

Southern African Development Community

Economic Impact Assessment Study

Final Report

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TSG

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Abbreviations

AEB	Anti Export Bias
AGOA	Africa Growth and Opportunities Act
BIDPA	Botswana Institute for Development Policy Analysis
BLNS	Botswana, Lesotho, Namibia and Swaziland
CBI	Cross Border Initiative
CET	Common External Tariff
CMA	Common Monetary Area
COMESA	Common Market of Eastern and Southern Africa
CSA	Customs Secured Area
CTH	change in tariff heading
DPRU	Development Policy Research Unit, University of Cape Town
DRC	Democratic Republic of Congo
DTI	Department of Trade and Industry (RSA)
EAC	East African Cooperation
EBA	Everything But Arms
EIA	Economic Impact Assessment
EPZ	Export Processing Zone
ERP	effective rate of protection
EU	European Union
FDI	Foreign Direct Investment
FTA	Free Trade Agreement/Area
GDP	gross domestic product
GSP	Generalized System of Preferences
HS	Harmonized System of classification
IDZ	Industrial Development Zone
IMF	International Monetary Fund
IOC	Indian Ocean Commission
ISIC	International Standard Industrial Classification
MFN	most favored nation
NAAMSA	National Association of Automotive Component and Allied Manufacturers
NEPAD	New Economic Partnership for African Development
NERP	net effective rate of protection
NRP	nominal rate of protection
NTB	non-tariff barrier
PTA	Preferential Trading Arrangement <i>also</i> Preferential Trade Area for Eastern and Southern Africa
RCSA	Regional Center for South Africa
RIDP	Regional Industrial Development Programme (RSA)
RIFF	Regional Integration Facilitation Forum
RIO	Regional Integration Organization
ROW	rest of the world (non-SADC)

RSA	Republic of South Africa
SACU	Southern African Customs Union
SADC	Southern African Development Community
SADCC	Southern African Development Coordination Conference
TIPS	Trade and Industrial Policy Strategies
TNF	Trade Negotiating Forum (of SADC Trade Protocol)
TPIM	Trade Policy Impact Model
TWG	Technical Working Group
US	United States of America
USAID	United States Agency for International Development
VA	value added
VAT	Value Added Tax
WCO	World Customs Organization
WTO	World Trade Organization
ZAR	South African Rand

Chapter 1 Introduction and Overview

1.1 Introduction

The past decade has witnessed a proliferation of regional trading arrangements in both the developed and developing world. Southern Africa is no exception. A key question is the extent to which these regional trade integration initiatives contribute to increasing the level and growth of real income in Member States. The present study examines the extent to which the SADC South-South regional trading agreement can act as a ‘stepping-stone’ along the path to increasing global competitiveness and greater involvement in world markets.

The SADC and COMESA Secretariats have coordinated studies to assess the impact of the existing trade regimes on economic competitiveness of firms across the range of industries within Member States. The two regional integration organizations have been engaged in the negotiation and implementation of free trade areas. They have overlapping membership and include countries of widely differing sizes and income levels.

Many of the least developed countries within Eastern and Southern Africa have undergone substantial structural adjustment over the past fifteen years, which has resulted in increased macroeconomic stability. Tariff reform was an integral component of the structural adjustment packages along with other measures aimed at enhancing the capacity of regional firms to compete in global markets.

The demise of apartheid and the emergence of a democratic South Africa reinvigorated the commitment to regional and pan-African cooperation. South Africa joined SADC in 1994 and was a driving force behind moves to establish the New Economic Partnership for African Development (NEPAD). South Africa, together with other members of SACU, has witnessed a trend towards ‘trade openness’ exemplified by substantial tariff reform, elimination of many other burdensome trade restrictions, domestic deregulation, accession to the World Trade Organization (WTO) in 1995 and the conclusion of a free trade agreement with the EU. The prospective SACU – US free trade agreement and the EU-ACP (Cotonou Agreement) is expected to add further impulse to trade reform in the region.

SADC economies face the challenges of adjusting to the rapid pace of globalization and the ongoing multilateral trade negotiations. They are implementing and negotiating a multiplicity of regional and international trade agreements, each with its own negotiated tariff reduction schedules (often differentiated between members), rules of origin, and other requirements. This has created a complex set of incentives facing investors, producers, importers and exporters. The impacts of these trade agreements are also influenced by domestic taxation, regulation and unilateral tariff reform. The net effect of all these programs and policies on particular activities, on the general investment environment, and on the prime goal of promoting sustainable and equitable development are not always transparent or self evident. Indeed, based on the record of international experience particular policy measures can often have unintended effects.

This study assesses the extent to which the national and regional trade strategies are contributing towards augmenting their competitiveness and promoting sustainable and equitable development through increasing their participation in the global economy. The study estimates the impact of the existing incentive regimes in the SADC Member States with particular reference to trade policy. Based on detailed company and product specific data, the study examines how the implementation of a SADC Free Trade Area will add to or diminish distortions in financial incentives for firms to produce for domestic, regional, and international markets.

1.2 Approach

The study provides an overview of the structure of incentives provided by the existing trade policy regimes. This includes a review of the structure of nominal protection and the pattern of effective protection based on firm level input-output coefficients. Using a standard questionnaire, consultants collected the firm level survey data. Data on the current level of tariffs and duty rates, the implementation of the SADC Trade Protocol, trade flows and the structure of incentives were all obtained from official sources.

In parallel with the work reported here, a number of case studies were conducted of the impact of trade, tax and regulatory policies in particular sectors. A number of the more detailed case studies have already been presented as separate documents¹.

Two other background studies, a review of the Manufacturing Sector in SADC and an account of the current situation in the Services Sector in SADC are also included as Annexes to this report.

1.3 Southern African Development Community and Regional Trading Agreements

The Southern African Development Community (SADC) consists of 14 Member States, covering around 9.1 million square kilometers and with a population of about 195 million. These countries vary considerably in population, land area and economic size. South Africa accounts for approximately three quarters of total SADC gross domestic product (GDP) and approximately one third of the total SADC population. To varying degrees the other SADC countries are dependent on South Africa for both imports and for trade links with the rest of the world. The average per capita income of approximately \$931 masks large variations both between and within countries.

A multiplicity of regional integration and cooperation initiatives – SACU, SADC, COMESA and a host of bilateral preferential trade agreements — has produced a complex web of trade preferences (more details are contained in Appendix G.). This implies that the marginal impact of the SADC Trade Protocol will often be country- or even product-specific. Indeed it is only possible to understand the impact of the SADC FTA after taking into account the existing trade agreements within Southern Africa since the Trade Protocol will have its primary impact primarily on the trade that is not already covered. Finally, any

¹ To date papers have been prepared on the Flour Milling Industry, Textiles and Clothing, and the Motor Industry. These are available as separate documents.

assessment of the benefits of preferential trade must consider how access may be restricted by the rules of origin.

1.4 The SADC Trade Protocol

The SADC trade protocol entered into force in January 2000,² with an overall objective of attaining a free trade area by 2012, and ultimately a Customs Union. Each country has an agreed schedule for reduction of tariffs facing SADC partners. These schedules reviewed in Chapter 3 below:

- Are not uniform across members, reflecting the asymmetry of development across the region; and
- Are not uniform across commodities, reflecting different types of goods, ranging from capital equipment to major tariff revenue sources to commodities that compete with sensitive domestic industries; and
- Apply only to those member countries that have acceded to the protocol.

The SADC preferential tariff rates apply only to goods that comply with product specific rules of origin. In addition, there are special agreements on trade in sugar and in clothing and textiles. SADC intends to extend trade liberalization to services, but negotiations are yet to commence.

² Three SADC States (Angola, DRC and Seychelles) are not participating in trade negotiations at this stage. The Angolan Parliament has approved the accession to the protocol and is now preparing the instrument of accession.

1.5 The Pattern of Trade within SADC

SADC Member States' dependence on intra-SADC imports varies considerably (see Table 1.1). While some countries (e.g., Malawi and Zambia) depend heavily on SADC members for their imports, others (e.g., Mauritius and Tanzania) source a very small percentage from SADC.

Table 1.1: SADC Trade Flows, 1998

Percentage of SADC Imports by Source				
Imports into	Source of Imports			
	SACU	Non-SACU SADC	Total SADC	ROW
SACU	17.1	1.8	18.9	81.1
Malawi	40.4	13.6	54.0	46.0
Mauritius	13.5	0.4	13.9	86.1
Mozambique	36.4	4.6	41.0	59.0
Tanzania	8.9	2.3	11.2	88.8
Zambia	39.1	17.7	56.8	43.2
Zimbabwe	36.2	2.6	38.8	61.2
Total	18.1	2.2	20.2	79.8

ROW – Rest of the World (i.e. all sources outside SADC)

Source: Flatters (2000)

A considerable proportion of intra-SADC trade is already taking place on a duty-free basis or at very low levels of tariffs, in part because of the existing preferential trade arrangements. Consequently, the net effect of the SADC Trade Protocol on the volume and direction of trade is likely to be small. Estimates of the proportions of existing imports of SADC Member States that are already subject to preferential treatment under current trading arrangements are shown in Table 1.2. For SADC as a whole, 71% of imports from other SADC members are covered by preferential arrangements that predate the Trade Protocol. The extent of the coverage of existing agreements, however, varies considerably between the members.

Table 1.2: Intra-SADC Imports Covered by Pre-Existing Preferential Arrangements

Member State	%
SACU	97.4
Malawi	28.0
Mauritius	2.3
Mozambique	0.0
Tanzania	0.0
Zambia	17.9
Zimbabwe	9.6
SADC Total	70.8

Source: Flatters (2000)

Chapter 2 Measuring the Impacts of Trade Policies

2.1 Introduction

Trade policies work through their effects on domestic prices of tradeable goods and services by creating a wedge between domestic and world market prices. Import duties raise domestic prices, while export taxes lower them. Policies that regulate the quantities of imports (or exports) affect domestic prices indirectly. By limiting the amount of a good that can be imported, an import quota creates an artificial scarcity in the local market and hence raises its domestic price.

Prices matter. They are of direct interest to consumers and users of domestic goods. Wheat millers' costs are directly affected by changes in the domestic price of wheat arising from tariffs or restrictions on wheat imports. Final consumers experience the impacts of import duties through higher prices of protected goods such as food and clothing. These effects on domestic prices are referred to as the *nominal protection* arising from trade policies.

The real incomes of the users of protected goods are reduced by nominal protection because the protected goods cost them more. However, the impact of trade policies on producers is slightly more complex. For a garment producer, for instance, taxes or other restrictions on clothing imports raise domestic clothing prices and are beneficial to domestic producers selling in the local market. On the other hand, a tariff-induced increase in the domestic price of fabric raises garment producers' costs and so is harmful to them. The net impact of trade policies on the producers of garments, or more generally on producers of any good, depends on their effects on prices of both their outputs and their inputs.

How can we measure the net impact of these effects of tariffs and other policies on the prices of producers' inputs and outputs? The *effective rate of protection* is a commonly used measure of the net effect of trade policies on the incentives facing domestic producers. The measurement of effective protection is a two-stage process – first determining the nominal protection of the policies in question, and second, analyzing the implications for effective protection of different firms, sectors or activities.

High rates of effective protection cause economic waste by inducing producers to supply goods domestically even when their domestic costs are higher than the opportunity cost of obtaining those same goods through trade. At the same time, producers of goods with low or even negative effective protection are forced to refrain from producing goods domestically despite the fact that this could be done at a lower cost than in international markets.

2.2 Nominal Protection

The *nominal rate of protection* (NRP) on any good is the proportional difference between its domestic and international price arising from the trade policies in question. These policies can include import tariffs, export taxes, quantitative restrictions (licensing requirements, prohibitions, rules of origin, local purchase requirements, etc.) and other

‘incentives’ such as subsidies and tax rebates. If the only relevant trade policy were a 20 percent import tariff, the NRP would be 20 percent – the proportional difference between the *cif* import price and the duty-paid price of imports (and therefore also of closely competitive locally produced goods) in the domestic market. With a more complex set of trade policy measures the NRP is an estimate of the equivalent *ad valorem* tariff that would lead to the same difference between domestic and international prices as prevails under the policies in question.

The NRP, therefore, is a measure of the total price-raising (or reducing) effects on a tradable good of the trade policies being examined. Some of the practical difficulties in measuring nominal rates of protection are outlined in Box 2.1.

Box 2.1 Practical Issues in measuring Nominal Protection

Applied versus official rates: The import duty rate that is actually applied to any import consignment can differ substantially from the official tariff rate. The reasons for this can range from inaccurate import valuations to the existence of various kinds of full or partial exemptions. Exemptions are often based on the declared end uses (e.g. production of exports) or end users (e.g. government or diplomats) of the imported goods. Using the official duty rate as an estimate of nominal protection in the case of exempted goods overstates the actual rate of nominal protection. A method that is often used to solve this problem is to use the average collection rate (total duty collections as a percentage of the value of imports) as the measure of nominal protection. Unfortunately, this provides an underestimate of the nominal protection of non-exempt imports and hence of the distorting effects of protection on such imports. Ideally one would be able to provide nominal protection estimates for both exempt and non-exempt imports separately.

Ad valorem versus specific rates: When import duties are determined on a per unit basis (x Rands per ton, for instance), it is necessary to get unit values of imports in order to convert these *specific* rates into *ad valorem* equivalents. This can be done either directly by determining these unit values or indirectly by using the average duty collection rate (duties collected as a percentage of value of imports) as the *ad valorem* equivalent. The latter method suffers from the same problems as described in the previous paragraph.

Ad valorem equivalents of other measures: In order to estimate the nominal protection of other trade policy measures, they must also be transformed into *ad valorem* equivalent effects on the prices of the products. A requirement to purchase a certain amount of domestic wheat in order to be permitted to import wheat raises the cost of wheat purchases by grain millers. It is the percentage increase in the cost of the wheat that is the *ad valorem* equivalent of this restriction on imports. If a rule of origin requiring that imports be sourced domestically or in the region has any effect, it is to raise the cost of certain inputs. It is the percentage increase in these costs that is the *ad valorem* equivalent of the rule of origin. While deriving nominal protection rates is not always easy, the principles that must be used in estimating them are relatively straightforward.

2.3 Effective Protection

Effective protection measures the net protective effect on producers of nominal protection on both its inputs and its outputs. The difference between the value of output and the cost of inputs is known as value added, which is the return to the producer, used to pay the costs of labor, capital, and management. When the costs of inputs and the value of output are measured at world prices, the value added is referred to as “world value added”.

2.3.1 A Simple Example

Consider a simple example summarized in Table 2.1. A producer of ‘garments’ requires only one intermediate input ‘cloth’. Suppose that production of garments worth 100 at world market prices requires the use of cloth worth 75 in world markets. ‘World value added’ is thus 25 (the difference between 100 and 75).

Now consider a domestic producer of garments in a county providing nominal protection at a rate of 30 percent on garments and 20 percent on cloth. The nominal protection provided to garments is clearly beneficial to garment makers, while that on cloth is harmful.

The extent of the effective protection depends on the market in which the producer is intending to sell the goods. (For purposes of this example, the cloth inputs continue to cost 20% more than they would cost in the world market.) There are three possible markets: (1) the domestic market; (2) the world market; or (3) regional markets to which this country has preferred access.

Case 1: Sales in the Domestic Market

This structure of protection has the following effects on a producer selling in the domestic market. The domestic price of garments becomes 130 (100 times 130 percent). The cost of the cloth required to produce these garments becomes 90 (75 times 120 percent). The difference between the cost of inputs and the price the final good is sold at rises from 25 to 40. In other words, domestic value added permitted by the structure of protection is 60 percent higher than world value added. This increase in domestic value added permitted by the protection structure is known as the *effective protection* provided to local garment production directed at the domestic market. It is often expressed as a percentage of world value added, and is referred to as the *effective rate of protection* (ERP).

Case 2: Exports to World Markets

Consider now a garment producer working under the same protection structure but wanting to sell for export in world markets. In this case, the domestic protection of garments is of no assistance; in order to compete in world markets, the garments must be priced at 100. However, the nominal protection of cloth still raises its cost to 90 (75 times 120 percent).

In order to compete in the export market, therefore, the producer must be able to manufacture garments with a margin between input costs and sales of the output of no more than 10 – the ‘domestic value-added’ permitted in this case cannot exceed this amount. This is substantially less than ‘world value-added’ of 25. In other words, the effective protection provided by the domestic protection structure in this case is negative, i.e., minus 60 percent (the domestic value-added of 10 is 60 percent less than world value-added of 25).

This example illustrates an important point. Nominal protection in the domestic market does not provide any benefit to domestic producers wanting to sell this good for export. However, when there is nominal protection on a firm’s inputs, this raises production costs and so provides *negative* effective protection for export producers.

The only way around this is to eliminate protection of inputs altogether, or to provide special provisions whereby goods used as inputs by exporters are free of the cost-raising effects of protection. Export processing zone privileges usually include tax-free access to imported inputs; duty drawback and exemption programs for exporters have a similar effect. In all such cases, however, there are significant administrative costs, both for the firms and for garments.

Eliminating protection on inputs results in effective protection for exporters of zero percent. In the example shown here, this is a big improvement over minus 60 percent. But it is still much less attractive than the effective protection of plus 60 percent for garment production for the domestic market. Under this structure of protection there is clearly a very large incentive to produce for the domestic market rather than for export. The anti-export bias of protection is something to which we return later.

Case 3: Preferential Export Sales to Regional Markets

Suppose this country enters into a preferential trading arrangement with a regional partner under which goods produced in each country can be exported duty-free into the other. The effective protection enjoyed by a garment producer exporting under such an arrangement depends on the nominal protection on cloth in the domestic market and the nominal protection on garments in the partner’s market.

Suppose that the nominal protection on garments in the partner country is 40 percent (10 percentage points higher than the 30 percent rate in the domestic market). A garment producer wishing to sell in the partner’s market under these circumstances still suffers from the domestic protection of 20 percent on cloth; but it now benefits from the partner country’s protection of 40 percent on garments. It can sell garments at a price as high as 140 (100 times 140 percent); its cloth costs are 90 (75 times 120 percent). This means it can have a processing margin as high as 50 (140 minus 90) and still be able to compete in the regional market. The effective rate of protection for sales in the regional market, therefore, is 100 percent (50 is 100 percent higher than the world value-added of 25).

If, on the other hand, the partner country provided nominal protection of only 25 percent on garments, the maximum processing margin that would permit regional garment exports to compete would be 35 (125 minus 90). This would yield an effective rate of protection for preferential sales in this market of 40 percent (35 is 40 percent higher than 25).

Table 2.1: Summary of Illustrative ERPs for Domestic Garments Sold in Different Markets

	Sales Destination					
	World Market Values	Domestic Market	Internat'l Market (no EPZ)	Internat'l Market (with EPZ)	Regional Market 1	Regional Market 2
NRP on Fabric (%)		20	20	0	20	20
Cost of Fabric	75	90	90	75	90	90
NRP on Garments (%)		30	0	0	40	25
Value of Garments	100	130	100	100	140	125
Value Added	25	40	10	25	50	35
ERP		60%	-60%	0%	100%	40%

2.3.2 Some General Properties of Effective Protection Rates

Once nominal protection rates and the costs of production have been determined, it is possible to calculate effective rates of protection. ERPs are a particularly useful analytic tool since they quantify the assistance provided by tariffs and similar policies to value added in a particular industrial activity, and therefore to current and potential investors in the industrial sector. (The formula for calculating the ERP is outlined in Appendix E.)

A few important general properties of effective protection rates are:

- The effective rate of protection will be greater the larger is the nominal rate of protection on an activity's output, the smaller the nominal protection on its inputs and the smaller is the activity's world value added.
- If the nominal rate of protection is the same on all of an activity's inputs and its output, the effective rate of protection will be identical to this common rate of nominal protection.
- If the nominal protection on an activity's output is larger (smaller) than on its inputs, the effective rate of protection will be greater (less) than the nominal protection on the activity's output (inputs).

In determining the net impact of protection on any sector it is necessary to consider not only the direct effect of protection on each of the sector's inputs and outputs as has been described so far, but also the indirect effects. For the economy as a whole, the aggregate degree of protection puts pressure on the capital, labor, and land available in the economy, pushing up their costs for all producers. This makes it impossible to expand production of all goods at the same time. Consequently, it is *relative* levels of effective protection that matter in determining the impact of trade policies. For sectors that get very little effective protection from the direct effects of nominal protection on their inputs and outputs, the net impact of protection will be negative. It is only sectors that get relatively high levels of effective protection from tariffs on their own inputs and outputs that end up with positive net effective protection after taking account of these indirect effects.

The net effective protection rate received by any activity can only be established after taking account of both the direct effects of nominal protection of its own inputs and outputs and the indirect effect of the aggregate protection.

Consider some examples.

Cascading Tariff Structures: A common type of tariff structure employed in many developing countries is one with *cascading* rates from primary and capital goods through intermediate to final consumption goods. The lowest rates are applied against primary and capital goods, intermediate rates against intermediate inputs, and the highest rates against imports of final consumption goods. Such a structure yields increasing rates of effective protection from primary to final goods. However, the net incentive need not be positive for all sectors with a positive ERP. For the economy as a whole, the aggregate protection puts pressure on the capital, labor, and land available in the economy. This will impose a penalty on all tradable sectors. For sectors with very high effective rates of protection, this aggregate impact of protection will be only a partial offset. However, for sectors with lower direct effective protection, the negative aggregate effect will swamp any ‘beneficial’ impacts of low nominal tariffs on their outputs. Even with carefully designed cascading tariff structures, it is only the very highly protected final goods sectors that will receive positive net effective protection. Capital goods and many intermediate goods will face negative net effective protection.

Protection and Exporters: It was observed in the earlier examples that import tariffs on intermediate inputs by exporters imply negative effective protection for exporters. Duty drawbacks, exemptions or EPZ privileges can all be used to remove the direct cost-raising effect of these duties on imports. Do exporters have a net effective rate of protection of zero in these circumstances? No. The aggregate effect of protection penalizes producers of tradable goods, including exports. This means that, even in the presence of a well-functioning system of duty-free import privileges on inputs, exporters still have a negative net effective rate of protection.

The ERP results presented in this report do *not* include estimates of the negative impact of the aggregate protection. In interpreting the results, therefore, it is *differences* in effective protection rates across sectors and activities that are most important, not simply their levels.

From the earlier examples it is clear that the nominal protection on inputs and outputs depends critically on the market for which production is intended. It might also depend on domestic market conditions. While the normal impact of a tariff is to raise the domestic price of the protected good by the amount of the tariff, there are instances in which the actual nominal protection is different than this. See Box 2.2 on protection of wheat in South Africa.

Box 2.2 The Price of Domestic Wheat in SACU

SACU grain millers have long justified their pleas for protection on the basis of the effects of the South African wheat tariff on its domestic price and hence on the millers' costs. 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, it could be expected that the tariff would, more or less, be reflected fully 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 of 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 monopsonistic 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. This has had a minimal impact on the costs of grain millers.

Source: Erasmus and Flatters 2003

In other cases, the complexity of import tariff arrangements give nominal protection rates that are quite different than might initially appear to be the case. See Box 2.3 on export incentives in the South African motor industry.

Box 2.3 Protection in the Motor Industry: Using Tariffs to Subsidize Exports

The South African motor industry is protected by substantial import duties on both vehicles and components. Despite this protection, the industry has recently become a great symbol of export success. Has this particular industry managed to overturn some of the basic predictions of economics – can one have high levels of domestic protection and encourage efficient exports? No. In fact the Motor Industry Development Program (MIDP) under which the industry now operates actually takes advantage of import protection to give substantial, but not immediately transparent subsidies to exporters of vehicles and components.

The export subsidy benefits of the MIDP are derived by firms in the form of privileges to import components and vehicles on a duty-free basis for the production and sale of vehicles in the protected domestic market. These privileges can only be obtained, directly or indirectly, by exporting vehicles or components. While the MIDP incentives are based on selective import duty reductions, they provide substantial protection to sales in the domestic market and give large subsidies to investment and exports. The value of these subsidies rests on the rents created by continued import protection for vehicles and components in the domestic market. They gain their effect through transfers from South African vehicle buyers, and they encourage economic inefficiency through high cost production of vehicles and components in South Africa. The direct cost per job created in the motor industry appears to be very high, and the indirect costs to employment in other sectors might also be large.

The effective rates of protection provided to exports under this program range from 30 to 40 percent for vehicle assemblers, and from 26 to 30 percent for component manufacturers.

Source: Flatters 2002

2.3.3 Interpreting Effective Rates of Protection: Distorting Production Incentives

The *range* of effective rates of protection also matters. For a given aggregate level of protection, high effective rates provided to some activities draw resources into these activities at the expense of those with lower effective protection. The result can be considerable waste of domestic resources. This can be seen again through simple examples.

Positive Effective Protection in the Domestic Market: Consider first an import substitution activity such as domestic fabric production benefiting from net effective protection at a rate of 30 percent. With this level of protection, a domestic fabric manufacturer could incur labor, capital, and management costs 30 percent higher than a similar international manufacturer and still compete against imports in the domestic market. Under this structure of incentives created by trade policies it would be privately profitable to use domestic resources worth \$130 to produce fabric that could be obtained in world markets for only \$100. Each \$100 in foreign exchange “saved” through domestic production of fabric costs the country \$130. The economic waste from such production amounts to \$30 for each \$100 of foreign exchange “savings”. Positive effective protection makes an activity that is economically wasteful (producing fabric domestically at a domestic resource cost significantly higher than the cost of importing the same fabric) privately profitable.

Negative Effective Protection for Exports: Tariffs of 20 per cent on fabric and other inputs will result in a potential exporter of garments facing a negative effective protection on its

production for export at a rate of 20 percent. Under this burden the producer would have to manufacture at a cost of labor, capital, and management at least 20 percent less than international competitors in order to compete in world markets. Production at any cost greater than this, even at less than international costs, would not be privately profitable for domestic producers. Exports worth \$100 in world markets that could be produced domestically at a cost of, say, \$81, would not be privately profitable and therefore would not take place. Negative effective protection ends up in a net loss of up to \$20 for each \$100 worth of garment exports that do not occur as a result of the perverse incentives created by trade policies.

Net Effect of Trade Policy Reform: Finally, taking these two examples together, consider a trade policy reform that eliminated the distortions that encourage import substitution production of fabric and discourage export production of garments. This would reduce the incentive to produce fabric for the domestic market and increase the incentive to produce garments for export. Each \$100 reduction in fabric production (valued at world prices) would actually save domestic resources of \$130. And each \$100 of increased garment production would cost domestic resources worth only \$80. The net gain to the economy would be \$50 (\$130 minus \$80).

The size of these efficiency gains from trade policy reform is directly related to the magnitude of differences in effective protection rates across economic activities. The direct costs of trade policy distortions arise from these *differences* in effective rates of protection. To gain an appreciation of the impacts of trade policies and changes in trade policy regimes, therefore, one must look at their effects on the *structure* of effective protection and especially in variation in rates of protection across activities.

2.4 Using Firm-Level Data to Estimate Effective Rates of Protection

The estimation of effective rates of protection requires data on inputs used in the production of all goods being considered and on nominal rates of protection for all relevant inputs and outputs. Most studies start with relatively aggregated data, with input-output data at fairly broad sectoral levels (from industrial surveys, input-output tables, etc.) and tariff rate and other protection data aggregated to the same level, often by taking the ratio of duties collected to import values over broad categories of goods as a proxy for nominal protection rates at this level. While this is sufficient to capture broad patterns in the impacts of trade policies, it glosses over large amounts of relevant detail and, of necessity, misses out on the great deal of variation in incentives that exists in the real world. Unfortunately, it is precisely these variations in effective protection rates that are most critical in determining the costs of trade policy distortions.

This report, by contrast, is based on firm-level data collected in SADC Member States specifically for the purpose of this study, and on nominal tariff and protection data at the HS 6 digit level, a very high level of disaggregation. Overall results are currently reported for 26 broad industrial sectors. However, within each sector it is also possible to report on various measures of the variation in effective protection rates across individual firms.

Nominal protection data are available for all countries studied. However, the firm level surveys have so far been completed and cleaned for only the SACU Member States. This

permits a full analysis of the structure of protection in SACU under different policy scenarios with respect to MFN-based and regional policy options in SADC.

In the absence of complete firm level data for other Member States it is still possible to learn a great deal about their structures of protection through assuming the input-output coefficients of the SACU firms apply in the other Member States and by then estimating the effective protection rates they would face under existing and alternative policy regimes in each of these locations. This is particularly useful in examining some key issues in SADC trade liberalization under the Trade Protocol. As actual survey data for the other Member States becomes available, these results will be updated.

Chapter 3 Nominal Rates of Protection in SADC

3.1 Introduction

The nominal rates of protection (NRPs) measure the proportion by which domestic prices exceed world prices. This chapter reports estimates of the NRPs in SADC. We report both the Most Favored Nation (MFN) rates and the tariff phase down schedules that were agreed by Member States for implementing the SADC Trade Protocol.

Prices are the key mechanism by which tariffs and other trade interventions influence the economic behavior of producers and consumers. The assessment is conceptually relatively straightforward. We ask by how much the prices of goods in the domestic market diverge from world prices. World prices refer to the price of a product in the open world market free of tariff and other trade distortions. The imposition of trade barriers such as tariffs and import licensing requirements ensures that the prices faced by domestic producers and consumers will be higher than world prices. Viewed from the perspective of consumers and other users of the goods, it represents a tax; i.e., a transfer of income to the government. It also has the effect of increasing the price of domestic close substitutes for imports by the amount of the tariff, thereby resulting in an implicit subsidy from consumers to domestic producers.

There are various possible ways of calculating NRPs, but by far the simplest is to use the rates contained in the tariff schedule. This has the virtue of reflecting the intent of government policy, and is the approach employed in this study. The NRPs were derived at the most disaggregated level – eight digit HS – and when aggregated have been weighted by the value of imports from the rest of the world.³

The chapter is divided into two sections. The first one reviews the structure of nominal protection based on the MFN tariff rate. This is followed by an analysis of the tariff phase down schedules agreed by Member States under the SADC Trade Protocol⁴.

³ The Harmonized System of trade classification catalogues all traded goods. The 4-digit level broadly corresponds to a product range, the 6-digit level is a standard list of products, while the 8-digit level allows individual countries to further specify product characteristics for their own ends and therefore differs from one country to another.

⁴ The phase-down schedules considered throughout this study are those lodged with the SADC Secretariat on implementation of the Trade Protocol in December 2001.

3.2 Most Favored Nation Tariff Rates in SADC

The structure of the SADC MFN tariff schedules is shown in Table 3.1⁵. Several points are noteworthy.

- The range of rates varies from Zambia's modest 0% to 25% to SACU's 0% to 325%.
- The average tariff, weighted by imports from outside SADC, does not show nearly the variation – SACU's 9% to Tanzania's 20%.
- There is wide variation in the distribution of tariff rates, reflecting the different motives behind the tariff schedule – protection and revenue.

The combination of high and low rates on various HS lines reflects the protectionist motivation of high nominal protection of some final products, and low tariffs on inputs (e.g., SACU and Mauritius). Protectionist tariffs almost invariably try to keep foreign goods out as much as possible, and are not aimed at meeting a revenue objective. Moreover, they tend to be cascaded and specifically tailored to cater to the particular domestic producers that sought the protection in the first place. The result is that effective protection for selected products is extremely high and the development of alternate activities, including potential backward and forward linkages is blocked.⁶

The relatively even nominal tariff structure of the least developed countries of SADC reflects the need to generate revenue from the tariff and keep administrative costs down. Tariffs for revenue purposes need to be moderate, simple, and if possible uniform. This minimizes their administrative cost, and reduces the incentive to misclassify and under invoice imports. A further advantage of a moderate, simple and uniform tariff is that it does not distort the choice among the different goods potentially produced in the domestic market. Further discussion of the detail in the nominal tariffs, reflecting the complexity and cross-country differences of the national tariff schedules, is contained in Appendix B.

Box 3.1: Mauritius: Development Policy

The tariff structure of Mauritius has many zero rates covering almost 60% of ROW imports, and an extremely large number of very high, over 50% rates which cover another fifth of imports. This makes for an extreme, bipolar pattern of trade taxation, with high variability as evidenced by the highest standard deviations and variances of SADC.

This structure results in a highly protected import competing sector operating alongside export competing industries operating with duty free status. In order to enable export competing industries to have access to inputs at world prices Mauritius has zero-rated a large number of tariff lines. At the same time Mauritius retains a small number of import competing activities that supply the domestic market for finished consumer goods. Given the relatively small domestic market these activities are dependent on high levels of protection to remain in business. Through lowering the tariffs on inputs to zero Mauritius was able to avoid the need to monitor duty remission or rebates on imported inputs, which is often one of the major disadvantages with export incentive programs.

⁵ Botswana, Lesotho, Namibia, Swaziland and the Republic of South Africa, as the Southern African Customs Union (SACU), apply a common external tariff on imports to all member countries.

⁶ The implications of such a tariff structure for export competitiveness are addressed in Chapter 4.

Table 3.1 – A Comparison of Consolidated MFN Tariff Schedules by Country
 HS 8 digits 1988 (Except SACU 2000) and 2000 ROW Import Share

	SACU (7793)		Malawi (5447)		Mauritius (5478)		Mozambique (5300)		Tanzania (6290)		Zambia (6093)		Zimbabwe (7170)	
	ROW Import Share		ROW Import Share		ROW Import Share		ROW Import Share		ROW Import Share		ROW Import Share		ROW Import Share	
% of Total Tariff Lines of Type														
Ad valorem	74%		100%		100%		100%		99%		100%		99%	
Specific rates	25%		0%		0%		0%		0%		0%		0%	
Number of														
Combined rates	7		0		0		0		0		0		44	
Different rates	147		7		9		5		5		4		33	
Ad valorem bands	46		7		9		5		5		4		15	
Tariff Rates Structure:														
Positive Lines	57%		98%		72%		98%		99%		79%		95%	
Free (0)	43%	67%	2%	12%	28%	57%	2%	3%	1%	1%	21%	27%	5%	8%
0<Tariff<=5	6%	6%	36%	18%	4%	5%	34%	50%	10%	21%	14%	14%	26%	31%
5<Tariff<=10	5%	3%	23%	18%	22%	6%	30%	24%	7%	6%	0%	0%	9%	11%
10<Tariff<=15	7%	3%	0%	2%	9%	7%	0%	0%	0%	0%	33%	31%	16%	9%
15<Tariff<=20	9%	5%	0%	18%	5%	3%	0%	0%	20%	29%	0%	0%	6%	5%
20<Tariff<=30	24%	7%	39%	32%	5%	2%	0%	0%	62%	43%	32%	27%	18%	25%
30<Tariff<=50	2%	1%	0%	0%	8%	5%	35%	23%	0%	0%	0%	0%	15%	6%
50<Tariff	4%	9%	0%	0%	21%	14%	0%	0%	0%	0%	0%	0%	6%	4%
Minimum	0%		0.0%		0.0%		0.0		0.0%		0.0%		0.0%	
Maximum	325%		30.0%		80.0%		35.0		30.0%		25.0%		100%	
Unweighted Average Tariff	13.2%		15.7%		24.4%		15.6		23.8%		13.6%		20.3%	
ROW Weighted Average	8.9%		17.2%		14.8%		11.7		20.2%		12.3		16.1%	
Standard Deviation	15.9		11.5		27.5		14.3		9.0		9.5		16.7	
Variance	2.5		1.3		7.6		2.1		0.8		0.9		2.8	

3.3 The Tariff Phase Out Schedules under the SADC Trade Protocol

SADC Member States agreed to liberalize trade over an eight-year period, commencing in September 2000. Under the Trade Protocol, each country is to remove tariffs on a minimum of 85 per cent of regional trade by 2008 with the balance to be liberalized by 2012. The SACU submitted one phase-down schedule to the rest of SADC, while the non-SACU countries had to submit two schedules, one for South Africa and one for all the other Members (see Box 3.2). A review of the schedules submitted to the SADC Secretariat and published in a Member States' Official Journal is contained in Appendix B.

Box 3.2: Differentiation

The Republic of South Africa is deemed a developed country in SADC, Mauritius and Zimbabwe are less developed economies, while the remaining non-SACU SADC member countries are listed as least developed economies.

In recognition of these different levels of development, it was agreed that South Africa should fast track the removal of tariffs. However, since the SACU countries would submit one offer, the BLNS would also be included in the fast track removal of tariffs. It was recognized that the BLNS economies are smaller and less developed. In return for this concession the non-SACU countries submitted two schedules – one for South African goods and a differentiated one for all the other economies including the BLNS.

The tariff phase down under the latter is faster and more generous than for South Africa.

Box 3.3: SADC and COMESA

Given the overlapping membership between SADC and COMESA it is relevant to consider developments in COMESA when looking at non-SACU SADC.

Malawi, Mauritius, Zambia and Zimbabwe already extend 100% preferences, or duty-free access, to each other's products. They have only marginal trade with Mozambique and Tanzania, the latter until recently also a member of COMESA.

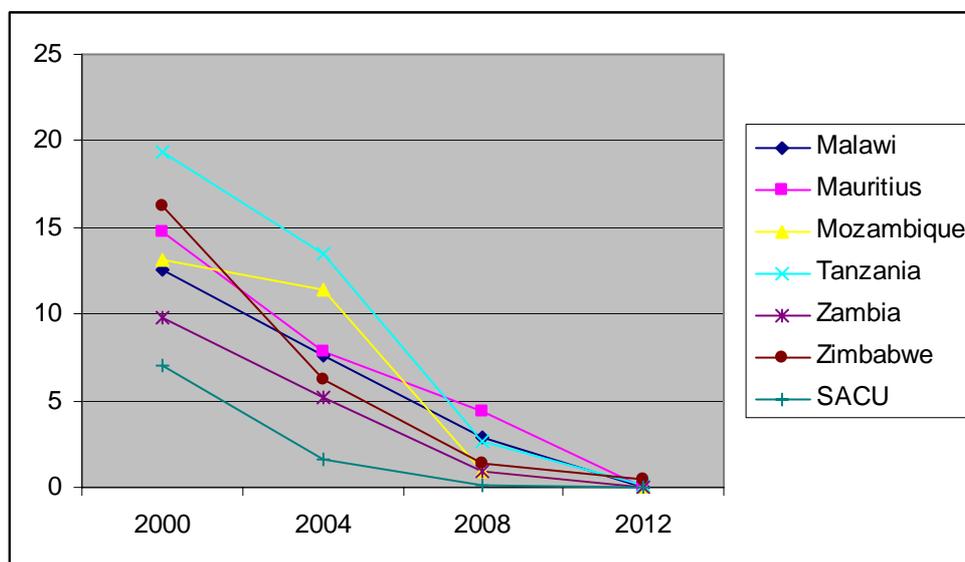
Moreover, Namibia and Swaziland enjoy non-reciprocal COMESA preference without being members of the FTA themselves. Taking this into account it is difficult to understand why the SADC non-RSA schedules do not mirror COMESA preferences.

In line with their different tariff books and a shared, rather cautious approach to liberalization, the phase-down schedules differ from country to country. (See Graphs 3.5, 3.6, and 3.7.) Key features are:

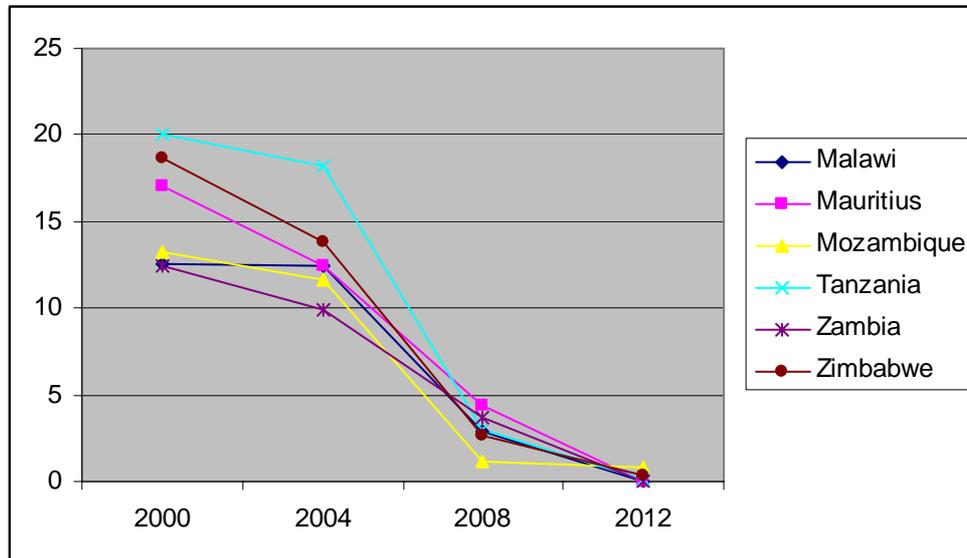
- SACU tariffs on partner goods start at much lower tariff levels, and drop quickly to minimal levels (graph 3.5).
- The delayed implementation schedule facing RSA origin goods is evident in Graph 3.6. Such 'back-loading' necessitates major drops in tariffs over much reduced time periods, and creates the potential for serious adjustment problems.

- Towards the end of the phase-down period several remaining tariffs run at less than 2%. Broadly speaking, tariffs below 2%, unless they are on readily observed, high value imports, cost more to collect than the revenue they bring in. Yet such a situation is observed in many cases around the end of the official phase down period (2008). These small, inefficient tariffs often extend to the full 12 year period and even beyond to 14-years in some cases.
- When SADC tariff rates are weighted by trade with the rest of the world (Graph 3.7), similar patterns emerge.

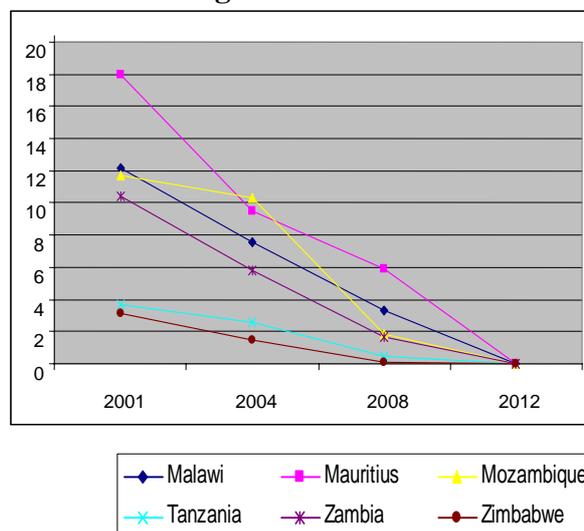
Graph 3.5 –Simple Average Tariff Facing Non-RSA Goods over Phase Down Period



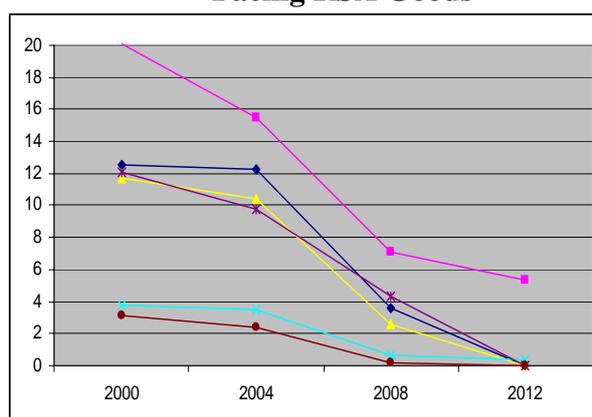
Graph 3.6 –Simple Average Tariff Facing RSA-origin Goods over Phase Down Period



Graph 3.7 – SADC Weighted Average Tariff over Phase Down Period Facing Non-RSA Goods



Facing RSA Goods



The phase-down schedules apply only to goods that satisfy the SADC rules of origin. This is because in a preferential trading area, only those goods deemed to be originating within the region – that is, to have been grown or produced therein – benefit from lower import duties. Rules of origin are thus established to ensure that a certain amount of local value is added to the products enjoying the preferences. These include specifications of the transformation to take place, and can be based on a simple change of tariff heading, the proportion of local content, or specify a production processes that should take place.

Chapter 4 Effective Rates of Protection in SADC

4.1 Introduction

This chapter reports the effective rates of protection (ERPs) calculated for a wide range of goods produced in the SACU member countries, and extends those calculations to SADC partners, using the individual SADC country nominal tariff rates. The ERPs reported here are based on data from 126 companies, located throughout the five countries of the Southern African Customs Union, for over 310 products. This permits analysis of the disparities in ERPs both between individual firms in a particular industry and across different economic activities. All of these companies produce for either the SACU and/or the SADC regional market. Additional data from companies throughout the rest of SADC has been collected by the COMESA Secretariat and will be used in a future study. The distribution of the SACU manufacturing firms surveyed is shown in Table 4.1.

Table 4.1 Distribution of Firms Surveyed in SACU

Description	No. Countries	No. Companies	No. Products	Unweighted Average SACU MFN Tariff Rate
Agric & Forestry	4	6	10	5%
Mining	1	1	2	0%
Food Processing	5	13	72	22%
Beverages	3	7	26	11%
Textile	4	7	20	30%
Clothing	4	16	42	54%
Leather & Footwear	2	2	2	23%
Wood and Wood Products	3	5	9	8%
Furniture	4	5	10	18%
Paper	1	3	3	3%
Publishing	3	4	6	1%
Basic Chemicals	2	3	8	1%
Industrial Chemicals	5	9	30	13%
Rubber	1	1	1	8%
Plastics	2	2	3	21%
Glass & Ceramics	3	3	5	10%
Ceramic Products	1	1	4	0%
Other non Metallic	4	4	6	0%
Iron & Steel Products	4	8	21	6%
Fabricated Metal Products	3	6	9	4%
Machinery	2	7	10	3%
Electric Machinery & Appliances	2	5	6	5%
Prof. & Scientific Equipment	1	1	1	0%
Vehicles	1	1	2	28%
Other Manufacturing	2	2	2	22%
All other Products	4	4	6	0%
Total	5	126	316	Average. 11%

Recall that the ERP measures the amount by which an activity's value added at domestic prices differs from what would be realized if the prices of its product and its inputs were not distorted from the world market values. The level of protection received by an activity is a positive function of the nominal protection of its output (which raises sales revenue) and a negative function of the nominal protection of its inputs (which raises costs). In the domestic market, these are both set by the domestic government. When selling in the regional market (SADC), protection on inputs is set by the rate of the domestic import tariff, however, protection on outputs is set (higher or lower) by partners' governments. When selling on the world market, input protection is determined locally but there is no output protection. Thus a different effective rate of protection exists for each market. The ERP achieved on sales to the world market is always lowest, since the price of output has to be sold at the world price (unless there is an export subsidy in the domestic market).

Positive ERPs indicate that a domestic activity can operate with higher returns to labor, capital, and management than would prevail under free trade. This increases the activity's financial profits, but also enables it to operate at a lower level of efficiency and constitutes a subsidy to this activity. The higher is the implicit subsidy, the greater the incentive to move to this activity and pull domestic resources away from other sectors into the subsidized activity. Conversely, sectors with negative ERPs are implicitly being taxed through the combined effect of price distortions on their inputs and on their outputs.

When adjusting the values of outputs and inputs for the tariffs to calculate world value added, it can occur that a negative world value is observed. Such instances transpire when the cost of the inputs into production exceeds the value of the final product, with both measured at world prices.

For example, a car assembly plant will display negative value added at world prices if the cost of its imported components exceeds the world value of the completed car: the assembled car is worth less than its component parts. This means it costs the country more to produce the car than it would to import it. Obviously, the resources used in the production of the car would be better employed elsewhere. The country would increase the value of its total output and save foreign exchange by closing down the car assembly plant – thus releasing and allowing better allocation of its resources – and importing the finished product instead. It is only because the tariff structure places high tariffs on fully built cars and smaller (or zero) rates on kits and/or components that such economically wasteful activities can be privately profitable.

When an activity exhibits negative world value added, its ERP is infinite and as a result the sub-sector and sector averages are meaningless. Such cases have been excluded from the ERP tables presented in this chapter.

4.2 Estimates of Effective Rates of Protection

We estimate two rates of effective protection: one when firms produce for the domestic market, and one when firms sell their production in the international market:

- ERP Domestic: products sold in the domestic market, reflecting the duty on both the inputs and the final product at the current MFN tariff rates;
- ERP Export: products sold in international markets reflecting domestic MFN tariffs on their inputs and zero duty on the outputs. This assumes that exporters do not benefit from EPZ or other duty drawback or exemption privileges on imported inputs.⁷

The ERP Domestic for SACU, using the SACU survey data and the SACU common external tariff rates, are reported in Table 4.2.a.⁸. These results can be extended to the other SADC countries by using the product level cost and production data from the survey for all the countries by applying the MFN tariff rates of each SADC member state to the survey cost information. These results are shown in Table 4.2.b.

Table 4.2
ERP for Sales in the SADC Domestic Markets
(Per cent)

a. SACU

Description	Average	Minimum	Maximum	Variance
Agric & Forestry	16	-15	111	13
Mining	0	0	0	0
Food Processing	100	-111	684	252
Beverages	10	-10	1748	3234
Textile	144	-16	2081	2422
Clothing	73	37	1783	1430
Leather & Footwear	16	16	36	2
Wood and Wood Products	1	-2	166	50
Furniture	39	20	243	96
Paper	0	-2	51	9
Publishing	0	-43	0	3
Basic Chemicals	1	0	27	1
Industrial Chemicals	74	-19	118	12
Rubber	2	2	2	N/A
Plastics	69	65	248	88
Glass & Ceramics	35	0	60	5
Ceramic Products	-6	-6	-6	0
Other non Metallic	0	-6	0	0
Iron & Steel Products	33	-7	259	34
Fabricated Metal Products	-15	-22	72	11
Machinery	2	-11	5926	35142
Electric Machinery & Appliances	26	-7	31	2
Prof. & Scientific Equipment	-2	-2	-2	N/A

⁷ If there were full duty exemption on all importable inputs, the ERPs for exporters would be zero.

⁸ It should be noted that the results are not definitive at the level of the individual sector as the number of firms surveyed was modest and cannot be considered to be statistically representative. The results should be viewed in relation to the level and range of ERPs rather than to the precise percentage.

Vehicles	14	-21	55	29
Other Manufacturing	66	41	85	10
All other Products	-1	-16	0	0
Average	27			
Minimum	-15			
Maximum	144			
Variance	15			

b. Other SADC (average)

Description	Malawi	Mauritius	Mozambique	Tanzania	Zambia	Zimbabwe
Agric & Forestry	45	32	38	65	49	42
Mining	0	20	3	27	20	7
Food Processing	35	83	30	45	48	41
Beverages	29	171	97	48	57	186
Textile	107	20	238	112	88	129
Clothing	36	110	44	34	31	84
Leather & Footwear	33	97	45	32	30	74
Wood and Wood Products	1	12	5	29	22	2
Furniture	40	315	11	39	58	118
Paper	30	281	25	84	-1	16
Publishing	0	80	0	5	0	0
Basic Chemicals	12	24	6	71	0	2
Industrial Chemicals	81	447	184	64	103	61
Rubber	64	167	141	16	-16	6
Plastics	56	246	238	50	174	86
Glass & Ceramics	64	170	12	19	27	49
Ceramic Products	-2	113	19	3	44	123
Other non Metallic	1	23	4	29	21	49
Iron & Steel Products	27	61	22	38	49	70
Fabricated Metal Products	13	-50	17	62	38	71
Machinery	18	112	21	10	11	10
Electric Machinery & Appliances	55	107	15	51	49	64
Prof. & Scientific Equipment	54	102	8	24	20	11
Vehicles	27	-84	40	67	29	83
Other Manufacturing	221	522	246	93	178	283
All other Products	49	-1	29	60	10	7
Average	42	122	59	45	44	64
Minimum	-2	-84	0	3	-16	0
Maximum	221	522	246	112	178	283
Variance	21	203	63	7	22	42

Several features of the results for domestic sales (Table 4.2) are worth noting:

- ERPs for domestic sales are very high in a number of sectors in many countries. The average SADC ERP in beverages, textiles, and clothing, exceeds 100% in a number of countries. Several other sectors show domestic ERP of more than 40%.

- There appears to be a significant correlation between domestic manufacturing activity and a high ERP; i.e. the tariff structures of Member States seem to be tailor-made to provide high levels of protection to existing firms.⁹
- Different firms in the same industrial sector have wide ranges of ERPs for domestic sales. For example, textiles, with an average SACU ERP of 144% has a range from -16% to +2081%. This is in part due to different product mixes, and the highly differentiated SACU tariff schedule, but also due to major differences in the efficiency of individual firms. High levels of protection allow firms of very different efficiency levels to survive within the domestic market.
- There is considerable variation in ERPs across different industries within individual member countries. For example, within SACU the range of domestic ERPs is from –15 % to +144%.
- As a result of different tariff structures, patterns and levels of protection also vary considerably among Member States. The average ERP for domestic sales ranges from a low of 27% in SACU to 112% in Mauritius.
- The cascading rate structure of high tariff levels for consumer goods relative to intermediate and capital goods that is common across the region results in much higher rates of effective protection for consumer goods than for intermediate and capital goods.

There are substantial disincentives to supplying export markets. The ERPs for export production (Table 4.3) range down from zero to large negative rates. They are negative because manufacturers face higher than world market costs for their inputs, but cannot recover this on the final product price because that has to be sold at the world price. The average ERPs for export sales range from -14 per cent for Mozambique to -50 per cent for Tanzania. Mauritius, with an average of -32 percent on export sales, has been successful in exporting to world markets by granting exemptions from duties on their inputs. In that case, the ERP for exporting to world markets is zero.

⁹ Domestic industrial value added shares are set out in Appendix G.

Table 4.3
ERP in SADC for Export Sales to World Markets
(no duty exemptions on inputs)
(per cent)

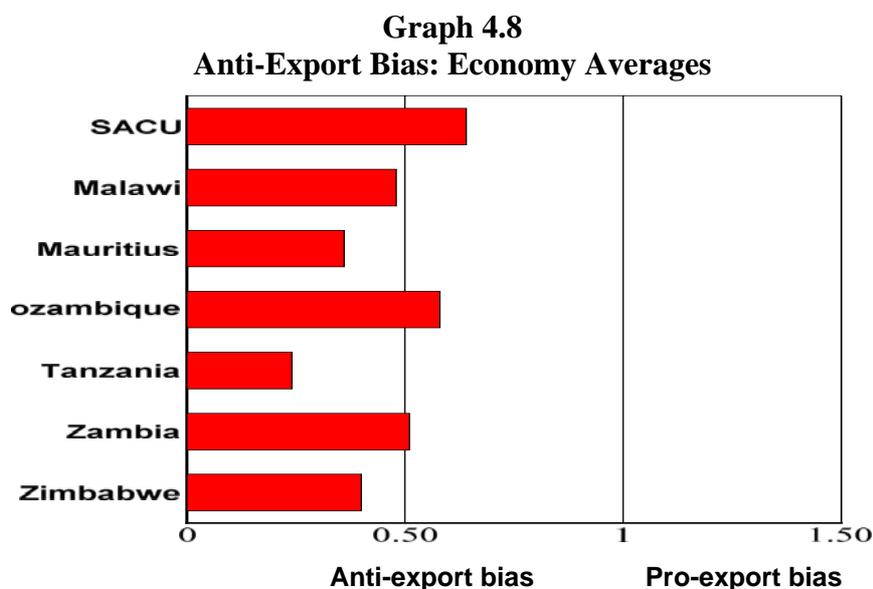
Description	SACU	Malawi	Mauritius	Mozambique	Tanzania	Zambia	Zimbabwe
Agric & Forestry	-8	-29	-16	-33	-43	-35	-43
Mining	0	0	-5	-1	-6	-5	-2
Food Processing	-13	-34	-25	-37	-49	-30	-53
Beverages	-11	-18	-29	-15	-39	-21	-36
Textile	-30	-29	0	-14	-80	-26	-12
Clothing	-10	-10	0	-10	-11	-7	-7
Leather & Footwear	-5	-8	-13	-3	-9	-4	-9
Wood and Wood Products	0	-1	-13	-1	-9	-7	-2
Furniture	-8	-97	-55	-36	-98	-56	-66
Paper	-3	-8	-8	-4	-31	-20	-8
Publishing	0	0	0	0	0	0	0
Basic Chemicals	0	-5	-10	-3	-31	0	-15
Industrial Chemicals	-26	-112	-61	-33	-157	-52	-79
Rubber	-29	-34	-68	-40	-63	-54	-57
Plastics	-44	-21	-45	-11	-84	-9	-29
Glass & Ceramics	-4	-9	-23	-7	-23	-10	-12
Ceramic Products	-6	-22	-45	-10	-77	-16	-36
Other non Metallic	0	0	-5	-1	-7	-5	-2
Iron & Steel Products	-1	-17	-35	-11	-76	-15	-16
Fabricated Metal Products	-17	-42	-106	-28	-117	-39	-76
Machinery	-6	-17	-50	-12	-54	-22	-32
Electric Machinery & Appliances	0	-5	-19	-3	-14	-6	-5
Prof. & Scientific Equipment	-2	-7	-9	-7	-16	-10	-9
Vehicles	-102	-43	-95	-17	-34	-45	-33
Other Manufacturing	-56	-21	-94	-31	-94	-21	-36
All other Products	-1	0	-1	-8	-89	-16	-67
Average	-15	-23	-32	-14	-50	-20	-29
Minimum	-102	-112	-106	-40	-157	-56	-79
Maximum	0	0	0	0	0	0	0
Variance	5	8	10	2	16	3	6

The incentive structure is clearly biased against export production because the ERP for domestic production substantially exceeds most ERPs for export production. The extent of anti- or pro-export bias can be judged relative to a neutral situation defined as where on average the incentives to produce for the export market and the domestic market are the same.¹⁰ If the ratio is equal to one, then the orientation of trade policy is neutral between production for export and production for the domestic market. If the ratio is less than one, the orientation reflects an anti-export bias.

The results, shown in Graph 4.8, reveal a considerable disincentive to the development of export industries. It should be noted that this calculation is based on listed tariffs being

¹⁰ The export orientation is calculated by taking the ratio $(1+ERP_x)$ to $(1+ERP_d)$ where ERP_x and ERP_d refer to average ERPs for sales in the export and domestic markets.

levied in full and assumes that the full level of protection is utilized. This is clearly not the case in a number of sectors where there are exemptions on imported inputs – for example Schedule 3 in the SACU tariff – or for those ‘exporters’ who qualify for rebates or duty remission on their inputs (for example under 470.03 in the SACU or in an Export Processing Zone in many other SADC economies).



Notwithstanding the caveats, it is clear that the published tariff schedules in SADC result in a large and pervasive anti-export bias. Although in most sectors the average rates of protection in export markets have relatively small negative values, this tells us little about the disincentive to export. The *relative* disincentive to produce for the export market must take account of the existence of the high levels of protection that are provided for the import substitution activities. This conclusion remains valid even if it is assumed that export firms obtain duty exemptions on their imported inputs.

Finally, the results indicate that the trade regimes throughout SADC, while strongly consistent in their import competing bias, have resulted in overall high but widely varying levels of assistance being provided to particular manufacturing activities. Some of this is intentional, and some unintentional. Industries established behind high protection barriers have significant lobbying power. Indeed the extremely high rates of ERP tend to fall in those sectors that were classified as ‘sensitive’ by many SADC economies during the negotiation of the SADC Trade Protocol.

In sum, the results reflect:

- The highly arbitrary pattern of incentives of wide variation within sectors and between sectors, showing clearly the haphazard outcome of the protection policies; and
- The high overall level of protection of production for the domestic markets, which acts as a considerable disincentive to the development of export industries.

4.3 Effective Rates of Protection and the Implementation of the Free Trade Area

When the SADC FTA is fully implemented there will be no tariffs on trade within the region for qualifying products, although each Member State will continue to maintain its own external tariff with the rest of the world (the MFN tariff schedule). How will these tariff reductions affect the incentives to export to SADC Members?

Using the firm level costs and sales data from the survey and the base case world value added, it is possible to simulate the impact on incentives of being able to sell output into a regional market rather than the domestic market. Table 4.4 shows the results of simulations for SACU firms exporting to selected SADC markets. Table 4.5 shows the results for firms exporting to SACU. There are two scenarios for each:

- The first regional liberalization scenario calculates the ERP for a firm selling into a partner market, but which has to pay domestic tariffs on their inputs.
- The second regional liberalization scenario assumes that firms are able to obtain a duty rebate on their inputs.

In both scenarios they would be able to price their exports to reflect the height of the importing country's external MFN tariff.

The Trade Protocol creates substantial incentives for producers across a wide range of sectors. Tables 4.5 and 4.6 indicate for many sectors very high levels of effective protection for firms that can supply the partner markets under the SADC FTA. At the same time, the relative incentives for selling to SADC vary considerably between industrial sectors.

Companies in many sectors will have a *greater* incentive to export within the region than to sell in their domestic markets. This may be seen by comparing the ERPs for firms when they produce for the domestic market vs. the regional market (when all the tariffs are assumed zero for intra-SADC trade), assuming that the companies can comply with the rules of origin.

Where the ERP is markedly higher for selling to a SADC Member than for selling into the domestic market, the importing country will experience a *real income loss*. If the product had previously been imported from a third country the importing SADC country will experience no improvement in consumer wellbeing, but the country's government no longer receives tariff revenue. Given the high levels of effective protection in the domestic market, increased regional trade in the absence of lower external tariffs will thus encourage what is known as trade diversion. However, under a restrictive rule of origin, trade will not take place under regional preferences. Either way, there is little gain to the countries participating in the SADC Trade Protocol.

This outcome can be avoided by further liberalization of tariffs applicable to third countries, and/or by establishing more liberal rules of origin. Yet the sectors with extremely high rates of effective protection when selling under SADC preferences correlate with those sectors where the rules of origin are more restrictive. The opportunities for significant increases in

incentives through the removal of tariffs on a selective basis have encouraged producer interests to lobby for stricter rules of origin to assist in preserving the status quo.

Table 4.4
ERP: SACU Firms Exporting to SADC Markets under SADC Preferences with and without duty rebates on inputs.
(Per cent)

Description	Mauritius	Mauritius Rebates	Mozambique	Mozambique Rebates	Zambia	Zambia Rebates
Agriculture & Forestry	41	51	62	74	75	88
Mining	25	25	4	4	25	25
Food Processing	92	109	53	69	64	80
Beverages	183	202	98	113	65	79
Textile	-14	20	169	257	67	126
Clothing	92	111	42	57	27	41
Leather & Footwear	105	110	43	48	30	34
Wood and Wood Products	25	25	6	6	30	30
Furniture	356	375	29	38	106	117
Paper	283	289	26	29	16	29
Publishing	80	80	0	0	0	0
Basic Chemicals	34	34	9	9	0	0
Industrial Chemicals	482	509	191	217	129	154
Rubber	164	271	115	202	20	69
Plastics	221	297	179	250	120	184
Glass & Ceramics	187	194	15	19	33	37
Ceramic Products	152	158	24	30	54	59
Other non Metallic	28	28	5	5	25	25
Iron & Steel Products	95	97	31	32	62	64
Fabricated Metal Products	48	72	27	49	58	83
Machinery	161	155	28	32	27	30
Electric Machinery & Appliances	126	126	18	18	55	55
Prof. & Scientific Equipment	108	112	13	15	28	31
Vehicles	-87	15	-46	58	-29	76
Other Manufacturing	376	689	133	301	79	215
All other Products	-1	0	36	37	25	26
Average	129	160	50	76	46	68

Table 4.4 (cont.)
ERP: SACU Firms Exporting to SADC Markets under SADC Preferences with and without duty rebates on inputs.
(Per cent)

Description	Malawi No Rebates	Malawi Rebates	Tanzania No Rebates	Tanzania Rebates	Zim. No Rebates	Zim. Rebates
Agriculture & Forestry	65	77	98	112	77	90
Mining	0	0	33	33	8	8
Food Processing	55	70	80	96	80	96
Beverages	46	59	75	90	204	224
Textile	84	147	142	222	83	146
Clothing	35	49	35	49	76	93
Leather & Footwear	36	41	36	41	77	83
Wood and Wood Products	2	2	39	39	4	4
Furniture	129	141	129	141	175	188
Paper	35	39	112	116	21	24
Publishing	0	0	5	5	0	0
Basic Chemicals	17	17	103	103	17	17
Industrial Chemicals	167	193	196	221	114	140
Rubber	53	116	53	116	39	96
Plastics	28	81	88	148	63	120
Glass & Ceramics	69	73	39	43	57	61
Ceramic Products	14	20	73	79	152	158
Other non Metallic	1	1	36	36	50	50
Iron & Steel Products	43	44	113	114	85	87
Fabricated Metal Products	38	61	158	197	124	158
Machinery	29	34	58	27	37	38
Electric Machinery & Appliances	60	60	65	55	69	69
Prof. & Scientific Equipment	58	61	38	41	18	20
Vehicles	-32	72	-2	103	12	118
Other Manufacturing	106	258	106	258	160	344
All other Products	48	50	148	149	73	74
Average	46	68	79	103	72	96

The MFN external tariffs of SADC members are different, with the result that there is a different incidence of trade diversion. SACU producers will be able to sell at higher prices in SADC partners than their home market. For three SADC countries – Mozambique, Mauritius and Zambia – it is apparent that, given their industrial bases and tariff structures, there are only a few products where the ERP for exporting to SADC exceeds that of producing for the domestic market. In the vast majority of sectors the incentives are larger for satisfying the domestic market. In some sectors there are no domestic producers. In such cases it can be expected that the products will be sourced from South Africa as the dominant supplier in the region.

Table 4.5
ERP: Non-SACU Firms Exporting to SACU under SADC Preferences with and without
duty rebates on inputs.
 (per cent)

Description	Malawi No Rebate	Mauritius No Rebate	Mozam. No Rebate	Tanzania No Rebate	Zambia No Rebate	Zim. No Rebates	SADC With Rebates
Agriculture & Forestry	-6	7	-9	-19	-12	-20	25
Mining	0	-5	-1	-6	-5	-2	0
Food Processing	79	88	76	64	83	60	117
Beverages	3	-8	6	-18	0	-14	22
Textile	145	174	160	94	148	161	224
Clothing	74	83	73	72	76	76	90
Leather & Footwear	12	8	18	12	16	12	21
Wood and Wood Products	-1	-12	0	-9	-7	-2	1
Furniture	-51	-9	21	-52	-10	-20	48
Paper	-5	-5	1	-28	-17	-5	3
Publishing	0	0	0	0	0	0	0
Basic Chemicals	-4	-10	-2	-30	1	-15	1
Industrial Chemicals	-12	40	67	-57	49	21	100
Rubber	-3	-37	-9	-32	-23	-27	43
Plastics	92	68	102	29	104	84	127
Glass & Ceramics	29	16	31	15	28	26	39
Ceramic Products	-22	-45	-10	-77	-16	-36	0
Other non Metallic	0	-5	-1	-7	-5	-2	0
Iron & Steel Products	17	-2	23	-42	19	17	34
Fabricated Metal Products	-40	-105	-26	-115	-38	-74	2
Machinery	-9	-42	-4	-47	-15	-24	5
Electric Mach'y & Appliances	21	6	22	12	20	21	26
Prof. & Scientific Equipment	-7	-9	-7	-16	-10	-9	0
Vehicles	72	20	98	81	71	82	120
Other Manufacturing	100	20	90	28	100	86	194
All other Products	0	-1	-8	-89	-16	-67	0
Average	19	9	27	-9	21	13	48

Chapter 5 Conclusions

The study of the impact of trade policies on incentives for firms within SADC shows:

- The relatively small size of the SADC economies – collectively equivalent to Turkey – requires Member States to increase international exports in order to realize increased economic growth and employment.
- The existing levels of nominal protection on inputs and final products throughout SADC Member States result in widely varying levels of effective protection – within sectors in individual countries, between sectors in each country, and between countries.
- The high rates of ERP for domestic production results in significant anti-export bias against firms competing in global markets.
- The ability of firms to compete in export markets is enhanced by allowing for duty rebates on imported inputs, but this may be insufficient to offset the overall anti-export bias.
- In order to promote greater integration into the world economy it is necessary for SADC Member States to continue to implement policies aimed at lowering the anti-export bias. This could be accomplished by moving towards lower, simpler, and more uniform national MFN tariff schedules, while simultaneously implementing the phase down of intra-SADC tariffs.
- The removal of tariffs under the SADC Trade Protocol, without reducing or harmonizing Member States' external tariffs will create substantial incentives to produce for the regional market. Given the high level of domestic protection afforded to manufacturing in SADC, virtually all of this additional intra-regional trade will reduce real incomes of the members, known as trade diversion;
- Attempts to prevent trade diversion through adopting strict rules of origin aimed at ensuring high level of local content will prevent trade from most of the non-SACU countries from qualifying for SADC preferences.
- For the SADC Trade Protocol to contribute to increased growth and to facilitate international competitiveness it is necessary for Member States to reduce the level and disparities of their external tariffs. This lends support to the commitment in the SADC Regional Indicative Strategic Development Plan to move towards a customs union. It also supports the further lowering and removal of external tariffs with the rest of the world. The recently concluded Free Trade Agreement between South Africa and the EU along with the ongoing negotiations between SACU and the US for a FTA provides a further rationale for the substantial reduction of external tariffs throughout the region.

Appendix A – The Theory of Protection

A.1 The Theory of Nominal Protection

A.1.1 Definition

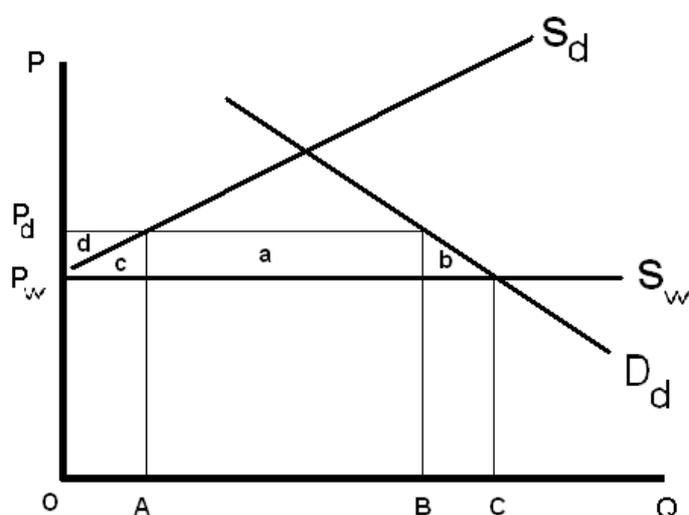
The Nominal Rate of Protection refers to the total proportional difference between domestic and international prices, taking into account both import tariffs and other distortions such as quantitative restrictions (licensing and prohibitions) and price distortions such as price controls. In principle, such a measure would look at the relationship between the prevailing domestic price of a good and the price of the same good that would be observed under free trade (i.e. an undistorted market). The NRP is an estimation of the equivalent tariff that would lead to the total disparity between domestic and international prices, over and beyond the known price-raising effect of the import tariff. In practice therefore, the measure is derived from the difference between the domestic price of a good and the observable world price of a comparable good.

For example, if the world price of a good is 200 local currency units and the import tariff is 15%, abstracting from delivery costs and other distortions, the domestic price of both imported and locally competing goods should be 230 units. If however, the local price for the good is 250 units, this suggests that there are other distortions at play, such as an absence of competition, or quantitative restrictions on supply, so that the NRP is 25%: the difference between the local price and the world price, indexed to the world price.

The analysis of NRP aims to estimate the total price raising effects of tariffs and of the imposition of other restrictions to free trade. Economic theory holds that any limitation on the supply of a good is likely to raise its price. Figure 1 below illustrates equally the price raising effect of a tariff or of a quantitative restriction on supply. The case is that of a “small country”, that is an economy with no influence over the world price of the good in question, which therefore faces a perfectly elastic (flat) world supply curve. Domestic production costs are assumed to be higher than the world price, so that the domestic supply curve lies above the world supply curve at all points: under free trade and perfect competition, all domestic demand would be met by imports¹¹. Total consumption would be equal to OC, at price P_w given by the intersection of the domestic demand (D_d) and world supply (S_w) curves. Imposing a trade restrictive measure that restricts consumption to OB results in a price increase to P_d , where the demand curve intersects the resulting supply curve. The inflated price allows some of the domestic producers (the more efficient ones) to supply part of the market, OA, while AB is filled by imports.

¹¹ It is possible to amend the assumption to allow for some domestic supply at world price level. The simplification made here merely highlights the price-raising effects.

Figure 1 – The Effects of Price Distortions



However, the shift in consumption from lower cost world sources (at P_w) to higher cost domestic sources (those of the more efficient local producers who can accept P_d) clearly imposes costs on the domestic economy. Consumers pay more (the total area below the new supply curve, that is $a + b + c + d$) than they would pay under free trade. Part of this accrues to importers or government (area a , depending on the type of distortion) and part to domestic producers (area d , which is rent, or the amount these producers get paid over what they would have accepted at quantity OA). The remainder is known as “dead-weight consumption loss” (area b) and excess production cost (area c), which are net losses for the economy. The effect of the distortion is therefore to redistribute income from (poorer) consumers to importers or government and to domestic producers, where consumers include producers who import inputs.

A.1.2 Calculation of Nominal Rates of Protection

The nominal rate of protection measures the proportion by which domestic prices exceed world prices. NRPs are calculated either *ex ante* or *ex post*, to indicate the difference between stated policy and the actual outcome, based on revenues collected. NRPs are estimated by identifying all price distortions affecting imports. The *ex ante* NRP is defined as the sum of the tariff and all other price distortions which include listed tariff surcharges, other duties and quantitative restrictions. The relationship between the domestic price and the world price, and the derivation of NRP from this, are expressed algebraically as:

$$P^d = P^w (1 + t + d + e) \quad [1]$$

$$NRP = \frac{P^d - P^w}{P^w} \times 100 \quad [2]$$

where P^d and P^w are the domestic and world price, respectively, t and d are tariffs and duties, and e is the net tariff equivalent of other trade restrictions (e equals zero where there are no restrictions other than tariffs and duties).

Ex post NRPs measure the tariff and other distortions actually levied against imports. A considerable variation can usually be observed between sectors, as well as contrast between ex ante and ex post rates, reflecting the difference between the intent of policy and its impact. Actual duty exemptions as opposed to listed duties can thus be highlighted. Caution must be exercised in interpreting ex post rates however, since manufacturers will adjust their pricing behavior to stated (ex ante) tariffs: duty exemptions are typically arbitrary, discretionary and uncertain, thus new-comers would plan any investment based on published rates.

Countries typically apply two types of tariffs: ad valorem and specific. An ad valorem tariff is a levy, the amount of which is calculated as a percentage of the value of the import, while specific rates apply a given amount per quantity of the import (e.g. 2 cents per liter). Specific rate tariffs are converted to ad valorem equivalents by taking the value of imports of the relevant product and dividing it by the number of units to obtain a “world price”. The specific tariff per unit, as a proportion of the “world price” thus derived, is then assumed to be the ad valorem tariff equivalent. Where no imports appear, the rate applying to the nearest tariff code is assumed to apply to the product line. NRPs can be derived, both unweighted and weighted by imports, for each country.

The data was obtained from various sources, as explained in the main body of the report. Tariff codes are classified according to the Harmonized System. The trade data and tariffs supplied were edited to arrive at a set of 6-digit HS tariff codes and corresponding trade for each of the countries¹². This yields a consistent set of results as presented in the report, which are comparable across countries, reflecting different trade policies. The choice of the majority has been import-substitution. However, a low average NRP suggests an emphasis on exports. A significant degree of variation across countries and across sectors within countries can be observed, as highlighted in the overall regional chapter and the country chapters of the report, where the range of price distortions and their implications as to bias between trading and productive activities are also analyzed.

A.2 The Effective Rate of Protection

A.2.1 Introduction

Policy makers employ a number of measures, such as income and commodity taxes, import tariffs and subsidies, quantitative restrictions, import prohibitions, price controls, and entry barriers, that are intended to increase or decrease the domestic prices of both traded and non-traded goods and as a result create a divergence from their respective economically efficient prices (i.e. the prices that would prevail in the absence of intervention). Although the stated objective of import tariffs and commodity taxation may be to raise revenues, they are often applied in ways that are *de facto* intended to direct, through differential incentives, the

¹² See section 3.3 for details of data collection and treatment.

allocation of resources by consumers and producers in ways in favor of import substitution activities. These incentives operate by creating a “wedge” or differential between the prices that would exist without intervention and the domestic prices that reflect these policies, referred to in this analysis as price distortions.

The introduction of differential incentives for industrial activities has often been viewed in terms of providing protection for domestic producers from potential competition from foreign producers, but this puts these issues in too narrow a context. The relationship between the financial costs of domestic production and the costs of imports is only one of the elements of competition for the limited resources available for industrial production. Granting relatively high “protection” for one activity also provides it with advantages relative to other existing and potential activities that are receiving less assistance, since price distortions draw resources towards favored activities, they increase costs for all other activities. In developing proposals for efficient industrial policies, it is important that these broader implications be explicitly recognized.

In the countries under consideration, the domestic prices of tradable industrial goods are influenced by the individual countries’ tariffs (which include the SACU Common External Tariff), the COMESA and SADC tariff preferences, import surcharges and the price raising effects of import (and export) licensing. In addition, the domestic price of some goods are influenced by subsidies, in particular through public enterprise pricing policies. The border prices of tradable goods reflect world market conditions. The domestic prices of non-traded goods (and exports) are also indirectly affected by the price distortions on tradable goods¹³. The central task in estimating economic incentives is assessing the differentials between the domestic and world prices of goods produced and used by industrial activities.

A.2.2 Calculation of the Effective Rate of Protection

The nominal rate of protection refers to the total proportional difference between domestic and international prices, taking into account both import tariffs and all other distortions. The effective rate of protection incorporates the combined effect of price distortions (i.e. NRP) on both outputs and inputs, on the value added of manufacturing activities. That is, it measures the amount by which an activity’s value added at domestic prices would differ from that which would be realized if the prices of its products and inputs were not distorted through policy intervention.

Positive ERPs indicate that domestic industries are able to operate with a higher level of value added than would prevail under free trade, increasing financial profits and/or permitting lower levels of efficiency, and constituting a subsidy to these activities. The higher are the implicit subsidies, the greater will be the incentives for the movement of domestic resources into these activities. Conversely, activities with negative ERPs are being implicitly taxed through the combined effects of price distortions on their inputs and outputs.

¹³ Policies that distort the price of tradable goods affect the price of non-traded goods, directly by affecting the cost of the raw materials used in their production, but also indirectly by shifting demand patterns from importables to exportables and non-traded goods by altering relative prices.

The ERP is usually defined as the ratio of the domestic value added to the international value added and may be expressed as:

$$\text{ERP} = \frac{\text{VA}^d - \text{VA}^w}{\text{VA}^w} \times 100 \quad [3]$$

where VA^d is value added measured at domestic prices (i.e. the difference between the values of output and of material inputs at domestic prices) and VA^w is value added at world prices.

The estimation of price distortions for traded goods is in principle relatively straightforward. However, several of the countries under consideration (in particular those in SACU) operate an extremely complex trade policy, which uses formula duties, variable import levies, local content requirements and specific duties, in addition to ad valorem duties. Nevertheless, the majority of import tariffs and import surcharges are levied on an ad valorem basis, making it possible to infer their impact on the relationship between domestic and world prices with a reasonable degree of confidence, although the use of specific tariffs and formula duties requires ad valorem equivalents to be estimated². The effects of import licensing, variable import levies and local content regulations could not be considered¹⁴.

A.2.3 Non-Traded Goods

The approach described above cannot be used in assessing price distortions for non-traded goods, as the effects of policies on prices are indirect. While non-traded goods are involved in most manufacturing activities, by their nature they do not have direct international trading prices. However, they employ traded and non-traded goods in their own production processes. Price distortions of traded goods therefore affect the prices of non-traded goods. When non-traded goods constitute a significant proportion of the value of materials used in a production process, the assessment of the impact of intervention on the prices becomes essential in the measurement of ERPs. There are three main approaches in estimating the price distortions of non-traded goods:

1. Assume that the price of non-traded goods will not change if the system of protection is removed, which implicitly means their nominal rate of protection is zero and they are supplied at constant costs. (This is generally referred to as the Balassa method.)
2. Assume that the tariff on non-traded goods is equal to the average of that for traded goods (the Scott method).
3. Assume that non-traded goods are part of the value added of the manufacturing activity employing them, or decompose non-traded goods in several rounds until their values become domestic value added and traded inputs (the Corden method).

¹⁴ An alternative approach is to compare domestic and world prices directly, but this introduces other potential sources of measurement error, due in particular to differences in the characteristics of the goods for which prices are being compared.

A derivative of the Corden method has been adopted in this study. It is in many ways the preferred approach as it is likely to yield more precise measures¹⁵. The decomposition of the costs of non-traded inputs, directly and indirectly used in the production process, to identify the foreign exchange cost of traded inputs, actually measures “total protection”, that is the direct and indirect impact on the value added of manufacturing activities emanating from the prevailing structure of protection. Sensitivity analysis, allowing for instance the use of the cost of a non-traded input of one country into another country’s production structure, provides much flexibility in the analysis of the impact of protection on non-traded goods. The model designed for this study allows such flexibility.

A.2.4 The Exchange Rate

In assessing the structure of incentives, it is generally also important to consider the impact of intervention on the exchange rate and the differential impact that it has across activities. The imposition of tariffs or restrictions on imports affects the equilibrium exchange rate relative to a free trade regime: the equilibrium price of foreign exchange falls (i.e. fewer local currency units per US dollar). A lower exchange rate will reduce the price of imports, measured in domestic currency, and hence reduce the protection accorded by a given tariff to domestic competing products. The exchange rate that maintains exchange rate equilibrium will decline further as the average level of protection increases. A lower exchange rate also penalizes the export sector as it earns fewer local currency units per US dollar than would be the case under a free trade situation. Thus protective measures and the exchange rate are interdependent, they can be combined in various ways to ensure balance of payments equilibrium¹⁶.

The countries under consideration operate a variety of import controls covering a broad range of goods. The objectives of these controls include balance of payments management, revenue generation, essential goods supply and the protection of local industries. Usually, the macroeconomic rationale for foreign exchange controls is that they are prompt, direct and predictable in controlling import demand, compared with other policies such as demand deflation. To the extent that quantitative restrictions on use of foreign exchange result in an overvalued currency, the main implications for the economy are as follows:

1. Imported raw materials are effectively cheaper at an overvalued exchange rate than they would otherwise be, reflecting an implicit subsidy on those imported raw materials (where there are no other restrictions on import);
2. At an overvalued currency, there is excess demand for imports (which are cheaper) so the foreign exchange requirements of many industries are not satisfied, which leads to lower utilization of their capacities;

¹⁵ Several studies have indicated that the approach used does not significantly affect the results obtained.

¹⁶ It will be recalled that Lesotho, Namibia, Swaziland and South Africa are members of the Common Monetary Area, which maintains the currencies of the first three on par with the rand. Given the relative sizes of the members, the exchange rate is likely determined by South Africa, which operates a relatively unrestricted forex regime for the current account with a more heavily controlled capital account. Further discussion of the CMA is, however, beyond the scope of this study.

3. An overvalued currency augments the disparity of effective protection across industries, since the proportion of imported inputs vary among industries;
4. An overvalued currency promotes black marketing of foreign exchange, by affording room for arbitrage; and
5. An overvalued currency also encourages smuggling of imported goods across the border, again because of arbitrage profits to be made.

When the extent of overvaluation of the exchange rate is taken into account, the ERP measured is referred to as the net effective rate of protection (NERP). The NERP may be expressed algebraically as:

$$\text{NERP} = \frac{(1+q)(VA_T^d + VA_{NT}^d) - VA^w}{VA^w} \times 100 \quad [4]$$

with VA_T^d and VA_{NT}^d representing domestic value added for traded goods and domestic value added of non-traded goods, respectively, and q is the estimated exchange rate distortion.

In this analysis, the ERP is estimated at the prevailing official exchange rates. The qualitative analysis of the results highlights foreign exchange rate valuation for the countries under consideration for which it is relevant.

A.2.5 Negative Value Added at World Prices

The analysis reveals that a number of firms in each country have negative value added at world prices. The incidence of negative value added at world prices indicates that the cost of inputs into the production process exceed the value of sales by more than the returns to labor and capital.

For example, a car assembly plant may have negative value added at world prices if the cost of the imported components exceeds the world value of the completed car. Where negative value added at world prices occurs, the assembled car is worth less than its component parts. This implies that the resources used in the production of the car would certainly be better employed elsewhere. The country would actually increase the value of its total output and save foreign exchange by closing down the factory, releasing and reallocating its resources, and importing its requirement of the closed factory's output.

With negative value added at world prices, the ERP may be regarded as infinite or extremely large. This means effective protection must be maintained at an inordinately high level in order to protect the activity. Since this would distort the sector and sub-sector averages presented in the results, no ERPs are presented for firms with negative world value added.

A.3 Assessing the Balance of Incentives

A.3.1 Introduction

As already explained, policy makers employ a number of measures which affect the domestic prices of goods, whether this is intended or not. The consequence is to introduce a “wedge” or differential between the prices that exist in the home market and those prevalent in other markets. These other markets are potential or actual export markets for domestic products.

Effective protection analysis highlights the interaction between protecting both inputs and outputs, and the consequences such protection has on the incentives facing a particular sector. Anti-export bias reveals the influence protection can have on the overall balance of incentives in favor of import competing production relative to exportable production. The “positive” protection that producers enjoy on their output is only available in their home market, in other markets they will either enjoy no such protection (where there is no tariff on their product, referred to as the undistorted or world market) or less protection, where the country of destination levies a smaller tariff than the home country. If producers enjoy protection in their home market, will they still want to sell in markets where they receive less or even no protection?

A.3.2 Methodology

The countries under consideration operate multiple tariff schedules. They all have a standard rate, extended to all non-preferential partners, called the most favored nation (MFN) rate. In the case of the SACU members¹⁷, this is a common external tariff. All SACU members levy the same tariff on imports from outside their customs union (and no tariff on intra-union trade). The countries further operate one or both of the COMESA and SADC preferences. Officially, COMESA entered into a full Free Trade Agreement as of October 2000. In practice only some of the members have removed their tariffs on imports from other COMESA countries altogether¹⁸. The SADC FTA came into effect in December 2001 and the Member States should have implemented their second cut in tariffs on 1 January 2002, both towards South Africa and towards other Member States¹⁹. Some countries also operate bilateral trading agreements, whereby they extend or enjoy preferential tariffs from one partner country²⁰.

Whereas ERPs quantify the combined effect of price distortions on outputs and inputs, they measure the proportion by which an activity’s value added at domestic prices differs from that which would be realized if the prices of its products and inputs were not distorted. The

¹⁷ The Southern African Customs Union comprises Botswana, Lesotho, Namibia, South Africa and Swaziland.

¹⁸ Malawi, Mauritius, Zambia and Zimbabwe extend 100% preferences, DRC 70% preferences, while Angola, Namibia, Seychelles and Swaziland remain at full MFN.

¹⁹ SADC Member States agreed to operate two tariff reduction schedules: a differentiated offer to all Member States except South Africa and an offer specific to South Africa, which recognizes the latter’s more developed production capacity and therefore lowers tariffs later and slower than the differentiated schedule.

²⁰ Malawi, Mozambique and Zimbabwe have bilateral agreements with South Africa, though these should have lapsed upon introduction of the SADC FTA.

study considers three ERPs: the rate of protection received in the home market, the rate enjoyed on the regional export market and that prevailing on the world market. These three ERPs are derived by alternatively applying, home, regional, and no tariffs respectively to the domestic production structure²¹.

By looking at the relative ERPs for each of these, it is possible to quantify the extent to which domestic producers are discouraged from producing for export, depending on the level of protection they enjoy in their various markets. The analysis is made here for two alternate export markets: exports outside the region, taken to be made in markets where no tariffs are levied, and regional exports, by which is meant exports to preferential markets in the region (COMESA and SADC). In the latter markets, exports enjoy some tariff protection, to the extent that the partner country extends a preference over the MFN rate in effect for that market.

AEB compares the average ERP for import-competing producers with the average rate of protection that applies to exports in a given market. Algebraically, the bias against exporting to regional preferential or world undistorted markets is expressed by:

$$AEB^E = \frac{ERP^I + 1}{ERP^E + 1} \quad [5]$$

where ERP^I is the average net rate of protection to imports as a percentage of import value and ERP^E is the average net rate of protection to exports as a percentage of export value (alternately in the regional or undistorted, world export market).

The model takes the overall average rate of protection across all the firms surveyed and compares the resulting ERP if they were producing solely for the domestic market with their ERP if they were selling all their output in the world market; while in order to assess the aggregate degree of protection within the regional market, anti-export bias will also be calculated by comparing the ERP in the domestic market with the ERP if firms produced entirely for the regional market.

The analysis presents results for AEB both by broad activity sectors and as an economy-wide average. Where AEB is greater than one, there is bias against exporting in the relevant market: the level of effective protection enjoyed in the home market exceeds the level achieved by exports and thus discourages from exporting. This implies an import-substituting regime and clearly has negative implications for foreign exchange revenues, openness and economic growth. A ratio of one indicates neutrality, while AEBs of less than one reflect a pro-export bias.

It will be recalled that negative value added at world prices can be observed, in which case no ERP may be calculated. Rather, it is represented that the level of protection needed to motivate domestic production in such cases is extremely high in terms of costs and benefits to

²¹ See Appendix B on the calculations.

the economy. For similar reasons, no AEB may be calculated where negative world value added is observed. Equally, where this is observed, the bias against exporting (in any and all markets) will be infinite.

Appendix B – Trade and Tariff Data

Trade and tariff data were required for each of the SADC countries, in order both to analyze trade within SADC, and to quantify trading incentives.

Trade and tariff information is generally collected and compiled under the Harmonized System of classification. This international convention organizes all traded products into set 2-digit chapters (e.g. 01 – Live animals), 4-digit headings (e.g. 0302 – Fish, fresh or chilled) and 6-digit sub-headings (e.g. 300510 – Adhesive dressings) which organize products into broad groups then refines their definition and classification according to the processing undergone. The classification allows for further subdivisions at 8-, 10- and 12-digit level, but these are non-standard, intended to give individual countries the option to further refine both their product definitions and tariffication level.

B.1 The Original Data

Requests were extended to each of the countries for their trade data, usually classified at the 8-digit HS level, for the latest full two years. Botswana, Lesotho and Swaziland collect their trade numbers only at 6-digit level, while Namibia was unable to provide any breakdown of her trade. Data for Mozambique was also made available at 6-digit level. Considerable resources were expended in obtaining the data from Member States. The trade data arrived over a period of several months and, as noted in more detail below, required substantial “cleaning” to ensure a consistent dataset. The data was received from the countries as follows:

	Imports	Exports
Botswana	HS6	HS6
Lesotho	HS6	HS6
Malawi	HS8, by country	HS8, by country
Mauritius	HS8, by country	HS8, by country
Mozambique	HS6	HS6
Namibia	n/a	n/a
South Africa	HS8, by country	HS8, by country
Swaziland	HS6	HS6
Tanzania	HS8, by country	HS8, by country
Zambia	Still awaited	Still awaited
Zimbabwe	HS8, by country	HS8, by country

Unfortunately, the countries did not provide their data in a consistent format or support. While most provided digital files of the information, some of the data had to be imported from text form into a spreadsheet (Mauritius) and some typed in from paper (Lesotho). All data was first checked for consistency across country and product, and totals.

The raw data files of HS 8-digit imports and exports by country of source or destination, contained from 179 lines (Lesotho’s exports) to 93,484 lines (South Africa’s imports). The next step was to aggregate trade across the countries, obtaining two figures for each product:

total imports (or exports) and SADC imports (or exports). This reduced the files to more manageable proportions (up to 9,436 lines for South Africa's exports).

B.2 Matching Trade to Tariffs

As noted above, the HS classification distributes products between standard 2-digit chapters, 4-digit headings and 6-digit sub-headings. The 8-digit level allows individual countries to further separate products for their own processes. As such, while the 6-digit product codes should be the same across countries since these have been agreed to be consistent, the 8-digit codes will differ.

It was agreed early on in the TNF that tariff negotiations would follow the countries' tariff books, listed at the 8-digit level. But in order to compare the countries' tariff structures, the 6-digit level would have to be created. The next step in treating the trade data was therefore to realign this data with the countries' tariffs at the 8-digit level, so that aggregation at the 6-digit level could be derived. This is based on the tariff offers provided by the countries to the SADC Secretariat.

Realignment is extremely time-consuming, as suggested by the table below, which lists the number of lines in the tariff book of each country vis-à-vis the number of entries obtained for imports and exports (world and SADC, where there are many fewer entries for SADC):

	HS8 Tariff lines	HS8 Imports lines	HS8 Exports lines
Botswana*	7,791	4,693	2,729
Lesotho*	7,791	3,222	179
Malawi	5,443	3,934	864
Mauritius	5,479	4,562	2,392
Mozambique*	5,245	3,075	--
South Africa	7,791	7,214	9,436
Swaziland*	7,791	4,337	2,624
Tanzania	6,217	4,552	1,130
Zambia	6,066		
Zimbabwe	7,944	5,944	3,767

*For Botswana, Lesotho, Mozambique and Swaziland, the number of tariff lines is at HS8 but the number of lines of trade is at HS6.

B.3 Aggregating to the Common HS6 Level

A file was created for each country, containing HS8 code, MFN rate, differentiated phase-down, RSA phase-down²², world imports and SADC imports. The next step would aggregate the information to 6-digit level. Clearly, trade can readily be summed. For tariffs however, it was decided to calculate both simple averages and import-weighted averages. MFN rates were weighted by world imports, while the SADC offer phase-downs were weighted by SADC imports, so that:

²² The TNF agreed to recognise the more developed status of the South African economy by extending slower tariff reductions to South Africa, and faster phase-downs to other Member States (the differentiated offer).

HS8	MFN	RSA	SADC	World imports	SADC imports
26090010	10%	10%	5%	25,000	10,000
26090020	5%	5%	0%	47,000	5,000
26090090	5%	0%	0%	1,350	23

yields a single line:

HS6	Simple averages			Weighted averages		
	MFN	RSA	SADC	MFN	RSA	SADC
260900	6.67%	5%	1.67%	6.70%	8.32%	3.33%

The list of HS 6-digit codes is a standard, common catalogue for all, and was obtained from WCO. There are 5,114 active tariff lines. A macro was designed that first went through the HS8 codes of a given country's tariff book and matched them to the HS6 master. Where no corresponding (master) code was found, either the tariff line was deleted if there were no imports attached, or the imports were reassigned to the country's nearest code with a similar tariff structure.

A second macro was designed to calculate simple and weighted averages as explained above. Where the country's HS 8-digit file did not list a tariff for one of the HS6 master codes, the macro returns a "N/A" entry. This occurred for up to 6 codes for each country, and queries were raised with the countries in this respect. Where no MFN and SADC phase-downs were provided, zeroes were entered for the relevant tariff line. The assumption is that if the country lists no tariff for a product, it will have to let that product enter at zero duty. While other alternatives could be postulated (taking the nearest rate or some average), the advantage of this method is that it is consistent and, if anything, understates protection.

Weighted averages were calculated as shown above, by world imports for MFN rates and by SADC imports for the two alternate SADC phase-downs (RSA and differentiated offers). Clearly, there were instances where no imports were recorded, either in total or for SADC. In such cases the weighting is zero, so that if none of the HS8 entries have imports, the corresponding HS6 line will have a zero import-weighted tariff. Where there was no HS8 tariff, so that the simple average was listed as "N/A", a zero also appears, since whatever the tariff, there are no imports for that line (as it does not appear in the country's tariff book).

B.4 The Policy Files

In terms of the model and the calculation and simulation of incentives, a trade policy file was thus constructed for each SADC country, along the identical format of 5,114 HS6 tariff lines and containing 16 columns:

1. HS 6-digit code
2. MFN simple average

3. COMESA simple average²³
4. RSA offer, simple average, 2001 (start year)
5. RSA offer, simple average, 2004 (mid year)
6. RSA offer, simple average, 2008 (“end” year)
7. Differentiated offer, simple average, 2001 (start year)
8. Differentiated offer, simple average, 2004 (mid year)
9. Differentiated offer, simple average, 2008 (“end” year)
10. MFN weighted average
11. RSA offer, weighted average, 2001 (start year)
12. RSA offer, weighted average, 2004 (mid year)
13. RSA offer, weighted average, 2008 (“end” year)
14. Differentiated offer, weighted average, 2001 (start year)
15. Differentiated offer, weighted average, 2004 (mid year)
16. Differentiated offer, weighted average, 2008 (“end” year).

B.5 Specific Rates

While most of the SADC countries have undertaken substantial reform of their tariff policy, and as a result apply systematic ad valorem tariffs, six retain specific rates: Zimbabwe and the five members of SACU, who impose a common external tariff.

For Zimbabwe, 26 specific MFN rates and corresponding phase-downs were found. These lie mostly within headings 2203 (beer), 2207 (ethyl alcohol), 2208 (spirits), 4011 (tyres) and 4012 (used tyres). It is necessary to convert the specific rates to ad valorem equivalents. There are two main approaches, price comparisons, and ex-post duty rates based on the revenue collected. Since we had information on duty collected we derived ad valorem equivalents from the duty collected. The tariff revenue actually collected on the total imported value of the imported products was calculated as a percentage of the import -this was deemed to be the ad valorem equivalent. This was calculated for 26 products, given the tendency of ex post tariff rates to underestimate the marginal tariff rates because of exemptions this will tend to underestimate the ex ante nominal rate of protection. In several instances, the collection-derived rate differed significantly from neighboring codes’, which would skew the results. A final revision therefore took into account the structure of the tariff book and of the phase-downs, to estimate the ad valorem equivalents.

For SACU, the task was more daunting as a total of 1,992 specific rates were in effect in June 1998 (the reference year for the tariff negotiations of SADC). However, SACU undertook some overhaul of its external tariffs in the late 1990s, and committed to revising its SADC offer²⁴ downwards accordingly. Hence as a first step, the new ad valorem MFN rates of 2000, listed in the offer, were used to replace the relevant 1998 specific rates. This reduced

²³ This appears only for the COMESA members, and is zero for Malawi, Mauritius, Zambia and Zimbabwe, who extend 100% preferences to COMESA partners. Namibia and Swaziland cannot extend preferences, so that the SACU common external tariff appears. Angola, DRC and Seychelles do not have usable tariff books so this entire exercise was not undertaken for them.

²⁴ The five members of SACU had to extend a single, joint offer to SADC since they are linked in a common external tariff. Clearly, there is only one offer since the two offers of other countries seek to separate RSA.

the number of specific rates to 204. The phase-down of the SADC offer was based on the category indicated in the offer (A – immediate phase-out, B1 – zero in 2003, B2 – zero in 2004, B3 – zero in 2005, B4 – zero in 2006 and C – no phase-down) and the linear scheme of reductions adopted by SACU.

For the remaining 204 products with specific rates, an exercise similar to that undertaken for Zimbabwe was required. Ad valorem equivalents were calculated based on collections. They were complemented by and compared to rates calculated for December 2001 by South Africa's DTI. Finally, the rates derived were compared to those of neighboring codes for product range consistency. Again, the SADC phase-down was based on the category listed.

The table overleaf shows the distribution of tariff lines and of SADC imports by range of tariffs: zero-duty, greater than zero but less than 10%, 10% or more but less than 20%, 20% or more but less than 30%, 30% or more. The highest tariff observed, and its product code, is also listed. It should be noted that for Mozambique, there are no tariffs between 7.5% and 35%, while for Zambia the maximum rate is 25%.

Distribution of tariff lines and SADC imports at HS8

	Number of MFN lines							SADC imports				
	Total	at 0%	0-9.99%	10-19.99%	20-29.99%	>30%	Maximum MFN	at 0%	0-9.99%	10-19.99%	20-29.99%	>30%
Botswana*	5,114	53%	9%	15%	11%	12%	325% (070320)	35%	21%	18%	14%	12%
Lesotho*	5,114	53%	9%	15%	11%	12%	325% (070320)	37%	21%	18%	8%	15%
Malawi	5,443	2%	36%	23%	1%	38%	30%	13%	24%	28%	9%	26%
Mauritius	5,419	28%	4%	31%	5%	34%	80% (784 lines)	56%	4%	15%	4%	20%
Mozambique	5,245	1%	63%	0%	0%	36%	35% (1875 lines)	3%	78%	0%	0%	19%
Namibia	5,114	53%	9%	15%	11%	12%	325% (070320)	-	-	-	-	-
South Africa	7,791	45%	5%	15%	11%	24%	325% (070320)	52%	4%	15%	9%	20%
Swaziland*	5,114	53%	9%	15%	11%	12%	325% (070320)	37%	20%	21%	12%	10%
Tanzania	6,217	0%	10%	8%	20%	62%	30%	1%	8%	11%	39%	41%
Zambia	6,066	21%	14%	33%	32%	0%	25%					0%
Zimbabwe	7,933	5%	25%	24%	5%	42%	100% (19 lines)	17%	49%	6%	11%	17%

* For Botswana, Lesotho, Swaziland, the analysis is at HS 6-digit level

Appendix C – The Firm Level Survey

Firm level surveys were undertaken in all 14 SADC countries. The surveys were based on the two questionnaires reproduced in Appendix D. The first is a quantitative questionnaire, which collects the information needed to establish the production coefficients – the relationship between inputs and outputs – in the region and derive from them the effective rates of protection in effect in each country. The qualitative questionnaire aims to supplement the raw numerical data with other aspects of the operating environment, such as market bias, non-tariff barriers, bureaucratic impediments and the business community's awareness of the region's opportunities.

It was envisaged that between 30-40 firms would be interviewed in each country, with up to 100 in South Africa. The surveys were carried out by small teams of interviewers and managed by a regional consulting company: Imani Development (International) Ltd managed the surveys in Lesotho, Mozambique, Namibia, South Africa and Swaziland, while BIDPA covered Botswana. The COMESA Secretariat directed the firm level surveys in all the remaining countries. Thus work in SACU and Mozambique was supervised by the SADC study team, while work in the other countries, including Tanzania, was managed in the first instance by the COMESA team. Close ties were maintained between the two teams to ensure consistency in process and outcome.

The table below summarizes the returns from the survey.

	Firms contacted	Questionnaires returned	Number of sectors	Number of products
Botswana		26	18	79
Lesotho	40	25	9	37
Mozambique	39	13	4	10
Namibia	40	15	6	51
South Africa	422	58	20	83
Swaziland	50	40	18	61
Angola				
DR Congo				
Malawi				
Mauritius				
Seychelles				
Tanzania				
Zambia				
Zimbabwe				

Appendix D – Survey Questionnaires

[This 4-page questionnaire is to be printed on a single, double-sided A3 landscape sheet]

ECONOMIC IMPACT STUDY

SADC / COMESA

**PLEASE NOTE ALL INFORMATION SUPPLIED HEREIN IS
STRICTLY CONFIDENTIAL**

COMPANY REFERENCE NO.

Should you require any assistance in completing this form, please contact:

[Regional consultants' details will appear here]

NOTES TO ASSIST COMPLETION

The annual production in Section (B) must correspond to the material inputs in Section (C), and all the overheads in (E) and labor costs in (F). Please enter all values in thousands of units of the local currency (as specified in (A)3.), except for ex-factory unit prices as appropriate. Use decimals as necessary. Enter quantities in the most appropriate units, and specify both the unit of measure (e.g. tones), and the quantity (e.g. thousands).

Section (A) – General Information

All the information on this questionnaire must be from the same year, namely the most recent complete year as specified in (A)1.

Section (B) – Annual Production

- (i) If your firm produces more than one distinct product group, enter each product group separately. Products can be grouped together if they have the same tariff heading. For more than 10 products continue on the back page.
- (ii) Please enter the tariff code, if known, that is applied by customs for the import of this product. Please indicate on the back page any problems your firm faces from imported products. If known, provide details of world prices (i.e. outside SADC/COMESA) for competing products of a similar quality.
- (iii) The production volume should be specified with the units in the adjacent column. These should be in internationally recognized units such as tones, kg, litres, etc. Please do not use “cartons”, “rolls” etc.
- (iv) The ex-factory unit price should exclude sales tax or value added tax. Please specify if the unit price is in different units from those stated in the production unit column e.g. production unit in tones, unit price in kilogrammes.
- (v) Please enter the product destination: whether domestic sales; SADC or COMESA (region); the rest of the world (other); or stocks. These entries should be listed as percentages in the appropriate columns, where the sum $a+b+c+d = 100\%$. Please indicate your key regional markets on the back page.
- (vi) Please enter sales revenue for the latest year that corresponds with the production data given in (B).

SECTION (C) – MATERIAL INPUTS

- (i) Please give as much detail on type of input as possible. For more than 20 inputs, continue on the back page. Inputs can be grouped together if they share the same import tariff code.
- (ii) Please specify the input usage by product group. For example, if there are two product groups, wire products and sheets, and the input is steel billets used in the ratio 30 per cent to wire products and 70 per cent to sheet, the input usage columns should read “A=30%, B=70%”.
- (iii) Please enter the cost of material inputs, specified in local currency, under the relevant origin column (home, regional sources, rest of the world, where $a+b+c = 100\%$). Do not include any sales tax or VAT in the valuations. Please indicate your key regional sources of inputs on the back page.
- (iv) Enter the value of sales tax or VAT under the appropriate column. Please indicate on a separate piece of paper if any of your imported inputs have exemptions from the normal duties and taxes.

Section (D) – Stocks

Enter the difference in value between the opening and closing stock balances for the year. Please distinguish between input (materials) and output (finished goods) stocks, and indicate stock decreases in brackets.

Section (E) – Overheads

All overhead costs must relate to the production volume in (B). Indirect labor should be included in section (F). Dividends should not be included.

Section (F) – Staffing and Labor

The staffing and labor costs, including directors fees, should include benefits such as medical cover, pensions, insurance, etc. and bonuses in addition to wages and salaries. Where possible, numbers of nationals and expatriate personnel and their costs should be identified.

Section (G) – Profit Before Tax

This is a check to ensure that the values entered in sections (B), (C), (D), (E) and (F) are consistent. The total sales revenue in (B) for the last year, less the cost of domestic and imported inputs in (C), plus the value of the stock adjustment (or minus

stock-adjustment if the value is negative), less the overheads in (E) and the staffing and labor in (F), must equal profits before tax. This figure excludes import duties, sales taxes and duties and corporate taxes.

INDUSTRIAL QUESTIONNAIRE

(A) GENERAL INFORMATION

1. Year to which data refers _____	2. Month of year end _____	3. Specify Currency _____
4. Capacity Utilization % _____	5. Number of shifts per day _____	

(B) ANNUAL PRODUCTION

Product	Tariff Code (HS)	Prodn. Volume	Prodn. Units	Ex-Factory Unit Price	Destination (%)			Stock d	Sales Revenue ('000)
					Home A	Region b	Other c		
A.									
B.									
C.									
D.									
E.									
F.									
G.									
H.									
I.									
J.									
Total									

(C) MATERIAL INPUTS USED IN PRODUCTION

Inputs	Tariff Code (HS)	Input Usage by Product Line (%)										Quantity of Material	Units	Cost of Materials ('000)			Sales Tax/VAT Paid	
		A	B	C	D	E	F	G	H	I	J			Home a	Region b	Other c		
1.																		
2.																		
3.																		
4.																		
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		
11.																		
12.																		
13.																		
14.																		
15.																		
16.																		
17.																		
18.																		
19.																		
20.																		
Total																		

(D) INCREASE (DECREASE) IN TOTAL STOCKS ('000)	Inputs		Outputs	
---	--------	--	---------	--

(E) OVERHEADS

Overhead	Costs ('000)
1. Electricity	
2. Telecommunications	
3. Water	
4. Fuel	

(F) STAFFING AND LABOUR

Staff	Total Annual Cost ('000)		Number of Employees	
	Local	Expatriate	Local	Expatriate
1. Managerial/Admin.				
2. Professional				
3. Skilled Manual				

[This qualitative questionnaire will finesse the quantitative information collected above]

Questions to support interviews

How representative is the year you used to fill in the questionnaire?

Have there been significant changes in your operation in the past 5 years?

Were these changes in production? In marketing? In sales performance?

Were they the result of a decision on your part or the consequence of an outside factor? If the latter, which factor(s) influenced the change(s)?

How long have you been operating (years)?

If capacity utilization is less than 60%, why? Is this a recent situation? What are its causes (lack of finances, old machinery, falling demand)?

What are the top 5 obstacles you face? (Tariffs? Labor? Standards? Utility costs? Financing? Debtors? Transport and handling? Exchange rate?)

Which incentives do you receive from Government?

Fiscal? Labor development? Market dependent (duty drawback, export subsidies)?

Do you own the land your facilities are located on?

How long is the lease?

Do you own the facilities?

Were they purpose-built for your operation?

When were they built?

Do you own the machinery?
Where did you source it?

Are there regional suppliers?
Are there problems in sourcing machinery from the region?

How old is the machinery?
What about maintenance? (in-house, local/regional subcontract)

How would you describe labor?

Skills?
Reliability?
Absenteeism?
Theft?
Are there problems in obtaining work permits?

How reliable are water, energy and telecommunication supplies?

Do they impair smooth operation?
Have you lost production or sales as a result of interruptions? (give examples)

Do you always source your main inputs from the same suppliers?
Do you have a special relationship with them?

Are there regional alternatives?
Have you tried them?
Were they not reliable, or not of equivalent quality?

How much stock do you keep?
Why? (both on inputs and outputs)

Does transport (and handling at ports) play an important role?

Are there problems of cost? Of reliability?

Which are your key markets? What share of your sales goes to each?

Under which trade regime do you trade in exports: COMESA, SADC, bilateral?

Have these changed over the past 5 years? In the last 2 years?
How so (distribution, demand changes, entry requirements)?

Do you have competitors on the domestic market?

In your export markets?
Are they local, regional or international operations?

Do you have mostly regular customers?

Do you sell most of your output yourself?

How responsive are you to your customers?
Can you tailor your product to new requirements? Do you have examples of doing so?

Do you travel to improve export sales?
Have you taken part in trade missions? Were there positive (or negative) results from these?

Where do you find information on new products? New markets? New partners?

Are you aware of special trading arrangements? Which? (COMESA, SADC, bilaterals)
What is your experience of them? (stress rules of origin)

Are your national customs comfortable with them?

What do you expect will be the impact of the COMESA FTA and/or SADC FTA? Why?

Have you had new enquiries for your products since the introduction of COMESA (October 2000) or SADC (December 2001)?

Where do you see your business going? Over the next year? The next 5-10 years?

What else could Government do to improve the conditions in which you operate?
(investment/export promotion, infrastructure, forex, finances)

Appendix E – Practical Calculations

E.1 Introduction

The purpose of this appendix is to describe the practical calculations necessary to estimate ERPs by combining the theory of effective protection with data on nominal rates of protection and the firm level data from the Industrial Questionnaire. The objective is to calculate *three* rates of effective protection:

1. Domestic ERP: Measures the protection which domestic producers receive in their home market²⁵
2. Regional Market ERP: Measures the protection which domestic producers receive in each of their regional export markets²⁶
3. World Export Market ERP: Measures the protection producers receive in their non-preferential, or world, export markets.

These ERPs are calculated on the basis of two possible assumptions:

1. Base Case A – Without Duty Drawbacks: Assumes that producers receive no duty drawbacks on inputs purchased for production of goods destined for export to regional or world markets.
2. Base Case B – With Duty Drawbacks: Assumes that producers receive duty drawbacks on inputs purchased for the production of goods destined for export to regional or world markets.

The following sections first outline the necessary preliminary calculations and then illustrate the calculations of the various ERPs. In generating the results for the study, a tariff impact model, described in the following section of the appendix was used for the calculations.

E.2 Preliminary Calculations

As a first step, it is necessary to make some preliminary calculations based on the firm level data collected on the Industrial Questionnaire. To illustrate the calculations, Table E.1 below presents the data for a hypothetical firm. It duplicates the industrial questionnaire although it is condensed and only the data used in the calculations is represented. The firm is typical of many of the firms in the survey. It reports the production of multiple products being sold in several markets produced with a number of tradable inputs and overhead costs. Although the sample firm reports only two outputs and three tradable inputs, the calculations outlined below can be easily generalized to more products and inputs. Two preliminary calculations are made. First, costs are allocated across the product lines and then for each individual product, the proportion of output reported by the firm as an addition to “Stock” is allocated across each of the markets.

²⁵ Note that for SACU members, the home market is the full SACU market.

²⁶ The regional markets under consideration are the SADC member states.

Table E.1: Industrial Questionnaire for Sample Firm**(B) ANNUAL PRODUCTION**

Product	Tariff Code (HS)	Prodn. Volume	Prodn. Units	Ex-Factory Unit Price	Destination (%)				Sales Revenue ('000)
					Home A	Region b	Other C	Stock d	
A. Product X					10	20	20	50	1000
B. Product Y					30	35	35	0	3000
Total									4000

(C) MATERIAL INPUTS USED IN PRODUCTION

Inputs	Tariff Code (HS)	Input Usage by Product Line (%)										Quantity of Material	Units	Cost of Materials ('000)			Sales Tax/VAT Paid
		A	B	C	D	E	F	G	H	I	J			Home a	Region B	Other c	
1. Input 1														100	100	100	
2. Input 2														0	200	0	
3. Input 3														0	0	200	
Total																	

(E) OVERHEADS

Overhead	Costs ('000)
1. Electricity	10
2. Telecommunications	10
3. Water	10
4. Fuel	10
5. Transport & distribution	10
6. Rent & rates	10
7. Repairs & maintenance	10
8. Marketing & sales promotion	10
9. Depreciation for the year	
10. Royalties / licensing fees	
11. Quota fees	
12. Management charges	
13. Interest charges	10
14. All other expenses	10
Total	

E.2.1 Allocation of Costs across Product Lines

The ERPs calculations are done at the product level (6 digit HSIC codes) for each firm. As the sample firm reports two products, X and Y, the first necessary step is to disaggregate the data into two separate, product level observations by allocating the costs of tradable inputs

and overhead across the two product lines²⁷. The calculation is straightforward: costs are allocated to each product line on the basis of the product's share in total firm revenues.

As a first step, total costs for the firm are calculated. Overhead costs for the firm, denoted C_o , are found by totaling the firm's reported costs for electricity, telecommunications, water, fuel, transport and distribution, rent and rates, repairs and maintenance, marketing and sales promotion, interest charges, and "all other expenses" – items 1-8, 13, and 14 in Part E of the Industrial Questionnaire. For the sample firm, this provides: $C_o = 100$. The firm reports the use of three tradable inputs, Inputs 1, 2, and 3. Summing the cost of each input, C_i , across all sources, provides total tradable input costs for the firm as: $C_1 = 300$ and $C_2 = C_3 = 200$.

These costs are allocated across the two products, X and Y, on the basis of each product's share in total revenue. For the Sample Firm, Products X and Y, contribute 25% and 75% respectively to total firm revenue and are each allocated a corresponding share of costs. The table below illustrates the calculation.

	Revenue	Share	C_1	C_2	C_3	C_o
Product X	1000	25%	75	50	50	25
Product Y	3000	75%	225	150	150	75
Firm	4000	100%	300	200	200	100

E.2.2 Allocation of Stocks across Markets

For Product X, the firm reports dividing its output between Home Markets (H), Regional Markets (R), Other or "World" markets (W) and Stock (S). Before proceeding, it is necessary to allocate stocks across the destination markets, which is done according to each destination market's share. The calculations are made as follows:

First, calculate the share of output going to each of the destination markets as a percentage of total output destined for the markets. Let d_i denote the reported share for each destination $i=H, R, W$, and S. The share for market m , denoted s_m for $m=H, R$, and W is given by: $s_m = d_m / (d_H + d_R + d_W)$. Next, the stock is allocated to each of the markets on the basis of s_m . The new, revised market share, denoted α_m , is then given by: $\alpha_m = d_m + s_m * d_s$ for $m=H, R, W$. It is this revised market share that will be used for the remainder of the calculations.

For Product X, the calculations provide the following:

	d_i	s_m	α_m
Home (H)	10%	20%	20%

²⁷ The responding firms were asked to report exact input usage by product line. However, the majority simply reported total costs for tradable inputs even with multiple products. For consistency in the calculations, the costs of tradable inputs were allocated on the basis of product revenue share for all firms.

Region (R)	20%	40%	40%
World (W)	20%	40%	40%
Stock (S)	50%	---	---

E.3 World Value Added Calculation

As discussed in Appendix A, the ERP compares the amount by which an activity's value added at distorted prices differs from that which would be realized if the prices of its products and inputs were not distorted through policy intervention. As the reporting firms throughout the region purchase inputs and sell outputs in markets which are distorted to a greater or lesser degree, it is necessary to determine the undistorted or "world" value added in order to estimate current levels of ERPs. The following outlines the calculations necessary to adjust both revenues and costs to their world or undistorted value.

E.3.1 Adjustments to Reported Revenue

Consider a firm which reports total revenue for an individual product, R , of which α_D is generated in the domestic market characterized by an ad valorem MFN tariff t_D . If p denotes the world price for the product, the firm will receive a price of $p_D = p * (1 + t_D)$ in the domestic market. Domestic market revenues reported by the firm on the Industrial Questionnaire will then be $(R * \alpha_D) * p * (1 + t_D) * Q_D$ where Q_D is the quantity sold on domestic markets. In order to arrive at the undistorted value for revenue, it is then necessary to deflate reported revenues by the factor $(1 + t_D)$. While reported regional revenues must be similarly deflated, using the assumption that world markets are undistorted, no such deflation is necessary for revenue earned on world markets. Thus, to get an undistorted value for firm revenues, denoted R_W , the following adjustment is made²⁸:

$$R_W = R * \left[\frac{(\alpha_D + \alpha_R)}{(1 + t_D)} + \alpha_W \right]$$

E.3.2 Adjustments to Reported Costs

The next step is to determine the undistorted value for firm costs. For tradable input i , let t_i denote the domestic MFN tariff and p_i the undistorted, world price. The price of the input in the domestic market is then $p_i * (1 + t_i)$. However, in order to determine the price paid by the firm for inputs, it is necessary to make an assumption about the type of policy regime in which the firm operates. Specifically, the model takes into account the fact that a common feature of export promotion initiatives is the provision of a "duty drawback" or duty exemption on inputs purchased for exported products. Whether or not the firm operates under such a scheme is important in determining the undistorted value of firm costs. In order to

²⁸ In the survey, firms reported the share of output going to regional markets in general – not the specific country market. As MFN tariffs can vary widely across the region, domestic MFN tariffs are used to deflate regional revenues as an approximation.

provide for the maximum flexibility in interpretation, the study reports ERPs using both assumptions. Under Base Case A (B), the firm is assumed to operate without (with) duty drawbacks.

First consider Base Case A in which the firm operates without duty drawbacks and thus pays $p_i(1+t_i)$ for each of its tradable inputs i . As with revenue, in order to arrive at an undistorted value for costs, it is necessary to deflate the reported costs by the factor $1+t_i$. For Base Case A, the cost on world markets for tradable input i is then given by: $C_i^A = C_i / (1+t_i)$

In Base Case B, it is assumed that the firm pays no duties on inputs for exported products i.e. those products sold on regional or world markets. Thus, only that portion of costs allocated to the domestic market needs to be deflated. The cost on world markets for tradable input i in Base Case B, is given by: $C_i^B = C_i * [(\alpha_w + \alpha_r) + \alpha_d / (1+t_i)]$

E.3.3 World Value Added

Having made the necessary adjustments to revenues and costs, the calculation for world value added in each Base Case is given by the value of revenue less the total costs of the product's tradable inputs and overhead costs. World Value Added for Base Case J ($J=A, B$) is then given by: $VA^J = R_w - \sum_i C_i^J - C_o$ where the costs are summed over each of the product's tradable inputs i and C_o denotes the product's overhead costs²⁹.

Having established an estimate of the undistorted value added of activities, the following sections use this information to determine value added under the distortions present in Domestic, Regional, and World Export Markets and to calculate the levels of effective protection present in each.

E.4 Domestic ERP Calculation

In order to estimate the level of effective protection in domestic markets, first it is necessary to calculate the value added of the activity if the firm faced domestic MFN tariffs on both outputs and inputs. This requires an adjustment to both revenue and costs as above. If the firm faces a domestic MFN tariffs of t_D on output and t_i on each tradable input, the value of firm revenues and costs must be inflated from their undistorted values calculated in Section E.3. Domestic Value Added for Base Case J , $J=A, B$ is then given by:

$$VA_D^J = R_w(1+t_D) - \sum_i C_i^J(1+t_i) - C_o$$

Note that the calculations for the two base cases vary only in the base used for tradable costs. The level of effective protection in domestic markets is then calculated as the proportional

²⁹ In some cases, a negative world value added was calculated implying an infinite level of effective protection. Such observations were deleted from the ERP analysis reported.

difference between domestic value added and the world value added calculated in Section

E.3. Domestic ERP for Base Case J, J=A, B is then given by:
$$\text{ERP}_D^A = \frac{\text{VA}_D^J - \text{VA}^J}{\text{VA}^J}$$

E.5 Regional ERP Calculation

In order to estimate the level of effective protection in regional markets, first it is necessary to calculate the value added of the activity if the firm faced regional market MFN tariffs on outputs and domestic tariffs on inputs. The tariff policy model includes data on MFN tariffs for each of the regional markets included in the study. As these MFN tariff rates can vary substantially across the potential regional markets, the calculations are made for each market. For example, a SACU firm could potentially sell in Malawi, Mauritius, Mozambique, Tanzania, Zambia and Zimbabwe among others. Thus, seven regional ERP's are reported for the SACU firm – one for each market.

To calculate the value added in a given regional market, **R**, consider a firm facing a regional MFN tariff on output of t_R and a domestic MFN tariff on inputs of t_i for each tradable input. The value of firm revenues and costs must be inflated from their undistorted values calculated in Section E.3. The calculations for regional market ERPs varies depending on the base case. For base case A, the assumption is that the firms must pay the tariff inclusive price for inputs and the regional value added for Base Case A is given by:

$$\text{VA}_R^A = R_w(1+t_R) - \sum_i C_i^A(1+t_i) - C_o$$

However, in Base Case B, the assumption is that firms receive duty drawbacks on inputs used for export production, including export to regional markets, so no adjustment is made to costs. The value added for regional market R in Base Case B is then:

$$\text{VA}_R^B = R_w(1+t_R) - \sum_i C_i^B - C_o$$

In each of the base cases, the level of effective protection for regional market R is then calculated as the proportional difference between regional value added and the world value added calculated in Section E.3. The ERP for Regional Market R for Base Case J, J=A, B is

then given by:
$$\text{ERP}_R^J = \frac{\text{VA}_R^J - \text{VA}^J}{\text{VA}^J}$$

E.6 World Export Market ERP Calculation

The final ERP calculation reported in the study estimates the level of effective protection firms receive on world export markets on which they receive *no* protection on output. In Base Case A, the assumption is that they face domestic MFN tariffs on inputs. World Export Market Value Added for Base Case A is then given by:

$$\text{VA}_W^A = R_w - \sum_i C_i^A(1+t_i) - C_o$$

However, in Base Case B, firms are assumed to receive duty drawbacks on inputs purchased for world export markets thus no adjustment is made to costs. World Export Market Value Added for Base Case B is then given by:

$$VA_w^B = R_w - \sum_i C_i^B - C_o$$

In each of the base cases, the level of effective protection on world export markets is then calculated as the proportional difference between world *export* market value added and the world value added calculated in Section E.3. The World Export Market ERP for Base Case J,

J=A, B is then given by: $ERP_w^J = \frac{VA_w^J - VA^J}{VA^J}$. Note that for Base Case A, if the firm faces

any domestic tariffs on inputs, World Export Market ERP will be negative – its maximum value will be zero. By contrast, in Base Case B, World Export Market ERPs will be identically zero – as the firm does not benefit from protection on outputs and, by virtue of the duty drawback assumption, faces no tariffs on inputs.

E.7 Anti-Export Bias Calculation

It is also possible to calculate anti-export bias (AEB) on the basis of the study results vis-à-vis both the regional and the world markets, at some level of aggregation (e.g. ISIC 3-digit level) and economy-wide. The calculation measures the extent to which the levels of ERP bias producers against exports. If, for example, ERPs are higher in domestic markets than in regional markets, producers will favor production for the domestic market place. The AEB for regional market R in Base Case J, J=A, B is calculated as:

$$AEB_R^J = \frac{1 + ERP_D^J}{1 + ERP_R^J}$$

Note that the index is such that an AEB greater than one indicates a bias against exports to the regional market. Similarly, a measure of the bias against world markets for Base Case J, J=A, B is given by:

$$AEB_w^J = \frac{1 + ERP_D^J}{1 + ERP_w^J}$$

Appendix F – The Trade Impact Model

The methodology is presented in Appendix A above. The model for Estimation of Effective Rates of Protection incorporates the steps described in other sections in terms of collation and treatment of the data and presents consistent results in a user-friendly format.

The model offers a data input interface and standard report structures, with all user interfaces in the Windows environment. A user's manual specific to inputting data and modifying the model parameters, and an economic guide to interpreting the results, are being finalized.

F.1 Country Trade Policies

The intention was to model a number of alternate policy scenarios for each of the countries under consideration. The variety of countries and multiplicity of regional integration paths within the region required a large number of runs of the model. The results of some of the simulations are presented in the main report. The simulations show the overall impact of trade policy incentives on both the aggregate economy and between sectors within the economy. The multi-country nature of the study also allows for an assessment of the relative impact of incentives on equivalent sectors across the region as well as more aggregate comparisons.

F.2 Simulations and Results

Current protection levels were estimated for each of the countries, both for the overall economy and by broad sectors of activity. The protection afforded in the home market was benchmarked to the conditions on the world market, which is assumed to give no protection. Protection was estimated for exports to preferential regional markets, where a different structure of protection is enjoyed.

Five alternate scenarios can be simulated for each of the SADC countries.

- The first scenario considers the impact of introducing a uniform tariff on inputs and/or outputs, set by the user. Economic theory supports uniform taxation structures as least likely to distort underlying endowments and the resulting dynamics of an economy. Several of the countries under consideration already operate tariff regimes with a small number of bands, but retain cascading tariff protection based on product-use: raw material, intermediate input, final consumer good or luxury product. Cascading tariffs result in the downstream activities having much higher levels of effective protection than the rest of the economy.
- The second scenario enables a three-tier tariff simulation, on inputs and outputs. This considers the effect of applying uniform tariffs in three bands rather than one, based on the original tariff in force and the product use (input/output).
- The third scenario simulates a uniform cut on inputs and/or outputs. For example, a halving or 10% cut in existing tariffs, which would keep the banding but lower tariffs in a

consistent fashion. This mirrors the approach taken by COMESA, which increased tariff preferences in 10% increments until the full MFN tariff was removed from intra-COMESA trade in 2000.

- The fourth scenario assesses the impact of a four-tier tariff based on product type, such as the proposed COMESA common external tariff. The COMESA agreement seeks to move from free trade area to customs union, that is free internal trade coupled with the same external tariffs on all non-member countries, by 2004. In this respect, a CET has been proposed by the COMESA Secretariat, with three tariff bands plus zero-rates, based on the type of product (material, intermediate or final). This structure is not far from that in use in several of the countries, albeit with different rates, and would be of particular interest for SACU, which operates a vastly different system.
- The fifth scenario allows the selection of one country's tariff structure for inputs and one for products and applying to a third country's production coefficients.

Throughout all the estimations, the model enables sensitivity analysis in relation to non-traded goods, as the study did not allow a comprehensive estimation of the extent to which their actual prices diverge from the economic price (i.e. the shadow price that reflects the opportunity cost of the product/service). Within many economies in the region actual prices will diverge considerably from the shadow price because of distortions in factor markets. The sensitivity analysis conducted ensures the robustness of the results. However, experience from effective protection studies across a wide range of countries suggests the assumptions used for dealing with non-traded goods rarely influence the overall results, and this is indeed borne out by the results presented in the main report.

Appendix G - Other Trading Agreements Involving SADC Member States

Current trading arrangements that exist within SADC can be grouped into four categories.

The Southern African Customs Union (SACU)

SACU was originally formed in 1910 between South Africa and the so-called BLS states (Botswana, Lesotho and Swaziland) and re-negotiated in 1969. Namibia joined formally in 1990 when it gained political independence from South Africa, although as an administered territory of South Africa, it was a *de facto* member. There is no customs duty payable on goods traded within the customs union. There is a common external tariff, with centralized duty collection that is allocated to the Member States based on an agreed revenue formula each year. The re-negotiation of its 1969 Agreement was concluded in October 2001, after almost 8 years of 'on-off' negotiations. Agreement was reached on a new revenue sharing formula and the new institutional dispensation. However, the 1969 SACU Agreement is still in place, the new Agreement having yet to be ratified by all parties.

Under the new SACU Agreement trading arrangements would only be possible with SACU as a whole, and not with individual SACU members. However, Article 31 allows member states to maintain preferential trade and other related arrangements existing at the time of the entry into force of the Agreement. Members shall establish a common negotiating mechanism for the purpose of undertaking negotiations with third parties and shall not negotiate and enter into new preferential trade agreements with third parties or amend existing agreements without the consent of the other members.

The Common Market for Eastern and Southern Africa (COMESA)

COMESA was formerly known as the Preferential Trade Area for Eastern and Southern Africa (PTA) founded in December 1981. It consists of 21 Member States in Eastern and Southern Africa. Nine COMESA states also belong to SADC. These are Angola, Democratic Republic of Congo, Malawi, Mauritius, Namibia, Seychelles, Swaziland, Zambia and Zimbabwe. Within COMESA nine members including the SADC countries of Malawi, Mauritius, Zambia and Zimbabwe joined the COMESA Free Trade Area that entered into force on October 31, 2000. This provides for tariff-free trade on all originating imports from participating countries. Due to their membership of SACU, Namibia and Swaziland are unable to offer any concessions from their Common External Tariff to other COMESA Member States. They have been granted a derogation that entitles them to export to COMESA States at the level of preference prevailing on a non-reciprocal basis. COMESA is committed, in terms of its treaty, to becoming a customs union with a shared common external tariff in 2004 (within 10 years of the entry into force of the COMESA Treaty). Four members of SADC, Lesotho, Mozambique, Namibia and Tanzania have withdrawn from COMESA within the past five years. Angola, whilst not formally withdrawing from COMESA, no longer participates.

Cross-Border Initiative (CBI)

The CBI emerged from the Maastricht Conference on Africa in 1993. It is sponsored by, the European Union, the IMF, the World Bank and the African Development Bank as a mechanism to foster continued trade liberalization, increase cross-border trade, investment and payments in Eastern and Southern Africa and the Indian Ocean. Participating countries are expected to converge towards a moderate level of external tariff and to reduce internal tariffs and non-tariff barriers significantly. The original deadline for removing intra-CBI trade barriers was 1996. Members of SADC participating in this initiative are Malawi, Mauritius, Namibia, Seychelles, Swaziland, Tanzania and Zimbabwe. Again as members of SACU, Namibia and Swaziland could not offer reciprocal preferential treatment to other participating countries.

Bilateral Trade Agreements

There are a number of bilateral agreements between various pairs of SADC Member States.

South Africa has bilateral agreements with Malawi, Mozambique and Zimbabwe. Its agreement with Malawi provides for the controlled entry of a small number of South African products into Malawi, quota restricted entry of Malawian agricultural products into South Africa, and unrestricted access to South Africa for other goods with 25% Malawian local content. This agreement covers the bulk of Malawi's current exports to South Africa but has a negligible impact on South Africa's exports to Malawi. South Africa's agreement with Zimbabwe allows for a specified list of products to be imported into each other's markets at preferential rates of duty or duty free but with a quota. Most products from South Africa are excluded from the list of qualifying products while a limited range of Zimbabwean products are permitted. South Africa's agreement with Mozambique permits specified products to enter South Africa virtually duty-free subject to quotas on a number of more sensitive items. The arrangement covers a substantial percentage of Mozambique's exports to South Africa.

Zimbabwe has bilateral agreements with Botswana, Malawi and Namibia. All three of these are reciprocal for all qualifying products. The rule of origin requires 25% local content. Almost all the trade between these countries takes place under these bilateral agreements.

With its withdrawal from COMESA in September 2000, Tanzania has no bilateral agreements with any member of SADC. It is understood that Tanzania is continuing to apply the COMESA preferences on a reciprocal basis.

The EU – South Africa Trade, Development and Cooperation Agreement (TDCA)

Europe has historically been South Africa's dominant trading partner and in October 1999 a free trade agreement was concluded between the two parties. The TDCA provides for asymmetrical trade liberalization towards the formation of a free-trade area by 2012. South Africa will liberalize around 86% of its imports from the EU during a 12-year transitional period. The EU will liberalize 95% of its imports from South Africa in ten years, starting from 1 January 2000, when the TDCA came into force. Within these transitional periods, the bulk of industrial products will be liberalized during the first part of the tariff

phase-down period. The EU is scheduled to complete most of its obligations after 3-6 years. In the case of South Africa, sensitive products, comprising 16% of its imports from the EU, will be fully liberalized only at the end of the phase-down period.

The TDCA provides for detailed rules of origin. There is provision for bilateral cumulation between South Africa and the EU, i.e., when applying the value added rule to a product from South Africa, the value of any EU materials used is counted to determine whether it meets the origin criteria. The same rule applies when defining the origin of EU products that include South African inputs. Goods that include materials from other ACP countries are also defined as originating in South Africa, and therefore eligible for preferential access to the EU market, provided that the value added in South Africa exceeds the value of the ACP materials. This is referred to as diagonal cumulation. Products made from materials from the BLNS countries are also defined as being of South African origin if the final stage of processing is undertaken in the country, regardless of the value added. Final processing carried out in Botswana, Lesotho, Namibia, and Swaziland (BLNS) is not regarded as conferring origin. South Africa has a common external tariff with the BLNS countries, therefore any trade concession granted by South Africa to the EU under the TDCA have to be extended to all SACU members.

The Cotonou Agreement

SADC members are signatories to the Cotonou Agreement (successor to the Lomé Convention), between the EU and 77 countries in Africa, the Caribbean, and the Pacific (ACP). South Africa, however, is excluded from the trade provisions of the Cotonou Agreement. The Cotonou Agreement maintains most non-reciprocal trade preferences granted by the EU to ACP States for the period up to 31 December 2007. Thereafter, new WTO-compatible trading arrangements are to be concluded, removing barriers progressively between the parties and enhancing cooperation in all areas relevant to trade, including the formation of free-trade areas within a transitional period. ACP-EU negotiations began in September 2002, and are aimed at establishing economic partnership agreements (EPAs) on a bilateral basis or between the EU and regional groupings (regional economic partnership agreements). SADC countries (except South Africa which has already a reciprocal trade arrangement with the EU) are eligible for these partnership agreements based on reciprocal liberalization.

The African Growth and Opportunity Act (AGOA)

AGOA offers free access to some manufacturing products originating in most SADC countries (except Angola, DRC and Zimbabwe). Eligible countries African will receive GSP treatment in the U.S. market until the end of September 2008 (in contrast to general GSP treatment which is renewed on an annual basis in the United States), and will qualify for an expanded list of GSP products (beyond that available to other countries). All eligible African countries are entitled to duty-free and quota-free access to the U.S. market for apparel made from U.S. fabric, yarn or thread over an eight-year period. To be eligible countries must make progress in establishing a market-based economy; developing political pluralism and the rule of law; eliminating discriminatory barriers to U.S. trade and investment; protecting

intellectual property; combating corruption; protecting human and worker rights; and removing certain practices of child labor.

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