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Proposed Architecture for an ECOWAS Common Currency Union

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Introduction

The idea of creating a regional monetary zone for the Economic Community of West African States (ECOWAS) has been at the forefront of the regional integration agenda and has attracted interest from policymakers, researchers and other development stakeholders for the last three decades. It gained momentum following the devaluation of the CFA Franc in January 1994, as actors in the Union Economique et Monetaire Ouest Africaine (UEMOA) sought relief from the social and economic consequences of the devaluation. Having just emerged from high inflation and the severe depletion of their foreign reserves, which resulted in the rapid depreciation of their national currencies, many non-CFA countries also became increasingly favorable towards the notion of an ECOWAS-wide common currency. Over the past decade, episodes of Structural Adjustment Programs (SAPs) and the inception of the Highly Indebted Poor Countries (HIPC) Initiative, African countries in general and West African countries in particular, have encouraged a spirit of policy making self-reliance which in the early 2000s gave birth to the New Partnership for Economic Development (NEPAD) and concrete steps towards the establishment of a monetary zone in West Africa.

The last fifteen years have been marked by a contrasted evolution in regional integration in West Africa. UEMOA countries have sought to strengthen their regional institutional development through a number of measures aimed at

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harmonizing national policies as well as government and business practices.[1] The independence of the Central Bank, Banque Centrale des Etats d'Afrique de l'Ouest (BCEAO), was also enhanced with new rules disallowing national governments from resorting to deficit financing through the Central Bank. UEMOA also asserted the precedence of its rules over national rules of member states. During the same period non-CFA countries including The Gambia, Ghana, Guinea, Nigeria, and Sierra Leone and later joined by Liberia, also moved closer together agreeing to create the secondary monetary union, the West African Monetary Zone (WAMZ) that would later merge with UEMOA. To that end, they facilitated collaborative policy research and public debate in support of the monetary integration agenda.

In spite of the strong integration strategy of the sub-region and popular support in its favor, there is little unifying progress with respect to ECOWAS-wide monetary integration. There is growing disparity between countries regarding governance and political stability, national economic performance and future prospects. If countries continue to drift apart in so many respects, the regional integration agenda could become more difficult and perhaps be jeopardized. As well-to-do countries may refuse to integrate with countries faced with insurmountable difficulties or if struggling countries prove unable to partake in regional arrangements. Therefore, the establishment of the ECOWAS common currency has an element of urgency that should be recognized. The purpose of the present study is to propose the architecture for a common currency zone in ECOWAS. The study will first examine the initial conditions that are peculiar to the ECOWAS sub-region and assess the key justifications for the creation of the common monetary zone. In the next section several competing options for the design of the common currency union are compared and the preferable architecture is presented in the section thereafter. Considerations related to the management of foreign reserves are discussed in the last section. A few concluding comments close the study.

1 The main initiatives in this regard include a) Système Comptable Ouest-africain (SYSCOA, i.e. West African Accounting System), b) Budget nomenclature of member states c) Plan comptable de l'État (i.e. State's System of Accounts), c) Harmonization of the Value Added Tax (VAT) d) Creation of the Regional Stock Exchange, Bourse Régionale des Valeurs Mobilières (BRVM), e) Adoption of the Harmonised Consumer Price Index and f) Inception of the Common External Tariff.

West Africa's initial conditions

At the outset, the idea of creating a West Africa common currency must contend with three key initial conditions that cannot be overlooked and will undoubtedly influence the design of the architecture. They concern the current monetary arrangements of the potential members, their economic and demographic profiles and the "inertia" that arises from their central banking habits, and thus their possible willingness to join the new common currency union, or not. This section will seek to understand the respective importance of these initial conditions.

Current monetary arrangements of ECOWAS countries

For several decades, West Africa has been marked by the co-existence of two currency systems. Eight countries are members of the Union Monetaire Ouest Africaine (UMOA) that was completed in January 1994 by the Union Economique et Monetaire Ouest Africaine (UEMOA). The convertibility of their common currency, the West African CFA Franc (XOF), is guaranteed by the French Treasury. The CFA Franc has a fixed parity with the Euro (1 Euro = 655.97 Francs XOF). Part of the foreign reserves of member countries of the UEMOA are deposited in France in a Compte d'Operations, to partly offset the inherent risk in France's guarantee of convertibility. While the reserves are pooled in the Compte d'Operations, each member country has a separate account and can, if the need arises, "borrow" from other members' accounts and pay interest on the "loan". Cape Verde has a similar arrangement with its former colonial power, Portugal. The main features of the arrangement consist of guaranteed convertibility of the Escudo through an open credit line and fixed parity with the Euro at 1 Euro = 110.27 Escudos.

The remaining six countries of ECOWAS manage their respective currencies at the national level with a national central bank and a flexible exchange rate regime, without any form of peg to another currency. Their respective currencies are the Dalasi (The Gambia), the Cedi (Ghana), the Franc Guinéen (Guinea), the Liberian Dollar (Liberia), the Naira (Nigeria) and the Leone (Sierra Leone). The six countries plan to create the West African Monetary Zone (WAMZ) with a common currency, the Eco. However, they have not yet established significant coordination necessary to serve as a prelude to the creation of this second monetary zone that would exist in parallel with the UEMOA. It appears that the

creation of an ECOWAS-wide common currency would have to contend with the fixed parity regime of UEMOA countries and the flexible exchange system of WAMZ countries. The following list summarizes the currency membership and exchange regime of all ECOWAS countries.

Countries with fixed peg with EURO

- UEMOA: 8 (Benin, Burkina Faso, Côte d'Ivoire, Guinea Bissau, Mali, Niger, Senegal, Togo)
- Non-UEMOA: 1 (Cape Verde)

Countries with flexible exchange rates: 6=WAMZ

- The Gambia, Ghana, Guinea, Liberia, Nigeria, Sierra Leone

Basic statistics and volatility of ECOWAS countries

As is shown in Table 1, ECOWAS is a region of disparities. The five countries with the highest levels of gross domestic product (GDP) in 2011 (expressed in US Dollars) account for 76.9% of the sub-region's total population. These five countries also represent 85.3% of the total GDP, while the bottom five countries report a mere 3.5% of ECOWAS's GDP. In other words, the five richest countries have an average domestic income almost 25 times that of the average of the bottom five countries. With such disparity, it is legitimate to wonder whether regional economic policies would be appropriate for all the countries of the sub-region, irrespective of their size and other national characteristics such as degree of openness, fiscal policy and balance, and past central bank practice.

Furthermore, would the efforts of small economies, aimed at achieving sound macroeconomic policies and prudent fiscal stance, be hastened by their membership in the ECOWAS common currency, which would in the short term increase their cost of joining the Union. Establishing a common currency area of equal members would be a challenge given that the total GDP of the five smallest economies is lower than that of any of the four biggest countries. It can be argued that countries such as Sierra Leone, Liberia, The Gambia and Cape Verde have a national currency and may be prepared for shocks that are corresponding to the sizes of their economies, but may be exposed, by becoming members of an ECOWAS Currency Union, to levels of shocks afflicting large members that would be damaging for them if measures are not taken to protect them.

Table 1. Selected Statistics of ECOWAS Countries in 2011

#	Country	GDP, Mln US $	Area (Sq. KM)	Population	% of total GDP	Cumulated %
1	Nigeria	91,957.59	923,770	162,470,737	62.7	62.7
2	Côte d'Ivoire	11,048.45	322,460	20,151,894	7.5	70.3
3	Ghana	10,053.62	238,540	24,965,816	6.9	77.1
4	Senegal	7,149.43	196,720	12,767,556	4.9	82.0
5	Burkina Faso	4,849.46	274,220	16,967,845	3.3	85.3
6	Mali	4,313.25	1,240,190	15,839,538	2.9	88.3
7	Guinea	4,028.57	245,860	10,221,808	2.7	91.0
8	Benin	3,440.24	112,620	9,099,922	2.3	93.4
9	Niger	2,845.16	1,267,000	16,068,994	1.9	95.3
10	Togo	1,680.93	56,790	6,154,813	1.1	96.5
11	Sierra Leone	1,668.76	71,740	5,997,486	1.1	97.6
12	Liberia	1,152.78	111,370	4,128,572	0.8	98.4
13	Gambia, The	1,092.15	11,300	1,776,103	0.7	99.1
14	Cape Verde	1,020.63	4,030	500,585	0.7	99.8
15	Guinea-Bissau	257.35	36,130	1,547,061	0.2	100.0
	Total	145,558	5,112,740	308,659,730	100.0	

Source: World Development Indicators, World Bank, 2012.

Table 2 is an attempt at capturing the level of volatility of the individual ECOWAS economies. It portrays the standard deviations of the annual rates of change of three economic variables: a) Inflation rate based on the GDP deflator, b) Exports revenues in constant U.S. Dollars and c) Annual Growth of GDP in constant U.S. Dollars. The 12-year period spans 2000 to 2011. The results are reported for UEMOA countries, WAMZ countries and Cape Verde. The salient features of volatility in ECOWAS countries can be summarized as follows. First, on average UEMOA economies have considerably lower volatility than WAMZ economies for each volatility measurement. For inflation and the rate of change of exports, the average standard deviation is 62.5% higher for WAMZ countries, while for GDP growth the standard deviation is 2.5 times higher. The volatility of Cape Verde is comparable to that of UEMOA countries. These results seem to underscore one of the key gains that can accrue to members of a common currency union in ECOWAS, namely lower volatility.

Second, for all countries the level of export volatility is significantly higher than that of inflation or of GDP growth. All ECOWAS countries have open economies with exports accounting for a large share of their GDP. Therefore, control of export volatility would play a big role in macroeconomic stability. It is noteworthy that the most extreme levels of volatility in the UEMOA zone are recorded by Guinea Bissau, a country that has undergone a high degree of political instability and episodes of civil conflict. As a member of the UEMOA it cannot use the nominal exchange rate for macroeconomic and external sector adjustment. This may have translated into a stagnant economy with low average economic growth and low variability of growth, while its inflation and the variety of exports rose well above the UEMOA averages. This result is consistent with the commonly held view that political stability contributes to macroeconomic stability and fosters economic growth

Initial institutional and policy challenges

Several factors specific to the economies of the ECOWAS sub-region, as well as institutional peculiarities, need to be taken into account in order to properly address the establishment of the common currency. Three economic issues warrant reflection from the outset because they may influence the design of the Union. First, central banks in the ECOWAS region have different records of autonomy and financing of government fiscal deficits. While by law, UEMOA members cannot resort to central bank deficit financing, the central banks of The Gambia, Ghana, Guinea and Sierra Leone have provided significant financing for their respective governments in recent years, as shown in Table 3. This situation raises the need for all governments to stop funding their future deficits through their central banks and reduce their outstanding debts to zero in a reasonable time and in an orderly fashion. One of the implications for these governments is that they need to alter their fiscal behavior altogether, thus undertaking to increase their future fiscal revenues or reduce their fiscal expenditures. In this case, transitory measures can be called upon to lessen the social and business-related costs of these drastic policy changes.

Table 2: Volatility of Prices, Exports and GDP of ECOWAS Countries, 2000-2011 (Standard deviation of variables)

Country	Inflation (GDP deflator)	Annual change of Exports in Constant US Dollars	Annual change of GDP Growth in Constant US Dollars
Benin	2.4	14.8	2.5
Burkina Faso	3.3	22.3	4.8
Cote d'Ivoire	2.5	13.0	2.7
Guinea Bissau	27.2	28.2	3.9
Mali	4.5	15.8	3.6
Niger	2.5	13.8	3.4
Senegal	2.2	11.1	4.8
Togo	6.2	13.9	2.8
Average UEMOA	**6.4**	**16.6**	**3.6**
Gambia	4.9	26.6	5.3
Ghana	18.7	19.9	5.1
Guinea	10.7	16.1	11.4
Liberia	9.3		16.8
Nigeria	12.4	27.9	7.6
Sierra Leone	6.4	44.6	9.0
Average WAMZ	**10.4**	**27.0**	**9.2**
Cape Verde	2.3	25.4	3.9

Source: World Development Indicators, World Bank and Author's calculations.

Another issue that UEMOA countries and Cape Verde may have to contend with is the anticipated loss or dilution of the guarantee of convertibility of their respective currencies that could result from an ECOWAS-wide common currency union. Indeed, historical evidence shows that these countries often post current account deficits and rely upon the arrangement with the guaranteeing country – France or Portugal – to finance such deficits through the Compte d'Operation or the Line of Credit. Considering that WAMZ countries have higher economic volatility, the frequency and size of their current account deficits may put additional strain on the pooled reserves and thereby lessen the guarantee for member countries or increase the economic exposure induced by the guarantee for France and Portugal. This could occur during the transition years as WAMZ countries would have remnants of their previous economic practices, even in the presence of rules of new nominal convergence criteria. Furthermore, the European Central Bank (ECB) would need to approve any significant change in the arrangement between France and UEMOA members. Given the economic volatility of WAMZ countries and their relative size compared to current UEMOA countries; this may constitute an important challenge to overcome.

Two considerations need to be addressed with respect to the effectiveness of monetary policy within a new ECOWAS common currency union. First, the sub-region already has a common currency union, UEMOA, with its own policy doctrine and transmission mechanism of monetary policy and individual countries with a great disparity in sizes and economic structures. Harmonization at the level of ECOWAS which is aimed at improving the effectiveness of common economic policies could be a challenge for a common central bank. Second, even if the diversity of economic characteristics is accepted at the beginning of a new common currency union, there is no guarantee that endogeneity will result in a stronger co-movement of macroeconomic indicators of member countries, following the establishment of the new common currency union. The current political situation in several countries of the sub-region– Mali, Guinea Bissau and Guinea, is a further potential obstacle for a smooth transition into a new currency arrangement.

Table 3: Fiscal Deficit Financed by Central Bank as Percentage of Fiscal Revenues of Previous Year

	2005	2006	2007	2008	2009	2010*	2011**
Benin	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Burkina Faso	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cape Verde	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Côte d'Ivoire	0.0	0.0	0.0	0.0	0.0	0.0	0.0
The Gambia	0.0	0.0	0.0	35.9	13.7	54.6	54.6
Ghana	0.0	0.0	0.0	17.3	0.0	34.9	0.0
Guinea	-8.8	54.0	0.0	5.8	38.7	91.0	4.3
Guinea Bissau	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Liberia	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mali	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Niger	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nigeria	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Senegal	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sierra Leone	0.0	13.3	0.8	0.3	18.6	37.6	37.6
Togo	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UEMOA	0.0	0.0	0.0	0.0	0.0	4.3	0.0
WAMZ	-0.2	1.1	0.0	1.6	0.9	4.9	0.6
WAMZ without Nigeria	-2.7	17.8	0.1	13.1	13.9	53.2	6.2
ECOWAS	-0.1	0.8	0.0	1.0	0.6	4.7	0.4
ECOWAS without Nigeria	-0.7	4.5	0.0	3.4	3.6	16.7	1.6
Number of countries	15	13	15	13	12	11	13

Source: WAMA

In spite of these initial challenges, West Africa is the sub-region in Africa with the strongest desire to integrate in general, and to create a common currency in particular. This stated agenda has been espoused by the ECOWAS Summit of Heads of State and the ECOWAS Commission. Furthermore, the volume of cross-border trade and the size of informal foreign exchange transactions at border crossings underscore the popular need for an ECOWAS common currency. This broad-based support is of paramount importance in the motivation and design of an ECOWAS common currency union.

Justification of the ECOWAS Common Currency Union

Key issues and motives for the CCU

Economic history offers ECOWAS at least five forms of monetary cooperation with various degrees of symmetry. Symmetry refers to the extent to which decisions on monetary policy fully reflect the interests and responsibilities of all parties. Following is a list of options in ascending level of symmetry. First, a currency board would allow each or all ECOWAS countries to peg their respective currencies to another currency at a fixed exchange rate and ensure that their money supply is tied to the level of reserves of the other currency at their disposal. Second, ECOWAS countries can also abandon their respective currencies and adopt another country's currency. The most common cases are dollarization or euroization but can also take the form of "nairaization" to take a local example. Third, ECOWAS countries can agree to an informal exchange rate union that maintains the separate currencies of members and sets fixed exchange rates within a band where rates can vary (monetary snake) around the central parity. The central parities can be modified occasionally to reflect current circumstances. Fourth, if an informal exchange rate union is formalized, the exchange rate band is significantly narrower or simply eliminated, which results in fixed exchange rates. Under this arrangement the central banks of the member countries would remain in place, but with a high degree of central coordination. Given the institutional arrangement of fixed exchange rates, currencies would be perfect substitute, albeit with limited geographical circulation.

Full monetary union or a common currency union would consist of a single ECOWAS monetary authority, a single currency and total freedom of circulation of the currency throughout the territory of the union. Full monetary union would be consistent with a high degree of symmetry that would give each country a sense of full membership, irrespective of size or income level and would encourage a strong commitment to the union. The decision was made by ECOWAS to create a second monetary union, the WAMZ, and its common currency, the ECO. This was aiming at a merger between WAMZ and UEMOA, on the one hand, and the ECO and the CFA Franc on the other hand. The two monetary zones would operate independently and in parallel for some time before the merger. The final arrangement would constitute a full monetary union for the entire sub-region.

What would be the benefits and costs of an ECOWAS common currency union? Barro and Lee (2011) propose a list of such benefits and costs for a possible East Asian currency union whose members are comparable to ECOWAS countries. They cite Frankel's (2004) view that adopting another country's currency as nominal anchor is an extreme form of a fixed exchange rate system and examine the benefits and costs associated with such an arrangement. Five main benefits are listed: i) provision of a nominal anchor and a more credible commitment to fight inflation; ii) reduction of uncertainty and transactions costs resulting in promotion of trade and investment; iii) deterrence for competitive devaluations; iv) avoidance of speculative bubbles in exchange rates; and v) improved access to international long term debt financing.

Following are the main costs that the common currency arrangement could entail: i) abandonment of monetary sovereignty and of independent monetary policy; ii) no automatic foreign exchange adjustment to asymmetric shocks; iii) no ability to serve as lender-of-last resort. Would these benefits and costs apply to ECOWAS countries if they became members of the common currency union? With respect to credibility, if one takes the case of UEMOA, the question is whether the apparent credibility of the CFA Franc rests on the monetary zone itself or on the guarantee of convertibility provided by France and the fixed parity with the Euro. Therefore, in the absence of indisputable empirical evidence and the fact that UEMOA that has been in existence for many decades, it is difficult to consider that the inception of the ECOWAS common currency union would result in higher credibility. Despite considerable efforts by policymakers of UEMOA and ECOWAS to reduce uncertainty and transactions costs, intra-regional trade and investment have remained at low levels and show no sign of significant improvement in the coming years. This may be due in part to the great similarity of the exported goods among countries, the resilience of

trade and investment relations with former colonial powers and the obstacles to cross-border road transportation. While competitive devaluations and speculative bubbles would not be a threat in the proposed common currency union, there is no evidence to suggest that its mere existence would improve access for member countries to international debt markets. At least the historical record of UEMOA does not lend credence to this postulate. It can be argued that all the costs listed above would apply to the ECOWAS common currency union.

ECOWAS as an Optimum Currency Area (OCA) and the welfare gains for union members

Is ECOWAS an OCA? Mundell (1961), McKinnon (1963) and Kenen (1969) proposed criteria to determine the optimality of a currency area. These criteria relate to trade openness, symmetry of economic shocks or the speed of adjustment to asymmetric shocks, mobility of labor within the common currency zone, financial integration among members, a tendency to high inflation and political proximity. Various recent empirical studies have provided results on the optimality of ECOWAS as an OCA. Sugimoto (2008) uses a Generalized Purchasing Power Parity (GPPP) model and reports that UEMOA countries formed an OCA for the period 1975-2007, and that WAMZ countries also constituted an OCA for the period 1994-2007. He also found that for the period 1975-1993, UEMOA combined with either The Gambia or Ghana formed an OCA, but did not when combined with Nigeria over the same period. Sireh-Jallow (2013) uses two methodological approaches which yield different results. His estimation of a reduced Vector Auto Regression (VAR) shows that some ECOWAS countries, mostly members of UEMOA, respond to price shocks from France, U.K and USA while others do not. With a GPPP model, his co-integration analysis supports the optimality of the sub-region.

Omotor (2013) studies the optimality of WAMZ as a currency area and finds little cohesiveness in the output fluctuations of member countries and concludes that they are not suitable candidates for a currency union. Ghartey (2013) conducts a correlational analysis of various types of shock for four WAMZ countries, The Gambia, Ghana, Nigeria and Sierra Leone. He concludes that in the short run WAMZ countries do not qualify to use a common currency, but their long term prospects may lead to optimality if coordination of their monetary policy and financial market deepening improve over time. Kemegue and Seck (2013) examine the possibility of ex-post endogeneity for African members of monetary unions in meeting optimum currency area criteria even if they do not satisfy them initially. They find that for UEMOA countries the co-movements of macroeconomic fluctuations are significantly low, the business cycles of these countries have not grown more homogeneous over time and the bond amongst existing union members has grown weaker than with their major trade partners outside the union. They conclude that in the absence of initial conditions for optimal currency areas, endogenous benefits in monetary unions are not guaranteed. However, this conclusion is mitigated by Frankel and Rose (1998) who, in the context of European integration, found evidence that business cycles tend to be more synchronized after the creation of a monetary union, due to a union-induced increase in trade. The possibility that the monetary union could serve as an agent of restraint, with respect to fiscal policy, has also been mentioned as an endogenous benefit. However this is yet to be proven in the case of West African countries, mainly within UEMOA.

Masson and Patillo (2005) estimate the gains or losses that individual West African countries derive from membership in monetary unions. Their model simulations show that current UEMOA countries have a net gain from their current membership in the Zone. However, in the scenario of an ECOWAS monetary Union, some but not all, WAMZ countries would gain from the larger union and UEMOA countries would lose. Therefore given a choice, they would prefer to remain solely members of UEMOA. They show that if Nigeria is a member of the ECOWAS common currency union all the countries would suffer losses except for Nigeria itself, The Gambia, Ghana and Sierra Leone because of the fiscal asymmetry that would causes. The analysis examines the mutual gains that would accrue to WAMZ countries if they joined UEMOA. The results suggest that every WAMZ country would benefit from joining UEMOA but only Guinea would be an attractive candidate for the current members of UEMOA. The Gambia could also be an acceptable candidate because the losses that UEMOA members would suffer from its membership would be significantly lower than the gains for the Gambia upon joining.[2]

2 Masson and Patillo (2005 : 103) decompose the gains (and losses) into a) gain from conducting trade at the single currency instead of each country having its own currency and monetary policy; b) asymmetries across countries due to differences in fiscal policy; and c) asymmetries across countries due to differences in terms of trade shocks.

In conclusion, the empirical evidence is not unequivocal and leaves open the possibility that an ECOWAS common currency union might be beneficial. Two other considerations should also be kept in mind. First, when the CFA Franc was created in December 1945 by France, as a common currency for its West African colonies, it was based on a political decision that was not informed by an OCA analysis. Furthermore, the decision that led to the inclusion of Guinea Bissau as a member of WAEMU in 1997 was also more political than based on purely economic analysis. In March 1960, Guinea withdrew from the CFA Zone and replaced the CFA with the Franc Guinéen, for political reasons.

Second, there is no trace of an OCA analysis that helped the leaders of ECOWAS in February 2000 plan for the creation of the second monetary zone (WAMZ) and to later merge it with the UEMOA. Therefore, in the context of West Africa, the historical record shows that key decisions to establish or modify common currency arrangements mostly have political foundations. Which, considering the relative success of the UEMOA, could be deemed as a reasonably sound basis for the design and establishment of the ECOWAS common currency union. The study will now examine various options for the design of the Union.

What type of monetary union for ECOWAS[3]

Three main options can be considered for the design of the ECOWAS common currency union: a) Extension of UEMOA and inclusion of all or part of the non-CFA countries; b) Merger of WAMZ with UEMOA, after the creation of the former, or c) Immediate creation of a new currency. The following analysis examines their respective merits.

Extension of the UEMOA to other West African countries

The extension of the UEMOA and the inclusion of other non-CFA West African countries have several appealing features. First, UEMOA is a tested and ex-

3 It should be noted that adoption by all ECOWAS countries of the Naira as a common currency (Nairaization) is not a feasible option because it would run against the principle of symmetry and would create significant welfare losses if Nigeria's monetary policy and management of fiscal and trade shocks addressed its needs rather than those of all the member countries, which would be likely if the Naira is the common currency.

perienced monetary arrangement that has withstood several local and global crises and has enjoyed a fair degree of discipline from the governments of member states and domestic financial institutions. While observance of the criteria of nominal convergence is not always effective, the Union has a record of low inflation and lower economic volatility than non-members. There is growing homogeneity between UEMOA members and the central bank enjoys considerable independence. The Zone has a pre-existing guarantee of convertibility accorded by the French Treasury and a reliable anchor: the Euro. All these characteristics could be attractive reasons for non-members to join an extended UEMOA.

However, several obstacles could make this option challenging. New entrants would find it difficult to accept the conditions of the guarantee of convertibility, mainly the existence of the Compte d'Operations and holding part of their foreign reserves in that account. West African countries that were not formerly colonized by France may not accept the influence of this country in the management of a currency that is supposed to promote regional integration in the sub-region, when none of the member states are any longer a colony. Upon inception of the Euro, the European Central Bank accepted the continuation of France's guarantee of convertibility for the CFA Franc and its peg to the Euro, on the condition of prior acceptance in case of a new significant modification of the current arrangement. Extending the monetary arrangement to all or a significant part of the non-CFA West African economy might be objected to by the ECB or based upon conditions which are not acceptable to UEMOA members, new and old. Furthermore, France may not wish to extend the guarantee of convertibility to new members or old members, given the new risk profile that the latter would have after a significant extension of the CFA Zone. Finally, current CFA countries could refuse to bear the welfare costs that would arise from the high inflation, high volatility and undisciplined fiscal policy of some non-CFA members and consequently deny them entry into UEMOA.

Merger of WAMZ and UEMOA

The plan to create the WAMZ and later merge it with UEMOA has the advantage of being a homegrown policy decision, presumably benefiting from support from key local development stakeholders. If well implemented, it could be a fast-track strategy for monetary unification. It would also reduce the duration of negotiations and transactions costs, considering that only two entities, UEMOA

and WAMZ, would be involved. Various valuation and nominal convergence enforcement exercises would be conducted during the period of co-existence of the two monetary zones and would be therefore either unnecessary or easily updated at minimal cost during the final merger. Finally, the two unions would be of comparable sizes at the time of merger, which would facilitate balanced negotiations.

However, this course of action is proving increasingly unlikely for a number of reasons. The first is lack of progress; considering that after more than 13 years, no significant achievement has been recorded regarding establishment of WAMZ as a second monetary zone. Further, there seems to be no indication that any progress will be attained in the foreseeable future. The second reason lies in the asymmetry that would arise from the creation of WAMZ between Nigeria and other WAMZ members. The size and high variability of the Nigerian economy coupled with the potential conflicting trade shocks between Nigeria, an oil exporter, and its WAMZ partners, mainly oil importers could give rise to substantial welfare costs that could cause irretrievable damage to the tiny economies of The Gambia, Liberia and Sierra Leone in the event of major adverse shocks. Moreover, given the possible incompatibility of the interests of Nigeria relative to those of the smaller economies of WAMZ, UEMOA would find it difficult to address the common interests of the entire WAMZ region and would therefore be unable to reach an optimal design of the new ECOWAS common currency. Finally, would WAMZ perform adequately for a protracted time period if negotiations with UEMOA take too long or do not succeed?

Immediate creation of a new currency

The third option would consist in the immediate creation of a new currency and the establishment of a new central bank. Countries that would become members at the outset would be required to meet a set of nominal convergence criteria established by ECOWAS. This implies that some countries may not initially become members. This option has many advantages. First, the option provides for a clean slate which avoids the need for some members to defend a system or benefits that they are used to. The absence or low level of initial inertia could facilitate a fast track solution and allow for low transactions costs, especially if the design of the monetary arrangement and the criteria for selection of members are based on principles previously agreed to. It could restore the possibility of WAEMU countries and Cape Verde participating in monetary policy, which was not fully possible given their peg to the Euro. Finally, the current dependence of these countries on the Euro would be significantly diminished, bearing in mind that WAEMU and Cape Verde on the one hand, and the Euro Zone on the other hand, do not necessarily constitute an OCA.

Immediate creation of a new West African currency would entail various costs for various potential members. UEMOA could lose its peg to the Euro and the guarantee of convertibility provided by France and Cape Verde its facility with Portugal and the convertibility of the Escudo with the Euro. As was shown in Table 2, UEMOA countries have significantly lower economic volatility than WAMZ countries. Would a new common currency align the volatility levels of the two groups of countries without welfare losses for UEMOA countries? Non-CFA countries currently have the possibility to adjust to national asymmetric shocks through monetary policy. Would it be acceptable for them to give up such policies if they adopt the new common currency? Even if a small number of countries initially became members of the new common currency, the rapid transaction may lose the benefits of gradualism and lead to faulty policies and confusion if an appropriate timetable towards full monetary integration is not laid out from the start.

In conclusion, immediate creation of a new ECOWAS common currency seems to be the preferred option for the following reasons. First, the biggest obstacles for any option lie in the institutional constraints, mainly those related to collaboration with non-African entities, namely France, Portugal and the ECB. These constraints may take the form of institutional or economic concessions that could be exacted from African countries in compensation for convertibility or lines of credit to help boost the credibility of the new monetary arrangement that would include all ECOWAS countries. Furthermore, taken as a block, UEMOA countries may seek to preserve key aspects of the current arrangement with France, which could jeopardize a successful outcome under the first two options.

Second, considering the long delays in the implementation of the WAMZ – UEMOA merger plan, option three could arguably be the fastest scenario. As the first phase of the inception of the new currency, West African countries, including UEMOA and Cape Verde, would not need to negotiate with France and Portugal, rather just give them notice of the planned adoption of another currency. Negotiations could be held during the transition period without significant undue prejudice to the unfolding of the new common currency zone.

Third, the decision to create a new currency would put all ECOWAS countries on the same side of the design because it would imply that UEMOA countries and Cape Verde would accept to relinquish the benefits of their previous arrangements with France and Portugal and all potential members of the new monetary zone would have a higher sense of responsibility to make it succeed. When West African Heads of State agreed on the plan to merge WAMZ and UEMOA, they undoubtedly expected that it would entail termination of the benefits that UEMOA countries and Cape Verde derive from their association with France and Portugal. The consequences would not be significantly different under option 3.

Proposed architecture for the common currency [4]

As in indicated above, immediate creation of a new ECOWAS common currency does not mean that all the countries of the sub-region will adopt it from the start. In order to safeguard its viability and credibility, the new monetary zone should be comprise of countries based on economic performance and transactional efficiency. In other words, for the sake of inclusiveness, it should ideally cover as large a proportion of the sub-region's economy and population as possible, under the constraint of minimal negotiations and country-level peculiarities embedded in the design. The criteria for selection of potential members of the monetary zone should also benefit from the relevance and authority of previous decisions of ECOWAS.

Methodological approach

The methodology consists of using the criteria of nominal convergence formulated by ECOWAS to determine the suitability of each country as a potential member of the new monetary zone. Two sets of criteria are given as follows:

4 This section will examine the architecture of the common currency itself but not the design of the central bank, which will follow the final agreement on the currency. The following issues will be later addressed regarding the central bank: Choice of anchor, Choice of target, Choice of instruments, Exchange rate regime, Nominal exchange rate of national currencies at entry into the Union, Governance and level of independence of the central bank, Supervision and regulatory powers, Fiscal prerogatives, Dual currency transition period, Existence and strength of secondary central bank objectives.

Primary criteria of nominal convergence

Fiscal deficit (w/o grants) / GDP ≤ 4%
Inflation rate ≤ 5%
Fiscal deficit financed by CB / Fiscal revenues of previous year ≤ 10%
Gross reserves ≥ 6 months of imports

Secondary criteria of nominal convergence

Domestic and foreign arrears = 0
Fiscal revenues / GDP ≥ 20%
Government payroll / Fiscal revenues ≤ 35%
Public investments / Fiscal revenues ≥ 20%
Real interest rates > 0%
Stability of real exchange rates: ± 5%

It is noteworthy that criteria such as "Fiscal deficit financed by CB / Fiscal revenues of previous year ≤ 10%" do not apply to UEMOA countries, while others such as "Real interest rates > 0%" may be misleading if, for instance a country with historically low inflation rates also has low nominal interest rates and, as a result, has lower real interest rates than a country with high and volatile inflation and high nominal interest rates to attract savings. Consequently, a partial and admittedly arbitrary list of criteria is used to determine each country's individual performances and calculate their rankings with respect to each criterion. The following criteria are used for the rankings:

Criteria of nominal convergence for selection of new monetary union members

Fiscal deficit (w/o grants) / GDP ≤ 4%
Inflation rate ≤ 5%
Fiscal revenues / GDP ≥ 20%
Government payroll / Fiscal revenues ≤ 35%
Public investments / Fiscal revenues ≥ 20%

All the 15 countries are included in the rankings and a final combined ranking, which is the average of the individual ranks, is used to determine potential candidate members of the currency union.

Table 4. Average Nominal Convergence Indicators for ECOWAS Countries
Actual Values (Mean 2008-2010)

	Fisc. Def/GDP	Inflation rate	Fisc. Rev. / GDP	Gov. Pay / Rev.	Pub. Inv. / Reve.
Benin	4.4	3.7	16.0	42.1	28.0
Burkina Faso	12.3	3.1	15.3	44.8	49.3
Cape Verde	12.9	3.3	23.1	45.7	2.1
Côte d'Ivoire	2.3	4.6	16.8	41.5	13.2
The Gambia	5.9	5.1	13.3	36.3	14.5
Ghana	11.8	14.2	18.2	52.5	23.7
Guinea	7.6	14.1	14.8	33.2	35.3
Guinea Bissau	16.5	3.2	6.8	83.6	6.3
Liberia	1.5	8.6	20.1	35.2	11.3
Mali	7.4	3.7	14.3	34.6	22.1
Niger	8.7	3.8	12.9	28.7	34.9
Nigeria	2.4	13.6	13.0	34.2	31.0
Senegal	7.3	1.6	18.4	32.8	33.1
Sierra Leone	10.2	14.0	9.1	60.2	22.4
Togo	4.0	3.4	15.4	35.8	16.0
UEMOA	**5.9**	**3.8**	**16.6**	**38.0**	**24.8**
WANZ	**3.3**	**13.7**	**13.4**	**35.9**	**30.4**
ECOWAS	**4.2**	**10.3**	**14.5**	**36.6**	**28.3**

Source: WAMA and Author's calculations

Selection of initial members of the ECOWAS Common Currency Union[5]

Table 4 reports the individual indicators of each ECOWAS country on each of the five criteria of nominal convergence selected for the rankings. The indicators are averages of the three-year period 2008-2010. The average ratio of Fiscal deficit/GDP was 4.2% for ECOWAS but higher for UEMOA countries at 5.9%. WAMZ countries report an average of 3.3%. However, they have an average rate of inflation that is 3.6 times that of UEMOA countries. Therefore, WAMZ countries have significantly higher inflation and also as shown earlier in Table 2, markedly more volatile inflation. For the other three criteria, Fiscal revenues / GDP ≥ 20%, Government payroll / Fiscal revenues ≤ 35% and Public investments / Fiscal revenues ≥ 20%, the respective performances of the two zones are comparable.

In Table 5 the performances of the countries with respect to the criteria of nominal convergence are converted into rankings; the country with the best performance is assigned the rank of 1 and the one with the worst performance is assigned rank 15. The last column displays the overall ranking based on the average ranking of each country over the five criteria. It is noteworthy that, with the exception of Liberia, most of the countries with the highest overall rankings are members of UEMOA. The countries with the lowest overall ranks are non-CFA except for Guinea Bissau, a UEMOA country currently facing a difficult political and drug-trafficking situation. Bearing in mind the need for inclusiveness with respect to size of the economy and proportion of the population that would be included in the initial stage of the common currency union and conversely, the need to minimize transactions costs and the duration of negotiations, the following list of initial members could be proposed: a) All UEMOA countries, b) Cape Verde (a virtual UEMOA country), c) Liberia and d) Nigeria. These countries represented 88.3% of the total GDP of the ECOWAS sub-region in 2011, and 86.1% of its population. Four countries would not be initial members of the Union, namely The Gambia, Ghana, Guinea and Sierra Leone. Given the comparable sizes of the combined UEMOA countries and Nigeria, it is likely that initial arrangements reached by these two parties would be maintained, without

5 The components of the selection process can be subjected to considerable debate because of their degree of arbitrariness. Arguably, the final ranking obtained depends on the criteria used for the individual rankings, the time period over which the performances of the countries are computed and the weights given to the individual rankings related to the criteria.

Table 5: Rankings of Average Nominal Convergence Indicators for ECOWAS Coutries, Mean 2008-2010

	Fisc. Def/GDP	Inflation rate	Fisc Rev./GDP	Gov. Pay / Rev	Pub. Inv. / Reve.	Country total	Overall Ranking
Benin	5	6	6	10	6	33	**2**
Burkina Faso	13	2	8	11	1	35	**5**
Cape Verde	14	4	1	12	15	46	**11**
Côte d'Ivoire	2	9	5	9	12	37	**8**
The Gambia	6	10	11	8	11	46	**11**
Ghana	12	15	4	13	7	51	**13**
Guinea	9	14	9	3	2	37	**8**
Guinea Bissau	15	3	15	15	14	62	**15**
Liberia	1	11	2	6	13	33	**2**
Mali	8	7	10	5	9	39	**10**
Niger	10	8	13	1	3	35	**5**
Nigeria	3	12	12	4	5	36	**7**
Senegal	7	1	3	2	4	17	**1**
Sierra Leone	11	13	14	14	8	60	**14**
Togo	4	5	7	7	10	33	**2**
Total Ranks	120	120	120	120	120	600	

Source: WAMA and author's calculations

significant modifications as new members join the Union later.

Role and status on non-members

Individual UEMOA members may not initially be members of the common currency union either by choice or because they are not selected. In either case, according to the proposed architecture, they could participate in the design as members-in-waiting through the mechanism of informal exchange rate union. At the inception of the new common currency, an equilibrium nominal exchange rate would be set between the currency of a given non-member and the common currency. The nominal exchange rate would be allowed to vary within a band whose width would be predetermined, say 10% on either side of the equilibrium value. After an agreed period, the band would be reduced to a narrower range, say 5% on either side. This deliberate exercise aimed at an ultimate fixed pegging, will result after several iterations, in a fixed nominal exchange rate between the national currency of the country and the common currency and the inclusion of the country as a member of the common currency union.
For the sake of a successful regional integration agenda in West Africa, the process described above needs to be speedy and devoid of major disturbances in the construction of the common monetary zone. Several factors could contribute to this. First, strong cooperation should be established between the non-member country and the authorities of the common currency union, to coordinate responses to shocks and avoid competitive devaluations. Second, in cases of low independence of the country's central bank and the inclination for monetization of the government's fiscal deficit, steps should be taken to lessen that practice or put an end to it. A solidarity mechanism could be set up to avoid the temptation for non-member countries to undertake policies aimed at mitigating the impact of asymmetric adverse shocks. Indeed, such policies could result in the movements of nominal exchange rate outside of the band, thereby delaying or hindering the inclusion of the country into the monetary zone.

Level and management of foreign reserves

The architecture of the ECOWAS common currency zone proposed above needs to be completed through the appropriate management of the Union's foreign reserves. For a full understanding of the issue at least four key ques-

tions must be addressed. 1) What initial level of Union reserves would be adequate? 2) How to manage reserves symmetrically? 3) Should the contributions of individual countries to the Union's reserves be identical? 4) What external mechanisms could be used to boost the level of Union reserves structurally and in case of temporary shocks?

Adequacy of initial level of Union reserves

ECOWAS's relevant criterion of nominal convergence stipulates that a country should have gross reserves equal to at least 6 months of imports. Table 6 shows that for the last three years 2009 through till 2011, UEMOA and WAMZ countries have on average met this criterion, with 6 months and 7.3 months respectively. However, when Nigeria is excluded, several countries fall short of the benchmark: Cape Verde, Ghana, Guinea, Liberia and Sierra Leone. Therefore, at least during the initial stage, Cape Verde and Liberia would need to boost their levels of reserves, given that they could become initial members of the Union. Furthermore, although Nigeria satisfies the criterion, it has undergone a marked decline in its reserves since 2007 and could miss it (the criterion) if the downward trend persists. As for UEMOA countries, they have also experienced decreasing reserves and, in 2011, did not offer any reserve surplus which could strengthen the overall position of the Union.

Table 6: Gross External Reserves in Months of Imports of ECOWAS Countries, 2005 - 2011

	2005	2006	2007	2008	2009	2010	2011**
Cape Verde	3.4	3.6	4.1	4.0	4.2	4.2	4.0
The Gambia	5.2	4.9	4.4	4.3	6.5	6.0	5.8
Ghana	4.0	3.7	3.9	1.8	3.2	3.7	3.7
Guinea	1.1	0.8	0.4	1.1	1.4	1.9	1.5
Liberia	0.1	0.1	0.7	0.7	3.7	4.3	4.3
Nigeria	11.8	15.1	17.4	15.3	13.0	7.8	7.8
Sierra Leone	4.8	4.9	5.1	4.2	6.2	4.6	5.6
UEMOA	5.7	5.6	6.0	5.7	6.6	6.3	6.0
WAMZ	10.9	13.8	15.9	13.9	11.9	7.3	7.3
WAMZ w/o Nigeria	3.2	2.9	2.9	1.9	3.0	3.3	3.2
ECOWAS	9.1	11.0	12.5	11.1	10.1	6.9	6.8
ECOWAS w/o Nigeria	5.0	4.8	5.1	4.6	5.6	5.5	5.2
Number of countries	1	1	9	1	11	10	9

Source: WAMA

Management of reserves and individual countries' contributions

Inception of a single ECOWAS currency will entail a pooling of member countries' national reserves but leaves open one question: will the Union reserves be fully fungible i.e. are they indiscriminately the join property of all member countries that have ready access to them or do countries have separate accounts within the pooled funds and only have access to their share with the possibility of "borrowing" in a limited fashion from the remainder of the pool? The latter is very similar to UEMOA's Compte d'Opérations and seems preferable in the early stages of the Union because it would preempt the tendency of national governments to make excessive use of Union reserves, rather than show restraint in their national fiscal or trade policies. A system of progressive interest rates would be charged to counties that borrow increasing amounts from the reserve pool.

An additional measure would also be needed to safeguard the overall stability of the Union currency. While the ECOWAS criteria of nominal currency stipulate that countries should have national reserves equal to at least six months of imports, a provision could state that member countries that have higher economic volatility would need to have a higher level of reserves/imports ratio. This provision could be reviewed periodically and modified if as circumstances change. Concerns commonly raised regard the size of the Nigerian economy, the oil-dominated composition of its exports, its fiscal instability and the volatility of its macroeconomic indicators. If these characteristics persist after the creation of the monetary zone, the credibility of the currency could be at risk and some potential zone members may be reluctant to join it. In order to address this challenge, a special reserve could be contributed by Nigeria as the Nigeria Reserve Insurance Fund (NRIF), in addition to its pooled statutory reserve contribution. This Fund would be for the exclusive use of Nigeria and would only be tapped into as a self-insurance mechanism and additional protection for the reserve pool. Consultations between Nigeria and Union authorities could help determine its level and mode of replenishment.

Structural external reserves and temporary relief mechanisms

While the foregoing analysis has been based on the postulate that ECOWAS countries can design and implement their common currency area and maintain the credibility of the new currency through, among other things, an adequate level of foreign reserves at all times, added credibility could be achieved if external flows of reserves can be secured in the long run as well as during temporary sharp drops in the Union's foreign assets. The long term disposition, which is considered structural, could consist of the issuance by the Zone of non-interest bearing long term bonds in foreign denomination that foreign trade partners could purchase. These bonds would serve to almost permanently raise the level of reserves of the Union, without any cost and would help preempt speculative attacks on the Union currency and boost its international credibility. The maturity of the bonds would be between 20 and 30 years.

In order to stave off or mitigate occasional reductions in the level of Union reserves caused by strong adverse shocks, the Union could have arrangements with foreign central banks that could take various forms. These temporary relief mechanisms would also inspire more confidence in the Union currency and reduce the need for it to stockpile large amounts of foreign assets.

Conclusion

The present study has sought to propose the architecture for an ECOWAS common currency zone. The proposed design takes into consideration a number of characteristics that are specific to the sub-region. A fixed exchange rate system shared by the eight members of UEMOA and by Cape Verde is pegged to the EURO, while the other six countries have flexible exchange rates. There is a large disparity between country population sizes and GDP; the top five countries represent 85.3% of the sub-region's GDP while the bottom five account for only 3.5%. WAMZ economies have considerably higher volatility than their UEMOA counterparts with respect to inflation, exports and GDP. The central banks of several WAMZ countries have a history of financing the fiscal deficit of their governments, thus creating additional inflationary pressure in their respective economies. It is uncertain whether the transmission mechanism of monetary policy that UEMOA countries rely on would be effective for WAMZ countries. As the high degree of political instability present in Mali, Guinea and Guinea Bissau may not provide a conducive economic policy environment for a new ECOWAS common currency.

Empirical studies do not provide strong evidence to suggest that ECOWAS is currently an optimal currency area, but the possibility of endogeneity cannot be altogether excluded. The welfare gains following creation of an ECOWAS com-

mon currency are found to be more in favor of WAMZ countries than UEMOA countries. But more importantly, the political will of the sub-region's leaders and main development stakeholders strongly favors the common currency agenda, which is in keeping with past decisions related to monetary integration. In other words, monetary union has always been a political phenomenon in the sub-region. Three options are considered for the design of the ECOWAS common currency union namely a) extension of UEMOA to other West African countries, b) merger of WAMZ with UEMOA or c) immediate creation of a new ECOWAS currency. A range of institutional constraints and the long delay and slow progress in the WAMZ-UEMOA merger, seem to indicate that the best option would be create a new currency zone that countries would join based on their performance with respect to the criteria of nominal convergence formulated by ECOWAS.

When the individual countries are ranked based on their respective performances over five key criteria of nominal convergence, the results indicate that countries that would be the first members of the new zone would include all UEMOA members, Cape Verde, Liberia and Nigeria. Four countries, namely The Gambia, Ghana, Guinea and Sierra Leone would join at a later date. During the transition they could be members-in-waiting and have an informal exchange rate union that would restrict movement of their exchange rates with the union currency, within a gradually narrowing band and ultimately lead to their inclusion in the ECOWAS monetary zone. Special attention should be paid to the adequacy of the level of foreign reserves of the union. Their integrity could initially be safeguarded by separate accounting of country contributions to pooled reserves in an approach similar to the Compte d'Operations of the UEMOA countries.

In order to mitigate the large adverse shocks that its volatile economy might create, Nigeria would be invited to build up a Nigeria Reserve Insurance Fund for its exclusive use, in addition to its contribution to the pooled reserve. While ECOWAS has a uniform reserve to imports ratio for all countries, countries with high volatility could be asked to contribute a higher level of reserves. The ECOWAS common currency zone could seek to permanently boost its level of reserves by issuing non-interest bearing long term bonds which would increase its structural stability. It could also have arrangements for short term collaboration to lessen the impact of temporary incidents of pressure on its currency and avoid using large stockpiles of foreign reserves used to stave off speculative attacks.

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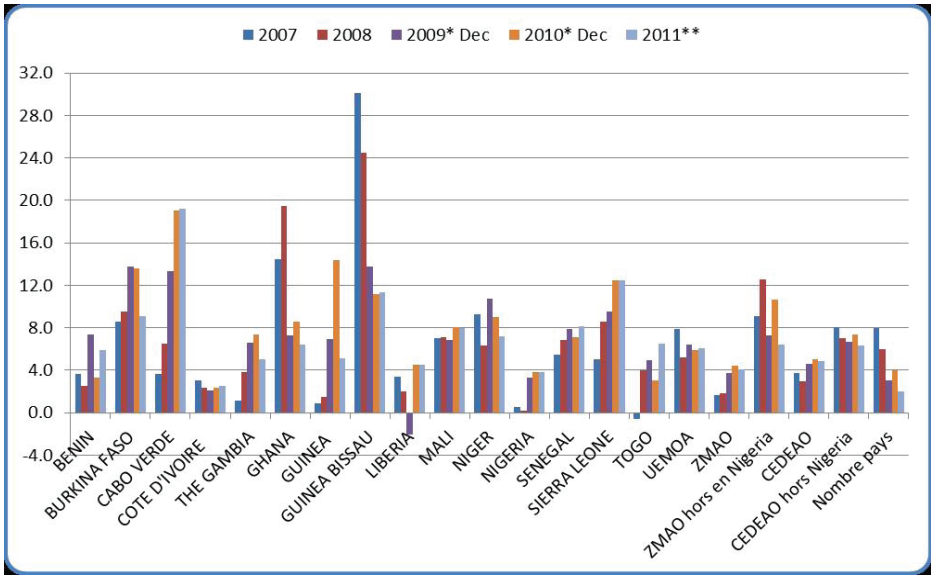
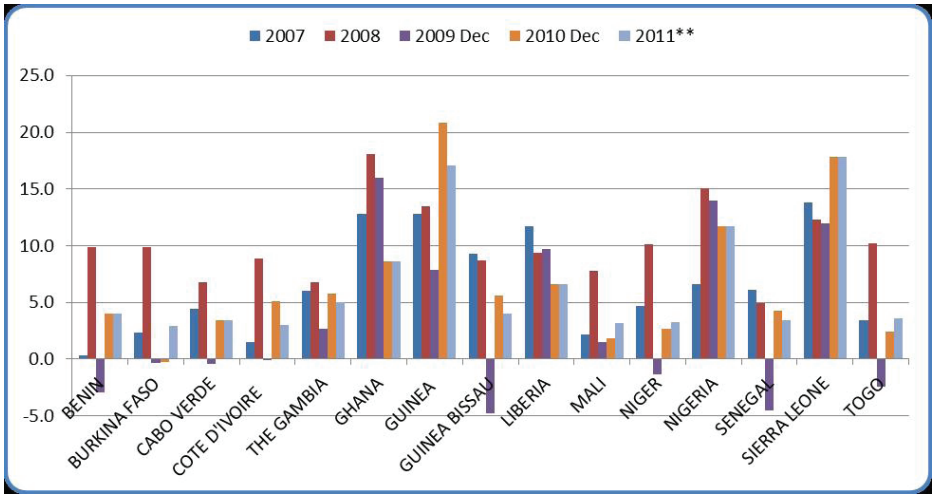
Graph.1: Fiscal Deficit/ GDP of ECOWAS Countries, 2008-2010



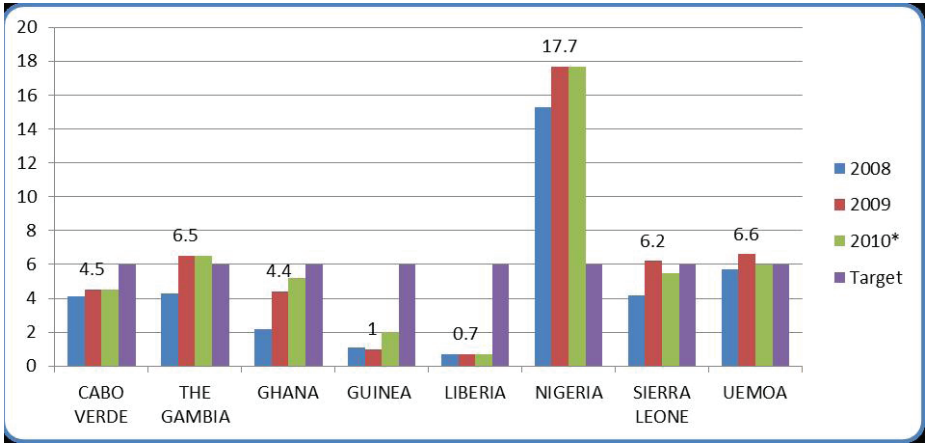
Source: WAMA, * Estimates, ** Forecasts

Graph 2: Inflation Rate (End of Period) of ECOWAS Countries, 2007-2011



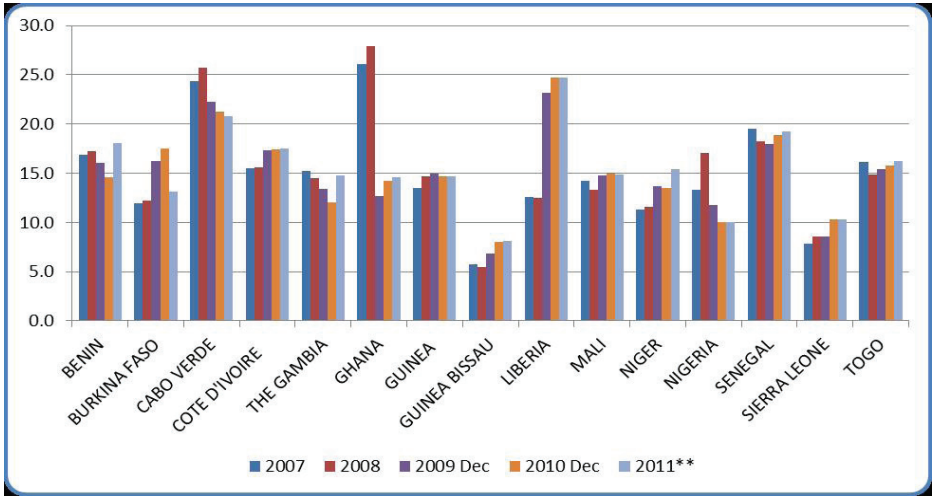
Source: WAMA, * Estimates, ** Forecasts

Graph 3: Gross External Reserves in Months of Imports, 2008-2010



Source: WAMA, * Estimates, ** Forecasts

Graph 4: Fiscal Revenues / GDP of ECOWAS Countries



Source: WAMA, * Estimates, ** Forecasts

Table 7: Fiscal Deficit / GDP of ECOWAS Countries (in %), 2005 - 2011

	2005	2006	2007	2008	2009*	2010*	2011**
BENIN	4.6	2.5	3.6	2.5	7.4	3.3	5.9
BURKINA FASO	9.1	11.3	8.6	9.5	13.8	13.6	9.1
CABO VERDE	11.4	10.4	3.6	6.5	13.3	19.0	19.2
COTE D'IVOIRE	2.7	1.5	3.1	2.4	2.1	2.3	2.5
THE GAMBIA	8.4	2.7	1.1	3.8	6.6	7.4	5.0
GHANA	6.9	12.9	14.5	19.5	7.2	8.6	6.4
GUINEA	1.6	2.0	0.9	1.5	7.0	14.4	5.1
GUINEA BISSAU	24.2	19.9	30.1	24.5	13.8	11.2	11.3
LIBERIA	0.9	-3.0	3.4	2.0	-2.0	4.5	4.5
MALI	7.3	7.6	7.0	7.1	6.9	8.1	8.0
NIGER	9.6	6.8	9.3	6.4	10.7	9.0	7.2
NIGERIA	1.3	0.5	0.6	0.2	3.3	3.8	3.8
SENEGAL	4.7	7.3	5.5	6.8	7.9	7.1	8.1
SIERRA LEONE	9.5	8.5	5.0	8.6	9.6	12.5	12.5
TOGO	4.1	4.2	-0.6	4.0	5.0	3.1	6.5
UEMOA	7.8	5.0	7.9	5.2	6.5	5.9	6.1
WAMZ	1.8	1.6	1.7	1.8	3.7	4.5	4.1
ECOWAS	3.8	2.7	3.7	2.9	4.6	5.0	4.8
Number of countries	5	6	8	6	3	4	2

Source: WAMA

Table 8: Inflation Rate (End of Period) of ECOWAS Countries

	2005	2006	2007	2008	2009	2010	2011**
BENIN	3.8	5.2	0.3	9.9	-2.9	4.0	4.0
BURKINA FASO	4.5	1.5	2.3	9.9	-0.3	-0.3	2.9
CABO VERDE	1.7	4.7	4.4	6.8	-0.4	3.4	3.4
COTE D'IVOIRE	2.6	2.0	1.5	8.9	-0.1	5.1	3.0
THE GAMBIA	1.8	1.4	6.0	6.8	2.7	5.8	5.0
GHANA	13.9	10.9	12.8	18.1	16.0	8.6	8.6
GUINEA	29.7	39.1	12.8	13.5	7.9	20.8	17.1
GUINEA BISSAU	0.3	3.2	9.3	8.7	-4.8	5.6	4.0
LIBERIA	7.0	8.9	11.7	9.4	9.7	6.6	6.6
MALI	3.4	3.6	2.2	7.8	1.5	1.8	3.2
NIGER	4.2	0.3	4.7	10.2	-1.3	2.6	3.3
NIGERIA	11.6	8.5	6.6	15.1	14.0	11.8	11.8
SENEGAL	1.4	4.0	6.1	5.0	-4.5	4.3	3.4
SIERRA LEONE	13.1	7.3	13.8	12.3	12.0	17.8	17.8
TOGO	5.5	1.5	3.4	10.2	-2.4	2.4	3.6
UEMOA	2.9	2.7	2.9	8.5	-1.0	3.9	1.2
WAMZ	12.1	9.2	7.3	15.3	14.0	11.7	11.6
WAMZ w/o Nigeria	18.3	19.0	12.6	15.8	12.7	13.0	11.8
ECOWAS	9.0	7.1	5.8	13.0	8.9	9.1	8.1
ECOWAS w/o Nigeria	6.9	7.0	5.5	10.4	2.6	6.2	4.0
Number of countries	9	8	7	1	10	7	10

Source: WAMA

Table 9: Fiscal Revenues / GDP of ECOWAS Countries (in %), 2005 - 2011

	2005	2006	2007	2008	2009	2010	2011**
BENIN	14.5	15.4	16.9	17.2	16.1	14.6	18.0
BURKINA FASO	11.8	12.0	12.0	12.2	16.2	17.5	13.1
CABO VERDE	21.5	23.4	24.4	25.7	22.2	21.3	20.8
COTE D'IVOIRE	13.9	14.4	15.5	15.6	17.4	17.4	17.5
THE GAMBIA	17.2	18.8	15.2	14.5	13.4	12.1	14.8
GHANA	21.9	22.3	26.1	27.9	12.6	14.2	14.6
GUINEA	12.2	14.8	13.5	14.7	14.9	14.7	14.7
GUINEA BIS-SAU	11.3	11.3	5.7	5.5	6.9	8.0	8.1
LIBERIA	14.7	13.2	12.6	12.5	23.2	24.7	24.7
MALI	15.4	14.9	14.2	13.3	14.7	15.0	14.9
NIGER	10.3	10.7	11.3	11.6	13.7	13.5	15.4
NIGERIA	17.2	15.1	13.3	17.1	11.8	10.0	10.0
SENEGAL	18.6	19.0	19.5	18.3	18.0	18.9	19.2
SIERRA LEONE	8.1	8.5	7.8	8.5	8.5	10.3	10.3
TOGO	14.6	15.4	16.2	14.9	15.4	15.8	16.2
UEMOA	14.7	15.1	17.3	16.7	16.4	16.6	16.6
WAMZ	17.4	15.6	14.3	17.8	11.9	10.5	10.5
ECOWAS	16.5	15.5	15.3	17.4	13.5	12.6	12.6
Number of countries	2	2	2	2	2	2	2

Source: WAMA, * Estimates, ** Forecasts

Table 10: Government Payroll/Fiscal Revenues of ECOWAS Countries (in %)

	2005	2006	2007	2008	2009	2010	2011**
BENIN	39.0	35.6	31.0	35.6	45.1	45.7	43.7
BURKINA FASO	42.0	44.1	42.0	44.7	46.2	43.5	42.8
CABO VERDE	47.1	46.0	41.6	38.3	48.8	50.1	53.9
COTE D'IVOIRE	45.0	43.2	43.6	43.8	39.7	41.1	41.8
THE GAMBIA	24.3	24.2	22.3	31.2	33.9	43.7	31.1
GHANA	44.8	55.7	51.5	53.8	53.2	50.6	48.4
GUINEA	23.2	18.4	25.9	28.0	32.7	39.0	39.0
GUINEA BISSAU	116.1	110.8	116.5	96.2	77.1	77.4	62.1
LIBERIA	59.2	34.5	32.9	28.7	39.9	37.0	37.0
MALI	31.0	30.9	33.4	35.8	34.2	33.9	28.6
NIGER	34.7	33.3	31.0	29.8	27.3	28.9	25.2
NIGERIA	17.9	18.8	27.6	22.7	32.7	47.3	47.3
SENEGAL	30.0	31.0	31.0	32.0	33.6	32.7	32.0
SIERRA LEONE	65.5	61.6	60.9	59.8	59.8	60.9	60.9
TOGO	30.4	33.1	32.8	32.7	41.2	33.5	36.2
UEMOA	38.0	37.6	36.5	37.6	38.3	38.1	37.1
WAMZ	20.5	22.0	29.7	25.6	34.6	47.5	47.3
ECOWAS	26.6	27.3	32.0	29.6	35.9	44.3	43.9
Number of countries	7	8	9	7	6	4	4

Source: WAMA, * Estimates, ** Forecasts

Table 11: Public Investments/Fiscal Revenues of ECOWAS Countries (in %), 2005 – 2011

	2005	2006	2007	2008	2009	2010	2011**
BENIN	22.8	12.8	19.1	20.6	44.3	19.1	22.8
BURKINA FASO	40.8	43.4	40.8	43.4	47.6	56.9	43.4
CABO VERDE	2.9	2.9	2.0	1.9	2.4	1.9	2.0
COTE D'IVOIRE	10.7	15.5	12.8	13.6	12.6	13.4	15.2
THE GAMBIA	4.8	3.1	6.3	16.3	16.7	10.6	10.6
GHANA	18.8	25.0	27.3	35.8	17.2	18.0	20.6
GUINEA	12.6	12.0	11.9	12.9	38.1	55.0	55.0
GUINEA BISSAU	6.0	2.2	6.4	12.4	4.9	1.5	8.2
LIBERIA	18.3	14.9	13.8	12.5	12.5	8.8	8.8
MALI	21.8	23.4	33.1	23.5	24.4	18.3	25.7
NIGER	28.1	25.3	31.6	38.3	44.1	22.2	23.2
NIGERIA	20.6	19.6	27.6	23.2	39.6	30.3	30.3
SENEGAL	33.7	36.6	37.1	28.9	34.0	36.4	39.9
SIERRA LEONE	7.9	10.6	9.1	13.4	13.4	40.4	40.4
TOGO	8.4	3.6	4.1	12.9	16.5	18.6	29.6
UEMOA	23.2	23.9	23.3	22.8	27.1	24.6	26.4
WAMZ	20.1	19.8	27.0	23.8	37.6	29.8	30.0
ECOWAS	21.1	21.0	25.6	23.3	33.8	27.9	28.6
Number of countries	6	7	7	7	7	6	10

Source: WAMA , * Estimates, ** Forecasts

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