INAUGURAL LECTURE

TOPIC:

IS SADC AN OPTIMUM CURRENCY AREA?

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1. Introduction

Regional integration has been and continues to be a priority all over world. It is a priority in America, Europe and Asia. Regional economic arrangements attempt to accelerate their integration level and many of them consider establishing a monetary union. Many regional integration arrangements all over the world have expressed interest in forming an economic union, which involves monetary and fiscal integration. According to Patroba and Nene (2012), the Andean Community and the Central American Common Market member states held discussions on attaining a monetary union. There have also been similar discussions in the Caribbean Community (CARICOM), North American Free Trade Association (NAFTA) and Association of South East Asian Nations (ASEAN) aimed at establishing a monetary union or single currency. The European Monetary Union has widely been cited as a good example of successful monetary union (McCarthy, 2012; Patroba and Nene, 2012)

The Africa continent is no exception to this, and interest in regional integration arrangements continues to be an important part of the continent's research agenda. There is a consensus that regional integration is important for Africa's growth and

integration in the world economy. Like other developing economies, African countries have adopted strategies aimed at accelerating economic growth. Regional integration is one of the strategies that are given priority. Regional integration is regarded as way of achieving high economic growth. In regional integration, a group of countries have access to each other's markets. These countries put in place mechanism that will reduce conflicts and enjoys the economic, political, cultural and social benefits from their regional integration arrangements (Lee, 2003; Hangi, 2012). Africa has many small economies and markets, and if these markets are integrated, production investment and trade will increase. This will enhance growth and development.

In Southern Africa, the Southern African Development Community (SADC) came up with an approach that aims at addressing infrastructure, production and reduction of impediments to economic growth and development. SADC launched a Regional Indicative Strategic Development Plan (RISDP) in 2004. The RISDP articulated the road map for regional integration in Southern Africa. Under the RISDP, a free trade area will be established in 2008, a customs union in 2010, a common market in 2010 and a monetary union in 2016. Under RISDP, the framework for procedures and milestones that need to be realised to achieve macroeconomic convergence for the monetary union were established. Hangi (2012) stated that the formation of a monetary union is expected to lessen the economic and political weaknesses in SADC countries. The formation of the monetary union could help member states in negotiating favourable trade arrangements. This could be globally with organisations such as World Trade Organisation (WTO), and bilaterally with regions such as the European Union (EU), East African Community (EAC) etc. The formation of a monetary union can be expected to reduce transaction costs. These are costs incurred when converting one currency into another.

The above background raises interesting question on whether SADC is an optimum currency area. It also raise an interesting question on whether the region has made progress in achieving macroeconomic convergence criteria stated under the RISDP in 2004 and 2005. The objective of this paper is to test whether SADC is an optimum currency area (appropriate to use a single currency). The paper also investigates whether SADC member states made progress in achieving macroeconomic convergence criteria for establishing the monetary union. Section 2 reviews and apply the theory of optimum currency area to SADC. Section 3 discusses progress made by SADC countries in achieving macroeconomic convergence criteria. Section 4 briefly discusses multiple memberships of SADC countries. Section 5 concludes the paper.

2. Optimum Currency Areas: Theoretical Considerations in Forming a Monetary Union

The theory of optimum currency areas is helpful in identifying major factors to be considered in establishing a monetary union. The theory of optimum currency areas dates back to Mundell (1961) who highlighted three main conditions that must be met for a group of countries to form a monetary union and use a single currency. The first is that countries aspiring for membership of the monetary union should be affected by symmetric shocks, which means that one country should not be substantially worse-off while others are performing well. Secondly, there should be a high degree of labour mobility and wage flexibility among the countries aspiring membership of the monetary union. Thirdly, there should be a centralised fiscal policy organisation that could transfer resources from countries that are performing well to those that are experiencing an economic downturn. These conditions have become a cornerstone of recent research in assessing the suitability of a monetary union.

Traditional factors identified by theory of optimum currency areas are degree of labour mobility, openness of the economy, diversification of the economy and degree of financial integration. Recent criteria include similarity of inflation, intensity of mutual trade, time-inconsistency problem.

2.1 Labour Mobility

According to Mundell (1961), if there is a high degree of labour mobility within the region, the costs of being in a monetary union will be reduced. That is because the region will be able to deal with asymmetric shocks through labour migration. This means that there will be less need for exchange rate changes. According to Mundell (1961), asymmetric shocks which shift demand in one country relative to another, may cause unemployment if a country does not have control over the exchange rate in order to reduce the effects of negative demand shocks. If there is no price and labour flexibility, unemployment would increase unless factors of production such as labour are mobile between countries. Thus, according to this criterion, labour will move from a country that is experiencing negative demand shocks (and unemployment) to those countries that performing very well (less unemployment). That means labour mobility will be an instrument of adjustment and there will be less need to adjust the exchange rate. Hence, it is argued according to this criterion a group countries that have high degree of labour mobility are good candidates for monetary union.

The labour mobility criterion suggest that for example, if labour is mobile between countries in the SADC region, then this area would be a good candidate for monetary union. For example, if South Africa is experiencing negative demand shocks (relative to Botswana) which cause unemployment, labour mobility will be an important instrument of adjustment to this economic shock. That means unemployed South Africans can move to Botswana and get employment there. This lessens the need for adjusting the exchange rate.

Historically, labour movements have been extensive between some member countries of SADC. This was the case especially between South Africa and some few neighbouring countries. This happened in in the mining sector. Labour mobility was limited or almost non-existent between countries whose economies were dominated by the mining sector. Although there is some labour mobility between SADC member states especially in skilled and technical fields, it should be noted that there are barriers to inter-SADC labour mobility. Barriers such as immigration restrictions, language and cultural differences, and hostilities to foreigners place doubts on labour mobility as an instrument of adjustment. It should also be noted that there are real and psychological costs of adjusting to new labour environment. This argument is supported by Lanyi (1969) and Tjirongo (1995). Although this study does not present data on inter-SADC labour movements, it fails to find evidence of high labour mobility in this region.

2.2 Openness of the Economy

More open economies have a smaller share of non-tradable goods in their output. When this is the case, the exchange rate will not be an effective instrument of bringing changes in relative prices. This criterion was pioneered by McKinnon (1963). McKinnon (1963) postulated that if there is a fall in the country's export resources in the economy need to be shifted from away from non-tradable to the production of more tradable goods. According to McKinnon (1963), the smaller the share of non-tradable goods in total output, the less the exchange rate needed to transfer a given amount of resources and little movement in the relative prices will be required. Hence, more open economies are good candidates for fixed exchange rate with their trading partners. This includes forming a monetary union (Tjirongo, 1995; Masson and Taylor, 1993). The indices of openness of SADC economies are presented in Table 1.

Table 1. Degree of openness in SADC member states (Trade as % of GDP)

	2005	2006	2007	2008	2009	2010	2011	2012
Angola	140	119	120	129	110	105	108	
Botswana	86	86	95	97	86	79	94	95
DRC	79	75	134	138	106	146	146	
Lesotho	170	173	170	177	158	155	153	155
Malawi	76	70	69	77	64	74	69	
Madagascar	74	76	82	84	81	61	63	
Mauritius	126	135	125	119	107	116	120	
Mozambique	76	86	81	79	68	71	76	
Namibia	81	81	103	108	103	102	91	95
Seychelles	110	111	118	136	140	142	145	
SA	55	62	66	75	55	55	59	60
Swaziland	178	156	153	128	134	127	141	
Tanzania	51	58	65	64	58	66	81	
Zambia	71	69	78	71	68	69	68	
Zimbabwe	78	87	89	113	102	90	97	

Source: World Bank's World Development Indicators

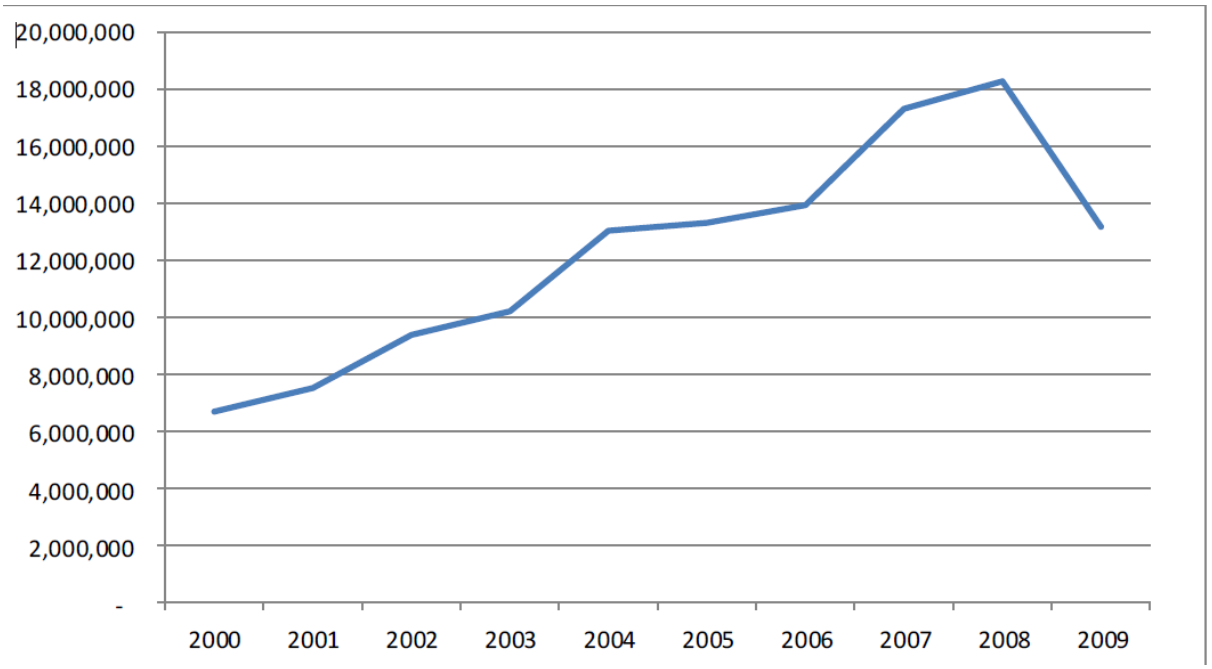
Table 1 shows that all SADC member states have open economies with the trade accounting for more than half of the countries' GDP. The results in Table 1 may suggest that on the basis of indices of openness, these countries could be grouped into a monetary union. However, this criterion needs to be analysed together with the criterion of the intensity of mutual trade.

2.4 Intensity of Mutual Trade Between Member States

The intensity of mutual trade between member countries is another important criterion in evaluating the suitability of the monetary union. The SADC protocol on trade was established in 1996 and its implementation started in 2000 (Kalenga, 2012). The aim of the protocol is liberalisation of trade among member states. It raises an interesting question on whether the protocol was successful in promoting intra-SADC trade. The trend in intra-SADC trade between 2000 and 2009 is presented in Figure 1. The total SADC trade with the rest of the world is presented in Figure 2. Figure 1 shows that intra-SADC trade has been on an increasing trend between 2000 and 2009. There was a sharp decline in the SADC intra-trade between 2008 and 2009. This could be attributed to the global economic crisis during that period. Although there was increase in SADC intra-trade between 2000 and 2009 (Figure 1), it is still low (less than 20 per cent of total SADC trade) when compared to total SADC to the rest of the world (Figure 2). The intra-SADC trade is

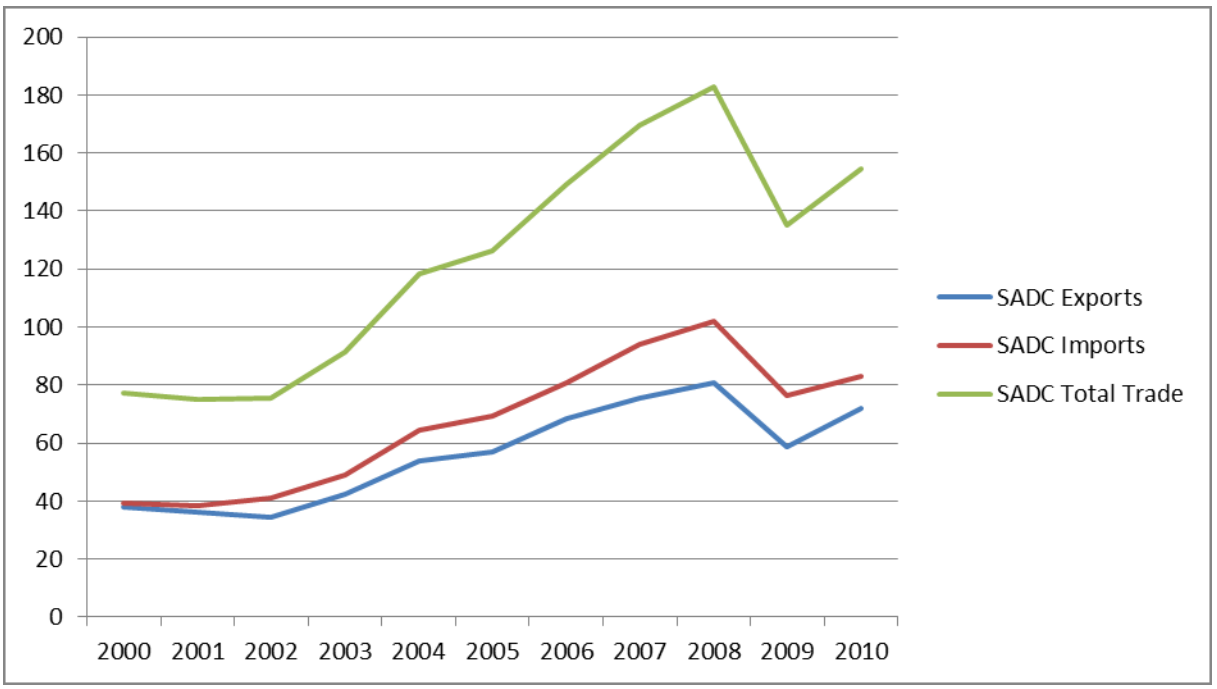
still low and if the region wants to form a monetary union, the intensity of mutual trade must be high.

Figure 1. Intra-SADC trade in US$ (000)



Source: AECOM International Development (2011: 10)

Figure 2. SADC trade with the rest of the world (US$ billion)



Source: AECOM International Development (2011: 9)

2.3 Diversification of the Economy

Kenen (1969) stated that if the economy is well-diversified, it will be less likely to suffer from country specific shock. This implies that there will be less need to use exchange rate changes in order to maintain internal stability. According to Kenen (1969), even if a country surrenders its exchange rate policy to the monetary union, shock to its economy will not have a large negative impact on the economy. Economies that are not well-diversified will be largely affected negatively and require the exchange rate as an instrument of adjustment. A monetary union would be appropriate for well-diversified economies where there could be less need for flexible exchange rate.

The degree of diversification in production and export structure is important in deciding whether a country will benefit from monetary union. Several studies such as Tjirongo (1995) and Hangi (2012) noted that the production structure of most SADC countries is clear manifestation of a developing region. A greater share of the GDP originates from the primary sectors. Most SADC economies (with the exception of South Africa, Mauritius and Zimbabwe) are dominated by agriculture and mining. Most of these countries have low manufacturing sector as a share of their GDP. These countries have manufacturing sector that accounts for less than 20 per cent of the GDP. These countries do not produce a variety of manufactured products. These countries' exports are also less diversified and dominated by few products. South Africa and Mauritius have well-diversified economies and produces variety products.

The less diversification of many SADC economies makes them not suitable for a monetary union. Since they depend on the production and export of few products, there will be a need for the exchange rate policy an instrument of adjustment against the negative economic shocks. This suggests that according to this criterion, SADC may not be an optimum currency area.

3. Macroeconomic Convergence

A memorandum of understanding was signed by the member states of SADC. In this memorandum of understanding, SADC identified four major macroeconomic target to be observed and met in order to form a monetary union in the region (Hangi, 2012; Jefferis, 2007). The macroeconomic targets to be met by member states are presented in Table 2.

Table 2. Macroeconomic Convergence Targets 2008 – 2018

Target variable	2008	2012	2018
Inflation rate	9	5	3
Budget deficit % of GDP	5	3	1
External debt as % of GDP	60	60	60
Real GDP growth rate	7	7	7
Import cover in number of months	3	6	6

Source: SADC Secretariat

3.1 Inflation in SADC

The average inflation rate for the period 1996 to 2008 is presented in Table 3. Table 3 shows that many SADC member states met the inflation target in 2008. This target is missed by Angola, Malawi, Zambia and Zimbabwe. Significant progress has been made in achieving low inflation rate by the majority of member states.

Table 3. Inflation rates in SADC

	1996-2000	2001-2004	2005-2008
Angola	340.9	112.6	14.1
Botswana	8.3	7.01	9.5
Lesotho	7.8	7.8	6.8
Malawi	30.5	12.8	10.9
Mauritius	5.8	5.5	7.8
Mozambique	12.6	14.3	9.3
Namibia	8.2	7.8	5.9
South Africa	6.7	5.20	5.1
Swaziland	8.6	7.8	7.9
Tanzania	12.5	4.8	7.1
Zambia	30.7	20.9	11.8
Zimbabwe	37.3	467.9	312.5

Source: IMF's International Financial Statistics; World Bank's African Development Indicators.

3.2 Budget Deficit in SADC

Budget deficit in SADC are presented in Table 4. Table 4 shows that only 5 countries met the fiscal deficit target in 2010 and 2011. Most SADC countries missed this target. There is still a lot that needs to be done in order to ensure that this macroeconomic target is met.

Table 4. Budget deficit as % of GDP in SADC

	2007	2008	2009	2010	2011
Angola	-2.1	8.8	-9.1	1.5	3.5
Botswana	0.0	4.2	-5.7.	-9.3	-9.3
Lesotho	-3.1	4.7	-3.8	-5.8	-13.3
Malawi	-0.7	6.5	-5.7	1.9	-0.7
Mauritius	-4.3	-3.3	-3.1	-4.5	-4.3
Mozambique	-4.3	-2.5	-5.4	-3.7	-6.4
Namibia	-0.29	2	1.9	-4.2	na
South Africa	-0.4	0.9	-0.7	-5.5	-4.2
Swaziland	2.6	-1.5	-7.1	-14.3	na
Tanzania	-9.6	-1.7	-4.3	-7.5	na
Zambia	-1.7	-2.5	-2.6	-3.1	-2.9
Zimbabwe	-17.6	na	0	-2.9	0

Source: Data obtained from Central Banks of some member states and Hangi (2012). Some SADC countries were not included due to data unavailability.

3.4 Public Debt in SADC

Public debt as ratio of GDP in SADC is presented by in Table 5. Table 5 shows that all SADC member states (with the exception of Zimbabwe) achieved a public debt to GDP ratio of far below 60%. It can be concluded that SADC member states comfortably met the target of public debt to GDP ratio.

Table 5. Public debt as ratio of GDP

	2007	2008	2009	2010	2011
Angola	26.1	17.6	22.6	21.7	17.6
Botswana	6.5	4.3	6.9	13.6	23.7
Lesotho	53.4	55	40.1	36.8	34.8
Malawi	145	31.6	40.8	35	34.7
Mauritius	62.8	51.9	59.3	45	na
Mozambique	4.5	40.5	43.7	45.1	na
Namibia	7.3	18.9	18	27.4	na
South Africa	31.6	31.4	31.5	39.4	42.3
Swaziland	25.8	16	12	14.4	na
Tanzania	63.1	31.5	40.9	43.2	na
Zambia	4.8	26.7	26.4	21.3	20
Zimbabwe	26.6	147.7	109.8	103	105

Source: Central Banks of Some SADC member states; Committee of SADC Central Bank Governors, IMF's International Financial Statistics

3.5 Import Cover in Months

The import covers in months for SADC countries are presented in Table 6. Table 6 shows that most countries performed well in terms of import cover in months. Countries that performed poorly were DRC, Zimbabwe, Seychelles, Swaziland and Malawi. These countries' import cover was less than three months. SADC countries experienced import cover of more than 4 months during the period 2008 to 2011.

Table 6. Import cover in months

	Months of import cover			
	2008	2009	2010	2011
Angola	5	3.8	6.6	7.8
Botswana	22	19	15	17
DRC	0.1	2	1.78	1.66
Lesotho	8.5	6.8	5.9	4.7
Malawi	2.4	1.9	3.1	2.3
Mauritius	5.2	7.1	7	6.3
Mozambique	4.3	5.4	5.8	5.8
Namibia	5.7	4	3	3.2
Seychelles	1.1	1.6	2.3	2.4
South Africa	3.7	4.7	4.5	4.4
Swaziland	4.6	4.1	2.9	2.3
Tanzania	4.3	5.7	5.3	4.9
Zambia	2.1	5.1	4.7	4.5
Zimbabwe	0.3	1.3	1.1	0.8
SADC Average	**4.95**	**5.18**	**4.93**	**4.86**

Source: Dlamini (2012) and Central Banks of some member states. Madagascar is not included due to data unavailability.

3.6 Real GDP Growth Rate

The real GDP SADC member states are presented in Table 7. Table 7 shows that the region did not meet the target criteria of 7 per cent. The highest real GDP growth rate of 5.85 was achieved in 2010 but still did not meet the growth target.

Table 7. Real GDP growth rate in SADC

	Real GDP growth rate			
	2008	2009	2010	2011
Angola	13.8	2.4	3.4	3.4
Botswana	3.1	-4.9	7.2	5.1
DRC	6.2	2.8	7.2	6.9
Lesotho	3.4	2.4	5.6	4.3
Malawi	8.6	7.6	7.1	6
Mauritius	5.1	3.1	4.2	4.1
Mozambique	6.8	6.3	6.8	7.2
Namibia	4.3	-0.4	6.6	3.8
Seychelles	-0.9	0.7	6.2	5
South Africa	3.6	-1.5	2.9	3.1
Swaziland	2.4	1.2	2	1.3
Tanzania	7.4	6	7	6
Zambia	5.7	6.4	7.6	6.5
Zimbabwe	-14.7	5.7	8.1	9.3
SADC Average	**3.91**	**2.70**	**5.85**	5.14

Source: Central Banks of some member states and Dlamini (2012)

4. Overlapping Membership by Some Member States

SADC member states belong to more than one regional trade agreement such as Southern African Customs Union (SACU), Common Market for Eastern and Southern Africa (COMESA) and the East African Community (EAC). Table 8 presents overlapping membership of SADC countries. Belonging to more than one regional arrangement makes regional integration very complicated. A SADC country that belongs to more than one regional arrangement (example SADC and COMESA) may find itself in challenging position when it has to negotiate with other countries such as the European Union. Such a country will need to decide whether it has to negotiate as SADC or as COMESA. To illustrate the problem of multiple memberships, we use an example of Zambia and South Africa. The two countries belong to SADC. Zambia is also a member of COMESA, but South Africa is not. As a member of COMESA, Zambia is required to impose trade tariffs on goods coming from South Africa, which is not a member of COMESA. At the same time, as a member of SADC, must not impose tariffs on goods coming from South Africa, which is a fellow SADC member state. This situation causes an economic policy headache. It is important for countries to reconsider their multiple memberships of regional trade arrangements. This would help in deepening regional integration in SADC.

Table 8. Multiple memberships

	SACU	SADC	COMESA	EAC
Angola		√	√	
Botswana	√	√		
DRC		√	√	
Lesotho	√	√		
Madagascar		√	√	
Malawi		√	√	
Mauritius		√	√	
Mozambique		√		
Namibia	√	√		
South Africa	√	√		
Seychelles		√	√	
Swaziland	√	√	√	
Tanzania		√		√
Zambia		√	√	
Zimbabwe		√	√	

Source: Author compilation

5. Conclusion

The purpose of this paper was to analyse whether SADC is an optimum currency area. It also reviewed the progress made in achieving macroeconomic convergence targets. Significance progress has been made in achieving macroeconomic convergence targets such as inflation rate, debt to GDP ratio, import cover in months. The target for deficit to GDP and real GDP growth rate has been missed by many countries. The investigation revealed although SADC economies are open and exposed to international trade, there is limited labour mobility between member states. The results also revealed that most economies in SADC are not well-diversified and depends on the production and export of few products. Although SADC intra-trade has been on the increasing trend between 2000 and 2009, it is still low when taken as share of total SADC trade. The intensity of mutual trade in SADC is rising but still low. Despite some significant progress made in achieving macroeconomic convergence target, SADC does not fulfil the most important criteria for optimum currency areas. The criteria of labour mobility, degree of diversification and intensity of mutual are not met and it can be concluded that SADC may not be an optimum currency area.

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