The debate on the issue of choosing the best exchange rate regime is still valid. Indeed, each exchange rate regime has both costs and benefits. For WAEMU countries, the current choice is less and less justified mainly because of globalization. Therefore, the objective of this study is to propose a mixed exchange rate regime pegged to the euro and U.S. dollar. The study shows that this type of plan allows WAEMU countries to be more competitive. Also, their economies will be less vulnerable to internal and external shocks. The study finally recommends a product diversification and intensification trade of intra zone.

Key words: Exchange rate regime, West African Economic and Monetary Union (WAEMU), exportations, CFA Franc, euro, dollar.

INTRODUCTION

The study of the working mechanisms of the franc zone reveals that the operating account opened by each central bank (BCEAO and BEAC) is the main element of monetary cooperation among African countries in the franc zone (African franc area countries) and France and, broadly speaking, between these countries and the European Union. This membership offers African countries a number of advantages, including the credibility enjoyed by the CFA, because of the unlimited guarantee from the French Treasury. It also allows monetary and fiscal discipline, with the fixed parity between the CFA franc and the Euro. Countries in the area known as a relatively stable currency and low inflation compared to other developing countries, those in sub Saharan Africa in particular.

As a result of free capital mobility, such fixed amounts to a renunciation of monetary independence, as illustrated by the triangle of incompatibility Mundell. The fixed parity also means giving up the tool of the exchange rate as an adjustment variable in case of impact, which implies the existence of alternative means such as flexible labor market, which is not the case for countries in the area. For economists of the IMF, there is no exchange rate regime applicable by all countries at any time. This article aims to highlight the opportunities arising from the adoption of a mixed exchange rate regime for countries of the West African Economic and Monetary Union (WAEMU).

The question of the choice of exchange rate regime and its consequences in particular for countries in the franc zone was first analyzed, and the competitiveness of WAEMU countries and presents opportunities for a mixed exchange rate regime for countries of the WAEMU discussed.

Choice of exchange rate regime and its consequences for the countries of WAEMU

Several authors have discussed the importance of exchange rate regime for economic development (Bacchetta and Wincoop, 1998; Calvo and Reinhart, 2000; Cooper, 1999; Dramani, 2010; Fischer, 2001; Ghosh et al., 1997; Williamson, 2004; Yagci, 2001). Therefore, a brief summary of major exchange rate regimes is necessary before analyzing the effect of fixity for the WAEMU countries.

Reminders about the different exchange rate regimes

There are a multitude of exchange rate regimes. The IMF
is eight, but in reality, there are currently thirteen whose extremes are the absolute rigidity and pure floating currencies. These are the countries that are most likely to practice flexible exchange rate regime, since the collapse of the Bretton Woods system, following the historic decision of President Nixon in 1971 to declare the dollar non-convertible to gold. This decision was interpreted by some theorists of international political economy as reflecting the inability of the United States to ensure the stability of the international monetary system and by others as a manifestation of the power of this country that is its ability to change the rules at the global level (Kebabjian, 1999). Generally, countries choose their exchange rate regime among the 13 existing, on one hand, depending on their level of development and on the other hand, their priorities for economic policy and development strategies implemented. However, the IMF provides advice to its members, while admitting that "there is no single exchange rate regime that suits all countries in all circumstances" (IMF, 2000). Some experts even believe that the IMF is "the country's situation that dictates the type of exchange rate regime and the accompanying measures that met their needs better."

After a brief presentation of the four regimes (regimes attachment of exchange rate fluctuation margins of dual exchange rate and flexible exchange rate), the analysis will focus on the consequences of the fixed choice of by the countries of the CFA Franc Zone.

**Plans linking the exchange rate**

Among the systems connecting the exchange rate, we can distinguish currency boards, the crawling peg and creeping parities (Diagne and Gaye, 2002).

**Currency boards:** The regime of the currency board is based on the fact that the exchange rate of the national currency is irrevocably fixed in relation to a foreign currency. It is therefore a major constraint to monetary expansion, because the currency is issued only when there is a net inflow of the foreign currency. There is free convertibility between the two currencies. A typical example is that of Argentina which, adopted during the 1980s, this dual currency to restore confidence in the currency and reduce inflation. In the past, this system of "currency board" has been popular with some small open economies that lead an anti-inflation policy.

We also note the absence of a lender of last resort, which is likely to increase systemic risk.

The success of a currency board is based on the presence of key elements, in addition to the conditions usually considered desirable for a fixed exchange rate regime, namely a sound banking system (because the monetary authorities can not lend to banks difficulty) and a prudent fiscal policy (since it is prohibited in the Central Bank to lend to the state). The currency board imposes a strict monetary discipline which increases confidence in the currency and reduces inflation. In the past, this system of "currency board" has been popular with some small open economies that lead an anti-inflation policy.

**The crawling peg:** In this type of regime, the exchange rate is pegged to a foreign currency. However, we can help to change the parity, which rarely happens. The most pertinent illustration we can give this type of plan is the monetary system of the African franc zone whose currency (Franc CFA Franc Comoros) maintained unchanged for 40 years, with their respective parities French franc.

**The creeping parity:** Parities are a creeping regime in which the exchange rate of the currency is pegged to a foreign currency. But at regular intervals, the monetary authorities can adjust it to reflect the inflation differential against trading partners, so as to maintain external competitiveness of the country.

**Plans fluctuation margins**

Plans fluctuation margins are a system where a central exchange rate and a fluctuation band around this rate is fixed or managed rampantly with a margin that can be symmetrical. The best known examples of intermediate regimes are:

1. The treaty regime where one has a fixed parity between the currencies with a fluctuation band of plus or tolerated less than 2% (Bretton Woods system).
2. The treaty regime of plus or minus 10% (theory of target zones by J. Williamson) within a wider band. The target for Williamson is the rate of fundamental equilibrium exchange (Fundamental Equilibrium Exchange Rate or FEER) which, according to the author is to ensure internal and external balance. This plan allows flexibility of nominal exchange rate.
3. The managed float regime without any prior notice of the trajectory of exchange rate tends to increase the uncertainty of the speculators, because the time and place of intervention are not previously specified.
Multiple exchange rates regime

This type of diet could never work because it segments the foreign exchange market, distinguishing between business operations (where the rate is fixed) of financial transactions that are at a floating rate. The floating rate is usually more depreciated than the fixed rate. There is significant leakage between the different compartments of the currency market.

Flexible exchange rate regimes

In the flexible exchange rate regimes, the price of the currency results from the interaction of supply and demand in the currency market. If the Central Bank refrains from any intervention in this market, we are in a pure floating regime, if not in a managed floating regime. The arguments in favor of flexible exchange rate regimes are:

1. Flexibility in exchange rates is an effective way to ensure the external balance and to facilitate the internal balance.
2. Movements in the exchange rate used to maintain the competitiveness of national products in foreign markets.
3. Flexible exchange rate monetary authorities freed from the obligation to maintain a fixed exchange rate. This requirement is likely to lead to destabilizing speculation that eventually, in many cases, lead to devaluation, if it is not credible (Obstfeld and Rogoff, 1995). But flexible exchange rates also have disadvantages, including "the risk of imported inflation, the contraction of international trade or transfers of savings in the presence of high volatility in the exchange rate, the risk to develop policies depreciation competitive in a given regional area, or the lack of incentive for the implementation of adjustment policies and structural reforms".

The fixed parity of the CFA franc and its consequences

The choice of monetary policy to anchor their African currency (F CFA) to a strong currency (euro) is not without its problems. This cooperation monetary benefits (credibility enjoyed by the CFA franc on currency markets and, consequently, confidence in the African currency) but there are also disadvantages (loss of monetary autonomy and strong dependence toward outside).

Credibility ensured

The fixed parity of the African currency against the euro has an obvious advantage, which is the credibility of the CFA franc. Indeed, the euro is a strong currency, which in principle is not intended to compete with the U.S. dollar in international financial transactions, but which, because of the economic weight of member countries of the European Monetary Union, is gaining ground, or at least mitigate the U.S. hegemony in monetary matters. In short, the benefits of fixed exchange rate system and the guarantee of the French Treasury can be summarized by:

1. The monetary security that allows the influx of capital. To this end, we see that the area has seen greater stability in monetary and other African countries.
2. The stringency of monetary policy limits the risks of inflation and maintains the balance of the external balance. Indeed empirical studies, including those of Ghosh et al. (1997), found that inflation has been lower in countries that have chosen the fixed exchange rate regimes.
3. The credibility enjoyed by the CFA that provides member countries with the greatest potential leverage to promote their economic development.

In the case of free movement of capital between countries, the fixed parity means giving up monetary independence. This dilemma is known as the Mundell's incompatibility triangle.

In considering the credibility of their currency and therefore the confidence of investors, one can ask whether an independent monetary policy for countries in the CFA Franc Zone is really necessary.

According to IMF economists, a country's interest to adopt some form of fixed exchange rate when:

1. It comes soon on international financial markets;
2. It trades much with the country issuing the anchor currency;
3. It suffered economic shocks similar to those faced by the country issuing the anchor currency is proposed;
4. It is willing to trade autonomy in monetary policy against the credibility enjoyed by his partner on that front;
5. Its economy and financial system are already linked to the currency of their partner;
6. It was attracted by the stability offered by the fixed exchange rate because of its high inflation;
7. It implements a flexible and sustainable fiscal policy;
8. Its labor market is flexible;
9. International reserves are high.

Found in this list of conditions, the principles of an optimum currency area (OCA), whose main authors are Mundell (1961) [criterion of factor mobility], MacKinnon, (1963) (standard opening), and Kenen (1969) (criterion of diversification of production). For these authors, particularly Mundell, choose the fixed means giving up the exchange rate as a means of adjustment to shocks. This implies the existence of other tools such as mobility of labor or wage flexibility (that is to say the job market). This condition does not hold in the countries of Africa
However, African countries of the Franc Zone are not active on the international financial markets, and trading with France and especially the countries of the EU. But in general, the trade between the countries of the CFA zone is very low (Dramani, 2011). Thus, the WAEMU countries do not benefit fully from the theoretical benefits associated with monetary union (or economic), as is the case of European countries that exchange primarily between them.

**MIXED EXCHANGE RATE REGIME**

**The issue of competitiveness of the WAEMU countries**

In the WAEMU countries, there are mainly political and structural problems of competitiveness. The first is the subsidization of exports in some industrialized countries that distort international trade rules, and the second is the lack of diversification of production to a strong specialization.

**Problems of ‘political’ competitiveness: The issue of subsidies**

As noted previously, the WAEMU countries are victims of what can be described as uneven trade. Indeed, industrialized countries particularly the U.S provide subsidies to their producers for certain products, particularly cotton, which is the main source of exports for several WAEMU countries (Benin, Burkina, Mali). The World Trade Organization (WTO) which is supposed to promote the double opening between trading partners has a clear role to play in this situation by restoring market forces, especially if the cotton is of vital importance for African countries. For Benin, Burkina, Mali and Chad, they account for about 6.5% of GNP, 66% of agricultural export earnings and 33% of total export revenues.

**The structural problems of competitiveness: A lack of diversification**

Developing countries in general and those of the African Franc Zone in particular, are facing serious problems of competitiveness associated with the nature of their production system (Devarajan, 1997). They are mostly specialized in the production of raw material prices on international markets and are very volatile, undermining their competitiveness. To reverse this trend, a reorganization of the structure of production is needed. Only in this way they can develop a more diversified offer and make their economies less sensitive to shocks in particular, by or contained an abrupt appreciation of the euro, which always has an impact on them.

**Notion of the exchange rate and purchasing power parity**

An understanding of these concepts is essential when examining the issue of competitiveness, particularly in developing countries. In terms of economies of these countries, the question of the best exchange rate regime creates a debate, and differences often appear between specialists. However, unanimity is acquired on the fact that there is no exchange rate regime applicable by all countries simultaneously. But the trend is a preference for flexible exchange rates.

**The notion of nominal exchange rate**

The exchange rate reflects the value of one currency against another. It is defined in some or uncertain, depending on whether the currency is considered to be cash or not. In some, the exchange rate is the number of units of foreign currency on a unit of currency target. If the exchange rate increases, it means more foreign currency for one unit of currency target. In this case, the currency appreciates. Conversely, if the exchange rate decreases, a unit of currency exchange will target with fewer units of foreign currency, thus the currency depreciates than its target. However, if the listing to uncertainty shows a currency appreciation, it means a lower exchange rate, while if it shows currency depreciation, it is equivalent to an increase in exchange rate.

**The law of one price and purchasing power parity**

To carry out bilateral comparisons, the theory of purchasing power parity (PPP) was used. It was designed by Ricardo but the wording is contemporary Swedish Cassel (1918). PPP is used to estimate the overall relative position of a currency against another. Today it serves more to explain the variations in exchange rates rather than their training. Therefore, if the PPP exchange rate between two currencies stood at a level of the same quantity of money has the same purchasing power in both countries. It is part of the law of one price, which can be illustrated as follows, if globalization in general price level:

\[ P_n = \frac{P^*}{e} \]

Pₙ denotes the level of domestic prices; P* the price level abroad and e denotes exchange rate (to some).

The real exchange rate (Real Exchange Rate) which
allows for bilateral comparisons is defined by:

\[ \text{ReR} = e \frac{P_n}{P^*} \]

Because of this, purchasing power parity means that the RER is equal to unity. So if this property holds for all products, there is no trade possible between countries.

Therefore, in general, we use the relative PPP (Ondo, 1999) as interest of a mixed exchange rate regime for countries of the WAEMU.

**METHODOLOGY**

The economies of the WAEMU countries depend heavily on their export products and thus on the stability of the value of their currencies on the foreign exchange markets. The value of a currency is a key element when addressing the issue of competitiveness. The rationale, for example, is the devaluation of the CFA Franc in 1994 by a desire to restore the price competitiveness of products in the area of the world market, but countries in the area are facing serious problems of competitiveness and a high vulnerability of their economies. Hence, the need for a new type of exchange rate regime for countries of the WAEMU.

Generally, because of the fixed parity between the CFA franc and the euro, an appreciation of the euro also means that the CFA franc in this case, exports of WAEMU countries are invoiced in dollar penalized. The EU countries stand to benefit in establishing a new exchange rate regime in which the CFA franc, any appreciation of the euro will not only be expressed in euro, but a basket of currencies, primarily of the euro and the dollar (Sometimes the yen), according to the following equation:

\[ 1000 \text{ FCFA} = \alpha \text{EUR} + \beta \text{USD} + \lambda \text{YEN}. \]

Expression in which we assume \( \alpha > \beta > \lambda \).

Indeed, WAEMU trade more with the European Union than with the United States and Asia. For example, we can have:

\[ 1000 \text{ FCFA} = 0.60\text{EUR} + 0.40\text{USD}. \]

The coefficients are approximated based on exports from the EU to each zone.

To determine the value of the CFA franc in euro or dollar, it is assumed that:

- Either \( 1000 \text{ FCFA} = 0.60 \text{ EUR} + 0.40 \text{ USD} \)
- \( 1 \text{ EUR} = 1.4126 \text{ USD} \) (during the September 05, 2011).

The course will be determined as follows:

\[ 1000 \text{ FCFA} = 0.60 \times 1 \text{EUR} + 0.40 \times 0.7079 \text{ USD} = 0.8831 \text{EUR} \]

We obtain: \( 1 \text{ EUR} = 1132.37 \text{ FCFA} \).

Also: \( 1000 \text{ FCFA} = 0.60 \times 1.4126 \text{ USD} + 0.40 \times 1 \text{ USD} = 1.2475 \text{USD} \);

We obtain: \( 1 \text{ USD} = 801.60 \text{ FCFA} \).

**RESULTS AND DISCUSSION**

Currently, the euro traded against 655.96 FCFA, and many find that the African currency is overvalued to support the economic activities of member countries. The equation given previously is a viable alternative for those countries suffering from an acute problem of competitiveness.

We see the bull and bear movements of the euro, even if the current trend is a stabilization of its value around 1.38. But these movements are not without consequences for exports from WAEMU countries who will see their exports outside the European Zone penalized if the euro appreciates against the dollar. Periods of euro appreciation generally correspond to a drop in exports from countries in the WAEMU Zone.

There is also some difference in the real exchange rate from one country to another, mainly on the inflation differential and productivity among the Union of the member countries. Thus, after a wide divergence in exchange rates of member countries of the area over the period of 1985 and 1993, there is a relative convergence after the devaluation of the CFA franc. Indeed, his period corresponds to that in which member countries have decided to supplement their monetary integration through economic integration in January 1994.

With the mixed exchange rate regime, if the euro rises or falls, it means that the dollar depreciates or appreciates, the CFA will remain relatively stable, and exports of the WAEMU countries to the dollar zone will not be affected. In addition, its currency will be more credible because of indexed two hard currencies. It may also take into account imports from different countries or generally, the opening rate that multiplies by a factor \( \mu \) which measures the weight of the GDP of country in total GDP of the Union.

**Conclusion**

The problem of the choice of exchange rate regime becomes more and more central in the international monetary and financial discussions. In the WAEMU countries, because of the fixed parity between the euro and the CFA franc, any appreciation of the euro leads to the CFA franc. We can attend periods of overvaluation or undervaluation of African currency with consequences on trade flows, particularly to the dollar zone. In general, the instability of the exchange rate is unfavorable to the development of economic activity in the EU, especially as these economies depend heavily on their export products.

Our study shows the need for the establishment of a mixed exchange rate regime pegged to the euro and the dollar. It is also important to reform the agricultural sector, particularly through diversification of production. In addition, we must increase exchanges between the WAEMU countries to let them enjoy the full benefits from a monetary union. Indeed, trade between WAEMU countries is low due to the structure of their production; they export mainly raw materials during the volatile global
markets, and import manufactured goods, which increases the vulnerability of their economies. Eventually, this development model is unsustainable. The success of this type of plan will finally depend on a harmonized economic policy particularly in terms of production and macroeconomics management in the various member countries.

Indeed, the exchange rate policy is fundamental to the functioning of an economy. Choosing the best exchange rate regime has economic consequences on the main trading partners. Therefore, the authorities of WAEMU must implement this system of exchange rates to facilitate their integration into the global economy.

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