



**Economic Commission
for Africa**

**SUB-REGIONAL OFFICE
FOR EASTERN AFRICA (SRO-EA)**



Towards a Common Currency in the East African Community (EAC)

Issues, Challenges and Prospects

2012

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1. INTRODUCTION

Interest in regional integration, including monetary integration, in Africa has been intense over the decades since independence and various regional groupings have been formed. Those initiatives were stimulated by the general small size of individual economies leading to a desire of promoting economies of scales in production and distribution. Currently, two monetary integrations in Africa are in place: the CFA franc zones (UEMOA and CEMAC) and the Common Monetary Area (CMA) in South Africa. However, several regional monetary union projects are planned such as ECOWAS, COMESA, SADC and EAC and a common currency for Africa is a long-term goal of the African Union.

The major benefits of a monetary union are the reduction in transaction costs, economies of international reserves, the elimination of exchange rate risk and region-wide price harmonization. On the other hand, the costs of a monetary union are related to the loss of sovereignty over monetary and exchange rate policy, especially in the case of asymmetry shocks that make the same monetary policy inappropriate for all member countries of a monetary union. Indeed, in a monetary union, member countries lose unilateral control over instruments (monetary policy instruments and exchange rate policy) that may be crucial in dealing with country specific macroeconomic shocks.

In general, for countries to benefit from a monetary union, they should meet the following criteria which contribute to mitigate the effects of asymmetric shocks: flexibility of prices and wages; high interregional factor mobility and a high degree of openness allowing a country or region to absorb shocks without the need of adjusting the nominal exchange rate; a high degree of product diversification helping to overcome industry specific shocks; a high degree of fiscal integration to absorb the impact of asymmetric shocks through fiscal transfers from one to another country; a convergence of inflation rates to avoid causing variations of the terms of trade; and the political will (Bagnai, 2010).

In addition, a new currency will be attractive if it is more stable in terms of better maintaining its purchasing power than the currencies it replaces. This may come from a strong institutional framework within the monetary union, achieving more discipline over fiscal policies insulating the regional central bank from pressures to provide monetary financing.

The process of East African Community (EAC) integration has continued to gather momentum, following the establishment of the customs union and the common market in 2005 and 2010 respectively, and the next phase is the EAC monetary union. EAC monetary union negotiations began in January 2011 and are expected to conclude in 2012. The East Africa Monetary Union (EAMU) will be characterized by a regional central bank, a single currency which will replace the Partner States' currencies, an integrated banking and financial systems with harmonized laws, regulations and procedures, an integrated payment system and removal of capital controls at national level. It is expected that the EAMU would contribute to achieving the following: harmonious, balanced and sustainable development of economic activities; sustainable and non-inflationary economic growth; intra-regional economic and financial integration; and an efficient allocation of resources (Draft protocol of the EAMU).

However, important questions remain unanswered about the short-term viability of the EAC common currency, especially in light of the serious crisis experienced by the European Monetary Union in 2010 and which is still ongoing, and which was hitherto considered a model of successful currency union. The objective of this paper is not to question the desirability of monetary union within the EAC, but rather to complement the few existing studies on EAMU by assessing the degree of preparedness the EAC common currency and support the overall process of monetary union in EAC.

The rest of the paper is structured as follows. In the section two, we present an overview of the progress made towards currency union. The section three presents a summary of literature review on the evidence of the feasibility of currency union in East Africa. Results on empirical analysis on the viability of EAMU are presented in section four. Section five provides an overview of the experience of European monetary union, looking at the 'fault lines' inherent in that project and its implications for the EAC. Challenges and way forward are presented in section five before conclusion and some policy recommendation.

2. PROGRESS MADE TOWARDS THE IMPLEMENTATION OF EAMU

On 30 November 1999, Kenya, Tanzania and Uganda signed the Treaty for the establishment of the East African Community (EAC), which entered into force in July 2000. In 2007 the Treaty was signed by Burundi and Rwanda, expanding EAC to five countries. According to the Treaty, EAC should first form a customs union, then a common market and a monetary union, and finally a political union. The customs union became operational in 2005, and was formally completed in 2010. The Common Market Protocol, which includes free movement of goods, labour, persons, services and capital, and the right of residence and establishment was signed in 2009, and its full implementation will be completed by 2015. EAC organs are in place and they include the East African Legislative Assembly, the East African Court of Justice, a Secretariat, the Council of Ministers and the Summit of Heads of States. These achievements are good indicators of the depth of political will to have a strong regional integrated area.

At their Summit in 2007, the heads of State of the EAC Partner States decided to fast track the establishment of Monetary Union by 2012. Some progress in the preparation for monetary union has already been made. In 2010, a study on the preparedness for a monetary union has been conducted by experts from the European Central Bank, in collaboration with experts from the EAC central banks. Good progress has been made under the EAC central banks 'Governors Monetary Affairs Committee (MAC), including the harmonization of banking regulation, payment system integration, and the harmonization of monetary and exchange rate policy. To attain these objectives, the following MAC subcommittees were put in place: Economic affairs; Financial market; Banking supervision and Financial stability; Information Technology (IT); Payment Systems; Human Resources; Legal; Accounting and finance; and Banking and currency. The table no.1 in appendix gives a list of MAC priority actions to support the implementation of EAMU

On the fiscal side, finance ministers conduct both pre- and post-budget consultations, sharing regularly budgetary information. Budgetary statements are now ready the same day. The Fiscal Affairs Committee was also created and is working to support the High Level Task Force (HLTF) by providing input on provisions related to fiscal issues.

However, the plan of having a common currency in 2012 is still challenging. The current intention is to sign a protocol to establish the East African Monetary Union (EAMU) in 2012 because forming the actual monetary union may take more time, given the institutional and structural transformation required. It is necessary to ensure the existence of adequate pre-conditions for forming the EAMU to ensure that benefits of joining the EAMU will exceed costs. These prerequisites include economic, political, and institutional requirements.

The negotiations of the EAMU protocol started in January 2011 and, so far, the HLTF have held six negotiation meetings and a number of articles have been negotiated. In addition to the remaining articles to be negotiated, there are a number of outstanding issues to be completed after the completion of the critical studies on the *Attainment of a Common Exchange Rate Policy for the EAC*; a study on the *Harmonised Monetary Policy Framework for the EAC region* and the *study to review the EAC Macroeconomic Convergence Criteria and the Design of a Surveillance and Enforcement Mechanism*.

3. LITERATURE REVIEW ON THE EVIDENCE OF THE FEASIBILITY OF CURRENCY UNION IN EAST AFRICA

An important literature exists on the feasibility of monetary unions in Africa, but few of the existing studies focus on the specific case of East Africa. Most of these studies conclude that African economies are too different on many accounts to allow for sustainable monetary union. These differences range from production structures to institutional effectiveness (Debrun at all, 2010, Mason and Patillo, 2004). In this context, the potential costs of currency unions in Africa may originate from the ineffectiveness of one monetary policy to fit the needs of all countries. In addition, the slow convergence in fiscal policy performance and the low degree of regional trade integration have been identified as factors reducing the net gains from monetary unions in Africa.

The desirability of monetary unions in Africa has been in general assessed following three classical methodological approaches: measuring the asymmetry of shocks inspired by Optimum Currency Area (OCA) theory pioneered by Mundell (1961), McKinnon (1963) and Kenen (1969); comparing macroeconomic performances between member counties of a monetary union and non-member countries; and measuring the convergence of various macroeconomic indicators among candidate countries to form a monetary union, viewed as criteria for membership.

The same methodologies were used to assess the viability of the European monetary union but it was usually supposed – erroneously, as we shall argue in Section five - that issues of institutional design had largely been solved there. This is not the case in Africa, where in many countries central banks are not independent. This has arguably contributed to higher inflation in those countries during certain periods when central banks were obliged to finance public deficits. Indeed, one of the advantages of a well-designed institutional framework for monetary union in Africa is that it may contribute to create a more independent regional central bank exerting greater discipline over fiscal policies than national central banks.

The few existing studies on EAC monetary union use the first approach to assess if shocks faced by the EAC countries are asymmetric. This approach addresses the question of advantages and disadvantages of adopting a common currency and the conditions that are desirable for countries to consider a monetary union (Tavlas, 1993; Tjirongo, 1995). The key question is whether shocks hitting the economies of members of a monetary union are sufficiently similar to allow a common monetary policy to fit every member's needs. This requires to identify the exogenous shocks to output and price and assess if these shocks are positively and significantly correlated or not across countries. In most of research adopting this approach, identification of exogenous shocks is done by estimating Vector Auto Regressive (VAR) models of two (or more) equations, one for output and the other for the price level, following the methodology developed by Blanchard and Quah (1989). This methodology permits the decomposition of shocks into demand and supply shocks. Analysis focuses more on supply shock which is not expected to become more similar over time through the application of a common policy, contrary to the demand shock.

The few existing studies on EAC monetary union give mixed results. The first empirical study on the validity of the EAC monetary union (comprising of Kenya, Tanzania, and Uganda) as an Optimum Currency Area (OCA) was conducted by Mkenda (2001) using a generalized Purchasing Power Parity (GPPP) model developed by Enders and Hurn (1994). This model postulates that the real exchange rates between countries members of a currency union should be cointegrated (Enders, 1995) because the real exchange rate in a given country is influenced by economic fundamentals including income, terms of trade, government consumption, etc. On average, these fundamentals must move together in member countries of a currency union. Thus the real exchange rates of these countries should be cointegrated. The study established cointegration between the real exchange rates in the three countries for the period 1981 to 1998, suggesting that the three countries tend to be affected by similar shocks. Mkenda concludes that the EAC (comprising of Kenya, Tanzania, and Uganda) does indeed qualify as an OCA.

However, this result has to be treated with some caution because if the nominal exchange rate and market prices are controlled by the Governments (which was the case in this study over the period covered), the movement of long-run real exchange rates may not reflect common trends resulting from market forces as expected in an OCA (Xu, 2006).

Buigut and Valev (2005) used a structural Vector Auto Regressive technique following the methodology developed by Blanchard and Quah (1989) using data covering the period from 1970 to 2001 to assess if EAC is an OCA. The research aimed to identify and compare shocks to aggregate output growth and inflation in different Eastern and Southern African countries. The study concludes that supply and demand shocks are mostly asymmetric in the EAC, a result which does not support the creation of a currency union in EAC (though it should be stressed that because the study relies on such long-run data, and countries in the region were afflicted by conflict over much of that period, the results may not be considered robust as a guide to contemporary regional integration policy).

The study conducted by Kishor et al. (2009) goes beyond the simple error correction model by assessing the extent to which the movements in structural shocks are country specific and to what extent they are common across EAC countries. The study decomposes the movements of demand and supply shocks into common and individual components because countries are

suitable for an optimum currency area if common shocks explain a significant portion of the overall variation in structural shocks. The study concludes that the shares of common shocks are low in EAC, but that the degree of synchronization has increased since 2000 when the EAC treaty came into force, hence increasing the viability of the EAMU.

A study conducted by Debrun et al (2010) developed a fully-fledged cost-benefit analysis of monetary integration and applies it to some currency union in Africa, including the East African monetary union. This study finds that average correlations for terms of trade shocks between the EAC countries in the period 1990-2007 are higher than that for WAEMU and CMA, the existing monetary unions. However, these correlations have decreased in the most recent period (2006-2008), reflecting differential patterns in ToT shocks as commodity prices began to decline in 2008. Aside from correlations in terms of trade shocks, other shock correlations are generally low. A further study conducted by Kamaludin et al (2011) using the business cycle synchronization approach concludes that the EAC countries do not differ significantly in cyclical components, again lending some support to the feasibility of monetary union.

4. EMPIRICAL ANALYSIS OF THE VIABILITY OF EAMU

This study analyzes the viability of the EAC monetary union by assessing the degree of macroeconomic convergence within the EAC countries and measuring the asymmetry of shocks based on the optimum currency area theory. The contribution of this research to the existing studies on EAMU is that it assesses the compliance with agreed macro-economic convergence and tests if EAC can be considered as an OCA using information covering the recent period of 2000 to 2010. In addition, we assess a number of factors considered relevant in the OCA theory before estimating econometric models. These factors include the trade among members of the currency union and their economic openness, the degree of labor and capital mobility, diversification of production structure, financial integration and fiscal integration as well as political factors.

4.1 MACRO-ECONOMIC CONVERGENCE IN EAC

The evaluation of prospective monetary unions has been done on the basis of macroeconomic convergence rooted in the Optimum Currency Area (OCA) theory and refers to the convergence of a set of macroeconomic fundamentals among countries. Generally, it is agreed that monetary integration is more successful when macroeconomic fundamentals and policies approach each other in the member countries of the common currency area. This increases the effectiveness of the monetary policy to fit the needs of each country.

Macroeconomic convergence can be seen as a precondition to monetary union membership. However, with reference to European Union, it is argued that convergence should be viewed as a permanent goal, rather than a precondition for membership, because it contributes to reduce costly shocks within the common currency region (Rossouw, 2006). The macroeconomic convergence criteria mainly used include the convergence of inflation to a low value, the reduction of public deficits and debt ratios below predetermined critical values. Instead of considering convergence towards a set of values, some studies use cross country dispersion and time series data to examine convergence of macroeconomic variables.

In EAC, macroeconomic convergence criteria were adopted by partner states in 2007. They are set for three different stages and divided into primary and secondary criteria in the first two stages, followed by introduction of a single currency at the last stage (see table 2 in appendix). However, performance has been mixed so far, with the convergence of fiscal deficits excluding grants and inflation persistently exceeding the targets as indicated in the table 1 below.

4.1.1. Fiscal convergence criteria

Within the EAC region, the initial threshold of allowable fiscal deficits of three percent of GDP including grants is relatively close to the countries' actual deficit levels in 2008. Uganda¹, Rwanda and Burundi have all been achieving this criterion since 2004. But no countries in the region, with the exception of Kenya in 2007 and 2008, have ever met the criterion of budget deficits excluding grants (six percent). In addition, the future deficits including grants criterion

¹ Budget deficit, including grants as percentage of GDP was 3.4% in Uganda in 2008, close to the criteria.

(two percent) is lower than the levels countries have recently been achieving (see tables 3 and 4 in appendix).

Table 1: EAC convergence criteria

	Primary criteria		Performance of member countries in 2010				
	Stage 1	Stage 2	Burundi	Kenya	Rwanda	Tanzania	Uganda
Overall fiscal deficit (exc. Grants) as percentage of GDP	< 6%	< 5%	31.8	7.2	14	11.6	7.5
Overall fiscal deficit (including grants) as % of GDP	< 3%	< 2%	3.0	6.2	0.4	6.9	5.0
Inflation, period average	< 5%	< 5%	6.4	3.9	2.3	10.5	9.4
Foreign exchange reserves in months of imports	> 4	> 6	5.2	2.9	4.4	4.8	5.6

Source: IMF, 2012.

4.1.2. Similarity in inflation

Differences in inflation may indicate differences in the way countries have conducted their economic policies. Thus patterns of inflation should be similar in countries to be good candidates for a common currency. All EAC countries undertake IMF programs which can help make inflation rates converge, and hence facilitate the formation of a currency union. However, the current target of 5% as a ceiling to inflation is highly demanding when considering the trend of inflation rates in EAC countries, even if we exclude periods when countries have faced severe external price shocks. This brings the issue of relevance of the level of this convergence criterion. Based to the experience of existing monetary unions (EMU, CMU and GCC), it can be more relevant to define inflation target in relation to the EAC average or relative to an average for the best performing members (IMF, 2012).

However, the σ - convergence test shows that there is a trend of convergence between inflation rates within the EAC region. Using monthly data from January 2000 to December 2011, the

coefficient of the trend is significantly negative at the 10% level, even if the coefficient itself is low as well as the R-square (not reported here).

Table 2: Sigma convergence test of inflation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
@TREND(2000:1)	-0.008995	0.004756	-1.891110	0.0606
C	4.889646	0.393370	12.43015	0.0000

4.2 EAC IS AN OPTIMUM CURRENCY AREA?

Before presenting results of some econometrics models, we assess a number of factors considered relevant in the Optimum Currency Area theory.

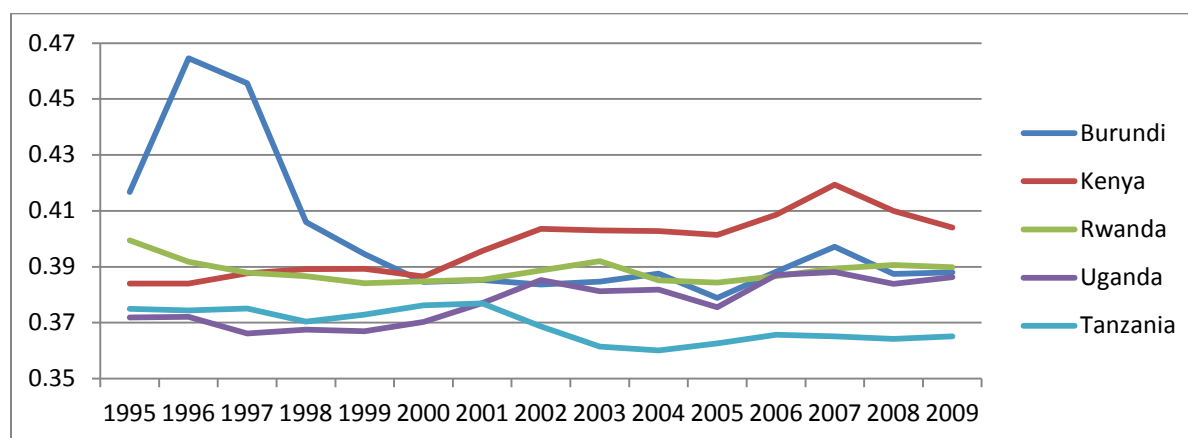
4.2. 1. EAC economic structure

The benefits derived from monetary union for a country experiencing asymmetric shocks depends on how similar its production, economic and export structures are relative to its partners in the monetary union. We analyze the structures of the economies in the five EAC member countries with the objective of identifying similarities and differences between them.

GDP per capita is similar in EAC countries; except for Burundi whose GDP per capita in 2010 was only 189 USD (table 1 in appendix 2). It varies between 503 USD in Uganda and 767 USD in Kenya. The structure of GDP in terms of contributions of different sectors of the economy is also quite similar. Based on 2010 data, respective shares of the agriculture sector in GDP are 22.6%; 28.8% and 24.7% in Kenya, Uganda and Tanzania respectively. Its contribution is relatively large in Rwanda whose the share is 32%². In addition, there is not significant structural change in composition of GDP in the five countries between 1995 to 2009, as indicated by the Herfindahl Index (HI). We have constructed the HI based on data from UNCTADstat for all EAC countries.

Graph 1: HI index for GDP structural change

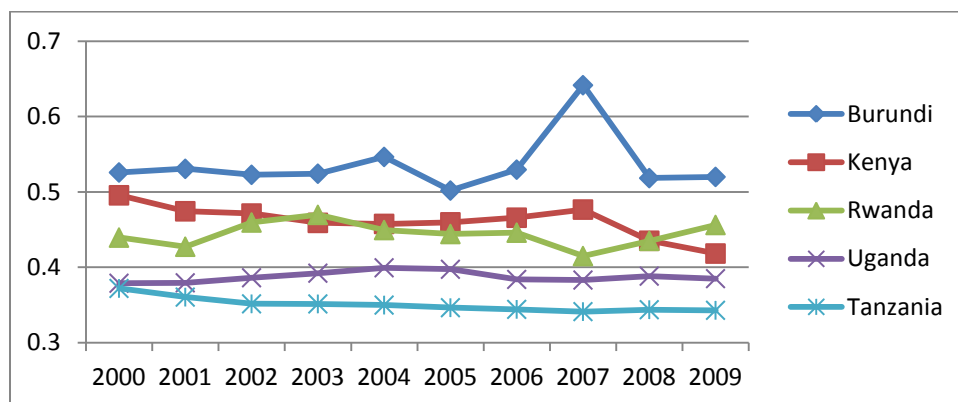
² Data on Burundi are not available in 2010.



Source: our own calculation, data from UNCTADstat

Another important factor for a currency area is the diversification of products. The more diversified a country in the goods it produces, the less its need to adjust using the nominal exchange rate in case of an external shocks, because a fall in the demand for some of its products would not create a large fall in employment. In addition, a more diversified economy remains more stable than less diversified one, even if independent shocks affects each the products. Thus a more diversified economy is a more suitable candidate for a currency union than a less diversified one (Kenen, 1969). Due to lack of data on industry structure by country we construct the added value of the industry sectors by considering the contributions of manufacturing industry, mining and construction. This sector is more concentrated in Kenya and Burundi where the average contribution of the manufacturing to the total added value of industry are 62% in Kenya and 69% in Burundi during the period 2000-2009. The level of concentration has significantly increased in Burundi between 2006 and 2008 before returning to its trend. The shares of manufacturing in industry are 48%, 40% and 31% in Rwanda, Tanzania and Uganda respectively. The construction sector is important in both Rwanda and Uganda, representing on average 45% and 51% of the total added value of the industry sector in the two countries respectively. There no evidence of a change in the structure of the industrial sectors in the five countries, as evidenced by the HI of industry concentration, albeit this exercise was done to high level of aggregation.

Graph 2: HI index for industry concentration

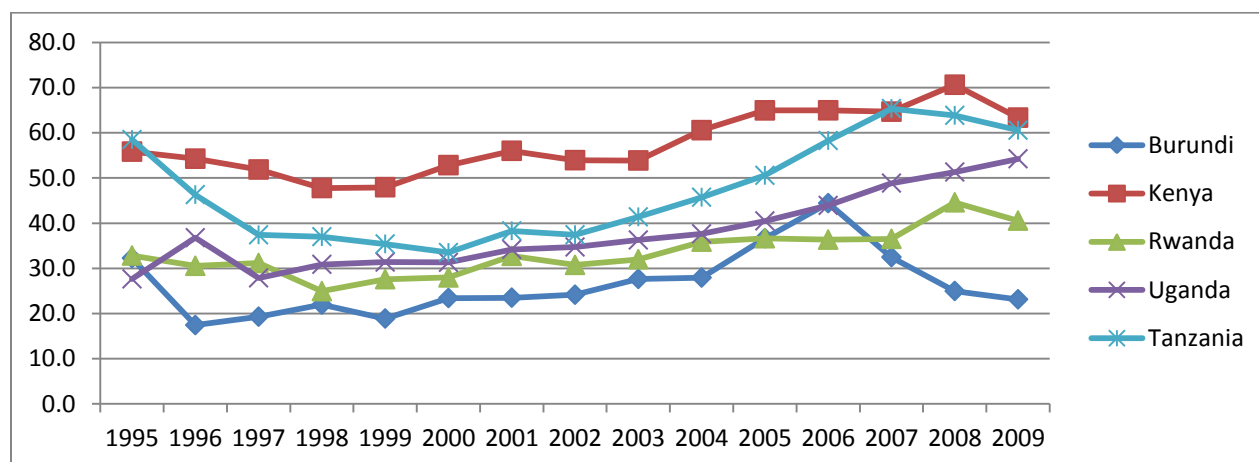


Source: our own calculation, data from UNCTADstat

4.3. DEGREE OF OPENNESS AND INTRA-REGIONAL TRADE

Measured by trade as percentage of GDP, the level of economic openness is different between the five countries. Kenya is the most open economy in the region (60.6%) followed by Tanzania (49.5%), Uganda (41.3%), Rwanda (35.4%) and Burundi (28.8%). However, economic openness has been increasing in all countries except Burundi where the situation deteriorated between 2006 and 2010. These differences in the degree of trade openness indicate that EAC countries may face asymmetric shocks, a situation which does not support the EAC monetary union in the current situation. However, if the observed trends continue, the increase in economic openness will contribute to building a solid foundation for the viability of the EAC common currency.

Graph 3: terms of trade as percentage of GDP



More worryingly, so far the customs union does not appear to have much increased total intra-regional trade, representing only 17.5% of total exports and 7% of imports in 2007. During the same year, only 20% of Rwanda and Burundi imports were from EAC countries and over 20% of Kenya and Uganda's exports went to EAC countries. According to EAC Trade Report 2008, gross intra-EAC trade was 7.8% of the members' total gross trade, and only 3.1% of their GDP (EAC, 2010). The IMF (2010) shows that in 2009 intra-regional exports of EAC were not that large. The EAC absorbs 29% of Uganda's exports, 27% of Tanzania's exports, followed by Rwanda (20%), Kenya (19%) and Burundi (5%).

Table 3 : Intra EAC exports as share of total exports, 2009

Country	Burundi (%)	Kenya (%)	Rwanda (%)	Tanzania (%)	Uganda (%)
Burundi		0.08	0.19	0.00	0.09
Kenya	1.53		9.29	25.2	25.87
Rwanda	0.35	7.06		0.06	0.39
Tanzania	0.85	2.57	2.71		2.81
Uganda	2.53	9.13	7.62	1.69	
EAC	5	19	20	27	29

Source: IMF, 2010

In the EU, by contrast, the value of trade was 26% of GDP in 1998 in the area that would adopt the Euro; by 2007 this had increased to 33% (EU, 2010). Thus trade integration in EU was much deeper than it currently is in EAC. The benefits, in the form of reduced transaction costs, derived from a common currency were small in the EMU, and will thus be even smaller in the EAMU.

The table below presents correlations of terms of trade shocks among the five EAC countries and supports the previous analysis, indicating some similarities but also differences among the five countries. Rwanda has negative correlations with all four EAC countries, but correlations of terms of trade shocks are low between all countries except between Uganda and Tanzania, and between Burundi and Kenya.³

³These figures are based on annual ToT figures from the IMF, and so may not adequately reflect true ToT shocks. What would be required to better portray ToT shocks would be monthly data on the ToT – unfortunately, these do not currently exist.

At this stage, the advantage of an EAC common currency in terms of reduction of transaction costs is limited. Indeed, the greater intra-regional trade among EAC members is, the smaller the costs and larger the benefits from forming the currency union(Alkharofey at al, 2009, Kamaludin, at al, 2011).

Table 4: Correlation of TOT shocks 2004-2011

	Burundi	Kenya	Rwanda	Tanzania	Uganda
Burundi	1.000				
Kenya	0.665	1.000			
Rwanda	-0.222	-0.382	1.000		
Tanzania	0.449	0.482	-0.555	1.000	
Uganda	0.144	0.224	-0.806	0.758	1.000

Source: UNECA calculations based on IMF (2011).

4.4 FREE MOVEMENT OF LABOR AND CAPITAL

Flexibility of labor and capital markets are equally important as foundations of monetary union. They allow for reductions in the need to adjust employment or the nominal exchange rate in reaction to country specific shocks. Mobility of capital has both a short term and long term role. Over the short term, capital flows can equilibrate payment adjustments between regions, regardless of whether or not they are within the same currency area. In principle, such flows can also ease the burden of adjustment to shocks by allowing structural changes to be spread out in time. The mobility of long term investment capital to finance such structural change is also considered crucial to an OCA. When financial markets are fully integrated, prices for similar assets in different countries are the same. In addition, agents in those countries have access to and use financial assets from other member countries to save, borrow and invest.

A plan exists for integrating capital markets within the EAC, by removing all controls on capital transactions among the member countries and harmonizing capital market infrastructure including regulations, taxation, accounting, trading systems, and cross listings of securities (Capital Market Protocol, Article 85). However, there is still much to do to achieve this objective. There is a need for developing domestic capital markets, further harmonizing market infrastructure and removing all remaining constraints on movement of capital. Uganda, Rwanda and Kenya have fully liberalized capital transactions within the region, even if restrictions remain on investments in the Kenyan domestic market by non-residents in EAC. Tanzania and Burundi have committed to fully liberalize capital account by 2015.

4.5 POLITICAL FACTORS

Political factors are fundamental in the formation of a currency area. Strong political will by the leaders is crucial because belonging to a currency union involves strong political commitment to coordinating policies and accepting the loss of a part of national sovereignty. In addition, political will is important to ensuring the public support for the process toward a monetary union (Jonung and Sjöholm, 1998). Public support, in turn, is one of key factors which contribute to the sustainability of monetary union beyond political cycles or terms. To create this support from the public, the integration process has to focus mainly on economic growth and jobs creation as well as regional infrastructures which impact directly the daily life of the population.

Some empirical studies show that political factors may dominate economic criteria in successful currency area.⁴As our evaluation of the European experience show (Section 5), political factors certainly played a major role in catalyzing European monetary integration, albeit in a way which was probably not beneficial to the design of the Euro. Put simply, the full implementation of the customs union and common market protocols, the creation of surveillance and enforcement mechanisms, as well as the creation of a strong institutional framework to make monetary union feasible will all highly depend on the level of political will to support the overall regional integration process.

4.6 EMPIRICAL RESULTS

In order to test if EAC countries are affected by common fluctuations, we assess the cyclical behavior of economic aggregates measured by GDP to evaluate how EAC countries evolve through time. Business cycles synchronization is widely used in the OCA literature as a tool to determine whether candidate countries face correlated trend and cyclical components of their macroeconomic indicators such as GDP to form a monetary union. One of the most commonly-used methods is the Hodrick- Prescott decomposition of GDP into trend and cyclical components.

⁴ As indicated in Mkenda(2001), the dissolution of the EAC board in 1966 is an example of lack of political will to sacrifice domestic policy needs for the sake of the currency.

The table below shows correlations of business cycles among the five EAC countries.

All correlations are high, positive and significant, except between Rwanda and Burundi⁵ as well as between Tanzania and Burundi. Thus there is some evidence that EAC countries have experienced similar patterns of economic growth over the last two decades.

Table 4: Business cycle correlations among EAC countries: 1990-2009.

	BDI	KYA	RDA	TZ	UGA
BDI	1.0				
KYA	0.7	1.0			
RDA	0.4	0.6	1.0		
TZ	0.2	0.6	0.8	1.0	
UGA	0.6	0.8	0.6	0.6	1

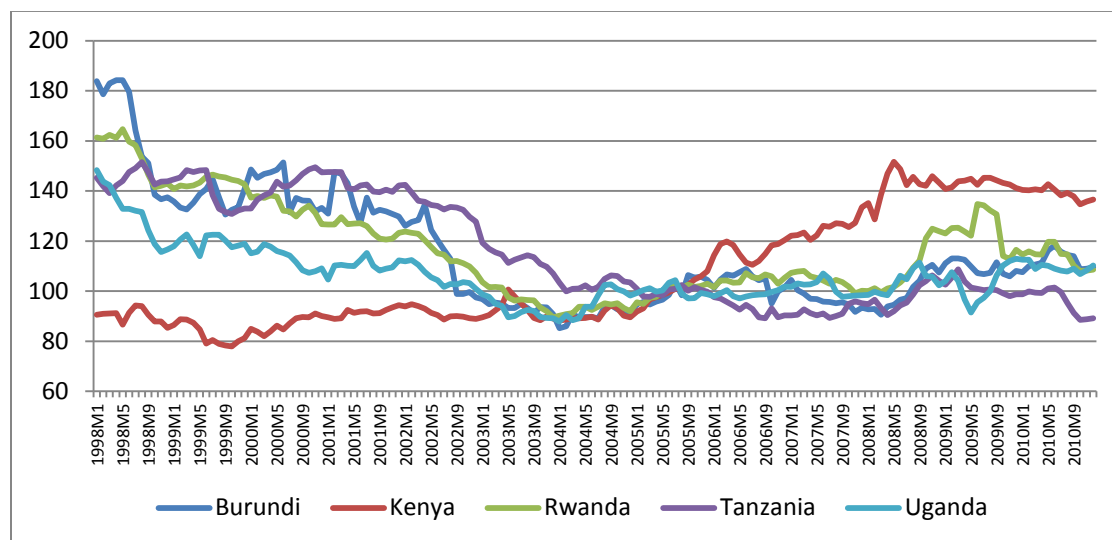
Table 5: Business cycle correlations among EAC countries: 2001-2009.

	BDI	KYA	RDA	TZ	UGA
BDI					
KYA	0.8	1.0			
RDA	0.6	0.8	1.0		
TZ	0.2	0.5	0.9	1.0	
UGA	0.7	0.9	1.0	0.8	1

So as to not to limit our analysis to the use of simple correlations, we use a generalized Purchasing Power Parity (GPPP) model developed by Enders and Hurn (1994) to test whether real effective exchange rates were co-integrated. This model postulates that the real exchange rates are influenced by economic fundamentals in such way that these fundamentals must move together in countries members of a currency union. The difference with the study conducted by Mkenda (2001) is that our model is esimated using data covering the period 2000-2011, a period when there price controls by Governments had been removed. In addition, we extend the analysis to the five countries forming EAC and not just to Kenya, Uganda and Tanzania. The following graph shows large differences in real effective exchange rates.

⁵It should be noted that the correlation between Rwanda and Burundi increased after 2000.

Graph 4: Real effective exchange rates 1998:1-2010:12



We then conducted a formal test based on the generalized Purchasing Power Parity (GPPP) exchange rate and found that real exchange rates in EAC countries are not cointegrated, suggesting that the five countries tend to be affected by asymmetric shocks. The same result holds by considering a sample limited to Kenya, Uganda and Tanzania, a result that does not support the EAC monetary union.

Table 4: Co integration between real exchange rates

Unrestricted Cointegration Rank Test (Trace)

Hypothesized	Trace	0.05		
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None	0.150807	49.94672	60.06141	0.2653
At most 1	0.091003	28.69583	40.17493	0.4255
At most 2	0.065284	16.29205	24.27596	0.3588
At most 3	0.045166	7.515416	12.32090	0.2767
At most 4	0.011526	1.507110	4.129906	0.2575

Trace test indicates no cointegration at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

5. EXPERIENCES OF THE EURO ZONE AND CFA FRANC ZONE

5.1 THE EXPERIENCE OF CFA FRANC ZONE

The CFA zone comprise two regions: the West African Economic and Monetary Union and the Central Africa Economic and Monetary Community. In general, the CFA franc zone countries have experienced low inflation compared to the rest of Sub Saharan Africa but the experience in terms of growth performance has been mixed, depending on the period under consideration. Moreover, the success and endurance of the CFA zone is also partially due to the special circumstances of external support, particularly the French Treasury's guarantee of convertibility embodied in the operations account.

This zone has experienced a severe crisis of exchange rate overvaluation and economic crisis in the late 1980s and early 1990s that culminated in a very large devaluation in 1994 of 50% of the value of CFA relative to the French franc. The crisis was mainly due to the weakness of commodity prices, the strength of the French franc, over-expansionary fiscal policies in the zone and excessive monetary financing of government deficits.

To deal with the deficit problem, CFA member countries have attempted to put in place a regional surveillance mechanism over national fiscal policies in order to enforce greater discipline. However, fiscal discipline is likely to remain a challenge in the zone. The multilateral framework put in place by the WAEMU treaty in 1994 to ensure fiscal discipline has not been as successful as was hoped, and a large of member countries do not meet convergence criteria, including maintenance of a basic fiscal surplus (IMF 2011).

5.2 MONETARY UNION – LESSONS FROM THE EUROPEAN EXPERIENCE

Introduction

The European experience of monetary union and regional integration has often been put forward as models or blueprints for regional integration, particularly in Africa. In the light of events over the last year, that model is looking increasingly tarnished.

Yet, as recently pointed out by Emmanuel Tumusiime-Mutebile,⁶ the Governor of the Bank of Uganda, the European Union experiences still provide a guide to both the positive steps to take and the mistakes to be avoided in the construction of a monetary union. There have been in fact three failed or flawed attempts at monetary union in Europe – the initial Werner Plan, the EMS, and finally, the Euro project, on which the verdict is still out. This section of the paper provides a brief historical overview of the (troubled) evolution of European monetary union.

5.2.1 The Werner Plan

Even prior to the current problems of the Euro project, the road to European monetary union was never easy – it took over four decades to achieve monetary union, and involved a step-by-step process of block expansion (Siddiqi, 2006:32). In reality, European monetary integration can be traced back as far as the Treaty of Rome, where it was acknowledged that the exchange rates of member countries should be regarded as a matter of “common interest”. The revaluation of the Dutch guilder and the German mark in 1961 prompted discussion of how the customs union could be extended to the monetary domain. By the mid-1960s this had led to the creation of the *Committee of Central Bank Governors* (Eichengreen, 1996:153), akin to the organizational structure now put in place by members of the East African states. But the key date was in 1969, when the European Council reaffirmed its intention of moving ahead to full economic and monetary union. This was motivated “*in part by the incipient instability of the dollar and by fears that a disorderly revaluation of European currencies would endanger the EEC*” (Eichengreen, 1996: 153). It led in 1970 to the formation of a study group of high-level officials chaired by the then prime minister of Luxembourg, Pierre Werner.

The Werner Plan envisaged the creation of a European monetary union by 1980. This was to be achieved in stages, with each step bringing the fluctuations in intra-European exchange rate ever closer to the ideal of being irrevocably fixed. Along the way, the participating member states would also be expected to establish patterns of coordination in other fields of economic policymaking in order to facilitate the convergence of national currencies and to reap other cooperative advantages (e.g. through greater intra-regional trade).

⁶ OMFIF Bulletin, March 2011.

It is important to stress that international monetary conditions were initially seemingly quite propitious to monetary union in 1970 – with the prevailing Bretton Woods arrangements providing currency stability, and a relatively small and homogenous set of six EU members. They also broadly shared a similar Keynesian outlook to macroeconomic management. Nevertheless, *“the project fell apart even before it could begin. The closure of the gold window in 1971, the oil price shock in 1973, and the sharp global recession of 1975, made a mockery of European attempts to narrow the fluctuations of their bilateral exchange rates”* (Jones, 2002: 5).

5.2.2 The Emergence of the European Monetary System

The first response of Europe to the collapse of the Bretton Woods system in the early 1970s consisted of “snake” and “snake in the tunnel” arrangements that were designed to stabilize the intra- European exchange rates within relatively narrow bands in an environment of extreme volatility. This was followed by the creation of the EMS in 1979 with the participation of the members of the European Economic Community (EEC), and eventually by the introduction of the euro and the establishment of the European Monetary Union (EMU) in 1999. Thus it took some 30 years to pass from soft pegs to hard pegs (UNCTAD, 2001: 118).

During 1979-1999, the European Monetary System (EMS) became the forum for the member economies for an essential engagement in harmonization of monetary policies of the member economies. During this period, two competing perspectives of monetary integration coalesced – one, called ‘monetarist’ advocating irrevocably fixed exchange rates as an instrument for the promotion of economic convergence, and the other, called ‘economist’ insisting on economic convergence as a precondition for irrevocably fixed exchange rates. Member countries were split into two camps – the French, Italians and Belgians advocated the monetarist view, and the Germans and Dutch preferred the economist argument. In the end, it is clear that the French-led ‘monetarist’ view won out – though in the light of the subsequent problems of the Euro since 2011, it might be argued that the German-led ‘economist’ view has been revindicated.

In April 1987, Tommaso Padoa-Schioppa a senior Officer of Bank of Italy, warned in a report that the complete freedom of capital movements envisaged by the Single European Act would threaten the EMS’s capacity to continue, and over the next year pressed the case for a single European currency as the only effective response.

Jacques Delors, then the President of the European Commission, understood that France had only two realistic options: either to opt for floating rates, in which case European integration would be irrevocably damaged and the Bundesbank's position would remain unchallenged; or to opt for full monetary integration. And what was true for France was considered true for Europe (Hutton, 2005: 375).⁷

The events leading to the 1992–1993 EMS crisis provided a useful lesson on how regional currency arrangements, even with supporting institutions, can break down when exchange rates are inconsistent with underlying inflation and interest rates (UNCTAD, 2005: 120). The EMS forced countries to have the same monetary policy, and placed control of that policy in German hands. During the 1980s, this was not a problem, because all of the countries shared the same goals. Sooner or later, however, a crisis was bound to come. When Germany reunified, the massive costs of supporting and rebuilding Eastern Germany meant a huge fiscal expansion. To prevent that expansion from causing inflation, Germany adopted very tight money policies. The problem was that other European countries were forced to match the tight money without the fiscal expansion, which meant a severe recession that spread across the whole of the continent, eventually touching Germany itself (Krugman, 1996:138).

Thus, without capital controls, the EMS had to resort to fiercely conservative economic policies in order to maintain the system. Essentially, members had to shadow German interest rates, inflation and budgetary policy if they were to have a chance of staying within the grid. It was this experience that convinced France that it had to opt for a single European currency even before German reunification made the case politically as well as economically pressing. In 1993, its third financial crisis – after 1969 and 1981-3 – when the franc was again the object of an irresistible wave of speculation, marked the moment when France became completely convinced. In a world in which neither floating nor fixed exchange rates offered sovereignty, the only course was to establish a single European currency (Hutton, 2002: 410).

⁷ According to Krugman (1996:138), prior to the crises of 1992/93, *“the Europeans looked at the success of the European Monetary System between 1982 and 1990 and saw it as a fundamental endorsement of sound money, rather than realising that it was a temporary success based on special circumstances.”*

The last pretensions to French leadership were shattered when, after Britain and Italy were forced out of the EMS in 1992, France succumbed to overwhelming foreign exchange speculation the following year; shadowing high German interest rates following reunification had created a deepening French recession. “*The tight bands that the EMS had operated were relaxed to allow France to remain a titular member revolving around the German sun*” (Hutton, 2002: 385). One hundred sixty billion French francs (about \$32 billion) were reportedly spent on the currency’s defense in the week ending September 23 1992 (Eichengreen, 1996: 173)

The speculation that forced sterling out of the EMS in 1992 was mountainous, reaching \$20 billion on ‘Black Wednesday’ alone (Marsh, 2011). The Swedish situation also bore a strong basic resemblance to the British one: a severe recession brought on by the need to match German interest rates, with the Swedish currency clearly overvalued by normal standards – especially given the devaluations by the United Kingdom and Finland. Indeed, there was a speculative attack on the Swedish crown just after the UK crisis, which was beaten back only by pushing short-term interest rates up to 500 percent (Krugman, 1996: 139). Reserve losses incurred in the six days preceding the devaluation are reported to have amounted to \$26 billion, or more than 10 percent of Sweden’s GNP (Eichengreen, 1996: 174). The crisis of 1992 thus led to one of the largest bouts of currency intervention in history; the ERM departures of Britain and Italy; a further long-lasting intensification of British suspicions about fixing exchange rates with its European neighbours; and an overvaluation of the Deutschmark that lasted several years and significantly depressed economic growth in Germany and Europe (Marsh,2011:164).

5.2.3 The Launching of the Euro

At the heart of plans for European monetary union is the Maastricht Treaty of 1991. This stipulated that the transition to the final stage of monetary union was conditional on a number of ‘convergence criteria’, and that a country could join the union only if:

- i) Its inflation rate is not more than 1.5 percent higher than the average of the three lowest inflation rates among the EU-member states
- ii) Its long-term interest rate is not more than 2% higher than the average observed in these three low-inflation countries;

- iii) It has joined the exchange rate mechanism of the EMS and has not experienced a devaluation during the two years preceding the entrance into the union;
- iv) Its government budget deficit is not higher than 3% of its GDP (if it is, it should be declining continuously and substantially and come close to the 3% norm, or alternatively, the deviation from the reference value (3%) should be exceptional and temporary and remain close to the reference value” Art. 104c (a)
- v) Its government debt should not exceed 60% of GDP (if it does, it should ‘diminish sufficiently and approach the reference value (60%) at a satisfactory pace’. (De Grauwe, 2005: 143).

The designers of the treaty clearly thought that the main danger was that fiscal policy may indirectly put pressures on monetary policy; for instance, if a country got into trouble servicing its debt, the central bank might be led to ease monetary policy to lower the treasury’s interest costs and prevent a financial crisis. The Stability and Growth Pact was aimed at minimizing that danger in Europe (Masson and Patillo, 2004:6). During negotiations on the Maastricht Treaty, the provision of a mutual balance of payments assistance that has existed in the European community arrangements since 1958 was removed from the arrangements for the new monetary union framework. This reflected both the German led view that monetary union should embody optimal discipline from member states as well as the belief that, once the Euro had started, financing the current account deficits within the Euro area would no longer present difficulties (Marsh, 2011:7).

The Maastricht Plan did not get off to an auspicious start. During the late spring and summer of 1992, the larger Treaty on European Union ran into ratification troubles with a popular veto in Denmark and a close referendum in France. Moreover, these troubles coincided with a new and deep European recession- rising unemployment and worsening public finances. This combination of factors spilled over into currency markets, first rocking and then shattering the exchange rate mechanism at the core of the EMS. In the autumn of 1993, the heads of state and government announced that the bands for currency fluctuations would have to be widened from +/- 2 percent to +/- 15 percent. Pessimism generally prevailed regarding the possibilities of achieving monetary union.

One fundamental problem with the Maastricht criteria is that they stress macroeconomic convergence (inflation, interest rates, budgetary policies), whereas theory stresses microeconomic conditions for a successful monetary union. As a consequence, in the absence of the exchange rate instrument and a centralised European budget, national budgets are the only available instruments for member states to confront asymmetric shocks. As de Grauwe (2005:238) has noted, *“It is clear that the Pact has been guided more by the fear of unsustainable debts and deficits than by the need for flexibility.”*

Thus the general thrust of these convergence criteria was deflationary – many countries were required to cut budget deficits, to reduce public debt and to bring down inflation and interest rates to meet the criteria. The relatively poor economic performance of many of the EU economies during the 1990s may to some degree be attributable to the striving of countries to meet those criteria. From 1992 to 1999, the growth of national income average 1.7 percent per annum in the euro zone countries, compared with the average for the UK (which had abandoned the disciplines of the stability pact in 1992) of 2.5 percent. Over the same period, the unemployment rate fell substantially in the UK (and also in the US and Canada), but tended to rise in the euro zone countries – notably in France, Germany and Italy (Ireland being the notable exception as unemployment fell dramatically) (Arestis and Sawyer, 2003:253).

Paradoxically, however, this earlier negative experience served to strengthen the resolve of European leaders with regard to the establishment of the euro. Despite the popular malaise that grew out of the recession of the early 1990s and the repeated currency crises of 1992, 1993 and 1995, the heads of state and government continued to pursue European monetary union. Moreover, *“they responded to each setback with a consolidation of the Maastricht Plan and a redoubling of their efforts to achieve it. In this way, they were able to convince both their own electorates and international capital markets that EMU would come about”* (Jones, 2002:10).

Defenders of the Single Currency argued that the establishment of the Euro provided Europe with an autonomy that would not have existed otherwise. In the words of Hutton (2002:411), *“the brutal reality is that no single European country by itself in an era of floating exchange rates has the same autonomous capacity to manage demand.”*

That can only be regained at the European level.” On the other hand, the American economist Martin Feldstein (1997), one of the more outspoken critics, argued that “The economic consequences of EMU, if it does come to pass, are also likely to be negative. Imposing a single interest rate and an inflexible exchange rate on countries that are characterised by different economic shocks, inflexible wages, low labour mobility and separate national fiscal systems without significant cross-border cyclical transfers will raise the overall level of cyclical unemployment among the EMU members. The shift from national monetary policies dominated by the Bundesbank within the European Monetary system to a European Central Bank governed by majority voting with a determined exchange rate policy will almost certainly raise the average level of future inflation. The emphasis on common economic and social policies will reduce the scope for the experimentation and competition that would otherwise lead to reduction in the current extremely high levels of structural unemployment.”

In the aftermath of the serious problems of the Euro project, these views may seem quite insightful. However, in some senses they misjudge part of the problem - the euro has not had a problem with inflation (though arguably this could be subscribed to the deflationary effects induced by the growth of the China, which has depressed prices of consumables globally, rather than directly to the monetary policy of the ECB). There are also good reasons for thinking that US critics of the European project of monetary integration have tended to exaggerate the weaknesses of the European economy vis-à-vis the perceived strengths of the US economy (Todd, 2002; Hutton, 2002). On unemployment, for example, it has been pointed out that European definitions of unemployment tend to give much higher figures than the corresponding American ones. For instance, some analysts have suggested that the relatively high growth rates registered by the US economy in the late 1990s were in part the product of an erroneous evaluation of the ICT sector boom. The overvaluation of the dollar and the collapse of the high-tech boom, which had boosted exports of ITC equipment, took their toll on US exports, which lost one-fifth of their market share between 2000-3 (see Glyn, 2006: Chapter 6). It has also been pointed out that the higher growth rates registered in the United States depended to a large extent on an expanding labour force (due to higher rates of immigration) compared to the stagnant demographics of Western Europe and Japan (Todd, 2002).

5.2.4 The Unraveling of the Euro-Project

Among many economists, it is now treated as ‘self-evident’ and ‘inevitable’ that the euro project would run into problems. However, this was not widely reflected in the popular press or, indeed, among academic journals prior to the serious problems of 2011. Indeed, the Euro was initially regarded as a safe haven in the 2008 crisis, demonstrating that the European Central Bank, as the issuer of a recognized international currency, had more capacity to provide emergency liquidity than, say, the National Bank of Denmark or the Swedish Riksbank, the central banks of countries still outside the Euro area (Eichengreen, 2011:128). Events turned out rather differently, after three years of the deepest recession since the Great Depression of the 1930s. There has been, at the very least, a certain professional myopia shown collectively (with very few exceptions) by the economics profession with regard to both the Euro and the financial crisis itself which was instrumental in the unraveling of the Euro project.

How did it all happen? What was the sequence of events that led to the undermining of the credibility of the Euro? Traditional trade theory stresses that economies need to be initially quite different (e.g. exporting or producing different goods and services) in order to reap the advantages of free trade and regional integration. Yet as noted earlier, for monetary union to be feasible, economies should not be *too* different, in the sense that they may be susceptible to different sets of external shocks. Thus in the context of monetary union, the trade economist’s standard advice about better reaping comparative advantage through trading with countries with a different set of endowments turns out to be liability to monetary union during times of economic turmoil, precisely because it increases the chances of what economists call ‘asymmetric shocks’ – that is to say, one economy being much more negatively impacted by a crisis than another.

This has been one of the problems underlying the Euro experience from the beginning, with the core countries having quite different economic conditions and cycles to those peripheral countries such as Portugal, Ireland, Greece and Spain, that are now suffering the impact of a monetary policy which was inappropriate for the prevailing conditions. Put simply, cheap money (excessively low interest rates) contributed to fuelling the boom in countries like Spain and Greece, leading to over-indebtedness and eventually a boom that went bust.

As usual in cases of attempts to establish a fixed parity of a currency, then, it took a severe crisis to expose the structural weaknesses in the Euro project. It seems that the European authorities did not see this coming. In August 2008, with the bursting of the bubble in the US sub-prime

mortgage sector, the European Central bank published a 12-page article devoted to global imbalances in current account surplus in deficits, saying, “the issue is important, as potentially disorderly unwinding could pose a risk to the global economy and the stability of the international financial system”. The article focused on the rise of the US current account deficit “to unprecedented levels” as well as on the surplus countries of Japan, China, Saudi Arabia and Russia. But it failed to mention imbalances within the euro area, on the grounds that the consolidated current-account position of the Euro member countries were broadly balanced and had even contributed to international adjustment by moving to a small deficit in 2006 (Marsh, 2011:9).

The manifest inability of the Commission to enforce the Stability and Growth Pact was exposed by the Greek debt situation. The Greek debt situation had been growing unsustainable for a number of years prior to the crisis, reaching a fiscal deficit in excess of 13 percent of GDP (vis-à-vis the Maastricht criteria).⁸ Financial markets however only woke up to the fact that Greece’s financial position was untenable in early 2010, demanding that the Greek government reduce its budget deficit by 10 percent of GDP in three years, or they would ‘go on strike’ (Eichengreen, 2011:131). The political implications of the tough adjustment that markets were calling for were too much to bear for the PSOK government of George Papandreou, who was forced to resign after barely two years in office, in the face of a mass social mobilization against the bailout terms of the US\$130 billion agreed with the European Union, European Central Bank and International Monetary Fund.⁹

In the absence of a convincing resolution to the Greek problem, investors began to develop similar doubts about Portugal, Spain, and other Southern European counties, leading to a panic sale of their bonds, and raising questions about the solvency of the European banks that had invested in those bonds. A catastrophe was only avoided when national leaders, meeting in Brussels in November 2011, agreed to establish a bailout fund of US 1 trillion to guarantee

⁸ It has subsequently been established that the Greek authorities fraudulently ‘cooked the books’ in order to be allowed to join the Euro in the first place.

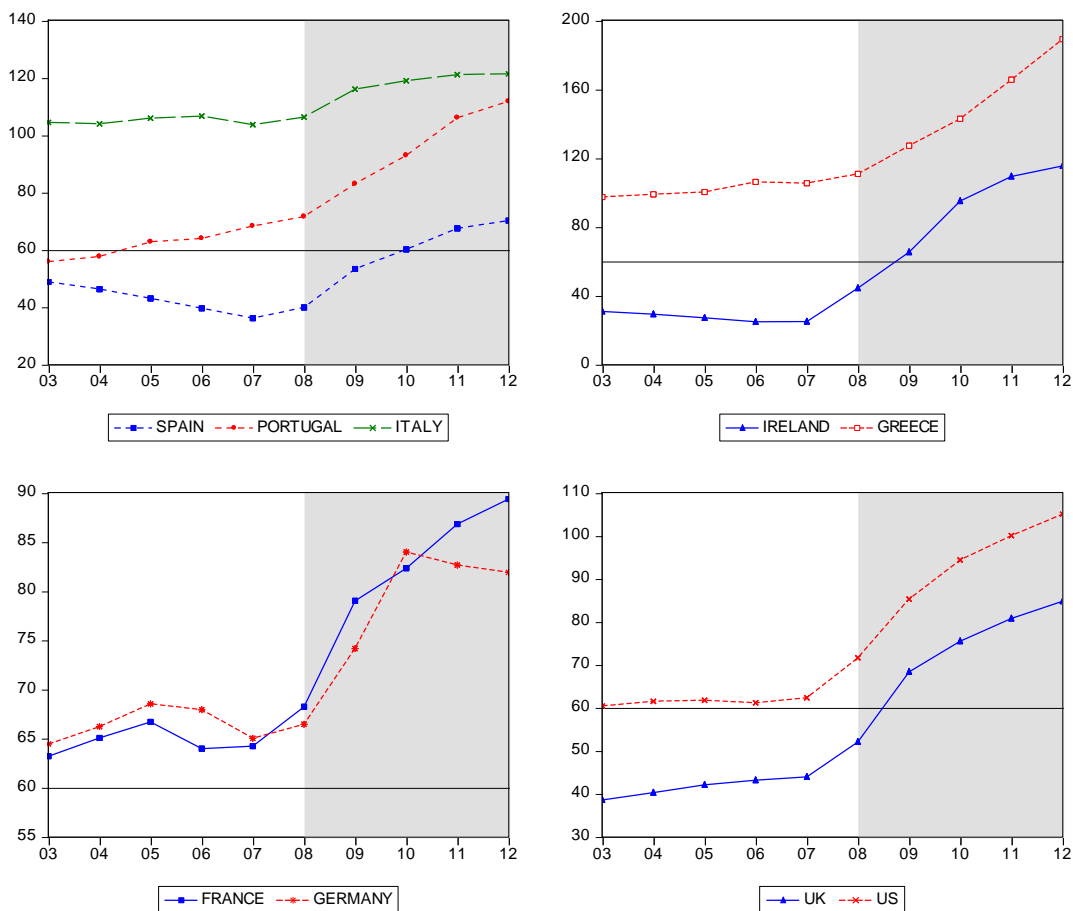
⁹ It was in fact the backing down of the Greek Prime Minister after having called a national referendum on the terms of the bailout which ultimately provoked his downfall. In the face of such a harsh adjustment, Papandreaou’s call for a referendum at the last moment on whether to either accept the bailout or instead opt out of the euro seemed like a reasonable attempt to gain wider political and social support for measures that, without popular support, were likely to fail anyway. The exact political pressures he was subjected to which forced him to rectify this decision are still unknown, but it seems that his European partners, the French and German governments, were furious about his failure to consult them on the referendum.

national debts and the ECB agreed to the emergence (and ‘exceptional’) purchases of government bonds (Eichengreen, op.cit). At the date of writing this study, it is still unclear whether this solution will be sufficient, and whether a new tenable Growth and Stability Pact will emerge, one in which Brussels takes on a far greater role in terms of oversight of national budgets.

To an extent, the response to the crisis has been predictable, in the sense of trying to agree to impose greater ‘fiscal discipline’ in order to avoid the same situation arising again. Yet looking at the data, it is far from clear that tighter fiscal rules would resolve the problems. With the exceptions of Italy and Greece (and, ironically enough, given their calls for greater fiscal discipline, both France and Germany), the large government debts that have accrued over the last few years have been a *consequence* of the global recession of 2008, not a root cause of the financial turmoil seen in Europe in 2010-11. An illustration of this is the fact that the average fiscal deficits of 12 significant euro-zone members from 1999 to 2007 for every country, except Greece, fell below the 3 per cent of GDP limit. Focusing on this criterion would have missed all the now crisis-hit members, with the exception of Greece. Moreover, the four worst cases, after Greece, were Italy and then France, Germany and Austria. Meanwhile, Ireland, Estonia, Spain and Belgium had good performances over these years.

After the crisis, the picture changed, of course, with huge (and unexpected) deteriorations in the fiscal positions of Ireland, Portugal and Spain (though not Italy). In all, however, as Martin Wolf (2011) has stressed, fiscal deficits proved useless as indicators of looming crises. This point is also evident from Figure 1, where up until 2008 countries like Ireland and Spain had total debt levels well below the Maastricht threshold of 60 percent of GDP. It was the endogenous debt dynamics in a recessionary environment, plus guarantees issued by governments like the Irish one to stabilize their banking sectors, which caused debt levels to balloon out of control. It is precisely for this reason that countries like Spain feel that they have been ‘unfairly’ treated by financial markets – and, in a sense, they are right.

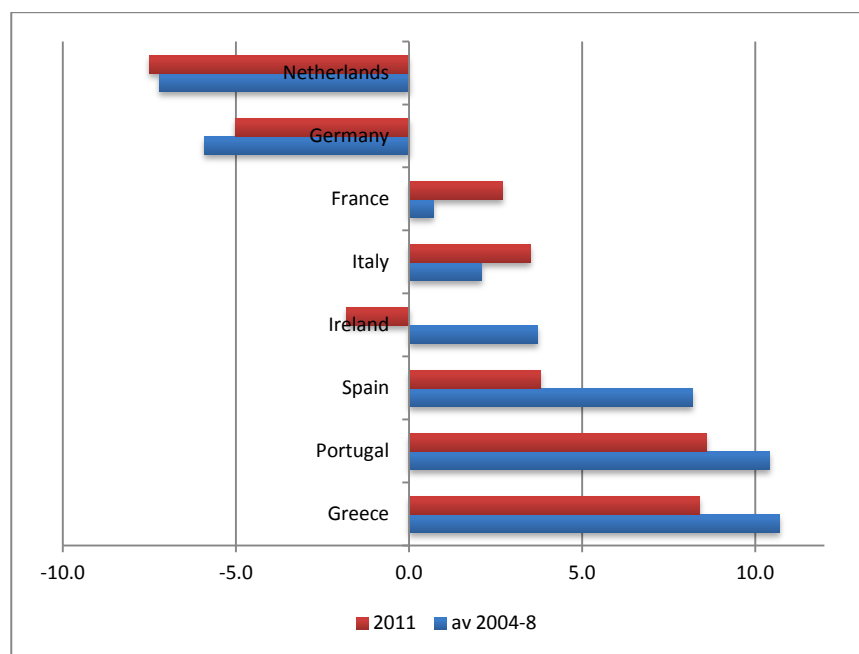
Figure 5: Public Debt as a Percentage of GDP, 2003-2012



Source: IMF World Economic Outlook database, 2012, Note: Shaded areas denote the post-2008 recession period, and the horizontal black line the 60 percent Maastricht Criteria.

In contrast, large-scale current account imbalances, indicative of large capital flows, were very much in evidence in the crisis-struck countries of Spain, Portugal and Greece (Figure 2). Yet the architects of monetary union had convinced themselves that individual Euro countries disparities the balance of payments performances - caused by diverse economic growth and inflation rates - would have a negligible impact on the resilience of the euro area as a whole. According to this notion, individual countries current-account deficits - especially vis-à-vis other member countries - would be largely self-financing (Marsh, 2011:7). The crisis would seem to have proven that notion wrong.

Figure 6: Euro zone Capital Inflows* (Selected Countries), 2004-8 and 2011



Source: Own calculations, from IMF (2012). *Capital inflows are measured here as the inverse of the current account surplus.

As a simple accounting identity, it is clear that both the fiscal and external accounts balance stem from the aggregate balance between savings and investment:

$$(I^P - S^P) + (G - T) = J - X - N_T$$

where I^P is private investment, S^P private saving, G current government spending, T current government revenue, J (X) imports (exports) of good and services, and N_T are net current transfers from abroad. The issue is thus far more complex than simply ascribing it to a lack of fiscal discipline – there is a need to take into account the interaction between fiscal and current account movements, which in turn depend on the effect of fiscal policy on the private sector’s investment and savings decisions (Agenor, 2004:93).

Thus the current proposals for rectifying the problems and instilling greater discipline run the risk of creating even greater problems in the future. The proposals on the table at present are that “general government budget deficits shall be balanced or in surplus: this principle shall be deemed respected if, as a rule, the annual structural deficit does not exceed 0.5 per cent of nominal gross domestic product”.

Secondly, “*such a rule will also be introduced in member states’ ... legal systems ... The rule will contain an automatic correction mechanism that shall be triggered in the event of deviation.*”

It is also worth mentioning that the rules such as these do not have an exemplary record. For instance, the much-vaunted ‘golden rule’ of borrowing introduced under Gordon Brown’s Chancellorship in the UK stated that borrowing would be restricted to only financing capital spending, and the rule was accompanied by the ‘sustainable investment rule’ which limited debt to 40 percent of GDP over the cycle. Yet the ‘golden rule’ did little to avoid the explosion of public sector debt after 2008, reaching in excess of 80 percent in 2011.

However, the main criticism of deficit rules in general, and balanced budget rules in particular, is that they are inflexible and tend to be pro-cyclical – with fiscal imbalances rising in good times, and vice-versa (Agenor, 2004:92).¹⁰ Returning to the Euro case, the budgetary targets for the EU’s Growth and Stability Pact foundered initially in 2004 not on Greek or Italian profligacy, but rather on German and French deficits, which remained stubbornly high as growth in the Euro zone stagnated. Persistent budget deficits are telling signs of lack of business confidence in the prospects for profitable investment (Glyn, 2006: 36). This experience would suggest that the convergence criteria have been excessively focused on stability rather than on promoting growth.

To impose the new set of rules, the Council of Ministers states that “steps and sanctions proposed or recommended by the Commission will be adopted unless a qualified majority of the euro area member states is opposed”. As Wolf (2011) has argued, a simple objection to these ideas might be that they are implausibly tough. De Grauwe’s (2005:240) critique of the previous application of the Growth and Stability Pact would seem an opposite warning of what could happen under new centralized rules:

“We conclude that the Stability and Growth Pact has gone too far in imposing rules on national budgets...the flaws of the Stability and Growth Pact...led to serious problems in 2002-4, when major Euro zone countries were hit by an economic downturn.

¹⁰ There are, to be sure, more complex variants of deficit rules, such as those that apply to cyclically-adjusted measures (e.g. the *structural budget deficit*), which try to average out deficits over the economic cycle, and thus allow the operation of automatic stabilisers and greater fiscal discretion. However, as Agenor (2004:92) points out, the increased flexibility comes at a cost, in terms of complicating the benchmark against which fiscal policy is judged – especially when using tentative estimates of ‘potential output’.

This led to an increase of the budget deficits of France, Germany, Italy and Portugal. In the name of the Pact, the European Commission insisted that these countries should return to budget balance even in the midst of a declining business cycle. A number of countries, in particular, France and Germany, refused to submit their economy to such deflationary policies...The result was very predictable. The Commission had to yield to the unwillingness of these countries to subject their policies and their commitments towards the increasing number of unemployed to the rule of the mythical number 3. In November 2003 the Council of Ministers abrogated the procedure that the European Commission had started. For all practical purposes the Pact had become a dead letter.”

6. CONCLUSION AND SOME POLICY RECOMMNDATIONS

There is no denying that good progress has been made towards the implementation of the EAMU. Achievements include the ongoing implementation of the customers union and common market protocols, activities under the MAC like the harmonization of banking regulation, the payment system integration, the harmonization of monetary and exchange rate policy formulation and implementation. Moreover, political support for the EAMU remains strong – a crucial element in the equation for successful monetary union.

Nonetheless, important challenges remain in building a solid foundation before adopting the EAC single currency. In particular, we highlight the following points which require further attention by policymakers in the region:

6.1 FISCAL CONVERGENCE CRITERIA

Agreeing on the appropriate fiscal convergence criteria in EAC is critical in conducting monetary policy by the regional central bank and avoiding potential negative spillover effects of excessive deficits and debt in the union. However, fiscal convergence criteria in EAC can be the most significant challenge, especially in view of the heavy dependence on aid flows to mitigate fiscal imbalances. The degree of dependence on aid is different among the EAC countries. For example, in 2008 the budget support from donors was equivalent to 1.3 percent of GDP in Kenya, 4.3 percent of GDP in Uganda, 5.1 percent in Tanzania, 10.5 percent in Burundi, and 10.9 percent in Rwanda.¹¹ These differences in aid dependence also reflect differential capacities to generate domestic revenues. Such consideration need to be borne in mind as the EAMU decides whether to measure its fiscal deficit criteria inclusive of grants or exclusive of grants. It may indeed be more appropriate that the EAMU adopts a measure of fiscal deficit that is inclusive of grants. The fiscal deficit excluding grants would be useful for fiscal surveillance as it would provide a measure of the degree of domestic revenue mobilization. Over time, this would align member countries efforts to raise domestic revenues with donors' objectives of gradually reducing the dependence on grants over the medium-to long term.

However, the EAMU should consider measures to limit discretion in spending budget aid by member countries, given that levels of donor support are volatile and unpredictable and aid

¹¹ European Central Bank, 2010.

inflows can have an independent inflationary impact. These measures could include a limitation on the ability of countries to domestically finance shortfalls in projected aid or to spend unexpected increases in aid.

It is generally agreed that international financial markets can enforce fiscal discipline by pricing the risks associated with increasing sovereign debt. However, this role of international market is significantly reduced in EAC with underdeveloped and poorly integrated capital market. Within the EAC, capital markets remain thin and cannot efficiently price government securities. In Kenya, outstanding Government securities represent 27.3% of GDP, with maturities of up to 30 years. Corresponding figures for other EAC members are 10.3% in Tanzania, 8.5% in Burundi, 8.1% in Uganda and 2.2% in Rwanda (IMF, 2012).

Table 6: EAC: Treasury Bills and Bonds Outstanding at End-2010

	Burundi	Kenya	Rwanda	Uganda	Tanzania
	Millions of US dollars				
Treasury bills and bonds	126	8,612	120	2,080	1,230
Treasury bills	n.a.	2,046	94	445	544
Treasury bonds	n.a.	6,566	25	1,635	686
	Percent of GDP				
Treasury bills and bonds	8.5	27.3	2.2	10.3	8.1
Treasury bills	n.a.	6.5	1.7	2.2	3.6
Treasury bonds	n.a.	20.8	0.5	8.1	4.5

Source: IMF, 2012.

6.2 MACROECONOMIC CONVERGENCE CRITERIA AND ENFORCEMENT MECHANISM

Performance on meeting convergence criteria by EAC member states has been mixed so far. This poor performance is in part explained by the lack of monitoring mechanism to ensure countries' adherence to the criteria. To build a solid foundation for the EAMU, it is important that EAC countries agree on surveillance and the enforcement mechanism for convergence criteria.

One possibility is to give this mandate to the EAC secretariat. This would require more capacity and legal power to conduct regional surveillance and ensure that economic data submitted by the member states is correct (ECB, 2010).

As mentioned, fiscal convergence criteria can be the most challenging criteria, especially regarding the treatment of aid flows. In addition, fiscal policy will become the main macroeconomic policy tool available to the countries after giving up independent national monetary policy. More importantly, if member countries face significantly different macroeconomic shocks, such as terms of trade shocks due to fluctuations in international commodity prices and/or agricultural productivity shocks, sufficient discretion in national fiscal policy would better enable individual countries to respond to national shocks.

The experience of Europe area and CFA franc zone shows that a strong surveillance and enforcement mechanism, with legal power of applying sanctions to countries violating convergence criteria and especially the budget deficit criteria is critical for the sustainability and viability of a monetary union. This mechanism may create and sustain fiscal discipline among EAC countries and contribute to attaining more coordinated fiscal policies that will support the effectiveness of the monetary policy of the East African Central Bank.

Fiscal discipline is important in EAC to avoid any tensions between expansionary national budgets(due to the needs of financing development infrastructures, economic growth and related programs to meet MDGs goals) and the regional central bank's objective of keeping inflation low and stable. Moreover, the surveillance and enforcement mechanism should not be limited to fiscal policy but extended to other economic policies. Thus conducting periodic review of macroeconomic conditions and economic policies in the five EAC countries is recommended, each country assessment being done according to its specific context. This will help to prevent serious problems of misalignment and facilitate adequate intervention.

To sum up, for the EAC members, performance in terms of complying with the existing convergence criteria is still poor, especially the criteria on budget deficit excluding grants and on inflation. So far the customs union does not appear to have much increased the total intra-regional trade which is one of the conditions for increasing the benefits from monetary union. The evidence presented here is mixed as to whether the EAC currently constitutes an optimum

currency area, even though there is evidence of increasing similarities in the structures of the EAC economies. EAC economies are not diversified and not highly opened even if there is a clear trend of openness. There is an indication of business cycles synchronization supporting the EAMU. However, the correlations of terms of trade shocks as well as the test for cointegration between real effective exchange rates indicate that EAC countries face asymmetric shocks and this result does not support the EAMU at present.

6.3 AND THE LESSONS FROM THE EURO CRISIS?

As noted in Section 5, European monetary union took a long time to achieve, starting with the ERM in the 1970s. It suffered a number of serious crises and setbacks, of which the 2011 crisis is simply the culmination. This section sets out to prove an important but straightforward point: the path to the Euro has certainly not been smooth, and any developing country taken a similar path needs to be careful to avoid the same costly macroeconomic mistakes. The European model or blueprint of monetary union has been, at the very least, severely compromised by recent events.

More worryingly still, it is uncertain whether the European Union, or its professional staff in the ECB and the European Commission, have a clear idea of how to respond to the current crisis. A number of solutions are on the table, but it is unclear whether the full political implications have been properly thought-through (and whether these agreements will be politically acceptable to citizens in the member states once their full implications become evident). At the moment, it could be argued, for Europe's political classes *the need to be seen doing something* prevails over finding the right long-term solution. At the heart of the heated debates over the future of European monetary union are also discussions over redefining the correct role for the ECB. Some years back, former French Prime Minister Michel Rocard (2007) predicted that *“Independence of the central bank is a means to an end, to win Germany's approval for monetary union, but is not the end of the story. We will not be able to escape a situation taking place where the government will have to give orders to the central bank”*.

Five main conclusions stand out from our brief summary here:

1. Macroeconomic convergence (inflation, interest rates, and budgetary policies) alone is insufficient for successful monetary union - theory stresses the importance of microeconomic conditions, in terms of productive capacities and productivity. Large and sustained divergences in productivity growth will end up causing serious stresses and strains in a monetary union. Policymakers need to focus also on these fundamental building blocks of a regionally-integrated area.
2. ‘Fiscal targeting’, in the sense of aiming for balanced and/or very limited budget deficits, as a way of instilling discipline within a monetary union, is a dangerous policy to pursue if it leads to large differentials in growth rates amongst member states, pro-cyclical fiscal policy and economic underperformance. Bearing this in mind, the EAC needs to set targets which are realistic and growth-compatible.
3. European observers of the EAC process (e.g. ECB, 2010) have often stressed the importance of having ‘strong institutions’ in order to credibly establish monetary union. Yet recent events in Europe suggest that even state-of-the-art institutions are capable of producing disastrous results, if the right political support, guidance and motivation are not forthcoming. Monetary union is not simply a technocratic problem, but rather a political one – and if members are not moving in the same direction, then inevitably the system will be strained.
4. Capital flows ARE important in evaluating the sustainability of a monetary union, including capital flows within the integrated area. These need to be monitored just as closely as inflationary or budgetary criteria.
5. Monetary unions may evolve successfully during times of economic bonanza, but are only truly put to the test during times of economic downturns. Robust systems need to be devised to withstand inevitable economic downturns.

Two years ago, the ECB commissioned a study to advise the EAC on the establishment of its monetary union. This warned the EAC that “*the EU advanced very gradually towards EMU and the EAC and its Partner States would be advised to follow the same cautious approach.*”

Indeed, a sound and sustainable monetary union requires a robust institutional, operational, and regulatory framework; the risk of failure is high if the framework is ill-considered and built on unsound foundations.” (ECB, 2010:16).

In the light of events over the past year, those words sound prophetic and as applicable to the European Union itself as to the EAC. There is much still to be learned from the European experience of monetary union, but not necessarily in the sense that its promoters would have originally intended.

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8. APPENDIX I

Table 1: MAC subcommittee and priority actions to support the implementation of EAMU

Sub Committee	Priority actions	Status of implementation
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Towards a Common Currency in the Eastern African Community(EAC): Issues, Challenges and Prospects

<p>1. Economic affairs</p>	<ol style="list-style-type: none"> 1. Attain a common exchange rate policy 2. Attain currency convertibility 3. Attain a common monetary policy framework 4. Harmonization of monetary communication strategy 5. Attain macroeconomic convergence 6. Harmonization of statistics 	<ol style="list-style-type: none"> 1. The International Growth center is finalizing a study on exchange rate mechanisms in EAC 2. The 5 EAC Central banks are finalizing reports on currency convertibility 3. IMF is finalizing a study on this issue 4. To be done by end February 2012 5. IMF is finalizing a study on relevance of existing macroeconomic convergence criteria 6. Work in progress
<p>2. Financial market</p>	<ol style="list-style-type: none"> 1. Harmonization of liquidity management frameworks 2. Risk management frameworks 3. Harmonized regional conventions and market practices 	<ol style="list-style-type: none"> 1. Work in progress 2. Work in progress 3. Work in progress
<p>4. Banking supervision and financial stability</p>	<ol style="list-style-type: none"> 1. Harmonization of existing national prudential supervisory rules and practices 2. Review, consolidate and harmonize the existing financial stability assessment frameworks 	<ol style="list-style-type: none"> 1. Work in progress 2. Work in progress 3. Work in progress
<p>3. Information Technology (IT)</p>	<ol style="list-style-type: none"> 1. Harmonization of legal framework on e mail and internet policies 2. IT Governance 3. IT forum on emerging technologies 4. Harmonization of IT infrastructure for EAC central banks 	<ol style="list-style-type: none"> 1. Work in progress 2. Work in progress 3. Work in progress 4. Work in progress
<p>5. Payment System</p>	<ol style="list-style-type: none"> i) Integration of payment system in the EAC ii) Conduct oversight assessment of regional payment infrastructure iii) Develop collateral management framework in EAC 	<ol style="list-style-type: none"> 1. Work in progress 2. Work in progress 3. Work in progress
<p>6. Human Resources</p>	<ol style="list-style-type: none"> 1. Implement the MAC capacity building program 2. Harmonize the HR policies and frameworks 	<ol style="list-style-type: none"> 1. Work in progress 2. Work in progress

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7. Legal sub committee	<ol style="list-style-type: none"> 1. Identification of impediments and gaps in national legislation 2. Legal support to EAMU progress 	<ol style="list-style-type: none"> 1. Work in progress 2. Work in progress
8. Accounting and finance	<ol style="list-style-type: none"> 1. Harmonization of financial reporting standards 2. Classification of financial assets 	<ol style="list-style-type: none"> 1. Work in progress 2. Work in progress
9. Banking and currency	Automation of government payment systems and implementation of EFT payments	To be done by June 2013

Table 2: New EAC Macroeconomic Convergence Criteria

<p>Stage I (Year 2007-2010):</p> <p>Primary Criteria</p> <ul style="list-style-type: none">a) Overall Budget Deficit to GDP Ratio (excluding grants) of not more than 6.0 percent, and Overall Budget Deficit to GDP Ratio (including grants) of not more than 3.0 percent;b) Annual Average Inflation Rate not exceeding 5 percent;c) External Reserves of more than 4 months of imports of goods and non-factor services. <p>Secondary Criteria</p> <ul style="list-style-type: none">a) Achievement and maintenance of Stable Real Exchange Rates;b) Achievement and maintenance of Market Based Interest Rates;c) Achievement of sustainable Real GDP Growth Rate of not less than 7.0 percent;d) Sustained pursuit of debt reduction initiative on domestic and foreign debt i.e. reduction of total debt as a ration of GDP to s sustainable level;e) National Savings to GDP Ratio of not less than 20 percent;f) Reduction of Current Account Deficit (Excluding grants) as a percentage of GDP to sustainable level consistent with debt sustainability;g) Implementation of the 25 Core Principles of Bank Supervision and Regulation based on agreed Action Plan for Harmonization of Bank Supervision; andh) Adherence to the Core Principles for Systematically Important Payment Systems by modernizing payment and settlement systems. <p>Stage II (2011-2014)</p> <p>Primary Criteria</p> <ul style="list-style-type: none">a) Overall Budget Deficit to GDP Ratio (excluding grants) not exceeding 5 percent; and Overall Budget deficit to GDP Ratio (including grants) not exceeding 2 percent;b) Annual Average Inflation Rate of not more than 5 percent;c) External Reserves of more than 6 months of imports of goods and non-factor services. <p>Secondary Criteria</p> <ul style="list-style-type: none">a) Maintenance of Market Based Interest Rates;b) Maintenance of high and sustainable rate of real GDP growth of not less than 7.0 percent;c) Sustained pursuit of debt sustainability;d) Domestic Savings to GDP Ratio of at least 20 percent;e) Maintenance of sustainable level of Current Account Deficit (excluding grants) as percentage of GDP; andd) Achievement of Sustainable Growth Rate of Real GDP of not less than 7.0 percent. <p>Stage III (2015)</p> <p>Introduction and circulation of a single East African Currency</p>

Source: MAC report (2008): Review of MAC achievements and challenges since its inception report (1998 – 2008)

Table 3: Budget deficit, including grants as percentage of GDP

Towards a Common Currency in the Eastern African Community(EAC): Issues, Challenges and Prospects

Country	2003	2004	2005	2006	2007	2008
Burundi	6.4	5.6	2.2	3.1	2.9	3.1
Tanzania	0.0	4.5	5.9	2.4	4.2	3.1
Uganda	1.6	0.5	2.2	1.9	2.3	3.4
Kenya	7.3	8.2	5.3	6.3	5.0	3.3
Rwanda	2.2	0.2	-0.3	0.2	1.0	-0.4

Table 4: Budget deficit, excluding grants as percentage of GDP

Country	2003	2004	2005	2006	2007	2008
Burundi	16.6	20.0	14.2	14.5	18.9	13.6
Tanzania	6.5	10.2	11.1	8.3	9.9	8.2
Uganda	9.8	7.8	7.1	7.1	7.5	7.7
Kenya	8.6	9.5	6.3	7.5	5.8	4.6
Rwanda	9.8	11.2	11.0	10.5	13.1	10.5

Source: ECB study on EAMU, June 2010

9. APPENDIX 2

Table 1. Indicators of economic structures

Indicators	Burundi	Kenya	Rwanda	Tanzania	Uganda
GDP per capita (Current USD) in 2010	189	767	548	527	503
GDP per capita, PPP (Current international \$) in 2010	399	1621	1194	1423	1249
Industry, value added (% of GDP) in 2009		15.3	14.5	24.3	25.8
Manufacturing, value added (% of GDP) in 2009		8.7	6.4	9.5	8
Agriculture, value added (% of GDP) in 2009		22.6	34.2	28.8	24.7
Services, value added (% of GDP) in 2009		62.1	51.3	46.9	49.5
Trade (% of GDP) in 2010		63.5	40.9	58.4	58

Source: World Development indicators

Table 2: HI Indicator: GDP concentration

	Burundi	Kenya	Rwanda	Uganda	Tanzania
1995	0.42	0.38	0.40	0.37	0.37
1996	0.46	0.38	0.39	0.37	0.37
1997	0.46	0.39	0.39	0.37	0.38
1998	0.41	0.39	0.39	0.37	0.37
1999	0.39	0.39	0.38	0.37	0.37
2000	0.38	0.39	0.38	0.37	0.38
2001	0.39	0.40	0.39	0.38	0.38
2002	0.38	0.40	0.39	0.39	0.37
2003	0.38	0.40	0.39	0.38	0.36
2004	0.39	0.40	0.39	0.38	0.36
2005	0.38	0.40	0.38	0.38	0.36
2006	0.39	0.41	0.39	0.39	0.37
2007	0.40	0.42	0.39	0.39	0.37
2008	0.39	0.41	0.39	0.38	0.36
2009	0.39	0.40	0.39	0.39	0.37