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Topic :

"Control of the inflation and the Ghana experience in inflation as member of the West African second Monetary Zone"

C E S A G

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The Lord is my shepherd, I shall not want.

He maketh me to lie down in green pastures.

He leadeth me beside the still waters...

PS 23

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FOREWORD

This MBA in banking and finance, is the result of a cooperation between international institutions, which are The Bank of France, The world Bank group, The Central Bank of the West African States, The Central Bank of the Central African States, the French Development Agency, the European Union, the French Ministry of Foreign Affairs and the African Capacity Building Foundation.

The program is an advanced one and is organised in such a way to not duplicate similar programs being offered by other African Universities. It is bilingual , French and English.
Its goal is to provide advanced technical and managerial training for mid-to senior level staff of public and private sector, financial institution and business enterprises.

The lecturers are coming from prestigious Universities and Schools in United States of America and Europe, like New York Stern University, INSEAD of Fontainebleau, and University of Paris dauphine.
The full time program lasts for 11 months: 8 months of intensive theoretical courses and 3 months of practical training. The practical part of this program is completed with a project, defended in front of a jury.

It is for this purpose that we have done our internship in the Central Bank of Ghana: The Bank of Ghana, from the 4th of August to the 7th of November 2003. We have, in agreement with the program managerial staff and the Bank of Ghana, worked on the inflation in Ghana and made a reference to the project of creation of a new monetary zone in West Africa. Our topic is: "**control of the inflation and the Ghana experience in inflation as member of the West African second Monetary Zone**"

CONTENT

LIST OF ABBREVIATIONS

BCEAO	:	Banque Centrale des Etats de l'Afrique de l'Ouest
BEAC	:	Banque des Etats de l'Afrique de l'Ouest
BOG	:	Bank of Ghana
CAEMC	:	Central African Economic and Monetary Community
CEDEAO	:	Communauté Economique des Etats de l'Afrique de l'Ouest
CFA	:	"Communauté Financière Africaine" , for the WAEMU, and "cooperation Financière en Afrique Centrale" for the CAEMC
CMA	:	Common Monetary Area
CPI	:	Consumer Price Index
DMB	:	Deposit Money Bank
EAC	:	East African Community
ECB	:	European Central Bank
ECOWAS	:	Economic Community of the West African States
ECSB	:	European System of Central Banks
EMCP	:	ECOWAS Monetary Cooperation Programme
EMI	:	European Monetary institute
EMU	:	European economic and Monetary Union
ERM	:	Exchange Rate Mechanism
GDP	:	Gross Domestic Product
GGILB	:	Government of Ghana Index-Linked Bond
INFXEU	:	Inflation less Energy and Utility prices changes
INFXEUF	:	Inflation Exclude price changes of energy, utility and three food items
INFXEUFT	:	Inflation Exclude price changes of energy, utility, three food items and transportation charges
NCBs	:	National Central Banks
NFA	:	Net Foreign Asset
OCAs	:	Optimum Currency Area
PTAs	:	Preferential trade areas
RCA	:	Regional Currency Arrangement
RVA	:	Revaluation Account

SACU   :   South African Customs Union

SCF   :   Stabilisation and Cooperation Fund

UEMOA   :   Union Economique et Monétaire Ouest Africaine

WACB   :   West African Central Bank

WAEMU   :   West African Economic and Monetary Union

WAMI   :   West African Monetary Institute

WAMZ   :   West African Monetary Zone

LIST OF CHARTS AND TABLES

EXECUTIVE SUMMARY

These last years, the globalisation process and the increased emphasis that have been put by policy makers on price stability, have renewed the interest in exchange rate arrangement.

In this view, the ECOWAS countries have thrown again their goal of having one currency in all West Africa. So to be on an equal footing as the WEAMU countries before the negotiations, the other countries of ECOWAS decided to create a second monetary zone, the WAMZ.

This dissertation focuses on one member country of this project, Ghana, and presents its macroeconomic situation, precisely the price stability through the analysis of inflation, an important convergence criterion of the new zone.

Through this analysis, we have seen whether Ghana could bring down inflation and reach the inflation criterion, to qualify to be part of the new zone.

We have looked at the macroeconomic situation of the other countries and discussed the existence of the WAMZ with regards to the deadline 1st July 2005.

RESUME

Ces dernières années, le processus de la globalisation ainsi que l'accent mis sur la stabilité des prix dans l'élaboration des politiques monétaires, ont apporté un regain d'intérêt dans les accords de taux d'intérêt.

A cet égard, les pays membres de la CEDEAO, ont réaffirmé leur intention de disposer d'une monnaie unique dans la sous région ouest africaine. Aussi pour être sur un pied d'égalité avec les pays de la l'UEMOA avant les négociations, les autres pays membres de la CEDEAO ont décidé de créer une seconde zone monétaire, la Zone Monétaire d'Afrique de l'Ouest.

Ce mémoire met l'accent sur l'un des pays participants au projet, le Ghana, et présente sa situation macroéconomique, précisément celle relative à la stabilité des prix et ce, à travers l'analyse de l'inflation, un important critère de convergence de la nouvelle zone.

A travers cette analyse, nous verrons si le Ghana réussira à faire baisser son taux d'inflation et atteindre le critère d'inflation, et partant, les autres critères de convergence, pour prétendre faire partie de cette nouvelle zone.

Nous avons également analysé les données macroéconomiques relatives aux autres pays participant au projet et discuté de l'existence de la ZMAO dans le temps imparti, c'est-à-dire avant la date limite du 1er Juillet 2005.

INTRODUCTION

Framework

Following the run-up to European economic and Monetary Union (EMU) and the successful introduction of the euro, the question of whether or not to adopt common currency arrangement, has ranked high among the issues discussed by the policy makers in Europe and in many countries.

As suggested recently by Alesina and Barro (2001, 2002), two main factors may have contributed to this renewed and sustained interest in exchange rate arrangements. One may obviously be, the ongoing process of globalisation, which could be briefly described as the remarkable and steady increase in international trade in goods, capital and services over the recent period. The other, which is subtler, may be the increased emphasis that has been put by policymakers on price stability, as a primary element for monetary policy.

These changes have led to a general reassessment of the benefits of constituting a regional currency arrangement (RCA). Although a number of criteria must be fulfilled, the costs of relinquishing monetary policy autonomy at a national level may seem more and more likely to be outweighed by the benefits. The benefits include reduction of transaction costs in external trade and increase in price stability when anchoring to partner economies with better inflation track record or a lower long-term inflation rate. It is thus quite clear that problems may emerge if a critical threshold of requirements and conditions is not achieved and maintained by each country prior to and after the establishment of a regional currency arrangement (RCA).

That suggests, one of the most important things to reach in order to have an efficient and wealthy regional area is price stability, which is defined, according to Alan Greenspan, as a situation where inflation is not taken into account in the decisions of economic agents. Hence to attain price stability, an intermediate target must be the control of inflation.

Generally speaking, it is usually claimed that inflation, which is a general rise in the overall price level, is due to "too much money chasing too few goods". That means the existence in the economy of too much money compared to the quantity of goods available. Thus the diagnosis must imply the remedy: stop creating so much money and inflation will disappear.

However, in reality it is not as easy as it appears (we will see in the following sections how the Bank of France has acted to control inflation before moving to the EMU).

As it is known, in west Africa, **five countries**, The Gambia, Ghana, Guinea, Nigeria, and Sierra Leone, have decided to create, alongside the WAEMU, a second monetary zone; the WAMZ. The goal of this project is to fulfil the ECOWAS view of having a single currency in West Africa as a whole, by merging with the WAEMU zone later.

The benefits of the use of a single currency in West Africa are enormous. With an aggregate population of over 230 million people and enormous endowment of natural resources, the sub-region has great potential for intra-regional trade and expansion and economic growth. To this end, the project of the WAMZ is a first step to a bigger project and its outcome will determine the future of West Africa.

We have to notice that the deadline has already been shifted from January 2003 to July 2005 in order to give member states, more time to fully comply with the convergence criteria.

Problematic of the study

Ghana one of the "biggest" in term of population and economic power of this new project got some problem, specially the one of reach price stability, an important element for the stability of the future monetary zone. Its inflation rate is very high (around 29,3 % in March 2003), and very volatile (21% in 1997, 41% in 1999, 15.2% in 2002 and 29.3% in 2003). To succeed in controlling its rate of inflation will lead to speed up the integration process by giving more chance to price stability for the whole zone.

So why does Ghana still experienced high and volatile level of inflation?

What is the policy implemented by the central bank (Bank of Ghana) to control inflation?

Will Ghana succeed in reaching the inflation criterion of one digit growth?

Objective of the study

Our objective is to present the project of creation of the WAMZ and the different convergence criteria. We'll focus on the one of inflation, and make special reference to one of the member states, Ghana, which got a major inflation problem.

Limit of the study

This study has been done in the Ghanaian environment. Only the macro-economic aggregates of Ghana relating to inflation, and coming from BOG, have been analysed. For the other

criteria, we used the figures coming from WAMI, but the period was from 2000 to 2002. The figures relating to 2003 were not available.

For the other member countries, it would have been better to have the figures coming from their respective central banks, but the figures used came from WAMI and had already been analysed. So it was difficult to obtain some more details.

Methodology and Plan of the study

To attain this objective we have used two kinds of methods: a qualitative one (literature review) on the one hand and a quantitative one (interviews of Bank of Ghana staff members and arithmetic methods) on the other hand. The first one, the literature research, has allowed us to set the basis of our analysis by letting us know the general criteria for setting up a monetary union and understand the meaning, and sources of inflation as well as its implication in the process of creating a monetary zone. It has also helped us to know how economies, which wanted to belong to a monetary union, have dealt with it (Part I). The second, the quantitative method, has allowed us to understand and analyse the required criteria setting up· for the second zone (WAMZ) and the current position of the member countries. It has also helped us to present and analyse what has been done in Ghana to control inflation to qualify to be part of the West African Monetary Zone. And finally, the analysis and the results have led to making important observations, conclusions and recommendations (part II).

PART I

THE MONETARY ZONE AND INFLATION

Chapter I :   THE MONETARY UNION

Monetary unions can take (and actually have taken) many forms and the models of the European economic and Monetary Union (EMU) and the Franc zone[1] are just two of them. In the past, some monetary unions were successful (lasting or being folded into an ever larger monetary union), while some others came apart.

Let us see what a monetary union is, the different conditions to set it up and how some of them have been set up.

I 1 / Definition

I 1 1 / The basic concept

Basically, a monetary union is an agreement in which two or more countries agree to jointly manage monetary policy in order to increase their economic efficiency.

As noted by Allen[2], a monetary union has three minimum requirements:

Firstly, in any monetary union either there must be **a single currency** or, if there are several currencies, these currencies must be fully convertible, one into the other, at immutably fixed exchange rates, creating effectively a single currency.

Secondly, **a single monetary policy**. As the immutability of fixed exchange rates depends upon mutually consistent monetary policies within the union, there must be an arrangement whereby monetary policy for the union, including control of high-powered money and regulations affecting the commercial banks' ability to create money, is determined at the union level, leaving no national autonomy in monetary policy.

Finally, since there can be only one rate of exchange between an external currency and the union currency, there must be **a single external exchange-rate** policy. Toward this end, the

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[1] We have chosen these two monetary zones because they are topical
[2] Organization and Administration of a monetary Union : Allen P.R. (1976)

national authorities must relinquish individual control over their international reserves and invest such control in an union authority[3].

The studies of monetary unions of the nineteen and twentieth centuries lead to this observation: beyond the three requirements (single effective currency, single monetary policy and single effective exchange rate), which represent the base minimum for a monetary union, various possible institutional models are possible and have been tried. These are some of them.

I 1 2/ Various models of Monetary Unions

Monetary union arrangements may differ with respect of the currency, the central bank and the level of economic integration between the union members.

a / The currency

For the currency, there are three possible cases. First, we can have a supranational union-wide currency for example with the EMU, the Euro is the union-wide currency. Another possibility is a national union-wide currency (for example: Switzerland and Liechtenstein both use the Swiss Franc and the Swiss National Bank coordinates the policy). A final solution is to have separate currencies, for example Belgium and Luxembourg had distinct currencies, with a fixed exchange rate and with both currencies legal tender in both countries.

This supposedly immutably fixed exchange rate[4] in the case of Belgium and Luxembourg: one to one, with full convertibility is equivalent to having one single effective currency.

b / The central bank

Similarly, for the central banks four cases compatible with a monetary union are also possible. **First**, we can have a supranational union-wide central bank. For example with the EMU, the

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[3] Allen, p 4-5.

[4] Actually, in the case of Belgium and Luxembourg, the parity did change. From 1929 to 1934; 1 Belgian Franc was equal to 1 Luxembourg Franc. In 1935, 1 Luxembourg Franc was worth 1.25 Belgian Franc. After the Second World War, the one-to-one parity was re-established.

European System of Central bank is the union-wide central bank making monetary policy and instructing the national central banks to implement it.

A second possible arrangement for central banks in a monetary union is to have just one national central bank. Today, for instance, the Swiss National Bank sets monetary policy for Switzerland and Liechtenstein. the latter having also formally adapted its banking practice and legislation to Swiss norms.

A third possibility is to have more than one multinational central bank. For instance, the CFA franc zone, which covers 12 former French colonies one former Portuguese colony and one former Spanish colony, has two multinational central banks. The first one is Banque Centrale des Etats de l'Afrique de l'Ouest (BCEAO) which includes Bénin, Burkina Faso, Côte d'Ivoire, Guinea Bissau, Mali, Niger, Sénégal and Togo. The second is the Banque des Etats de l'Afrique Centrale (BEAC), which comprises Cameroun, Congo, Gabon, Guinée Equatoriale, the République Centre-Africaine and Tchad. These two central banks have signed arrangements with the French government.

The last possible arrangement consists in having as many national central banks as there are members in the monetary union. Each central bank would then follow the appropriate monetary policy, consistent with the monetary agreement. This arrangement supposes an intense and continuous level of monetary and economic cooperation between the members of the monetary union. More precisely, it works as long as national central banks perceive that their national interest is best served by adopting cooperative behaviour. Except for currency boards, there are no contemporary examples of monetary unions with multiple national central banks following distinct monetary policies. However, in the nineteenth century, the Latin monetary union[5] and the Scandinavian monetary union were perfect examples of a monetary union with multiple national central banks. As we shall see, both unions collapsed when these independent central banks tried to follow their own monetary policy. The lack of success of this arrangement in the past explains its current lack of popularity.

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[5] The Latin Monetary union was comprised of France, Belgium, Switzerland, Italy and (later) Greece. It was an ambitious project to regulate exchange rates, based on a bimetallic standard during the period 1865-1920. However, the enforcement mechanism was very weak and this encouraged some central banks to over-issue silver currency (after the drop in the relative price of silver). These problems were compounded by the financial demands of the war. It effectively collapsed shortly thereafter; Flandreau (1993).

c / The level of economic integration between the union members

For this case, there are only two possibilities. The first is a great economic integration as in the EMU zone and the second, a small economic and political integration as in the CFA zone. In the first case most of the transaction of the union member countries is done among them but in the second one, a great part of the transactions between the union members countries is done outside the monetary zone. The issue of whether countries should increase their economic and political integration among themselves before joining a monetary zone or whether join the union to increase their economic and political integration has become topical in recent years. Several people probably think that the latter should be the case and the member countries of the West African Monetary Zone have chosen this option, to create the second zone in West Africa.

I 1 3 / Reasons why countries move into a Monetary union

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The reasons why countries move into a RCA are many. Barry Eichengreen (1990) identified them to include among others: the reduction in exchange risk, the equalization of interest rates, the decline in relative price variability and general increase in economic efficiency likely to accompany unification. We can also add the expansion of aggregate investment, the improvement of resource allocation, the increase of domestic savings; the enhancement of financial intermediation and greater international trade; Agu (1992).

This is not to suggest that there would be no costs to participating countries. These costs would stem basically from the constraints such integration may impose on the pursuit of their own national financial, monetary and exchange rate policies. However, the question is whether countries with highly protected economies will find the inevitable costs of economic, monetary and financial integration acceptable. As noted by Ojo, (1986), while the potential benefits from such integration generally take considerable time to be realised, the costs are immediate. Similarly, in the short-term, these benefits will not accrue to all participants in equal measure within the same time frame, although in the long-run, the benefits will be spread more evenly, Dadzie,(1990). These in part explain why members of various trade groupings in the developing countries and indeed in the industrialised world, have been unwilling to move toward monetary and financial integration.

I 2 / General criteria and requirements to set up a monetary zone

Since the seminal contributions by Robert Mundell (1961) and Ronald NcKinnon (1963), the economic literature has become accustomed to assessing the sustainability of RCAs in term of their distance from OCAs. These are defined as groups of countries which may optimally share the same currency (or irrevocable peg) because they fulfil a set of criteria or properties acting as prerequisites.

From the well known theoretical conditions singled out by Mundell and other pioneers of OCA theory, such as a high degree of bilateral economic openness, a significant mobility of factors, and price and wage flexibility as an alternative to exchange rate variability, the list of OCA criteria has of course evolved over time. It has been enriched to the point that it had become more and more difficult to rank the proposed criteria by priority and use them for the practical assessment of RCAs.

Following this, Frankel (1999) proposed in particular to focus on two key indicators for deciding whether or not to adopt a single currency: the degree of trade integration among members of the area and the correlation of business cycles between them. Both are aimed at ensuring a low probability of asymmetric output shocks. Of course these conditions should not be exclusive of others, notably labour mobility and the existence of some risk-sharing devices, such as a common budget or integrated financial markets, between members of the area.

I 2 1 / The degree of trade integration among members of the area and the correlation of business cycles between them

Countries that are highly integrated with each other, with respect to international trade in goods and services, are more likely to constitute an **optimum currency area**. Openness is one criterion for membership in an OCA since greater trade leads to greater savings in the transactions costs and risks associated with different currencies, as already noted.

Of course, openness is not the only criterion for membership in a common **currency area**.

Ever since Mundell (1961) it has been appreciated that the more highly correlated the business cycles are across member countries, the more appropriate a common **currency**. We think of countries with correlated business cycles as countries with propagation mechanisms (which themselves may reflect the structure of international trade), which transform (possibly correlated) Further, the high marginal propensity to import associated with an open economy reduces output variability and country-specific shocks into internationally co-ordinated business cycles.

In fact, the prevalence of asymmetric shocks affecting countries participating in an RCA should be a major concern for area-wide and national policymakers, since it could threaten the sustainability of the monetary union itself. In the face of an adverse asymmetric shock, the former policy tool of a devaluation is of course not available any more. Besides, as stressed by the consensus among economists, and in line with the Tinbergen rule of "one objective-one instrument", the single monetary policy is committed to maintaining price stability. If it tried to fine-tune the level of economic activity, this would prove inefficient in the medium run since it would undermine the credibility of the monetary authorities and result in inflation premia for all participating countries. For an adversely and asymmetrically shocked country, the advantages of joining the union in terms of monetary efficiency (reduction of transaction costs, benefits of credibility, lower long-term inflation rate,) could be offset by the costs in terms of output stabilisation and unemployment.

Since the OCA **criteria** are *jointly endogenous*. More integration can be expected to lead to more trade; and more international trade will result in more highly correlated the need for domestic monetary policy, since openness acts as an automatic stabilizer.

I 2 2 / Other important criterion

a / Monetary and financial integration

Monetary integration entails fixed exchange rate and convertibility of the currencies involved. Also there are seigniorage gains from a common currency, especially if trade improves with economic integration.

Besides the formulation of a single monetary policy for the whole area, the efficient coordination of fiscal (and structural) policies, which are still defined at the national level, is crucial to the success of an RCA. The academic literature on optimum currency areas (OCAs) emphasises the difficulty of coping with asymmetric shocks that may hit some of the participating countries, at a time when monetary policy autonomy has been relinquished at the national level.

• *Financial stability issues : RCAs and systemic risks*

The creation of a new currency union requires that a series of technical issues have been properly addressed in order for the various sources of systemic risk to remain under control and for the central bank to maintain the financial stability of the whole area.

Firstly, it is worth recalling that the goal of financial stability is closely link to the achievement of price stability. If a systemic shock spreads within the financial system, the transmission mechanisms of monetary policy are unable to function effectively. Commonly expected consequences of a systemic shock are excessive interest rate volatility and a surge in risk aversion. Excessive interest rate volatility blurs monetary policy signals, while a surge in risk aversion goes along with shrinking liquidity, and affects the real economy through a wide array of channels.

It goes without saying that any central bank feels concerned with these issues. Yet, they have special importance for an RCA.

I   The gradual creation and entry into existence of an RCA may accelerate the consolidation of the banking sector and financial markets.

II   While a fully integrated money market is the cornerstone of a regional currency union, it does not necessitate a single financial centre or a unified set of legal or regulatory provisions governing the activity of the financial sector. Indeed, persisting differences in financial systems, as well as the coexistence of several financial centres, should be regarded as a benefit. They sustain competition, innovation, diversity of behaviour, and proximity – both geographical and cultural – thereby extending the benefits of monetary union beyond the achievement of price stability to the overall efficiency of the financing of the economy. However, systemic shocks arising from defaults in the financial sector may also occur in an RCA. On the one hand, such shocks are likely to be better absorbed in an RCA thanks to deeper and more liquid financial markets; on the other, the full integration of the money

market and the increase in cross-border flows may magnify spill over effects from one financial centre for another.

- *Financial market integration*

Financial market integration was identified very early in the academic literature on OCAs as an important factor that may contribute in the long run to the success of an RCA. Financial integration helps to reduce the need for exchange rate adjustments insofar as, for instance, it makes it possible to cushion temporary adverse disturbances through capital inflows. Mckinnon (2001) reformulated this statement more recently, positing that countries sharing a single currency can dampen the effects of asymmetric shocks among them through adjustments in their wealth portfolio that result in a diversification of their income sources. Private financial markets, as well as common fiscal instruments, may thus provide a kind of insurance provision against asymmetric adverse shocks that would otherwise endanger the integrity of the RCA.

Conversely, the creation of an RCA and the consequent removal of exchange rate risk between the residents of different participating countries provide an obvious incentive for a rapid and deep integration of the various domestic financial markets. Integrated markets at the level of the RCA permit debtors to broaden their investor basis and reduce their issuance costs, while investors may benefit from more liquid, deep and complete market segments.

However, two main factors might impede this self-reinforcing process of market integration and RCA consolidation.

Firstly, the speed of the integration process is very likely to differ from one segment to another: The money market may integrate rapidly, while the integration of longer-term securities and equities might hinge on the speed of legal harmonisation, such as for instance the full harmonisation of repo markets.

Secondly, the process of financial market integration may well enhance the efficiency of financial market in the RCA, but it may at the same time translate into more risks of contagion of local shocks across the whole area. Such risks can nevertheless be addressed properly in the context of an RCA, thanks to the adversity of market participants and the enhanced resilience of market liquidity in the face of adverse shocks.

The creation of an economic and monetary union, featuring a single currency is a complex task, politically and technically, that requires a high degree of convergence of economic policies and performance. This means that if an agreed ERM is implemented, member countries would have to embark on meeting various economic criteria geared towards greater convergence of economic policies.

I 3 / Example of monetary zones (EMU and CFA zone)

European Monetary Union and the CFA franc zone are two different monetary zones. The first one is located in Europe and the second one in Africa precisely in West Africa for the WAEMU and in central Africa for CAEMC.

These two zones get similarities and differences. One of the major similarities is the progressive deepening and widening of regional integration. A major difference lies in the reverse order of integration: from economic integration to monetary union in the European union, vice versa in the CFA franc zone.

A brief chronology of the whole process of the creation of these two monetary zones is given below. But before that let us see how they are structured.

I 3 1 The European case

The European Monetary Union, the Euro zone, is composed of Germany, Belgium, France, Italy, Luxembourg, Pays Bas, Ireland, Greece, Spain, Portugal, Autriche, and Finland.

a/ The currency

The currency used in this area is the euro since the 1st January 1999. Today[6] the value of the euro against the dollar is 1 euro = 1.281 dollar. We have to notice that. The transition time to withdraw the national currencies was from 1999 to 2002. Hence for the twelve countries there is only one currency today, the euro.

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[6] february the 20th 2004: changes from citinews

b/ The central Bank

The central Bank of the EMU is the **European System of Central Banks (ECSB)**. It is composed of the **European Central Bank (ECB)** and the national central banks (NCBs) of all 15 EU[7] Member States. The **"Eurosystem"** is the term used to refer to the ECB and the NCBs of the Member States which have adopted the euro. The NCBs of the Member States which do not participate in the euro area, however, are members of the ESCB with a special status – while they are allowed to conduct their respective national monetary policies, they do not take part in the decision-making with regard to the single monetary policy for the euro area and the implementation of such decisions. In accordance with the Treaty establishing the European Community and the Statute of the European System of Central Banks and of the European Central Bank, the primary objective of the Eurosystem is to maintain price stability. Without prejudice to this objective, the Eurosystem shall support the general economic policies in the Community and act in accordance with the principles of an open market economy.

c/ The level of economic integration between the union members

There is a great level of economic integration between the union members. In fact before moving to a monetary union the member countries have started with an economic community: the European community.

So now with the monetary union there is, added to the economic integration, a progressive deepening and widening of regional integration.

d/ A brief chronology of European economic and monetary union[8]

1951: Treaty of Paris: *integration of coal and steel markets*; establishment of federal institutions (parliament, high court and the precursor of the commission)

1958: Treaty of Rome: *integration of all goods markets, creation of customs union*; strengthening of institutions; **creation of the Monetary Committee; obligation to consider exchange rate policies as a matter of common concern.**

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[7] We have to add to the EMU: Sweden, Great Britain, Denmark
[8] Economic developments are shown in *italics* and monetary developments in **bold**

1964: **Creation of the committee of governors** of the central banks of the European Economic Community.

1971: Adoption of **Werner Plan** fixing the objective of EMU for 1980 (a deadline later abandoned due to the differing reaction of member states to the oil shocks and the collapse of the Breton Woods system)

1972: "**Snake**" agreement limiting intra-EEC exchange rate fluctuations.

1973: Creation of the **European Monetary Co-operation Fund.**

1979: Creation of the **European Monetary System**

1987: Single Act: *objective of single market* (goods, capital, services by 1993, further strengthening of institutions.

1989: *Delors report on EMU approved*

1990: Beginning of "*first stage of EMU*": strengthened economic coordination, *increased* cooperation between central banks.

1992: Maastricht Treaty: widening of EU competencies, **objective of single currency by 1997 or 1999**, further strengthening of institutions

1993: Single market achieved

1994: *Second stage of EMI* : the **European Monetary institute**, precursor of the ECB, replaces the committee of governors

1997: Amsterdam Treaty: further strengthening of institutions

1997: Adoption of the *growth and stability Pact* (implementation to Treaty obligations an fiscal coordination)

1998: Selection of the *first 11 countries* to join the euro area according to Maastricht criteria

1999: *Third stage (fully fledged) of EMU*: creation of the euro, irrevocable fixing of parities, entry into function of the ECB / Eurosystem

2000: *Common strategy for employment and structural reforms*

2000: Treaty of Nice : further strengthening of institutions, adjustments in preparation for further enlargement

2001: Greece becomes *12th member of EMU* after having met the criteria

2002: **Introduction of the euro banknotes and coins, withdrawal of national banknotes and coins.**

NB. Alongside these developments leading to deepening of the integration process, the European Union was gradually enlarged from six countries (1951) to nine (1973), to twelve (1986) and finally to fifteen (1995).

e/ The fulfilment of OCA criteria

Until recent years, a common assertion by some economists was that Europe was a too heterogeneous geographical area to form a well functioning monetary area. Labour mobility within the euro area is indeed usually described as low and european labour markets as more rigid than, for example, that of the United States.

Yet the case for the sustainability of EMU in the long run is supported by the evidence of a high degree of trade integration among participating economies, the diversification in consumption and production of those economies and the achievement of a long nominal convergence process. Also, the correlation of business cycles in the euro area does not seem to be significantly inferior to the corresponding correlation between regions of the USA, as pointed out by Mihov (2001). This holds even though the observed long-run real convergence process between European economies, as measured by the series of intra-area standard deviations of annual output growth rates, has tended to slow since 1997; Jaillet and Pfister (2002).

I 3 2 / The CFA franc zone

The CFA franc zone is divided into 2 zones, which are the West African Economic and Monetary Union (WAEMU), and the Central African Economic and Monetary Community (CAEMC).

The WAEMU is composed of 8 countries which are: Benin, Burkina Faso, Guinea Bissau (since 1997), Côte d'Ivoire, Mali, Niger, Senegal and Togo, and the CAEMC is composed of 6 countries: Cameroon, the Central African Republic, Chad, Congo, Equatorial Guinea (since 1985) and Gabon. So the whole CFA franc zone is composed by 14 countries through Africa.

a/ The currency

The currency used is the CFA franc, which means "Communauté Financière Africaine", for the WAEMU, and "Cooperation Financière en Afrique Centrale" for the CAEMC.

The CFA franc is pegged to the euro now with 1 euro = 655.957 CFA francs.

The bank notes in these two zones are different but have the same face value. That means a note for instance of 500 F CFA in WAEMU is equivalent to a note of 500F CFA in CAEMC. So for the whole zone we can say that there is only one currency the CFA franc that is pegged to the Euro.

b/ The central bank

There is two central banks in charge of issuing the currency in the CFA zone: these are, the Central Bank of the West African States, (BCEAO in French) for WAEMU, and the Central Bank of the Central African States (BEAC in French) for the CAEMC.

In each sub-zone, there is the national central banks (NCBs) but they are not independent from the headquarter. They act as branches, implementing the decisions coming from the headquarter. Their mission is quite the same: to issue the different currencies and ensure price stability, to conduct the monetary policies that have to be implemented in the different member countries, and to secure the payment system and the activities of the banking system of the whole zone.

c/ The level of economic integration between the union members

Throughout the CFA franc zone the economic integration is not deep. But these last days some measure have been taken to strengthen the activities and improve regional integration.

d/ A brief chronology of the CFA franc zone

The colonial Period

1939: Creation of the CFA Franc zone

1945: Creation of the CFA franc, pegged at 0.02 French franc

1951: Creation of the Monetary Committee of the CFA franc zone: follow-up of the monetary relations and coordination with local central banks

Following independence

West African Economic and Monetary Union

1959: Creation of the BCEAO, in charge of issuing the franc de la Communauté Financière Africaine (or CFA franc), parity unchanged at 0.02 French franc

1962: Treaty establishing West African Monetary Union

1962: First monetary cooperation agreement between west African Monetary Union and France

1973: Treaty consolidating West African Monetary Union

1973: Cooperation agreement between the republic of France and the members of West African Monetary Union (currently in force)

1994: 50% devaluation of the CFA franc to 0.01 French franc

1994: Treaty establishing West African Economic and Monetary Union: deepening of economic integration

Central African Economic and Monetary Comity

1959: Creation of the BEAC, in charge of issuing the "Franc de la Cooperation Financière en Afrique Centrale" (or CFA franc), parity unchanged at 0.02 French franc

1972: Cooperation agreement between the Republic of France and the Member States of the BEAC (currently in force).

1994: 50% devaluation of the CFA franc to 0.01 French franc.

1994: Treaty establishing the Central African Economic and Monetary Community: deepening of economic integration.

The substitution of the euro for the French franc

1998: The European Union council decision of 23 November 1998 states that after the substitution of the euro for the French franc, France may continue its present agreement concerning exchange rate matters with the WAEMU and CAEMC

1999: The CFA franc is pegged to the euro (1 euro = 655.957 CFA francs).

e/ The fulfilment of OCA criteria

The CFA zone, as well as its two main sub-components, the two monetary unions of WAEMU for Western African States and CAEMC for Central African States, is clearly not OCAs in the full economic meaning of the term. In particular, in the absence of any national regional budget, member economies of each union are exposed to potential external asymmetric shocks, due to the effects of climatic conditions on agriculture, in particular in the sahelian countries.

Admittedly, labour mobility is relatively significant (the foreign population can be high – in Côte d'Ivoire it is 27%) and has benefited from recent reforms such as the introduction of regional passports. However, regional labour mobility remains hindered, inter alia, by poor transport infrastructures. Commercial integration remains low by EMU standards, even through official figures are likely to be underestimated, given the significant role of unofficial trade in these areas (official intraregional trade accounts for only 6% of total official trade in the CEMAC and around 12% in the WAEMU). Last, financial integration remains weak, as suggested for instance by the low share of international transactions in interbank relations.

As a conclusion we can say that these two monetary unions are not optimum in the full economic meaning but still exist and things are improving each day.

Chapter II : <u>INFLATION</u>

Inflation, has become a major concern for politicians and the public, and how to control it frequently dominates the discussion of economic policy. In this chapter we will see the definition of inflation and its causes.

II 1 / Definition

Inflation is defined by "le petit Larousse" dictionary as a situation which is characterised by a *continuing increase* in prices.

We can add to this first definition, this one[9]: Inflation is a *general rise in the overall price level*, resulting in a general fall in the purchasing power (value) of money.

These two definitions present some important words used by economists when talking about inflation: these are *continuing increase* and *general rise in the overall price level*.

So for most economists inflation is defined as a continuing and general rise in the overall price level.

This will be the definition used when talking about inflation in our work.

II 2 / Sources of inflation

Three principal causes are generally put forward to explain the inflation phenomenon. These are monetary inflation (the growth of money), inflation by costs (cost push inflation) and inflation by the demand (demand pull inflation). To these principal causes, we can add a fourth one, which is expectation driven inflation.

### II 2 1 / Monetary inflation: the growth of Money

According to Milton Friedman, "inflation is always and everywhere a monetary phenomenon". He postulates that the source of all inflation episodes is a high growth rate of

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[9] The Monetary and financial system Goacher David (page 10)

the money supply. The evidence for Friedman's statement is straightforward. Whenever a country's inflation rate is extremely high for a sustained period of time, its rate of money supply growth is also extremely high.

To have an evidence of that, let's take eight countries: United States, Germany, Israel, Argentina, Uruguay, Italy, Switzerland and Peru, and analyse the average inflation rate (the rate of change of the price level, usually measured as a percentage change per year) over the ten year period 1986-1996 against the average rate of money growth over the same period as shown in figure 1.

Figure 1 : Average Inflation rate versus average rate of Money growth for selected countries, 1986-1996
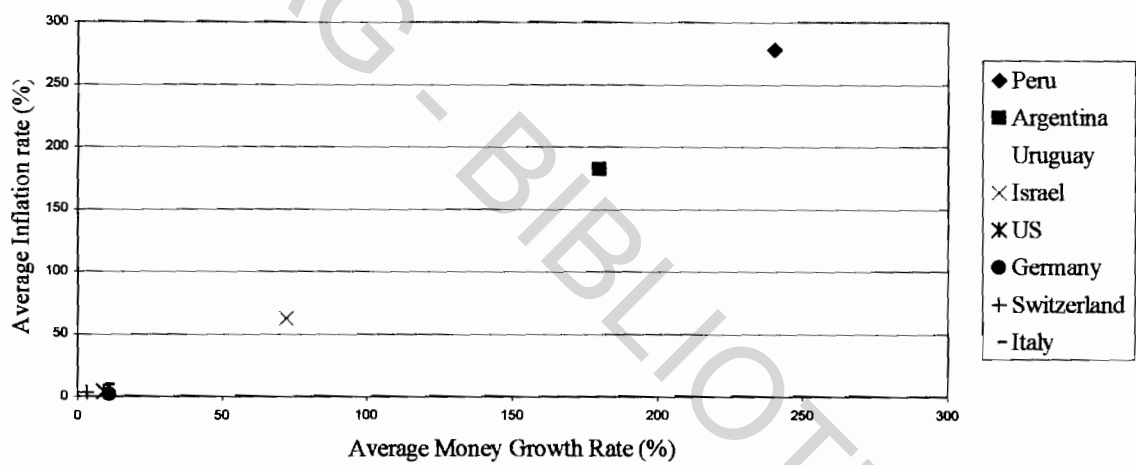
As we can see in figure 1, there is a positive association between inflation and the growth rate of the money supply: the countries with the highest inflation rates are also the ones with the highest money growth rates. Argentina and Peru, for example, experienced very high inflation and their rate of money growth were high. By contrast, Switzerland and Germany have had very low inflation rates over the same period, and their rates of money growth have been low.

Clearest exposition of this view have been made by an American economist Irving Fisher, in his influential book "The purchasing power of money", published in 1911. He has developed what is called the "quantity theory of money" which is an equation that makes a link between

the money supply (M), the velocity of the money (V)[10], the average price level (P) and the quantity of goods and services produced in the economy (Y). This equation is as followed:

$$MV = PY$$

Assuming V and Y are constant (in the short term, the velocity of money is quiet stable so is the production), we can express the above relationship as:

$$P = (V/Y)M$$
$$\Delta P = (V/Y)\Delta M$$
$$\Delta P/P = \Delta M/M$$

Thus establishing a link between inflation ($\Delta P/P$) and money supply growth ($\Delta M/M$). That's implies each variation (augmentation) in the money supply involved automatically a variation (augmentation) in the average price level, ceteris paribus.

But in reality **the relation between inflation and the growth of money is not as direct as shown by the equation.** The economy needs the long term to repercute the increase of money in prices. This equation only shows the mechanism under which the growth of money affects the level of prices.

The relationship between inflation and the growth of money can be reinforced by the Germany experience in the period after the first World War 1921-1923.

In 1921, the need to make reparations and reconstruct the economy after World War I caused the German government's expenditures greatly to exceed revenues. The government could have obtained revenues to cover these increased expenditures by raising taxes, but that solution was, as always, politically unpopular and would have taken much time to implement. The government could also have financed the expenditures by borrowing from the public, but the amount needed was far in excess of its capacity to borrow. There was only one route left: the printing press. The government could pay for its expenditures simply by printing more currency (increasing the money supply) and using it to make payments to the individuals and companies that were providing it with goods and services. In late 1921, the money supply

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[10] The velocity of the money is the relationship between the increase in GDP over a period of time and the initial change in the money supply. Technically speaking, it is found after the process has ended by dividing the cumulative increase in GDP by the initial increase in the money supply.

Similarly, we can compute the velocity of the total amount of money in the country by dividing total GDP (Not just the increase in it) by the total money supply. This gives us the average number of times each dollar turns over to buy goods and services during the year. In 1995, for example, with a GDP of 1;123 billion dollar during the year, the velocity of money was 7;246 divided by 1,123; or 6.5 times in purchasing goods and services during 1995.

began to increase rapidly, and so did the price level (the price index rise from 262 in Jan. 1919 to 126160000000000 in Dec. 1923)[11].

In 1923, the budgetary situation of the German government deteriorated even further. Early that year, the French invaded the Ruhr because Germany had failed to make its scheduled reparations payments. A general strike in the region then ensued to protest the French action, and the German government actively supported this "passive resistance" by making payments to striking workers. As a result, government expenditures climbed dramatically, and the government printed currency at an even faster rate to finance this spending. The result of this explosion in the money supply was that the price level blasted off, leading to an inflation rate for 1923 that exceeded 1 million percent!

Other examples worldwide can show the same phenomenon : Prices quadrupled in the revolutionary America between 1775 and 1780, when the continental Congress opened the printing presses and flowed the country with currency. In Hungary after World War II, it took 1.4 nonillion pengo in 1946 to buy what one pengo could purchase a few year earlier (one nonillion equals 1,000,000,000,000,000,000,000,000,000,000).   All these situations are related to the increase of money growth in the economy and show the relationship with inflation.

II 2 2 / Inflation by cost: cost-Push inflation

Cost-push inflation occurs when something like a sudden rise in the price of oil or increase in the cost of labour (or other inputs) lead to a sustained increase in costs facing firms. This will result in the shift of the aggregate supply curve to the inward. Cost-push inflation usually signals stagflation (stagnation of output plus inflation): prices rise even as incomes fall.
Stagflation is very troublesome for policy makers. Inflation and recession simultaneously confront them. If they choose to tackle the recession by increasing output, they have to increase aggregate demand. But this will cause prices to increase further, and worsen inflation. If, on the other hand, they choose to bring prices down and curb inflation, they can only do so by cutting demand and reducing aggregate demand. This will only cause the recession to worsen and cause aggregate income to shrink even further.

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[11] P R Krugman and M. Obstfeld (1994) page 606

In extreme cases, policy makers may resort to direct cost and price control, since these can help reduce inflation without reducing aggregate income. But these measures are politically unpopular, plus if the measures are used for too long they can generate inefficiency in production.

II 2 3 / Inflation by demand: Demand pull inflation

This is the sustained increase in prices brought about by an increase in aggregate demand. Aggregate demand may rise as a result of an increase in one or a combination of the following: government spending, consumer expenditure, planned investment spending or net export. The increase in aggregate demand causes prices to rise.

The extent of the demand pull inflation will depend on where the economy is operating: at low levels of aggregate income, increases in aggregate demand do not generate much inflation, but when the economy is booming and near full capacity, increases in aggregate demand will generate lots of inflation.

II 2 4 / Expectations-driven inflation

Once inflation starts, and continues for a while, it is very hard to control. This is because when firms expect prices to continue to rise, they will raise their prices in line with expectations, which will then create price increases as everyone does this. The inflationary-expectations then get built into the pricing decisions and will generate increased prices in itself. Thus, inflationary expectations become a self-fulfilling prophecy.

II 3 / Measure of inflation

There are two indices that are commonly used to measure the overall annual percentage change in prices throughout the economy: the **Consumer Price Index (CPI)** and the **GDP deflator**. The methods used to calculate these two indices are related but have some significant differences.

II 3 1 / The consumer Price index (CPI)

The national CPI measures pure price changes in consumer goods and services experienced over time by the total population of an economy by comparing the cost of a fixed basket of goods at one time with the cost of the exact or same basket at the reference base time.

Laspeyres[12] (1864) recommended the use of the base year basket, thus the CPI is defined as:

$$CPI \, (L) = \frac{\sum P1 \, Q0}{\sum P0 \, Q0}$$

It is calculated on the basis of a typical (base time) « basket of goods » based on a survey of consumer purchases (Q0). Pi is the aggregate price level (or CPI).

Paache (1874), however, suggested the use of current time basket. The CPI is as followed:

$$CPI \, (P) = \frac{\sum P1 \, Q1}{\sum P0 \, Q1}$$

And Fischer, proposed a combination of the two first one :

$$CPI \, (F) = \sqrt{CPI \, (L) * CPI \, (P)}$$

Having obtained the price index, two frequently used percentages (inflation measures) are those:

     a. the percentage change in the index between a given month and the preceding month;

     b. the percentage change in the index between a given month and the same month of the previous year

Then the formula is as followed:

$$((CPIt - CPIt\text{-}1)/ \, CPIt\text{-}1)*100 = \text{Inflation rate}$$

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[12] It is the same uses by Bank of Ghana

II 3 2 / The GDP deflator

The **GDP deflator** is a price index for the entire output of the economy, not just those goods and services bought by consumers. It is used to try to convert nominal GDP (which is relatively easy to estimate) to real GDP. The deflator is the ratio of nominal GDP to real GDP every year:

$$\text{Deflator} = 100 * \text{nominal GDP} / \text{real GDP}$$

To calculate **nominal** GDP for any year, add up the **current** year's quantities of all goods and services produced at the **current** year's prices.

$$\text{nominal GDP} = \Sigma[Q_{curr} * P_{curr}]$$

To calculate **real** GDP for any year, add up the **current** year's quantities of all goods and services produced at the **base** year's prices.

$$\text{real GDP} = \Sigma[Q_{curr} * P_{base}]$$

A one-line formula for the GDP deflator, using the same format as the formula for the CPI, would look like this:

$$\text{Deflator} = 100 * \Sigma[Q_{curr} * P_{curr}] / \Sigma[Q_{curr} * P_{base}]$$

Note that **the CPI is much easier to calculate than the GDP deflator**, because its denominator (the cost of the base bundle in the base year) does not change. With the GDP deflator, both nominal GDP and real GDP will change every year.

So for almost every economy it is the CPI, which is used to calculate the inflation rate.

II 3 3 / Concept of core inflation

Core inflation can be defined as a measure of inflation that aims to capture the permanent component of the inflationary process that can be influenced by monetary policy.

Today, policy makers and analysts agree on a fundamental concept: core inflation should be a good indicator of the underlying inflation trend. More specifically, a good measure of core inflation should provide as much information on the underlying trend as is possible from each month's CPI data. Moreover, core inflation should track the component of overall price change that is expected to persist for several years and therefore be useful for near-term and medium-term inflation forecasting (Blinder 1997; Bryan and Cecchetti1994).

A second, related concept on which many agree is that core inflation should capture just the component of price change that is common to items and exclude changes in the relative prices of goods and services. Over time, the prices of individual goods and services generally rise along with the underlying trend of prices in the economy. At any point of time, some item prices will rise at an above-trend rate, while others will increase at a below-trend rate or even fall. Such differences in rates of change reflect shifts in the relative prices of goods, which may be due to changes in relative demand or supply.

Chapter III : THE MONETARY ZONE AND INFLATION

III 1 / Inflation in a monetary zone

The similarity of premium inflation rates across countries has been suggested as an important criterion in the determination of an optimum currency area (see for example Fleming, 1971). The basic idea was that countries may have different Phillips curves or different inflation-employment targets, in which case a currency union, by imposing a unique level of inflation, would generate some social costs.

The time consistency approach to monetary policy (Barro and Gordon, 1983a, 1983b) argues that the Phillips curve is vertical and that inflation is mostly due to a game between wage setters and the central bank. Its extensions to open economies suggest another possible benefit from the participation in a currency union: "the advantage of tying one's hands" (Giavazzi Pagano, 1988). If the low inflation promises of the central bank of a traditionally high inflation country are not time consistent, this country could gain discipline and credibility by pegging its exchange rate to a low inflation currency. However, in a currency union, the level of inflation might not be the lowest among the preunion inflation levels of the member countries, in which case some countries would lose from their participation in the union.

Inflation can cause problems and its effects in a RCA are quite the same as the effects in a single country but sometimes more or less important according to the capacity of the zone to face it.

III 1 1 / Problem, caused by inflation

a/ The erosion of the real value of money

One of the major effect of inflation is the erosion of the real value of money and of the real value of financial assets that are denominated in money terms. Cash and certain other assets such as bank deposits that pay no interest are subject to the full eroding effect of inflation on

their real value. One of the problems of inflation is therefore that it undermines the ability of money to act as a store of value, one of the main function of money.

When extremely high rates of inflation (hyperinflation) are experienced, the destruction of the store-of-value function of money becomes so great that people refuse to hold money or to accept it as payment for goods and services, so that it also loses its function as a means of exchange. In these circumstances people revert to the use of barter. Even with quite moderate rate of inflation, however, attempts are made to economise all the volume of cash and non-interest-bearing assets, which leads to a lost of efficiency within the economic system.

b/ The raise of interest rate

Some compensation for the erosion of real purchasing power caused by inflation may be obtained from the payment of high interest, which is another problem. We all know that the interest rate is the principal means used by central banks to tackle with inflation. When inflation is expected to increase, the central bank must raise the prime rate to mop up money from the system and if it is expected to decrease, the central bank must drop the prime rate to inject money into the system with some consequences for economic agents.

Having different level of inflation rate into the monetary zone will lead to having different interest rate with all the consequences for the whole monetary policy; we mean increasing the difficulty of having one monetary policy in the whole zone.

c/ The redistribution of income

The major problem that inflation brings is therefore the redistribution of income and wealth from lenders to borrowers. This redistribution happens in arbitrary fashion without there being any decision to bring it about. There are also fewer problems associated with inflation, including:

- Uncertainty. Inflation introduces uncertainty since in the case of longer-term contracts that are expressed in money terms, the real return from any such contract will be affected by future rates of inflation which are, of course, unknown. The response may then be for people and business organisations to avoid longer-term contracts and to place emphasis on short-term returns, which may well lower the efficiency and growth rate of the economy.

- Inflation illusion. During periods of inflation, there is a tendency for people to think that real purchasing power is falling due to increases in prices, and to forget to consider what is happening to their incomes which, if wages or salaries, are almost invariably rising by a similar rate as inflation.

- Costs of changing prices. The costs of more-frequent changes in price lists of changing parking meters, payphones and so on, as a consequence of inflation are costs that may be substantial, particularly for certain industries

- Costs of learning prices. The presence of inflation will cause an individual knowledge of prices to become out-of-date very quickly. With frequent purchases this will not present a difficulty unless inflation is very rapid with infrequent purchases, however, and will have to devote time and effort to re-learning what the appropriate price for that product or service is by surveying the market

d/ Economic disequilibria

Another problem is that inflation diverts savings from productive investments to refuge value like buildings or foreign currencies that are more secure. It involves disequilibrium in the economic relation with other countries. In fact, the raise of prices decreases the competitiveness of national products on external markets and then, the possibilities of exportation, while external products made abroad becomes more competitive on national market, because cheaper, and see their demand increased. This situation leads to a deficit of the balance of trade, excess of importation over exportation, which must have as consequence, a reduction on the national foreign assets and can lead to a depreciation of the national currency.

These problems caused by inflation have ensured that inflation has been a cause of concern, and hence to government policies to combat it.

III 1 2 / Sources of inflation in monetary union

There are three sources of inflation divergence in a monetary union, with relatively little importance in terms of risks for overall price stability in the medium run.
First of all, a number of statistical factors, as well as unpredictable events, such as weather conditions or non-synchronised tax changes at national levels, may temporarily affect price

developments in participating countries – unprocessed food prices, for example- without significantly affecting the risks for aggregate price stability in the medium term for the whole zone.

More interestingly, the process of market integration is very likely to speed up the convergence of price levels of traded goods if these were initially different among member states. To the extent that individual prices seldom fall, however, a reduction in price differentials translates, in the transition period, into increased inflation differentials between countries.

Finally, besides this nominal convergence process, a real convergence process may account for a part of inflation differentials among countries participating in a RCA, whose initial living standards may be relatively heterogeneous. This is the so-called Balassa-Samuelson effect, which state that, under a set of standard assumptions, including the price of traded goods being set at the international level and cross-sectoral wage equalisation, intersectoral differentials in productivity growth between internally traded and non-traded goods and services imply a rise in the relative price of non-traded goods. This sectoral rise in prices usually leads to higher total inflation in the less developed economy and to an appreciation in the real exchange rate under a nominal exchange peg. In the long run, as the real catching-up process advances, the magnitude of the Balassa-Samuelson effect is expected to diminish in absolute terms in the RCA. However, the disinflation process may increase the relative importance of this effect.

III 2 / Means used by Central Banks to control inflation before their entrance in a monetary zone : case of the Bank of France

Nowadays the goal of nearly all the central banks is to ensure price stability. To this end inflation is one important criterion to control, above all, when countries want to integrate a monetary union. The case of the Bank of France is good looking at, when analysing the means used by central banks to control inflation before their entrance in a monetary zone.

First, we have to notice that the last ten years before moving into the euro zone, inflation has been brought down from about 9 percent to around 2 percent. The key in this process, which became a regular process year after year, was the increasing confidence in the efficiency of the process as inflation diminish each year.

During the disinflation process, called competitiveness disinflation, the Banque de France has based its monetary policy on two intermediate indicators. One indicator was domestic and based on monetary aggregates targeting, and the other was the participation in a multilateral exchange rate mechanism.

The formulation of its monetary policy was as followed. First, the monetary policy council of the Bank of France provided a target figure on inflation because they think doing so was important for anchoring expectations of economic agents. Measured consumer price index (CPI) must remain at or less than 2 percent. For the bank, that was the ultimate goal and it had been mentioned as part of the monetary policy. But the Banque de France didn't consider it as directly targeted.

To reach that ultimate goal it had two intermediate targets that had been formulated in the following fashion. They monitor the appropriate monetary aggregates, which in their case remains M3, even though it was highly volatile. They target a 5 percent growth for M3 in the medium run. This figure of 5 percent was based on an inflation rate of 2 percent or less and a GDP in volume terms of 2.5 to 3 percent. For the medium run, they also looked at other indicators such as M1, M2, and total domestic debt. In particular they considered domestic debt as an important additional indicator, which was, to their knowledge, also the case in the Fed's perspective. They believed that they must look over all these indicators. Nevertheless, they considered monetary aggregate targeting key in a medium-term perspective.

They also pursued a second intermediate target, which was a stable external value of the currency in relation to the most credible currencies in the exchange rate mechanism. Hence, a kind of over evaluation on the currency, led to import disinflation and led the enterprises to improve their competitiveness by keeping an eye on their productivity costs.

That is the way the Banque de France formulate its policy. And the result can be seen and appreciated, because the different criteria established for the EMU zone have been reached and precisely the criterion of 3% of inflation.

PART II

THE CASE OF GHANA AND THE WEST AFRICA SECOND MONETARY ZONE

Inflation is not a new phenomenon in Ghana. The country has been plagued by strong inflationary pressures during most part of his post-independence history, with inflation rising from under 2% in 1960 to 30% in 2003 going through 122% in 1985.

Now with the project of creating a second zone in west Africa, Ghana has the obligation of meeting eligibility criteria, among them is the single digit inflation rate. Before going through the history of inflation in Ghana, its causes and the policy measures used by Bank of Ghana (BoG), let us have a look at the project of the new second zone in West Africa.

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Chapter IV / PRESENTATION OF THE WEST AFRICAN SECOND MONETARY ZONE

Economic cooperation in West Africa dates back to the pre-independence era. During this period, various forms of currency arrangements existed between the countries of the region and their colonial masters. The Anglophone countries in West Africa, namely; The Gambia, Ghana, Nigeria and Sierra Leone operated under a currency board arrangement, with the West African Currency Board as the sole institution responsible for the issue and management of currency in the four countries. The Francophone countries – Côte d'Ivoire, Togo, Dahomey (Benin), Haute Volta (Burkina Faso), Mali, Niger, and Senegal – had similar arrangement with France. However, while the Anglophone arrangements were disbanded in the early sixties, after independence, the Francophone arrangements were transformed into monetary unions. The Union Monetaire Ouest Africaine was established for French speaking countries in West Africa in 1962, while the Communauté Economique et Monetaire de l'Afrique Centrale covered French speaking countries in Central Africa. Other more loose forms of preferential trade areas (PTAs), and monetary unions exist in other parts of Africa, most of them remnants of the colonial era groupings. Examples are the Common Monetary Area (CMA) of South Africa, the South African Customs Union (SACU), the East African Community (EAC) etc. Some of them have failed, while others only exist in name. A few are still active.

In this chapter, we'll present, the second West African Monetary Zone.

IV 1 / Background of the West Africa Monetary Zone

In 1975, the leaders of the 16 West African Countries[1] came together in Lagos, Nigeria, to form a regional organisation called the Economic Community of West African States. The main objective of ECOWAS as spelt out in its Treaty was to promote cooperation in all fields of economic activity including monetary and financial matters.

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[1] Mauritania withdrew from the ECOWAS in 1999, reducing the membership to 15 countries which are: Benin, Burkina Faso, Cap Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.

In search for the best framework for promoting monetary and financial cooperation among the member countries, the ECOWAS Monetary Cooperation Programme, (EMCP) was adopted in 1987. The objective of the EMCP was to establish a single ECOWAS monetary zone that will issue a common currency to replace the nine mostly inconvertible currencies existing in the region. As you may well know the CFA Franc, one of the ten national currencies in the sub-region, is used by eight ECOWAS countries.

Benin
Burkina Faso
Côte d'Ivoire
Guinea Bissau
Mali
Niger
Senegal
Togo
WAEMU
countries

Cap verde
Liberia
Observer

ECOWAS COUNTRIES
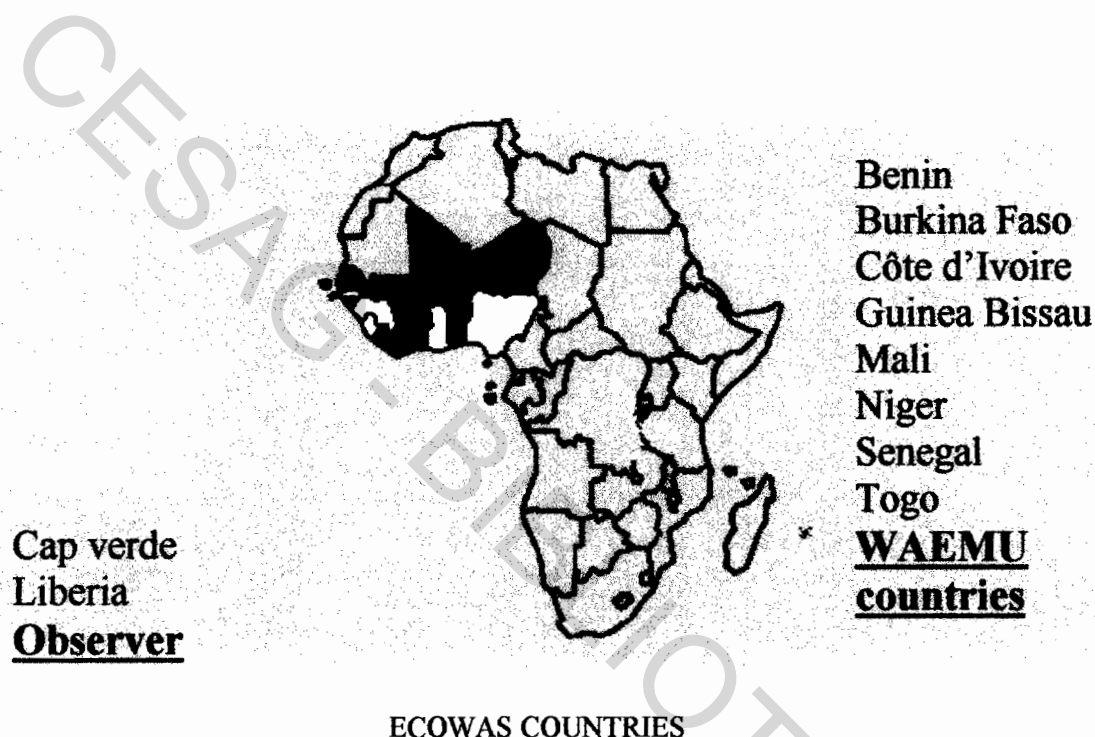
In spite of the efforts, not much concrete action happened and the long-term objective of the EMPC became elusive as the target date initially fixed for 1992 was shifted on two different occasions to 2000 and subsequently to 2004. A number of explanations have been given for the non-achievement of the objectives of the EMCP. Among them is the lack of leadership and political commitment to implement the policy measures under the programme. But perhaps much more important is the phenomenon of the existence of the parallel monetary arrangements in the sub-region.

Against this backdrop, the Authority of Heads of State and Government of ECOWAS at their meeting in Lome, Togo, in December 1999, decided that a two track approach to ECOWAS integration programmes be implemented to accelerate the integration process in the sub-region. The approach is to allow two implementing agreed integration programmes on a fast

region. The approach is to allow two implementing agreed integration programmes on a fast lane without being drawn back by those countries, which were not in the position to move along with them on the fast track.

Following the adoption of the fast track approach, Nigeria and Ghana agreed to work together on the fast track. The two countries were later joined by The Gambia, Guinea, and Sierra Leone and at a Ministerial Meeting held in Bamako, Mali, in January 2000 the five countries adopted a programme of action which culminated in the formation of the West African Monetary Zone (WAMZ) as a second Monetary Zone[2] ; the first being the CFA zone.

The rationale was that it was unrealistic to expect the CFA Franc, a regional convertible currency with its external anchor to be treated the same way as the other eight national currencies as envisaged under the EMPC. Rather, the other countries with independent national currencies should come together to form a Second Monetary Zone in the sub-region, which would make it easier to merge the two zones instead of merging nine different currencies at the same time, in accordance with the provisions of the EMPC. Thus, the concept of a Second Monetary Zone was designed to put the non-CFA Franc countries on the same platform as their counterparts in the CFA Franc Zone in any future negotiations on a common ECOWAS currency.

Member countries of the WAMZ (Ghana, The Gambia, Guinea, Nigeria and Sierra Leone) agreed to the establishment of a common central bank called the West African central Bank, (WACB), which would issue a common currency for the zone. An interim institution, the West African Monetary Institute (WAMI) was set up in January 2001, to prepare member states for monetary union and also to undertake all preparatory activities leading to the establishment of the WACB.

The action plan for the establishment of the WAMZ was to be implemented in stages with the harmonization of macroeconomic policies through the compliance with the convergence indicators, to the operationalisation of an exchange rate mechanism, culminating in the final phase in January 2003 with the introduction of the common currency. It was envisaged that subsequently the WAMZ would be merged with the West African Economic and Monetary Union[3] to form a single monetary area in the ECOWAS sub-region in 2004. However, due to difficulties encountered by member states in meeting the convergence criteria by the 2002

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[2] WAMZ is composed of Ghana, The Gambia, Guinea, Nigeria and Sierra Leone.
[3] WAEMU or UEMOA its French acronym

deadline for the start of the union in January 2003, the WAMZ programme was shifted forward for another two and half years (July 2005) to allow more time for countries to put their house in order.

IV 2 / Convergence criteria

In preparation for the introduction of a common currency for the zone, member countries have committed themselves to the implementation of policies that will enable them to achieve a high degree of economic convergence, while putting in place the institutional and legal frameworks for conducting a single monetary policy. Accordingly, primary and secondary convergence criteria were designed as follows:

IV 2 1 / Primary criteria

1. Single digit inflation rate by 2000 and 5% by 2003
2. Budget deficit (excluding grants) to GDP ratio of not more than 5% by 2000 and 4% by 2002
3. Central bank financing of budget deficit to be limited to 10% of previous year's tax revenue; and
4. gross external reserves to cover at least three months of imports by end-2002.

IV 2 2 / Secondary criteria

1. Prohibition of new domestic debt arrears and liquidation of existing arrears;
2. tax revenue to GDP ratio to be equal to or more than 20%;
3. wage bill to total revenue ratio to be equal to or less than 35%;
4. public investment to tax revenue ratio to be equal to or more than 20%;
5. maintenance of real exchange rate stability in the context of an exchange rate mechanism; and ;
6. maintenance of positive real interest rates.

4   The West African Central Bank (WACB), when established, would be the common Central Bank of the zone, while the existing National Central Banks will be national branches of the WACB; and

5   WAMZ Stabilization and cooperation Fund (SCF) to provide financial assistance to member states that may experience temporary disequilibria in their balance of payments.

IV 3 / Inflation situation in the WAMZ countries

IV 3 1 / Criterion on single digit inflation rate

The figure 2 below, presents a general progress towards inflation convergence during the period 2000-2002.

Figure 2:   End Period Inflation Rate in the WAMZ
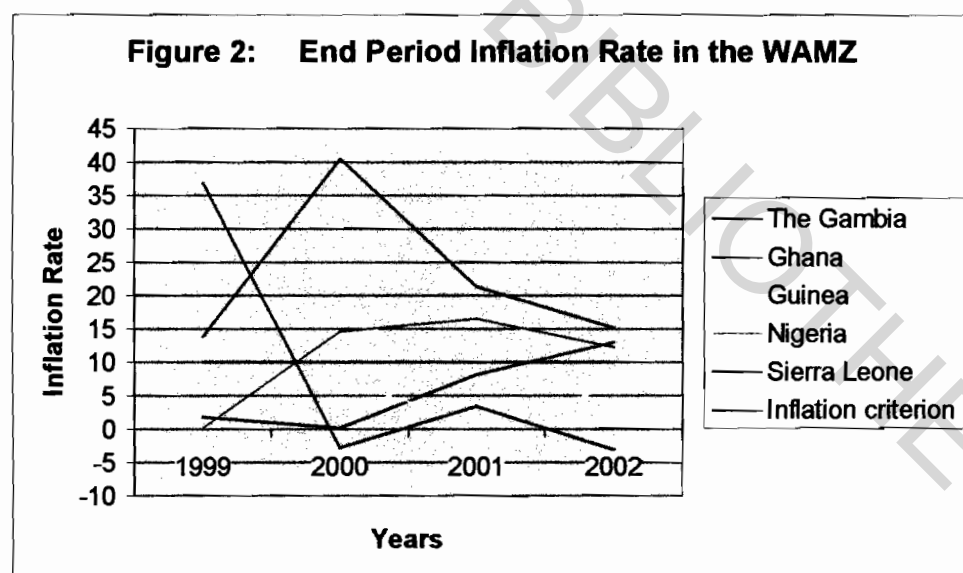
We can notice that, Nigeria and precisely Ghana, are grappling with the criterion of single digit inflation. In particular, Nigeria maintained an upward trend between 2000 and 2001 moving from 14.5 percent to 16.4 percent before declining to 12.2 percent in 2002. In the case of Ghana, although the inflation rate was higher than the WAMZ target, the trend has been declining. It followed a downward trend from 40.2 percent in 2000 to 21.3 percent in 2001 and down to 15.2 percent in 2002 (it rises again to 30% in early 2003).

A more dramatic and not too encouraging trend is that of the Gambia which sustained the single digit target in 2000 and 2001, but slipped in 2002 when a 13 percent inflation rate was recorded. The Gambian authorities would need to take appropriate policy actions to ensure a reversal of the trend. Guinea maintained single digit inflation through out the period 2000-2002, but the development in 2002 indicated a rising trend, which is likely to spill over to 2003 and thus present a risk of this performance being sustained. Sierra Leone continued to meet the single digit target but with negative inflation rate. Although external shocks in the form of a rise in the prices of petroleum products as well as domestic structural conditions such as poor weather explained these outcomes, government fiscal operations accounted for most of the price movements in the zone.

Chapter V : INFLATION IN GHANA

V 1 / History of inflation in Ghana

Inflationary pressures emerged not long after independence amid the buoyant fiscal activity in support of the rather ambitious industrialisation and development effort. Because investments were, however, concentrated on social overhead capital schemes with long gestation periods, economic growth did not keep pace with the boom in aggregate demand.

figure 3 : YEARLY INFLATION IN GHANA SINCE 1960
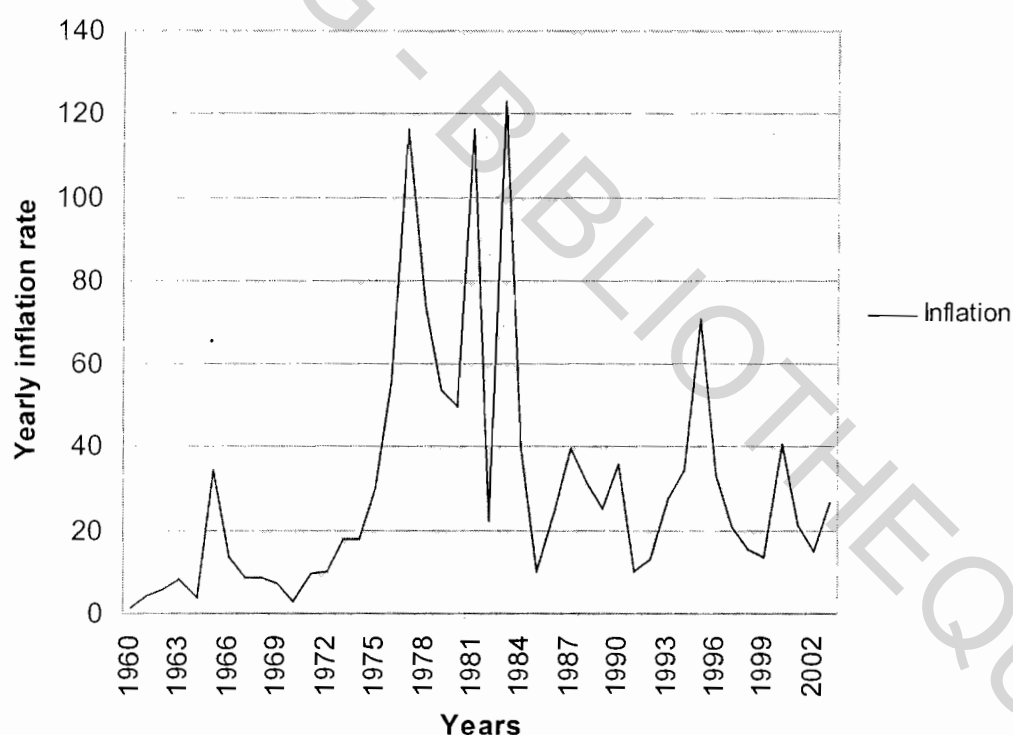
Initially budgetary over-runs could be financed from accumulated external reserves. But as these reserves got depleted, it became inevitable to resort to borrowing from the banking system and levying of import duties, with strong inflationary consequences.

In fact, by 1965, inflationary had risen to as high as 35% from under 2% in 1960 (figure 3).

In 1966, the new government took measures to lower the high tempo of the economic activity. The phase of rapid fiscal growth and excessive resort to deficit financing was curtailed. This had a soothing effect on inflation (from 34.6% in 1965 to 13.8% in 1966). The measures were implemented in the context of an IMF-sponsored stabilisation programme. Economic stability was achieved, but at the cost of growth in the face of curtailment of credit expansion and cuts in investment.

During 1969-71, as a result of significant growth coupled with trade liberalisation, the supply situation showed marked improvement. Meanwhile, government budgetary position improved with improved revenues. These developments combined to impart a moderating influence on the inflation situation (7.3 % in 1969 and 9.6 % in 1971).

The decade 1972-83, was characterised by economic inflation and stagnation. Economic management was generally characterised by expansionary fiscal policies and accommodating monetary expansion as widening budget deficits were financed from bank borrowing. To contain the resultant demand pressure, extensive controls were resorted to, leading to economic stagnation and severe shortage of goods. As a result inflation rate increase from 10.1 % in 1972 to 122.9 % in 1983 with two picks at 116.5 % in 1977 and 1981.

Meanwhile, there were strong cost elements fuelling the prevailing inflation. On one hand, incomes policy were very liberal in an attempt to compensate people for losses in real incomes due to the high inflation. Nominal wages rose sharply; so did producer prices. On the other hand in the face of acute shortage of goods, price hikes by monopolistic and oligopolistic firms and retailers became firmly entrenched.

1972-83 was, in the whole, a high inflation period, with an average annual price increase of more than 50%. A major problem of economic management during the period was deficit financing, which constituted the mainspring of monetary growth and inflation

After this period (since 1983), recognising the inherent harmful effects of the apparently intractable fiscal deficits, the government of the day made it the cornerstone of its policy to deal with the problem. Having adopted measures to streamline revenue administration, the government succeeded in reducing fiscal deficits. Since 1986, government made persistent surpluses on its operations and, as a result, was been able to make net repayments to the banking system from year to year.

Meanwhile, following marked economic growth coupled with trade liberalisation, the supply situation has generally improved. As a result, post-1983 inflation levels have been markedly down on the preceding decade (10.4 % in 1985 ; figure 3)

In 1995, the rapid rise in the rate of inflation (70,8 %) during the period was partly the result of excess liquidity in the economy caused by the spill-over of the increase in the producer prices of cocoa for the 1994 / 1995 cocoa season as well as rapid growth in credit: at the end of December 199credit grew to 432.5 billion cedis and this was 137.3 billion cedis or 46 % above the 1994 level. Broad money supply M2 which grew more than 46% in 1994 recorded another high growth of 37.4% in 1995 as against a programmed growth of 14% for the whole year.

The period 1997–2003, the period of our analysis, was marked by general downward and upward trends in inflation with inflation rate going from 20.8% in 1996 through 13.8% in 1999, 40.5% in 2000, 15% in 2002 to 30% in 2003. So why this volatility in Ghanaian inflation rate? What are the causes of this volatility?

V 2 / Causes of inflation in Ghana

V 2 1 / The growth of money

As Milton Friedman said "inflation is always and everywhere a monetary phenomenon", let's compare the evolution of the quantity of money in the economy to the evolution of the inflation rate since 1997. We have chosen The narrow money M1 which is composed of currency outside bank and demand deposits on year on year basis.

Figure 4 : INFLATION AND MONEY GROWTH, 1997-first quarter 2003
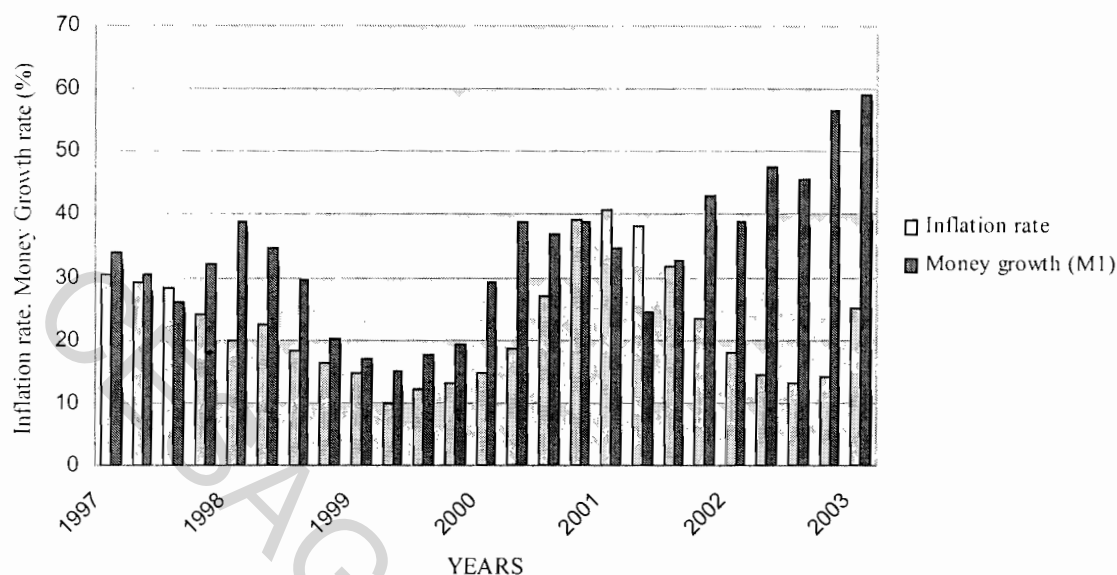
As we can see from the graph above, there was in this period a close correspondence between movement in the inflation rate and the monetary growth rate. But from the third quarter 2001 to the third quarter 2002, the quantity of money in circulation increased while the inflation was decreasing. After this period, the situation is reversed, and inflation rises again with the quantity of money M1.

Let us now analysed these two aggregates to see whether they are correlated.

The period 1997 – 2003 gave us a coefficient of 0.1243. This suggests that there is no correlation between these two aggregates. However the analysis of the figure above, led us to divide the period into two parts: the first one, from 1997 to 2001 and the second one, from 2001 to 2003.

The first period gave us a coefficient of 0.6650, and the second period a coefficient of – 0.5822.

So we can say that from 1997 to 2001, the inflation rate and the growth of money were highly correlated but from 2001 to 2003, they were inversely correlated. That's why we recorded a coefficient of 0.1243 through the period of our analysis.

This situation is in conformity with the different theories on inflation and the quantity of money. So apart from the period mentioned above (third quarter 2001 to 2003), we can attribute the phenomenon of inflation in Ghana to the increase in money growth. But the period third quarter 2001- 2003 suggests that there are other causes of inflation in Ghana that

we'll see in the following sections. For now the question we have to ask ourselves is: what is the underlying cause(s) of the increase of the rate of money growth in Ghana ?

a/ what is the underlying cause of the increase of the rate of money growth in Ghana ?

There are two possible sources of monetary growth. These are the credit to the economy and the net foreign asset.

In fact the quantity of money can increase in an economy if the central bank responsible for the issue of national currency inject money into the system or if there is an inflow of foreign currency into the economy. So let's have a look at these two aspects.

- ### *Credit to the economy*

There are three possible ways in which the central bank can provide credit to the economy. These are: credit to the government , credit to public institutions, and credit to the private sector.

When a central bank provides credit to a government it is generally a matter of budget deficit , that means an excess of government spending (G) over tax revenue (T). (i.e. G>T).

When it provides credit to the rest of the economy (public institutions, and credit to the private sector) that means the total investment (I) in this economy is more than the total saving (S). (i.e. I>S). Let us now have a look at Ghana's economy and the different credits to the economy by Bank of Ghana.
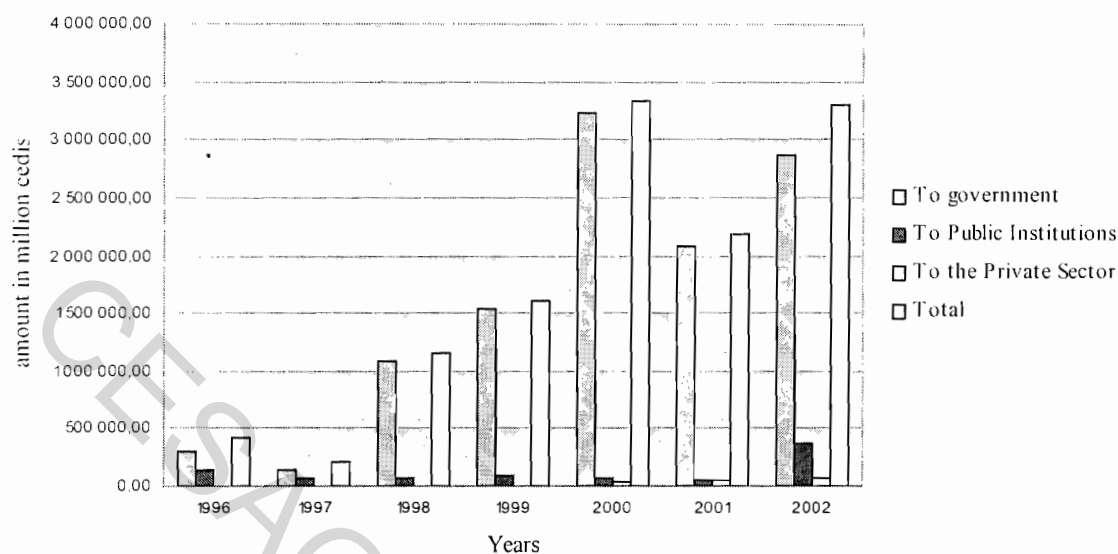
Figure 5 : Credit by Bank of Ghana

Figure 5 shows that from the three possible sources responsible for the increase in he money supply, the most important is credit to government with an amount of 2,867,000 million cedis in 2002. The others are relatively small 362,100 million cedis for credit to public institutions and 72,461.4 million cedis for credit to the public sector in the same year.

The figure suggests that Bank of Ghana inject a huge amount of money into the system through credit to the economy (with a coefficient of correlation of 0.6282 between the growth of money and credit to the economy) principally through government borrowing.

i   What is the cause of Government borrowing ?

The table below shows a glimpse on the government finances from 1997 to 2002 (the figures for 2003 are not yet available).

Table 1 :   Summary of Government Finances in Million cedis

years	1997	1998	1999	2000	2001	2002
Revenue	2 673 972	3 438 050	3 755 232	5 707 615	10 159 225	10 335 338
Payments	3 848 172	4 486 750	5 094 886	8 048 526	12 910 125	13 321 753
Deficit	**-1 174 200**	**-1 048 700**	**-1 339 654**	**-2 340 911**	**-2 750 900**	**-2 986 415**

As shown by table 1, from 1997 to 2002 there is a continually increase in the deficit of the government (from –1,174,200 million cedis to –2,986,415 million cedis respectively).

Budgetary deficit is the cause of government borrowing from Bank of Ghana, so one of the causes of the growth in the money supply and going of the inflation in Ghana.

<p align="center"><i>ii   What is the cause of the rest of the economy borrowing ?</i></p>

Concerning credit to the rest of the economy, it was observed that it was due to the imbalance between Investment and economic saving. The first place for economic agent to borrow is the secondary banks. When the central bank is solicited, that means all the banking system is otherflown and the quantity of money demanded is above the quantity of money that the secondary banks can lend.

The table 2 below, presents the proportion of money in circulation held by the Deposit Money Bank (secondary banks) and the proportion outside banks.

<p align="center">Table 2 : Currency in circulation</p>

year	cash held by DMB	Currency outside banks	currency in circulation
	%	%	%
1997	4.52	95.48	100.00
1998	4.88	95.12	100.00
1999	5.01	94.99	100.00
2000	4.33	95.67	100.00
2001	4.82	95.18	100.00
2002	4.67	95.33	100.00
2003	4.00	96.00	100.00

Table 2, shows that more than 95 % of the currency in circulation in Ghana is held outside the banking system. It is then difficult and risky for the deposit money bank to lend more than the cash they held especially if the different economic agent needs cash for transactions.

This situation occurs because of many factors. The first is the many coup that had happened in Ghana since independence. The different governments have put pressure on the banking system to control the amount in the different economic agents account in order to find out the "thieves" of the nation. So all the person with amounts above certain limit were asked to justify that including balances in their bank accounts. That led to a loss of confidence in the banking system resulting in people preference for keeping money at home rather than in the banks.

Another factor is inflation. As we saw in the history of inflation in Ghana, the country has been plagued by strong inflationary pressures, which remained high for the last three decades. For example with inflation rates around 116.5% in 1981, 122.9% in 1983 and 70.8% in 1995,

it was difficult for economic agents to place their salaries or money into the banking system, especially when interest rate for savings deposit were not high compare to the inflation rate (around 30%).

So the weakness of saving vis-à-vis investment was another source of the growth in money supply leading to high inflation in Ghana.

- *Net foreign asset (NFA)*

NFA is the total asset with the banking system after the different inflow and outflow of foreign asset have been made. It is composed of the foreign assets with the banking system (Bank of Ghana, and Deposit Money Banks) and the use of fund credit[16]. When NFA increases through foreign resource infusions, the monetary base enlarges, forming a basic for multiple expansion of the money supply.

When analysing Ghana's net foreign asset (NFA), we have to look at the different data of the Revaluation Account (RVA) which embodies exchange losses resulting from exchange rate depreciation, including losses incurred by Bank of Ghana following revaluation of various payment arrears. The figure 6 below presents the evolution of these two variables:

Figure 6 : EVOLUTION OF THE NFA AND RVA SINCE 1996

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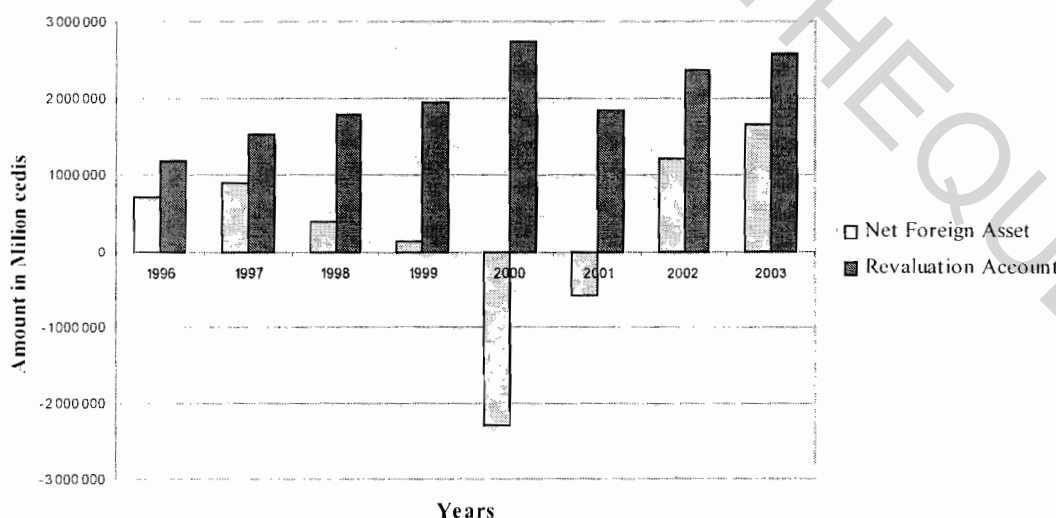
[16] It is the wording of an account when talking about Net Foreign Asset

The figure 6 shows a decrease in the NFA throughout the period but from 2001 to 2003 the situation improved. The decrease in NFA indicates that it cannot be a basis for multiple expansion of the monetary base and hence money supply from 1996 to 2001. The figures show a coefficient of correlation of –0.4668.

But after this period (2002-2003), NFA rises to 1,661,869 millions cedis in 2003, and can be the cause of inflation raise. The coefficient of correlation is almost equal to 1.

In reverse, RVA increased from 1,200,276 million cedis in 1996 to 2,738,123 million cedis in 2000, and mark a slight downward trend in 2001 before rising again in 2002 and 2003. The coefficient of correlation through the period of our analysis is 0,59781074.

Although revaluations of various payment arrears are Government liability, they were capitalised and treated as a "pseudo-asset" of the BOG. RVA effectively then amounts to giving some form of credit to Government, although it does not involve actual transfer of funds. The outstanding RVA therefore amounts to a 'long –term government debt' which, by implication, has a potentially expansionary effect on monetary growth..

Alternatively, one can view RVA as reflecting BOG indirectly issuing money to repay government foreign liabilities, with the same potential consequences for monetary expansion. So the decrease observed in the NFA is due to the continuous increase in the RVA. From 2000, the quantity of NFA increased more rapidly than the evolution of the RVA. That's why had the NFA increases throughout the last three years (2001, 2002, 2003).

It is clear that RVA constitute another source of monetary expansion.

To sum up, we can say that the first cause of inflation in Ghana is the continually increase of money growth. This increase has two principal sources. The first one is the credit to the economy due to an excess of government spending other tax revenue (G>T), and also an excess of Investment other the total saving of the economy (I>S). The second one is due in most part to the revaluation account (RVA) which embodies exchange rate losses resulting from exchange rate depreciation, including losses incurred by Bank of Ghana following revaluation of various payment arrears.

According to the figure 4 above and precisely to the period 2001 –2003, we have noticed that the increase in the growth of money is not the only cause of inflation in Ghana. Other causes can be presented to explain inflation in Ghana. These are:

V 2 2 / Imported inflation: exchange rate factor

An increase in the inflation rate can also be viewed through the exchange rate. It is claimed that increase in the money supply is generally followed by a depreciation of the national currency against the other foreign currencies. Now that we notice that the quantity of money has increased, let us analyse the evolution of the exchange rate of the cedis against the major currency in trade, the US dollar.

Table 3 : Evolution of the exchange rate of the cedis against the US dollar

End of Period	Official exchange rate	Annual % change	% change over 1996
1996	1637,24		
1997	2050,29	25,23	25,23
1998	2314,15	12,87	41,35
1999	2647,28	14,40	61,69
2000	5321,68	101,02	225,04
2001	7112,84	33,66	334,44
2002	7869,16	10,63	380,64
2003[17]	8492,71	7,92	418,72

From 1996 to 2003, as shown in the table 3, the cedi witnessed massive depreciation. The official exchange rate rose from 1637,24 to the dollar in 1996 to 8492,71 in 2003. This implies that, over the period, the price of foreign exchange went up by a wide margin.

Now, Ghana is heavily dependent on imports for consumption and production as shown in the table below.

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[17] it is the first quarter of 2003

Table 4 : Balance of trade of Ghana since 1996 in million dollars

	1996	1997	1998	1999	2000	2001	2002
Marchandise Exports	1570.1	1489.9	2090.5		2005.5	1827.9	1063.7
Marchandise Imports	-1937	-3040.9	-2896.5	-3279.8	-2766.6	-2830.9	-2705
Trade balance	-366.9	-1551	-805.7	-1274.3	-830.3	-1003.9	-641.3

- The figures for 2003 are not yet available

Thus, the price of foreign exchange constitutes a major component of domestic pricing. An increase in these prices implies an increase in the domestic price. Hence the depreciation of the exchange rate is another cause of inflationary pressures in Ghana.

V 2 3 / Seasonality

Food forms the largest item of expenditure in a household consumption basket in Ghana. It therefore has a weight of nearly 51% in the Ghana's CPI basket of goods and services. Movements in food prices thus have a predominant impact on the general inflation in the country.

Food supply follows a seasonal trend -the peak period being July-December and the lean period January-June-. The national rate of inflation tends to follow trends in food supply, with inflation falling during the peak period and rising during the lean period. (see figure 7)

Figure 7 : Food and inflation
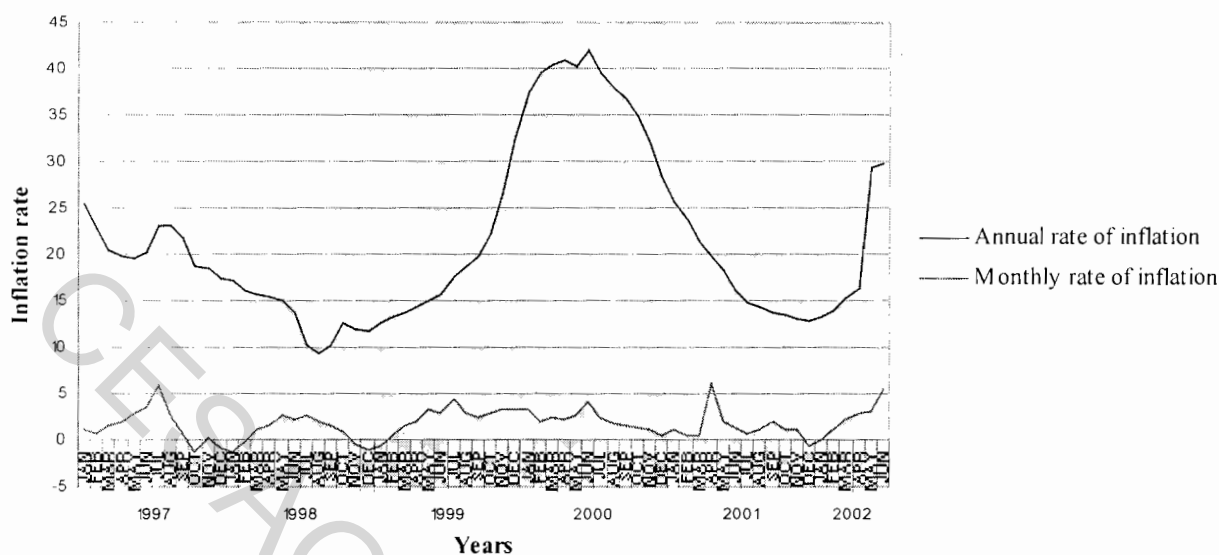
The growing size of the population, growing urbanisation and rising living standards combine to make increasing demands on food supply. Although food production has improved, Ghanaian economy still encounters shortfalls in domestic supply of food from time to time due to adverse natural forces, transport and marketing bottlenecks, and inadequate preservation facilities, among others. In the face of the policy of deregulated food prices, supply shortfalls are reflected freely in higher prices.

V 2 4 / Interest rate and credit factor

Through the years, the business community has expressed concern about the high levels of lending rates in Ghana. The variation in interest rate generally follows the trend in inflation. Hence as the inflation rate in Ghana is very high, so is the interest rates specially the lending rates. When interest rate (the lending one) is too high, the business community is obliged to repercute this rise in the different product prices, or to limit its investment, which implies a shortage in the supply of goods and services leading to, increases in prices.

So interest rate and credit are other factors, which contribute to the increase in inflation in Ghana.

V 2 5 / Inflation expectations factor

Another source of pressure on prices is inflation expectations. Ghanaians have been accustomed to a long period of inflation. Although inflation levels are lower now than previously, the fears and anxieties still linger on. The high costs of borrowing, the depreciating exchange rate, the irregular supply of many items, etc, combine to make people even more anxious about future price increases.

The result is to induce people to seek inflation hedges. The demand for real assets will rise; so will that for foreign currencies, etc. The effect, of course, is the monetary expansion. People will borrow (whenever they can) or divert away from legitimate uses or dis-save to be able to purchase their inflation-hedge assets. This will put enormous demand pressure on the economy, fuelling inflation.

V 3 / Action by Bank of Ghana to control inflation

Inflation, as we noticed in the precedent chapter, is not a new phenomenon in Ghana. Since independence, the different Governments have attempted to control it. Many reasons can be advanced to explain the lack of success, but what is certain is that governments have tried and keep trying to maintain and control inflation with all the adequate instruments.

V 3 1 /Bank of Ghana policy to control inflation from 1997 to 2000

From 1997 to 2000, the period before the decision of belonging to the WAMZ, the Bank of Ghana was not operationally independent.

The monetary policy for the whole period was to sustain the declining trend in the rate of inflation. To this end, the Bank of Ghana maintained its restrictive monetary policy stance started a few years earlier. The instruments that were used in this period were the bank rate and the reserve requirement. But other instruments were be added in the following years; a system of SWAP in 1997, and repurchase agreements in 1998.

The Bank of Ghana succeeded in its efforts to reduce to decrease inflation at the beginning of the period. But from the end of 1999, unfavourable external shocks and rising levels of fiscal

deficits led to a resurgence of inflationary pressure in the economy, undermined all the gains made.

Table 5 : Evolution of the inflation rate from 1997 to 2000

year	1997	1998	1999	2000
Inflation rate %	21	16	14	41

So the objective of monetary policy in year 2000 was to arrest the deterioration in the macroeconomic situation, especially the upsurge of inflation and the depreciation of the cedi.

a/ Analysis

When analysing Bank of Ghana policy, weaknesses in the banking system are observed. For example the non existence of the interbank market, and account held by the government with the commercial bank till 1997; some of the instruments used, and the reduction in the reserve requirement only because it has been decided to include in the reserve the foreign currency.

- *The weakness due to the introduction of new instruments*

The Ghanaian economy was in a kind of restructuration to have a sound policy and face inflation with more efficiency.

The government has started a new policy to stabilize its budgetary deficit (source of the growth in the money, as we saw). To this end it has during the year 1997, transferred all its accounts with the commercial banks to the central bank in order to manage its funds more efficiently. The year 1998 witnessed the commencement of the operation of a new book-entry system for treasury bills to improve the efficiency in tracking treasury bill issues.

The bank of Ghana also introduced new policy measures in order to improve the overall effectiveness of monetary policy. These included the redefinition of money supply to include foreign currency deposits.

In line with the new definition of money supply, a uniform reserve requirement was imposed on both the domestic and foreign currency deposits in 1997. At the same time, a new structure

of reserve requirements was introduced by reducing the primary reserve ratio from 10 per cent to 8 per cent and the secondary reserve ratio from 47 per cent to 35 per cent.

In order to accelerate the development of the secondary market in money market instruments, the Bank of Ghana closed its retail window to the public holdings of money market instruments to their respective bankers. The bank also introduced a system of SWAP arrangements involving the sale and purchase of foreign exchange with the banks. This was to help redistribute foreign exchange in the market and also to serve as a means of mopping up excess liquidity. In 1998 the Bank of Ghana introduced the repurchase agreements (repos). That was a new instrument for use by the central bank for liquidity management.

Its in this context of introduction of new instruments that in late 1999, the Ghanaian economy has been hurt by unfavourable external shocks.

• *The weakness due to some decisions*

In the period under review, the goal was to maintain the decrease in the inflation rate. That means pursue the tight policy that has been started few years ago. However, some of the policy actions produced adverse effects.

The year 1997 has seen the introduction of new measures like, the reduction in the reserve requirements. The primary reserve ratio was reduced from 10 per cent to 8 per cent and the secondary reserve ratio from 47 per cent to 35 per cent. The reserve ratio, being an indirect means of controlling the quantity of money in circulation, its decrease implies that secondary banks can give to their customer more credit and then, increase the quantity of money in circulation. The reason advanced to justify this increase, is the introduction of foreign currency into the reserve requirement. But what we know is that foreign currency in an economy, comes in addition to the total national money in circulation. So the ratio used to control the quantity of the national currency in circulation must be, at least in a first time, the same as the one controlling the foreign currency even if it means decreasing it after. But reducing this reserve ratio and implement in the same time a system of SWAP arrangements involving the sale and purchase of foreign exchange with the Banks is a means of increasing the quantity of money in circulation, and that was what happened in 1997. The monetary growth was higher than expected, due mainly to the increase in domestic credit and expansion in the net foreign asset of the banking system.

- *The weakness due to the structure of bank of Ghana*

By structure, we mean the independence of the Bank of Ghana. The Bank of Ghana was not independent. Experience has shown that the more independent a central bank is, the more efficient it is in the conduct of its monetary policy. All around the world, the great economies have their central banks to be independent. These include England, France, United States, Canada, Germany.

When a central bank like the Bank of Ghana is not independent, it is under the control of Government And generally it is the policy for electoral purposes that are privileged; we mean the short term, well the monetary policy need the long term to be efficient.

Another reason in favour of the independence of the central bank is that a central bank which is not independent is more often obliged to help the government when it has budgetary deficit, and that was what has happened in Ghana in late 1999. When facing unfavourable external shocks the bank was also obliged to finance rising levels of fiscal deficits (table 6).

Table 6 : BOG financing of the Budget deficit in million cedis

Years	1997	1998	1999	2000
Fiscal Deficits	(1,173,947)	(1,048,700)	(1,339,654)	(2,340,911)
BOG Financing	(162,500)	(357,000)	219,525	1,787,800

In conclusion, we can say that the Bank of Ghana was trying to implement new instrument for its policy, but unfavourable external shocks and its non independence vis-à-vis the government have weakened the system and undermined the whole process.

How Bank of Ghana is measuring its inflation rate?

b/ Measures of inflation

To measure its inflation rate, Bank of Ghana as the other countries all around the world, use the Consumer Price Index (CPI).
Let's see now the composition of the Ghanaian CPI basket.

- ## *The CPI basket*

The goods and services included in the CPI basket are those considered to be consumer items. They must be associated with a retail price. The retail price is the amount of money that a consumer must pay to purchase a specific quantity and quality of goods or services. Income taxes, for example, are excluded because it is impossible to associate a specific amount of tax paid with a specific quantity of services received.

"Luxuries" and "necessities" are not differentiated and nothing is omitted on the basis of moral or social judgement. Some people may regard the use of tobacco and alcohol as socially undesirable. However, these products are included in the CPI basket because they make up a notable proportion of the expenditures of Ghanaian families and individuals.

The goods and services in the CPI basket are organized according to a classification system. Every product in the basket has a unique place in the classification based on their end-use or the degree of substitution between them. Nine major classifications exist within the CPI Basket and indexes are computed for each major class.

Table 7: Classification within the CPI basket of Ghana

1.	Food & Beverages	52%
2.	Alcohol & Tobacco	4%
3.	Clothing & Footwear	10%
4.	Housing &Utilities	9%
5.	Household Goods, Operations & services	7%
6.	Medical Care & Health Expenses	4%
7.	Transport & communication	5%
8.	Recreation, Entertainment, Education & Cultural Services	5%
9.	Miscellaneous Goods & Services	3%

The derivation of the indexes combines categories to meet specific needs. Item 2 to 9 are combined to constitute non-food CPI; item 1 is taken as food & beverages CPI and the combination of all items give the combined CPI.

V 3 2 / Bank of Ghana policy after 2000

Hence, since the Ministerial Meeting held in Bamako, Mali, in January 2000 by the five member countries to form the West African Monetary Zone (WAMZ) and the creation of the West African Monetary Institute (WAMI) in January 2001, many changes have occurred in Bank of Ghana.

On Friday, 14th September 2001, the new Governor, Dr. Paul A. Acquah gave the new orientation of bank of Ghana as: "...The Bank of Ghana will be sharply focused on its core responsibility of delivering price stability. The Bank of Ghana therefore has to become: A Central Bank that is strongly averse to inflation risk, A Central Bank that can influence market conditions through its policy actions, A Central Bank that is willing to take tough decisions , even though they may be unpopular in the short-run..." this was the beginning of a big restructuration in the banking system. But let us focus on control of inflation.

The year 2002 was an important one in the history of Bank of Ghana. The Bank of Ghana Act (Act 612) was signed into law in January 2002. The new Act enshrines price stability as a primary policy goal for the Bank and gives operational independence to the Bank of Ghana. The Act also provides for the establishment of a monetary policy Committee to be responsible for formulating monetary policy. It further place a limitation on Government borrowing from the Central Bank in any year to 10 percent of its revenue for that particular year. The Bank of Ghana Act is a milestone. It has refocused the Central Bank on the major task of inflation control and away from the developmental activities that characterised the bank's operations in the past.

To reach its goal of price stability, the Bank of Ghana, has now several means to monitor the monetary policy in targeting the inflation rate. The objective of the treasury department of Bank of Ghana is to monitor and to manage effectively the liquidity levels of the banking industry to ensure that Reserve Money targets are met and ultimately help achieve inflation target. The main instruments being used to manage DMB's liquidity are mandatory minimum Reserves Requirements, Repurchase and reverse Repurchase Arguments and Sale of Government Debt Instruments, and also the prime rate, which is fixed by the monetary policy Analysis Department.

a/ Monitoring of Prime rate

The prime rate is the reference rate, which is used to determinate the financing conditions in a country at a given period. It is an annual interest rate and It is used as the base of the lending rate. The prime rate can also be used to adapt a variable interest rate.

For example the Monetary Policy Committee announced on October 10, 2002, that assessing the balance of risks in the outlook, the committee decided to reduce the Bank of Ghana prime rate by 200 basis points to 24.0 percent in October.

The prime rate has been reduced from 26% to 24 % in order to decrease the cost of the money lending and the treasury bills interest rate, indispensable for the development of the economy. Ghana money market uses too much the United States dollar in all the transactions because more secure and more convertible. This dollarization of the economy put a pressure on the exchange rate. The exchange rate has an impact on the interest rate.

Before reducing the interest rate the government of Bank of Ghana takes care of the increasing of stronger of the CEDI against the other currencies that it is more interesting to buy treasury bills than have a position in foreign currencies.

b/ Monitoring of Banks' Liquidity positions

Treasury department on a daily basis monitors liquidity movements between BOG and the Government on the one hand, and the banking system on the other hand. This is done by taking cognisance of clearing balances, matured repos and reverse repos, forex deals with BOG, loan repayments by banks, mineral proceeds and cocoa inflows, to project what the market position would be. The projected market position is then compared to the Primary Reserve Requirement.

- *Mandatory Minimum Primary Reserve Requirement*

DMBs are mandatorily required to hold 9% of total deposits as primary reserves with BOG. Any deficiency in the reserve requirement attracts a penalty. Inability to meet this requirement therefore necessitates borrowing on the interbank market.

- *The Repurchase and Reverse Repurchase agreement*

It is a kind of agreement between Central Bank and commercial banks, based on the monetary aggregates; Bank of Ghana can do a repo or a reverse repo according to the economic situation at a point of time or to reach a target.

Bank of Ghana Repos are transacted with banks to inject funds into the market in the situations where liquidity deficiencies are not totally met through interbank borrowing and lending. This operation is done when the Banking system is tight and BOG want to injects money into it. On other hand, BOG Reverse Repos are used to withdraw excess liquidity from the market.

BOG can decide to reduce the quantity of money in circulation by issuing some collateral to the banks and withdraw money from the banking system. It can also inject money when it is necessary. This agreement is for very short period (from overnight up to 2 weeks).

Now in Ghana, repos are contracted at 24 % (17/10/04) for all maturities while Reverse Repos have been contracted at variable rates depending on the tenor, viz.

         Over night Reverse Repos   -   contracted at 21%

         7 to 14 days Reverse Repos   -   contracted at 23.5%

- *Sales of Government securities*

Each Friday, there is an OMO, the Open Market Operation, committee meeting at BOG. This meeting analyse the money in circulation, the potential inflows and outflows in the system on weekly basis.

The OMO defines the characteristics of this operation, the amount to withdraw from the banking system, the duration, 91 days, 182days, and 1 year bonds, the interest rate and issues the Government securities. Sometimes, the OMO amount is bigger than the government needs.

The first part of the bonds constitutes direct, unsecured and unconditional obligations of the Government of Ghana. The principal and interest on bonds will be a charge on the general revenue and assets of the government of Ghana, with recourse to the consolidate funds of the Republic of Ghana.

The second part is putting in the OMO sterilized account at BOG and facing the inflation rate targeting. This account has been opened to reduce the quantity of money in circulation compared to the economic targets: growth level, unemployment level, price stability, and the level of balance of payment deficit.

The Bank of Ghana deals with the banks, the discount houses, and other financial companies to achieve its weekly objective. The commercial banks can buy the Government securities or Bank of Ghana treasury bills for themselves or on behalf to their clients.

In Ghana, the sale of Government securities is also used as a monetary policy tool. At the weekly auctions, targets are set to borrow funds for fiscal purposes of meeting public sector Borrowing Requirement and Monetary Policy purposes of withdrawing excess liquidity from the system. However, amount for OMO purposes are residual after satisfying Governments borrowing requirements. Bank of Ghana keeps this amount in an OMO sterilized accounts. Interest rates for Government securities are market determined at the weekly auction.

Practically, the experience of year 2002 can be taken. It was noted that during the last quarter of year 2002 massive inflows of liquidity by way of cocoa financing, Government related transactions i.e. month-end salary payments, District Assemblies Common Funds, payment to contractors, as well as the change in reserve requirement for foreign currency deposits, substantially increased short-term funds in the banking system which subsequently dampened interbank overnight market rates. Therefore, BOG withdrew substantial liquidity from the market, albeit at rates much lower than the prime rate. This might have influenced the low rate on the domestic market as high liquidity levels persisted.

With this experience of year 2002, Treasury Department intends to send strong signals in respect of BOG's perceived cost of funds to the market, by using the policy rate (BOG's prime rate) for its lending (Repo transactions) at the very short-end of the market. Borrowing (Reverse Repo transactions) will however be contracted at one percent below the repo rate.

The Department also intends to have a consistent target for OMO liquidity withdrawal at the weekly auctions; and maintain a permanent presence in the foreign exchange market to signal regular availability of foreign exchange that would reassure market participants to hold more cedi balances in the banks rather than forex deposits domestically or abroad.

c/ Measure of Core inflation

New forms of measure have been created to have a better control on inflation. There are now three main measures of core inflation in Ghana. These are:

The INFXEU, inflation less energy and utility prices changes, the INFXEUF, which included price changes of energy, utility and three food items[18], and the INFXEUFT, which excludes price changes of energy, utility, three food items and transportation charges.

d/ Analysis

As a result of all these instruments, the reserve Money growth started to decrease. The evolution of the reserve money since 1998 is shown in figure 8 below:

Figure 8: Ghana Reserve Money growth rate
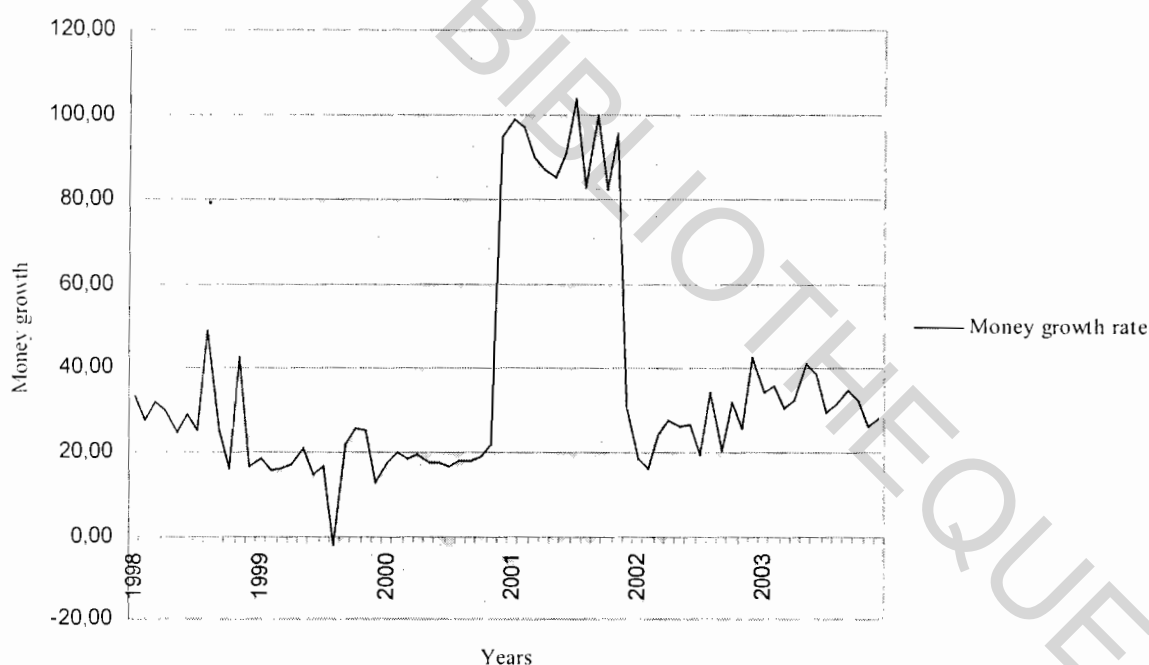
The declining growth rate of reserve money observed so far, has been driven by the large drop in BOG's net claims on government. At the end of the period under review, i.e. September 2003, the entire Net Domestic Assets of the Bank of Ghana had declined by 97.8 per cent

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[18] The three food items excluded in this case are maize, yam, and smoked herrings

from the same period in 2002. This influenced mainly by a reduction in BOG's net claims on government of about 53 percent.

The inflation rate, as the reserve money declined from 40.5% at the end of 2000, 21.3% in 2001, and then to 15.2% in 2002. But in the first quarter of 2003 it rose to 30% due mainly to the increase of nearly 100% in petroleum prices.

All the instruments implemented showed good results. In analysing the effect of discount rate it was observed that:

Figure 9 : BoG Prime rate, Repo, 91 T'Bill Rate, Interbank and inflation Rates
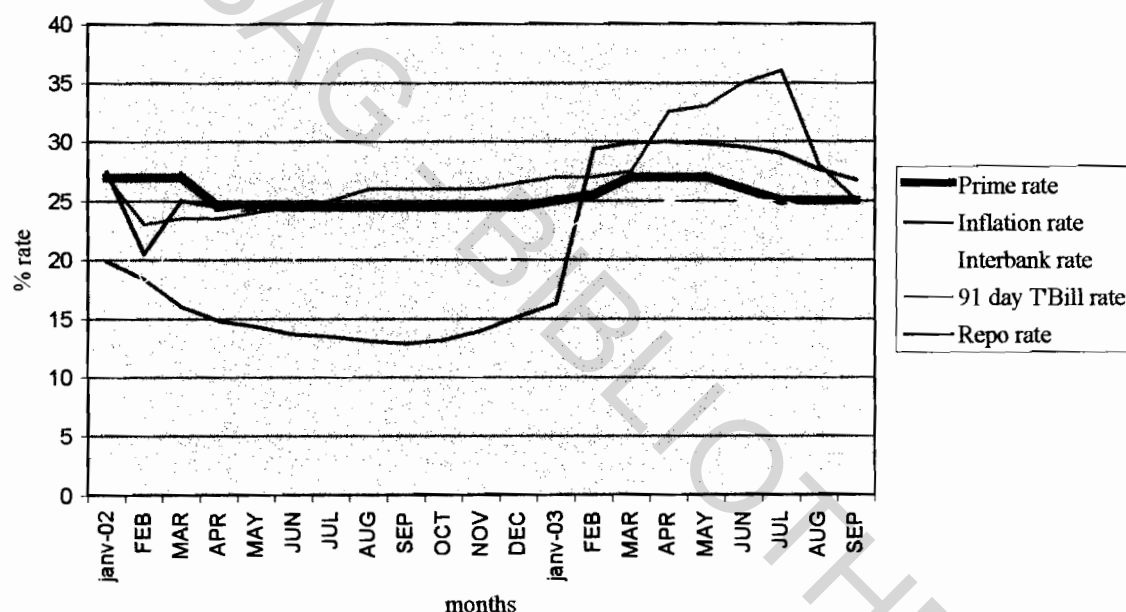
There is an improvement in the mechanism of the prime rate. At the beginning of the settlement of this instrument, the Bank of Ghana maintained prime rate which was above the inflation rate (27% against 20% for the inflation rate). It did so because the rate of inflation in the economy did not reflect the real value. The government gave subsidy on petroleum prices to maintain it at low levels, while the international one was increasing. As a matter of fact, some economic agents started buying petroleum at low prices in Ghana and sold it in the neighbouring countries of Ghana. This phenomenon led to budgetary deficit leading to the government borrowing more to maintain its subsidiaries.

But since the beginning of the year 2003, with the revaluation of petroleum prices at its real level and the disengagement of the government, the inflation rate rose to its real level and the

prime rate started to play its role of a means of signal of the monetary policy stance. In deed since this period, the interbank rate, the repo rate and the others, as shown on the figure10, started to increase and the prime rate also started to fluctuate.

And now the economic agents are no more looking at the current inflation rate but at what will happen in the next days and in the movements of the prime rate.

The measures introduced by the Bank of Ghana have led to a decline in the rate of inflation. In spite of the increase of inflation rate in the early 2003, all the mechanisms to control inflation used, led to a lower inflation rate and the target for the end of 2003 is fixed at 22%. But this situation according to the inflation criteria of one digit for the monetary zone will be a bit difficult for Ghana to achieve within the deadline. The question we want to ask now is: what is the position of all the participating countries vis-à-vis the other criteria? Will it be possible for them to reach the different convergence criteria before July 2005?

Chapter VI: PRESENT MACROECONOMIC SITUATION OF THE MEMBER COUNTRIES

The macroeconomic performance of member countries of the WAMZ at the end of 2002 confirmed the mid-term assessment by WAMI of the unprepared-ness of WAMZ member countries for monetary union in 2003. The institute had arrived at the conclusion that the status of macroeconomic convergence at the end of June 2002 all member countries would satisfy the stipulated convergence criteria for monetary union to commence. As a result of the assessment by WAMI, the target date for monetary union was shifted to July 1st 2005.

VI 1 / Overview of macroeconomic performance

The macroeconomic performance of the WAMZ countries was characterised by the persistence of fiscal dominance, high inflation and low levels of foreign exchange reserves. The external sector did not pick up as expected with most of the countries running current account deficits. These outcomes were mainly the result of domestic and sub-regional factors rather than developments in the global economy. The conflicts in neighbouring countries, poor weather conditions coupled with inappropriate domestic policies over shadowed the relatively favourable development in the world economy. With the exception of a rise in petroleum prices in the last quarter of the year, commodity prices turned out more stable in 2002 compared to 2001 and growth in the global economy recovered against the sluggish outcome in 2001. However domestic policies could not take advantage of these developments. Real GDP growth varied among countries, with Ghana, Guinea and Sierra Leone recording improvements while Nigeria and the Gambia experienced a slow down. As a result, the zone as a whole registered a lower growth than in 2001. This broad outcome generally affected the efforts at macroeconomic convergence.

VI 1 1 / primary convergence criteria

a/ Criterion on Budget Deficit as a Percentage of GDP

This criterion has proved to be difficult to achieve and sustain (figure 10).

**Figure 10 : Budget Deficit in Percent of GDP**
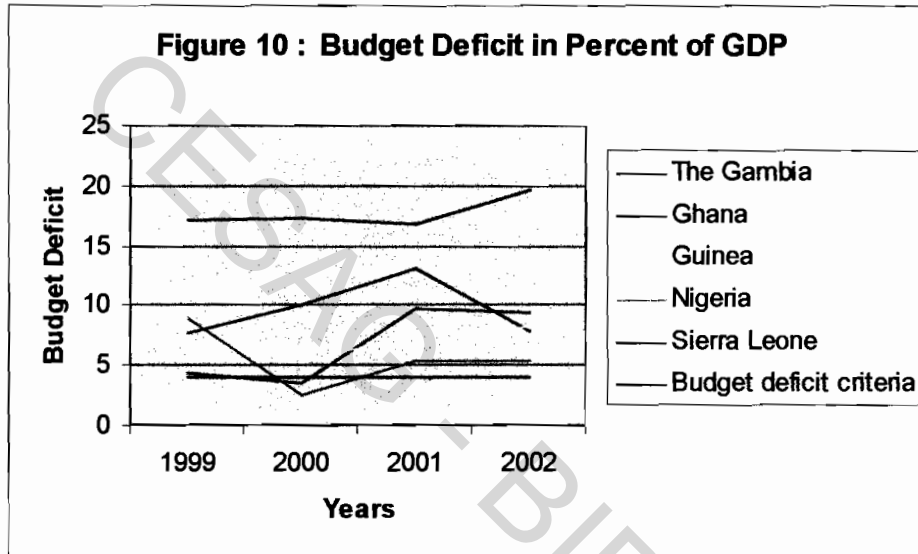
Only two countries, the Gambia and Nigeria, achieved the budget deficit over the Gross Domestic Product criterion in 2000. Using revised data, the outcome worsened in 2001 with none of the countries meeting the target. The performance in 2002 remained the same as in 2001, with even deeper deficit positions in most of the countries. The 9.4 percent budget deficit to GDP ratio recorded in 2002 by The Gambia was high and in excess of the target but it showed a slight improvement over the 9.8 percent attained in 2001. While the domestic revenue mobilisation was within the WAMZ target, expenditure management proved difficult. Ghana tried to show some resolve in 2002 recording 7.9 percent over 13.1 percent in the previous year but it was not enough to push the country into meeting the criterion. Guinea continued to experience worsening deficit position. It recorded 8.3 percent of GDP against 7.5 percent in 2001 and 5.4 percent in 2000, largely as the result of extra-budgetary spending which are likely to extend into 2003, given the continued conflict in its borders and the planned presidential election. Nigeria would need to take the stance to revert to its performance at the commencement of the convergence process. In 2000, a deficit of 2.5 percent of GDP was attained but in 2001 it rose to 5.4 percent and remained at that level in 2002. For Sierra Leone, the deficit of 19.7 percent of the GDP in 2002 presents an even

greater challenge against 17.3 percent in 2000 and 16.7 percent in 2001. The peculiar circumstance of reconstruction and rehabilitation after the war, which are supported mostly by grants and other external inflows, explain this high deficit.

b/ Criterion on central Bank Financing as a Percentage of previous year's Tax revenue

Resorting to Central Bank financing became less of a problem in 2001, as all countries remained under the WAMZ 10 percent ceiling. However, this performance was not sustained in 2002 as two countries slipped. The Gambia, Nigeria and Sierra Leone satisfied this criterion in 2002 (figure 12)

Figure 11 : Central Bank Financing of Budget deficit (in % of prev. Yr. Tax revenue)
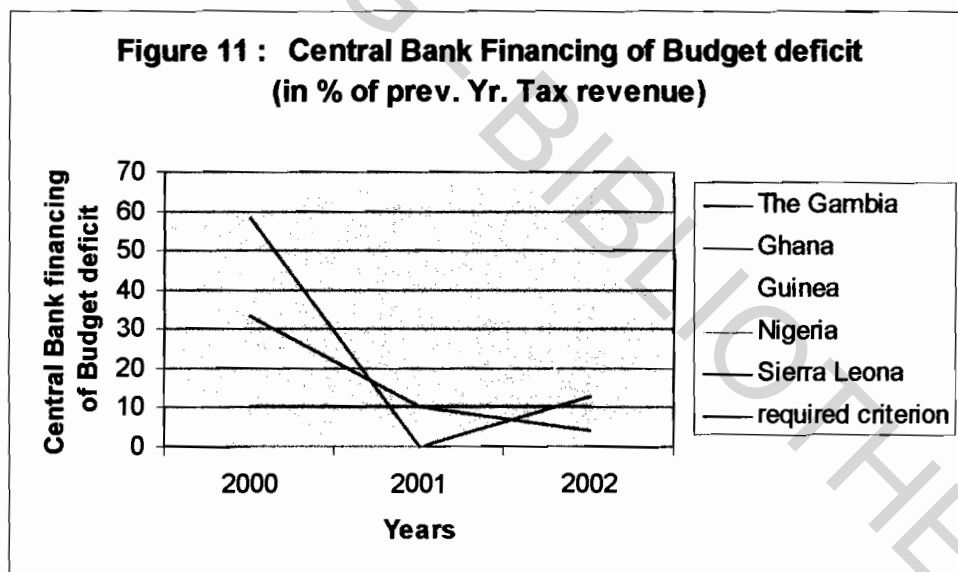
The Gambia and the Nigeria have consistently sustained performance on this criterion while Sierra Leone has satisfied the criterion in the last two years. Sierra Leone tried to adhere to the provisions of the Bank of Sierra Leone Act, which stipulated a limit of 5 percent of current revenue on advances to government for deficit financing. The improvement registered in 2001 by Ghana and Guinea could not be sustained in 2002. In Guinea, central Bank financing of the budget deficit decelerated from 17.6 percent of previous year's tax revenue in 200 to zero in 2001, but rose considerably to 23.9 percent in 2002. The loophole undermining sustainability of this criterion in Guinea is the central bank Act, which allows for advances to government of up to 20 percent of tax revenue. In Ghana, the government could not maintain

restraint as its net credit position with the bank of Ghana, which showed a repayment in 2001, recorded a financing of 12.1 percent of previous year's tax revenue in 2002. Despite this outcome, all the countries plan to restrain central bank financing in the coming years in line with the WAMZ requirement. However, the countries should undertake to revise their laws to be consistent with the WAMZ criteria.

c/ Criterion on Gross reserves / Import Cover

The overall compliance with the criterion on reserves to import cover improved from the position of only two countries in 2000 and 2001 to three countries in 2002. Sierra Leone joined Nigeria and The Gambia, which have consistently performed on this criterion. Ghana made an improvement although not enough to meet the floor of three months imports. Guinea, however, experienced a drop in reserves from an equivalent of 2.8 months to 2.1 months of import cover thus making the challenge for meeting the criterion stronger. The Government of Guinea would need to step up efforts in the medium term at diversifying the external sector into agriculture, fisheries, tourism as well as address structural problems underlying the persistent shortfall in external inflows.

VI 1 2 / Secondary convergence criteria

The strains in achieving the primary criteria are further illustrated by the status of countries' compliance with the secondary convergence criteria and in particular, compliance with the fiscal related secondary criteria, which have remained poor since 2000. Improving tax revenue mobilisation to the equivalent of 20 percent of GDP remained a very huge task for most of the countries. Only the Gambia met the criterion in 2000 but it slipped in 2001 and 2002. Ghana, Guinea, Nigeria and Sierra Leone are required to step up efforts in this regard.

On the wage bill to tax revenue ratio, only Guinea achieved the target in 2002. this resulted from a gradual effort since 2000 with the bill decelerating from 38.2 percent to 35.3 percent in 2001 and to 34.2 percent in 2002. However, tax revenue efforts would need to be stepped up if this performance is to be sustained. Sierra Leone and Ghana carry a very huge wage bill and have since grappled with the target, while Nigeria, which in 2000 and 2001 met the target but failed in 2002 needs to enhance revenue to keep within the target. In The Gambia, although

tax revenue was high, the large wage bill meant that it could not meet the target in 2001 and 2002. Insufficient data on the stock of domestic debt in many of the countries made it difficult to assess the problem of domestic arrears. However, the indications are that arrears remained a problem in the Gambia, Ghana, Guinea and Sierra Leone although the governments have planed to reduce the stock of domestic debt. Public investments financed from domestic resources were within target in Nigeria in 2002. Guinea and Sierra Leone registered improvement but the level was still very much below what is required in the WAMZ.

Regarding interest rate, the position has been somewhat favourable, but the developments with inflation in 2002 reversed the trend on real interest rates in two countries. Nominal exchange rates movements against the US dollar were largely kept within the +/- 15 percent fluctuation band of the WAMZ Exchange Rate Mechanism except in the case of The Gambian dalasi, which depreciated by 27.6 percent. The Guinean franc and the Leone were the most stable currencies in the WAMZ. In the case of the naira and the cedi, although the depreciations were within the band, the rates were far higher than in 2001.

CONCLUSION AND RECOMMENDATIONS

The creation of monetary unions has become crucial these last years. Countries are seeing the need to constitute a monetary zone to help them to be more competitive in the international market with better growth rate and great stability.

Monetary unions can differ according to the currency, the central bank or the degree of economic integration among the union members. But for all of them some criteria and conditions have to be fulfilled. Frankel proposed in particular to focus on two key indicators for deciding whether or not to adopt a single currency: the degree of trade integration among members of the area and the correlation of business cycles between them.

To succeed in creating the monetary union and reach the goal of price stability, countries have to control inflation. To this end they have to control the monetary growth and this according to Milton Friedman who says that inflation is always and everywhere a monetary phenomenon. They must also, as did the Banque de France, pursue a stable external value of the currency in relation to the most credible currencies in an exchange rate mechanism within the monetary zone.

The project of creation of a monetary union in West Africa, the set up of convergence criteria, has allowed the Bank of Ghana to refocus on its major task of inflation control. According to that, many restructurations have occurred in Ghana and the operational independence of the Bank of Ghana has been promulgate. This situation, our observations and the analyses done, led us to some recommendations.

For GHANA

Our analyse has shown that for the fight against inflation, Ghana is now on the right path. New policies and instruments, have been implemented with good results. The economic agents react well now to the different movements in the Bank of Ghana prime rate and other instruments. New kinds of inflation measures have been implemented, like the Ghana three main core inflation (the INFXEU, the INFXEUF, and the INFXEUFT).

As a matter of fact, the inflation has been brought down from 30% at the beginning of 2003 to 23.6% at the end of December 2003 (the target was 22%).

However there still exist a big problem in Ghana. The quantity of money in the hand of the public. We have noticed that more than 95 % of the money in circulation is held outside the banking system. Still this situation occurs, Ghana inflation will be difficult to control.

In fact, the different economic tools used to control inflation have proved their efficiency only through the banking system. So to continue to mop up money from the banking system without looking for other policies to make the banking system more attractive for the economic agent, is fighting against only one side of the problem. This situation will lead to a squeeze in the economy and a slow down in economic activity, which will also lead to stagflation, another big problem.

So from our point of view the criterion of one figure in the rate of inflation for the monetary zone will not be achieved by Ghana within the two following years as proposed by WAMI.

The Bank of Ghana has first to implement policies to increase the mobilisation of deposits by the DMB's, and then have a better control on the quantity of money in circulation. This process needs time to be efficient because it involves a change of behaviour from the economic agents.

For the WAMZ

In the same view the deadline of 2005 for the member countries to fulfil all the criterion is too close to set up and to implement good and strong policies which can face external shocks.

As we saw, the macroeconomic situation of the states member showed that apart from inflation there are other difficulties for the participating countries to reach the other criteria. So the promptness at which WAMI wants the states member to reach the convergence criteria can lead to a potential factor of financial instability for the whole zone and hence undermined all the work that have been done. We can have as proof the few strikes that have occurred in Ghana due to the will of some unions to increase the wages of their members because of inflation. As we can see, this situation is the other side effect of a very tight policy of control of inflation and can lead to more inflation in the economy (cost push inflation).

For better evolution, the reach of the convergence criteria must be done without pain and hurt for the economy. And WAMI must give at least one more years to countries, which succeed

in reaching the criteria, to see if they will sustain their effort. So for more efficiency, the whole process need more time to be implemented.

For West Africa

The view of ECOWAS to have only one currency in West Africa will be difficult to achieve. WAEMU and WAMZ have two different systems of currency.

The first one is pegged to the euro and has shown its efficiency through the years, and the second one if achieved, will be floating. The problem will be in these terms: should the CFA zone let its anchor currency, the euro, to move to a new kind of system, which gets as anchor currency the USD? Or should in reverse the new zone join the CFA zone, change its currency system just after it has been set up, and make an arrangement with the euro states member? Will it be possible to merge two zones, which got two different adverse anchor currencies?

The experience has shown that the countries of the WAEMU zone are the most stable in Africa in term of prices. Are they going to abandon this advantage to adopt a new system filled with uncertainty? Will EMU member countries agree to have other countries pegged to their currency?

All these concerns lead us to think that, the outcome of the whole process that has started with the project of the WAMZ, is uncertain and will take more time than expected.

The idea of having only one currency in the whole west Africa is a good one, but its outcome is still uncertain. The deadline of the project of creation of the WAMZ, the first step of a great process, is too close and the member countries still experienced difficulties of reaching the different criteria.

In this regard, the process must be taken with more rigour and WAMI must take the time to implement policies as in the case of the European Union. If they want to merge with the CFA zone they don't only have to form a Second Monetary Zone in the sub-region, but they also have to make it strong and stable.

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APPENDICES

APPENDIX 1   THE SEPTEMBER 1997 NATIONAL BASKET

	COMMODITY	WEIGHTS
	Group 1 : Food and Beverages	**51,93**
1	Guinea corn / Sorghum	0,43
2	MAIZE	1,83
3	Maize, (ground)	0,44
4	Millet	0,4
5	Local rice	1,33
6	IMPORTED RICE	1,33
7	SUGAR BREAD	2,02
8	BISCUIT (Piccadilly/Cabin/Cream Crakers, 200 gms packet)	0,14
9	FLOUR	0,18
10	CASSAVA (FRESH)	1,78
11	COCOYAM	0,39
12	PLANTAIN	1,38
13	YAM	1,85
14	CASSAVA - KOKONTE	0,5
15	CASSAVA - GARI	0,83
16	CASSAVA - DOUGH	0,37
17	SMALL BEANS (WHITE)	0,49
18	BAMBARA BEANS	0,1
19	GROUNDNUTS (SHELLED)	0,74
20	DAWADAWA	0,16
21	RED KOLANUT	0,27
22	PALMNUTS	0,6
23	TENDER COCONUT	0,08
24	COCOYAM LEAVES	0,15
25	GARDEN EGGS	0,7
26	OKRO	0,52
27	ONION (LARGE)	0,57
28	ONION (SMALL/SHALLOTS)	0,57
29	FRESH PEPPER	0,43
30	TOMATOES	1,93
31	TOMATOES PUREE (CANNED, SALSA, 70 gm)	0,1
32	BANANA ·	0,15
33	ORANGE	0,2
34	PINEAPPLE	0,07
35	PAWPAW	0,04
36	COCONUT OIL	0,31
37	GROUNDNUTS OIL	0,24
38	PALM KERNEL OIL	0,22
39	RED PALM OIL	1,31

77

40	SHEA BUTTER	0,32
41	MARGARINE Remia/blue Bland, 450 gms	0,09
42	CORNED BEEF Exeter, tin 340 gm	0,04
43	FRESH BEEF - (BONELESS)	1,21
44	FRESH BEEF - (WITH BONES)	1,21
45	BUSHMEAT	0,41
46	GOAT (FRESH)	0,16
47	FRESH MUTTON	0,19
48	PORK .	0,18
49	SNAILS	0,09
50	CHICKEN, Live, Medium	0,57
51	GUINEA FOWL	0,13
52	CHICKEN EGGS	0,57
53	SMOKED HERRINGS	7,77
54	FRESH PRAWNS	0,11
55	FRESH HERRINGS	0,36
56	RED FISH	0,36
57	KPALA (STARVIDS)	0,36
58	DRIED FISH	1,86
59	TINNED SARDINES Queen of the coast/Titus,125 gm	0,28
60	TINNED MILK (UNSWEETENED) Ideal, 170 gms	0,83
61	MILK POWDER Peak Milk, 400 gms	0,09
62	BUTTER Tin, 450 gms	0,03
63	SUGAR (CUBE) St Louis 445 gm	0,59
64	SUGAR (GRANULATED)	0,59
65	ICE CREAM, Fan, 125 ml sachet	0,16
66	DRIED PEPPER (RED)	0,72
67	SALT	0,62
68	GINGER	0,18
69	COOKED RICE AND STEW Price per plate	1,87
70	FUFU AND SOUP Price per plate	0,81
71	TUO AND SOUP Price per plate	0,27
72	BANKU AND STEW Price per plate	0,88
73	KENKEY WITH FRIED FISH Price per plate	1,77
74	COFFEE Nescafe, small box of sachets (25)	0,04
75	MILO (Tin, 450 kg)	0,54
76	TEA? Lipton tea bags (25)	0,14
77	COCOA Chocolate per sachet	0,02
78	FANTA Per bottle	0,09
79	COCA-COLA Per bottle	0,09
80	LEMONADE Per bottle	0,09
81	FRUIT JUICE Pineapple/Orange refresh	0,09
	Group 2 : Alcohol and Tobacco	**3,57**
82	CLUB/STAR BEER (Large Bottle 665 ml)	0,31
83	GUILDER (Large bottle)	0,31

84	PALM WINE (large beer bottle)	0,16
85	PITO (large beer bottle)	0,43
86	AKPETESHIE (large beer bottle)	1,4
87	WHISKY (Johnie Walker Red Label 750 ml)	0,08
88	GIN (Castle Bridge)	0,08
89	EMBASSY (Packet of 20)	0,23
90	KINGSIZE (ROTHMANS) (Packet of 20)	0,23
91	555 (Packet of 20)	0,23
92	TOBACCO LEAVES (Bundle, weigh)	0,11
	Group 3 : Clothing and Footwear	**9,62**
93	COTTON Local Super	0,31
94	COTTON Local Ordinary	0,31
95	COTTON Local fancy	0,31
96	COTTON Imported (Holland/British)	0,31
97	COTTON Cote d'ivoire	0,31
98	POLYSTER Check (Ordinary)	0,31
99	COTTON Drills (Expensive)	0,31
100	POLYSTER DRILL	0,31
101	SILK (per yard)	0,15
102	KENTE (MEN)	0,06
103	KENTE (WOMEN)	0,06
104	ADINKRA	0,2
105	SHIRTING MATERIAL	0,36
106	SUITING MATERIAL	0,62
107	TROUSER MATERIAL	0,36
108	SHORTS	0,07
109	SHIRTS (SHORT SLEEVES)	0,07
110	TROUSERS (ORDINARY)	0,07
111	TROUSERS (WOLLEN)	0,07
112	DRESS	0,07
113	KNOCK ABOUT (ADULT, EVERYDAY USE)	0,07
114	KABA CLOTH	0,07
115	KNOCK ABOUT (CHILD)	0,07
116	FROCK (CHILD)	0,07
117	REPAIRS TO CLOTHING	0,29
118	SUIT	0,15
119	SMOCK	0,12
120	LADIES FROCK	0,19
121	CHILD FROCK - 1 year	0,19
122	CHILD FROCK - 10 years	0,19
123	TROUSERS	0,14
124	SHORTS	0,14
125	BLOUSE	0,14
126	SPORTS SHIRT	0,14
127	SHIRT - 65% Cotton	0,14

128	SHIRT - 100% Cotton	0,14
129	PANTS (men)	0,12
130	PANTS (Women)	0,12
131	VEST	0,12
132	BRASSIERE	0,12
133	PANTS (child)	0,12
134	SCARF	0,08
135	ARTSILK	0,08
136	PYJAMAS	0,08
137	HANDKERCHIEF	0,08
138	MENS' SHOES	0,34
139	WOMENS' SHOES	0,34
140	SANDALS - (Men)	0,14
141	SANDALS - (Women)	0,14
142	CANVAS SHOES	0,2
143	RUBBER SANDALS	0,35
144	SOCKS - (Men)	0,06
145	SOCKS - (Children)	0,06
146	SHOE REPAIRS - Heel	0,06
147	SHOE REPAIRS - Full sole	0,06
148	SHOE REPAIRS - half sole	0,06
Group 4 : Housing and utilities		**9,16**
149	PROPERTY TAXES	0,12
150	RENTAL PAYMENT	0,85
151	CONSTRUCTION AND REPAIRS	2,14
152	ELECTRICITY (minimum for average household)	0,64
153	GAS FOR COOKING	0,06
154	KEROSENE	2,52
155	CHARCOAL (Medium bag)	0,72
156	CHARCOAL (lLoose)	0,72
157	FIREWOOD	0,48
158	WATER (minimum for average household)	0,91
Group 5 : Household goods and services		**7,34**
159	BED SHEET (70"*90" Cotton)	0,1
160	BED SHEET (90"* 100" Cotton 100%)	0,1
161	BLANKET (45"*72" Wool 100%)	0,1
162	BLANKET (60"*80" Wool 100%)	0,1
163	TOWEL (Large size)	0,1
164	MATRESS	0,28
165	FULL SIZE BEDSTEAD	0,08
166	MEDIUM SIZE BEDSTEAD	0,08
167	TABLE CHAIR	0,06
168	ARM CHAIR	0,06
169	TABLE (Medium)	0,04

170	MAT	0,07
171	ROOM DIVIDER	0,04
172	GLASS TUMBLER	0,06
173	PLASTIC BEAKER/MUG	0,06
174	PLATE	0,06
175	SPOON	0,03
176	COOKING POT	0,26
177	BUCKET	0,02
178	CUTLASS	0,02
179	HURRICANE LAMP	0,02
180	BROOM	0,02
181	ELECTRIC FAN	0,08
182	ELECTRIC FRIDGE	0,29
183	ELECTRIC IRON	0,04
184	ELECTRIC STOVE	0,08
185	COALPOT	0,04
186	SMALL RADIO	0,16
187	RADIO/ CASSETTE	0,16
188	TELEVISION SET	0,4
189	REPAIRS TO APPLIANCES	0,18
190	GUARDIAN SOAP	0,65
191	KEY SOAP	0,65
192	OMO	0,63
193	STARCH	0,63
194	BLUE	0,63
195	VIM	0,09
196	PARAZONE	0,09
197	MOSQUITO COILS	0,09
198	MATCHES	0,2
199	TOILET ROLL	0,13
200	LIGHT BULB	0,15
201	SHOE POLISH	0,14
202	LAUNDRY CHARGE	0,07
Group 6 : Medical Care		**4,28**
203	PARACETAMOL	0,77
204	SEPTRIN (Ordinary)	0,14
205	TETRACYCLINE	0,14
206	CHLOROQUIN	0,19
207	VITAMIN B - COMPLEX	0,8
208	HERNIA/MINOR OPERATIONS	0,21
209	FOOD	0,31
210	MEDICINES (Bruffen)	0,31
211	DOCTORS CONSULTING FEE (Minimim)	1,27
212	NATIVE DOCTOR (minimum charge)	0,14

	Group 7 : Transport and Communications	**6,47**
213	CAR	0,71
214	BICYCLE	0,16
215	BICYCLE TYRE	0,19
216	WHEEL ALIGNMENT	0,45
217	PETROL	0,82
218	OIL	0,1
219	INTERCITY BUS FARES	0,95
220	TRO/TRO FARE	1,51
221	TAXI CHARGES	1,51
222	STANDARD POSTAGE WITHIN GHANA	0,02
223	EMS CHARGE WITHIN GHANA	0,02
224	TELEPHONE CHARGES (LOCAL, 3 MINUTES)	0,03
	Group 8 : Recreation, Entertainment, Education	**4,81**
225	BLANK CASSETTE	0,23
226	VIDEO HOUSE	1,48
227	GRAPHIC	0,11
228	TIMES	0,11
229	EXERCISE BOOKS (20)	0,41
230	TEACHER'S NOTEBOOK	0,41
231	SCHOOL FEES (JSS)	0,41
232	SCHOOL FEES (SSS, Tuition and Books)	0,41
233	UNIFORM (10 - 12 YRS) BOYS	0,41
234	UNIFORM (10 - 12 YRS) GIRLS	0,41
235	CHARGES FOR FOOD AND LODGING (SSS)	0,42
	group : 9 Miscellaneous Goods and services	**2,82**
236	HAIR CUTTING (GENTS)	0,37
237	HAIR CUTTING (WOMEN)	0,37
238	TOOTHPASTE	0,46
239	RAZOR BLADES	0,46
240	WOMEN'S COSMETICS	0,46
241	SUITCASE	0,2
242	WATCH	0,5
		100

<p style="text-align:center;">**APPENDIX 2**   **EXTENSION OF PERIOD FOR MONETARY UNION**</p>

A comprehensive assessment by WAMI of the status of preparedness of member states to form the monetary union in 2003 indicated the unsatisfactory performance of all the five countries in meeting the four primary convergence criteria. Hence the Authority of Heads of State at its 4th Session held in Conakry November 7, 2002 decided to extend the date for establishing the union from January 2003 to July 2005. By this extension countries were given more time to prepare in meeting the convergence criteria as well as all financial obligations.

<h2 style="text-align:center;">Main Elements of the Extension 2003 – 2005</h2>

The main elements to focus on during the period of extension are:

- Multilateral Surveillance involving quarterly monitoring and assessment of country performance;
- adoption of country programmes and incorporation of convergence targets in national budgets and economic programmes;
- Monitoring of qualitative aspects of integration including the movement of persons, goods and capital;
- Undertaking sustained campaign of sensitization; and
- Putting in place the essential architectural building blocks of the union.

<h2 style="text-align:center;">Critical Actions and Expected Results 2003 – 2005</h2>

The main actions to be undertaken and resultant output are included in the Table below.

<h3 style="text-align:center;">Achieving Macroeconomic Convergence</h3>

- Incorporation of Convergence Targets into national budgets by Ministries of Finance
- 6 Monthly Review of Fiscal Performance by Forum of Finance Ministers
- Quarterly monitoring of Convergence Performance by WAMI
- Four monthly assessment of Convergence performance by Council
- Final Assessment of Status of Convergence (April 2005)

Institutional Building Blocks

- Commencement of Contribution to capital of WACB

- Finalisation of Revised WACB Statue

- Designation of Headquarters of the WACB

- Completion of Contributions to Capital of WACB

- Designation of President and Executive Board Members

- Commencement of operation of WACB (July)

- Introduction of ECO as Virtual currency (July 1)

- Agreement on Centralized Framework for Banking Supervision: Preparations for setting up the West African Financial Services Authority (WAFSA).

- Agreement on Framework for Integration and improvement of National and Zonal Payment Systems

DETAIL CONTENT