

Chapter 5

SACU and Mercosur: the implication of a free trade agreement for Botswana, Lesotho, Namibia and Swaziland

Ron Sandrey and Hans Grinsted Jensen

Summary and key points

The Southern African Customs Union (SACU) and Mercado Comun del Sur (Mercosur) have a partial trade arrangement that contains a provision for considering expanding this into a free trade agreement (FTA). Sandrey et al. (2010) have used the Global Trade Analysis Project (GTAP) database to assess the welfare and trade gains from such an FTA, but concentrating upon the major economies of South Africa, Brazil and Argentina. In this paper we extend that analysis to examine the implications for the BLNS (Botswana, Lesotho, Namibia and Swaziland). We note that the analysis is mostly determined by merchandise goods access only, although we allow for some gains from services trade by proxying a 2% tariff-equivalent relaxation of barriers between the partners. We also build upon the tralac analysis by Sandrey and Jensen (2009) on the implications for the BLNS of an FTA between SACU and China to compare and contrast the current SACU/Mercosur FTA with a SACU/China FTA, and in particular possible revenue implications for the BLNS from the SACU revenue pool from these FTAs.

The results for a SACU/Mercosur FTA show that there are comfortable welfare gains to South Africa. Scrutinising the production and trade results reveals that South Africa loses in the agricultural sectors, but gains in the manufacturing sectors despite the motor vehicle and parts industry coming under considerable pressure from Brazil. The overall gains come about from efficiency gains and increased investment expanding the amount of capital employed in South Africa economy. The increased agricultural imports from Mercosur lead to a marginal reduction in the prices of all agricultural products (and a decreased value of agricultural output). While this is bad news for farmers, it translates into good news for consumers as the reduced agricultural prices across the board are enough to marginally reduce the consumer price index contributing positively to the overall welfare gains for South Africa.

Both Botswana and the rest of SACU (Lesotho, Namibia and Swaziland as one GTAP ‘region’) have imperceptible welfare gains as measured by GTAP. As with South Africa, most of the interest is in the agricultural sectors, and given that Mercosur is the global benchmark producer of cattle meat and sugar (both of which are important exports from the BLNS under EU preferences), this is to be expected. There are perhaps smaller reductions than feared in both of these sectors and limited changes in other agricultural products. For manufacturing and in concert with pressure on South Africa’s vehicle sector there is also a similar small contraction seen here in the BLNS vehicles and parts sector. In trade, the direct effects are of less importance than the indirect effects as Mercosur imports in particular replace some trade between the BLNS and South Africa at the margin.

While similar macroeconomic factors as those that took place following an FTA with China are at work following an FTA with Mercosur, there are differences. The first is (a) a differences of scale in that the Mercosur impacts are more muted and (b) a difference in reallocations (while with China, the reallocations of BLNS trade and consequently production were in the manufacturing sectors, with Mercosur, they are in the agricultural sectors).

Finally, following an FTA with Mercosur, the SACU tariff revenue pool implications for the BLNS countries are substantial and sobering, although following an FTA with China they are even more substantial. Thus, it is not the direct trade effects from these FTAs that are of main interest to the BLNS but rather tariff revenue pool implications.

1. Introduction

In assessing the future trade policy options for SACU, Mercosur’s increasing role as agricultural trading giant on the world scene has to be taken into account in these considerations. The focus in this paper is on how the SACU trading relationships with Mercosur may be advanced by the adoption of free trade agreements between SACU (that includes BLNS) and Mercosur (that includes the majors of Brazil and Argentina as well as Uruguay and Paraguay and, arguably, Venezuela). To assist with this analysis the internationally accepted benchmark Global Trade Analysis

Project (GTAP)¹ database and the associated general equilibrium model will be used as the analytical tool. In undertaking this analysis, the starting point is a simulation of the 'known' and best estimate conditions that will prevail at the end of a given period (2020 in this case) followed by an assessment of the difference that the selected policy change under consideration is likely to make. The implications of this FTA for South Africa are discussed in Sandrey et al. (2010). The objective of this paper is to discuss the implications for the BLNS countries.

In the 2008 MRI publication,² Sandrey and Jensen discussed the implications for the BLNS of FTAs between SACU and China and SACU and India. Given that the same model and its associated database are used for both China/India and Mercosur³ this gives a good opportunity to compare and contrast what an FTA with Mercosur may mean for the BLNS with the FTAs discussed in 2008 with China and India. We will concentrate upon that analysis in the present paper.

In addition, as we reported, the FTA results for the BLNS as given by GTAP model output are relatively minor, and what happens to South Africa and its economy will have a significant spillover to the BLNS (Sandrey 2007). It therefore behoves us to consider the implications of these FTAs for South Africa. Again, the results between the 2008 Chinese FTA simulations and the current Mercosur work are directly comparable as the same model is used. An analysis of the overall results for South Africa and what this may mean for the BLNS will be presented to set the scene for analysis of the direct results for the BLNS.

2. The comparison between China and Mercosur for South Africa

China

Sandrey et al. (2008) reported that the China FTA results showed that there were comfortable welfare gains to South Africa of \$295 million or 0.21% of real Gross Domestic Product (GDP). Negating these were the labour market-related losses to South Africa, where employment falls by 0.13% and the real wage declines by

¹ See the GTAP website at <https://www.gtap.agecon.purdue.edu/> for a full introduction to the model.

² Monitoring Regional Integration in Southern Africa Yearbook, Volume 8 – 2008.

³ The macroeconomic database used has, however, been updated by the World Bank to reflect the 2008/09 global downturn. This makes a limited difference to modelling results as presented for 2020, as the Bank is predicting that similar growth paths to those predicted before the downturn will be restored quite quickly.

0.37%, but where at the same time the Consumer Price Index (CPI) declines by 0.86%. These labour market related changes are a function of the unskilled labour market closures used in the model, so, although indicative, they do raise distributional concerns for South Africa about an FTA with China. The overall gains to South Africa derive from enhanced allocative efficiency and capital allocation in the economy, while losses derive from labour-related losses and terms of trade that go against South Africa.

Scrutinising the results reveals that South Africa gains modestly in the agricultural sector. Enhanced agricultural exports to China of \$136 million are concentrated in vegetable and fruit products in primary agriculture and 'other foods' in processed agriculture. These increased exports are dominantly 'new' exports or trade creation rather than 'current' exports or trade diversion away from other destinations. Increased agricultural imports are minimal.

The great action, however, was in the manufacturing sector, where increased manufacturing imports from China are some \$5,493 million – although some \$3,569 million of this is trade diversion away from other sources (leaving new or trade creation imports of a much lower \$1,924m). Nearly 40% of these enhanced imports from China are in the textile, clothing and leather (footwear) sectors (TCF), with around half of these TCF imports 'new' trade. Output in the South African apparel sector reduces by a massive 42% as a result of preferential access. Other increases in manufacturing imports from China are spread across all sectors, but with 'machinery' the largest single increase outside of TCF. Trade diversion away from other suppliers rather than new imports is more evident outside of the TCF sectors. Balancing this Chinese intrusion is the fact that manufacturing exports to China increase by \$644 million, and, even better, manufacturing exports increase by \$955 million to other destinations as the South African economy becomes more competitive. This gives an increase of \$1,428 million in global manufacturing exports. These increases are concentrated in chemicals, plastics and rubber, non-ferrous metals, vehicles, general machinery and 'other manufacturing'.

In the final analysis, the situation that will eventuate in an FTA with China is for the South African economy to undergo a devaluation of the real exchange rate due to cheaper Chinese imports reducing domestic market prices in South Africa. This leads

to a terms of trade loss in that exports become cheaper. This then results in South Africa being able to expand its exports not only to China but also to the rest of the world. In total, the South African economy gains from this devaluation (lower prices) because the value of total income (sum of primary factor income and indirect tax receipts) in South Africa declines by less (-0.68%) than the general market price reductions (-0.77 price index for disposition of income) giving rise to an increase in Equivalent Variation (EV) of US\$295 million in fixed prices.

Mercosur

Here Sandrey et al. (2010) report that, following an FTA with Mercosur, a similar pattern emerges but that there is a much smaller reduction in South African real prices as the economy similarly becomes more efficient with better capital utilisation in response to more competitive Mercosur imports. This in turn also leads to a devaluation of the real exchange rate in South Africa, boosting exports albeit with a terms of trade loss (exports become relatively cheaper than imports). As from the FTA with China, the South African economy gains from this devaluation of the real exchange rate (-0.0579%), even though the value of total income (sum of factor income and indirect tax receipts) declines by -0.0676%, prices decline by more (-0.1391%). The final outcome is then giving rise to the increase in EV of 236 million US\$ in fixed prices. Note that this welfare increase is almost as large as the \$295 million welfare gain from the Chinese FTA.

However, an FTA with Mercosur is not good news for the South African agriculture sector. Imports of agricultural products increase dramatically: by \$422 million from Mercosur (with \$353 million of this from Brazil), but trade diversion away from other sources of (a) the BLNS which reduce by \$34 million, (b) all other sources which reduce by \$346 million limit, and (c) the overall increase in imports into South Africa to a lesser but still significant \$140 million. New exports from the agricultural sectors are modest (\$84 million) although they largely appear to be 'new trade' or trade creation rather than trade diversion. This is somewhat encouraging, but countering this is the finding that there are marginal reductions in the prices of all agricultural products. Overall, the decreased value of production in South African agriculture of \$418 million is significant, with much of this coming from reduced chicken meats and vegetable oilseeds production. A final outcome is that there is a decline of 0.50% in

land prices as a result of increased competition from Mercosur's imports into the region. While this is bad news for farmers, it translates into good news for consumers as the reduced agricultural prices across the board are significant enough to drive down the consumer price index, contributing positively to the overall welfare gains for South Africa. Therefore the gainers are the vast majority of South Africans who are consumers, and the main losers are the small number of commercial farmers.

Changes in the manufacturing sector are literally driven by vehicles. In the primary scenario, vehicle imports increased by \$60 globally, with an increase of \$621 million from Brazil – but this was countered by a decline of \$616 million that represented trade diversion from other non-FTA partner sources. Overall, manufacturing exports from South Africa were up by \$587, while global manufacturing imports were up by \$190 million. Output in manufacturing increased by \$388 million, but this result was tempered by a reduction in the vehicle sector of \$146 million or 0.2% in the face of Brazilian competition. In the final analysis, the same macroeconomic factors are at work for Mercosur as they were for China. The big difference is that for China the vulnerable sector was the clothing sector with its consequential reduction in output and therefore employment whereas here for Mercosur the vehicle sector is less severely impacted. However, continuing to protect the vehicle sector against Brazilian competition reduces the overall welfare gains for South Africa, as a scenario simulating an FTA with no change to SACU vehicle tariffs shows.

3. Mercosur and the BLNS - the direct trade background

It is difficult to obtain a complete picture of the trade between the BLNS countries and Mercosur. Much of the import trade from 'outside' of SACU comes through South Africa, and the BLNS trade data itself tends to be dated. To proxy the direct trade between the BLNS and Mercosur we have used the Brazilian and Argentinean data as sourced from the World Trade Atlas (WTA). The data is shown in Table 1. Totals and the main trade items are given, starting with the total trade and then the main trade items where relevant.

Table 1: Direct trade between BLNS and Brazil/Argentina 2009, US\$ million

Brazilian trade with BLNS, Calendar Year 2008 \$m			
Imports from Botswana	0.011	Exports to Botswana	1.995
Telephone equipment	0.011	New tyres	0.662
		Stoves, etc.	0.502
		Sugar confectionery	0.394
Imports from Namibia	0.066	Exports to Namibia	22.988
Integrated circuits	0.022	Furniture	9.761
Frozen fish	0.021	Chicken meat	5.016
		Sugar confectionery	2.120
Imports from Swaziland	0.178	Exports to Swaziland	2.055
Wood pulp	0.109	Carboxylic acid	1.093
		Sugar	0.404
Imports from Lesotho	0.052	Exports to Lesotho	0.000
Electrical apparatus	0.051		

Argentinean trade with BLNS, Calendar Year 2008 \$m			
Imports from Botswana	0.000	Exports to Botswana	0.074
		Sugar	0.051
Imports from Namibia	0.002	Exports to Namibia	9.241
		Wheat	5.544
		Chicken meat	2.220
		Molluscs	0.897
Imports from Swaziland	0.000	Exports to Swaziland	2.827
Wood pulp		Perfumes	1.093
Imports from Lesotho	0.000	Exports to Lesotho	0.000

Source: World Trade Atlas.

Table 1 shows that:

- Wood pulp from Swaziland is the only important import into Brazil from the BLNS, while there are significant Brazilian exports of furniture, chicken meat and sugar to Namibia, medium values of new tyres, stoves and confectionary from Brazil to Botswana, and exports of carboxylic acid from Brazil to Swaziland.

- There are effectively no imports into Argentina from BLNS, but there is a significant export of wheat and chicken meat to Namibia and some perfumes to Swaziland.
- And the combined imports from BLNS at \$0.309 million are less than 1% of the combined exports of \$39.18 million to the BLNS.

3. The GTAP database/model

GTAP is supported by a fully documented, publicly available, global database and underlying software for manipulating data and implementing the model. The framework is a system of multisector country economy-wide input/output tables linked at the sector level through trade flows between commodities used both for final consumption and intermediate use in production. The latest GTAP Version 7 database divides the global economy into 113 countries/regions with 57 commodities specified in the database. The Version 7 database represents the global economy/trade in the year 2004 measured in millions of 2004 US dollars. For a full discussion of the GTAP model as used in this paper, see Sandrey et al. (2010).

There is a distinct problem with using GTAP for the BLNS. Botswana is modelled as a country in its own right and therefore the results can be representative except for the problem that much of the import trade coming through South Africa, Lesotho, Namibia and Swaziland is modelled as for a composite region. These three countries have very different economic bases and trade profiles, so we are only able to deduce implications such as any changes to the beef sector means Namibia and any changes to sugar means Swaziland, for example.

The FTA primary scenario considered in this chapter entails the result from the removal of trade barriers between Mercosur and SACU as measured in the year 2020 in a world shaped by the baseline scenario. Differences between the so-called baseline scenario and this so-called primary scenario are therefore the results of implementation of the (mainly) goods-only SACU/Mercosur FTA. The 'mainly' qualification is that we proxied a potential change to services trade by modelling an equivalent to a two% tariff barrier on services trade for all partners and a reduction in non trade barrier represented by two% tariff barrier on all goods.

4. GTAP results for the SACU/Mercosur FTA

The big picture results

Table 2 shows the changes in welfare from the FTA assuming the eliminations of merchandise tariffs, with the data expressed in US\$ million as one-off increases in annual welfare at the assessed end point of 2020. South Africa's gains are \$236 million, a figure much lower than Mercosur's \$996 million. Notable are the insignificant welfare results accruing to both Botswana (\$4m) and the rest of SACU (\$4m).

Table 2: Change in welfare (EV of income) due to SACU/China, US\$ million at 2020

	Total	Allocative efficiency	Change in unskilled labour employment	Change in capital stocks	Term of trade
South Africa	236	53	9	268	-94
Botswana	3	0	0	2	2
Lesotho, Namibia, Swaziland	7	4	0	6	-3
Mercosur	996	306	66	401	222
Total including others	474	83	34	357	0

Source: GTAP results

In further examining the GTAP results we are able to decompose the results to find that:

- South Africa's welfare gains are from better access into Mercosur of \$274 million (mostly gains into Brazil of \$213m) but this was negated by losses of \$79 million as Mercosur, following the SACU tariff eliminations, makes inroads into the South African market.
- Brazil's gains are overwhelmingly from SACU tariff reductions with better access into South Africa (\$708m), with these augmented by gains of \$121 million from an assumed 2% Non-Tariff Barrier (NTB) against its exports to South Africa. Argentina's gains are overwhelmingly from SACU tariff eliminations.

- The losses to the rest of the world (RoW) are mainly from enhanced South African competition to US exports in Brazil and losses to the EU and China from increased Mercosur competition in South Africa.
- For the total, GTAP is indicating that the FTA is welfare-enhancing for the world, as world welfare increases by \$474 million (and, as shown in Table 2, this is mainly from increased investments/capital stocks but also from some allocative efficiency and to a lesser extent from labour effects overall).
- The factors contributing to the overall welfare changes for the BLNS countries are extremely marginal and reporting them in detail adds little to the GTAP issue.

Changes in trade flows

Table 5 introduces the aggregate overall changes to trade flows for the partner countries in 2020, expressed as percentage changes for both exports and imports, and then in US\$ million for the trade balance. South Africa has increases in both exports and imports globally of 1.0% and 0.8% respectively once all markets are accounted for. There is, however, a deteriorating trade balance as imports were higher than exports to start with, which negates the relatively higher export percentage shown, and secondly, as mentioned before, the real exchange rate declined making exports relatively cheaper, reducing South Africa terms of trade. Botswana reduces both imports and exports by 0.1% with deterioration in its trade balance of one million dollars. The rest of SACU has increases of 0.1% in both exports and imports but a marginally higher deterioration of three million dollars in its trade balance. Not shown is that, for Mercosur, there is a modest increase in Argentina's trade balance despite imports increasing more than exports but deterioration in Brazil's trade balance with again imports increasing more than exports.

Table 5: Percentage change in the quantity of total import/export & trade balance, 2020

	Change in		
	Exports %	Imports %	Trade balance \$m
South Africa	1.0	0.8	-57
Botswana	-0.1	-0.1	-1
Rest SACU (LNS)	0.1	0.1	-3

Source: GTAP results

The specific sector results

For both Botswana and ‘rest of SACU’ the interest is in the agricultural sectors. In **Botswana** there is a reduction of \$6.5 million in agricultural production, with this coming mostly from ‘other foods’ (\$2.3m), cattle (\$1.6m) and consequently beef (\$1.2m), and a minor reduction (\$0.7m) from chicken production. There are price reductions in all agricultural sectors of generally 0.1 to 0.3 or 0.4%. The expected change in beef trade is muted, with exports declining by 1.1% as beef exports to South Africa are down, but this is balanced by a similar increase to the rest of the world (EU one presumes). Overall, Botswana’s agricultural exports to South Africa are down by \$5 million, but almost half (\$2m) of this is balanced by increased exports to the rest of the world. The only change worth reporting in Botswana’s manufacturing sectors is the \$4.3 million or 10.3% decline in the value of vehicle parts production following a \$10 million fall in exports to South Africa that is not compensated by exports to others. Overall, there is a consistent 0.1% decline in all manufacturing prices in Botswana.

For the **rest of SACU** the production and trade situation is a little more complex given the aggregation into one region, and here we have to assume that sugar refers to Swaziland and that beef and most other agricultural products refer mainly to Namibia. Lesotho’s agricultural sector is certainly not export-oriented in any sector and its reliance on South Africa imports makes drawing conclusions from an FTA with Mercosur difficult.

Firstly, there are only minor changes for **sugar** (Swaziland). There is an increase of 0.2% in the quantity of output following a decline of 0.2% in the market price but no changes in trade. For the cattle and **beef** sector (Namibia), the result is similar to but

more pronounced than the same results in Botswana. Overall, beef production is down by 2.6% or \$7.9 million. This again results from a decline in \$9 million in exports to South Africa that is only marginally compensated by exports to others (EU one presumes). There are also declines in the value of production in both 'other meats' (chicken) and 'other foods' of \$5.7 million, beverages and tobacco of \$1.6 million and 'other agricultural products' of \$2.9 million. Overall, the reductions in agricultural market prices are slightly more than was the case with Botswana, with most reductions in the 0.2 to 0.9% ranges.

In the manufacturing sectors there is a similar decline of \$4.6 million (0.4%) in the vehicles and vehicle parts sector, and a decline of \$6.6 million in the forestry products sector (Swaziland one presumes) as imports of lumber from Brazil increase and displace domestic production at the margin. There is, however, an increase of \$6.8 million or 0.3% in the chemicals, rubber and plastics sector despite a 0.1% fall in the market price following an increase in total exports of \$5 million that is evenly split between South Africa and the non-partner destinations. This sector is most likely to be the sugar-based drink flavourings in Swaziland, a product where Swaziland is successfully diversifying its cane sugar production away from the raw sugar commodity.

Tariff reductions and the tariff revenue implications

Sandrey (2007) explores the implications of SACU trade agreements with respect to changes in tariff revenues, and highlights that there are large welfare transfers to the BLNS countries in that they are obtaining revenues over and above what they would have collected at their own borders if, in fact, there were no Customs Union. There are two pathways through which reduced tariff revenue will flow into the revenue pool from an FTA with either Mercosur or China. The first is the obvious one in that with an FTA all merchandise goods from the FTA partner would now all enter SACU duty-free. The second is the trade diversion. This occurs when trade is deflected away from previous sources that were paying duty but now become duty-free imports from the FTA partner, hence further reducing tariff revenue. This overall tariff revenue effect will almost certainly have a larger impact upon the BLNS countries than the direct production and trade impacts following an FTA with either Mercosur or China given the distributive formula of the current SACU Agreement.

This loss is not taken into account in the FTA results as reported, but further examination of the output data does provide the details of this tariff loss. Table 3 shows this data, and compares the losses from the revenue pool from, firstly, an FTA with China and, secondly, an FTA with Mercosur. Keep in mind that the data is in **US dollar millions** and not rand.

Table 3: Revenue loss effects following FTAs with China and Mercosur, \$m

		of which from	
China FTA	Total	China	Diversion
Primary agriculture	1	1	0
Secondary agriculture	9	4	5
Resources	1	1	0
Manufacturing	1,639	1,167	472
Total	1,650	1,173	477
of which TCF	969	675	294
Mercosur FTA	Total	Mercosur	Diversion
Primary agriculture	47	30	17
Secondary agriculture	71	52	19
Resources	1	1	0
Manufacturing	206	109	97
Total	324	192	133
of which vehicles	146	72	74

Source: GTAP results

The table shows that:

- Total losses to the pool from an FTA with China are \$1,650 million. Almost all (\$1,639m) of this is from the manufacturing sector, with much of this in turn from the TCF sector (\$969m). The direct revenue loss from allowing Chinese goods in duty-free is \$1,173 million, while another \$477 million is lost from trade diversion as China replaces previously tariff-paying sources.
- For the Mercosur FTA, the revenue loss at \$324 million is considerably less than with the China FTA. Again, most (\$206m) is from the manufacturing sector, and, here, some \$146 million of this is from the loss in the motor vehicle and parts products. In contrast to the FTA with China, just over one-third

(\$118m) of the loss from Mercosur is in the agricultural products. As with China, most of this agricultural loss (\$82m) is from the now duty-free imports from Mercosur rather than from trade diversion.

References

Sandrey, R., Jensen, H.G. et al. 2010. *South Africa's way ahead: Shall we samba?* Stellenbosch: tralac.

Sandrey, R. and Jensen, H.G. 2008. SACU, China and India: the implications of FTAs for Botswana, Lesotho, Namibia and Swaziland (BLNS). In Bösl, A. et al. (Eds.), *Monitoring Regional Integration in Southern Africa Yearbook, Volume 8 – 2008*. Stellenbosch: tralac.

Sandrey, R. et al. 2008. *South Africa's way ahead: looking East*. Stellenbosch: tralac.

Sandrey, R. 2007. Living in the shadow of the mountain. In Bösl, A. et al. (Eds.), *Monitoring Regional Integration in Southern Africa Yearbook Volume 7*. Stellenbosch: US Printers. A tralac publication. [Online]. Available: http://www.tralac.org/cgi-bin/giga.cgi?cmd=cause_dir_news_item&cause_id=1694&news_id=45146&cat_id=1033.