

REVIEW OF ECOWAS EXCHANGE RATE MECHANISM

Freetown, June 2008

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INTRODUCTION

The ECOWAS Monetary Co-operation Programme (EMCP) aims to establish a monetary union which is defined as a group of two or more countries sharing a common currency managed by an autonomous monetary authority (in the strict sense) or a mechanism whereby all domestic currencies are convertible one to the other. The desire to establish a monetary co-operation dates as far back as the very inception of the Community. The first experiment in monetary cooperation in the region was carried out with the establishment of the West African Clearing House (WACH) in 1975. The establishment of the Clearing House underscores the conviction that an efficient payment system is a necessary factor in the promotion of intra-regional trade. As a multilateral payment mechanism, the Clearing House's objective was to promote the use of member States' currencies in intra-community trade and financial transactions as well as reduce the demand for foreign convertible currencies in these transactions by limiting their use in the settlement of net indebtedness.

However, the inadequacies of the Clearing House system in terms of co-operation and convertibility soon became evident. It is for these reasons that in pursuance of the ECOWAS Heads of State and Government's directive, the Secretariat of the Community (transformed into a Commission in 2007) set up in 1984 a study group to present proposals on the establishment of a single monetary zone within ECOWAS. While confirming the utmost need to harmonize monetary and tax policies as prerequisites for the economic integration of the West African region, the preliminary study proposed the creation of a single monetary zone.

In this regard, tremendous efforts must be deployed by member States for the implementation of macroeconomic reforms, especially in the area of exchange rates, budget deficit and inflation. Most of the adjustments of exchange rate recommended under the ECOWAS Monetary Cooperation Programme were made through monetary reforms. Similarly, progress has been achieved in reducing inflation and budget deficits.

Progress made so far in terms exchange rate management fairly demonstrates efforts deployed at sub-regional level geared towards the establishment of a monetary union. This explains why in 1999, a consultant was engaged to come up with an ECOWAS Exchange Rate Mechanism (ERM). This involved conducting a study and making appropriate recommendations on a suitable methodology and mode of operation as well as its duration and period of implementation

within the framework of policy initiatives to establish a single currency for ECOWAS.

The report of the 1999 study was presented the Study Group of Directors of Research of ECOWAS Central Banks which met and severally between 2000 and 2002 and considered the report for approval and implementation.

At the end of their deliberations, it was observed that some prerequisites must be met by each of the national economies to guarantee a smooth and sustainable operation of the EERM. In addition, in December 2002, the Committee of Governors of ECOWAS Central Banks directed WAMA to take all the necessary measures to implement decisions taken on the EERM.

This document is on a review of the ECOWAS Exchange Rate Mechanism (EERM) in line with recommendations made by the Committee of Governors from 2002 to date. The document comprises three chapters. The first chapter provides a synthesis of findings of the study covering the period 1994 – 1999 conducted by the Agency's Consultant and finalized in early 2001. It dwells also on the analysis of research directors' views on the EERM. The second chapter analyses the implications of the implementation of the exchange rate mechanism before presenting the new proposed EERM. The third is a simulation of the implementation of the new EERM between 2007 and 2008.

CHAPTER 1: GENERAL CONSIDERATIONS ON THE ECOWAS EXCHANGE RATE MECHANISM (EERM)

INTRODUCTION

The study on the ECOWAS Exchange Rate Mechanism was to define the technical aspects of the mechanism and prove its compatibility with the objective of establishing a single currency zone in ECOWAS. As a transitional programme, the ERM is to govern exchange operations within ECOWAS prior to the final adoption of the common currency. Its main objective is to ensure exchange rate stability in order to facilitate the convergence of national economies and guarantee the viability of the proposed single currency under the monetary and economic union. This chapter provides a synopsis of conclusions of the Directors of Research of ECOWAS Central Banks and examines their views on the EERM.

I. SYNTHESIS OF FINDINGS OF THE 1999¹ STUDY ON THE EERM

The study on the EERM provided an overview of trends in exchange rates within the region and proposed necessary adjustments for the EERM to be implemented. The study also touched on the key elements of the EERM, namely the unit of account, reserves of value required for intra- Community funds transfer and accounting purposes. This currency unit was designated as West African Currency Unit (WACU).

1.1 Exchange Rate Policies and Regimes

The study also noted that the general trends in exchange policies in the sub region were to promote exports by maintaining competitive exchange rates and implementing tariff reforms.

It was also noted that all countries of the sub region adopted a floating regime with the exception of the UEMAO and the Cape Verde that have a fixed parity with the Euro. Since 1986, there have been devaluations/depreciation in almost all the countries of the sub region; all the currencies' values were determined by market forces, thus eliminating the negative effects of overvaluation which characterised the currencies of the region until the mid 80s.

¹ 14th February 2001 version

1.2 Evaluation Indices and Realignment of Exchange Rates

The 1999 study reported that some measure of realignment of exchange rates in the region would be necessary if member countries are to adhere to the ECOWAS Exchange Rate Mechanism. Thus, after highlighting the disparities in exchange rates between member States, the study proposed the necessary adjustments to be made to achieve equilibrium, using two scenarios. The first scenario is based on the assumption that the CFAF would serve as a reference for the system while the second is based on an average regional exchange rate. This implies that the realignment could be in the form of parity with the theoretical regional average exchange rate. With this last option the following adjustment were proposed:

Countries		Adjustment rate (+ : overvaluation - : devaluation)
Cap-Vert	-	+7,7%
La Gambie	-	+64,23%
Ghana	-	+11,34%
Guinée		+76,04%
Nigeria	-	-23,84%
Sierra Leone	-	+99,19%
Etats de l'UEMOA	-	+47,30%

1.3 West African Currency Unit (WACU)

The 1999 study proposed the WACU as the unit of account. The central parity for each currency in relation to the WACU should be determined under the mechanism. The WACU's value, on the basis of these rates, is calculated by adding the fixed amounts of the eight ECOWAS currencies. The estimated value of the WACU has been proposed as follows:

12 Jan 2001 1 WACU =	+247,522	UEMOA countries	FCFA
	+52,816	Nigeria	Naira
	+599,749	Ghana	Cedi
	+90,637	Guinea	GNF
	+0,233	Liberia	Lib dollar
	+0,914	Cape-Verde	CVE
	+13,965	Sierra Leone	Leone
	+0,064	The Gambia	Dalasi

Even though the WACU represents a fixed amount of member States' currencies, it could be reviewed after a certain number of years. The study proposed a review after every 4 years to take into account developments in the GDP.

1.4 Central rates and cross parity rates of the WACU

The study on the EERM also considered the central rate of the WACU for a member State's currency by deflating its component of the WACU basket using its coefficient weighted by the GDP. Thus, as at 12 January 2001, with 52,816 Naira in the WACU while the Naira's weighting was 48.2% (or 0.482), the central rate of the WACU in relation to the Naira then stood at $52.816/0.482$, equal to 109. 500 Naira to 1 \$US or 143.309 naira to 1 WACU (1SDR). By dividing the WACU's central rate by another, one gets a cross rate for a pair of currencies. Thus, cross parity rates are ratios of WACU central rates.

1.5 Intervention under the ECOWAS Exchange Rate Mechanism (EERM)

The EERM helps to prevent exchange rates from moving too far away from central rates. The maximum variation in a currency within the EERM is determined by parity limits which, within the context of this study is $\pm 5\%$. When an exchange rate has reached its parity limit then the Central Banks of the two currencies involved are compelled to exchange amounts of these currencies within these limits to defend this parity. The Central Bank with the weaker currency can borrow (through a short term financing facility) from the Central Bank with the strongest currency unlimited amount of the latter's currency, which it can then sell on foreign exchange markets to buy its own currency until the parity is restored. There is therefore the need for these currencies to be convertible and for member countries to comply with Article VIII of the IMF Articles of Agreement.

1.6 Institutional Arrangements

Central Banks' intervention is very crucial for the successful implementation of the mechanism. These Banks must therefore have access to funds to finance very short term interventions. The study proposed for ECOWAS member States to increase the resources of the WAMA Credit and Guarantee Fund by contributing part of their official reserves. Besides, the very short term financing would be managed in WACU at the level of the Fund. The WACU would facilitate transfers and settlement between member Central Banks. Also, the study proposed the establishment of a Monetary Council of Ministers of Finance to be responsible for the supervision of the EERM and implementation of policies respectively.

1.7 Management of the Exchange Rate Mechanism

According to the study, ECOWAS Member States pursuing a deregulation policy as well as monetary and tax reforms could join the ECOWAS EERM. However, the following principles must be observed:

- Ensure price stability ;
- Avoid excessive deficits ;
- Maintain positive real interest rates ; and
- Agree on normal fluctuation margins of $\pm 5\%$ within the EERM.

To make operational the agreed principles for joining the EERM, the Consultant suggested some quantitative benchmarks to ensure effective monitoring. These include:

- Price stability – single digit inflation
- Government deficit/GDP $\leq 3\%$
- Public debt/GDP $\leq 60\%$
- Government deficit \leq Government investment
- Interest rate: Countries must maintain positive real interest rates
- Gross foreign exchange reserves ≥ 3 months of imports
- Fluctuation margins of nominal exchange rate: a +/-5% band was proposed.

In addition, member States must pursue their deregulation policies aimed at restoring economic indicators to levels comparable with those of the market. They must also continue to liberalize current transactions. Besides, demand oriented policies must be developed so that they serve as pillars for structural policies to control inflation and ensure exchange rate stability.

Thus, according to the report, any Member State which persistently fails to comply with convergence criteria may be suspended from the EERM after several warnings. However, preference must be given to dialogue with poorly performing countries.

On the whole, we recognize that the EERM aims to facilitate the establishment of the ECOWAS single monetary zone. The Consultant advocated the establishment a West African Currency Unit (WACU) that would serve as currency and reserve assets for Central Banks of member States. Each participating country must determine a central rate for its currency in terms of the WACU. The value of the WACU, on the basis of the central rates, would be calculated by adding fixed amounts to the eight ECOWAS currencies. The amount would reflect the equivalent of each national currency's component in US\$ in relation to the WACU. The central rate of the WACU for a member State currency would be determined by deflating its component of the WACU basket using its coefficient weighted on the GDP. The central rate of each currency should be determined under the EERM. Thus, the ultimate goal of the study on the exchange mechanism is to stabilise regional currencies, avoid exchange risks and develop intra-community trade and economic activity. The mechanism would help maintain the exchange rate of member State currencies at levels close to the central rates within the WACU basket. It is therefore in line with the establishment of a single monetary zone for ECOWAS and useful for the achievement of this objective.

II. ANALYSIS OF THE STUDY BY THE GROUP OF DIRECTORS OF RESEARCH OF ECOWAS CENTRAL BANKS ON THE ECOWAS EXCHANGE RATE MECHANISM

On review of the study on the EERM by the Study Group of Directors of Research of ECOWAS Central Banks, some recommendations were made. The latter vary as some relate to the study itself and others to the implementation of the principles governing membership of the exchange rate mechanism.

Views expressed by the Study Group on the EERM concern both components as well as requirements for the implementation of the EERM. They converge in many areas.

2.1 Components of the EERM

2.1.1 Computation of Central Rates

The Study Group OF Directors adopted the use of the dollar for the computation of central rates. It was however recommended that WAMA calculate central parities by using the SDR for the purpose of comparison. The Group also noted that for the computation of central rates, it was more appropriate to use the nominal GDP, instead of the real GDP. The Group seized the opportunity to enjoin WAMA to work on the harmonisation of statistics.

2.1.2 Short term Financing Fund

With regards to short term financing, the Group agreed on the need to establish a Fund for countries that may need short term support to stabilise their currencies. However, the Group proposed the establishment of a Fund different from the one recommended by the study on the EERM concerning the recapitalization of the existing Credit Guarantee Fund.

2.1.3 Surveillance Indicators

The Group noted that the surveillance indicators recommended by the study on the EERM were largely based on the European Union's experience, which made some of them inappropriate for the proposed EERM. Consequently, to guarantee the credibility of the EERM, the following adjustments were recommended:

- That Government deficit/GDP ratio be revised upward from $\leq 3\%$ to $\leq 4\%$
- That Government/GDP ratio of $\leq 60\%$ be cancelled
- That Government deficit \leq government investment be cancelled
- That member countries maintain positive real interest rates
- That gross foreign exchange reserves be maintained at ≥ 3 months of imports
- Fluctuations margins in nominal exchange rate: be reviewed from the +/- 5% band, considered as restrictive, to +/-10%.

2.2 EERM Implementation Requirements

2.2.1 Prerequisites

The Group of Directors of Research found the following conditions necessary for the implementation of the exchange rate mechanism

- Price stability – single digit inflation
- Sustainable budget deficit

- Maintenance of positive real interest rates
- Currency convertibility
- Adequate reserves – at least 3 months of imports cover.

2.2.2 Constraints Identified in the Implementation of the EERM

The inconvertibility of currencies in the sub-region and the fact that some member countries are yet to adhere to Article VIII of the IMF Articles of Agreement constitute an obstacle to the effective implementation of the EERM. Though currency transactions are carried out on the informal market, there are no mechanisms for Central Banks of member States to purchase each other's currency. They also identified operational constraints such as the lack of reliable and up to date data base and developed capital and financial markets

2.2.3 EERM Membership and Exclusion

The Group of Directors also recognized that the establishment of the EERM is an integral part of the ECOWAS Monetary Co-operation Programme (EMCP) and its launching depended on meeting conditions for its implementation. However, the Group urged WAMA to continue with the simulation exercise to enable member countries to assess their performance as if an EERM was in place though without intervention.

Concerning membership and exclusion rules, as stated in the initial study, the minimum requirements for membership include price stability, lower deficits, and an agreement on normal fluctuation margins of +/-10%. There are no specific rules on suspension or exclusion, though it was recommended that countries that systematically fail to meet the convergence criteria could be suspended from the EERM after several warnings. However, dialogue with non performing countries was deemed necessary.

CONCLUSION

On the whole, the study on the ECOWAS Exchange Rate Mechanism brought out some fundamental lessons, especially in terms of decisions on principles for operating the system. Only the theory of Purchasing Power Parity (PPP) with all its imperfections was the operational framework of the analysis of the study. In fact, it is the trend in most ECOWAS currencies towards their equilibrium levels which gave rise to the possibility of establishing an exchange agreement within

the framework of cooperation. Recommendations by Research Directors of Member States Central Banks of ECOWAS are also presented in this chapter. They proposed also WAUA as reference currency of the ERM since it is already being used as reference to record transactions in the sub region and the ERM band as +/-10%. From the above, it seems reasonable to discuss and agree on a proper mechanism.

CHAPTER 2: IMPLEMENTATING THE ECOWAS EXCHANGE RATE MECHANISM

INTRODUCTION

The exchange rate proposed by the study on the EERM needs to be improved on before implementation, taking into account the issues underscored by the Working Group of Directors of Research. This chapter proposes an implementation of the Exchange rate mechanism. Firstly, it defines the features and institutional arrangements of the EERM taking into account the proposals made in the study and those made by the Directors of Research. It then reviews the status of implementation of the recommendations of the Committee of Governors.

I. FEATURES AND INSTITUTIONAL ARRANGEMENTS OF THE EERM

1.1 Features of the proposed EERM

The objective of the EERM is to contribute to the achievement of the ECOWAS single monetary zone. It recommends the establishment of a West African Currency Unit (WACU) which would serve as member Central Banks' reserve currency and asset. A central rate in terms of the WACU for the currency of each country participating in the EERM should be determined. The value of the WACU on the basis of these central rates shall be calculated as the sum total of the fixed amounts of the eight ECOWAS currencies. These amounts shall reflect the equivalent of each of the domestic currencies in the WACU basket. The central rate of the WACU for the currency of any member State shall be determined by deflating its component currency in the WACU basket by its weighted coefficient in relation to the GDP. The cross parity rate between any two currencies in the Community shall be obtained by dividing the central rate of the one currency by the other.

The EERM is an exchange rate and intervention system which seeks to prevent the movement of exchange rates of member States' currencies from their central rates in the WACU basket, by limiting their movement from the central parity within a specified margin of $\pm 10\%$. Intervention under the EERM occurs when the parity ratios between any two currencies go beyond their limits. In which case, the Central Banks of the currencies involved shall be obliged to exchange the amounts of currencies within the set limits in order to defend their parities. The Central Bank of the weaker currency may borrow, through the short

term financing facility, the amounts of the stronger currency from the Central Bank of the latter to repurchase huge quantities of the weaker currency until the parity is restored.

The introduction of the EERM also requires member States to comply with a minimum number of prerequisites, such as price stability, avoiding excessive deficits, maintaining positive real interest rates, observing the fluctuation margin (+/-10%) within the EERM as well as the convergence of fiscal and monetary policies. For the effective functioning and supervision of the EERM, the minimum prerequisites shall be determined in quantitative terms such as a single digit inflation, a maximum total deficit/ GDP ratio (excluding grants) of 4 %, a positive long term real interest rate and a fluctuation margin of +/- 10%.

1.2 Institutional Arrangements

As already observed, the Central Bank's intervention is decisive in the success of the mechanism. Central Banks should therefore have access to a Stabilization and Co-operation Fund for short term intervention. The study on the EERM therefore deemed it imperative for ECOWAS member countries to step up the resources of WAMA's Credit Guarantee Fund by contributing part of their official reserves. However, the Directors of Research proposed the establishment of a new structure for WAMA. In addition, the very short term financing facility would be held in WACU within this structure. The WACU would be used for transfers and settlements between member Central Banks.

Equally, the study on the EERM proposes the creation of a Finance Ministers Monetary Council of member States and National Monetary Committees headed by the Governors, for the EERM supervision and policy implementation respectively.

II IMPLEMENTATION OF THE DECISIONS OF THE COMMITTEE OF GOVERNORS

2.1 Analysis on main views WAMA/WAMI Study Committee on the EERM

2.1.1 Reference Currency

As already mentioned, an efficient exchange rate mechanism is the one through which poor alignments are controlled and internal policies and other necessary

adjustments are applied. Another key element in any monetary agreement between countries is the reference currency (anchor currency). The decision to be taken is to be tied to a single currency or to a basket of currencies and in each of the cases, it should be known whether the reference currency or basket of currencies will belong to the union or not. Pegging to a single currency is the most common measure adopted by developing countries. This type of measure has the merit of being easy to manage since only a single currency is involved and is generally chosen by countries which make a considerable part of their foreign exchange transactions in this currency. In fact, in the context of ECOWAS, two major currencies (euro and dollar) are used in international transactions and are contained in the SDR. Moreover, one of the major disadvantages of being pegged to a single currency is that the exchange rate of the anchor currency floats with the other currencies. Besides, if a country has diversified transactions at the geographical level, being pegged to a single currency can give rise to increased uncertainty (Goldstein et al, 1992).

Thus, all the Directors were in favour of an external reference currency. Though others preferred the US\$, the Directors of Research recommended for the EERM. The initial recommendations of the consultant was the establishment of an artificial monetary unit known as West African Currency Unit (**WACU**) to serve as currency and reserve assets for Central Banks. It is therefore useful to examine factors such as the stability of the reference currency, its generalised use as well as the underlying economic power to decide on which currency will be well suited to the set objectives.

With regards to stability, the SDR as a composite currency are more stable than the US\$. In practice, the dollar is the most widely used currency especially as the bulk of the reserves of these countries are mainly held in dollars. Concerning the underlying economic strength of the reference currency, the choice is between the US dollar and the SDR. With regards to the dollar, the United States is the leading economy in the world and any threat to their economy is a threat for all; which has led to concerted efforts to save their currency as has been the case on several occasions. The SDR is a creation of the IMF to provide sufficient liquidity in the world economy. The ability to create more liquidities and increase available liquidity depends on a consensus among member countries.

Though, SDR is more stable as a result of its composite nature, the stability of the dollar was proven beyond doubt in the past; but today, this stability is shaken. Besides, many countries (both developed and developing) have their reserves in dollars. The US dollar is considered as gold exchange standard

because of the confidence it enjoys across the world and for that matter its wide spread use in international transactions. Although the Euro is a strong currency supported by a powerful economic bloc, it is still at its staggering beginnings. The SDR is not a "real" currency in the sense that it is not quoted and not used for transactions on international markets as is the case of other international currencies. While reserves in SDR are stable, they do not have the operational flexibility like the dollar on international and national exchange markets.

However, in order to stimulate exchange rate variations in the absence of an EERM, the SDR can serve as an acceptable anchor currency and would certainly not constitute an obstacle to a monetary zone, which would depend more on political motivations than pure economic arguments.

2.1.2 Fluctuation Margins

As in the case of the anchor currency, while some Directors proposed a fluctuation margin of +15%, the ECOWAS study group recommended a band of +10%, representing 30% and 20% of the total margin. A wide margin, as indicated earlier is less constraining and should not require a more sustained national adjustment effort to align exchange rates. Wide margins may be as the result of the urgency of the task and the need to admit all member states into the exchange system. Very narrow bands may lead to tensions within the system after a country has been admitted and may create some frustrations.

Although narrower margins may be more constraining, they impose nonetheless monetary and financial discipline which is paramount in any monetary union. This could however be made less constraining if some leeway is given countries that are obviously experiencing special problems as was the case of Italy in the early years of the European Monetary System (EMS). The ECOWAS margin seems quite modest and it is likely that problems of economic management in the sub region have been taken into account in setting the margin. Consequently a margin of +/-10% was recommended for the sub region.

2.1.3 Central parities

Whilst the is based on equilibrium rates defined in theory by the Purchasing Power Parity, some Directors preferred market oriented exchange rates. The use of the Purchasing Power Parity to determine parities as recommended by the study on the EERM was rejected by the ECOWAS study group because they are of the view that the implementation of this method will be difficult in view of the various assumptions it presents.

Central parities must be determined by the market as most currencies in the region are floating currencies (in other words they are administered under a floating system). Once a time frame is set for the launching of the EERM, the exchange rate of member States' currencies in relation to the WAUA on this date will be used to determine the parities. This will be a way of ensuring some transparency and credibility necessary for the efficacy of the EERM.

2.1.4 Minimum Requirements for Membership/Exclusion

According to some Directors, there should be no requirement for membership or withdrawal of membership, though countries facing difficulties can take measures to realign their central parity rates or fluctuation margins. Finally, requirements for joining the ECOWAS exchange rate mechanism were recommended. These include price stability, avoidance of excessive deficits, maintaining positive real interest rate, an agreement on normal margins of fluctuation of +/- 10%. Similarly, any Member State which fails to meet these criteria could be suspended from the EERM after several warnings.

Obviously, an ERM should facilitate the convergence of Member States' economies towards their targets and not towards targets that serve as preconditions for the launching of the EERM. In effect, it seems the study group set the requirements based on the well known argument that where the gap in nominal and real economic indices of member States is wide, it may be risky to launch a monetary union. There is a counter argument according to which the monetary union may take off even before the convergence of economic aggregates since the free movement of goods and services associated with the absence of exchange risk would promote the harmonization of prices of factors. The often cited experience of the European Union is not always useful as the economic situation in the two regions is completely different. It is a well known fact that some smaller European countries with economic conditions far from the ideal were still allowed to join the EMS and finally adopted the Euro. In addition, nothing proved that all UEMOA countries met the minimum requirement before the union was established, even though current available data reveal that UEMOA countries have relatively stable economic indices compared to other countries in the region.

2.1.5 Financing Structure

Although the study on the EERM attempted to address the issue of short term financing to support countries in difficulties, the Group of Directors were more specific with regards to the establishment of a Co-operation and Stabilization Fund. Consequently, it decided in favour of a new structure while rejecting the recommendation of the study on the EERM for the recapitalisation of the current Credit Guarantee Fund by member Central Banks through the contribution of 20% of their gross reserves.

History has shown that the establishment of a short term financing structure is preferable. In fact, the recommendation of the study on the EERM for the recapitalisation of the ECOWAS Credit Guarantee Fund is not a bad idea since the initial objective of the Credit Guarantee Fund managed by WAMA was no longer relevant. On the other hand, the Directors of Research are of the view that WAMA must have a Cooperation and Stabilisation Fund similar to that of WAMZ outside the current Credit Guarantee Fund framework, to play the role of a short term financing structure to enable members protect their currency. The availability of such a structure would strengthen confidence by providing the necessary liquidity for the system and encourage weaker countries of the mechanism to comply with the EERM principles.

2.2 Analysis of pre-conditions for the implementation of the EERM

2.2.1 ERM Convergence and Implementation

It has been upheld that for an economic and monetary union to be successful, the economies of the member countries which constitute this union should reach a certain level of convergence. This is necessary in order to avoid distortions which might occur if the economic variables of the participating countries of the union are differ considerably. Hence, the fact that convergence is a significant aspect of economic integration. One of the key elements for the achievement of this economic convergence target is the existence of an exchange rate mechanism. The exchange rate mechanism is used to maintain the exchange rates of the participating countries close to the level of their retained central rates. By limiting currency fluctuations of member countries within a specified band from the central rate, the exchange mechanism contributes to monetary stability.

Complemented by a domestic currency monetary management in conjunction with cost and price stability, exchange rate stability is considered as a key

prerequisite for economic integration and for the reduction of disparities in development and levels of living conditions of the citizenry of participating countries. (Ungeret and al 1983). Moreover, certain tests² have revealed that in the context of ECOWAS, inflation is the major factor which has a direct and immediate effect on exchange rates. It is therefore imperative to determine the domestic and external origins of inflation in order to more effectively tackle the actual variables destabilising the EERM.

This implies that convergence criteria can be endogenous and this means that conditions for the realization of convergence are more likely to be reinforced ex-post rather than ex-ante. Besides, we also observed some heterogeneity among states in respect of compliance with the convergence criteria. Perhaps, certain states need more time to adjust due to costs (reduction of public expenditure, tax increases) than others. This also signifies that there is the probability that unfavourable domestic and external economic situations do not affect countries in the same way. This is more so because apart from the problem of macroeconomic instability and the effect of external shocks, the problem of political instability in most countries is among the factors responsible for these modest convergence performance levels.

Thus, judging exclusively by Community standards, the convergence of ECOWAS economies does not seem to improve considerably because since 2000, none of the fifteen member states has been able to meet all the primary criteria. This underscores the significance of studying the possibilities of constructing a synthetic convergence index for a better analysis of overall performance in respect of convergence for individual countries and ECOWAS as a whole. According to the approach recently adopted for the single currency (gradual approach), there is need for member countries to comply with the convergence criteria. Before the formal inception of the Monetary Union, these criteria would guide the authorities in ensuring that all the participating member countries maintain inflation at a low level and adopt prudent budget policies. Accordingly, this will satisfy conditions necessary for the viability the future currency. However, the observation is that in a good number of regional integration experiments, member States did not achieve all these harmonisation exercises prior to the establishment of the single currency. The issue then is to determine whether absolute convergence should be a prerequisite for the establishment of the single currency. While studying the case of West Africa, Masson and Pattillo (2001), concluded that budgetary standards can subject member states to budgetary discipline. They specifically cite the budgetary performance levels of

² Annex C

eight member countries of the West African Economic and Monetary Union (UEMOA) which have improved considerably.

More generally, Mundell, in 2002, recommended the adoption of a single currency for Africa. He underscored the advantages in strengthening macroeconomic stability as a basis for his recommendation. According to him, the cases of mismanagement observed in many countries indicate that monetary unions, as instruments of budgetary rigour, have considerable advantages for member countries. Frankel and Rose also affirmed in 2000 that monetary unions stimulate growth by increasing intra-regional trade while Guillaumont, Guillaumont-Jeanneney and Brun (1999) attributed the reduced growth in Africa to instability (particularly of prices which should be mitigated by the existence of a monetary zone).

Serious doubts exist today whether convergence, which is exclusively based on compliance with convergence criteria as defined by the authorities, in order to achieve the ECOWAS monetary union, is relevant in the current situation of globalization. There is also the issue of the justification and relevance of targets set as norms in order to achieve the single currency, which is contributing to the current unease and the likelihood that the static analysis of these convergence criteria may largely be for information purposes. It was against this background that the ECOWAS Heads of States in 2007 called for a review of the current approach in the single currency objective and WAMA is responding.

2.2.2 Convertibility of local currencies

The inconvertibility of currencies in the sub-region and the fact that some member States are yet to comply with Article VIII of the IMF Articles of Agreement have been considered as obstacles to the effective implementation of the EERM. Although the currencies are circulating on the informal markets, no mechanism has been put in place to enable Central Banks of ECOWAS member States repurchase their respective currencies among themselves. It was with regards to the utilization of domestic currencies, that a co-operation framework³ had been provided since 2002 by WAMA for the removal of all restrictions on the use and acceptability of such currencies. With this obstacle, the ECOWAS currencies will only exchange against the WACU.

³ Annex D

2.2.3 Liberalisation of current and capital account

Most member countries have carried out reforms in their economic and financial systems. It should also be observed that for the majority of countries in the sub region, trade and exchange rates have been liberalized and the overvaluation which characterized the exchange rates of currencies of member states has been removed. Large scale devaluations are therefore no longer necessary. Moreover, significant progress has been made with regard to economic growth, fiscal deficit and inflation⁴.

Regarding adherence of member countries to the provisions of Article VIII of the IMF Articles of Agreement, which guarantees the convertibility under the terms of the said Article, BCEAO, Sierra Leone, Ghana and Gambia with their respective currencies FCFA, Leone, Cedi and Dalasi adhered since 1993. Three countries in the sub region namely Nigeria, Cape Verde and Liberia have not yet adhered to this article. However, with regards to Nigeria and Cape Verde, negotiations have been ongoing for adherence.

In this context it is necessary to review trends in the performance of macroeconomic indicators in ECOWAS member countries, namely, exchange rate regimes and policies as well as trends in the balance of payments.

(i) Trends in Exchange Rate Policies and Regimes

The exchange rate policy is at the core of economic policy debates in developing countries. The general trends of exchange rate policies in the sub region are mostly geared towards the promotion of exports through the maintenance of competitive exchange rates and tariff reforms which could encourage trade. A weak currency helps to reduce trade balance deficit by making prices competitive, which affects export volumes (increases) and import volumes (reduces). It therefore aims to promote local production hence economic growth. However this "quantitative" effect only occurs after a certain time. Furthermore, it occurs in accordance with price-elasticity and can lead to imported inflation which only increases trade deficit. The increase in the exchange rate reduces import costs. Therefore competitive export prices and firms penalized by this increase in the exchange rate improve their competitiveness. Exchange policy methods are the use of exchange reserves (law of supply and demand), exchange control (limit national currency convertibility) and recourse to interest rates (increase in the interest rate helps maintain a strong exchange rate).

⁴ Annex A

Regarding UEMOA countries, the CFA Franc remained pegged to the French Franc then to the Euro. In August 1993, the BCEAO abolished the convertibility of CFA bank notes outside the UEMOA Zone. This partial restriction in the exchange control aimed to check capital flight. Immediately afterwards, on 12 January 1994, the CFA Franc was devalued and a new parity was established with a rate of 1 CFA Franc = FF 0.01. At the end of December in the same year, the rate of the CFA Franc in relation to the SDR was fixed at 1 SDR = 790.44 CFA Franc. Guinea Bissau joined the Franc zone in 1997. Since January 1999, with the introduction of the Euro, the CFA Franc and the Cape Verdian Escudo have been pegged to this currency. (1 Euro = 655.9570 FCFA, EURO = 110.27 CVE).

In the WAMZ countries and in Liberia, the exchange rates are market oriented. The value of the Dalasi is determined on the inter-bank market through the participation of the Central Bank of The Gambia, commercial banks and exchange bureaux. The value of the cedi is also determined on the inter-bank market, while the Leone is money market oriented. However, regarding official transactions, the Central Bank determines the rate of the Leone on the basis of the weighted average rates of transactions of commercial banks and exchange bureaux during the previous week. The Bank of Sierra Leone still pursues a flexible exchange rate policy based on its purchases and sales of foreign currencies in terms of its international reserves targets. The Liberian dollar follows a floating regime and is no longer pegged to the American dollar since July 1996. The Nigeria Naira is market oriented. The Guinean Franc (GNF) followed a floating regime with a rate determined by inter-bank foreign exchange market up to September 1999. Since that date, its rate has been determined by the foreign exchange auction market.

(ii) Foreign Exchange and Payment Restrictions

Concerning payment agreements, most of the countries in the West African sub region settle their international transactions between them through the international banking system. Some of them settled their intra regional transactions through the West African Clearing house, transformed into the West African Monetary Agency. However countries in the region which have bilateral relations with countries outside the region make settlements in accordance with payment agreements.

As regards imports and related payments, practically all the ECOWAS countries impose various qualitative and quantitative restrictions on imports. In the most

restrictive exchange regimes like in Cape Verde, specific licences are required for all imports.

Regarding invisible products, all the receipts from invisible transactions are supposed to be declared and surrendered in ECOWAS countries except in Ghana, The Gambia, Nigeria, and Sierra Leone which do not impose any restriction. In these four countries, the receipts of these transactions may not be surrendered.

Capital transactions are subjected to restrictions at various levels in the ECOWAS countries except Liberia and The Gambia.

(iii) Trends in Exchange Rates

On the international exchange markets, the dollar has remained weak in recent years and it depreciated in relation to practically all the major currencies. In West Africa, eight (8) currencies are issued in the ECOWAS region : the CFA Franc in UEMOA member countries, the Escudo in Cape Verde, the Naira in Nigeria, the Dalasi in Gambia, the Cedi in Ghana, the Leone in Sierra Leone, the Guinean Franc and the Liberian dollar. All these currencies appreciated in relation to the dollar except the Guinean Franc, the Cedi and the Liberian Dollar in 2006. This development was attributable to the macroeconomic readjustments made in certain countries, civil wars and oil price hikes which exerted foreign exchange pressures on oil importing countries.

On the whole, the harmonization levels of the quarterly fluctuations of these various currencies seemed to be acceptable except the Guinean Franc which was still depreciating considerably (Appendix A8)

(iv) Developments in Balance of Payments and Reserves

The balance of payments continued to experience strong pressures between 1995 and 1999 and considerable deficits of the current account were recorded during these years. However, the balance of current transactions is currently recording net improvements due to surpluses from Nigeria, which benefits from oil price hikes as an exporter. The balance of the current transactions account was 11.22 per cent of overall GDP of ECOWAS while there was a deficit of 1.6 percent of the GDP excluding Nigeria. Concerning the UEMOA countries, this balance was – 5.0 percent in 2005 as against -1.2 percent in 2002, representing a deterioration in spite of the increase in gold exports in Mali and crude oil in Côte d'Ivoire.

Regarding the WAMZ countries, the surplus balance was particularly due to surpluses from Nigeria. In fact, excluding Nigeria, this balance had a deficit of about 0.72 percent in 2006 against 0.99 percent in 2002. (Appendix A6)

The depression in the external sector was the reflection of the low level of the replenishment of gross reserves in the region. The majority of countries recorded very low reserve levels that they could not completely finance six months of imports. From 1994 to 1999, the countries which had adequate gross reserves for six months of export were rare (Mali in 97 and Burkina Faso in 95 and 98). Worse in 1999, gross reserves of seven countries (namely Cape Verde, Cote D'Ivoire, Ghana, Guinea, Niger, Senegal and Togo) could not cover three months of imports of goods and services. But today the situation has improved considerably. (Appendix A7)

(v) External Debt

The external debt and obligations of ECOWAS member countries with regard to debt servicing continued to hamper efforts towards economic recovery. However, many ECOWAS countries benefited from debt relief, rescheduling under concessional terms and moratoria. Due to the relief obtained, outstanding external public debt reduced considerably in the community much more so that Nigeria and Ghana also benefited from it. The implementation of the multilateral debt relief initiative (MDRI) alleviated financial constraints of beneficiary countries and the Community as a whole (Appendix A9).

2.2.4 Other necessary prerequisites

The study on the ECOWAS Exchange Rate Mechanism brought out some fundamental lessons, especially in terms of decisions on principles for operating the system. Firstly, it appears reasonable to discuss and agree on the mechanism itself. Secondly, policy measures must be put in place in ECOWAS Member States to achieve convergence indicators. With regard to interventions within the framework of the ERM, countries with weak currencies must have the possibility to draw on the fund to buy their weak currency. Concerning the stabilization of rates, it may happen as countries strive to achieve convergence indicators. While countries align their currency on their central rate, an exchange stability regime will prevail independently in regional trade. When there is exchange stability, expansion in trade follows thanks to optimistic projections.

Policy harmonization programmes occupy a crucial place for the survival of the project in that they help facilitate the achievement of the various stages and objectives of the said process. For now, substantial progress has been made in this area (see periodical reports of WAMA on monetary co-operation programme).

CONCUSION

The implementation of the EERM may not wait for the resolution of all the economic problems particularly the achievement of the convergence criteria. In addition, on some important questions no more important that we thing for the implementation the EERM, WAMA has already taken the initiative to find solutions. This is the case of the study on the status of liberalization of the capital account and the ongoing study on the financial markets of the sub region.

CHAPTER 3: PRESENTATION AND SIMULATION OF THE NEW ECOWAS EXCHANGE RATE MECHANISM

This chapter presents the new EERM which takes into account the preceding analysis of views expressed by Research directors as well as the simulation of its application. The simulation stated in 1st July 2007 which a parity change occurred in the Ghanaian currency. It therefore provides an update on current operational modalities of the exchange mechanism as well as points on management of the mechanism.

I. OPERATIONAL MODALITIES OF THE EXCHANGE RATE MECHANISM

This paragraph examines the computation of the central rates and its parity limits but also the institutional arrangements of the EERM.

1.1 Central Rates

These are the rates of domestic currencies defined in relation to the WAUA and other currencies expressed in WAUA

Concerning the determination of the central parity, it was done on the basis of market rate. Most of the exchange rates could reach their desired equilibrium levels before the implementation of harmonization programme, because of exchange rate liberalisation in most of the countries. This could be reinforced by the convergence of monetary and fiscal policies. This convergence would help maintain a fluctuation margin of $\pm 10\%$.

1.1.1 West African Unit of Account (WAUA) and Determination of Fixed Amounts

The West Africa Unit of account of (WAUA) is a unit of account used within the framework of the transactions of the former West African Clearing House (WACH) which was transformed into the West African Monetary Agency (WAMA). Within the framework of the arrangements of the WACH, member countries had begun the conversion of their currencies in WAUA for the eligible transactions. It aimed at eliminating the difficulties connected to the conversion of national currencies for the transactions through the WACH. The WAUA was then introduced for the denomination of the transactions of the WACH with the aim of reducing the problems connected with clearing and the multiplicity of currencies.

The WAUA is linked to the SDR with equal parity (1 WAUA = 1SDR). The SDR is the unit of account of the IMF. It is also used as unit of account or basis of unit of account by certain international or regional organizations or denomination of private financial instruments.

The West African Unit of account is very necessary for the smooth functioning of the ECOWAS Exchange Rate Mechanism (EERM) not only to serve as unit of account as well as intervention currency on the foreign exchange market to stabilise the domestic currency when necessary.

Within the framework of this simulation, the value of the WAUA will be determined from the fixed amounts of each of the currencies of ECOWAS. These fixed amounts are calculated by multiplying the weight (on the basis of the relative share of each country in the Community GDP) assigned to each currency by the exchange rate of this currency in relation to the WAUA. For instance:

- the relative weight of currencies equivalent to 1 WAUA as at 01/07/2007 was 60.3% (Nigeria), 29,0% (UEMOA), 6.8% (Ghana), 2,1% (Guinea), 0.7% (S/Leone), 0.7% (Cape Verde), 0.3% (The Gambia), 0.3% (Liberia);
- and the fixed amounts of currencies equivalent to 1 WAUA (with reference to 01/07/2007) stood at : 213,99 CFA (UEMOA countries), +114.58 Naira (Nigeria) +0.10 Cedi (Ghana), +104,29 GNF (Guinea) +0,26 Lib Dollar (Liberia) +0,82 CVE (Cape Verde) + 33.13 Leone (Sierra Leone) + 0.11 Dalasi (Gambia).

The calculations are given in annex B for 1st July 2007 and 25 June 2008.

1.1.2 Calculation of WAUA central rates

Each currency in the basket has a central rate in relation to the WAUA which also has unit parity with the SDR. This central rate is obtained by adding the fixed amounts converted in dollars and multiplied by the day's rate of the said currency in relation to the dollar (Appendix B). In other words, the exchange of the WAUA in relation to any domestic currency is equal to the sum total of the number of units (or fractions of a unit) of this currency which is part of the WAUA basket and the amounts of the other currencies converted into the former using the central exchange rate (central WAUA) or the day's exchange rate (market WAUA). Thus, if the SDR is worth 738.81750 CFA (then WAUA 1 = 738.81750 CFA), and is affected by a weighting of 29.0%, then its central rate in relation to the WAUA is equal to the sum total of the fixed amounts converted into dollars (1.52044) multiplied by the day's rate of the CFA/\$(485.92249) Thus, for the various currencies, the equivalent , as at 1st July 2007, of WAUA 1

would be: 738.82 (UEMOA countries); 190.10 Naira; 1.405 cedi; 5.070 GNF; 94.53 Liberian dollars; 124.95 CVE; 4,521.39 Leones and 39.95 Dalasi.

Between 01/07/2007 and 25/06/2008, the simulation of the variations around the central rate is presented in the table below:

TABLEAU 3.2 variations in central rates between 1/7/2007 and 25/6/2008

COUNTRY 07/01/2007	CENTRAL RATE WAUA	WAUA	ABSOLUTE VARIATION	RELATIVE VARIATION
	07/01/2007	25/6/2008		Appreciation = + Depreciation = -
NIGERIA	190.10190	190.90738	-0.80548	-0.4%
UEMOA	738.81750	691.28165	47.53585	6.9%
GHANA	1.40493	1.67860	-0.27367	-16.3%
GUINEA	5,070.39250	7,446.66610	-2,376.27360	-31.9%
SLEONE	4,521.39010	4,877.48381	-356.09371	-7.3%
LIBERIA	94.59690	104.38835	-9.79145	-9.4%
CAPE VERDE	124.94660	116.20823	8.73837	7.5%
GAMBIA	39.94660	33.71283	6.23377	18.5%

1.1.3 Bilateral Rates

When a WAUA central rate is divided by another, a cross central rate is obtained for a pair of currencies. This is known as "cross parity rate". For example, the central cross parity rate of Naira/CFA is, according to our calculations Naira/WAUA (190.10) which is divided by CFA/WAUA (738.82) to obtain Naira/CFAF (0.26). The central cross parity rates for all the currencies as well as the ± 10 margins are provided in Appendix B.3.

1.2 Parity Limits and Institutional Arrangements of the EERM

The EERM helps to maintain exchange rates at levels close to their central rates. With this, exchange rates move only slightly from the central rates. The fluctuation margin of each currency within the EERM is determined by the parity limits.

1.2.1 Parity Limits

The fluctuation margin is set at $\pm 10\%$ for all the currencies. The countries should take the necessary measures to maintain their exchange rates within this band.

1.2.2 Institutional arrangements

The intervention of Central Banks is very crucial for the success of any exchange rate mechanism. Thus, Central Banks need to have access to a Fund for the short term financing of interventions. The modalities for the creation of this fund and its uses could be determined.

II MANAGEMENT OF THE EXCHANGE RATE MECHANISM

The previous paragraph outlined the operational modalities of the Exchange Rate Mechanism (EERM) by highlighting the proposals for the realignment of exchange rates, if the harmonization is to be achieved accordingly. It also presented the method of determining the weighting of the West African Unit of Account (WAUA), the WAUA central rates, the parity limits and institutional arrangements to ensure monitoring of the mechanism.

This section covers, among others, membership requirement, surveillance indicators divergence indicators and condition for suspension or withdrawal from the EERM.

2.1 Minimum Membership Requirements

At the start of the mechanism all currencies are admitted into the mechanism and all member countries should redouble their effort in achieving at least the primary convergence criteria

2.2 Surveillance indicators

In order to operationalize the agreed principles governing membership of the EERM, some quantitative benchmarks to ensure effective monitoring have been set as follows:

- Single digit inflation rate (based on consumer prices)
- Overall budget deficits excluding grants /GDP $\leq 4\%$
- Positive real interest rates in the long term
- fluctuation margins $\pm 10\%$ of WAUA central rates

2.3 Warning Mechanism and Divergence Indicator

This involves making provision for a warning mechanism that is triggered when two exchange rates go beyond the divergence threshold which would represent,

for example $d\%$ of the maximum divergence gap of the currency in relation to the WAUA. Thus, formally we have:

$$SD_i = t \cdot d \cdot (1 - a_i)$$

with d , being the fluctuation limit of a currency in relation to the WAUA, a divergence threshold that would represent t of the maximal variation; and a_i the weighting of currency i in the basket of currencies, the WAUA.

Then the maximum divergence gap, β_i between the currency i and the WAUA is $\beta_i = d \cdot (1 - a_i)$, and the divergence indicator of currency i in relation to the WAUA $SD = t \cdot \beta_i$

Countries that fluctuate below or above this threshold must adopt corrective measures in the form of diversified interventions on the foreign exchange market or a redirection of economic policies. It could even call for an adjustment of central rates.

Illustration:

Let us assume that on the exchange market the CFAF reached its limit of $\pm 10\%$ in relation to all the other currencies in the basket. As the CFAF does not fluctuate against itself the gap between the CFAF and pivot rate in WAUA is below 10%. If the weight of the CFAF is 29.96% (as was the case in 2007) the maximum divergence gap between this currency and the WAUA as calculated on exchange market is therefore:

$$10 \times (1 - 0,2896) = 7,104 \%$$

Assuming that the divergence threshold is 75%, by definition the warning threshold would be:

$$0.75 \times 7.104\% = 5,328 \%$$
 of the CFAF pivot rate in relation to the WAUA.

With these assumptions and a simulation of the divergence threshold of 65%, 75% and 85% the warning threshold of the various ECOWAS currencies would be as follows:

TABLE 3.3 : Simulation of the convergence indicator or divergence threshold

CURRENCY (i)	WEIGHT (ai)	Fluctuation band (d)	Gap without divergence threshold((Bi)	Gap with divergence threshold		
				(SDi) 65%	(SDi) 75%	(SDi) 85%
NAIRA	60.30%	10.00%	3.97%	2.58%	2.98%	3.37%
F CFA	29.00%	10.00%	7.10%	4.62%	5.33%	6.04%
CEDI	6.80%	10.00%	9.32%	6.06%	6.99%	7.92%
GNF	2.10%	10.00%	9.79%	6.36%	7.34%	8.32%
LEONE	0.70%	10.00%	9.93%	6.45%	7.45%	8.44%
LIB DOL	0.30%	10.00%	9.97%	6.48%	7.48%	8.47%
ESCUDO	0.70%	10.00%	9.93%	6.45%	7.45%	8.44%
DALASI	0.30%	10.00%	9.97%	6.48%	7.48%	8.47%

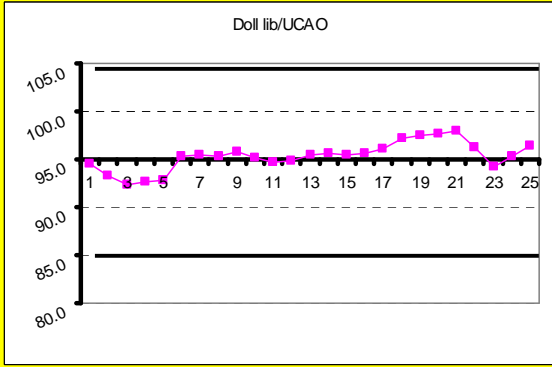
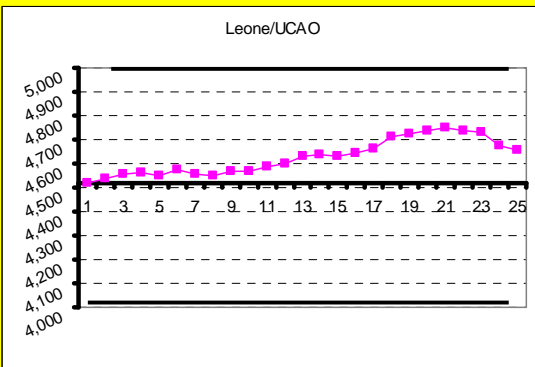
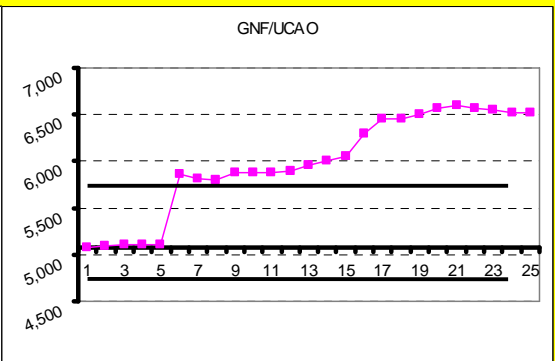
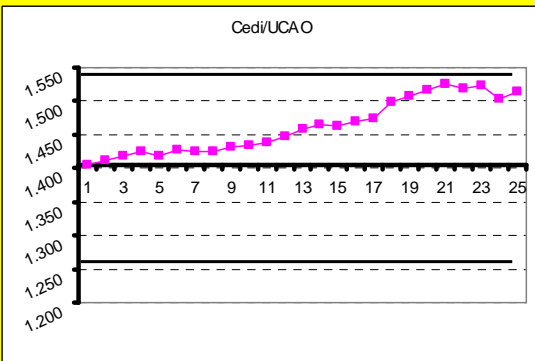
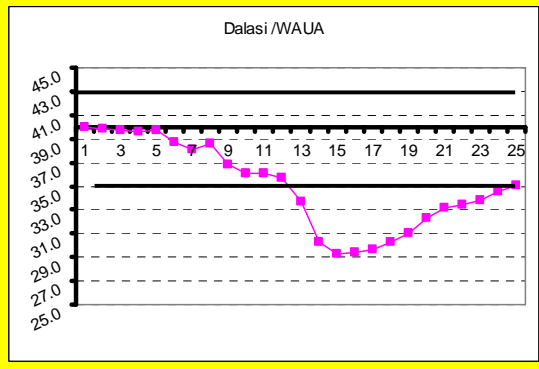
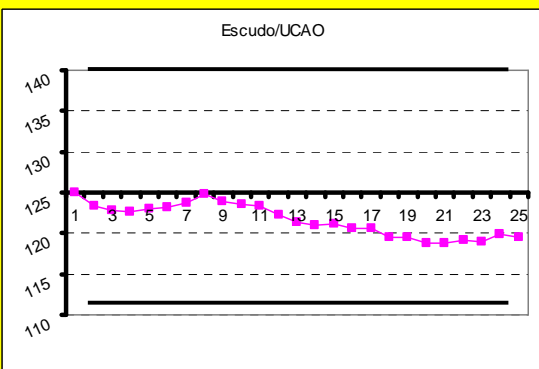
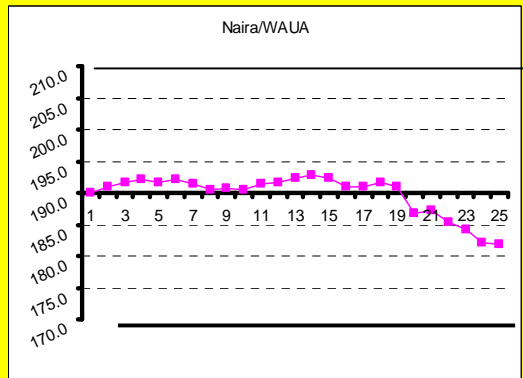
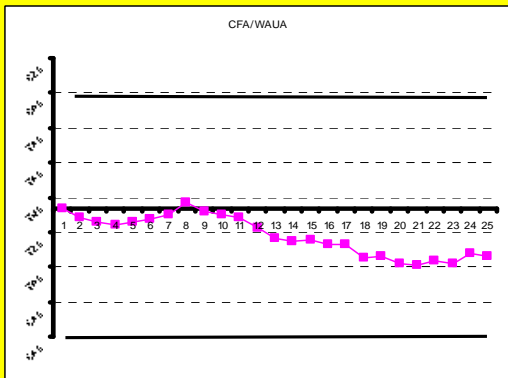
2.4 Conditions for Suspension or Withdrawal from the EERM

Any country that does not make efforts to comply with convergence criteria may be suspended from the EERM. However the emphasis must be on dialogue with non performing countries.

III SIMULATION OF THE MECHANISM

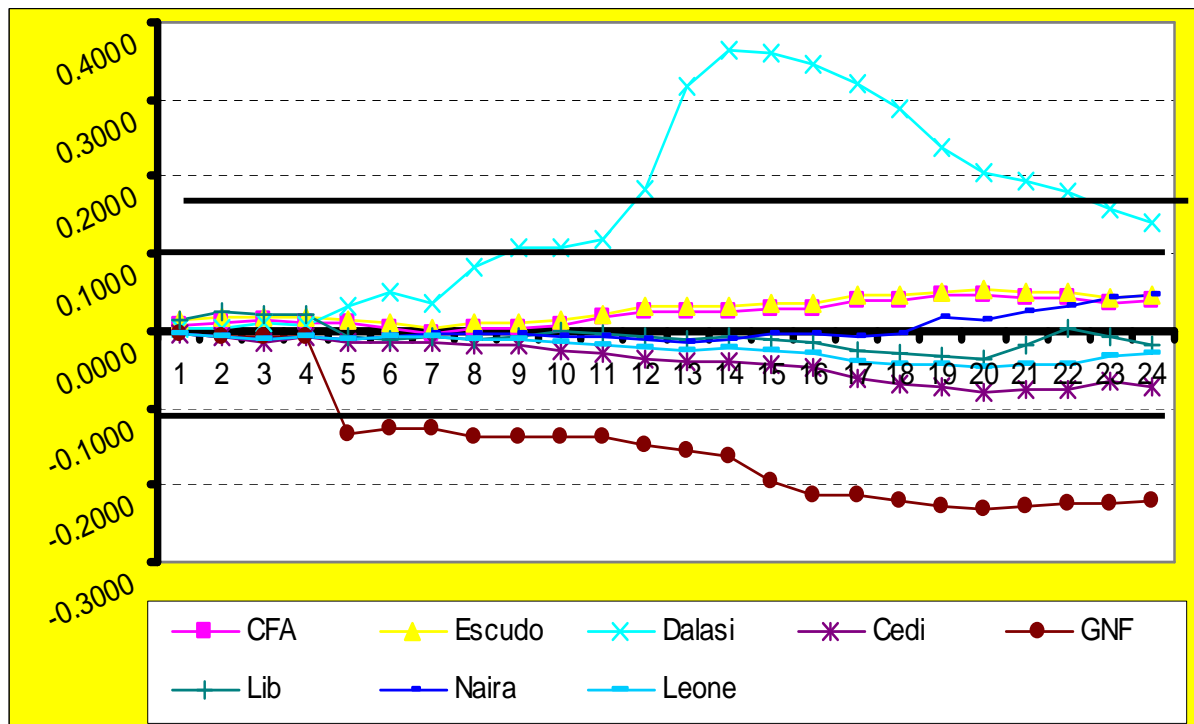
The reference currency is the SDR and the band of fluctuation is +10% and central rates as at 01/07/2007 are indicated in the table above. The historical background of exchange rates is analysed in the periodical reports of WAMA. The following graphs analyse the weekly fluctuations exchange rate of ECOWAS countries with respect to reference currency from July 2007.

3.1 Individual performance



3.2 Collective performance

Figure 1 bis: Fluctuation of domestic currencies in relation to the WAUA



Out of eight currencies, two were outside the band between July and December 2007. These were the Guinean and Gambian currencies. However, in the case of the Dalasi, the authorities certainly took measures to return to the band, whilst in the case of the Guinean franc the return is yet to be done. In a system with intervention, the use of divergence indicator for these two currencies would have helped in notifying the monetary authorities in the eighth week for the Dalasi and in the fifth week for the Guinean franc. Some exchange rate stability would have been achieved during the period under review.

GENERAL CONCLUSION

The ECOWAS Exchange Rate Mechanism (ERM) draws considerable inspiration from the European Monetary System at least in its initial conception. It is therefore expected that it would strengthen financial projections, limit seignorage, and contribute to trade promotion, help countries where inflation is relatively high to redirect their budgetary and monetary policies towards price stability, enable high inflation economies to strengthen their competitiveness and serve as a convergence point for increased coordination of monetary policy as well as a means through which member countries can sustain the relative success of their monetary policies.

The attraction of the ECOWAS Exchange Rate Mechanism therefore lies in its capacity to serve as a key element of increased coordination of monetary policies and also a means of fighting against inflation and strengthening credibility of national currencies. It is also useful for the promotion of trade, reduction of seigniorage and as a buffer against inflation by controlling the financing of fiscal deficit by the Central Bank.

The EERM could enhance the coordination of monetary policies and enable countries monitor the relative implementation of their monetary policies. So it seems completely reasonable to suggest that the most appropriate timeframe for the adoption and implementation of the EERM should be as early as possible. **As Goldstein stated, neither the theory nor the experience of existing monetary unions can guarantee the identification of a unique level of nominal or real converge necessary or adequate for a successful monetary union. Each case must be treated differently. This should guide us on how to proceed in order to achieve a monetary union in our sub-region.**

The ECOWAS Exchange Rate Mechanism is therefore advisable in view of its numerous advantages. **Thus, logically, the mechanism can only succeed if Member States can sustain the political will to observe the discipline established at the Community level.**

REFERENCES

Cooper R. M. (1974): "Monetary Unification in Europe: When and How?" In International Trade and Finance Readings, Baldwin, R.E. and J. D. Richardson, eds, Little, Brown and Company, Boston.

ECOWAS (2001): Report on The Meeting of The Study Group of Directors of Research of ECOWAS Central Banks on the ECOWAS Exchange Rate Mechanism, held in Freetown, January 22nd – 26th, 2001.

Jeannine Bailliu et Michael R. King (2005) « quels sont les déterminants des taux de change »

J. R. Artus, "Méthodes d'évaluation de la valeur d'équilibre à long terme du taux de change, Journal des Economies Internationales Vol.8, 1978pp.

McKinnon Ronald (2001): "The International Dollar Standard And Sustainability of The U.S. Current Account Deficit", Brookings Panel on Economic Activity: Symposium on The U.S. Current Account, Falk Auditorium, March 29 and 30.

Omoruyi, S. E., (1999): ECOWAS Exchange Rate Mechanism. A Draft report prepared for WAMA.

Rapport annuel de l'AMAO (2005) sur l'évolution des taux de change nominaux des monnaies de la CEDEAO par rapport à l'UCAO

Rapport d'activité annuel de l'AMAO (2005)

Ricci L.A. (1997), "Un modèle simple de zone monétaire optimale", Economie et Prévision, n° 128, pp.1- 19.

Ungerer Horst, Evans Owen and Nyberg Peter (1983): The European Monetary System: The Experience, 1979-82, IMF Occasional Paper 19, Washington, D.C, May.

West African Monetary Institute: Options for an Exchange Rate Mechanism for the WAMZ, Accra, Ghana, August, 2001.

APPENDICES

A/ STATISTICS ON THE PROGRES MADE BY MEMBERS

Annex A1 : economic growth in ECOWAS (%), 2002 - 2007

	2002	2003	2004	2005	2006	2007
economic growth in ECOWAS	3.7	6.8	5.1	5.7	5.1	4.9
UEMOA	1.4	2.9	2.6	4.0	3.2	4.0
BENIN	4.4	3.9	3.1	2.9	3.6	5.0
BURKINA FASO	4.6	8.0	4.6	7.1	6.1	6.0
COTE D'IVOIRE	-1.6	-1.7	1.5	1.8	1.8	2.0
GUINEA BISSAU	-7.1	0.6	3.2	3.8	1.8	4.7
MALI	4.3	7.6	2.2	6.1	5.0	5.4
NIGER	5.8	3.8	-1.0	7.0	3.5	4.0
SENEGAL	1.2	6.7	5.6	5.5	3.1	5.4
TOGO	3.5	2.0	-0.8	0.8	1.5	2.9
WAMZ	4.6	9.9	6.3	6.4	5.7	5.2
THE GAMBIA	1.3	7.4	6.6	6.9	7.7	7.0
GHANA	4.5	5.2	5.6	5.9	6.3	5.9
GUINEA	4.2	1.2	2.7	3.3	2.8	3.5
NIGERIA	4.6	9.6	6.6	6.5	5.6	5.3
SIERRA LEONE	6.5	9.3	7.4	7.5	7.8	6.5
OTHERS						
CAP-VERT	5.1	4.3	4.4	5.8	5.8	6.5
LIBERIA	7.8	-1.9	-2.8	1.4	7.4	13.3

Annex A2 : Per capita GDP (i n thousands of dollars)

	2002	2003	2004	2005	2006	2007
ECOWAS	0.409	0.489	0.546	0.651	0.651	0.896
UEMOA	0.377	0.475	0.520	0.540	0.540	0.569
WAMZ	0.428	0.499	0.548	0.684	0.684	0.970

Sources: WAMA, BCEAO, WAMZ and IMF * = projection

Annex A3 : Inflation rate (end of period) – ECOWAS (%)

	2002	2003	2004	2005	2006
Inflation au sein de la CEDEAO (fin de période)	9.1	15.3	8.6	9.5	7.7
UEMOA	2.9	-0.7	3.8	2.9	2.7
WAMZ	11.9	27.8	11.0	12.4	9.2
OTHERS					
CAP VERT	3.0	-2.3	-0.3	0.4	4.9
LIBERIA	11.10	5.00	16.1	7.0	8.9

Sources : AMAO, BCEAO, ZMAO et FMI

Annex A4: Average inflation - ECOWAS (%)

	2002	2003	2004	2005	2006
ECOWAS	9.2	10.6	10.1	13.9	7.5
UEMOA	2.0	1.3	0.5	4.4	2.3
WAMZ	12.4	18.1	14.8	17.9	9.5

Sources : AMAO, BCEAO, ZMAO et FMI

Annex A5 : budget deficit – ECOWAS (%)

	2002	2003	2004	2005	2006
budget deficit -ECOWAS	-4.6	-3.5	-3.1	-2.9	-2.7
'UEMOA	-4.3	-4.4	-4.8	-5.2	-4.9
WAMZ	-4.7	-3.6	-2.1	-2.0	-1.8
OTHERS					
CAP VERT	-11.1	-9.0	-7.7	-7.2	-6.8
LIBERIA	-1.2	-0.6	-0.9	-1.0	3.7

Sources WAMA, BCEAO, WAMZ and IMF

Annex A6: current accounts balance in percentage of GDP- ECOWAS (%)

	2002	2003	2004	2005	2006
current accounts deficit - ECOWAS	-3.0	2.2	9.8	13.8	11.2
UEMOA	-1.2	-3.5	-4.5	-5.8	-5.0
BENIN	-2.8	-6.5	-7.1	-5.2	-5.1
BURKINA FASO	-9.2	-8.5	-10.3	-11.1	-8.7
COTE D'IVOIRE	6.7	2.1	1.6	0.2	1.3
GUINEA BISSAU	10.7	24.3	3.0	4.5	-3.3
MALI	-4.1	-6.4	-8.2	-8.0	-5.9
NIGER	-8.2	-7.9	-8.3	-9.7	-9.0
SENEGAL	-6.4	-6.4	-6.5	-7.9	-9.1
TOGO	-9.5	-9.2	-10.6	-22.2	-19.2
WAMZ	-3.8	5.9	17.6	22.1	15.6
NIGERIA	-4.0	5.7	21.1	26.8	19.0
GHANA	-0.5	4.0	-3.6	-7.2	-4.5
GUINEE	-4.3	-3.2	-5.7	-4.5	-5.9
SLEONE	-15.2	-9.9	-4.9	-9.1	-5.3
GAMBIE	-3.3	-4.4	-8.6	-16.9	-14.2
OTHERS					
CAP VERT	-0.1	-0.1	-0.1	-0.1	-0.1
LIBERIA	-0.5	-14.7	ND	ND	ND

Sources : WAMA, BCEAO, WAMZ and IMF

Annex A7 : gross Reserves in months of import - ECOWAS

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Benin	5.7	6.9	7.7	8.8	7.2	6.5	6.0	6,0	6,0
Burkina Faso	4.5	6.9	7.7	8.8	7.2	6.5	6.0	6,0	6,0
Cap- Vert	1.9	2.9	2.5	2.0	1.9	2.6	2.7	2,7	2,7
Cote D'Ivoire	2.1	6.9	7.7	8.8	7.2	6.5	6.0	6,0	6,0
Gambie	5.4	7.5	7.2	2.9	4.6	4.3	4.4	4,9	5,0
Ghana	1.3	0.9	1.3	2.3	3.3	3.1	3.6	3,1	3,2
Guinée	2.7	2.2	2.9	2.2	1.5	1.1	1.3	0,8	1,2
Guinée Bissau	4.0	6.9	7.7	8.8	7.2	6.5	6.0	6,0	6,0
Liberia		3.6	2.6	0.0	0.0	0.1	0.3	0,3	0,3
Mali	4.8	6.9	7.7	8.8	7.2	6.5	6.0	6,0	6,0
Niger	1.1	6.9	7.7	8.8	7.2	6.5	6.0	6,0	6,0
Nigeria	6.2	13.6	11.3	9.9	11.0	18.8	23.2	21,8	23,1
Sénégal	1.7	6.9	7.7	8.8	7.2	6.5	6.0	6,0	6,0
Sierra Leone	3.5	3.8	3.3	-0.6	2.3	4.2	3.5	4,15	4,4
Togo	2.5	6.9	7.7	8.8	7.2	6.5	6.0	6,0	6,0

Sources : WAMA,, BCEAO, WAMZ and IMF

Annex A8: average rate and exchange rate variation of the ECOWAS currencies with respect to the dollar

Monnaies des pays membres de la CEDEAO	2002	2003	2004	2005	2006
CFA	699.65	568.45	525.50	531.21	519.05
	5.0%	23.1%	8.2%	-1.1%	2.3%
Escudo	117.26	97.80	88.74	85.74	80.50
	5.1%	19.9%	10.2%	3.5%	6.5%
Dalasi	23.56	24.32	30.03	30.11	28.06
	-33.4%	-3.1%	-19.0%	-0.3%	7.3%
cedi	7,926.42	8,677.37	9,019.45	9,093.42	9,349.03
	-9.5%	-8.7%	-3.8%	-0.8%	-2.7%
GNF	1,975.75	1,986.00	2,279.16	3,657.67	5,265.25
	-1.2%	-0.5%	-12.9%	-37.7%	-30.5%
Dollars Lib	62.77	58.90	54.91	56.50	59.00
	-22.6%	6.6%	7.3%	-2.8%	-4.2%
Naira	121.01	129.36	133.50	131.06	127.11
	-7.9%	-6.5%	-3.1%	1.9%	3.1%
Leone	2,099.16	2,345.42	2,719.97	2,897.89	2,971.11
	-5.4%	-10.5%	-13.8%	-6.1%	-2.5%

Sources : WAMA,, BCEAO, WAMZ and IMF (+) APPRECIATION /(-) DEPRECIATION

Annex A9: External debt - ECOWAS (in % of GDP)

	2002	2003	2004	2005	2006	2007*	2008*
CEDEAO	69,9	58,4	54,3	37,8	17,0	16,9	16,1
UEMOA	70,4	61,3	55,5	52,3	33,1	32,5	31,6
BENIN	48,1	40,3	38,6	40,0	14,9	15,6	16,3
BURKINA FASO	42,3	37,2	37,0	39,5	16,1	19,0	21,4
COTE D'IVOIRE	76,9	68,7	60,8	54,1	49,1	46,6	42,0
GUINEA BISSAU	344,4	352,4	324,7	300,7	287,9	273,7	263,7
MALI	79,3	67,1	64,5	61,3	25,1	26,5	28,3
NIGER	78,5	63,7	58,0	54,5	15,2	17,3	19,1
SENEGAL	61,7	50,9	44,0	42,6	18,0	17,1	18,5
TOGO	87,1	89,4	76,3	73,7	68,6	67,4	65,2
ZMAO	69,5	55,9	52,8	29,8	8,1	8,4	7,7
NIGERIA	60,5	53,1	49,9	21,7	3,4	4,1	4,0
GHANA	117,7	72,2	72,2	63,5	22,3	24,6	26,7
GUINEE	94,9	37,7	31,1	109,4	112,8	74,7	69,3
SLEONE	183,8	150,2	138,6	129,7	96,4	85,4	85,4
GAMBIE	134,6	145,5	131,0	119,0	127,7	109,7	109,7
Autres	81,1	125,1	110,3	87,3	71,2	63,2	63,0
CAP - VERT	61,8	61,8	57,1	48,5	45,1	42,1	42,0
LIBERIA	100,4	188,4	163,5	126,1	97,3	84,2	84,0

Sources : WAMA, BCEAO, WAMZ and IMF

Annex A10 – average trends in principal macroeconomic indicators between 1994/2000 and 2001/2006

	CROISSANCE ECONOMIQUE (%)		INFLATION (%)		DEFICIT BUDGETAIRE (%)		FINANCEMENT DU DB PAR LA BC (%)		RESERVES BRUTES (MOIS D'IMPORTATION)		MASSE MONETAIRE (%)		DETTES EXTERIEURES (% DU PIB)		SOLDE COMPTE COURANT (% DU PIB)	
	1994/00	2001/06	94/00	01/06	94/00	01/06	94/00	01/06	94/00	01/06	94/00	01/06	94/00	01/06	94/00	01/06
BENIN	4,9	4,2	7,7	3,1	4,1	3,6	9,0	0,8	4,2	6,9	12,2	7,8	54,7	30,5	-6,1	5,3
BURKINA FASO	6,3	6,2	4,3	2,9	10,4	9,1	5,2	0,0	5,9	6,9	9,6	8,3	63,3	30,4	11,2	9,6
CABO VERDE	5,8	5,3	6,6	1,3	17,3	9,3	62,0	4,6	2,1	2,4	7,6	7,3	48,2	51,2	11,4	0,1
COTE D'IVOIRE	3,7	0,6	5,7	2,8	3,5	2,3	0,0	0,1	2,6	6,9	5,6	6,4	86,0	56,9	0,3	-2,4
THE GAMBIA	3,3	6,0	4,8	7,4	6,3	7,0	0,0	27,7	5,4	4,8	16,6	26,1	120,5	125,3	9,3	9,5
GHANA	4,3	5,4	28,9	17,6	5,8	9,4	33,0	-4,8	2,6	2,8	40,8	34,7	100,2	57,0	10,1	2,4
GUINEA	4,1	3,1	2,9	20,0	5,6	4,8	18,9	20,1	2,8	1,6	12,4	39,3	102,1	75,7	3,7	4,7
GUINEA BISSAU	0,7	1,0	34,7	2,0	18,9	21,5	0,0	0,0	4,0	6,9	37,3	2,7	414,2	306,8	-3,9	-7,8
LIBERIA	0,7	4,3	5,7	10,8	0,4	0,7	0,0	0,0	3,6	0,5	-12,9	28,5	542,0	120,6	29,2	36,9
MALI	3,8	6,1	3,7	2,6	9,3	7,3	0,0	0,0	5,2	6,9	9,7	14,4	102,8	50,3	9,1	6,5
NIGER	3,0	4,1	4,9	2,2	8,5	8,5	4,0	0,8	2,8	6,9	-2,6	21,6	84,6	43,8	5,2	8,6
NIGERIA	2,5	6,1	28,6	12,7	3,5	1,5	51,7	6,3	5,1	17,0	26,0	23,3	70,7	28,1	-8,6	-13,8
SENEGAL	4,9	4,7	4,1	1,8	3,5	4,9	0,0	0,0	2,9	6,9	9,3	14,2	73,6	36,1	5,7	7,2
SIERRA LEONE	-3,3	9,0	41,8	7,9	10,3	8,9	44,9	-1,3	3,0	3,0	28,1	26,3	186,9	124,2	12,7	8,9
TOGO	5,4	1,5	6,9	2,5	6,6	1,9	0,0	0,0	2,9	6,9	7,5	8,1	93,9	75,4	4,7	14,1
UEMOA (MOY)	3,3	4,5	12,8	6,5	7,6	6,7	15,2	3,6	3,7	5,8	13,8	17,9	142,9	80,8	6,3	6,0
WAMZ (AVER)	2,4	5,0	16,0	8,5	7,2	7,5	15,2	4,9	3,7	5,7	16,5	23,1	179,8	96,8	7,2	6,3
ECOWAS (AVER)	3,3	4,5	12,8	6,5	7,6	6,7	15,2	3,6	3,7	5,8	13,8	17,9	142,9	80,8	6,3	6,0

B/ CALCULATION OF CENTRAL RATE

Annex B1 : No. of Monetary unit in local currencies per WAUA at 01/07/2007

COUNTRIES	COEFFICIENT	No. OF MONETARY	CENTRAL RATE	FIXED	EXCHANGE	1 WAUA	No. OF MONETARY UNIT
	GDP	UNIT	Local CURRENCIES /WAUA	AMOUNT	RATE	IN	IN LOCAL CURRENCIES
07/01/2007		PER SDR	A		UCAO/ \$	DOLLAR	PER WAUA
1	2	3	4	5	6	7	8
		07/01/2007	07/01/2007	COL.2*COL4	"GIVEN"	COL.5/COL6	COL.6*TOTCOL7
NIGERIA	0.60274	190.10190	190.10190	114.58243	125.03059	0.91644	190.10190
UEMOA	0.28963	738.81750	738.81750	213.98676	485.92249	0.44037	738.81750
GHANA	0.06766	1.40493	1.40493	0.09505	0.92403	0.10287	1.40493
GUINEE	0.02057	5,070.39250	5,070.39250	104.28714	3,334.81236	0.03127	5,070.39250
SLEONE	0.00733	4,521.39010	4,521.39010	33.12876	2,973.73183	0.01114	4,521.39010
LIBERIA	0.00271	94.59690	94.59690	0.25618	62.21666	0.00412	94.59690
CAPE VERT	0.00659	124.94660	124.94660	0.82281	82.17775	0.01001	124.94660
GAMBIE	0.00278	39.94660	39.94660	0.11099	26.27300	0.00422	39.94660
TOTAL						1,52044	

Annex B2 : No. of Monetary unit in local currencies per WAUA at 25/06/2008

COUNTRIES	COEFFICIENT	No. OF MONETARY	CENTRAL RATE	FIXED	EXCHANGE	1 WAUA	No. OF MONETARY UNIT
	GDP	UNIT	Local CURRENCIES /WAUA	AMOUNT	RATE	IN	IN LOCAL CURRENCIES
25/06/2008		PER SDR	A		UCAO/ \$	DOLLAR	PER WAUA
1	2	3	4	5	6	7	8
		07/01/2007	07/01/2007	COL.2*COL4	"GIVEN"	COL.5/COL6	COL.6*TOTCOL7
NIGERIA	0.60274	190.10190	190.10190	114.58243	116.13000	0.98667	190.90738
UEMOA	0.28963	738.81750	738.81750	213.98676	420.51040	0.50887	691.28165
GHANA	0.06766	1.40493	1.40493	0.09505	1.02110	0.09309	1.67860
GUINEE	0.02057	5,070.39250	5,070.39250	104.28714	4,529.84760	0.02302	7,446.66610
SLEONE	0.00733	4,521.39010	4,521.39010	33.12876	2,967.00000	0.01117	4,877.48381
LIBERIA	0.00271	94.59690	94.59690	0.25618	63.50000	0.00403	104.38835
CAPE VERT	0.00659	124.94660	124.94660	0.82281	70.69010	0.01164	116.20823
GAMBIE	0.00278	39.94660	39.94660	0.11099	20.50770	0.00541	33.71283
						1,64264	

ANNEX B3. BILATERAL RATES IN 01/07/2007 (to be read by line)

COUNTRIES	NAIRA			F CFA			CEDI			GNF		
	Central	Inf	Sup	Central	Inf	Sup	Central	Inf	Sup	Central	Inf	Sup
NAIRA	1,00	-	-	3,89	3,50	4,28	0,007	0,007	0,008	26,67	24,00	29,34
F CFA	0,26	0,23	0,28	1,00	-	-	0,00	0,00	0,00	6,86	6,18	7,55
CEDI	135,31	121,78	148,84	525,87	473,29	578,46	1,00	-	-	3 608,99	3 248,09	3 969,89
GNF	0,04	0,03	0,04	0,15	0,13	0,16	0,00	0,00	0,00	1,00	-	-
LEONE	0,04	0,04	0,05	0,16	0,15	0,18	0,00	0,00	0,00	1,12	1,01	1,23
DOL LIB	2,01	1,81	2,21	7,81	7,03	8,59	0,01	0,01	0,02	53,60	48,24	58,96
ESCUDO	1,52	1,37	1,67	5,91	5,32	6,50	0,01	0,01	0,01	40,58	36,52	44,64
DALASI	4,76	4,28	5,23	18,50	16,65	20,34	0,04	0,03	0,04	126,93	114,24	139,62
PAYS	LEONE			DOL LIB			ESCUDO			DALASI		
	Central	Inf	Sup	Central	Inf	Sup	Central	Inf	Sup	Central	Inf	Sup
NAIRA	23,78	21,41	26,16	0,50	0,45	0,55	0,66	0,59	0,72	0,21	0,19	0,23
F CFA	6,12	5,51	6,73	0,13	0,12	0,14	0,17	0,15	0,19	0,05	0,05	0,06
CEDI	3 218,23	2 896,40	3 540,05	67,33	60,60	74,07	88,93	80,04	97,83	28,433	25,59	31,28
GNF	0,89	0,80	0,98	0,02	0,02	0,02	0,02	0,02	0,03	0,01	0,01	0,01
LEONE	1,00	-	-	0,02	0,02	0,02	0,03	0,02	0,03	0,01	0,01	0,01
DOL LIB	47,80	43,02	52,58	1,00	-	-	1,32	1,19	1,45	0,42	0,38	0,46
ESCUDO	36,19	32,57	39,81	0,76	0,68	0,83	1,00	-	-	0,32	0,29	0,35
DALASI	113,19	101,87	124,50	2,37	2,13	2,60	3,13	2,82	3,44	1,00	-	-

Source: ECOWAS Central Banks , IMF . inf = inferior , sup = superior

C/ IMPULE RESPONSE FUNCTION AND VARIANCE DECOMPOSITION OF EXCHANGE RATE AND SOME CONVERGENCE CRITERIA

C1. BENIN

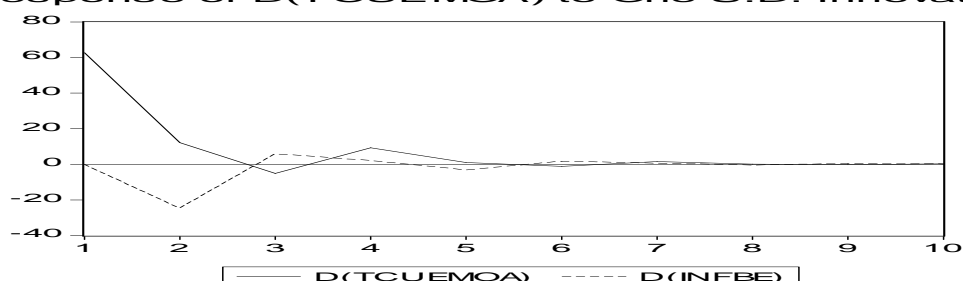
1) Data analyses

	Taux de change	IPC (base 2000)	Critical Value*	
ADF Test Statistic	-1.689879	0.305825	1% Critical Value*	-3.6959
			5% Critical Value	-2.9750
			10% Critical Value	-2.6265
ADF Test Statistic	-3.487043	-2.784848	1% Critical Value*	-3.7076
			5% Critical Value	-2.9798
			10% Critical Value	-2.6290

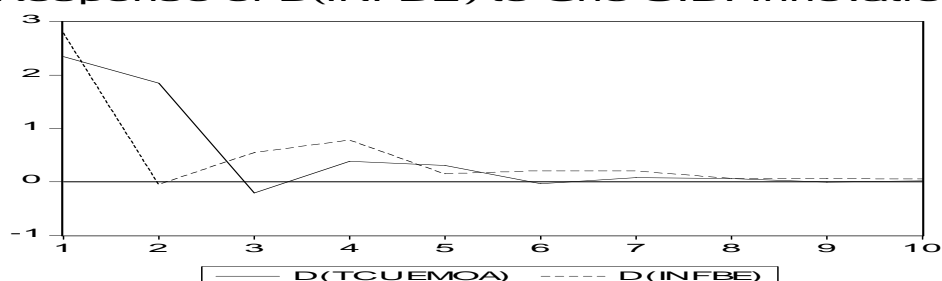
*MacKinnon critical values for rejection of hypothesis of a unit root.

2) Estimation : Analyses of shocks/ -responses function

Response of D(TCUEMOA) to One S.D. Innovations



Response of D(INFBE) to One S.D. Innovations



3) Variance decomposition

Variance Decomposition of D(TCUEMOA):

Period	S.E.	D(TCUEMOA)	D(INFBE)
1	62.75131	100.0000	0.000000
2	68.48654	87.15344	12.84656
3	68.92777	86.57760	13.42240
4	69.57919	86.73617	13.26383
5	69.65749	86.55948	13.44052
6	69.69192	86.50516	13.49484
7	69.71218	86.50465	13.49535
8	69.71323	86.50210	13.49790
9	69.71505	86.49861	13.50139
10	69.71582	86.49837	13.50163

Variance Decomposition of D(INFBE):

Period	S.E.	D(TCUEMOA)	D(INFBE)
1	3.646848	41.30797	58.69203
2	4.090884	53.34418	46.65582
3	4.132632	52.51619	47.48381
4	4.224037	51.11596	48.88404
5	4.237996	51.31195	48.68805
6	4.243285	51.19177	48.80823
7	4.248890	51.09386	48.90614
8	4.249815	51.09170	48.90830
9	4.250302	51.08002	48.91998
10	4.250669	51.07331	48.92669

Ordering: D(TCUEMOA) D(INFBE)

C2. NIGERIA

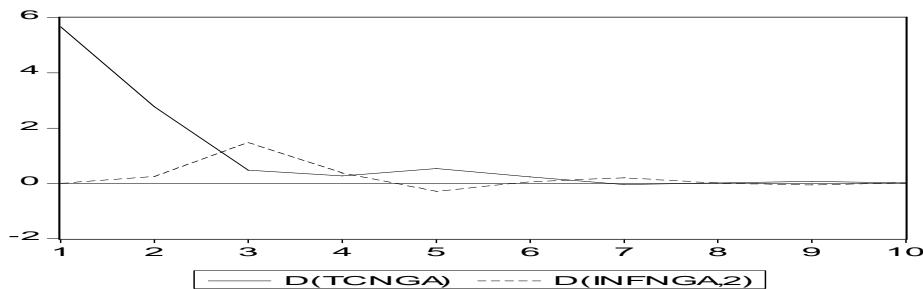
1) Data analyses

	Taux de change	IPC (base 2000)	Critical Value*	
ADF Test Statistic	-0.493148	1.653663	1% Critical Value*	-3.6959
			5% Critical Value	-2.9750
			10% Critical Value	-2.6265
ADF Test Statistic	-2.818713	-1.350889	1% Critical Value*	-3.7076
			5% Critical Value	-2.9798
			10% Critical Value	-2.6290
ADF Test Statistic		-4.548144	1% Critical Value*	-3.7204
			5% Critical Value	-2.9850
			10% Critical Value	-2.6318

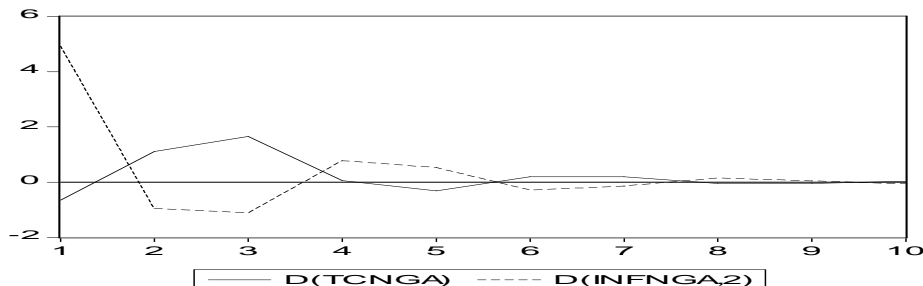
*MacKinnon critical values for rejection of hypothesis of a unit root.

2) Estimation : Analyses of shocks/ -responses function

Response of D(TCNGA) to One S.D. Innovations



Response of D(INFNGA,2) to One S.D. Innovations



3) variance decomposition

Variance Decomposition of D(TCNGA):			
Period	S.E.	D(TCNGA)	D(INFNGA,2)
1	5.665775	100.0000	0.000000
2	6.312057	99.84971	0.150294
3	6.500109	94.70342	5.296578
4	6.516132	94.40363	5.596365
5	6.544964	94.25654	5.743460
6	6.549328	94.25718	5.742821
7	6.552557	94.16732	5.832684
8	6.552580	94.16730	5.832702
9	6.553185	94.16075	5.839252
10	6.553224	94.16018	5.839825

Variance Decomposition of D(INFNGA,2):			
Period	S.E.	D(TCNGA)	D(INFNGA,2)
1	4.966211	1.662751	98.33725
2	5.178353	6.187860	93.81214
3	5.547694	14.31257	85.68743
4	5.602619	14.04357	85.95643
5	5.635928	14.17781	85.82219
6	5.646466	14.24529	85.75471
7	5.651825	14.34621	85.65379
8	5.654046	14.34224	85.65776
9	5.654516	14.34767	85.65233
10	5.654962	14.34997	85.65003

Ordering: D(TCNGA) D(INFNGA,2)

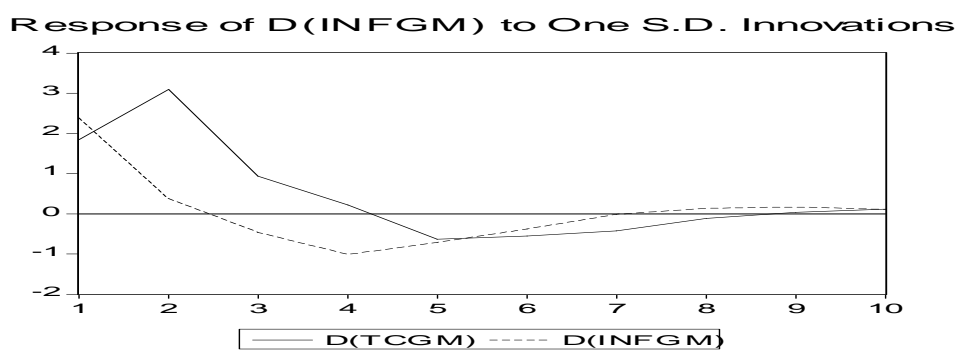
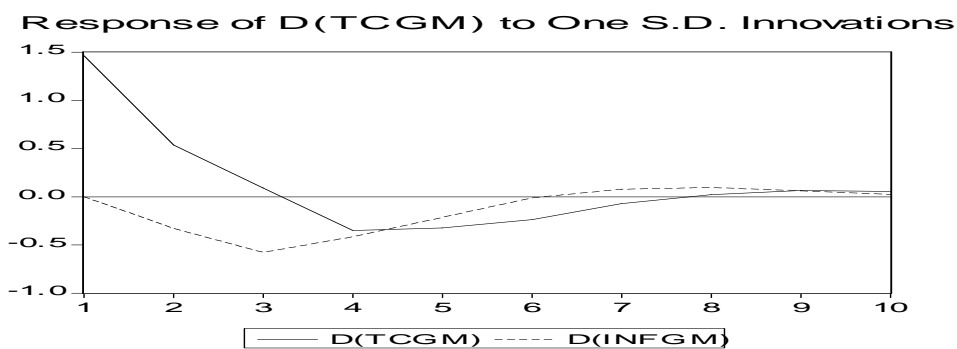
C3. GAMBIE

1) Analyses data

	Taux de change	IPC (base 2000)	Critical Value*		
ADF Test Statistic	-0.530409	-0.158905	1% Critical Value*	-3.6959	
			5% Critical Value	-2.9750	
			10% Critical Value	-2.6265	
ADF Test Statistic	-2.993376	-3.322426	1% Critical Value*	-3.7076	
			5% Critical Value	-2.9798	
			10% Critical Value	-2.6290	

*MacKinnon critical values for rejection of hypothesis of a unit root.

2) Estimation : Analyses of shocks/ -responses function



3) variance decomposition

Variance Decomposition of D(TCGM):

Period	S.E.	D(TCGM)	D(INFGM)
1	1.464244	100.0000	0.000000
2	1.594358	95.75400	4.246004
3	1.698442	84.67222	15.32778
4	1.783087	80.64529	19.35471
5	1.824890	80.14303	19.85697
6	1.840363	80.47203	19.52797
7	1.843341	80.35704	19.64296
8	1.845933	80.14352	19.85648
9	1.848111	80.07863	19.92137
10	1.849061	80.08359	19.91641

Variance Decomposition of D(INFGM):

Period	S.E.	D(TCGM)	D(INFGM)
1	3.015537	37.43735	62.56265
2	4.341639	69.05113	30.94887
3	4.465553	69.67105	30.32895
4	4.584359	66.33048	33.66952
5	4.682823	65.40337	34.59663
6	4.730450	65.45555	34.54445
7	4.749395	65.72962	34.27038
8	4.752758	65.69761	34.30239
9	4.755861	65.61682	34.38318
10	4.758473	65.60371	34.39629

Ordering: D(TCGM) D(INFGM)

C4.RELATION BETWEEN EXCHANGE RATE AND ECOWAS CONVERGENCE CRITERIA (PANEL DATA)

1) INFLATION

Dependent Variable: TC?
Method: Pooled Least Squares
Date: 06/18/08 Time: 21:29
Sample: 1980 2008
Included observations: 29
Total panel (balanced) observations 435

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-546.6530	90.57586	-6.035306	0.0000
INF?	15.35131	0.960880	15.97630	0.0000
R-squared	0.370861	Mean dependent var	643.8045	
Adjusted R-squared	0.369408	S.D. dependent var	1352.474	
S.E. of regression	1073.998	Sum squared resid	4.99E+08	
Log likelihood	-2556.287	F-statistic	255.2423	
Durbin-Watson stat	0.027473	Prob(F-statistic)	0.000000	

Dependent Variable: LTC?
Method: Pooled Least Squares
Date: 06/18/08 Time: 22:50
Sample: 1980 2008
Included observations: 29
Total panel (balanced) observations 435

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.296152	0.083952	15.43927	0.0000
LINF?	0.628918	0.046672	13.47526	0.0000
R-squared	0.295457	Mean dependent var	2.352061	
Adjusted R-squared	0.293830	S.D. dependent var	0.747767	
S.E. of regression	0.628378	Sum squared resid	170.9740	
Log likelihood	814.5343	F-statistic	181.5827	
Durbin-Watson stat	0.014262	Prob(F-statistic)	0.000000	

2) BUDGET DEFICIT

Dependent Variable: TCHANGE?
Method: Pooled Least Squares
Date: 06/19/08 Time: 03:34
Sample: 1994 2006
Included observations: 13
Total panel (balanced) observations 195

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	780.2020	179.1655	4.354643	0.0000
DBUDGETAIRE?	21.50904	18.94279	1.135474	0.2576
R-squared	0.006636	Mean dependent var	939.2223	
Adjusted R-squared	0.001489	S.D. dependent var	1561.600	
S.E. of regression	1560.437	Sum squared resid	4.70E+08	
F-statistic	1.289300	Durbin-Watson stat	0.044221	
Prob(F-statistic)	0.257585			

Dependent Variable: LTCHANGE?
 Method: Pooled Least Squares
 Date: 06/19/08 Time: 03:36
 Sample: 1994 2006
 Included observations: 13
 Total panel (unbalanced) observations 194

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.533380	0.081862	30.94697	0.0000
LDBUDGETAIRE?	0.149950	0.098205	1.526901	0.1284
R-squared	0.011997	Mean dependent var	2.640647	
Adjusted R-squared	0.006851	S.D. dependent var	0.587360	
S.E. of regression	0.585345	Sum squared resid	65.78463	
F-statistic	2.331427	Durbin-Watson stat	0.017365	
Prob(F-statistic)	0.128431			

3) BUDGET DEFICIT AND INFLATION

Dependent Variable: LDB?
 Method: Pooled Least Squares
 Date: 06/19/08 Time: 03:53
 Sample: 1994 2006
 Included observations: 13
 Total panel (unbalanced) observations 180

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.752402	0.056859	13.23283	0.0000
LINF?	-0.064913	0.062412	-1.040070	0.2997
R-squared	0.006041	Mean dependent var	0.703944	
Adjusted R-squared	0.000456	S.D. dependent var	0.437367	
S.E. of regression	0.437267	Sum squared resid	34.03407	
F-statistic	1.081745	Durbin-Watson stat	0.652957	
Prob(F-statistic)	0.299718			

Dependent Variable: DB?
 Method: Pooled Least Squares
 Date: 06/19/08 Time: 03:53
 Sample: 1994 2006
 Included observations: 13
 Total panel (balanced) observations 195

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.187456	0.534294	13.45224	0.0000
INF?	0.031962	0.033455	0.955367	0.3406
R-squared	0.004707	Mean dependent var	7.494722	
Adjusted R-squared	-0.000450	S.D. dependent var	5.956507	
S.E. of regression	5.957847	Sum squared resid	6850.717	
F-statistic	0.912727	Durbin-Watson stat	0.365340	
Prob(F-statistic)	0.340587			

D/ AGREEMENT ON CONVERTIBILITY OF REGIONAL CURRENCIES
DRAFT AGREEMENT ON CONVERTIBILITY OF REGIONAL CURRENCIES AMONG
CENTRAL BANKS OF MEMBER STATES OF THE ECONOMIC COMMUNITY OF WEST
AFRICAN STATES

PREAMBLE

The contracting parties:

Considering article 3 of the Revised Treaty stating the goals and objectives of the Community;

Considering article 7 of the Revised Treaty of ECOWAS establishing the Assembly of Heads of State and Government and defining its membership and functions;

Considering article 55 of the Revised Treaty on the establishment of a single currency for West Africa,

Considering Decision A/DEC.2/7/87 of the Conference on the adoption of the ECOWAS Monetary Cooperation Programme;

Aware that by the said Decision the Community undertook to create a single monetary zone;

Taking note of decision A/DEC.4/7/92 of the Conference on the transformation of WACH into WAMA;

Taking note of decision A/DEC.7/12/99 on the adoption of macroeconomic convergence criteria under the ECOWAS Monetary Cooperation Programme;

Bearing in mind economic and financial reforms implemented by Members;

Desirous of pursuing the harmonization of policies regarding the use and acceptance of national currencies;

Agree as follows:

ARTICLE I : DEFINITION

For the purpose of this Agreement:

« Treaty » means the Economic Community of West African States Treaty

« Assembly » means the Assembly of Heads of State and Government established under article 7 of the Treaty.

« Council », means the Council of Ministers set up in accordance with article 10 of the Treaty;

« Committee of Governors », means the Committee of Governors of Central Banks in West Africa established in accordance with provisions under article 52 of the Treaty

« Community », means the Economic Community of West African States referred to under article 2 of the Treaty;

« Executive Secretariat », means the Executive Secretariat referred to under article 17 of the Treaty;

« Agency » means West African Monetary Agency

«Convertibility of regional currencies » means the free use and acceptance of national currencies in intra-regional transactions;

« Exchange rate » means the rate at which a unit of a national currency is exchanged for another;

« Imports » means all imports of good and service made in respect of the current account of the balance of payments;

« National currency » means currency issued by monetary authorities of a Member State or a group of Member States;

« Cross border transactions » transactions carried out on the local market by or on behalf of non residents coming from other Member States of the Community.

ARTICLE II : OBJECTIVE

The objective of this agreement is to provide a cooperation framework aimed at removing restrictions on the use and acceptance of national currencies in order to facilitate trade, payments and investments within West Africa.

ARTICLE III : AREAS TO BE LIBERALIZED

In accordance with the objectives specified above, the contracting member Central Banks agree to:

1. lift all forms of restrictions on current account transactions between Member States;
2. remove restrictions on capital account transactions between Member States;
3. remove all restrictions on the use of national currencies in cross-border transactions;

ARTICLE IV : IMPLEMENTATION MECHANISMS AND MODALITIES

1. To ensure effective implementation of this Agreement, Member Central Banks shall undertake to :
 - a) Adopt a market oriented exchange rate policy and to maintain a unified system of exchange;
 - b) Redeem their balance in national currency held by other central banks under the following terms :
 - i) the redemption of national currencies must be done in the currency of the country that makes the request ;
 - ii) the balance to be redeemed must have been acquired after the coming into force of this agreement ;
 - iii) the exchange rate applicable must be the prevailing market rate;

- iv) The redemption must be done at the bilateral or multilateral level through the mechanism of the West African Monetary agency which shall be responsible for technical details.
2. Adopt sound and sustainable macroeconomic policies.
3. Coordinate and harmonize macroeconomic policies and performances.
4. Harmonize the code of conduct and directives for authorized intermediaries in the area of exchange.

ARTICLE V : SUSPENSION OF PARTICIPATION AND READMISSION

1. In the case where a member Central Bank fails to fulfil its obligations as stated under Article IV above, the Committee of Governors may suspend the participation of the Central Bank in this Agreement.
2. The suspension shall take effect after the Central Bank concerned has been notified and the deadline set for the said Central Bank to remedy the situation has expired.
3. The suspended Central Bank may be readmitted, provided it regularizes the situation that led to the suspension.

ARTICLE VI : EMERGENCY MEASURES

When the need arises, the Committee of Governors shall take the necessary measures to ensure the application of the provision of this agreement and safeguard the interests of Member States.

ARTICLE VII: DISPUTE SETTLEMENT

1. Any dispute between Central Banks concerning the implementation or interpretation of this agreement shall be settled amicably.
2. Failing this, one of the two parties concerned shall refer the matter to the Law court of the Community whose decision shall not be subject to appeal .

ARTICLE VIII: CUSTODY AND IMPLEMENTATION MODALITIES

1. This agreement shall be deposited at the West African Monetary Agency which shall submit certified true copies to all member Central Banks and the Executive Secretariat by notifying them of the custody dates. The Executive Secretariat shall register this Agreement with the African Union, United Nations and other organizations determined by the Council.
2. The Executive Secretariats of ECOWAS, WAMA and AWAB, in collaboration with member contracting Central Banks shall draw up a programme to launch simultaneously the convertibility mechanism provided for in the said agreement in Member States.

ARTICLE IX: WITHDRAWAL

1. Any Central Bank desirous of withdrawing from this agreement shall send one year notice the Director General of WAMA who shall inform all member Central Banks and the ECOWAS executive secretariat. If at the end of this period the notification is not withdrawn, the member Central Bank concerned shall cease to be a party to this Agreement.
2. During the one year period stated above, the member Central Banks which intends to withdraw shall comply with the provisions of this Agreement and fulfil its obligations under the said Agreement.

ARTICLE X: COMING INTO FORCE

This Agreement shall come into force after it has been signed by at least four Governors of contracting member Central Banks.

ARTICLE XI : AMENDMENT

1. Any member Central Bank may submit proposals for the amendment of this agreement.
2. These proposals shall be submitted to WAMA which shall inform other member Central Banks and ECOWAS Executive Secretariat latest 30 days after receiving the proposals. The Committee of governors shall take these amendments into account if only they have been notified three months in advance by the Central Banks concerned.
3. The amendment shall come into force in accordance with the provisions of article X of this Agreement.
4. In witness whereof the Governors of Central Banks within ECOWAS, duly mandated by their respective governments have signed this Agreement.

Done at

in a single original copy in English and French, both text being equally authentic.