WEST AFRICAN MONETARY AGENCY (WAMA)



Report on Developments in the Exchange Rates of ECOWAS Currencies as at end November 2011

Freetown, December 2011

Introduction

The stabilization of ECOWAS currencies exchange rates features prominently in the road map set out for the establishment of the sub-regional single currency. This is considered as a continuous process to be finalized two years prior to the launch of the single currency. Hence, the need for keen monitoring of trends in the exchange rates of ECOWAS currencies. This report on developments recorded at end November 2011 falls within this perspective. It provides a review of trends observed on the international foreign exchange market and gives a comprehensive analysis of the behaviour of ECOWAS currencies in relation to the WAUA (West Africa Unit of Account) before examining trends in the bilateral exchange rates.

I. Exchange Rate Developments of ECOWAS major Currencies in relation to the WAUA.

The monthly, quarterly, semi-annual and annual trends of major international currencies are presented in the table below:

<u>Table 1.1</u>: Evolution of the WAUA against major currencies

	Nov-10		Dec-10		May-11		Aug	-11	Oct-10		Nov-11	
	Fin pde	Моу.										
Euro	1.174	1.140	1.160	1.162	1.113	1.113	1.114	1.120	1.133	1.148	1.156	1.153
Japanese Yen	128.394	128.566	125.436	128.135	129.422	129.517	123.261	124.008	125.603	120.772	121.099	121.527
U.K. Pound Sterli	0.983	0.976	0.998	0.983	0.970	0.979	0.988	0.981	0.990	0.998	0.994	0.989
U.S. Dollar	1.526	1.562	1.540	1.536	1.601	1.597	1.609	1.606	1.586	1.573	1.552	1.566

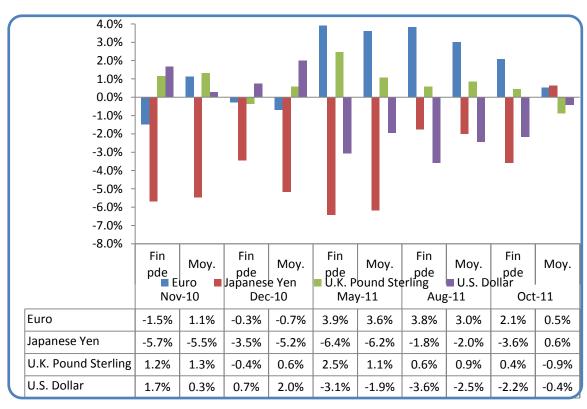
Source: IMF, WAMA, Central Banks

Overall, the quarterly and semi-annual trends have resulted in the strengthening of the Japanese Yen and U.S. Dollar in relation to the WAUA whilst the Euro and the British

pound have weakened. Compared to the beginning of the year and the same period the previous year, there is an overall strengthening of the Japanese Yen, a relative stability of the Euro and a slight depreciation of the Dollar and the British Pound.

In general, trends observed in the international exchange market reflect the expectations of analysts on the development of economic prospects in various regions of the world and concerns arising from the global financial crisis. Thus, fluctuations in the exchange rate of the Euro in 2011 continued to be mainly related to changes in investors' perception of economic and fiscal prospects for euro countries, especially compared to other major economic zones, as well as the expected yield differentials between the euro zone and the other zones. Indeed, the depreciation of the Euro over the last six months occurred in a context of renewed risk aversion and concerns about the fiscal prospects in some countries of the Euro zone.

<u>Graph 1.1</u>: Variation of the WAUA rates in relation to major international currencies (variations in % between November 2011 and the month under consideration)



Source: IMF, WAMA, Central Banks

However, the implied volatility of bilateral exchange rates which peaked out following the earthquake in Japan and the pressure of financial markets due to concerns about the sustainability of sovereign debt in the euro zone, has somewhat globally decreased during the third quarter of 2011.

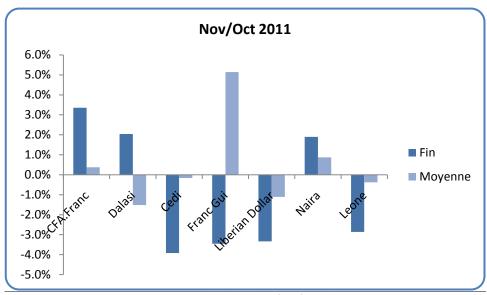
II. Trends in the nominal exchange rates of ECOWAS currencies in relation to the WAUA

Exchange rates evolution of ECOWAS currencies will be mainly assessed through the monthly, quarterly and yearly trends in relation to the WAUA.

The graphs below (2.1 to 2.5) show that, overall, the monthly, quarterly and half-yearly movements have resulted in an appreciation of the Liberian dollar, the naira and Leone vis-à-vis the WAUA while other currencies were generally observing a downward trend. Compared to the beginning of the year and the same period the previous year, all ECOWAS currencies have weakened vis-à-vis the WAUA during the period under consideration. The largest depreciations concern the Guinean franc and the Cedi.

2.1 Monthly Trends

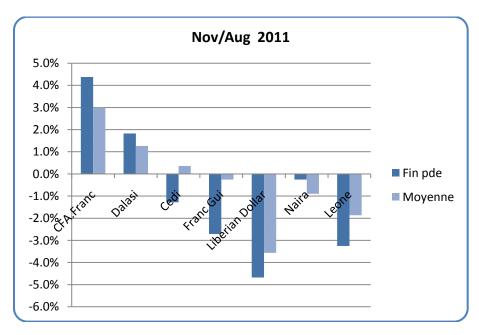
<u>Graph 2.1</u>: Monthly Trends in the WAUA rates in relation to ECOWAS Currencies (Nov./Oct. 2011 variations in %)



Source: IMF, ECOWAS Central Banks, WAMA

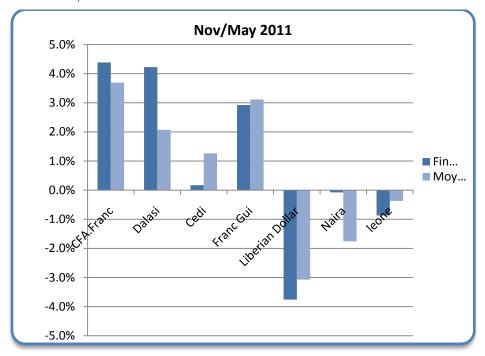
2.2 Quarterly Trends

<u>Graph 2.2</u>: Quarterly Trends in the WAUA rates in relation to ECOWAS Currencies (Nov./Aug. 2011 variations in %)



2.3 Half-yearly Trends

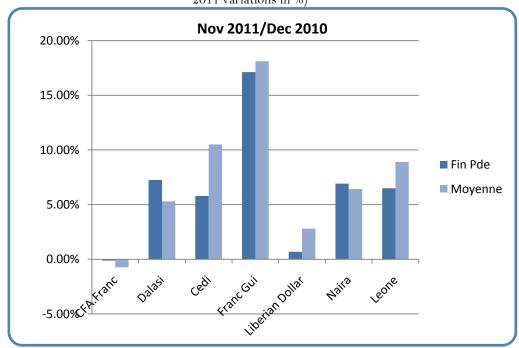
<u>Graph 2.3</u>: Half-yearly Trends in the WAUA rates in relation to ECOWAS Currencies (Nov./May 2011 variations in %)



Source: IMF, ECOWAS Central Banks, WAMA

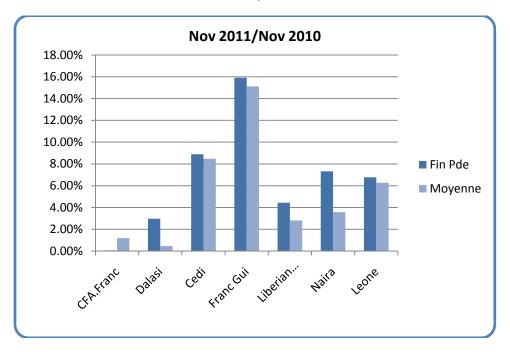
2.4 Trends since the beginning of the year

<u>Graph 2.4</u>: Quarterly Trends in the WAUA rates in relation to ECOWAS Currencies (Nov 2011/Dec. 2011 variations in %)



2.5 Annual Trends

<u>Graph 2.5</u>: Trends in the WAUA in relation to ECOWAS Currencies (Nov 2011/Nov 2010 variations in %)



Source IMF, ECOWAS Central Banks, WAMA

The Guinean Franc has yet to recover from the difficulties arising from several years of crisis. Serious monetary and budget overruns recorded during the military transition hampered the rapid stabilization of the Guinean currency. However, the reactivation of the official exchange market with strong interventions by the Central Bank has enabled to contain the depreciation of the Guinean currency in more reasonable proportions compared to previous trends.

Earlier this year, the escudo and CFA franc benefited from the good performance of the Euro and appreciated against the WAUA. With the deterioration of the situation in the euro zone and uncertainties in the markets, the depreciation of the Euro in recent months has been directly passed on to the CFA and the Escudo.

For its part, the relative stability of the Liberian dollar's exchange rate was attributable to the strong interventions by the Central Bank. In fact, the monetary policy of the Central Bank of Liberia depends essentially on exchange rate targeting.

The relative stability of the Gambian Dalasi was due to the recovery of the tourist sector and the significant efforts made by the Central Bank in connection with the supply of currency market.

As for the Naira, it has clearly recovered over the last six months after suffering from the degradation of the main aggregates of the external sector which saw a sharp drop in the foreign exchange reserves, in particular during 2010. The same trend was observed by the Sierra Leonean currency which experienced significant depreciation in relation to the growing import needs resulting from the development of a number of public infrastructures financed mainly from internal resources.

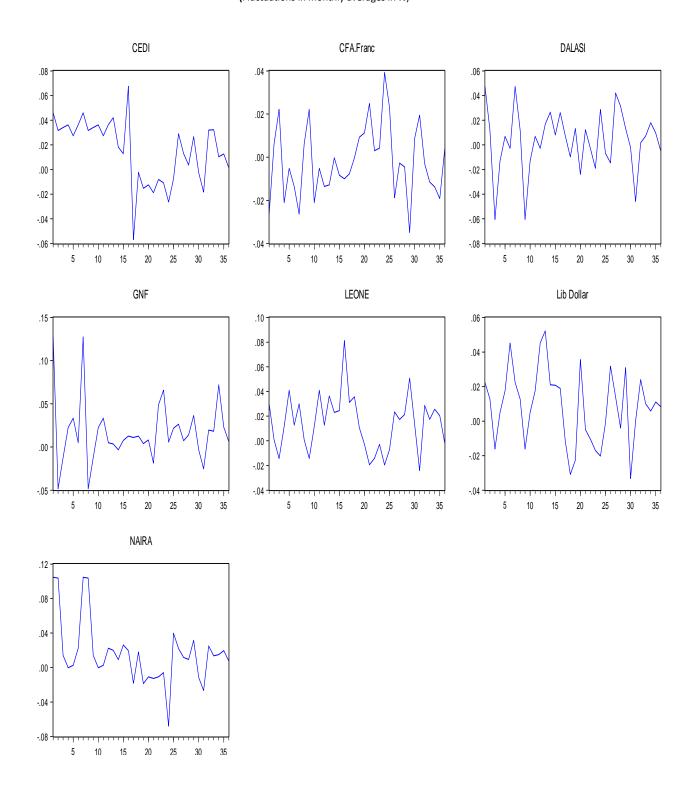
In all, trends in ECOWAS currencies during the period under review reflect the pattern on the international exchange market as well as the macroeconomic status of some countries.

2.6 Variability Analysis

Table 2.1: Trends in some descriptive statistics (Nov. 2008 - Nov. 2011)

	CEDI	CFA_FRANC	DALASI	GNF	LEONE	LIB_DOLLAR	NAIRA
Mean	0.015140	-0.002116	0.003080	0.017431	0.014759	0.008363	0.016638
Median	0.022516	-0.003736	0.007008	0.011739	0.015126	0.010544	0.013836
Maximum	0.067420	0.039188	0.047322	0.127418	0.081210	0.052273	0.104714
Minimum	-0.056864	-0.034886	-0.060511	-0.048495	-0.024190	-0.033333	-0.068033
Std. Dev.	0.025735	0.016633	0.025040	0.036785	0.022409	0.021345	0.037093
Skewness	-0.557594	0.359898	-0.688278	1.280773	0.434733	-0.022461	1.031547
Kurtosis	3.106616	2.755023	3.829058	5.669590	3.562372	2.440673	4.614441
Jarque-Bera	1.882516	0.867179	3.873368	20.53234	1.608348	0.472296	10.29417
Probability	0.390137	0.648178	0.144181	0.000035	0.447457	0.789664	0.005816
Sum	0.545057	-0.076169	0.110876	0.627499	0.531330	0.301063	0.598957
Sum Sq. Dev.	0.023180	0.009682	0.021945	0.047361	0.017576	0.015946	0.048156
Observations	36	36	36	36	36	36	36

Graphs 2.6: Monthly trends in ECOWAS currencies in relation to the WAUA between November 2008 and November 2011 (Fluctuations in monthly averages in %)



As shown in Graphs 2.6 and table 2.2, in the course of the last three years (November 2008 – November 2011), the Guinean Franc, Naira and Cedi recorded the most significant monthly fluctuations. The highest monthly depreciation was observed by the Guinean Franc followed by the Naira and the Leone. On the other hand, the most significant monthly appreciation was observed by the Naira and Dalasi. In terms of variability, the Guinea Franc and Naira exhibited the highest standard deviations whilst the Escudo recorded the lowest.

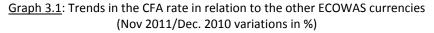
With regards to the Kurtosis statistics, the values farthest away from 3 were those of the Guinean Franc and Naira, reflecting a highly remarkable development. For the other currencies in particular the Cedi and the CFA – Escudo pair, the Kurtosis coefficient was generally closer to 3.

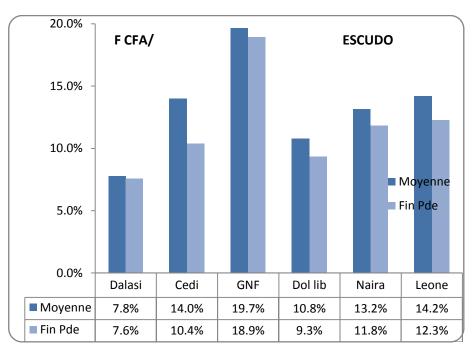
Besides, the Skewness statistics was negative for the Cedi, Dalasi, and the Liberian dollar, showing an asymmetry to the left of trends. This seems to imply that these currencies were more sensitive to negative shocks than positive ones during the period under review (November 2008 – November 2011). In other words, trends in indicators whose impact is likely to cause a depreciation of these currencies quickly trigger off a reaction of the exchange rate. On the contrary, an economic policy measure aimed at strengthening these currencies will dawdle in producing effects. For the other currencies, namely the CFA Franc, Guinean Franc, Leone and Naira, the reverse is applicable. In other words, over the period, these currencies were more sensitive to trend indicators conducive to the appreciation of the exchange rate.

III. Trends in Bilateral Exchange Rates of ECOWAS Currencies

The trend in bilateral exchange rates is assessed using the pattern of monthly averages and end of period rates between December 2010 and November 2011. The graphs below show that the CFA Franc and Escudo were the only currency that firmed up against all the other currencies during the first eleven months of 2011. Apart from these two currencies, the Dalasi was the currency which appreciated the most against the other ECOWAS currencies. On the other hand, the Guinean Franc was the only currency that depreciated against all the other currencies. Apart from the Guinean Franc, currencies which depreciated the most were the Leone and Naira.

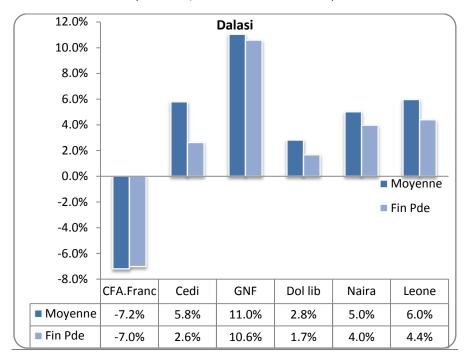
3.1 CFA Franc and Escudo





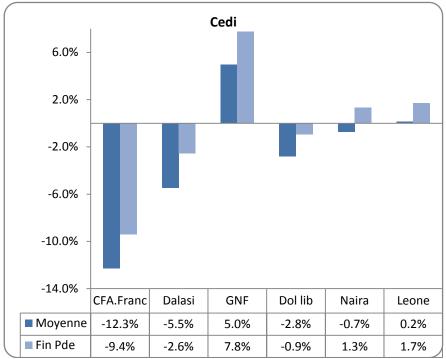
3.2 Dalasi

 $\underline{\text{Graph 3.2}}$: Trends in the Dalasi rate in relation to the other ECOWAS currencies (Nov 2011/Dec. 2010 variations in %)



3.3 Cedi

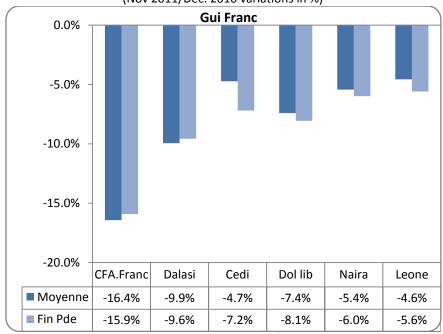
<u>Graph 3.3</u> Trends in the Cedi rate in relation to the other ECOWAS currencies (Nov 2011/Dec. 2010 variations in %)



Source: IMF, ECOWAS Central Banks, WAMA

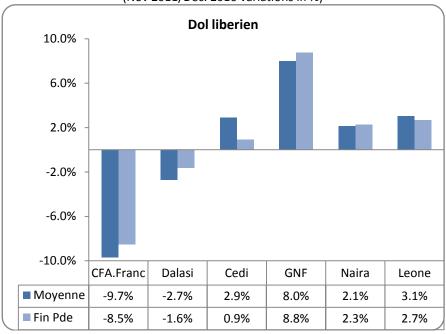
3.4 Guinean Franc

 $\underline{\text{Graph 3.4}}$: Trends in the Guinean Franc rate in relation to the other ECOWAS currencies (Nov 2011/Dec. 2010 variations in %)



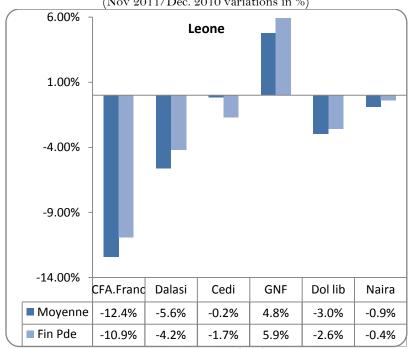
3.5 Liberian Dollar

<u>Graph 3.5</u>: Trends in the Liberian Dollar rate in relation to the other ECOWAS currencies (Nov 2011/Dec. 2010 variations in %)



3.6 Leone

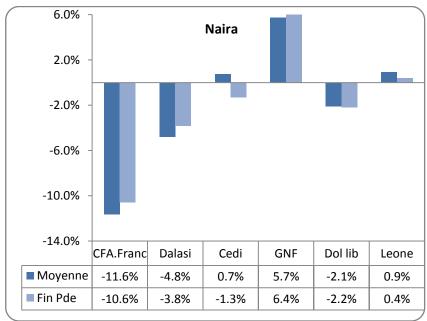
<u>Graph 3.6</u>: Trends in the Leone rate in relation to the other ECOWAS currencies (Nov 2011/Dec. 2010 variations in %)



Source: IMF, ECOWAS Central Banks, WAMA

3.7 Naira

<u>Graph 3.7</u>: Trends in the Naira rate in relation to the other ECOWAS currencies (Nov 2011/Dec. 2010 variations in %)



Conclusion

During the first eleven months of 2011, with the exception of the CFA franc and Escudo, all ECOWAS currencies have weakened against the WAUA. The Guinean franc and the Cedi recorded the highest depreciations. This is reflected on the trend in the bilateral exchange rates. Indeed, only the CFA franc and escudo have firmed up against all the other ECOWAS currencies. Other than these currencies, the Gambian Dalasi is the currency which appreciated the most compared to all the other currencies in ECOWAS. Conversely, the Guinean franc depreciated against all ECOWAS currencies. The monthly variations between the ECOWAS currencies reached nearly 20% during the period under review. This is a major challenge in view of the adoption of the exchange rate mechanism for ECOWAS.

Besides, the analysis of descriptive statistics resulting from trends observed over the last three years (November 2008-November 2011) has led to the conclusion that the Guinean franc and the naira recorded the highest fluctuation amplitudes. However, the analysis of the variability trend indicates more stable ECOWAS currencies compared to previous years.

Overall, the movement of ECOWAS currencies exchange rates reflects trends in the international exchange market but also the particular economic situation of some countries. In most cases, the intervention of Central Banks on the foreign exchange market has enabled to achieve a relative stability of exchange rates and contain fluctuations in more reasonable proportions.

APPENDICES

<u>Table 1</u>: Trends in the average monthly exchange rates of the WAUA in relation to ECOWAS currencies

2 008	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	AVERAGE
Currency													
CFA.Franc	705,7	705,2	690,7	681,0	686,0	682,9	677,9	694,3	706,8	742,6	761,4	741,3	706,3
Escudo	118,6	118,5	116,1	114,5	115,3	114,8	114,0	116,7	118,8	124,8	128,0	124,6	118,7
Dalasi	36,0	35,4	34,4	32,4	32,3	33,3	33,3	34,6	35,0	37,1	39,4	41,3	35,4
Cedi	1,5	1,5	1,6	1,6	1,6	1,6	1,7	1,7	1,7	1,7	1,7	1,8	1,7
GNF	6591,6	6813,9	7129,0	7316,1	7313,4	7263,4	7415,2	7306,0	7408,5	7451,9	6526,2	7357,7	7 157,7
Liberian Dollar	100,5	99,8	102,0	102,3	102,1	102,8	103,6	100,8	98,9	96,5	94,2	96,3	100,0
Naira	184,0	184,7	189,8	190,2	188,4	188,0	190,2	185,0	181,5	176,4	174,8	193,1	185,5
Leone	4709,1	4722,1	4847,5	4860,5	4821,5	4808,9	4841,8	4712,1	4644,4	4541,6	4474,5	4608,5	4 716,0

2009	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	ост.	NOV.	DEC.	AVERAGE
CFA.Franc	745.90	762.42	746.35	742.53	732.45	723.04	722.85	716.84	709.65	704.21	703.99	710.52	726.73
Dalasi	41.80	39.27	38.75	39.02	38.91	39.56	40.61	40.93	42.00	42.32	41.90	42.45	40.63
Cedi	1.87	1.94	2.01	2.06	2.14	2.23	2.27	2.30	2.45	2.31	2.31	2.27	2.18
GNF	7,000.89	6,915.82	7,070.43	7,306.28	7,341.02	7,365.88	7,340.84	7,397.42	7,489.62	7,572.12	7,667.24	7,697.11	7,347.06
Liberian Dollar	97.51	95.93	96.41	98.09	102.53	107.89	110.15	112.44	114.56	113.22	109.72	107.24	105.47
Naira	213.11	216.12	216.04	216.60	221.47	225.89	227.93	233.92	238.50	234.13	238.33	233.83	226.32
Leone	4,612.59	4,546.57	4,598.97	4,787.50	4,847.84	5,024.27	5,139.32	5,264.96	5,692.52	5,869.62	6,079.36	6,143.14	5,217.22

2010	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	AVERAGE
CFA.Franc	718.49	736.36	738.56	741.64	770.71	788.52	773.66	771.55	768.10	741.31	747.81	762.34	754.9
Escudo	121.8	124.8	125.2	125.7	130.6	133.6	131.1	130.8	130.2	125.6	126.7	129.2	128.0
Dalasi	41.44	41.95	41.81	41.02	42.20	41.90	41.30	43.03	44.38	44.96	44.87	42.81	42.6
Cedi	2.24	2.20	2.18	2.16	2.10	2.09	2.15	2.17	2.18	2.24	2.23	2.19	2.2
Franc Guin	7759.95	7614.03	7985.34	8510.93	8558.40	8743.62	8974.32	9038.07	9164.83	9498.92	9467.89	9228.03	8,712.0
Liberian Dollar	111.05	110.50	109.33	107.47	105.28	105.17	108.51	110.04	109.61	112.99	109.23	109.23	109.0
Naira	231.33	228.40	225.93	224.61	209.33	217.64	222.41	225.01	227.10	234.25	231.58	225.40	225.2
Leone	6126.63	6007.60	5922.45	5905.62	5789.42	5748.06	5883.19	5984.93	6112.33	6422.71	6505.9425	6348.57	6,063.1

2011	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	Moy jan-nov 2011
CFA.Franc	760.04	751.31	741.00	726.79	729.75	729.22	733.08	734.67	749.29	753.86	756.70	742.34
Dalasi	42.88	43.19	43.97	44.38	44.16	44.78	45.53	44.51	45.74	45.77	45.07	44.54
Cedi	2.26	2.34	2.36	2.39	2.39	2.40	2.39	2.42	2.39	2.43	2.42	2.38
GNF	9408.93	9580.01	10270.46	10505.99	10569.71	10643.55	10800.84	10926.62	10567.36	10366.13	10898.96	10412.60
Liberian Dollar	111.86	112.98	113.63	114.89	115.84	116.10	116.40	116.43	113.88	113.54	112.29	114.35
Naira	231.06	234.19	237.70	242.37	244.16	243.82	239.03	242.03	241.83	237.79	239.86	239.44
Leone	6530.91	6644.63	6814.47	6953.53	6939.28	6966.57	6969.41	7045.13	6952.65	6939.95	6913.79	6879.12

Source: IMF, Central Banks, WAMA

<u>Table 2</u>: Trends in the end of period exchange rates of the WAUA against ECOWAS currencies

	dec 09	dec 10	jan 11	fev 11	march 11	april 11	may 11	Jun 11	Jul 11	Aug 11	Sept 11	Oct 11	Nov 11
Currency													
CFA.Franc	717.12	765.61	748.44	748.13	735.43	718.15	732.51	726.35	736.68	732.54	755.08	739.79	764.62
Dalasi	42.55	42.68	43.71	43.88	44.65	43.76	43.92	45.95	44.94	44.96	46.49	44.86	45.78
Cedi	2.24	2.26	2.35	2.34	2.37	2.41	2.39	2.40	2.41	2.42	2.38	2.49	2.39
GNF	7,639.15	9211.33	9554.20	9865.63	10369.15	10721.87	10482.13	10814.05	10851.11	11088.87	10283.43	11174.33	10788.34
Liberian Dollar	108.47	110.39	113.41	113.40	113.74	117.43	115.49	117.00	116.11	116.60	112.84	114.98	111.15
Naira	230.36	227.94	234.41	235.36	238.57	246.87	243.87	241.65	240.16	244.31	241.51	239.15	243.69
Leone	6,035.44	6435.91	6666.35	6703.57	6903.76	7052.81	6913.80	6977.74	7009.36	7084.40	6931.61	7056.11	6853.96