

SACU Revenue Sharing Formula: The History of An Equation

by

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1) Introduction

The purpose of this paper is to examine the evolution of the SACU revenue sharing formula (RSF) and what implications it has had on the revenue of Botswana as well as the other small state members of the customs union that include Lesotho, Namibia and Swaziland (BLNS). This paper does not attempt to review the three SACU treaties per se and they are discussed only to the extent that their other provisions bear on the distribution of revenues from the customs union. There has been adequate and extensive commentary by many authors². In the first section there will be a historical review of the SACU revenue sharing formula from a Botswana perspective. It is considered through its various iterations over the last century. It will be argued that the SACU revenue sharing formula has been a bell-weather in the history of southern Africa. The initial formula and the two reforms have been preceded by seismic historical changes in the geo-politics of the region- the creation of the Union of South Africa in 1910, the independence of Botswana, Lesotho and Swaziland in the mid-1960's and the end of apartheid which signaled the commencement of the 1994-2002 renegotiations. Each change in the formula has been preceded by historical events which set the scene and were necessary conditions for the relationship to evolve and deepen. In the second section of the paper the historical experience from other customs unions, the theory of the distribution of customs union revenue and the more significant studies on this in the SACU region are considered. In the third section the distribution of the revenues between SACU members is considered under various scenarios with an emphasis on the case of Botswana. The impact a shift to a 'development funding' as opposed to general revenue transfers as broadly envisaged by South Africa would impact Botswana and the other BLNS is also considered. The situation as it pertains to Namibia, Swaziland and Lesotho which are the countries that would be the most affected by any shift away from the 2002 RSF is also considered. It is argued that if South Africa chooses to proceed with a shift away from direct revenue to a development formula it will leave Swaziland and Lesotho fiscally insolvent.

It will be argued that the revenue sharing formula that was negotiated in the apartheid era renegotiations of the SACU agreement in 1969 created a politically, if not economically unsustainable formula. That formula, while correcting previous imbalances in revenue sharing created, perhaps intentionally, a fiscal dependence upon South Africa by the BLNS. This revenue dependence has continued and worsened and has fostered a significant measure of mutual resentment in Pretoria and other SACU capitals in the post-apartheid era. The final section of the

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² For a thorough coverage of terms of SACU see R.Kirk & Stern M. 'The New Southern African Customs Union Agreement' *The World Economy*, Vol. 28, No. 2, pp. 169-190, February 2005; McCarthy C. 'The Southern African Customs Union: A Case Study' FAO, Rome 2003

study reviews the issues that need to be considered by SACU members in an adjustment of the revenue formula so as to avoid a macroeconomic crisis in Southern Africa.

2) The SACU Revenue Formula and Botswana – A Brief History

Each of the renegotiations of SACU revenue sharing formula were in theory technical revisions of a treaty arrangements but all three were linked and preceded by political events in the region. The creation of SACU in 1910 was a direct result of the creation of the Union of South Africa in 1910. The 1969 renegotiation followed immediately after the independence of the last of the Botswana (1966), Lesotho (1967) and Swaziland (1968). And the 1994-2002 renegotiations followed the end of the apartheid era. The 1969 renegotiations signaled a fundamental rebalancing of the benefits of SACU RSF in favor of Botswana and the then BLS in general³. A further round in 1994-2002 was necessary to rebalance the formula, but the net outcome remains fundamentally politically unstable.

a) The creation of the Union of South Africa - 1910 SACU Agreement

Botswana, then Bechuanaland, declared its first customs tariff in 1892 and by 1893 joined, Basutoland, Cape Colony and the Orange Free State in a customs union⁴. Under that arrangement tariffs were charged on goods entering the customs union in Cape Town and 75% was remitted back to Bechuanaland, the balance being held in lieu of the cost of administration of the customs union. At the end of the Anglo-Boer war in 1903 yet another customs union was formed which included Cape Colony, Natal, Orange Free State, Transvaal and Southern Rhodesia. Bechuanaland and Basutoland were included without consultation, a matter to be repeated when SACU was formed seven years later⁵.

With the formation of the Union of Union of South Africa in 1910 there was a need for a common external tariff for all the former Boer and British states. The view of the Britain at the time was that the Protectorate of Bechuanaland and the two territories were to be eventually absorbed into the union⁶. In July 1910 Lord Gladstone, then High Commissioner to South Africa, Bechuanaland, Basutoland and Swaziland ‘signed in four places’ for each of the four countries and protectorates under his mandate and the Southern African Customs Union was created⁷.

³ In 1990 Namibia became independent and in 2002 acceded to SACU.

⁴ The Tati Concession did not initially participate in the customs union but joined in 1899. This historical section draws heavily on the work of Hudson D Botswana’s membership of the Southern African Customs Union’ in Harvey C ‘Papers on the Economy of Botswana’, Heinemann, 1981.

⁵ The common external tariff was 10% and set at 7.5% for British imports. This was raised to 15% and 12% respectively in 1906. Swaziland joined later on.

⁶ This position was maintained by Britain until the election of the Nationalists in South Africa in 1948 and the exit of South Africa from the Commonwealth in 1961.

⁷ See Ettinger, S. ‘The Bechuanaland Protectorate’s participation in pre-1910 Customs Unions’ in *Botswana Notes and Records*, 1975 Volume 7, pp 49-52 South Africa did have representative government but the three protectorates did not participate in the discussions. Their membership stemmed from the British colonial office position that they would eventually become part of the Union of South Africa. For original text see British High Commissioner's Notice 65 of 29 June 1910, Customs Agreement: Union of South Africa - Territories of Basutoland, Swaziland, and the Bechuanaland Protectorate

Under the 1910 SACU agreement⁸ the tariffs structure was to be that determined solely by the Union of South Africa and the territories and protectorates were in effect obliged to maintain a tariff similar to that which existed in the Union (Preamble). The first revenue sharing formula or the Potchefstroom Formula⁹ as it was called was effectively fixed for a period of 55 years until it was finally revised in 1965 under the Lewes Formula which redistributed the shares of the BLS but maintained the South African share.

Distribution of Customs, Excise and Sales Revenue under SACU (1910)

Country	Potchefstroom Formula (1910)	Lewes Formula (1965)
Basutoland	0.88575	0.47093
Bechuanaland	0.27622	0.30971
South Africa	98.68903	98.68903
Swaziland	0.14900	0.53033

Source: Report of the Ministry of Overseas Development ‘ The Development of the Bechuanaland Economy’ November 1965, Published by the Government of the Republic of Botswana , Gaborone, page 87

In 1925 South Africa, exercising its rights under the 1910 agreement, passed the highly protective Customs Tariff Act in an attempt to industrialize its own economy and significantly raised its external tariff¹⁰. This had three effects that have been the focus of revenue sharing debates between the SACU members ever since. First, the move would decrease the revenue pool for the BLS as more goods were produced in South Africa rather than imported. Second, it would cause trade diversion to higher cost production inside the customs union and lastly it would further exacerbate the economic polarization that is normal when such partners of vastly unequal production capabilities enter a customs union. At the same time as South Africa was protecting its own industry in the mid-1920’s it was prohibiting the only export that Batswana could export, namely cattle through weight restrictions¹¹. The weight levels (1,000 lbs for oxen, 750 for cows) were set at levels that white farmers in Bechuanaland could meet but were generally not possible for traditional Batswana cattle farmers. All that was left was for Batswana to export was their labor to the South African mines.

By 1968, just prior to the negotiations with South Africa, the share of trade of the BLS had risen to 4.1% of the total SACU imports while the revenue share remained 1.3% unchanged

⁸ The Southern Africa Customs Union of 1910, No. 274 23rd July 1910. Even this first treaty gave some room for the territories to have tariff regimes that were at variance with that of South Africa. The preamble states that :

- a) The territories shall maintain a tariff similar to that which exists in the Union Of South Africa;
- b) An equitable share of the duties collected on goods passing through the Union to the Territories shall be paid over to them, and vice versa;
- c) There should be a free interchange of South African products and manufactures between the Union and the Territories

<http://www.sacu.int/main.php?include=docs/legislation/1910-agreement.html>.

⁹ The Potchefstroom Formula was based on the share of duty on the goods consumed in each country during the period April 1907-March 1910. The revenue arrangement was based not only on customs duty but also on excise.

¹⁰ Lumby A.B., 1983. “Industrial development prior to the Second World War”. In F.L. Coleman, *Economic History of South Africa* (Pretoria: HAUM).

¹¹ Ettinger S.J ‘South Africa’s weight restrictions on cattle exports from Bechuanaland, 1924-41’ *Botswana Notes and Records*, Vol. 1972

from the 1910 formula¹². From the South African perspective, its share of the RSF was seen as immutable but from the perspective of the BLS the revision was seen as vital to an equitable redistribution of benefits of the customs union. Whether the BLS were in effect subsidizing South Africa at the end of SACU 1910 agreement cannot be known without a detailed analysis of the applied tariffs and the composition of trade¹³. It was certainly the view of commentators at the time that Botswana could affect a superior revenue arrangement outside of SACU at relatively low cost. However, the view of the British government had long been that the 1910 formula had provided the BLS a disproportionate share of benefits simply by virtue of the fact that the rate of economic growth in South Africa had been much faster than in the BLS and therefore a formula which provided the BLS with a fixed percentage of a rapidly growing import base was certainly more than could otherwise be achieved by the BLS from individual tariff regimes.

b) Independence of Botswana, Lesotho and Swaziland and the 1969 Renegotiations

The renegotiation of the 1910 SACU agreement in 1969 which occurred following the independence of Botswana Lesotho and Swaziland saw a fundamental shift in the position of South Africa and a greater willingness to offer a revenue sharing formula that was more closely linked to the negative externalities of the customs union. The position that there were substantial net benefits of SACU to Botswana was a position maintained by the UK government until independence¹⁴.

The available evidence suggests that under this arrangement (the SACU formula) the revenues from this source are not less than she (Botswana) would raise if she had her own customs administration levying the same rates of duty. Bechuanaland is therefore spared the burden of administering her own customs and excise system.... Over the last ten years revenues from this source have steadily increased; and it cannot be said that the government has done badly from the arrangement.

The views of the independent government of Botswana were quite different from that of the British government as the perception was that trade diversion along with polarization significantly outweighed the benefits of not having to pay for a customs administration. Prior to the 1969 negotiations there had been considerable analysis undertaken by the Botswana government on the implications of leaving SACU as well as intensive consultations amongst the BLS. The Botswana government's first development plan issued on Independence Day in 1966, made the government's position very clear¹⁵.

¹² See Hudson op.cit p132

¹³ See Landell -Mills P.M 'The 1969 Southern African Customs Union Agreement, *The Journal of Modern African Studies*, 9, 2, (1971), pp. 263-81 held the common view at the time of the development of the new arrangement 'the fact that for 30 years the residents B.L.S. had been subsidizing South African industrial development, nurtured behind high protective tariff.' P.266.

¹⁴ Report of the Ministry of Overseas Development 'The Development of the Bechuanaland Economy' November 1965, Published by the Government of the Republic of Botswana, Gaborone, page 11

¹⁵ Transitional Development Plan, Government of Botswana, 1966,

The Customs Agreement, whilst relieving Botswana of the burden of costly customs administration, means that the increase in revenue accruing to the Exchequer from this source is not related to the growth in economic activity within the country. The actual tariffs levied are determined by South African interests. High protective duties imposed to protect South African industry tend to diminish the total revenue collected and therefore that part accruing to the Botswana Exchequer. In such cases the diversion of consumers from cheaper overseas imports to more expensive South African manufactures results in a transfer of spending power from Botswana consumers to South African producers or, in other words, the subsidization of South African industry by Botswana. A Customs Union between a rich and a poor nation normally produces a polarity of economic development, with the better endowed areas growing at the expense of the poor areas. In recognition of this process, it is necessary to make some provision for the automatic redistribution of resources towards the poorer partner. The Botswana Government will therefore seek to negotiate with the Government of the Republic of South Africa a more equitable customs arrangement. (emphasis added)

The symbolism of this statement and its timing could not have been lost on Pretoria along with the meetings between the BLS to develop a unified BLS negotiating position. In the final analysis what was negotiated was a radically different revenue formula from that of 1910 or any other customs revenue sharing formula because it removed the linkage between the revenue derived by the BLS from the size of the total revenue pool. Importantly, the new RSF was based not on the share of extra-customs union trade but on all imports, including imports from within the customs territory ie South Africa (Article 14.2)¹⁶. In many ways this formula resembled the principle underlying the RSF in the Australian constitution which was based on total consumption¹⁷.

¹⁶ <http://www.sacu.int/main.php?include=docs/legislation/1969-agreement/main.html> see also Republic of South Africa, 1969. "Customs Union Agreement between the Governments of the Republic of South Africa, the Republic of Botswana, the Kingdom of Lesotho and the Kingdom of Swaziland", *Government Gazette*, vol. 54(2584)

¹⁷ The revenue sharing equation can be presented in the following manner

$$R_i = \frac{(M_i + P_i)}{\sum_{i=1}^4 (M_i + P_i)} \times \{\sum_{i=1}^4 (C_i + E_i + S_i)\} \times 1.42$$

$$\text{Where } R_{sa} = \{\sum_{i=1}^3 (R_i + E_i + S_i)\} - \sum_{i=1}^3 R_i$$

R_i = Revenue of country i (Botswana Lesotho and Swaziland)

R_{sa} = South African revenue from SACU

M_i = CIF Imports of country i

P_i = Value of dutiable goods produced i (Botswana, Lesotho and Swaziland)

$\{\sum_{i=1}^4 (C_i + E_i + S_i)\}$ = sum of customs, excise and sales tax revenue in the customs area

This in turn created the possibility that if :

$$\sum_{i=1}^3 R_i > \sum_{i=1}^4 (C_i + E_i + S_i)$$

Or

$$R_{sa} < 0$$

Under the revised formula South Africa's share of the revenue became a residual after the BLS were paid their share. The introduction of the multiplication of the BLS share by 1.42 was never explained. However, it was argued at the time that the factor was a recognition and compensation by South Africa of the cost raising and polarization effects of the customs union¹⁸. Given the order of magnitude of the cost of these polarization effects there is in principle no reason why they could not exceed the size of the revenue pool and the 1969 formula created precisely such a possibility. As we shall see it is this element of the formula, with a potential for unlimited liability for compensation to the BLS for the negative externalities that were created as a result of the trading relationship, that was certainly politically unsustainable in the post-apartheid era.

From the perspective of any customs union revenue sharing formula the 1969 SACU formula was exceptional and most peculiar¹⁹. The linking of revenue of the BLS to intra-SACU as well as extra-SACU imports, irrespective of whether those were re-exports or had been substantially transformed inside the customs union had no apparent precedent. However, the principle of compensation towards poorer and smaller member of the customs union was embedded implicitly in German *Zollverein* revenue sharing formula as well as the equalization payments of the European Union. The logic behind South Africa's agreement to a formula that was to expose its revenue to such considerable long term risk was seen as a product of that country's increasing international isolation stemming from apartheid combined with the unexpectedly high rates of economic growth in the BLS²⁰. Of the known revenue formulas employed by customs unions this formula, based, *inter alia* on intra-union imports of originating product, was certainly unique and has remained so ever since²¹. While there was no explicit referral in the text of the 1969 agreement to the 42% 'compensation factor' it was widely recognized that this loading was in fact compensation for two effects, the price raising effect and the polarization effect whereby tariffs raised prices in the BLS and industry tended to be located in South Africa. This was certainly the view of the Botswana government²².

What did the change in formula mean for Botswana in particular? Prior to 1968 the effective rate of duty for Botswana was very low for a developing country(see chart 1 below). Writing prior to the revision of SACU the Economic Survey Mission concluded²³:

¹⁸ The then vice-president Masire who was very closely involved in the negotiations clearly saw the 1.42 as a 'compensation factor to recognize polarization effects and the price raising effect of protective tariffs on goods we bought from South Africa' see Q.K.J Masire 'Very Brave or Very Foolish –Memoirs of an African Democrat' MacMillan, Gaborone 2006 page 258. See also Landell-Mills, op.cit, page 275

¹⁹ Former President Masire argued that 'Because our arguments were sound, and perhaps as a kind of good neighborliness, South Africa agreed to particular aspects of the revenue sharing formula we proposed' *ibid*

²⁰ McCarthy C. 'The Southern African Customs Union: A Case Study' FAO, Rome 2003 see page 18

²¹ 'Evaluation of an Appropriate Model for a SADC Customs Union' Final Report Commissioned by The SADC Secretariat, 3 September 2007, see page 56-57

²² 'An Overview of the SACU from Botswana's perspective: Implications of the Historical record and Contemporary Situation for Renegotiation of the Arrangement' Ministry of Finance and Development Planning. *The Research Bulletin*, Bank of Botswana, September 1994, pp13-32, see page 15. It should be noted that the author of the paper, the acting Permanent Secretary, Mr John Stoneham stated that this was not necessarily the official position of the government of Botswana. Given the status of the author and its subsequent publication in the Bank of Botswana research the caveat can be disregarded and the document can be treated as one close to the official government position as is publicly available.

²³ 'The Development of the Bechuanaland Economy' November 1965, op cit. , page 88

....the current yield of import and excise duties (little more than 10% of the estimated value of imports) is very small.

However, with the new revenue formula that yield was supposed to increase to 20% of imports. According to Landell-Mills, the revenue of the BLS almost trebled over and above what would have been available under the Lewes formula in the first year of operation of the new agreement.

Budgeted and Actual 1969/70 Revenues from Customs (rand)

Country	Budgeted (1910 Agreement)	Actual (1969 Agreement)
Botswana	1,870,000	5,030,000
Lesotho	1,850,000	4,900,000
Swaziland	2,710,000	7,080,000
Total	6,430,000	17,010,000

Source: Landell-Mills op cit page 276

In Botswana actual revenues from customs duties rose from rand 1.4 million in 1968, the last year of the Lewes Formula to rand 5.14 million in 1969/70²⁴, the first year of the operation of the new formula. The growth of the importance of customs duties in the total revenue immediately thereafter was spectacular. The development of the Selebwe-Pikwe Copper Mine and the resulting surge of imports, the introduction by South Africa of sales tax in 1969 along with the substantially improved revenue formula that had been negotiated resulted in the Government of Botswana being able to balance its budget without direct budgetary support from the UK in 1972/3²⁵. Thus the dependence on revenue from Britain had been shifted to a dependence on Pretoria and the new SACU revenue formula. Writing in 1981 Hudson concluded²⁶:

The gross benefit to Botswana of the 1.42 multiplier is probably around Pula 30 million a year at present. It is a matter of debate whether the net benefit to Botswana of leaving the Customs Union could ever equal such a large sum. Even if we leave that aside, we note that Botswana would have to charge about 16% on the value of imports and local dutiable production in order to recover just the tax element of the present revenue flow. (emphasis added)

The negotiations over the 1969 formula were by no means over and the revenue sharing formula was to be revised once again in 1976. Following the oil shocks, the Soweto uprising and

²⁴ Botswana: Development Strategy in a Mineral led Economy- Basic report volume 1, May 1975, report No. 735-BT, table 5.1 statistical annex

²⁵ Q. Hermans 'Towards Budgetary Independence: A Review of Botswana's Financial History, 1900 to 1973' *Botswana Notes and Records*, Vol. 6, 1974 pp.89- 116

²⁶ Hudson D. 'Botswana's Membership of the Southern African Customs Union' in Harvey C. *Papers on the Economy of Botswana*, Heineman (London) 1981 p. 146. Hudson was at the time head of research at the Bank of Botswana. It should also be noted that Hudson was writing at a time when there had been major mining developments which caused a surge in imports thus increasing the return to the country.

ensuing economic fluctuations in the South African economy, revenues accruing to the BLS began to fluctuate significantly from year to year as a result of the fluctuations in the size of the revenue pool . In order to address the concerns of the BLS, South Africa agreed to a revenue stabilization formula which guaranteed the BLS support unless the revenues received were above 17% but no greater than 23% or approximately 20% of total imports on average. This further decoupled the BLS share from the actual size of the revenue pool and as imports into the BLS grew and import duty revenue decline the share of South Africa in the revenue pool began to decline²⁷. Thus between the compensation factor and the new stabilization factor made the new multiple 1.77 rather than 1.42²⁸. As we shall see below this made the 1969 agreement politically unsustainable and as a result the subsequent 2002 renegotiations were essential in order to stave off a situation where SACU revenues to the BLS would, as a result of the residual status of South Africa's earnings, derive the entire revenue pool.

From a purely economic perspective it is difficult to comprehend the logic of those in Pretoria who agreed to the 1969 provisions of the RSF. Clearly, there was never a belief that the economies of the BLS would grow as rapidly as they did in the first years of independence. This was particularly so for Botswana with its new diamond as well as base metal mines which resulted in unprecedented rates of economic growth. From a political perspective however it made considerably more sense. The apartheid regime needed allies or at least those who could not readily afford to be overly critical and believed that these sorts of provisions in the SACU Agreement would buy support. The revenue sharing formula in 1969 and the revision in 1976 was aimed at assuring BLS remained part of the South African economic orbit. However, by decoupling payments to the BLS from the actual revenue pool what was created was a formula that created the potential for a massive liability on South African treasury, the legacy of which the post-apartheid regime is still grappling with. The prospect of very rapid growth in BLS imports and revenue may have been foreseen but there is no evidence that the South African government was aware in 1969 or 1976 that the revenue formula would ultimately prove as problematic as it was to become by the 1990's.

What is not commonly understood of the 1969 RSF formula was that its sustainability disappeared under the many economic pressures created by the apartheid regime and the struggle against it. Inside South Africa the anti-apartheid struggle saw economic growth rates fall while economic growth rates in the BLS increased²⁹. This decreased the size of the pool while at the same time the increased imports of the BLS increased the liabilities by SA. Furthermore, the decision by South Africa during the apartheid era to use its share of the SACU common revenue pool to disburse funds to the so-called 'independent entities' which the apartheid regime called

²⁷ The new stabilization factor created a new condition for revenue sharing:

$$17\% \geq \frac{R_i}{M_i + P_i} \leq 23\% \approx 20\%$$

²⁸ Leistner, E 'Renegotiating the Southern African Customs Union (SACU)', *Africa Institute Bulletin*, vol 35(2), 1995, page 4 quoted in Gibb, R. Regional Integration in Post-Apartheid Southern Africa: The Case of Renegotiating the Southern African Customs Union', *Journal of Southern African Studies*, Volume 23, Number 1, March 1997, page 78

²⁹ An Overview of the SACU from Botswana's perspective: Implications of the Historical record and Contemporary Situation for Renegotiation of the Arrangement' op cit p22 '...the government of South Africa created 'independent states' beginning in the late 1970's , it reportedly made agreements parallel to the SACU agreement and began paying shares to four of these entities from the SACU Revenue pool'

'bantustans', based on a formula equivalent to the 1969 SACU revenue formula put further pressure on the revenue pool's sustainability. Finally, in the late 1980's it was becoming evident that the share accruing to the BLS was growing beyond politically sustainable levels. With the imminent independence of Namibia and the resulting increased liability that this would entail it was clear for South Africa that the 1969 formula would have to be revised.

iii) The End of Apartheid – 1994-2002 SACU Renegotiations

The renegotiation of SACU in 1994-2002 was not simply about a revenue formula. It was a renegotiation between sovereign states and the entire foundation was to be predicated on *de jure* equality between the contracting parties. Many of the new provisions of the SACU 2002 agreement were about the establishment of tariffs and excise as well as the operating modalities of the new SACU. Tariffs and excise were no longer to be the sole purview of Pretoria and in theory at least all members were to have a say. This is an important contrast to the 1969 agreement where there was no pretense of equality between the members and all decisions regarding tariffs and excise remained the prerogative of Pretoria. These changes were emblematic of the end of the apartheid era and were concessions of great importance to the BLNS. However, the fundamental reality on the ground of a membership with vastly differing technical capacities to deal with trade policy issues cannot be changed by treaty alone.

When it came to the revenue sharing formula the negotiated 2002 RSF eliminated the down-side risk to the South African treasury that it could end up eventually paying out to the BLNS more than the value of the common revenue pool but in the process further increased the share accruing to the BLNS at the expense of South Africa³⁰. Whether in retrospect Pretoria's concern that the 1969 formula would ever have exhaust the SACU revenue pool is another matter. Devising an agreed formula which would simultaneously eliminate the down-side risk for Pretoria without undermining the BLNS revenue explains in part why the 1994 negotiations were so protracted.

The new RSF was based on three separate components³¹. The first component of the new formula was a division of customs revenue on a new basis which made no reference whatsoever

³⁰ R.Kirk & Stern M. op cit

³¹ The three components can be written as follows:

$$\begin{aligned}
 R_i &= \sum(C_i + E_i + D_i) \\
 C_i &= \frac{M_i^{int}}{\sum_{i=1}^5 M_i^{int}} \times C \dots\dots\dots\text{Customs Component} \\
 E_i &= \frac{GDP_i}{\sum_{i=1}^5 GDP_i} \times E \dots\dots\dots\text{Excise Component} \\
 D_i &= \left[1 - \left\{ \frac{GDP_i}{\sum_{i=1}^5 GDP_i / 5} \right\} / 10 \right] * D / 5 \dots\dots\dots\text{Development Component}
 \end{aligned}$$

- Where R_i = Revenue of Country i from the customs union
- C_i = Customs revenue derived by country i
- E_i = Excise derived by country i
- D_i = Development revenue of country i
- GDP_i = GDP of country i
- M_i^{int} = Intra SACU imports of country i
- E = Total Excise Pool (minus development)
- C = Total external customs pool

to imports from outside the customs union. The share of each member was to be based on the share of intra-SACU imports. Thus the formula had gone full circle from 1910 and now, rather than being dependent upon imports from outside the customs union, the share was based only on internal trade. Due to the economic polarization which occurs within the SACU customs unions the structure of trade that had emerged between the BLNS and South Africa over the years has meant that the vast bulk of the customs pool would go the BLNS but at least South Africa would obtain a portion of those revenues by entitlement rather than as a residual under the 1969 formula. Thus the revenue sharing formula based on intra-SACU imports should be seen as a way of compensating for structural polarization.

The second component was the excise revenue. This was divided into two halves, the first being 85% of the total excise revenue which was disbursed purely by the share of the GDP of each of the SACU members. The second component, the remaining 15%, was a development component which was instigated at South Africa's behest. This portion of the revenue would be distributed in inverse proportion to the GDP per capita of each member. Thus the poorest members of SACU would receive a disproportionate share of this element of the excise. As a result, this particular share would end up being distributed in roughly equal portions to all members. The development component was therefore in essence an equalization fund. While it was an equalization fund it became general revenue for all SACU members and there was no assurance that the resources would be used for development projects by members³².

The British had pushed the BLS into SACU during the colonial era with a revenue formula that was, by the time of independence seen by the BLS as not being in their interests. The apartheid regime then created an unsustainable revenue formula in 1966 between themselves and the BLS which were not legally equal parties as tariffs and excise were determined by one party alone. The 1969 RSF had to be revised in order to assure that the revenue accruing to South Africa from SACU did not become negative. There is no economic reason why a revenue sharing formula which aims to compensate members of customs union for negative externalities that it generates should not yield such an outcome. However, politically a negative share for South Africa would have been extremely difficult to justify on political grounds. To obtain BLNS agreement to this reform of the RSF, the post-apartheid government in Pretoria had to agree to the customs component being shared on the basis of intra-SACU imports which in the end further increased the share and dependence of the BLNS on SACU revenues. However, at least it gave South Africa a fixed share of customs revenue and not a residual which eliminated the possibility of the politically unsustainable outcome for South Africa.

D = development pool

³² The new revenue-sharing formula and the Common Revenue Pool is governed by Articles 32 to 37, and Annex A of the 2002 SACU Agreement. Under Article 32, all customs, excise, and additional duties collected in the common customs area are to be paid into the common revenue pool, within three months of the end of each quarter of a financial year.

3) Revenue Sharing Formula in Customs Unions

a) Other Customs Unions

An understanding of SACU would certainly be deficient without some consideration of the important historical precedents. The German *Zollverein* along with the customs union created by the Commonwealth of Australia at federation in 1901 was the precedent which, if British policy makers considered revenue sharing for their territories and protectorates at all, would no doubt have had in their minds when they forced the disparate southern African states into a customs union in 1910. The German *Zollverein*, like the original SACU agreement was a direct result of war³³. The German *Zollverein* was a result of the Congress of Vienna which ended the Napoleonic Wars and SACU was the direct result of the end of the Anglo-Boer War and the creation of the Union of South Africa. However, unlike the *Zollverein* or the Australian Commonwealth, SACU was not a result of the will of the individual parts of the customs union but rather the result of British colonial policy in the region to bring the various Southern African states, as into a larger economic entity capable of generating sufficient revenues so as not be a burden on the British exchequer³⁴. In the early 19th century when the *Zollverein* was formed from the 300 plus customs areas of the *Deutscherbund* for a revenue sharing formula that benefited the smaller states was one of the very important factors that kept *Zollverein* together. The revenue sharing in the *Zollverein* was ultimately based on a per capita basis³⁵. This meant the poorer members of the customs union received a disproportionate share of the revenue. However, even this simple formula required the development of the German census so as to assure a quantitatively accurate distribution.

The Australian Commonwealth was a federation of former British colonies and created one nation in 1901. What was agreed, at least initially in their customs union was the distribution of revenues was to be done according to consumption levels³⁶. However, modern economic literature, to the extent that it considers revenue sharing at all, almost invariably assumes that members agree to a technically neutral distribution based on the absorption of extra-union imports as was the case with the SACU 1910 formula and the Franco-Italian Customs Union of the 1940s³⁷.

Even had Britain wanted the *Zollverein* or Australian revenue sharing formula in 1910 the data simply did not exist for the BLS but the extra-SACU import data was readily available given that there were, at the time, only two points of entry to the customs union -Cape Town and

³³Henderson W.O.' *The Zollverein* Cambridge University Press, 1939

³⁴ Ettinger J. 'The Economics of the Customs Union between Botswana, Lesotho Swaziland and South Africa' Ph. D. thesis University of Michigan, 1974

³⁵ Milward A.S. & Saul S.B 'The Economic Development of Continental Europe' George Allen and Unwin, 1973, p.374

³⁶ Section 93 of the Australian Constitution states that: 'During the first five years after the imposition of uniform duties of customs, and thereafter until the Parliament otherwise provides:(i) the duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter.

³⁷ Syropoulos C. 'Rules for the disposition of tariff revenues and the determination of common external tariffs in customs unions' *Journal of International Economics*, Vol. 60 (2003) pp. 387–416

Durban. Ideologically, the *Zollverein* was a direct result of the need to create a unified market in which German industry could flourish and compete with Britain. This strongly protectionist motivation also underlay the formation of the Australian Federation.

Contemporary customs unions, especially those in Africa and other developing countries and regions, have tended to avoid the sorts of politically difficult problems of a revenue sharing formula like the one employed by SACU by using a technical formula based on the revenue directly derived by the country of final destination as the basis for revenue raising and collection at the country of final destination ie akin to the 1910 formula. This is true of the Andean Community, Caricom , Cemac, East African Community, the Gulf Co-operation Council, Mercosur, and the West African Economic and Monetary Union. Only in the case of the latter is there an equalization fund for three of the poorest landlocked countries³⁸. The East African community is scheduled to return to the question of the revenue sharing formula in 2011. In the case of the EU, where the import duty revenue retained for the use of the community and not distributed to members except 25% for the cost of levying import duties.

The revenue sharing approach to dealing with externalities has largely been discarded and most recent customs unions have moved to the extra-union trade as determined by imports at the country of destination as the method of sharing revenue. This is the standard approach taken in economic literature where there has been little discussion of this matter³⁹. In Jacob Viner's classic work on customs unions from 1950 he summarized the difficulties that confront the distribution of revenue in a customs union with such disparate members. His words resonate throughout a century of often acrimonious disagreement over revenue sharing in SACU he said⁴⁰:

. . . the greater the disparity in economic levels between the members, and the greater the differences as between the members in the customary consumption of imported commodities, the greater is likely to be the difficulty in finding a formula for allocation of customs receipts which will be mutually acceptable.

b) Transactions Costs, Entrepot Trade and Revenue Sharing

In the absence of any externalities or redistribution objectives of the members of a customs union, the customs revenues derived by each member of the union should be based on the external tariff leveled at the point of entry of the goods into the union and the agreed non-originating intermediate goods entering the border of the country in question. If countries are willing to accept such a formula as a purely 'technical matter' as is the case in most customs unions in developing countries then there is no reason for any dispute over revenue sharing. In the case of SACU the calculation of the revenue based on the point of first entry is in large part a result of the fact that throughout most of its life the smaller SACU members were all landlocked and raising duties in Cape Town and Durban diminished the transactions cost of trade and the cost of raising revenue. The destination approach would have raised considerably the transaction

³⁸ SADC 'Evaluation of an Appropriate Model for a Customs Union – Final Report', September 2007, pp. 57-58

³⁹ Syropoulos, C. op cit

⁴⁰ Viner. J., The Customs Union Issue, Carnegie Endowment International for Peace , 1950 , p78

cost of trade in SACU. However, the high administrative cost of the numerous disputes over revenue sharing in SACU would certainly be an important counterweight.

If we make the patently false assumption that there are no external benefits or costs of membership from a customs union then what a revenue sharing formula should ultimately be based on is the revenue that would otherwise be derived from imports into the customs territory and destined for each member. Thus the formula for the revenue accruing to a member of customs union is normally assumed in contemporary economic analysis to be the revenue raised on extra-customs union imports⁴¹. This is in effect the 1910 SACU formula.

There are three sources of trade transaction related externalities that should render a customs union a Pareto improvement for all members of the customs union and therefore there should be no need for a transfer or compensatory payment. The first is the decreased cost of customs administration which accrues to all members, especially, when in the case of SACU all revenue is collected at the point of first entry. The second stems from the increase in entrepot trade which will naturally occur with any customs union as more commodities are purchased from outside the customs area in bulk and reconsigned to individual members. This creates added economies of scale which often substantially lower unit of cost of imports to all members⁴². The third Pareto superior benefit which should accrue to all members of a customs union is that the union creates a trade regime where there is no need for border inspection beyond the point of arrival of the good and there is therefore no need for complex rules of origin which greatly complicate trade. This is the case in the EU, for example but not the case in SACU⁴³. These three together point to some of the obvious reasons why countries create customs unions and assume that all countries, irrespective of size and economic development will benefit.

c) Externalities, the SACU Corner Solution and SADC

The problem of revenue sharing arises when some members of the customs union perceive that the outcome creates external costs and benefits that are not Pareto comparable. These external costs and benefits are not evenly distributed which gives rise to the perceived need for compensatory payments. The transfer must not simply be seen as a matter pertaining to externalities, but as in the case of the *Zollverein*, the grandfather of all modern customs unions a revenue sharing formula that benefited the smaller and poorer members was necessary in order to assure their continuing membership in the customs union. These transfers were necessary for political reasons involved in the formation of the German Empire and just as transfer payments

⁴¹ This can be presented as:

$$R_i = \sum_{j=1}^n t_j M_{ij}$$

Where R_i = Total Import Duty Revenue of Country i in the customs union

t_j = common external tariff on product j

M_{ij} = imports into country i of product j from outside the customs union

In reality though the formula is generalizable, as in the case of SACU and some countries in UEMOA where transfer payment are made. Therefore the generalised equation should be:

$$R_i = \sum_{j=1}^n t_j M_{ij} + T_i$$

T_i = Transfer to country i from other members of the customs union.

⁴² As long as any border tariff in any member of the customs union e.g. Botswana were less than the decrease in costs from bulk purchase the entrepot trade would continue irrespective of the trade regime in place between members of the customs union.

⁴³ SACU does have a complex rule of origin See Schedule 1, Part 1 SACU 2002.

by the EU are part of a political process involved in the formation of a larger geo-political entity. For the larger members of the *Zollverein* such as Prussia the economic benefit was the larger market for their manufactures, for the smaller members it was the increased revenue from the revenue sharing formula. The beneficial externality for all members was the decreased transaction costs of trade of goods crossing many of the 300 customs territories that made up the *Deutschebund*. This mirrors the case of the SACU, where one member gains through increased market size, and the ensuing lowered production costs resulting from economies of scale and the rest of the customs union members benefit through a share of the revenue as compensation for trade diverting effects. All members gain through decreased transaction costs.

With the presence of uneven patterns of distribution of the net external benefits, the customs union will not remain stable if there are no net overall benefits and if the transfer payments to the net losers are insufficient to compensate them for the negative externalities incurred⁴⁴. A second stability condition is that the payments made by the net gainers from the customs union to net losers are less than the external benefits the gainers derive from the arrangement they will exit the customs union. It can be argued that the latter condition has been breached in the case of SACU in 2008 with the advent of SADC Protocol on Trade. This agreement creates roughly equal market access for South Africa's exports into all SADC markets which includes all the BLNS. Thus the externalities derived from economies of scale derived by South Africa could be derived without any need for transfer payments to the BLNS as such payments are not part of the SADC Protocol on Trade. However, the problem is that the stability of the SADC Protocol on Trade itself cannot be assured without SACU transfers to the BLNS because the latter would have to breach their commitments to not impose tariffs on imports from other SADC members without these revenues. The trade off for South Africa is, as it has been for many decades, the benefits of stable market access under SACU with transfer payments or a very unstable SADC Protocol of Trade without transfer payments.

The debates, as we shall see below, around the polarization effects of SACU and the revenue formula must focus on what are called the 'cost-lowering effect'. In SACU RSF debates such terms are unusual for almost all the discussion and analysis of the revenue formula stems focus on what are called the 'price raising effect' for consumers of the common external tariff on the prices they face.

⁴⁴ Thus in order to obtain the total benefit of customs union membership equation above must be modified to include the net external benefits to each member which produces

$$NB_i = R_i + \sum_{k=1}^e E_{ik}$$

$$NB_i = \sum_{j=1}^n t_j M_i + T_i + \sum_{k=1}^e E_{ik}$$

Where $\sum_{i=1}^e E_{ik} = \sum_{i=1}^n (NTC_i + \Delta TC_i + \Delta C_i)$

Where R_i = government revenue for country i from the customs union

$\sum_{i=1}^e E_{ik}$ = sum of e external benefits for country i

NTC_i = Net trade creation effects = trade creation minus trade diversion

ΔC_i = change in cost of producing in country i

ΔTC_i = change in transaction costs of trade from customs union for country i

The stability condition for the customs union is:

$$\sum_{i=1, k=1}^{e,n} E_{ik} > 0 \text{ and if } T_i > 0 \rightarrow T_i \geq \left| \sum_{k=1}^e E_{ik} \right| \quad \text{if } T_i < 0 \rightarrow |T_i| \leq \sum_{k=1}^e E_{ik}$$

Corden⁴⁵ provided a development of Viner's⁴⁶ own discussion on the question of economies of scale, product differentiation and oligopoly in a customs union. This particular work by Corden (see annex) is not normally employed by most neo-classical economists who much prefer dealing with competitive models with linearly homogeneous production functions where there are no economies of scale. The absence of economies of scale is important to the vision of trade benefiting all parties. Corden argued that where there exists economies of scale and a downward sloping cost curve it is common for smaller firms to vacate a particular market when a customs union is created or for the single large producer or large producers to become even more dominant once the customs union market is created.

The economies of scale that result from the creation of a customs union perpetuate or exacerbate production polarization of the dominant large producers. The expansion of the market created by the customs union creates what Corden called the 'cost-lowering effect' of the customs union as the dominant firm experiences lower production cost because of economies of scale. Thus the addition of assured markets such as the BLNS lowers the cost of production for producers already existing in the large dominant market and perpetuates the position of smaller customs union members as consumers of products produced in the territory of the larger producer. This is one of the most important sources of what economists call polarization. This expansion of the market means that smaller producers in the customs union simply cannot enter unless they are able to achieve scale economies similar to that of producers from the dominant market or unless they receive transfers from a third source. The idea that a customs union creates and/or perpetuates polarization stems logically from Corden's cost lowering effect. This in turn leads to what can be called the 'SACU corner solution' where all non-protected production for the SACU occurs in South Africa and all production in BLNS is either for own-consumption or protected by high non-tariff barriers, mineral extraction, or subsidized by high preferences into non-SACU markets. All production in the smaller states therefore requires a quasi-rents to overcome their higher costs. This quasi-rent is generated either by the state through subvention, acts of God (the deposit of minerals) or by third parties such as preference donors or lastly by the market. However, quasi-rents in the context of the market are normally transitory and therefore are rarely a basis for sustainable long term production in smaller states⁴⁷.

Empirical Studies of the Impact of SACU and the Revenue Formula

-Clark Leith

A great deal of analysis has been undertaken in Botswana of the impacts of SACU on trade and the pricing levels. The most significant was undertaken was that by Clark Leith⁴⁸ who calculated the impact of SACU tariffs on Botswana's prices, the price raising effect of the tariff. Leith calculated that based on 1987 prices and GDP the price raising effect on imports of the

⁴⁵ W.M. Corden 'Economies of Scale and Customs Union Theory', *Journal of Political Economy*, Vol. 80, No. 3, 1972, pp465-475. See also Corden W.M.' Monopoly, Tariffs and Subsidies' *Economica*, 1967, pp 50-58

⁴⁶ Viner. J op. cit. pp. 45-46

⁴⁷ Grynberg, R. ' A Theory of Trade and Development in Small Vulnerable States' in Grynberg R. (ed) *WTO at the Margins: Small States and the Multilateral Trading System*, Cambridge University Press, 2006 pp. 11-29

⁴⁸ Leith J.C. 1992 'The Static Welfare effects of a Small Developing Country's Membership in a customs Union: Botswana in the Southern African Customs Union' *World Development*, Vol. 20, No.7, pp 1021-1028 . See also Leith JC 'Botswana's International Trade Policies' in Salkin J.S. et al. Aspects of the Botswana Economy: Selected Papers. Lentswe Le Sedi, Gaborone , 1997, pp. 529 -548.

SACU tariff. This is the amount transferred annually from Botswana consumers to the government and firms of RSA. ⁴⁹The table below outlines Leith's results for the price raising effect on Botswana over the period 1985-88. It is important to note that Leith's calculations do not include excise and sales tax and therefore probably underestimate the value of the losses to Botswana at the time. However, the analysis is based on a very substantial discounting of future revenues which results from the fact that trade data is delayed and SACU members receive final payment of tariff revenues up to 2 years in arrears. Leith concludes that the loss of GDP is up to 3.25%⁵⁰. Perhaps more significantly to the present day is the fact that his counterfactual employed by Leith, that Botswana would apply the SACU tariff to all imports would not be possible for Botswana to apply under the terms of the SADC Protocol on Trade.

Estimation of Static Welfare Gain or Loss from SACU to Botswana

	1985	1986	1987	1988
Common External levies on imports from all sources	-241.21	-313.16	-371.08	-549.51
Common external levies on exports to partners	+8.62	+21.88	+29.73	+36.51
Net revenue from application of common external levies	-232.50	-291.28	-341.35	-558.00
Net present value of accrued revenue from SACU	+192.42	+238.60	+295.87	+390.93
Net static welfare gain or loss	-40.08	-52.68	-45.48	-167.07

Source Clark Leith (1992) op cit p.1024

What Leith undertook cannot be seen as a full cost-benefit of membership in SACU. Leith admits that the analysis does not cover 'the historical question of whether or not the BLS have benefited from the discipline of membership of SACU. In this regard we do not consider here whether membership has contributed to the avoidance of self inflicted policy errors found elsewhere in Africa such as excess of import substitution, domestic monopolization and macroeconomic instability'⁵¹.

⁴⁹ This corresponds to Corden's rectangle *uqwn* in the figure in the Annex

⁵⁰ Over half the losses can be explained by the discounting of future revenue which is inevitable in sharing revenue arrangement where data is not timely and its quality is poor

⁵¹ Leith found that SACU RSF had resulted in decreases GDP/capita in Botswana. The following year research by de Melo, Panagariya and Rodrick found the exact opposite for the BLS for the SACU agreement as a whole. While the study does not deal with the revenue formula per se it found that the BLS members of SACU had benefited from the 1969 agreement. Analyzing a number of trade agreements they found that there was no evidence that regional integration among developing countries exerted a positive effect on income and growth, except in the case of the Southern African Customs Union (SACU) where favorable growth effects were found for Botswana, Lesotho and Swaziland. The authors suggested several channels through which regional integration could alter economic outcomes for the better. One of the important avenues is that regional trade agreement results in a larger political community which might lessen the scope for adverse discretionary actions by governments, and in particular restrict the power of growth-retarding political interest groups, unless politically powerful lobbies can form alliances across countries. In the case of SACU where all decisions were made by South Africa in its own commercial interests in the period under study this says a great deal about the potentially adverse impact that trade policy in small developing countries can have on growth. Moreover, BLS countries continued and have continued restrictive trade policies in the agricultural sector against imports from SACU partner countries in particular. This was particularly the case post-1969 where infant industry provisions were permitted for the BLS. de Melo, J. Panagariya and D. Rodrik, 'The New Regionalism: A Country Perspective' in J. de Melo and A. Panagariya (eds) (1993), New

If one considers the time period over which Leith was undertaking his analysis ie 1985-1988 it is clear from chart 1 below that the tariff equivalent was at a very low level, averaging 11% tariff equivalent over the years covered by Leith's analysis. Leith (1997) later recalculated the net price raising effect of the tariff in 1997 assuming a 25% decrease in SACU tariffs resulting from the Uruguay Round commitments but found that Botswana would gain 1% of GDP. It is perhaps worth noting that following substantial decreases in the SACU tariffs at the end of the Uruguay Round and the 2002 renegotiation Botswana was receiving 9% of GDP in SACU transfers in 2006.

-Flatters and Stern

The most recent work on the economics of the revenue formula is by Flatters and Stern⁵². The authors address the two key criticisms that the BLNS have historically leveled at the SACU agreement. The first is the question of price escalation and second, the question of structural polarization. The authors undertake a similar, though by no means identical analysis to that of Leith for 2006 and find the following results for the BLNS.

Gross Cost Raising Effect of SACU Tariff (% value of imports, 2006)

	Cost Raising Impact		Customs transfer
	Probable	Possible	Under SACU RSF
Botswana	9.2	14.8	17
Lesotho	9.6	16.6	20
Namibia	7.4	15.1	32
Swaziland	7.9	14.1	21

Source: Flatters and Stern

Following the 2002 reforms and the lowering of external tariffs following the Uruguay round, these results What they find is that the size of the customs transfer is substantially larger than that of the cost-raising effect and therefore the BLNS are deemed to be net beneficiaries of SACU. The 7% figure for Botswana is consistent with the current author's estimates. However Flatters and Stern then go on to conclude⁵³:

.....the standard argument about 'cost-raising' impact of the SACU tariff suffers from two flaws

- It ignores the fact that in the absence of SACU the BLNS would almost certainly have raise revenues through import duties. A revenue neutral import duty (ie one that raised the same amount of revenue as each of the BLNS countries currently 'contributes' to the customs pool) would have the same cost-raising impact as the SACU tariff
- It does not take account of the distribution of customs revenues under the current formula, which provide far more than adequate compensation for any 'cost-raising' effects of the current tariff.

Dimensions in Regional Integration (Cambridge: Cambridge University Press).pp.158-193, See footnote 29 page 190

⁵² Flatters, F., and M. Stern (2006). 'SACU Revenue Sharing: Issues and Options'. *Policy Brief*. Washington, DC: USAID/SEGA.

⁵³ *ibid* p.10

In reality therefore the ‘cost raising impact’ of the SACU tariff under the current arrangements is actually cost-reducing and welfare enhancing effect for the BLNS.’

This argument ignores the fact that the counterfactual that Flatters and Stern are proposing for the BLNS ie imposing tariffs on imported products is, as discussed above, simply not legally possible under the terms of the SADC FTA⁵⁴. It would not be possible for SADC members to impose tariffs on imports from other members. This legal obligation was entered into in 2000 and implemented by 2008 and hence the authors were well aware of this. Therefore, in the absence of SACU the BLNS could only impose tariffs on non-SADC members but for the tariff to be revenue neutral given that a country like Botswana only sources some 10-20% of imports from outside SADC, tariff would certainly violate the country’s tariff bindings at the WTO⁵⁵. Thus the counterfactual proposed by Flatters and Stern is fundamentally flawed. This is more than a mere legal issue as the imposition of tariffs on a wide scale would almost certainly undermine SADC and leave South Africa without any guarantee of market access into the very region where its non-mining exports do have a considerable commercial advantage. This would fundamentally undermine the country’s trading position. The avoidance of such an outcome should be central to South African trade policy.

It is the second issue that Flatters and Stern address, that of polarization where the economics is more of concern. They argue that ‘discussions about polarization are based on the substantial differences in per capita incomes, growth rates and other development indicators among SACU member states’⁵⁶. They then go on to argue that for some of the BLNS such as Namibia and Botswana incomes are similar, if not higher than that of South Africa, and others such as, Lesotho are not. The authors further argue that the trade imbalances are a measure of polarization. Levels of GDP per capita in the BLNS have everything to do with initial endowments per capita and very little to do with SACU⁵⁷. Moreover, structural bilateral trade imbalances can occur with or without polarization. The only logical statistical measure of polarization in a customs union is the share of total imports by one partner to another partner and it is for this reason that the 2002 SACU formula should be seen as a compensation for economic polarization. What is certainly more important is the question of whether financial compensation in the form of recurrent transfers are an appropriate policy response to structural polarization.

While Flatters and Stern’s analysis of cost raising effects may have some merit given that the 2002 formula increased the level and share of payments to the BLNS their analysis of polarization is more questionable. In almost all the BLNS the modest prosperity that has been achieved is unsustainable because it remains predicated on the consumption of non-renewable mineral resources or the use of eroding preference arrangements for sugar beef, fish and

⁵⁴ SADC FTA – Article 3. By January 2008 85% of HS tariff lines were duty free. ‘Guide to the SADC protocol on Trade’ SADC Secretariat -2008. 15% of tariff lines leaves considerable room for member states to maintain some tariffs against imports from other contracting partners. Moreover, despite ‘commitments’ made to implement by 2008 many countries have not yet fulfilled their commitments under the trade protocol.

⁵⁵ The average SACU binding is approximately 8.6% though each member of SACU made separate MFN binding during the Uruguay Round. Lesotho’s bindings are much higher than that of the rest of SACU.

⁵⁶ Ibid page 10.

⁵⁷ In the case of Botswana diamond exports and prices together explain 91% of GDP per capita over the last 30 years. This also reflects relatively good governance in Botswana because, if the data existed, a similar regression analysis for DRC, Angola or Sierra Leone would be very unlikely to explain GDP per capita

garments into third country markets. Once these have disappeared then without diversification of the production base the modest prosperity of the BLNS will also disappear. This cannot be combated with recurrent revenue flows into the general revenue of the BLNS where increasing portions of national budgets are used on recurrent rather than development spending. In the final analysis only a coherent development program backed by real resources can possibly combat the impacts of polarization.

SACU Revenue Reform and Macroeconomic Stability in Southern Africa

The government of South Africa has initiated within SACU a review of the 2002 RSF⁵⁸. In the past the main thrust of the reform proposals and the limited public pronouncements that have been made on the matter indicate that the general direction the government of South Africa wishes to see reform proceed is that a greater portion of the revenue be used for development rather than recurrent purposes. However, there exist very obvious and imminent threats to the very viability of SACU and the revenue that go beyond the reform of the RSF⁵⁹. Moreover the desire of South Africa to include either Angola or Mozambique in SACU would almost certainly mean a significant diluting of the share of revenue accruing to the BLNS. There is considerable dissatisfaction with the RSF in various circles in South Africa and the move towards development funding seems a likely outcome. Depending on the outcomes of the EPA negotiations a reconfiguration of trade arrangements towards the ANSA (Angola, Namibia and South Africa) group has also been mooted.

While the situation for Botswana is such that the levels of dependence on the SACU RSF mean that any termination or a substantial change of the SACU RSF will mean that there would be a very serious fiscal crisis but the consequences for the other BLNS are far more serious than that of Botswana. Indeed Botswana, with considerable and painful adjustment could over a decade adjust to a new tax base if SACU revenues were to decrease substantially because its diamond revenues and the new base and precious metal mining activities. This cannot be said for any of the other BLNS states, even Namibia. The economic consequence of a move away from a SACU RSF that provided substantial recurrent revenues throughout Southern Africa would

⁵⁸ “The South Africans have formally proposed a change in the revenue sharing formula, which is discussed as part of a blueprint to overhaul the customs union,” confirmed Kuukongelwa-Amadhila’s permanent secretary Calle Schlettwein, who is in charge of the SACU working group tasked with this matter. It seems South Africa wants a system that instructs the BLNS countries to submit development plans that will be financed through the pool, instead of the union bankrolling national budgets. Source Tralac http://www.tralac.org/cgi-bin/giga.cgi?cmd=cause_dir_news_item&cause_id=1694&news_id=84137&cat_id=1026

⁵⁹ At the centenary celebrations of SACU President Jaob Zuma of RSA made very clear that a failure of SACU to negotiate a common EPA would result in a collapse of SACU ‘We must also remain true to our commitments particularly upholding Article 31 where we agreed to negotiate as a single bloc as a cardinal principle of our existence. This will be absolutely important if the policy and legal coherence of SACU are to be sustained. Most urgently, if we cannot pursue the unfinished business of the EPA negotiations as a united group, the future of SACU is undoubtedly in question.’ 22nd April 2010

<http://www.sacu.int/docs/speeches/2010/Statement%20South%20Africa%20-%20Centenary%20Launch.pdf>

These views were echoed by the Namibian President Mr Hifikepunye Pohamba ‘Our negotiations with third parties over the years have brought to the fore the need to develop common positions. Equally it focuses on or highlights the need for ongoing and future negotiations. This is particularly true of the ongoing negotiations for an Economic Partnership Agreement with the EU. This situation, if not arrested, has the potential to undo all the gains realised in our deepening economic integration both in SACU and SADC. 22nd April 2010

<http://www.sacu.int/docs/speeches/2010/Statement%20Namibia%20-%20Strategic%20Session.pdf>

dwarf the consequences of the 2008/9 international financial crisis has had on revenue flows to the BLNS.

- *Botswana*

The 2002 SACU RSF significantly increased the importance of SACU revenues to the government of Botswana (see chart 4). In combination with the decline in diamond revenues it was expected that SACU revenues would rise to 29% of total government revenue in 2009. As diamond prices recover in 2010 SACU revenues will once again become relatively less important. What is clear from the table below is that in the absence of the current SACU revenue formula Botswana would need to raise a tariff equivalent significantly higher than the trade weighted average in order to achieve a revenue neutral shift.

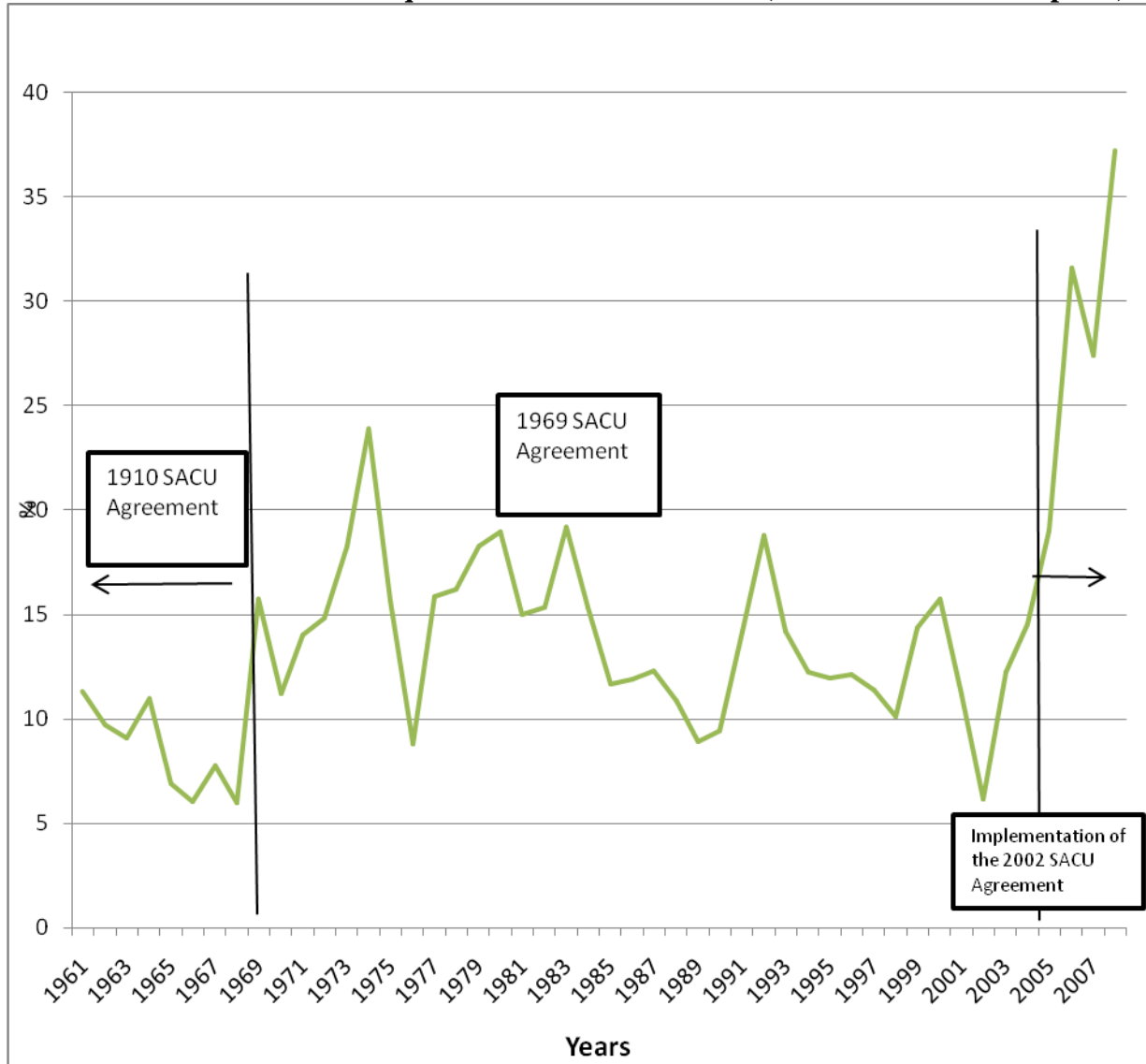
Effective and Nominal SACU Duties for Botswana

	Rate
Nominal Average SACU Tariff (2007)	7.8%
Trade Weighted Average (2006)^{a/-}	6.4%
Estimated Effective Rate of Customs Duty –Botswana (2006)^{b/-}	21%

Source WTO- Tariff Profiles, Bank of Botswana Annual Report, author's calculations a/- based on South african estimates b/- calculated as the estimated customs revenue divided by total imports. Estimated customs duties is determined by applying ratios of customs to total SACU transfers .

What the chart below depicts is the tariff equivalent for Botswana in the event that it chose to replace a potential loss of tariff and excise revenue from SACU with an import duty. The chart shows that prior to both the 1969 and 2002 renegotiations the situation in Botswana had deteriorated to the point where the level of SACU revenues were approximately 7% of imports in the three years prior to 1969 and barely 10% of the imports by the time of the 2002 renegotiation. Indeed as chart 3, which provides us with a very long term view of the role of SACU revenue shows the importance of customs union revenue to Botswana had declined before 1910, 1969 and 2002. Immediately after independence Botswana was a least developed country and to have customs and excise revenue constitute only 7% of imports which was the case in the three years preceding the renegotiation was exceptionally low for a country of that development status at the time. Thus it appears that the renegotiations have been necessary in order for assure a continuation of import duties as a source of revenue for the government.

Chart 1-Botswana Tariff Equivalent of SACU Revenue (Customs & Excise/Imports)



Source: CSO and author's calculation

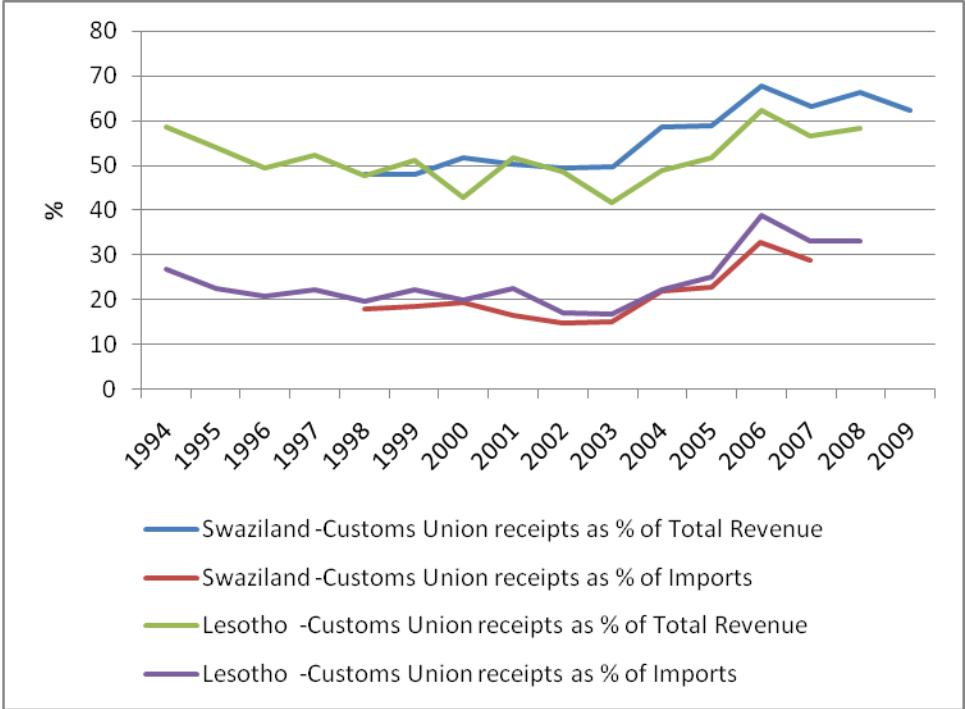
However, the risk for even Botswana, the country with the highest GDP/capita in SACU, is that SACU revenue, which is used to cover both the recurrent as well development budget of the country, has now become such a significant portion of total government revenue that the macroeconomic adjustment to any change in the formula or movement to another trade regime would be extremely difficult and fiscally destabilizing

Namibia, Lesotho and Swaziland

For Botswana the macroeconomic aggregates and the economic base are such that adjustment to losses of recurrent revenue from SACU would be extremely painful but nonetheless possible over a sufficient adjustment period. This cannot be said for Swaziland and Lesotho where the levels of dependence on SACU revenue are such that nothing short of a new

political/fiscal arrangement with South Africa could leave these two countries fiscally viable. In 2009 the last year for which data was available Swaziland received 62.3% of total revenue from SACU. In Lesotho the 2008 equivalent was 58.2%. Few countries in the world have such a high level of dependence on one source of revenue that comes essentially as a flow from abroad. Chart 2 below shows the degree of fiscal dependence in the Lesotho and Swaziland.

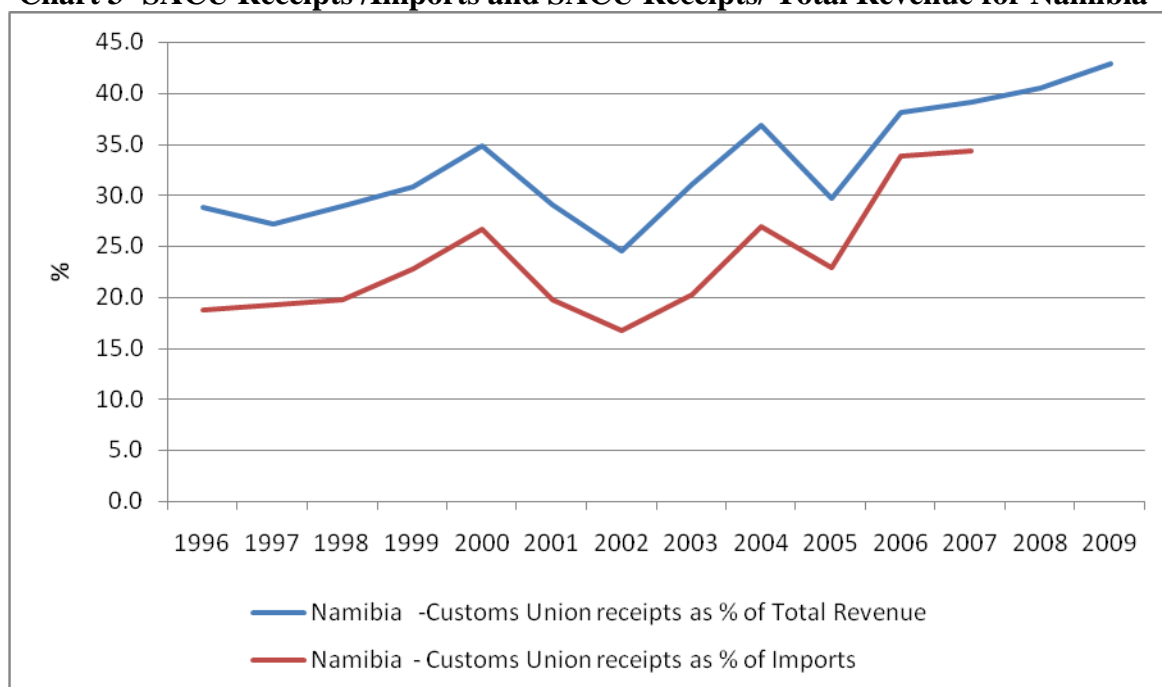
Chart 2 -SACU Receipts /Imports and SACU Receipts/ Total Revenue for Swaziland and Lesotho



Source: IMF IFS statistics, Respective Central Bank data and author’s estimates

Namibia, which has a significantly more diversified economy than any of the other BLNS states, has a rate of fiscal dependence on SACU of approximately 43% in 2009 is in a situation between that of Botswana and that of Swaziland and Lesotho. Just as in the case of the other BLNS the 2002 formula was instrumental in raising the rate of fiscal dependence on SACU revenue sources. Whether Namibia would be able to adjust to a greatly diminished flow of SACU revenues and remain solvent is debatable and requires detailed analysis but certainly its situation is on the borderline of fiscal insolvency even after macroeconomic adjustment.

Chart 3 -SACU Receipts /Imports and SACU Receipts/ Total Revenue for Namibia



- South Africa

South African concerns with regard to the RSF need to be understood as from a national perspective as the country pays a considerable price for assuring market access to the BLNS markets for its firms. The table below shows the declining share of total SACU revenue that South Africa derived. Following the introduction of the new 2002 formula the share of the entire BLNS group in the revenue pool increased over and above what had been accruing under the terms of the 1969 formula.

Share of Total SACU Revenue Pool to BLS/BLNS

	Share of the BLS/BLNS
1968/9	1.32%
1983/4	20.5%
1993/4	30.2%
1997/8	38.4%
2002/3	42%
2005/6 (post 2002)	50.02%

Source: McCarthy C. ‘The Southern African Customs Union: A Case Study’ FAO NB Data for 2005/6 is from Flatters and Stern op.cit

In the 2003 WTO Trade Policy review, immediately following the introduction of the new formula the WTO concluded⁶⁰:

⁶⁰ WTO ‘Trade Policy Review: Southern African Customs Union’ 2003, WT/TPR/S/114 page 10

SACU members acknowledge that in order to promote long term economic growth, they need to move towards sources of income other than the SACU revenue pool and advance their fiscal reform process.

In the intervening seven years the opposite has occurred for all the BLNS and the level of dependence increased substantially. The table below compares the actual customs revenue received in 2006 under various assumptions. It should be noted from the outset that this does not include excise revenues which are shared on a GDP basis and that change in the 1969 formula was substantially at the expense of the revenue accruing to the BLNS. The first column in the table below shows actual amounts of customs revenue received and compares them to what would be received by the various formulas either used in SACU or in other customs unions. These include the share of population and GDP as well as the share of extra SACU trade. If Pretoria were to abandon the SACU revenue sharing formula and raise customs revenue itself thereby leaving the BLNS to collect their own customs revenue it would have somewhere between Rand 11.5-13.8 billion more in tax revenue in 2006.

Customs Revenue in 2006 under various RSF Assumptions (ZAR millions)

	2002 Formula	Population (Zollverein Formula)	GDP (excise rule)	Extra SACU Imports (1910 formula)	Total Imports (1969 rule x 1.42)
Botswana	4,564 (25.4)	565 (3.1)	723 (4.0)	107 (0.6)	1,011 (5.6)
Lesotho	2,191 (12.2)	624 (3.5)	93 (0.5)	179 (1.0)	496 (2.8)
Namibia	4,584 (25.6)	689 (3.8)	430 (2.4)	124 (0.7)	926 (5.2)
South Africa	3,620 (20.1)	15,744 (87.6)	16,570 (92.2)	17,492 (97.3)	15,112 (84)
Swaziland	3,023 (16.8)	361 (2.)	166 (0.9)	80 (0.4)	438 (2.43)

Source: WTO and Author's calculation NB: Values in parentheses are percentages

The table below considers the counterfactual of what fiscal surpluses/deficits would be in all SACU members if the same SACU common external tariff were applied to extra-SACU imports but if the revenues were divided according to the share of extra-SACU trade. This figure underestimates the amount of revenue that countries would derive if individual BLNS levied their own tariffs but did not tax South Africa imports. The BLNS would certainly capture far more entrepot and non-originating trade if revenue collection were on a destination basis at the final border. It is however a very broad indicator for the year 2006, an otherwise good year from the point of the government revenue and expenditure when all SACU members ran fiscal surpluses. The second column is the actual surplus or deficit in 2006. The third column presents the increase or decrease in revenue as a percentage of GDP that would result from a move to a formula based on a share of intra-SACU imports i.e. 2002 formula to extra-SACU imports. The last column shows what the fiscal surplus or deficit would be in the event of such a change. What is significant is the 0.8% increase in South African GDP and no doubt the main reason for much of the discussion on the subject in Pretoria. Needless to say the deficits for the BLNS, but Lesotho and Swaziland in particular, such a change in the SACU formula would be unsustainable and would necessitate herculean adjustments in all BLNS countries. Only in the case of Botswana would there have been a surplus following such a change. The impacts would be far more serious had this analysis been performed for 2009 when all countries were running substantial fiscal deficits as a result of the international financial crisis.

Actual and Hypothetical Surpluses (Deficits) for 2006

	Actual Surplus (Deficit)/GDP	Hypothetical SACU Revenue/GDP	Hypothetical Surplus (Deficit)/GDP
Botswana	10.0	-5.8	4.15
Lesotho	11.7	-20.6	-8.87
Namibia	2.00	-9.8	-7.83
South Africa	0.4	0.8	1.19
Swaziland	9.9	-16.9	-6.95

Source: IMF and authors calculations

Conclusion

The SACU revenue sharing formula has been a source of contention between the contracting parties for half the life of the SACU agreement. The apartheid regime created a formula that served to increase the share of the BLS but this was done on an increasingly unsustainable basis that required reform in the post-apartheid era. A formula that guaranteed the BLS a share of revenue but bore no relationship to the actual size of the SACU revenue pool was bound to prove unsustainable. The 2002 reforms removed this anomaly but at the same time increased the share that accrued to the BLNS. This in turn has meant that the share accruing to South Africa has diminished over time. The 2002 formula based on a share of intra-SACU imports constitutes in effect a compensation for polarization effects of the customs union. However, to compensate for a structural phenomenon such as production polarization in a customs union by general revenue transfers to the effected party is by no means an evident solution to the complex problem of customs unions. If it is the intention of South Africa to deliver more of the SACU revenue as development projects rather than transfers to general revenue this is more likely to positively impact on the development of the BLNS than the current arrangements and should in principle be supported.

However, such a conclusion must come with a number of important caveats. First, the removal of SACU transfers from general revenue would be very difficult to achieve even for Botswana with its considerable diamond resources but it would be almost impossible for two small low income economies such as Swaziland and Lesotho. It is also doubtful that Namibia could achieve a revenue neutral change in its tax base. South Africa will have to consider appropriate fiscal/ political arrangements for at least Swaziland and Lesotho as it is difficult to imagine how either of these smaller poorer SACU members could possibly make the adjustment otherwise. Such an adjustment would result in unprecedented macroeconomic instability in both countries. Therefore like all previous adjustments to the SACU revenue sharing formula this change will also need to be preceded by a monumental shift in the political arrangements in Southern Africa. Secondly, the move to development assistance as opposed to transfers to general revenue will have to be carefully phased over a sufficiently lengthy period to allow Botswana and Namibia to adjust.

While a greater share of SACU revenues going to development funding rather than general revenue would certainly benefit all the BLNS, the administrative arrangements and technical capacity have to be developed in the BLNS to assure that this does not become an instrument controlled by South Africa simply by virtue of its greater technical capacity. This, rather than solving the political tensions that have surrounded the current formula would create a

donor-recipient relationship which could serve to exacerbate relations between the SACU members.

The dependence created by the 1969 SACU formula is one of those apartheid era scars that will take a generation to heal. If South Africa does not move patiently with the proposed reforms then it runs the risk of not only destabilizing SACU but also creating at least two and possibly three fiscally insolvent states in and on its borders. But more of concern to South Africa's own immediate commercial interests it will undermine the SADC Protocol on Trade. South Africa's commercial advantage outside the mining sector, to the extent it exists at all, is its pivotal position as a location from production and distribution of goods meant for the entire African market. A loss of market access for South African goods would undermine this commercial advantage.

The loss of SACU revenue either from a move to development formula or the inclusion of new members eg Angola and Mozambique would also undermine SADC. This would result from the BLNS countries moving to recover lost general revenue from SACU by imposing tariffs and other taxes on all imports including those from South Africa and other sources. Given the losses in general revenue involved it is almost inconceivable that the BLNS could do otherwise. This would seriously undermine South Africa's commercial advantage in Africa as a SADC FTA is at the core of the very minimum market access needs of its exporters. There are certainly numerous domestic fiscal pressures that necessitate the South African treasury trying to recoup SACU revenues but an approach that is anything other than prudent and extremely patient with the BLNS revenue will destabilize economically and politically the whole of Southern Africa and the foundation of South Africa's own commercial advantage ie its market access into Southern Africa.

Appendix

Customs Union with Economies of Scale in Production

Corden's analysis of a customs union in the presence of economies of scale is depicted below. When a customs union is created the demand function for a product expands from DD' to LL' , the difference being the increase in demand stemming from the entrance into the customs union of a smaller member. It is assumed that either the producer in the smaller market vacates the market, is driven out by the larger producer or does not exist in the first place. (The latter is most relevant to SACU). The price rise to OT from OP_m , the difference being the common external tariff. The total loss to country B is made up of two components –the trade diversion effect from country B entering the customs union - the rectangle $unqw$ plus the rectangle $fqwx$ which is passed directly to producers in A in the form of higher prices. This is a benefit to country A. All this is standard economic literature but what makes Corden's analysis different is the benefits to the producer from moving down the cost curve as customs union production expands ie $jqg'f$. It is precisely this external effect on costs that is the source of production polarization within the customs union as smaller firms that are unable to meet production costs of oj will be driven out of the market or will not even consider entry. For as long as the benefits to A ie increase in price to its producers plus reduction in production costs from economies of scale and a guaranteed market outweigh the losses effect for B a transfer payment can be devised that will keep B in the customs union. This reduction in cost from the expansion of the market that facilitates the expansion of production in A is the source of economic polarization and economic concentration of production.

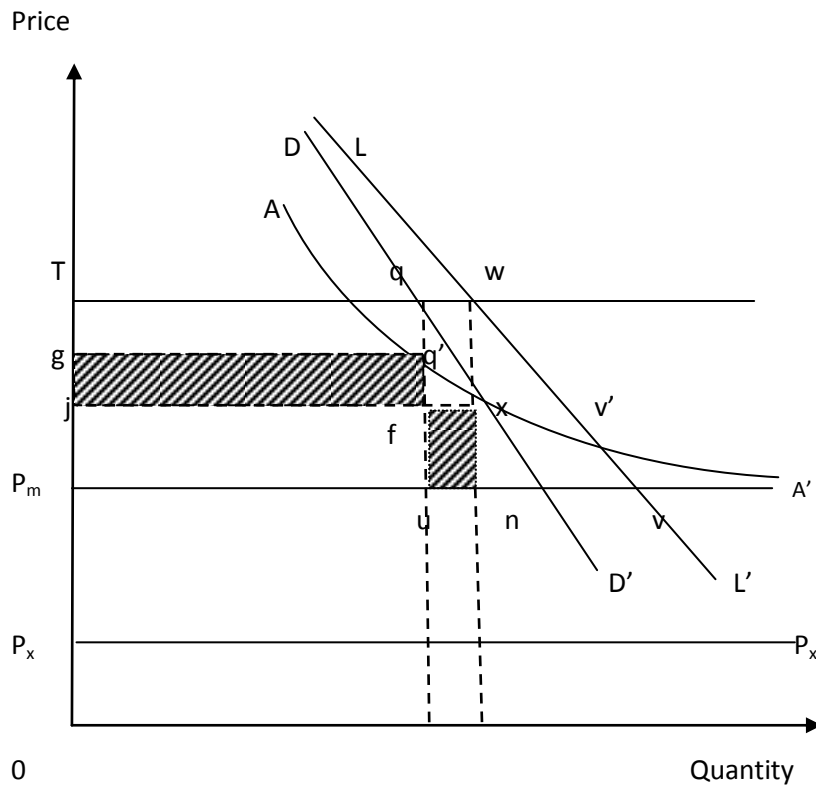


Chart 4 -SACU and pre-SACU Revenues as a Percentage of Total Botswana Government Revenue

