SINGLE CENTRAL BANK: MACROECONOMIC COSTS AND BENEFITS FOR THE MONETARY UNION

COMMITTEE OF CENTRAL BANK GOVERNORS: SADC
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Abstract
The paper examines ex-ante the macroeconomic costs and benefits of a monetary unification and consequently the introduction of a single currency within the SADC sub-region. Inspired by the separate arguments of Mundell (1961) and (1973) that monetary unification entails the loss of a policy instrument, indeed potential benefits have to be found somewhere. The cost-benefit trade-off of such monetary unification may differ substantially between industrialized and less developed countries, particularly those in SADC, where differences in fiscal needs and heavy reliance on seigniorage revenues may dominate the scope of unification. While in the presence of country-specific shocks, a single currency imposes welfare costs associated with the lack of exchange rate adjustment, the single currency area offers risk-sharing benefits in the face of country-specific shocks and restricted ability for capital markets to facilitate consumption insurance. The paper concludes that the approach to establishing a regional central bank and the introduction of single currency should be considered a long-term goal. It is apparent from the study that the attainment of macroeconomic convergence is a key step to minimizing costs and maximizing benefits of Member States of such unification. This way, the first benefits for Member States will be efforts to achieve macroeconomic stability itself. With convergence shocks could be similar in effect (symmetric) since the economies would have similar financial structures and similar trade patterns.
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1. Introduction and Background

Monetary union is simply defined as a group of countries which share a single currency. Some economists have defined a monetary union more broadly as two or more countries with different currencies having a fixed mutual exchange rate monitored and controlled by one central bank (or several central banks with closely coordinated monetary policies). The current study defines monetary union as a group of countries with one central bank and one single currency.

The starting point of analyzing the costs and benefits of a monetary unification is the path-breaking article by Mundell (1961) who showed that countries form a so called optimum currency area. The assertion in this phenomenon is that the gains from reduced currency exchange costs under a monetary union outweigh the costs associated with imperfect macroeconomic stabilization because real wages are slow to adjust in response to changes in local labor market circumstances. At the continental level there has been heated debate for a fast-track monetary integration in Africa with prospects for establishment of an African Central Bank (ACB) by 2021. Commentators and pro-single African currency advocates envisage that a single currency would be a pillar of unity and a symbol of strength. In 2007 at their Tripoli Meeting, the African Union Commission (AUC) and the Association of African Central Banks (AACB) Governors instituted a study to define a common strategy of establishment of the ACB. However, just like other regional blocks, SADC’s 14 Member States felt the starting point was to establish regional central bank and single currency by 2018 before the continental bank.

However, establishing such an institution entails a number of economic and political incidences on the region and deserves careful examination. Establishing a monetary union entails giving up monetary autonomy which, in turn, means the loss of a policy instrument to stabilize national economic shocks. In this regard any net economic benefit must derive from institutional, political and other considerations that limit the scope for attaining an optimal allocation under autonomy. One example concerns the incentive for competitive devaluations while the other example concerns the benefits of lower inflation for countries with weak institutions. In the design of macroeconomic framework under a union, substantial attention should be devoted to fiscal policy arrangement as a union may create several complications for fiscal policymaking. Generally, governments pursue different macroeconomic objectives than the union. The union

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1 WebFinance, Inc, BusinessDictionary.com
2 Summary Progress Report on the implementation of the African Monetary Cooperation Programme (AMCP) in 2009
may be more concerned with stabilizing inflation at low level while governments will mostly aim at achieving a high and stable level of economic activity.

There have been numerous studies relating to the preconditions for a successful monetary union, including the preconditions specified in the Optimal Currency Area (OCA) literature. These studies are indeed useful in determining desirability and feasibility of establishing a monetary union and indeed the creation of a single central bank. However, the studies fall short to determine the costs and benefits of such a monetary unification given the variant nature of the economies. A few studies that have attempted to look at benefits and costs have often given undue emphasis on the benefits and have underplayed the costs of the monetary union.

Regional cooperation and integration have become increasingly important and countries in the SADC region have made tremendous strides. Concerted efforts have been undertaken by Member States to attain the set convergence criteria and maintain them despite several internal and external shocks. The key factor and driver to achieving the convergence criteria has been harmonization of policies in the region. However, meaningful harmonization can only be achieved if a careful analysis on the macroeconomic implications of a monetary union is taken into consideration on individual countries as well as the region as a whole. The interest in a monetary union is induced by two principal reasons, both of which transcend the conventional economics’ aims of higher economic growth and lower inflation. First, it is clear that the euro area’s successful launch has stimulated interest in monetary unions in other regions. However, recent developments in the euro-zone have taken aback many countries and to date, there remains a lot of unanswered questions as to whether, indeed the benefits of moving into a monetary union outweigh the costs. For instance, it may be argued that if the process of creating appropriate institutions was so difficult in developed countries with highly competent bureaucracies and cooperation of more than 50 years, then the challenges should be enormous for African countries, where fiscal problems are much more severe and the credibility of monetary institutions is more fragile. Secondly, African monetary unions have been persuaded by the desire to counteract perceived economic and political weaknesses. The perception is that regional groupings could help Africa in negotiating favourable trading arrangements, either globally or bilaterally. While the objective of regional integration seems well founded, it is unclear whether forming a monetary union would contribute greatly to the desired favourable trade arrangements. A currency that is ill-managed and subject to continual depreciation is not likely to stimulate pride in the region or give the member countries any clout on the world stage.
Literature derived largely from Mundell’s seminal article setting forth the “Theory of Optimum Currency Areas” in a nutshell says that a common currency can save on various types of transactions costs. But a country abandoning its own currency gives up the ability to use national monetary policy to respond to asymmetric shocks. These costs, can in turn, be minimized by greater flexibility of the economy. That is, a country relinquishing its national monetary sovereignty may nevertheless be able to adapt to these shocks, mainly through labour mobility, wage and price flexibility and fiscal transfers. The likelihood of a country experiencing asymmetric shocks depends on how similar its productions and export structures are relative to its partners in the monetary union.

Considering that industrialized countries have much better communication and transportation links than African countries, it should not be expected that the same gains realized from economies of scale and reduction of transactions costs in developed economies could be realized in African countries, even in proportion to its economic size. Due to their high specialization, African countries suffer large terms of trade shocks which often do not involve the same commodities and hence, do not move together. Neither structural features of the economy nor available policy tools hold much promise for facilitating adjustment to these shocks. Labour mobility in some African regions is limited and politically sensitive. Moreover, currently little scope exists for intra-African fiscal transfers.

The rest of the paper is structured as follows: Section 1 outlines, motivation, justification, objectives of the study, and provides a brief review of literature on monetary unions. Section 2 reports data issues, indicating the sources and scope of the data and characteristics of the data used in the study; and further discusses the methodology used in the analysis highlighting the stylized facts regarding the general concepts of costs and benefits from empirical work in Africa as well as elsewhere. Section 4 gives the empirical results of the analysis. The conclusions drawn from this exercise are presented in section 5.

2. Motivation

Overall, the African continent experiences a number of institutional challenges. Existing national central banks generally are not independent and countries have often suffered periods of high inflation because their central banks were forced to finance public deficits or other quasi-fiscal activities. A critical question for SADC would therefore be whether the creation of a sub-regional central bank can be a vehicle for solving credibility problems that bedevil
**existing central banks.** If so, establishing a central bank that is more independent and exerts greater discipline over fiscal policies than is the case with national central banks may enable it to become an “agency of restraint” (in the words of Paul Collier, a prominent economist). However, history tells us that such an agency of restraint requires other institutional buttresses and does not emerge directly from monetary union alone.

A second question that has stimulated debate since the 1960s, which is also the key motivation of this research is: **Do the benefits of enhanced credibility, predictability and stability of the macroeconomic framework exceed the costs associated with the inability to tailor monetary policy to the circumstances facing a particular country?**

In fact, the experience of Africa’s two long standing monetary or foreign exchange unions - the CFA franc zone and the Common Monetary Area (CMA) based on the South African rand - does not support the view that the existence of a monetary union per se is associated with a dramatic increase in regional trade and policy coordination. The extent of intra-regional trade is greater than predicted by the basic gravity model in the West African Economic and Monetary Union (WAEMU) and the CMA but not in the Central African Economic and Monetary Community (CAEMC). In the CFA franc zone, it took the severe crisis of the late 1980s and early 1990s to spur a major effort at policy coordination, leading now to the new super national institutions. In the CMA, asymmetry in size gives South Africa the power to set monetary policy for the region. Explicit macroeconomic coordination is less necessary as the smaller CMA member countries - Lesotho, Namibia and Swaziland - do not have access to monetary financing from the South Africa Reserve Bank. In terms of macroeconomic performance, while the CFA franc zone has unambiguously achieved lower inflation levels than other currency regimes in Africa, the evidence on growth is mixed. The success and endurance of the franc zone is, however, partially due to the special circumstances of French support, particularly the French Treasury guarantee of convertibility embodied in the operations account. The CMA countries have also generally benefited from low inflation and there is evidence of per capita income convergence in the union.

In the SADC region, there have been strides towards establishing an economic union with the aim of having a single market for goods, services, capital and labour, complemented by common policies and coordination in several structural, micro- and macroeconomic domains. Whilst an

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3 Comprising two regions, the West African Economic and Monetary Union, and the Central African Economic and Monetary Community
efficient economic union requires much less centralization of policy competences, a monetary union requires more of the same. However, in adopting the single currency and considering that the Member States are at different levels of development, structurally and institutionally, it is important to note that there are also diverse potential costs and benefits experienced from country to country.

The focus of this paper is assessment of potential macroeconomic costs and benefits of a SADC monetary union on the Member States. Some stylized factual analysis is undertaken to establish whether the costs and benefits would by synonymous to all Member States.

3. Justification

A number of studies have been undertaken on regional integration and many of these studies allude to the fact that regional integration without due consideration of monetary union is meaningless. In a number of regional integration models, experience has shown that monetary cooperation has been relegated to the background and often it has been the last stage of economic integration. In the SADC region, Member States are well aware of the importance of economic integration generally and especially the need to harmonize their economic policies as well as promote efficient financial markets. For this reason, monetary integration forms an integral part of the SADC integration process and is well recognized in the Treaty.

Whilst tremendous progress has been made to establish a customs union and convergence criteria for macroeconomic prudential, there has been slow progress in making a decision when it comes to the realm of monetary integration. There is need for the authorities to make informed decisions regarding establishment of a single central bank which in consequence is the final outcome of a fully-fledged monetary union. The key questions that remain unanswered are: *Are there fears to make such a move? Are the fears justified? What are the consequences of having a single central bank in the SADC region?* This study has been designed to provide some degree of comfort or indeed aggravate the fears that the policy makers have in endorsing the establishment of the monetary union in SADC. Experience in other regional blocs provides a lesson to SADC, that monetary integration is indeed the heart of economic integration. It is against this background that this research is geared to examine the implications of establishing a single central bank vis-à-vis a monetary union as ignoring such important aspects of the integration process of monetary integration may erode all the benefits of economic integration achieved so far.
4. Objectives

Whatever the arguments for or against the establishment of the monetary union, it makes a lot of sense to assess such unification on its economic merits. In recent years, the assessment of the importance of having a monetary union in Southern Africa has been the central focus of research on African integration. This growing interest stems from several factors. Firstly, it is an outgrowth of a movement toward increased solidarity in Africa more generally (Cobham and Robson, 1994). African Monetary Union is sometimes seen as a symbol of strength, and some of its proponents hope that it will help provide support for political integration. The main focus of this research is to assess the potential macroeconomic costs and benefits of a monetary union in the SADC region.

5. Literature Review

Research into the costs and benefits of monetary unions date back to the seminal contribution of Mundell (1961). In his view, a group of countries form an optimum currency area (OCA) if the benefits from eliminating currency conversion costs outweigh the cost of being able to stabilize country-specific shocks under a union. Building on Mundell’s work, McKinnon (1963) emphasized the importance of an economy’s openness as measured by the tradable sector relative to that of the non-tradable sector. Given that the foreign currency price of tradables is determined abroad, in a small and highly open economy, the general price level in domestic currency, which is primarily determined by the tradable price level, is sensitive to exchange rate movements. In addition, the trade balance will hardly be influenced by exchange rate changes. Hence, for such an economy unification offers the benefit of a more stable price level, while the cost in terms of losing an instrument for attaining external balance is low. Kennel (1969) argues that the more diversified the economy is, the less vulnerable it is to sector-specific shocks and the smaller is the stabilization costs of joining the monetary union.

As pointed out by Tella (2002), although intra-regional trade has been the primary focus, harmonization of the monetary and fiscal policies as well as integration of the money and capital markets of the integrating partners are key to the integration process. De Grauwe, (1997), argues that although there is generally consensus on positive economic effects, especially microeconomic effects, such as direct and indirect transaction costs reduction, less uncertainty

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4 The African Union a Pan African organization, the Consultative Act of which entered into force in 2011, set the goal of a single currency in Africa by the year 2021.
and transparency in price determination mechanisms, there is no agreement on potential costs. He further argues that the potential cost of joining a currency area is the loss of monetary policy instruments at national level such as exchange rate as stabilization mechanisms against macroeconomic shocks that can affect one country of the area or affect them in different manners.

Adams, (2005), in his review of literature on the techniques establishes that various researchers had mixed results from using the Optimum Currency Area (OCA) theory where there was divergence of some being positive in favour of relevance of the monetary union and others being negative. He then proposed use of a new application of OCA index propagated by Bayoumi and Eichengreen and an augmented gravity model analysis. He concludes that the traditional OCA theory may not be relevant for Africa.

Friedman (1953) observed that an economy afflicted with wage and price rigidities should adopt flexible exchange rates in order to maintain both internal and external balance. Subsequently Mundell (1961), in originating the concept of an OCA, argued that factor (especially labour) mobility is a partial substitute for wage price flexibility since such mobility can moderate the pressure to alter real factor prices in response to disturbances affecting demand and supply. In a related study, Mundell also noted that economies subjected to similar terms of trade shocks are more suitable candidates for an OCA than economies that are prone to asymmetric shocks. This is the case because, in the former case, the similarity of the shocks negates the need for exchange rate adjustment between (or among) the economies and permits implementation of a common monetary policy.

Ingram (1962), in his thesis, asserts that financial integration can cushion temporary adverse disturbances by encouraging capital inflows, reduce differences in long-term interest rates, and foster a more efficient allocation of resources. On the other hand, McKinnon (1963) argues that everything else equal, relatively open economies are better candidates for monetary unions than relatively closed economies since in the former exchange rate changes are not likely to have significant effects on competiveness. In addition, Kenen (1969) states that more diversified economies are better candidates for OCA membership than less diversified economies since

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5 Labour mobility is a partial substitute because such mobility is usually low in the short run
diversification provides some insulation against a variety of shocks, forestalling the necessity of frequent changes in the terms of trade via the exchange rate.

In the traditional OCA literature, the main benefits and costs of monetary union derive from the elimination of the transaction costs of exchanging currencies and the elimination of exchange rate volatility, the latter of which is thought to decrease cross border trade and investment (Robson, 1987 and Taylas, 1993). Additionally, the adoption of a single currency eliminates the need for firms to maintain staff to look after exchange rates within the area.

Empirical researchers dealing with common currency area formation face the problem that there is no single, overriding criterion that can be used to judge the desirability and/or viability of a monetary union. Moreover, researchers working on African regions are confronted with the problem that reliable data on the key OCA criteria such as the degree of labour mobility among countries and the degree of financial integration and wage price flexibility are often difficult to obtain. With regard to financial integration, the common measures of such integration include the covered and uncovered interest rate parities and saving-investment correlations. In the case of African economies, the data necessary to construct measures of financial integration are often not available. For instance, measurement of covered and uncovered interest rate parities depends on interest rates in the countries concerned but reliable interest rate series for many African economies often do not exist over long-term periods.

With regard to labour mobility in Africa, Boughton (1993) noted that although such mobility in Africa appears to be circumscribed by that large distance between population centers and a limited availability of transportation, there has nevertheless been a long history of intra-regional migration of labour. However, apart from Wang, et al (2006) who provided data on the number of migrants from Lesotho, Swaziland and Namibia during the 1950-2005, Houssa (2008), who provided data that there has been considerable labour migration among western African countries, there has been little in the way of assessment of the factor mobility among African economies.

5.1 Costs and Benefits of the Monetary Union

The gains and losses arising from the establishment of monetary union are dependent on the structural characteristics of the economies concerned. At the moment countries in the region are still dealing with issues of common external tariff and economies are at different stages of
development. For example, *ceteris paribus*, if a group of countries is very open to intra-group trade, the net gains derived from a common currency will be greater than it would be if the economies possess large non-traded goods sectors and/or strong trade links with countries outside the group.

As alluded to earlier, the set up and unique characteristics of the SADC economies will make them experience the gains and costs in a different manner and also different from country to country. Due to these structural differences, the methodologies used in other industrialized economies to analyze the costs and benefits may also yield different results or indeed be irrelevant.

### 5.1.1 Costs of a Monetary Union

The main costs of a monetary union are those attributable to the inability of the authorities of the individual countries to use a country–specific monetary policy, which is the ability to control the flow of money in the economy by setting interest rates and to using exchange rate as an instrument of macroeconomic adjustment.

i. **Loss of nominal exchange rate as a policy tool for adjusting to country-specific external shocks** e.g. swings in foreign demand, sudden stops in capital inflows.

It is practically inevitable that a large and diverse single-currency area, such as the SADC will face periodic asymmetric shocks that will affect various Member States differently and drive economies out of alignment. In such a case, there is little that a country so adversely affected can do. It is clear that a country would not be able to adjust the exchange rate or use monetary policy to overcome its particular problem because of the single currency. Moreover, fiscal discipline will also prevent the use of this policy to deal with the problem. While exchange rate adjustments are generally easy to handle, the only substitute in a monetary union would be direct downward wage adjustment. Since wages are rigid, this instrument has never been used and would meet with strong resistance from trade unions. This may also not work very well in the region because there are rigidities in labour mobility in the SADC region. The lower labor mobility among SADC members are language barriers, unaccommodative labour regulations and laws and inflexible housing markets.

ii. **Loss of national monetary policy control**

- If control ceded to foreign central bank through currency board or adoption of a foreign currency, then interest rates depend on foreign central bank’s policy choices (e.g. problem of Argentina’s currency board).
• If control ceded to a regional central bank, then interest rates more geared toward maintaining “average” stability, rather than responding to conditions of individual members (e.g. problem of EMU)

Whatever the form, this is the loss of a very important way of moderating demand shocks and of any ability to influence a country’s own inflation rate. The conduct of the newly created SADC union-wide monetary policy will be a challenge where one set of countries are facing very rapid growth rates and a rise in inflation, while another set are facing low growth rates and a high rate of unemployment. Countries with very rapid growth rates and a rise in inflation need a restrictive monetary policy, while those facing low growth rates and a high rate of unemployment require a lower interest rate. Clearly, the single central bank cannot accommodate both set of countries at the same time and is likely to conduct an average monetary policy, which is too relaxed for the first set of countries and too stringent for the second set. It is true that with an ever-more-integrated international financial system the ability of a country to conduct even a semi-autonomous monetary policy is very limited, but with a single currency a country will not be able to conduct any monetary policy.

iii. Loss of what central bankers call seigniorage income

This is the income which a central bank generates by issuing little pieces of paper that we call money. These little pieces of paper are issued in exchange for good value, and that value is invested in government securities at the going market interest rate. The interest income earned is called seigniorage income. Member countries would retain a share of the seigniorage income appropriate to their relative size in the new currency union. However the complication will be on the formula of distribution of that income.

iv. Fiscal policy and conflict of interest in a monetary union

The general notion is that the national fiscal policies should play an enhancing role in adjusting to macroeconomic shocks in the absence of national monetary policies, and the potentially destabilizing impact of inflation differentials on real interest differentials. It is envisaged that this may cause some problems, such as: that fiscal authorities may pursue different macroeconomic objectives than the monetary authorities, and that fiscal expansion may produce harmful cross-border spillovers. It is most likely that within the proposed SADC monetary union there will be more emphasis to stabilizing inflation at low levels while the governments will be more concerned with a high and stable level of economic activity. Recognition of possible conflicts of interest across national governments, in a situation where a single monetary authority and many fiscal authorities may all have the potential to influence the price level, there might be need to restrain fiscal expansion.
v. Creation for peripheral SADC nations.

Greater economic and financial integration, which the move toward the single currency will entail and encourage, is likely to increase the geographical concentration of economic activities at the core of the SADC area and lead to increased economic inequalities between the center and the periphery. Falling short of mentioning, but the obviously smaller states are likely to become relatively poorer as a result of the process of ‘cumulative causation’. Specifically, peripheral countries are likely to lose their best-trained professionals, who would be attracted to the higher salaries and the better career opportunities in the SADC core areas. Similarly, because of the smaller risks and the likelihood of higher returns, the savings of the peripheral areas may flow to and be reinvested in the SADC core states (a good example is the investment flows from countries like Swaziland and Lesotho into South Africa’s JSE by the insurance and mutual funds). Finally, it will be difficult for industries in peripheral countries to effectively compete with SADC core industries without the natural protection afforded by the previous existence of a national currency.

Box 1: The UK’s Perspective of the Costs of Economic and Monetary Union

According to Patrick Minford of Cardiff Business School, Cardiff University, the Chancellor listed the general effects of monetary union on the British Economy as follows:

Costs

1. Shocks Without an Independent Currency

A single currency implies a single interest rate unless there are such barriers to the movement of money as exchange controls or differential taxes on interest rates (all of which are explicitly forbidden under the Maastricht Treaty. With a separate currency which freely floats as required by differing interest rates or other factors that influence people’s desires to put money in different countries, the Bank of England has the power to alter interest rates to suit the UK. With the same interest rate across Europe set by the European Central Bank, and suppose the UK is in a recession and the rest of the euro-zone is not, then its recession can become longer and worse because interest rates cannot be lowered. With repeated differential shocks this would mean that the UK would suffer greater variability of unemployment, output and prices than it would with freedom to set its own interest rates. This would more than double the economy’s cyclical instability.

2. Harmonization

In is advanced that what is needed is ‘harmonization’ of taxes and other institutions, as this would reduce the extent of differences in response to shocks and even increase the similarity of shocks by somehow creating a similarity of industrial structure. The UK feels that, given the preferences of the majority of states in the euro-zone, harmonization envisaged here would be around a rate of taxation, social support and regulation well above that currently prevailing in the UK. This could inflict serious damage on UK employment and output by reducing labour competitiveness.

3. Bail-out and the Emerging State Pension Crisis

The three largest nations in the euro-zone, Germany, France and Italy, have serious projected state pension deficits. The more integrated EMU becomes the greater both the political pressures for concerted action and the economic fallout from letting a fellow-EMU member-state default partially on its debts. (Economist Intelligence Unit July 1997– Pros and Cons of EMU, by David Curie)
5.1.2 Benefits of a Monetary Union

In a SADC Monetary Union countries in the sub-region would benefit from economies of scale in many ways.

i. Expansion of the Foreign Exchange Market

The foreign exchange market would increase due to monetary integration, consequently there would be a decline in both the volatility of prices and the ability of speculators to influence prices and thus to disrupt the conduct of monetary policy. In such an expanded market there would be no need for reserves for intra-area transactions. Since exchange rate parities would be truly immutable, this would offset the effects of speculative capital flows within the area. In addition, with structural diversity among Member States, any balance of payments imbalances would be offset by the improved allocation efficiency of financing. For SADC, an added benefit could be that such a monetary union would provide smaller countries with a convertible currency.

ii. Reduction in Transaction Costs

The introduction of a single currency should reduce transaction costs such as exchange fees. In addition as is argued by Fenton and Murray (1992), companies should face lower costs in the area of multi-currency book entry keeping. Furthermore, positive effect should arise from the reduced need to hold foreign currency reserves. As a consequence, reduced transaction costs should lead to higher output and consumption gains thereby improving welfare.

iii. Elimination of Exchange Rate Volatility within SADC

Along with eliminating the need to exchange currencies, the problems with exchange rate volatility would also be eliminated between member nations, save for those currencies outside the union. Volatility in exchange rate can pose a major problem to trade. Therefore, a major attraction of monetary integration is its trade-creating potential within and beyond the constituent states by removing some payments obstacles to trade. As the cost of money conversion and forward cover required in a flexible exchange system are eliminated, the

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6 According to Robson, 1987 and Tavlas, 1994, both lenders and borrowers have access to a broader spectrum of financial instruments, enabling borrowers, lenders and equity investors to make more efficient choices in terms of duration and risk.

7 Exchange rate fluctuations are a major form of transaction costs because they make trading between firms from different countries more risky.
common currency constitutes a reliable anchor for businessmen in their trade contracts and position-taking on trade issues generally.

iv. Prevention of Competitive Devaluation and Speculation
A competitive devaluation is when one country devalues its currency in order to export more goods. In response, the trading partners of that country would also do the same thing, resulting in a downward spiral regarding currency value as well as an increase in inflation (Eudey, 1998). Countries pursuing independent monetary and exchange policies but trading to each other tend to be characterized by harmful monetary spillovers and competitive devaluations (depreciations). This may create significant macroeconomic costs such as reduction of trade and employment to some countries especially those with relatively small economic sizes. A monetary union will tend to eliminate such costs since the countries no longer have freedom in monetary and exchange rate policies which they can pursue competitively. The case for macroeconomic gain that can be achieved from by eliminating competitive exchange rates and monetary policies is strengthened by trade implication for a monetary union. In particular empirical evidence suggest that macroeconomic benefits will tend to be strengthened due to increase in trade and investment arising from the elimination of exchange rate volatility and lower transactions costs (Rose (2000))

Since the goal of the union is to keep inflation rates low, the switch to a single currency makes sense. In terms of speculation, a single currency for the group of nations would help to eliminate speculation between Member States on development of other countries’ currencies. In addition, given the fixity of exchange rate under a monetary union arrangement, speculative capital flows would be eliminated, thereby relieving the authorities’ frustration in their monetary control.

v. More Credible Monetary Policy and Lower Inflation
All things being equal, a monetary zone with a supranational currency would be more stable and provide safer capital mobility. Longer term interest would decline and be less volatile. An example in the euro area when interest rates declined in a number of countries, notably Ireland, Italy, Portugal and Spain, a development which reduced fiscal imbalances and promoted growth. Although an important reason to form a monetary union is that this offers a route to low and stable inflation and that the monetary policymaker would ideally want to

commit to a shock-contingent monetary policy rule that generates low inflation on average, commitment to such a rule is often hampered for political reasons. Practically the alternative of pegging the currency to that of a country with a more disciplined monetary policy faces the challenge that the anchor country responds to shocks that may differ from those affecting the other member countries. Hence monetary unification becomes a trade-off between reduced stabilization of the country-specific shocks and enhanced credibility of monetary policy that would result in a lower inflation outcome.

vi. Capital Market Deepening
Monetary union involving a common currency is tantamount to the unification of the national capital markets of the integrating countries who would promote market deepening, greater competition and more investment opportunities for institutional and individual investors. The combined effects of increased competition and enlarged market should result in a fall in long-run interest rates which is a critical condition for sustained economic growth.

vii. Enhanced Central Bank Independence
There is supporting evidence from a few studies that confirm that there exists a statistically significant relationship between greater independence and lower inflation. In this regard if monetary union would enhance central bank independence then central banks that are currently not independent would benefit from joining monetary union.
5.1.3 Lessons from the Common Market Area (CMA)

Currently the four CMA countries (South Africa, Lesotho, Namibia and Swaziland) are in a kind of currency union despite the fact that each one has its own currency. They are all pegged to the South African Rand, meaning that there is no exchange rate differential. Going further into the single currency CMA would have the following benefits:

i. Economies of scale leading to somewhat lower costs there would be significant gains in seigniorage revenue.

ii. The currency used in the other three countries will also be legal tender in South Africa

iii. Diplomatic breakthrough for economic integration in the region

iv. All the four countries will participate in the formulation of the monetary policy for the CMA

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**Box 2: The UK’s Perspective of the Benefits of Economic and Monetary Union**

According to Patrick Minford of Cardiff Business School, Cardiff University, the Chancellor listed the general effects of monetary union on the British Economy as follows:

**Benefits**

1. **Reduction in Transaction Costs**

Studies revealed that on average across the EMU members there would be savings in the dealers margins of 0.4% of GDP, whereas for countries with advanced banking systems like the UK it was found that savings would be much smaller, around 0.1% of GDP

2. **Elimination of Exchange Rate Risk**

The core argument for going into EMU is elimination of exchange rate risk against the euro. This elimination is envisaged to remove trade barrier and promote much more trade with Europe, will increase foreign investment in the UK, and will reduce the cost of capital. Assuming that the exchange rate risk is an important influence on trade, foreign investment and the cost of capital, however, the euro is not a world currency and UK trades more with the dollar area. The high variability of the euro/dollar exchange rate that exists currently may increase further the risk to the UK if she joined the Euro.

The more the financial markets can diversify this risk away, the cheaper the ‘hedging’ deal they can offer the trader. The trader that is exposed to foreign exchange risk can insure it by covering his exposed position by buying or selling foreign currency for future delivery from a financier (a bank), that then carries the risk. In trade the main risk is that the exchange rate will change after the deal has been concluded – this will usually be over the short-term. In foreign investment the risk is that the plant in the host country will experience a rise in costs of production that is not matched by a fall in the exchange rate.

The studies reveal that the volatility in the pound’s risk-premium is not an important factor in determining the variability of the economy under floating.

3. **Transparency of the Price Comparison**

Prices, it is said will be easier to compare in a foreign currency; hence the consumer will gain from greater competition bringing enhanced price similarity. This argument is only of interest for substantial traded goods or services in the case of the United Kingdom which has no relevant borders with the continent. *(Economist Intelligence Unit July 1997– Pros and Cons of EMU, by David Curie).*
v. This would instill fiscal discipline through establishments of legal limitations and checks and balances

vi. The CMA will have one common monetary policy goal

vii. There would be efficiency gains in the use of human and capital resources

The benefits, notwithstanding, there are challenges and costs that have been identified within the CMA integration and these are as follows:

i. The seigniorage revenue gained faces the challenge of how it would be shared, as already with the export revenues the CMA countries are experiencing challenges on the sharing formula.

ii. National symbols and identities fall away and the option of de-linking and pursuing own course of action to address the country specific shock becomes very difficult.

iii. For Lesotho, Namibia and Swaziland, their ability (although constrained at present) to maintain short-term interest rates slightly different from that in SA falls away. Ability to address shocks specific to an individual country may be compromised.

iv. South Africa would lose some degree of freedom in setting monetary policy. Moreover the weighting of each member in the joint MPC would be a great challenge. If using proportional representation would be based on the GDP shares, population or monetary deposits the three smaller countries will have very limited representation and there will be a clear distinction between the core and periphery countries.

v. Fiscal autonomy is severely limited in each of the participating countries. Legal framework in each country would have to be changed and a clear mandate given to the common central bank that is acceptable to all governments. It would have to be reaffirmed that an inflation-targeting regime would apply, or the South African government would have to be convinced otherwise.

vi. With free movement of human capital there will be retrenchment of staff in some areas. A policy will have to be adopted to ensure that the staff complement of the common central bank ensures appropriate representation from all the CMA countries.

vii. The powers and functions of the four individual central banks would be reduced. In case of bank supervision and rescue of a failing bank, how are national and the common central bank tasks split and who foots the bill?
From the CMA experience, one would deduce that there is need for convergence on many fronts before a single central bank is set up. However, the CMA would still be a starting point for the SADC-wide single central bank.

6. Data Issues and Methodology of Assessment

6.1 Methodology for Assessment

For SADC, in the absence of the monetary union, the analysis starts with the consideration of the traditional criteria which states that a country's structural characteristics remain unaltered if it enters into the monetary union. This being an ex-ante scenario, where the union is yet to be established, use of qualitative analysis method is more appealing compared to quantitative analysis. With structural diversities and differences in level of development among SADC Member States it is practically impossible to generalize that the costs and benefits aforementioned would apply to all countries. Certain costs will apply to specific countries and may not be viewed as serious costs to others. Similarly, certain benefits may apply to particular countries depending on the circumstances in which the country is. In addition, the paucity of adequate data series on financial-market variables, labour mobility and, wage and price flexibility has led to the study being structured in a way that it examines the following key areas using qualitative analysis:

- Analysis of the credibility of monetary policy characterized by low and stable inflation;
- Assessment of the degree of independence of central banks reflected in fiscal dominance and appointment of the chief executives of central banks;
- Analysis of co-movements in cyclical real GDP growth rates and terms of trade among economies;
- Assessment of the national fiscal policy versus the single monetary policy; and
- Analysis of the seigniorage revenue gains or losses due to loss of ability to print money.

Credibility of Monetary Policy characterized by low and stable inflation

This study is trying to respond to the following question: “Do the benefits of enhanced credibility, predictability and stability of the macroeconomic framework exceed the costs associated with the inability to tailor monetary policy to the circumstances facing a particular country?” In order to answer this question the study assesses average inflation and its volatility levels in all Member States during the period under study, degree of exchange rate and interest rate correlation between Member States, the correlation of annual growth in real GDP and the terms of trade correlation. The countries with higher inflation and more volatile inflation rates
would definitely find monetary unification as beneficial. The more correlated the countries are to exchange rate and interest rate, the more effective will the use of such policy instruments be in a monetary union. The closer the correlation of GDP growth is among countries the more the countries will respond to the same shock treatment in a monetary union setting.

Degree of Independence of Central Banks
The central banks in different SADC Member States are at different levels of independence. For some countries, joining the union offers an opportunity to place monetary policy at a distance from their governments and to modify their objectives into price stability.

Co-movements in Cyclical Real GDP Growth Rates and Terms of Trade
If countries have corresponding cyclical movements in output it signifies that they are likely to be affected by similar shocks. The study made a comparison between pairs of Member States by running simple correlations of output growth. It is worth noting that if the countries in Southern Africa have very low shares of intra-area trade, reduced transactions costs are not likely to provide large efficiency gains.

National Fiscal Policies versus the Single Regional Monetary Policy
The traditional OCA theory largely ignores the implications of monetary unification for fiscal policymaking. It is important to explore whether setting up a monetary union would create special problems for setting of national fiscal policies. The single monetary authority pursuing one monetary policy stance faces numerous national fiscal policies in a monetary union, both of which do have potential to influence the price level. If under the monetary union there are uncoordinated fiscal policies, the gains of the union may be watered down.

Seigniorage Revenue Gains or Losses
It is envisaged that with monetary union members countries may either gain or lose their seigniorage revenue. There are huge seignorage gains (and losses) from the issuance of a common currency, especially if monetary integration results in significant expansion in intra-union trade. The large amount involved in the printing of a union currency would entail a relatively lower unit cost of printing compared to printing national currencies. All things considered, opportunities for seigniorage, profit from the issue of interest-free currency, abound more in a monetary union than in a national economy.
Since regionalization of currency printing would wipe out this source of revenue to the national economies, it is important that an acceptable modality for apportioning seignorage gains is agreed at the initial stage.

6.2 Data Issues

In order to carry out this analysis, SADC countries were requested to provide some datasets for the period 2007 and 2011 to compliment the annual data that was sourced from the IMF’s Regional Economic Outlook for 2012\(^9\).

In assessing the central bank independence, data was obtained on appointment of central bank Governors for the past 20 years from the SADC Member States. There is evidence that there exists some strong external influence in the appointment of central banks’ chief executives as reflected by the frequency of replacements, which brings the questions on whether these central banks are really independent. In earlier years, most central banks have had their chief executives’ tenure in office being terminated before expiry of the contract.

The majority of the banks in SADC use policy instruments (like the bank rate and exchange rate) in responding to economic shocks. However, in recent years the bank rate instrument has been used so often whilst many countries have adopted a freely floating or managed float exchange rate regime. In the study a questionnaire was circulated to all central banks seeking information regarding the use of such policy instruments.

In assessing the fiscal dominance in SADC Member States, data on government borrowing from the central bank and the commercial banks was obtained and the ratio of government credit to total domestic credit was calculated. However, the lack of information from the majority of Member States led to non-use of this variable in the final analysis.

In assessing the fiscal spillover effects, information on fiscal expansion in member countries was obtained. Government expenditure figures were compiled over the period 2008 to 2012.

In order to examine the potential macroeconomic costs and benefits of a monetary union in the SADC region, this study examines five keys areas through which the establishment of a single central bank would impact on the economies. The five areas are: more credible monetary policy

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and lower inflation; enhanced central bank independence; elimination of competitive devaluations; fiscal policy and conflict of interest in a monetary union; fiscal spillovers, constraints and coordination in a monetary union.

7. Empirical Results

The recent study by the Central Bank of Swaziland (2012) has revealed that using the OCA theory bilateral trade flows in SADC are highly dependent on the economic size, distance, and contiguity between nations. Further, in the same study, it was noted that existing trade agreements such as the EAC and SACU foster integration among Member States especially through tariff reduction.

In assessing the benefit accruing from credible monetary policy that is expected as a result of having a single central bank in the SADC, countries with high inflation rates and highly volatile inflation are likely to benefit, whilst countries that have very low inflation may have to accept a certain degree of cost should the average inflation rate go up above their current national levels. It is common knowledge that high inflation rates are often also more variable and uncertain and eventually cause more relative price variability.

Chart 1: Inflation Rates in the SADC Region 2004-2012
In the study as depicted in Chart 1 above, it has been established that 4 out of the 14 Member States have had inflation persistently above the average regional inflation of 9.7 percent and 13 of the 14 Member States had inflation persistently above the regional convergence threshold of 5 percent over the 9-year period. This implies that if indeed the creation of a monetary union will lead to low (threshold level) and stable inflation, there will be net benefit to the majority of the Member States. Countries like Angola, DRC, Malawi and Tanzania will benefit if the Union inflation moves towards the regional average and becomes stable. Countries like South Africa, Swaziland, Lesotho, Namibia, Botswana and Mozambique may see it costly should the union inflation follow the regional average.

Since it is envisaged that a monetary union would result in a credible monetary policy characterized by a more stable and lower inflation, nearly all countries will look at the union as beneficial as far as volatility of inflation is concerned.

**Chart 2: Inflation Variability in the SADC Region 2004-2012**

Chart 2 above reveals that only Angola and Zambia seem to have had fairly stable inflation over the past 8 years.
It is envisaged that a single regional central bank will act more independently from the fiscal authorities and if the national central banks feel that independence from fiscal interference is a benefit, the central banks that do not have that independence will consider monetary unification as a benefit. There are two dimensions to measuring central bank independence considered in this study. The first is political, which relates to institutional relationship between the central bank and the executive; and the second is economic independence, which reflects the central bank capacity to freely employ instruments of monetary policy. The key variables in assessing political independence are: procedure to nominate and dismiss the head of the central bank, the role of government officials in the central bank board, the frequency of contacts between the executive and the central bank, the ability of the central bank to set policy objectives against government influence, and whether government input for monetary policy decision mandatory for its approval. The variables in assessing economic independence are: instrument independence, fiscal dominance and regulations regarding lending limits to government. In the current study we have tried to assess levels of independence of all Member States central banks by looking at the following indicators: fiscal dominance measured by the government credit as a percentage of the total credit, appointment of the chief executive officers and their tenure in office, and instrument independence (active use of instruments such as policy rate and flexibility of exchange rate).

<table>
<thead>
<tr>
<th>Country</th>
<th>Average Tenure of Central Bank Governor (Years)</th>
<th>Exchange Rate Regime</th>
<th>Average Application of Monetary Policy Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td></td>
<td>Pegged</td>
<td></td>
</tr>
<tr>
<td>Botswana</td>
<td></td>
<td>Floating</td>
<td></td>
</tr>
<tr>
<td>DRC</td>
<td></td>
<td>Pegged to the Rand</td>
<td></td>
</tr>
<tr>
<td>Lesotho</td>
<td></td>
<td>Managed Floating</td>
<td></td>
</tr>
<tr>
<td>Malawi</td>
<td>6</td>
<td>Managed Float</td>
<td>Freely determined by Market forces</td>
</tr>
<tr>
<td>Mauritius</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mozambique</td>
<td>10.5</td>
<td>Managed Float</td>
<td>13.3</td>
</tr>
<tr>
<td>Namibia</td>
<td>4.5</td>
<td>Pegged to the Rand</td>
<td>15.3</td>
</tr>
<tr>
<td>Seychelles</td>
<td></td>
<td>Floating</td>
<td></td>
</tr>
<tr>
<td>South Africa</td>
<td>5.7</td>
<td>Pegged to the Rand</td>
<td>10.5</td>
</tr>
<tr>
<td>Swaziland</td>
<td></td>
<td>Managed Float</td>
<td></td>
</tr>
<tr>
<td>Tanzania</td>
<td></td>
<td>Floating</td>
<td></td>
</tr>
<tr>
<td>Zambia</td>
<td>6</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Looking at the indicators used in the study, there are signs of some independence in nearly all central banks in the SADC region, although political interference in some degree affect some decisions. Although the average tenure of office of central bank Governors over some 5-year periods seem to be consistent with contractually allowable tenure, any change of government in
a number of countries has resulted in changes in leadership at central banks. The exchange rate regimes in the region reveal that a few countries have freely floating exchange rate regimes. The central banks seem to also use policy rates often to correct the imbalances in the economy. Whilst the banks do enjoy a bit of instrument independence, the independence that will be gained through the establishment of the monetary union will be viewed by many countries as beneficial. The study further looked at fiscal dominance by calculating the level of government borrowing from the central bank. A growing level of government borrowing from the monetary authority will negatively affect the independence of the central bank.

If countries have corresponding cyclical movements in output it signifies that they are likely to be affected by similar shocks. The study made a comparison between pairs of Member States by running simple correlations of output growth. The table 2 below depicts the correlation of real GDP growth between pairs of Member States.

**Table 2: Correlation of GDP Growth between Pairs of SADC Member States**

<table>
<thead>
<tr>
<th>Country</th>
<th>Angola</th>
<th>Botswana</th>
<th>DRC</th>
<th>Lesotho</th>
<th>Malawi</th>
<th>Mauritius</th>
<th>Mozambique</th>
<th>Namibia</th>
<th>Seychelles</th>
<th>South Africa</th>
<th>Swaziland</th>
<th>Tanzania</th>
<th>Zambia</th>
<th>Zimbabwe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>1.00</td>
<td>0.19</td>
<td>0.25</td>
<td>-0.27</td>
<td>-0.11</td>
<td>0.17</td>
<td>0.63</td>
<td>0.16</td>
<td>0.48</td>
<td>0.81</td>
<td>0.54</td>
<td>0.51</td>
<td>-0.59</td>
<td>-0.66</td>
</tr>
<tr>
<td>Botswana</td>
<td>0.19</td>
<td>1.00</td>
<td>0.74</td>
<td>0.31</td>
<td>-0.29</td>
<td>0.51</td>
<td>0.45</td>
<td>0.79</td>
<td>0.26</td>
<td>0.70</td>
<td>0.09</td>
<td>0.49</td>
<td>0.20</td>
<td>-0.03</td>
</tr>
<tr>
<td>DRC</td>
<td>0.25</td>
<td>0.74</td>
<td>1.00</td>
<td>0.05</td>
<td>-0.49</td>
<td>-0.03</td>
<td>0.50</td>
<td>0.41</td>
<td>0.29</td>
<td>0.68</td>
<td>-0.12</td>
<td>0.56</td>
<td>-0.06</td>
<td>-0.09</td>
</tr>
<tr>
<td>Lesotho</td>
<td>-0.27</td>
<td>0.31</td>
<td>0.05</td>
<td>1.00</td>
<td>0.32</td>
<td>0.38</td>
<td>-0.47</td>
<td>-0.17</td>
<td>0.29</td>
<td>-0.12</td>
<td>-0.08</td>
<td>-0.34</td>
<td>0.76</td>
<td>0.27</td>
</tr>
<tr>
<td>Malawi</td>
<td>-0.11</td>
<td>-0.29</td>
<td>-0.49</td>
<td>0.32</td>
<td>1.00</td>
<td>0.48</td>
<td>-0.76</td>
<td>-0.19</td>
<td>-0.24</td>
<td>-0.35</td>
<td>0.43</td>
<td>0.03</td>
<td>0.10</td>
<td>-0.17</td>
</tr>
<tr>
<td>Mauritius</td>
<td>0.17</td>
<td>0.51</td>
<td>-0.03</td>
<td>0.38</td>
<td>0.48</td>
<td>1.00</td>
<td>-0.16</td>
<td>0.58</td>
<td>-0.19</td>
<td>0.30</td>
<td>0.37</td>
<td>0.34</td>
<td>0.03</td>
<td>-0.36</td>
</tr>
<tr>
<td>Mozambique</td>
<td>0.63</td>
<td>0.45</td>
<td>0.50</td>
<td>-0.47</td>
<td>-0.76</td>
<td>-0.16</td>
<td>1.00</td>
<td>0.47</td>
<td>0.43</td>
<td>0.78</td>
<td>0.15</td>
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<td>-0.21</td>
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<tr>
<td>Namibia</td>
<td>0.16</td>
<td>0.79</td>
<td>0.41</td>
<td>-0.17</td>
<td>-0.19</td>
<td>0.58</td>
<td>0.47</td>
<td>1.00</td>
<td>-0.12</td>
<td>0.57</td>
<td>0.22</td>
<td>0.60</td>
<td>-0.10</td>
<td>-0.13</td>
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<tr>
<td>Seychelles</td>
<td>0.48</td>
<td>0.26</td>
<td>0.29</td>
<td>0.29</td>
<td>-0.24</td>
<td>-0.19</td>
<td>0.43</td>
<td>-0.12</td>
<td>1.00</td>
<td>0.46</td>
<td>0.13</td>
<td>-0.16</td>
<td>0.30</td>
<td>0.24</td>
</tr>
<tr>
<td>South Africa</td>
<td>0.81</td>
<td>0.70</td>
<td>0.68</td>
<td>-0.12</td>
<td>-0.35</td>
<td>0.30</td>
<td>0.78</td>
<td>0.57</td>
<td>0.46</td>
<td>1.00</td>
<td>0.40</td>
<td>0.68</td>
<td>-0.39</td>
<td>-0.49</td>
</tr>
<tr>
<td>Swaziland</td>
<td>0.54</td>
<td>0.09</td>
<td>-0.12</td>
<td>0.08</td>
<td>0.43</td>
<td>0.37</td>
<td>0.15</td>
<td>0.22</td>
<td>0.13</td>
<td>0.40</td>
<td>1.00</td>
<td>0.52</td>
<td>-0.31</td>
<td>-0.56</td>
</tr>
<tr>
<td>Tanzania</td>
<td>0.51</td>
<td>0.49</td>
<td>0.56</td>
<td>-0.34</td>
<td>0.03</td>
<td>0.34</td>
<td>0.38</td>
<td>0.60</td>
<td>-0.16</td>
<td>0.68</td>
<td>0.52</td>
<td>1.00</td>
<td>-0.55</td>
<td>-0.68</td>
</tr>
<tr>
<td>Zambia</td>
<td>-0.59</td>
<td>0.20</td>
<td>-0.06</td>
<td>0.76</td>
<td>0.10</td>
<td>0.03</td>
<td>-0.39</td>
<td>-0.10</td>
<td>0.30</td>
<td>-0.39</td>
<td>-0.31</td>
<td>-0.55</td>
<td>1.00</td>
<td>0.76</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>-0.66</td>
<td>-0.03</td>
<td>-0.09</td>
<td>0.27</td>
<td>-0.17</td>
<td>-0.36</td>
<td>-0.21</td>
<td>-0.13</td>
<td>0.24</td>
<td>-0.49</td>
<td>-0.56</td>
<td>-0.68</td>
<td>0.76</td>
<td>1.00</td>
</tr>
</tbody>
</table>

The study findings reveal that there are weak correlations of real GDP growth among the economies. The results show that 55 out of 91 (bilateral) growth correlations are positive. However, most of the correlations were low; to provide some context, over 53 percent of the correlations exceeded 0.45. In this regard in there is weak evidence that SADC countries have co-movements of shocks. This entails that the monetary unification would have little benefit to most countries. However, the countries that have high correlation would be more suited to be in forming the monetary union than those that have negative or insignificant correlations. These
findings agree with earlier studies by Bayoumi and Ostry (1995), and Wang et al. (2006), in their study of the four CMA countries.

In the study we examine the fiscal expansion in all SADC Member States by measuring the growth rate in government expenditures over the period under review. The countries with higher growth rates in government expenditures will not feel the benefit of monetary union.

Some SADC countries are in the expansionary stage as far as fiscal policies are concerned, whilst others pursue moderate growths. The countries that are growing and financing most of the development expenditures from domestic resources will find it difficult to see the benefits of getting into the union. Assessment of fiscal growth in the study reveals that most of the countries are experiencing high fiscal growth, the policy that will work against the union objectives.

Table 3: Fiscal Growth over the Period 2004-2012

<table>
<thead>
<tr>
<th>Country</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>66.1%</td>
<td>-5.4%</td>
<td>14.5%</td>
<td>31.3%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Botswana</td>
<td>6.9%</td>
<td>41.6%</td>
<td>12.3%</td>
<td>-2.7%</td>
<td>3.5%</td>
</tr>
<tr>
<td>DRC</td>
<td>53.5%</td>
<td>72.4%</td>
<td>41.0%</td>
<td>45.5%</td>
<td>11.7%</td>
</tr>
<tr>
<td>Lesotho</td>
<td>29.4%</td>
<td>38.6%</td>
<td>-3.6%</td>
<td>-10.1%</td>
<td>16.1%</td>
</tr>
<tr>
<td>Malawi</td>
<td>16.8%</td>
<td>38.0%</td>
<td>3.4%</td>
<td>15.3%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Mauritius</td>
<td>25.2%</td>
<td>14.9%</td>
<td>6.4%</td>
<td>4.6%</td>
<td>-100.0%</td>
</tr>
<tr>
<td>Mozambique</td>
<td>14.5%</td>
<td>29.6%</td>
<td>21.3%</td>
<td>19.5%</td>
<td>9.6%</td>
</tr>
<tr>
<td>Namibia</td>
<td>15.1%</td>
<td>24.8%</td>
<td>17.4%</td>
<td>9.5%</td>
<td>28.4%</td>
</tr>
<tr>
<td>Seychelles</td>
<td>23.9%</td>
<td>4.0%</td>
<td>5.3%</td>
<td>22.9%</td>
<td>23.7%</td>
</tr>
<tr>
<td>South Africa</td>
<td>15.2%</td>
<td>15.6%</td>
<td>13.6%</td>
<td>10.0%</td>
<td>13.2%</td>
</tr>
<tr>
<td>Swaziland</td>
<td>15.3%</td>
<td>38.3%</td>
<td>14.2%</td>
<td>-4.0%</td>
<td>-2.3%</td>
</tr>
<tr>
<td>Tanzania</td>
<td>16.6%</td>
<td>32.4%</td>
<td>20.3%</td>
<td>13.6%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Zambia</td>
<td>16.9%</td>
<td>13.3%</td>
<td>18.5%</td>
<td>35.2%</td>
<td>10.2%</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>-32.8%</td>
<td>343.8%</td>
<td>107.2%</td>
<td>35.9%</td>
<td>24.1%</td>
</tr>
</tbody>
</table>

Table 4 above depicts growth rate in fiscal expenditure in the SADC countries. An average annual growth in expenditure of about 20 percent over the five-year period in the region is fairly high showing that the majority of countries are pursuing expansionary fiscal policies that will be in conflict with monetary union. Such countries will look at monetary union as more of a cost than a benefit.
8. Conclusion

In assessing of the potential costs of a SADC Monetary Union, the study identified that:

i. Member countries’ Loss of nominal exchange rate as a policy tool for adjusting to country-specific external shocks would be considered a cost for some members especially due to the fact that countries face asymmetric shocks

ii. The loss of national monetary policy control incapacitates the country to moderate demand shocks and renders it incapable of influencing the inflation it is experiencing

iii. The loss of seigniorage income would be particularly felt by countries that rely heavily on income earned through printing of money and also those which will be disadvantaged with the sharing formula.

iv. There could be fiscal policy objectives (of achieving growth through increased expenditure), coordination problems among many Member States, that would be in conflict with the single regional monetary policy objective of lower and stable inflation.

v. There could result creation for peripheral SADC Member States with high concentration of economic activities in core areas relegating the smaller states to the periphery.

In the current design of the SADC Monetary Union project, the assessment of potential benefits found that:

i. The expansion of the Foreign Exchange Market would lead to a decline in volatility of prices and speculative attacks that have adverse effects on domestic prices. The Smaller states also within SADC would have a convertible currency.

ii. The reduction in Transaction Costs should lead to higher output and consumption gains in a number of Member States that were experiencing high exchange fees.

iii. The elimination of Exchange Rate Volatility within SADC especially for members that have high trade links within the region as there will be no need to exchange currencies when conducting trade transactions among members.

iv. The prevention of Competitive Devaluation and Speculation as countries will not need to devalue to outdo each other. There will also be no advantage for capital to flow from one member state to the other.

v. The union would aim for a More Credible Monetary Policy and Lower Inflation as a pragmatic rule.

vi. Capital Market Deepening that comes with unification of all the individual country capital markets in would not only widen the market size but would also enhance competition among
the market players and increase the investment opportunities among the investors in SADC. These would eventually result in a fall in interest rates which are critical for sustained economic growth.

vii. There are political traits in nearly all central banks in the region vindicated by fiscal dominance and coincidence of major political changes and the changes of leadership at central banks. Since the single central bank would enhanced Central Bank Independence which is catalytic for lower and stable inflation, SADC Member States are likely to benefit from unification.

This study like others, for instance the one by the Central Bank of Swaziland, reveal that SADC Member States are in asymmetric environments and are not affected by external shocks in the same way. The fourteen SADC economies have different fundamental economic structures, levels of efficiency, productivity and inflation. In this regard using one single policy thrust for every member state may not yield results in the same direction and in the desired magnitude. The countries also are pursuing diverse fiscal policies which may be working in opposing directions from country to country.

Although the creation of a SADC Central Bank and the single currency will confer some benefits for certain Member States, but it will also result in significantly greater adjustment costs for others affected by asymmetric shocks and exacerbate the economic problems of peripheral SADC Member States and increase the inequalities with respect to the SADC core Member States. Other problems are also likely to arise from the type of monetary policy conducted by the SADC Central Bank on the one hand, and the possibility of different growth rates in the various SADC Member States, on the other hand. Despite all these problems, however, it is very likely that the SADC single currency will confer major benefits to SADC members over time. Issues of macroeconomic convergence are nonetheless, of paramount and immediate importance since this is a prerequisite for the same policies to yield similar responses from all countries. In the distant future, it is almost certain that the process of economic integration in SADC and globalization around the world will allow SADC to operate much more like the United States in the economic and political sphere.

The costs and benefits from a monetary union and establishment of a single central bank will vary from country to country. Countries with high inflation rates and highly volatile inflation are
likely to benefit, whilst countries that have very low inflation may have to accept a certain
degree of cost should the average inflation rate go up above their current national levels.

Loss of the monetary policy and exchange rate instruments at the national level places new
demands on budgetary policy for stabilization and adjustment purposes. Countries that have
high fiscal prominence would look at monetary union as a cost to them.

Although it was difficult to capture seigniorage revenue in the study, other literature reveal that
the countries with the highest inflation rates may suffer net seigniorage losses.

Because there is weak evidence against co-movement in shocks affecting Member States, many
countries will not see the benefit of losing their sovereign use of country specific monetary
policy instruments in response to the shocks they are facing.

Notwithstanding the various costs facing individual countries previous studies do lead to the
conclusion that the SADC single currency will compete as an international vehicular currency
with the dollar and yen on an equal footing. The establishment of a single central bank will also
have an impact on the development of SADC financial markets. With the single central bank
comes the single currency which will obviously become one of the world’s leading trade and
investment currencies. However, it is advisable that for the time being countries should achieve
macroeconomic convergence and come up with more coordinated fiscal policies at regional
level first before going for a single regional central bank. Alternatively, in the medium term the
region should support reforming of the CMA into a sub-regional monetary union as a starting
point.
References


Boughton (1993)


Robson (1987)


Appendix I

Inflation variability

Inflation data measure the annual rate of consumer price inflation at quarterly frequency sourced from the IFS. The data is compiled from a panel of 13 SADC member countries covering the period of 2000-2011. Inflation is defined as growth in the price index over the last year other than the last quarter in order to avoid seasonal effects that may induce spurious volatility. Inflation volatility is computed using the formulation:

\[ VINF = \ln[1 + sd(INF)] \tag{1} \]

Where \( sd \) denotes a standard deviation and \( INF \) is the decimal inflation rate (for instance an inflation rate of 3% is denoted as 0.03). The log transformations are used to down-weight very large readings during hyperinflation episodes. To avoid over-weights of observations very close to zero we use log of one plus the decimal standard deviation of inflation\(^{10}\).

In order for any measure of standard deviation to be valid, the mean of the process must be constant over the period for which the standard deviation is calculated. This is the reason we have measured volatility at the five-year frequency, rather than over several decades so that we reduce the chances of identifying spurious volatility associated with shifts in the mean.

\(^{10}\) Use of more robust alternatives measures of VINF such as GARCH were not used due to the following reasons: (a) time series available for some countries are too short to justify GARCH estimation.