294/ton
Malawi	0	0%
Mauritius	0	15%
Mozambique	2.5%	30%
Namibia	0	10% + R294/ton
South Africa	R196/ton	10% + R294/ton
Swaziland	0	10% + R294/ton
Tanzania	25%	25%
Zambia	5%	25%
Zimbabwe	5%	40%

Note: The *ad valorem* equivalent of the SACU duty on flour is 22 percent at current prices; for wheat it is 13 percent.

With the exception of Malawi and Mauritius[11], all Member States impose significant external import duties on flour imports. The SACU import duty on wheat is tied to its world price and is designed to set a minimum domestic price equal to its 'long run average' in world markets. The duty in February was R196 per ton. The SACU import duty on flour, in turn, is tied to that on wheat and, as will be seen below, is more than sufficient to overcome any alleged cost penalty imposed on South African flour producers by import duties on wheat. (A more detailed discussion of the South African import regimes for wheat and flour is provided in Section 4.1.1 below.)

A number of members, including South Africa, also provide duty rebates on flour used in exports produced by domestic millers. This is designed to permit them to compete in regional markets where millers might benefit from duty-free free access to international wheat.

The wide variation in MFN tariff structures is matched by similar differences in preferential tariff phase-down schedules. By general agreement, tariff phase-down schedules are asymmetric. First, in recognition of its economic dominance of the region in terms of both size and income level, South Africa has agreed to reduce SACU's preferential tariffs at a faster rate than other member states.

supply more than half of its domestic demand from local production. However, Namibia is a very small supplier or consumer of wheat in regional markets, and so this would have no perceptible impact on this market.

[10] To avoid the possibility of 'unfair' competition with South African millers who do not get rebates in respect of flour sold in their domestic market, exports of the BLNS-milled flour to the South African market are banned. Nevertheless, illegal flour exports from Swaziland and other BLNS millers are a perpetual agenda item at SACU trade meetings.

[11] Mauritius achieves world price parity for flour through its State Trading Corporation which purchases flour on the basis of highly competitive international tenders.

Secondly, non-SACU members are permitted to reduce preferential tariffs to SACU at a slower pace than to other members.

Table 3 shows the year in which preferential tariff rates offered on wheat and flour go to zero in each of the member states. Malawi and Mauritius already have zero rates and so their SADC phase-downs are immediate.[12] The SACU phase-down will be complete by 2004. In all other member states, those with the high MFN rates on these products, the phase-down will be achieved over a much longer time period. With the exception of Zimbabwe, no member will eliminate its tariff on flour imports from SACU before 2012.

Table 3
Date of Elimination of Import Duties on Wheat and Flour in SADC

Country	Wheat Imports from		Flour Imports from	
	RSA	Non-RSA	RSA	Non-RSA
Malawi	Immediate	Immediate	Immediate	Immediate
Mauritius	Immediate	Immediate	2012	2007
Mozambique	2015	2012	2015	2008
SACU	NA	2004	NA	2004
Tanzania	2012	2008	2012	2012
Zambia	2006	Immediate	2012	2012
Zimbabwe	Immediate	2006	2009	2012

Source: SADC Secretariat, based on official offers of Member States.

Wheat and wheat flour are also protected by the natural barriers arising from transport costs and, in a number of member states, by non-tariff import barriers (NTBs).

Wheat costs about $17 per ton to transport from North America and more from other sources.[13] This provides natural protection for locally grown wheat. The cost of shipping flour from Australia or Europe is at least twice this much. For flour millers, the net effect of these transport costs is a significant amount of natural protection from import competition. (See Section 4.1.2 below.) Such protection is even greater for mills located away from seaports.

Non-tariff import barriers on wheat flour include the following.[14]

- Until very recently Botswana and Namibia imposed a local purchase requirement on the right to import wheat flour. Import permits were not granted unless equivalent purchases were made of locally produced flour. This provided a captive market for local production, permitted the price of local flour to be higher than it otherwise would be, and hence gave protection to the local milling industries. Reducing the millers' choice of wheat inputs also reduced the quality of flour produced for sale in the local market.
- In response to complaints of 'dumping' of flour from South Africa, Botswana recently imposed a 15 percent import duty on flour. At the same time, it eliminated the previous import permit system.
- Namibia recently replaced its local purchase requirement with a ban on flour imports. (This is discussed further in Box 3 below.)

[12] Mauritius does not phase down its flour duties until 2007 (non-RSA) and 2012 (RSA). However, the State Trading Corporation tender policies make these tariffs irrelevant.
[13] Transport cost data quoted in this paragraph are from late 2001.
[14] This list is based on material obtained from many sources in the course of investigations for this study. It is unlikely to be fully accurate, complete or up to date. However, it should suffice to provide a picture of general patterns and of the variety of barriers in place.

- Swaziland also has an import permit system. All flour imports require a permit that must be granted by the National Agricultural Marketing Board. The Board restricts the number of permits granted.
- Mauritius controls all wheat flour imports through its State Trading Corporation. The corporation purchases flour for sale in the domestic market through competitive international tenders and then sells the flour at a discount of 5 percent relative to its purchase price. This system is designed for the benefit of domestic consumers and provides no protection to local millers.
- Zimbabwe has an import licensing scheme for wheat and wheat flour. These schemes were designed to protect domestic producers.
- South Africa has recently announced a vitamin enrichment program for wheat flour. All domestically sold wheat flour must be vitamin enriched as prescribed by the Ministry of Health. Regardless of the intention of the program, it has the incidental cost of raising the cost of producing flour for sale in the South African market. While it applies equally to South African and non-South African producers, it imposes a relatively greater cost burden on smaller producers and those selling only relatively small shares of their production in the South African market.
- Zambia imposes tight SPS inspections on wheat flour in transit to Democratic Republic of Congo (DRC). This increases the costs of exporting flour from South Africa and other countries to DRC and presumably increases the competitiveness of Zambian millers in that market.
- Zambia also imposes a substantial cash deposit requirement on wheat flour in transit. This also increases the cost to other countries of exporting flour to DRC, presumably giving an advantage to Zambian producers in accessing the DRC market.

In light of the high rates of tariffs and other import barriers, the bulk of flour production in most Member States is sold in their domestic markets; there is very little intra-SADC trade. Malawi generally accounts for a large share of intra-SADC imports of flour, and Mauritius for its exports. Zimbabwe trade data show her to have been both an importer and exporter of flour within SADC. Small amounts of trade also occur between Zimbabwe and Zambia, and South Africa has exported small amounts to a number of Member States.

4. Analysis of Import Regimes for Wheat and Flour in SADC

Most flour-milling industries in SADC have developed behind protective barriers. The form of protection includes tariffs (South Africa and other SACU Members, Mozambique, Tanzania, Zambia and Zimbabwe), import licensing (Botswana, Namibia, Swaziland and Zimbabwe), and other controls (e.g the Mauritius State Trading Corporation). These regulatory environments will be a major determinant of the ultimate effects of alternative approaches to intra-SADC trade liberalization.

South Africa is by far the largest wheat producer in SADC, and the special issues arising from South Africa's wheat sector have played a major role in trade negotiations in this and related sectors. For that reason we pay special and more detailed attention to the South African case.

At the same time, there are important issues related to the regulatory and import regimes in other member states that will play a major role in shaping the implementation of the Trade Protocol. These are dealt with subsequently.

4.1 South Africa

Prior to 1996 wheat, wheat flour and bread and other downstream products were heavily protected and/or regulated in South Africa. Since the mid 1990s these markets have undergone considerable deregulation and liberalization. The key remaining features of direct relevance to this study are the systems of import protection applied to wheat and wheat flour.

4.1.1 Outline of the Duty Structure

Wheat imports are subject to a specific import duty whose value is tied to the international import price in the following manner. When the current import price is below its 'long term average' of $157 per ton (fob Gulf for hard red winter wheat),[15] the duty is the difference between the Rand equivalent of $157 and the actual price per ton.[16] When the price exceeds $157, the import duty is zero. In other words, the import duty is set to bring the price of imported wheat to at least $157 per ton (plus transport costs). It is intended to set a floor on the domestic price of wheat in South Africa.

The import duty on wheat flour is also set as a specific rate that is directly related to the duty on wheat. Based on the assumption that through the milling process R100 worth of wheat produces R150 worth of flour,[17] the duty on flour is set at 1.5 times the duty on wheat. In addition, as a form of adjustment assistance to millers, the duty is augmented by a certain percentage of the import price of flour. The additional import duty was set at 40 percent in 1998, was reduced to 30 percent at the end of 1999, 20 percent at the end of 2000, 10 percent in December 2001 and fell to zero in January 2003. The following analysis is based on the 10 percent rate in effect throughout most of the SADC negotiations.

With an international wheat price of $130 per ton (its approximate level in February 2002) and the 10 percent mark up on the flour duty, the formula called for *ad valorem* equivalent duty rates on wheat and flour of about 21 percent and 27 percent respectively.[18] As we shall see below, these import duties on flour are far more than sufficient to compensate millers for any possible cost-raising effect of duties on wheat.

4.1.2 Effective Protection of Flour Millers in the Domestic Market

The *effective rate of protection* measures the net protective effect on millers of the import protection on flour and on wheat. It is an estimate of the proportional increase (or decrease) in domestic value added per unit of output afforded to domestic producers relative to what would prevail under free trade in all inputs and outputs. Thus it is an indicator of the cushion provided by protection for higher costs of domestic production and/or of the size of the economic rents made possible by protection, relative to those in normal international production. See Box 1 on effective protection.

1. The Concept and Measurement of Effective Protection

Import duties or other import barriers reduce competition and raise the prices of protected goods in the domestic market. For sectors in which the taxed goods are outputs, this is a source of positive protection. For sectors in which the goods are inputs, this raises costs and results in negative protection. If a sector produces a good that is protected, and also uses protected inputs, the net effect of this protection could be either negative or positive.

The *effective rate of protection (ERP)* is a commonly used measure of the net effect of protection of inputs and outputs. The ERP measures the percentage increase in domestic value added in any activity that is made possible by the structure of protection of both inputs and outputs.

The concept is best illustrated with some examples. Each of these examples closely reflects the actual situations in the milling industries of SADC Member States (see Table 8 in Section 4.2 below).

[15] This price was determined as a 10-year average in 1998. Hard red winter wheat was chosen as the comparator because of its preponderance in world markets. From 1998 to the latter part of 2002, the international price was consistently and significantly below this 'long term average'.

[16] The actual import duty is adjusted in discrete jumps; it is adjusted only when the world price changes by more than $10 relative to its previous basis. In February 2002, therefore, the import duty was not sufficient to raise the import price to $157.

[17] This is a rule of thumb based on the alleged capabilities of relatively efficient international millers. In fact, most internationally competitive millers are able to achieve a conversion rate (in value terms) of 1.4 or less. The estimates of effective rates of protection below are designed to be consistent with a rate of 1.4.

[18] These rates for South Africa are based on strict application of the formulae at each world price considered. In fact, because of 'stickiness' that has been built in to the adjustment of the tariff to changes in world prices, the actual import duties are a little bit different than this. In Table 8 of Section 4.2 below we include calculations based on the actual tariff rates on wheat and flour in late 2001 and early 2002.

Suppose that at international prices and in a typical international flour mill wheat accounts for 71 percent of the final value of flour produced. Abstracting from other intermediate inputs, this means that $100 worth of flour requires purchased inputs (wheat) worth $71. The value added in flour milling, therefore, is $29. It includes the cost of labour and all other inputs, including all costs of and a normal return to capital. This is referred to as *value added at world prices, VAW*.

Example 1: Consider mills in a country with import duties of 2.5 percent on wheat and 35 percent on flour. These import duties would normally raise the domestic price of wheat by 2.5 percent and of flour by 35 percent, relative to world prices. The domestic cost of wheat required to produce flour worth $100 in world markets would be $72.78 (2.5 percent more than $71). The value of the flour produced would be $135 at domestic prices (35 percent more than $100).

The net effect of the tariffs on wheat and flour, therefore, is to permit domestic millers to produce flour at significantly higher cost than international mills. Domestic processing cost could be as great as $135 - $72.78 = $62.22 and millers could still compete against international suppliers. The difference between the domestic value of flour produced and the domestic cost of the necessary wheat inputs is known as *value added at domestic prices, VAD*.

The *effective rate of protection* due to import duties on inputs and outputs is defined simply as the percentage change in value added permitted by these import duties:

$$ERP = ((VAD/VAW) - 1)*100$$

For the structure of protection in this example, value added is increased by 115 percent (the difference between VAD ($62.22) and VAW ($29)). Effective protection to flour milling is 115 percent.

Domestic millers can have processing costs that are 115 percent higher than in normal international mills and still compete against imports in the domestic market. Alternatively, if domestic mills can produce with similar processing costs to foreign mills, they can reap excess profits equal to 115 percent of their local processing costs, including the cost of labour and normal returns to capital.

Example 2: Suppose that the country imposes import duties at a rate of 30 percent on both wheat and flour. In this case the domestic cost of wheat is increased from $71 to $92.3 and the value of the flour it can produce rises from $100 to $130. Domestic vale added with these import duties in place is $37.7 ($130 – $92.30). VAW with these tariffs is $37.70. Comparing this with VAW of $29 ($100 – $71), it is seen that the percentage increase in domestic value added permitted by protection of 30 percent on both wheat and flour is also 30 percent. Effective protection is 30 percent.

Domestic millers can have processing costs that are 30 percent higher than in normal international mills and still compete against imports in the domestic market. If their processing costs are similar to those of foreign mills, they can reap excess profits equal to 30 percent of their local processing costs, including cost of labour and normal returns to capital.

Example 3: Suppose that flour can be imported with no import duty, but there is an import tariff of 5 percent on imported wheat. The domestic cost of wheat is increased from $71 to $74.55. The domestic value of the flour produced is the same as in the rest of the world, $100. Therefore domestic processing costs cannot exceed $25.45 ($100 - $74.55) for local millers to compete against imports. VAD is $25.45, compared with VAW of $29. This means that effective protection is negative. VAD is 12 percent less than VAW; the effective rate of protection to domestic millers is -12 percent.

Domestic millers need to be able to mill flour with processing costs 12 percent less than in a normal international mill in order to compete against imports.

The three examples are summarized in Table 4.

Table 4
Summary of Effective Protection Examples in Box 1

World Values		Domestic Values				ERP Calculation		
Wheat Value ($)	Flour Value ($)	Wheat Duty (%)	Flour Duty (%)	Wheat Value ($)	Flour Value ($)	VAW ($)	VAD ($)	ERP (%)
71	100	2.5	35	72.78	135	29.00	62.22	115
71	100	30	30	92.30	130	29.00	37.70	30
71	100	5	0	74.55	100	29.00	25.45	-12

The effective protection to flour millers selling in the domestic market in South Africa depends on the net effect of any negative protection arising from import duties on wheat and the positive protection arising from the duties on imports of flour. Since the *ad valorem* equivalent rate on flour is higher than on wheat, the net impact is beneficial to flour millers. The import duty structure shown here gives substantial protection to South African wheat millers selling in the domestic market.

Furthermore, there is considerable evidence that the import duties on wheat provide very little benefit to local grain growers. Under current market conditions, the domestic price of wheat is equal to or even less than the price of equivalent imports before tariff. Thus, the import duties on wheat impose little or no burden on South African millers, at least in respect of domestically purchased wheat.[19]

Table 5 shows estimates of the current rates of effective protection for South African millers producing for sale in the domestic market. World wheat prices prevailing over most of 2001 and the early part of 2002 were in the range of $125 to $135 per ton.

Table 5
Effective Protection to Flour Milling in South Africa (%)

World Wheat Price	% of Wheat Tariff Borne by Millers			
	100%	70%	40%	0%
$125/ton	49	68	86	110
$130/ton	48	63	79	99
$135/ton	46	59	72	88

The estimated effective protection rates abstract from the 'natural protection' provided by the cost of international transport of wheat (giving negative protection) and flour (giving positive protection). At transport costs of $17 per ton for wheat and $33 per ton for flour (actual costs in 2001/2002), the net effective protection afforded by transport costs is about 20 percent. In other words, the total effective protection enjoyed by millers in South Africa is at least 20 percentage points higher than the rates shown in Table 5. This is a substantial amount of additional protection, due only to the unavoidable effects of transport costs. Subsequent calculations and analysis abstract from this source of protection in South Africa and in other SADC Member States.[20]

[19] This is based on a wide variety of sources including direct comparisons of actual wheat import prices and South African grain futures contract prices, and data from informed sources within the milling industry and the South African farming community. Millers from some BLNS states claim that they are often able to source wheat more cheaply from South African growers than from imports, despite the duty rebate they receive on imported wheat. There are several possible explanations for this phenomenon (domestic prices significantly less than duty-paid import prices). Some observers point to the much greater market power of millers than farmers due to the concentration of the former relative to the latter. Another possibility is that competitive pressures on major South African millers from more efficient producers, some of whom have access to wheat at import parity prices, puts severe downward pressure on how much they are able to pay for local wheat.

[20] Two other assumptions had to be made to get these estimates. The two together are necessary to estimate the share of wheat in the cost of flour at world prices. The first is the wheat-to-flour conversion rate which we have taken as 1.2; that is, it is assumed that 1.2 tons of wheat are required to produce 1 ton of flour. Second, it is assumed that the share of wheat in total flour production costs at 'normal' world prices is 75 percent. These two assumptions imply a ratio of the price of wheat to the price of flour (at world prices) of 1 to 1.4. This is certainly consistent with general international evidence and with studies done by the South African Board of Tariffs and Trade (BTT Report No. 3932 "Revision of the Tariff Dispensation on Wheat, Wheaten Flour and Products Thereof", Table 12). The wheat to flour conversion ratio is also consistent with data on South African mills taken from the same study (Table 11). These assumptions also imply a wheat price to flour price ratio of 1.8 in South Africa at current market prices. This is consistent with information provided by the South African Department of Trade and Industry (DTI). Finally, the assumptions suggest a share of wheat in South African

The first column of Table 5 shows the effective protection provided to flour millers on the assumption that the full amount of the wheat tariff is passed on to millers. Under this assumption, it can be seen that the effective rate of protection provided by the current protection structure on wheat and flour is 46 to 49 percent. That is, South African millers can have non-wheat production costs that are nearly 50 percent higher than foreign competitors in SADC or elsewhere (even if they have access to wheat at world prices) and still compete against imports in the domestic market. Alternatively, if they can produce as efficiently as millers in other markets (and there is no reason that this should not be the case) they can make excess profits of almost 50 percent of normal production costs (including a normal return to capital). In other words, this is a measure of the potential economic rents, or excess profits, due to this protection.

If, as recent evidence suggests, the import duty on wheat is not fully passed on to millers (see Box 2), the effective rate of protection is even higher. The second to fourth columns of Table 5 show the effective protection rate under different assumptions in this regard. For instance if only 70 percent of the wheat duty is passed on to the millers in the form of higher wheat costs, their effective protection becomes 59 to 68 percent at current wheat prices. If none of the tariff is passed on (i.e. if domestic growers are paid only the world price), effective protection given to flour millers is about 100 percent (88 to 110 percent).

2. The Price of Domestic Wheat in SACU

A major part of the case for protecting flour millers in SACU, whether through restrictive rules of origin in SADC or through 'appropriate' MFN tariff structures, rests on the effects of the South African wheat tariff on its domestic price. For imported wheat, there can be little doubt that the tariff raises the cost of milling flour domestically, at least in South Africa. SACU millers outside of South Africa (i.e. the BLNS millers), on the other hand, receive a rebate of wheat import duties, and so enjoy the protection of the flour tariff while bearing none of the costs of that on wheat.

Imports account for only 30 to 40 percent of the wheat used in South Africa. The rest comes from domestic production. What is the effect of the wheat tariff on the price of domestic wheat? In a competitive market with low internal transport costs, the tariff would be expected to be more or less fully reflected in the domestic wheat price – i.e. domestic growers should receive close to the tariff-inclusive import price.

This does not appear to be what has happened, at least in recent years. Examination wheat contract prices on the South African grain exchange suggests that local growers have received no more than pre-tariff import prices and often something much closer to an export-parity price. In addition, interview data from a number of BLNS millers indicates that they prefer to buy South African wheat rather than imports, despite their enjoyment of a full duty rebate on imports. Indirect evidence of the same phenomenon comes from South African millers who complain that certain BLNS millers often buy up domestic wheat, forcing them (South African millers) to use higher priced imports.

Why is the domestic wheat price so low? Part of the reason might be risk-averse behaviour by growers who have been too anxious to enter futures contracts in an environment of rising prices. The growers might also have suffered from a certain amount of 'exchange rate illusion' at a time when rising international prices and a depreciating Rand caused unexpectedly large increases in domestic prices of imported wheat.

An additional and at least equally important reason for low domestic prices (relative to full import parity) is a combination of regional segmentation of the South African market and considerable market power by a small number of local buyers. Recognizing this asymmetry in market power, growers in certain regions have tried to organize and present a united front in bargaining with monopsonisitic buyers. When farmers in one region refused to enter futures contracts, however, the buyers filled their silos with imported wheat in advance of the domestic harvest. In the absence of local storage facilities at harvest time, farmers had little choice but to sell at heavy discounts.

Whatever the reason, there is considerable evidence that price of domestically grown wheat in South Africa have been far less than tariff-inclusive import parity in recent years. The main impact of the wheat tariff appears to have been on the price of imported and not domestically produced wheat.

flour milling costs of about 71 percent, which is virtually the same as estimates provided by the South African Association of Millers.

Based on current evidence it would appear that this tariff structure gives wheat milled from imported wheat effective protection of about 48 percent while that using domestic wheat gets protection at a rate of about 100 percent.[21] If 60 percent of wheat needs of millers are met from local production, the average rate of effective protection of flour milled in South Africa is about 79 percent (middle row, third column of Table 5).

Such a structure of protection provides room for sizable inefficiencies and/or economic rents for South African millers, and even larger ones for those in the BLNS countries.[22] In either case, the ultimate burden is borne by SACU consumers of flour, bread and other flour products. This is especially costly and regrettable in light of the South African government's recently announced intention to use bread and other flour products as vehicles for improving basic nutrition for the young and the poor.

4.1.3 Likely Impacts of Freeing SADC Trade Under Various ROO

What would happen to this protection under intra-SADC free trade in wheat and wheat flour?

As already mentioned, intra-SADC free trade in wheat would not have any direct effect on wheat prices in South Africa. It is the world price of wheat, together with competitive conditions in the domestic market that will remain the principal determinants of the price of wheat in South Africa. As long as SACU's MFN tariffs on wheat remain unchanged, the local price of wheat will be unaffected by intra-SADC free trade. In fact, if the price of domestic wheat is already at or below import parity, as certainly appears to be the case at present, its price is unlikely to be significantly affected by changes in the import duty on wheat.

What happens to competition in the local market for flour will depend in large part on what rule of origin is chosen.

Proposal 1 requires that 70 percent of the wheat used in the milling process be grown in the region. Under current production levels in South Africa, this rule could certainly be satisfied by their domestic millers. The only way that the rule could be satisfied by non-South African millers, however, would be to import the required wheat from South Africa. The logistical costs involved would make it virtually impossible for them to compete with South African millers. Under this rule, therefore, SADC free trade would be unlikely to bring significant new competition to the South African wheat flour market. Furthermore, it would bring no new competition in non-SACU flour markets, except from South African millers. Trade in wheat flour trade that is currently taking place between, say, Mauritius and Malawi, would not benefit from SADC preferences under this rule.

Proposals 2 and 3 require little or no regional wheat content and so would have, at least potentially, a major impact on regional competition in wheat milling. Proposal 3 places no restriction at all on the origin of wheat used. It could be met, therefore, by millers in any Member State.

Suppose that some SADC millers were able to import wheat at world prices, there were no natural protection provided by transportation and other barriers, and they were able to mill wheat according to world standards (in terms of quality and cost). Under these conditions, they would be able to take advantage of intra-SADC free trade in flour and sell at a price as low as that prevailing in world markets. Against such competitors, South African millers would receive no tariff protection on wheat flour and might have to match the world price of flour. And, depending on local market conditions for wheat, they might have to do so with the disadvantage of higher cost wheat in the domestic market.

Table 6 shows the effective rate of protection to domestic millers in South Africa *vis à vis* SADC competitors under a liberal rule of origin and under the same range of assumptions about world wheat

[21] This difference in protection rates explains why South African millers are upset when BLNS millers buy South African wheat. It should be noted that a small amount of wheat gets imported into South Africa on a duty-free basis under South Africa's WTO commitments. This would increase the effective protection to flour milled from imported wheat. However, the volumes of such imports are quite low and can be ignored for the purpose of this exercise.

[22] Recall that BLNS millers receive a rebate of import duties paid on imported wheat.

prices and the degree to which wheat import duties are passed on to South African millers. With no tariff protection on imports from SADC, South African millers face only the negative effects of their own country's import tariff on wheat. Unless none of the cost-raising impact of these tariffs is passed on to the millers (final column of Table 6), South African millers are seen to face *negative* effective protection.

Table 6
Effective Protection *vis à vis* SADC Competition
With SADC Free Trade and a Liberal Rule of Origin (%)

World Wheat Price	% of Wheat Tariff Borne by Millers			
	100%	70%	40%	0%
$125/ton	-61	-43	-25	0
$130/ton	-52	-36	-21	0
$135/ton	-42	-29	-17	0

If they have to absorb the full brunt of import tariffs on wheat (first column of Table 6) the effective rate of protection they face *vis à vis* SADC competitors is in the range of minus 42 to minus 61 percent. They would have to be able to produce at 42 to 61 percent lower cost than SADC competitors in order to sell in their domestic market. This is in stark contrast to the situation shown in Table 5, showing the effective protection faced under a restrictive rule of origin or in the absence of SADC free trade in flour.[23]

However if none of the cost-raising impact of wheat tariffs were passed on to them, as appears to be true for domestically grown wheat, South African millers would have zero effective protection against SADC competitors (final column of Table 6). SADC free trade would place South African millers on a level playing field against SADC competition, even under a liberal rule of origin. MFN import duties would continue to provide effective protection against non-SADC competitors at the high rates shown in the final column of Table 4.

How might the consequences of a liberal rule of origin translate into actual competition for South African millers in their local market?

The removal of tariffs on wheat flour may provide some SADC countries with an incentive to divert production to the South African market where flour prices might remain high due to the MFN tariffs on flour imported into SACU. With access to wheat at world prices, they might have a cost advantage over South African millers (see first three columns of Table 6). In such circumstances they might even invest in new capacity to supply the South African market. This would be especially true if they expected South Africa to continue to protect its flour market against non-SADC competition.

However, there are several factors that would limit the ultimate harm to South African millers of any such production shifts.

- The capacities of non-South African milling industries are small, especially relative to the size of the South African market. South Africa accounts for almost 60 per cent of the milling capacity in SADC. SACU accounts for almost two-thirds of the total. In almost all non-South African countries, milling capacity is equal to or just a little bit more than the size of the domestic market.[24] South Africa, Tanzania and Zimbabwe are the three countries in which there is significant excess of milling capacity over domestic wheat flour demand.[25]

[23] It should be emphasized once again that this abstracts from the substantial amount of natural protection that would be afforded South African millers by transport costs and other logistical difficulties in exporting flour from other SADC countries to South Africa.
[24] Malawi is the only country in which capacity is smaller than local demand.
[25] This reflects in part an incomplete adjustment to deregulation of the local market and to technical and other changes that have left the countries with a large number of small and very inefficient flour mills. These smaller mills are bound to exit the industry over time as a result of competition from larger, more efficient mills.

Excess capacity in South Africa stands at over 12 percent of the domestic market. As can be seen in Table 7, excess capacity in other SADC wheat flour markets is only a very small proportion of the South African market.

Table 7
Excess Flour Milling Capacity in SADC

Country	Domestic Requirements ('000 tons)	Milling Capacity ('000 tons)	% of SADC Cap.	Excess Capacity ('000 tons)	Excess Capacity (%)
Botswana	78	91	2	13	14
Lesotho	70	122	2	52	43
Malawi	60	60	1	0	0
Mauritius	103	180	3	77	43
Mozambique	180	288	6	108	38
Namibia	60	108	2	48	44
South Africa	2,500	3,000	58	500	17
Swaziland	40	50	1	10	20
Tanzania	250	560	11	310	55
Zambia	115	120	2	5	4
Zimbabwe	420	612	12	192	31
Total	3,876	5,191	100	1,315	25

Source: Figures based on information received during interviews and from SADC-FANR, National Chamber of Milling, Food Balance Sheet and SAGIS.

- The South African milling industry would remain well protected by both its greater scale and efficiency (at least for the sustainable larger and more modern mills that make up the largest, most modern and economically significant part of the industry) and by the natural barriers presented by the cost of shipping flour from other parts of SADC to the South African market.
- Any diversion of SADC production to the South African market would create an opportunity for South African firms to increase their exports to these SADC markets (in the absence of other barriers to such exports). They could make use of the duty rebate facility which allows them to match the world parity price when they use imported wheat. South Africa imports significant amounts wheat (accounting for well over 50 per cent of the SADC market demand excluding South Africa).[26] The incentive for South African firms to export would be increased if the non-SACU countries continued to maintain a high MFN tariffs on wheat flour.

In the event that South African millers did suffer from a small cost disadvantage and there were a substantial flood of SADC-sourced flour into their market, they would not be able to pay protection-induced high prices for domestic wheat. Since the domestic milling industry is the main market for local wheat, there would be downward pressure on local wheat prices. Competitive pressure in the flour market would drive down local wheat prices to a level at which South African millers would be able to compete. While South African millers would certainly lose some of the rents arising due high levels of effective protection under current arrangements, a major part of any necessary adjustment would be borne by reductions in the local price of wheat. To the extent that local wheat growers already receive less than the landed price of comparable imports, this adjustment would once again have little effect on grain growers, and the principal effect would be an erosion of rents currently received by local millers.

[26] Technically such production would not qualify under Proposal 1 since the rebate is only applicable to wheat that is imported and therefore the flour would not meet the rule of origin. But it would not be a problem under a liberal rule such as that being examined here.

Overall it is highly doubtful that the South African wheat milling industry would face a serious threat of "disruptive" competition under intra-SADC free trade, even with the liberal rule of origin under Proposal 3. There would be an erosion of rents provided by the current, highly protective tariff structure, and possibly an incentive to improve efficiency in some mills. Any such reductions in excess profits would yield corresponding benefits to South African consumers of flour and flour products as a result of the competing away of some of the protective impacts of high duties on the import of wheat flour. South African grain growers would be affected to only a very minimal extent, if at all.

As will be seen below, the same types of impacts of SADC free trade – erosion of millers' rents and corresponding benefits to consumers – would be expected in a number of other SADC Member States as a result of SADC free trade in wheat flour with a liberal rule of origin.

4.1.4 Competitiveness of South African Millers in Other SADC Markets

If domestic protection of wheat in South Africa caused a significant increase in the local price of wheat, it would be impossible for South African millers to compete outside of the local market, even with intra-SADC free trade in flour. Access to internationally priced wheat would give most non South African producers a cost advantage over South African millers in their local markets.

In these circumstances, South African producers would face negative effective protection due to the cost-raising effect of the high import tariff on wheat, exactly as shown earlier in Table 6. This, of course, abstracts from the additional disadvantage that would be faced in overcoming the transport and other logistical difficulties in delivering flour to these external markets.

Despite this, and even in the absence of intra-SADC free trade in flour, South African exporters are able to compete in regional markets. There are two reasons for this. First, the South African duty rebate program provides compensation for the cost-raising impact of import duties on flour. Of course, the rebate applies only on the imported wheat content of the exported wheat flour – the exporter receives a rebate of the duty paid on the actual wheat imports, but not on any high priced domestic wheat that is used.[27] Second, as already indicated, South African domestic wheat prices do not appear to be very strongly affected by the import duty on wheat.

If flour exports benefit from a full duty rebate on all wheat used, and if the (liberal) Option 2 rule of origin were adopted, South African exporters would be on a level playing field in an external SADC market *vis à vis* any other SADC competitors (final column of Table 6). Furthermore, if the SADC export market were protected by an MFN import duty, South African exporters would have a cost advantage over non-SADC exporters in that market.

Under the rebate programme (and on an MFN basis with no applicable rule of origin) an exporter could use all imported wheat and be compensated in full for the cost-raising effects of protection of wheat in the South African market. To the extent that domestic wheat in South Africa is priced at less than the world price plus tariff, the competitiveness of South African millers in external markets is enhanced further.

This analysis of SADC free trade has been based on the assumption that South Africa's SADC partners actually implement free trade in wheat flour. There are two serious problems here.

First, under the differential tariff phase down schedules, South Africa is scheduled to reduce its flour import duties much more quickly than other Members. As in many other sectors, most non-SACU members' tariff reductions are heavily back-loaded. Therefore, even in the absence of other restrictions, South African millers will not have preferential access to most other SADC markets for many years, despite the opening of their own market to SADC competition at a relatively rapid pace.

[27] The nature of the milling process of course makes it very difficult to trace the links between any particular bag or container of flour and the actual wheat that was used to produce it. To get full compensation for the cost-raising impact of import duties on wheat, all a miller would have to do is ensure that enough imported wheat was used over the relevant time period to cover the input needs of any exports – regardless of whether the imported wheat was actually used in the exported flour.

Second, as indicated earlier, a number of Member States have erected significant non-tariff barriers against flour imports. These barriers are an additional constraint to the ability of South African to compete in other SADC markets.

It needs to be emphasized, therefore, that this analysis of South Africa's competitive position in other SADC markets applies only to the point after which tariff and non-tariff barriers are fully removed, so that SADC free trade is a reality.

It is for this reason that it is important to analyze the structure of protection and resulting incentives created in other SADC markets.

4.2 Wheat Flour Markets in the Rest of SADC

All SADC member states are net importers of wheat; only a few countries supply a significant share of their domestic markets with local wheat. Except for Mauritius wheat is not the principal grain in the common diet in most countries; but it has an income elasticity of more than one, which implies that wheat deficits will grow over time.

The MFN duty rates on wheat and flour in SADC Member States were shown in Table 2 above. In most cases, import duty rates on flour exceed those on wheat, implying that flour milling receives substantial effective protection. Only Malawi and Mauritius give no protection against flour imports (and no tariffs are levied on wheat either). Tanzania levies import duties of 25 percent on both wheat and flour. In addition, as described earlier (section 3) a number of Member States impose NTBs that further reduce import competition facing local millers.

Effective rates of protection to flour milling in each of the non-RSA SADC markets under the current MFN duty structures are shown in the first column of Table 8. Effective protection to South African millers is included for purpose of comparison. It should be noted that these estimates do not include the protective effect of NTBs or, as was true of the earlier estimates for South Africa, the natural protection provided by transport costs.

Table 8
Effective Protection to SADC Flour Millers *vis à vis*
SADC competition, due to Current (Feb. 2002) MFN Tariffs (%)

Country	Current (Feb. 2002)	With SADC Free Trade, Liberal Rule
BLNS	99	0
Malawi	0	0
Mauritius	0	0
Mozambique	98	-6
South Africa*	79	-21
Tanzania	25	-62
Zambia	75	-12
Zimbabwe	127	-12

***Note:** The estimate for South Africa shows the average effective rate of protection applying over flour milled from both locally grown wheat and imported wheat. The current effective protection for the former was 99 percent and for the latter 48 percent. Under a liberal rule (final column), the former would have effective protection of 0 percent or more, and the latter would face about -52 percent.

The table shows a wide range of effective protection rates; but the Members can be broken down into essentially two groups. Most Members – the BLNS countries, Mozambique, South Africa, Zambia and Zimbabwe – provide substantial protection to their domestic millers, at rates in excess of 75 percent. Zimbabwe, with effective protection of 127 percent, provides substantially higher levels of

protection than South Africa. The others – Malawi, Mauritius and Tanzania – give much less protection (effective protection of 0 percent in the case of the first two, and 25 percent for the latter).

Except for Malawi and Mauritius, therefore, all Member States provide substantial protection to their local milling industries. With these structures of protection, millers can tolerate very high levels of inefficiency and/or benefit from substantial economic rents, and still able to compete against imports from anywhere. For eight of the eleven countries shown in Table 8, local millers can tolerate processing margins 75 percent of more in excess of those that are the standard in international markets. As was observed in the case of South Africa, the biggest losers from this protection are domestic consumers of flour and flour products, of which bread is by far the most important.

The effect of SADC free trade in these Member States will depend critically on the choice of a rule of origin. With a restrictive rule such as that proposed in Proposal 1, SADC free trade in flour would have very little impact, since most producers would not have access to the regional wheat that would have to be used in order to qualify for SADC tariff preferences. Under such a rule of origin, the effective rates of protection in domestic markets would remain more or less as shown in the first column of Table 8.

The only exception would be with respect to competition from South Africa and possibly some of the other BLNS countries whose millers are able to obtain wheat locally at import parity prices. Such millers would have an advantage over other exporters in SADC markets. Once the SADC tariff phase-downs are complete and assuming no other NTBs bar their access to SADC markets, these South African and BLNS millers would be able to compete on a level playing field or even much better terms versus local competitors, even with a restrictive rule of origin

However, non-SACU producers without access to locally grown wheat would gain no preferential access to SADC markets under such a rule of origin, and SADC free trade would not permit them to compete in any market with significant MFN tariff protection on flour imports. Under current MFN tariff rates, the only markets in which they would be able to compete would be Malawi and Mauritius, markets to which they already have access without SADC preferences.

On the other hand, with a liberal rule of origin such as Proposal 3, millers in all Member States would be able to use imported wheat when producing for sale under SADC preferences. The effective rates of protection facing domestic millers in each of the SADC Member States in these circumstances (SADC free trade and liberal rule of origin) are shown in the final column of Table 8. The estimates show that, with the exception of Tanzania and to a much smaller extent Zambia and Zimbabwe, SADC free trade would put all millers on a level playing field, with zero effective protection against other SADC competitors. Millers in Tanzania would face large negative protection against such competition due to its high rate of import duty on wheat. On the other hand, they probably benefit from higher levels of natural protection due to the cost of transporting flour from other parts of SADC.

All of this is contingent on the removal of other barriers to intra-SADC trade. In particular, these results will not occur in any market until its SADC tariff phase-down is complete and restrictive NTBs are removed.

Under current MFN import duties, of course, protection against non-SADC competition would remain as shown in the first column of Table 8.[28]

4.3 Recent Developments in SACU

The latter part of 2002 saw major increases in world market wheat prices. In accordance with the tariff formula, when the price exceeded $157, the rate of duty on wheat went to zero as did the variable part of the flour tariff. On January 1 2003, again according to a schedule set several years earlier, the 10 percent *ad valorem* component of the flour duty also went to zero. As observed earlier,

[28] In fact, the effective protection against non-SADC competition would be significantly higher (by at least 20 percentage points) than shown in the first column of Table 8 as a result of the natural protection provided by transport costs on wheat and flour.

wheat farmers had been gaining very little, if any, benefit from the wheat tariff and so the increase in the world wheat price was quite beneficial to them in spite of the removal of the tariff. A major depreciation of the South African Rand over the same time period made them even better off in terms of Rand.

Flour millers could no longer claim (falsely as we have seen) that they suffered a competitive disadvantage from protection of wheat and this needed to be offset by domestic protection of flour. The argument for a restrictive rule of origin in intra-SADC trade certainly could not be justified by any alleged cost disadvantages of South African millers as a result of measures to protect and assist wheat farmers.

Furthermore, with zero duties on both wheat and flour, any SADC rule of origin was irrelevant (at least temporarily, until wheat prices fell again and the wheat duty was re-imposed in future). Did this help to resolve differences over the SADC rule of origin for wheat flour? No. In fact, the millers not only continued to insist that South African negotiators fight for the highly restrictive Proposal 1, but they also petitioned for a review of the MFN flour tariff, requesting a 30 percent *ad valorem* rate (presumably in addition to the existing specific duty linked to the world-price-determined specific duty on wheat).

4.4 Political Economy and the Trade Negotiations

Several factors are important in understanding the political economy of the SADC trade negotiations in these sectors. One is the dominance of South Africa in terms of economic size, economic development and negotiating 'expertise.' In the first two dimensions South Africa's domination is unquestioned. In the latter dimension, negotiating skills and understanding of the issues, the issue is slightly less clear. Several of the other member states were generally quite well represented in the trade negotiations, and their experts frequently showed an understanding of the issues that was certainly no worse than that of the South African experts. Nevertheless, South Africa's sheer economic size and general appearance of expertise and experience still tended to carry enormous weight in the deliberations, especially among the smaller members with the weaker negotiating skills.

A second important consideration is that most of the discussions on wheat and wheat flour tended to focus on the alleged needs of farmers and of the desire to use the Trade Protocol to promote primary and rural sector development wherever possible. The rhetoric about using rules of origin to promote regional wheat production was certainly appealing in this context, and it was a theme that was repeated incessantly by South African negotiators. This emphasis resonated well with most other delegations which, like those from South Africa, came largely from Departments of Agriculture and agricultural experts in other Ministries.

Thirdly, by far the most important stakeholders represented at all major negotiating sessions and preparatory meetings were the grain millers. Position papers of smaller member states were often written by the milling companies.

The milling industry in SADC and especially in SACU is relatively concentrated, with a few dominant players. A small number of groups control most of the South African market and have some representation in the BLNS countries and other SADC member states. Another group is very strong in BLNS and one or two other SADC states. While there are some clear differences and strong competition among these major groups, they all see the advantages of preserving protected markets against outside competition. They are very skilled at lobbying policy-makers to achieve these objectives. (See Box 3 for a small example of these dynamics.)

Appealing to the dangers for wheat farmers of freer trade has been a repeated and highly effective tactic. The recent revelation that the South African wheat tariff gave few, if any, benefits to wheat farmers was seen a dangerous heresy. It is only when that tariff came to zero that it began to be apparent to some (but certainly not all) trade negotiators that this was mainly rhetoric to cover up the real reason for the wheat tariff and restrictive rules of origin – to provide a cover for high levels of protection to the milling industry.

3. Manipulating Import Restrictions in Namibia

Namibia is a member of the South African Customs Union (SACU). The Namibian flour market is relatively small and has been served for many years by only one major miller. One large South African group has played a small role in the market through imports of flour for downstream activities such as bread and biscuits. The local milling group (also owned by South African interests) sought and benefited from protection in the form of an import permit system that required the purchase of equivalent amounts of locally milled flour before being allowed to import. The justification that was claimed for this protection was not to protect the miller, but rather to ensure a local demand for the product of wheat farming that was being promoted in turn by government-funded irrigation schemes.

The small South African controlled importer recently decided as part of a more general corporate strategy to start a milling operation in Namibia. Recognizing the risks of challenging the well-established incumbent, however, it decided to build, at least initially, a modest mill, sufficient to supply only about 15 percent of the market. It would then be able to use this production to take advantage of the one-for-one import rule and achieve a 30 percent share, large enough to justify the marketing and other fixed expenses necessary to achieve a significant foothold in the market.

A short time after this new mill went into operation the incumbent miller proposed that, since there was now competition in the local market, the government could safely increase protection for local farmers by simply banning the import of flour. The government agreed to the proposal and the import ban was imposed in late 2002.

The ban might appear to be good for local wheat farmers and for both domestic milling companies. However, this is not the case. First, millers are still free to and indeed must import wheat from South Africa and from abroad. In these circumstances, Namibian wheat farmers receive, at best, the import parity price of wheat from South Africa. As we have seen earlier, South African grown wheat has recently received less than the pre-tariff world market import parity price. This is no better than they could do before the ban. Second, prior to the import ban, the new entrant in the milling industry had planned to seek a 30 percent share of the flour market. With a plant built to supply only 15 percent of the market and with imports now banned, it must decide whether to take the much greater risk and expense of expanding its milling capacity.

Another important consideration in understanding the dynamics of the negotiations is the order in which they have taken place. While it had not originally been planned this way, tariff reduction negotiations were concluded before those on rules of origin. Furthermore, as observed earlier, the tariff discussions incorporated certain general principals of asymmetry and of special and differential treatment for poorer member states (all non-SACU members).

The result is that flour tariffs in the SACU market are scheduled to diminish at a faster rate than in other markets, and non-SACU members will reduce their preferential rates for non-SACU members faster than for SACU. This is very difficult to justify in the case of a product like wheat flour where the same small number of groups produce in many parts of the region with mills and technologies that differ very little from place to place. Groups that have their major presence in South Africa find it hard to accept that a major competitor that happens to have a mill next door in Mozambique would have immediate preferential access to the South African market while the South African millers will have to wait 12 or 13 years to have the same access to Mozambique.

Given the sequence of the negotiations, one of the obvious solutions to this problem of unjustifiable asymmetry is to use rules of origin to ensure that no preferential trade can occur. The difficulty with this, of course is that rules of origin tend to be more permanent than tariff rates. The result is that a temporary problem over scheduling of tariff reductions is replaced with a much more permanent and in fact worse problem of a rule of origin that is less transparent and more restrictive than the original tariffs. A much more satisfactory solution would be for South Africa to delay its tariff reductions in this sector, or even declare the sector ‘sensitive’ at least until all intra-SADC trade was freed of tariffs and other import barriers. This would at least permit preferential trade to take place among other member states.

4.5 Conclusions for Wheat Flour

There are several proposed rules of origin under consideration for wheat flour. In deciding among these or other alternatives, the main issue is whether use of locally or regionally grown wheat should be required for flour to qualify for SADC preferences.

Discussion of rules of origin and related preferential arrangements in this sector has been diverted by questions about the need to protect local grain growers against unfair, subsidized international competition, about the implications of such protection for downstream millers, and by questions about wheat growing capacities in SADC, including whether SADC is or could be self-sufficient in wheat.

Insufficient attention has been paid to the actual operation of wheat and flour markets in the Member States. A closer examination of these markets produces some interesting insights and yields some simple conclusions about the implications of alternative rules of origin.

The most important fact in understanding resistance to liberalization of SADC trade in flour is that almost all Member States provide very high levels of protection to their local milling industries. With the exception of Malawi, Mauritius and to a lesser extent Tanzania, current MFN tariffs provide high levels of effective protection – 75 to 127 percent – to domestic wheat millers. This means that local millers can have processing costs that are at much higher than those in normal international flour mills and still compete against imports. If these mills are able to reach normal efficiency levels, as many are able to do, these margins could translate into enormous economic rents, or excess profits.

A number of Member States provide significant additional protection through non-tariff import barriers (NTBs).

The burden of this protection of local milling industries falls primarily on domestic consumers of flour products, especially bread. For SADC exporters of downstream products such as biscuits, protection of flour is a barrier to their international competitiveness.

The main impact of a restrictive rule of origin will be to eliminate the emergence of intra-SADC competition that might erode the protection currently afforded SADC flour millers – that is, such rules would preserve the current levels of protection enjoyed by SADC milling industries.

A principal rationale for continued protection of flour milling industries and hence for a restrictive rule of origin in SADC is to compensate millers for the alleged cost-raising effects of policies designed to protect domestic wheat growers. Protection of local wheat growers is justified, in turn, on the basis of distortions in international grain markets arising from protection and export subsidies by major international wheat producers.

In fact, protection of milling is far more than sufficient to compensate for any possible cost-raising effect of protecting grain growers.

Furthermore, there is considerable evidence that local wheat in South Africa is priced more or less at import parity (before import duties). In other words, protection of wheat does not help local wheat growers and imposes no cost penalty on millers in respect of domestic wheat, which accounts for the majority of their wheat purchases.[29]

The rhetoric about the need to protect local wheat growers and the debates about whether SADC might ever be self-sufficient in wheat have diverted attention from the principal issue – an attempt to use restrictive rules of origin to preserve protected markets for wheat flour.

All Member States are net wheat importers and only a few produce significant amounts of wheat. The economic rationale for high levels of protection for millers in non-wheat-producing Member States is even less apparent.

If flour and its products are considered to be 'strategic' products or are felt to be essential for food security and/or poverty reduction, high levels of protection that serve only to increase local prices are

[29] In addition, when competing in regional and other export markets South African millers are insulated from the cost-raising effects of duties on imported wheat by a duty rebate program. South African millers currently export to a number of SADC markets.

not the solution. Flour is readily available at highly competitive prices in world markets. Furthermore, experience internationally and in SADC itself shows that local and international investors are able to develop local milling capacity and supply at competitive prices as long as they are not hindered by artificially high raw material prices and other regulatory restrictions. Special incentives and high levels of protection are not necessary. But competitive market conditions are essential.

Wheat milling is a substantive economic activity, regardless of the source of the wheat. It requires large investments in milling and packaging equipment, testing facilities, and buildings. It employs substantial numbers of workers in logistics, production and packaging. Flour milling is not a simple assembly or 'screwdriver' operation that should be excluded from SADC tariff preferences for any of the reasons envisaged in the Trade Protocol.[30]

A simple rule of origin requiring a single change of tariff heading (from wheat to flour) is all that is necessary to authenticate that flour originates in the region, that it results from substantial economic activity in the region and that it should qualify for SADC trade preferences.

To determine whether flour milling is actually taking place in any mill and how much is actually being milled is not difficult, thus making this an easy rule to enforce. A more restrictive rule of origin – one requiring the use of regional wheat – is not required to authenticate that flour used in intra-SADC trade is the result of substantive economic activity. And it would be much more difficult to administer.

5. Products of Wheat Flour

Unlike flour, products such as pasta and biscuits are 'two steps removed' in the production chain from the original agricultural raw material – they are products of agricultural products rather than of the raw materials themselves. Nevertheless, some parties have proposed restrictive rules of origin based on requirements to use local raw materials whenever they might be available. Once again it is argued that this will promote demand for local agricultural products.

The case for restrictive rules of origin for products one step removed from the raw materials (e.g. wheat) is very weak. For a variety of obvious logistical reasons processors prefer to use local raw materials when they are competitively supplied, in terms of price, quality and product description. When these competitive conditions are met, a restrictive rule is not required – producers will source locally out of their own self-interest. If the conditions are not met, restrictive sourcing requirements will reduce the competitiveness of regional processors. Not only will this raise consumer prices and harm the development of the processors, but it will also remove a source of demand for local raw materials – a lose-lose situation for all concerned.

In the case of processing that is further downstream – more than one step removed from the agricultural raw material – the case for simple and non-restrictive rules of origin is similar, but even stronger.

Good quality European style pasta requires durum wheat – a type that is simply not produced in the climatic and soil conditions prevalent in SADC. Local wheat could be used and some of the deficiencies could be overcome through use of special additives. While this makes it technically possible to produce 'European' type pasta, it is of higher cost and lower quality. The resulting pasta

[30] Rule 3 of Annex I on Rules of Origin of the Trade Protocol provides a blanket disqualification from SADC trade preferences for goods that have been imported from non-members and have undergone only minor transformations such as labeling, packaging, simple mixing and assembly in SADC.

is brittle, and tends to crumble in shipping and storage, before the consumer ever opens the package.[31] Most local pasta producers use flour milled from imported wheat, despite high import duties.[32]

Requiring the use of flour milled from local wheat in order for pasta to receive SADC preferences would make the Trade Protocol irrelevant in this sector. This would suit a producer that currently serves a local SADC market behind very high protectionist barriers designed to protect a new 'infant' pasta factory (see Box 4). Such a restrictive rule of origin would simply preserve protected markets from the threat of competition from regional suppliers operating under the Trade Protocol. However, it would also eliminate the possibility of preferential trade among Member States that did wish to take advantage of the benefits of free trade in SADC. The cost of preferential-trade-impeding measures such as these would be borne by consumers through restricted choice and/or higher prices. As was seen earlier, there would be no offsetting gains to farmers.

4. Infant Industries in the Food Sector

The SACU agreement includes a provision for the protection of new domestic 'infant' industries. Namibia chose to take advantage of this provision in the pasta sector prior to the implementation of the SADC Trade Protocol.

The SACU MFN tariff on pasta is 25 percent. At the request of the local flour milling group that wished to build a new pasta factory, the government agreed to impose an additional import duty of 40 percent, to remain in place for four years and then be phased out gradually over another four years. Since the milling branch of the company gets wheat on a duty-free basis, its flour is also effectively duty-free, except for any excess of its milling costs over those of international mills.

The factory was completed in 2002 and is operating at almost 100 percent of capacity – three shifts, seven days a week. It is obviously a commercial success. This should not be surprising in light of the very high levels of protection given. the effective rate of protection *vis à vis* South African producers is about 89 percent while *vis à vis* international competitors it is about 425 percent (based on cost data from the firm).

Other than rents created for the (South African owned) firm, what benefits does the infant industry protection give to Namibia?

As was seen earlier, small increases in demand for local wheat do not affect the price received by farmers. They receive no more than the pre-tariff world market import parity price regardless of local demand.

What does the new pasta factory provide for consumers? Increased import duties ensure that consumers have much less choice in buying pasta. The factory employs a special high temperature process that allows the use flour milled from inferior local wheat rather than durum wheat. This gives a product that is acceptable to some consumers, but disagreeable to many others. A tour of local supermarket shelves reveals only the local brand. 'Specialty' pasta ('normal' pasta in most other markets) has to be bought at very high duty-inclusive prices in specialty shops. High prices and low sales volumes have made this an unprofitable product for most supermarkets to stock.

What about employment? The pasta factory operating at full capacity with three shifts employs a total of 20 workers (10 less than the minimum promised when applying for infant industry protection). But this low number does not even represent the net job creation from the factory. Prior to the establishment of this factory, another local pasta producer served the local market with pasta made from flour purchased from the milling company that now operates the new pasta plant. Shortly after the new pasta plant commenced production, the old producer's line of credit was revoked and the factory was forced to close. Data have not been obtained on the number of job losses this caused. But it can be stated with certainty that the net number of jobs created by this infant industry protection is less than 20.

[31] A recently completed pasta plant in Namibia employs a high temperature process that overcomes some of the technical problems related to brittleness of product using local wheat. Nevertheless many consumers there and elsewhere find the flavor and other properties unacceptable and are willing to pay much higher prices to obtain better tasting pasta made from durum flour. See Box 4.

[32] In the case of South African pasta exports, the effect of import duties on flour is largely offset by use of the government's duty rebate facility for exporters.

As in many other products, the gradual liberalization of trade policies and regulatory regimes, together with increased access to foreign markets has created new international export opportunities for SADC producers in these sectors. A South African biscuit producer has become a competitive exporter in Africa, the Middle East, Asia, Europe and North America. Exports account for a significant and growing share of production, employment and new investment. As with all other internationally competitive producers, an important key to success is skillful sourcing of raw materials.

Quality considerations require that these biscuits use flour milled from wheat that is grown only outside of southern Africa. As with pasta, the only way that local flours could be used would be through the use of additives or use of special processes that would make the products almost impossible to market in the target markets.

To make SADC relevant for internationally competitive producers requires simple and non-restrictive rules of origin. Restrictive rules of origin will reduce their ability to compete and be of no benefit to upstream suppliers. The only possible 'benefit' might be to eliminate some regional competition for producers supplying some small domestic markets in SADC. This would be harmful to regional consumers and save or create a very small number of regional jobs at best. It would do nothing to promote the much larger investments and numbers of jobs that will arise from the development of internationally competitive producers in the SADC region.

A rule of origin requiring a simple change of tariff heading is all that is necessary for these products. A more stringent requirement that products be made with flour milled from regionally grown wheat would make the SADC Trade Protocol irrelevant for this sector, despite the international export competitiveness of a number of regional producers.

In fact, most flour made from imported wheat that is used in these sectors is actually milled in the region at present. Therefore a double transformation requirement – that wheat used in these products be milled in the region (but not necessarily from domestic wheat) – would not be a serious impediment. While more restrictive than the requirement of a single change of tariff heading and of no real benefit to local millers, such a rule would be unlikely to do much harm either. This is the most likely outcome of current negotiations.

Reduction of tariffs and other import barriers should proceed ideally at the same pace in all Member States. There is certainly no economic rationale for infant industry protection of these products through any means. Nor should restrictive rules of origin be used for this purpose or as a means of delaying SADC trade liberalization on account of such practices in some Member States. It would be much better if members wishing to continue to protect their domestic markets for any of these goods to simply exclude the sector from their liberalization offer.

6. Conclusion

Rules of origin are a necessary evil in preferential trading arrangements. The sole reason they are necessary is to authenticate that goods claiming preferences actually originate in the region. The rules necessary for this purpose are simple to define and implement, especially in markets for agricultural products such as wheat flour and downstream products. For agricultural raw materials, the simplest rule is that they be grown in the region. For downstream products such as wheat flour, pasta or biscuits, a single change in tariff heading is sufficient to ensure that goods are the result of substantive regional economic activity.

The case of wheat flour and its products in SADC illustrates the difficulty of dealing with rent-seeking in trade negotiations and policy making in general, but especially in regional discussions where localized market imperfections can be turned into profits for particular special interests. The SADC case also shows how incorrect but nevertheless plausible sounding claims about poverty reduction and rural/agricultural development can be manipulated to support rent-seeking activities and rent-generating policies that provide large returns to particular parties but deliver none of the promised benefits to the alleged target beneficiaries. As is so often the case, it is the under-represented consumer that pays the price.

References

Brenton, Paul 2003 "The Value of Trade Preferences: The Economic Impact of Everything But Arms" Washington DC: The World Bank *mimeo.*

Flatters, Frank 2001 "The SADC Trade Protocol: Impacts, Issues and the Way Ahead" http://qed.econ.queensu.ca/faculty/flatters/main/writings.html

Flatters, Frank, 2002 "SADC Rules of Origin: Undermining Regional Free Trade" http://qed.econ.queensu.ca/faculty/flatters/main/writings.html

Mattoo, Aaditya, Devesh Roy and Arvind Subramanian 2002 "The Africa Growth and Opportunities Act and its Rules of Origin: Generosity Undermined?" IMF Working Paper WP/02/158

Oysuki, Tsunehiro, John S. Wilson and Mirvat Sewadeh 2000 "Saving Two in a Billion: A Case Study to Quantify the Trade Effect of European Food Safety Standards on African Exports" Washington DC: The World Bank *mimeo.*