

WEST AFRICAN MONETARY AGENCY (WAMA)



Developments in the Exchange Rates of ECOWAS Currencies as at End November 2012

Freetown, December 2012

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I. Introduction

The stabilization of the exchange rates of ECOWAS currencies features prominently in the road map set out for the establishment of the 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 monthly report which highlights exchange rates developments in ECOWAS as at end November 2012 falls within this perspective. It provides a review of major trends on the international foreign exchange market and 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.

II. Trends in the Exchange Rates of ECOWAS major Currencies in relation to the WAUA

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

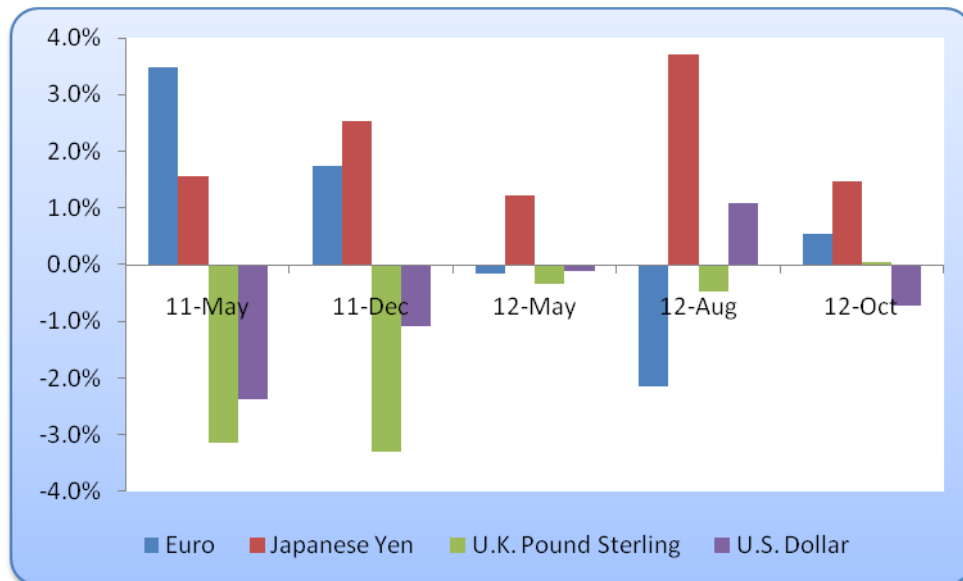
Table 1.1: Trends in the WAUA rates relatively to major Currencies (November 2012 variations in relation to the period under review in %)

	Nov -11		Dec-11		May-12		Aug-12		Oct -12	
	<i>End prd</i>	<i>Aver.</i>	<i>End prd</i>	<i>Aver.</i>	<i>End prd</i>	<i>Aver.</i>	<i>End prd</i>	<i>Aver.</i>	<i>End prd</i>	<i>Aver.</i>
Euro	2.1%	3.5%	-0.5%	1.7%	-3.0%	-0.2%	-2.2%	-2.2%	-0.4%	0.5%
Japanese Yen	4.1%	1.6%	5.7%	2.5%	6.0%	1.2%	5.6%	3.7%	2.8%	1.5%
U.K. Pound Sterling	-3.6%	-3.1%	-3.5%	-3.3%	-1.7%	-0.3%	-0.3%	-0.5%	0.2%	0.0%
US Dollar	-1.1%	-2.4%	-0.1%	-1.1%	1.6%	-0.1%	0.8%	1.1%	-0.4%	-0.7%

Source: IMF, WAMA

Average monthly trends (compared to October 2012) indicate that the WAUA appreciated against the Yen and the Euro but depreciated against the American Dollar. Quarterly trends resulted in a strengthening of the WAUA against the Japanese Yen and US Dollar, a depreciation vis-à-vis the Euro, and a relative stability in relation to the British Pound. As for half-yearly trends, they indicate an appreciation of the WAUA against the Yen and virtual stability in relation to other international currencies. In the first eleven months of the year 2012, the WAUA appreciated against the Euro and the yen, and depreciated vis-à-vis the U.S. Dollar and the Pound Sterling in particular. The same trend was observed relatively to November 2011.

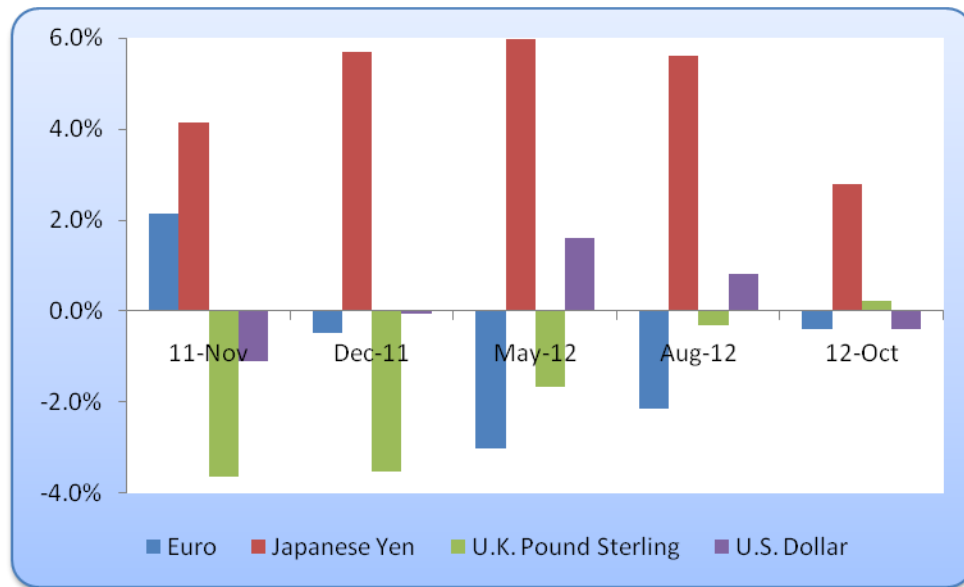
Graph 1.1: Variation of the WAUA in relation to major international currencies
(variations of monthly averages in % between November 2012 and the month being considered)



Source: IMF, WAMA

As for the trends in end-period prices relatively to the end of 2011, they indicate that the WAUA strengthened in relation to the Yen, depreciated against the British Pound, and virtually stabilized against the US Dollar and the Euro.

Graph 1.2: Variation of the WAUA in relation to major international currencies
(variations of monthly averages in % between November 2012 and the month being considered)



Source: IMF, WAMA

As in the past, trends observed in the international foreign exchange market generally reflect the expectations of analysts on the development of economic prospects in the various parts of the world, and concerns arising from the sovereign debt crisis and the difficulties experienced by some banks in the Euro Zone. Thus, the fluctuations of the Euro in the second half of 2012 continued to depend largely on the trends in investors' perception of the economic and fiscal prospects for some countries in the Euro zone, as well as the expected yield differentials between the Euro zone and other advanced economies. As a result of the receding concerns, the implied volatility of the bilateral exchange rates of the Euro against the U.S. Dollar, the Japanese Yen and the British Pound fell in June and July before stabilizing around its respective historical averages.

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

The exchange rate developments of ECOWAS currencies will mainly be assessed based on their monthly, quarterly, half-yearly, and yearly trends in relation to the WAUA.

The set of graphs below (2.1 to 2.5) show that during the first eleven months of 2012, the trends in the exchange rates of ECOWAS currencies were particularly marked by the depreciation of the Cedi and the relative stability of other currencies. The sharp depreciation of the Cedi at the beginning of 2012 was partly due to the strain on the foreign exchange market driven by higher investment needs in the oil sector and speculations resulting from the electoral consultations to be held toward the end of the year.

At the beginning of 2012, the Escudo and CFA franc were directly affected by the weakening of the Euro on the international market. However, the recovery of the Euro on the international market, especially in the second half of the year, also reflected in these currencies.

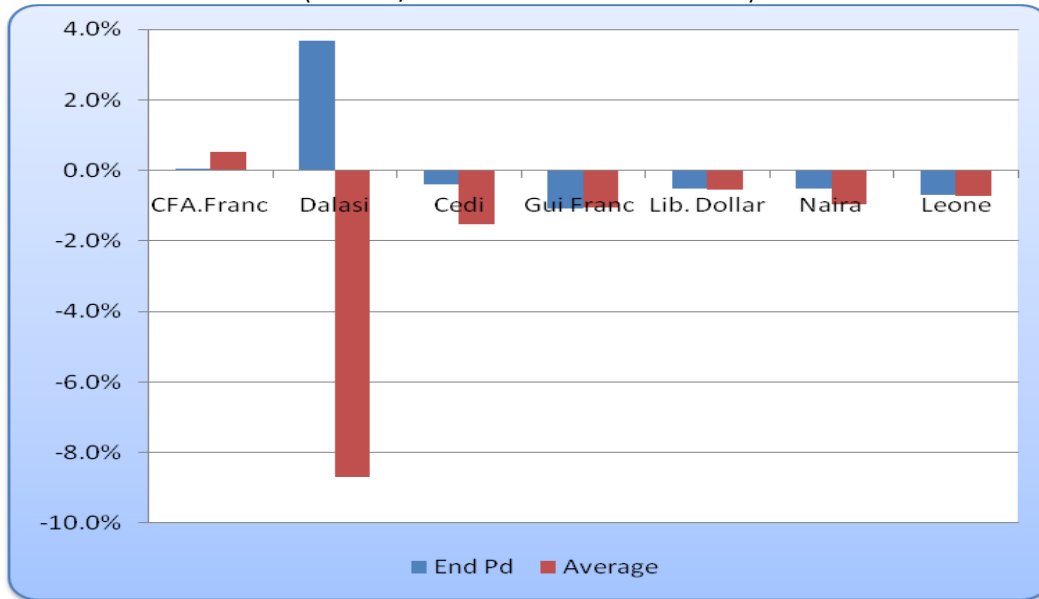
The Guinean franc, which, in recent years, had suffered a great deal from the effects of accumulated monetary and budgetary slippages recorded particularly during the military transition, is beginning to stabilize thanks to the improvement of the macroeconomic environment and the interventions of the Central Bank on the foreign exchange market, facilitated mainly by the replenishment of the country's foreign exchange reserves.

As in past, the other currencies observed relatively stable trends as a result of significant interventions of the Central Bank in the foreign exchange market, in some cases.

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

2.1 Monthly Trends

Graph 2.1: Monthly Trends of the WUA rates in relation to ECOWAS Currencies (October/November 2012 variations in %)



Source: IMF, Central Banks, ECOWAS, WAMA

2.2 Quarterly Trends

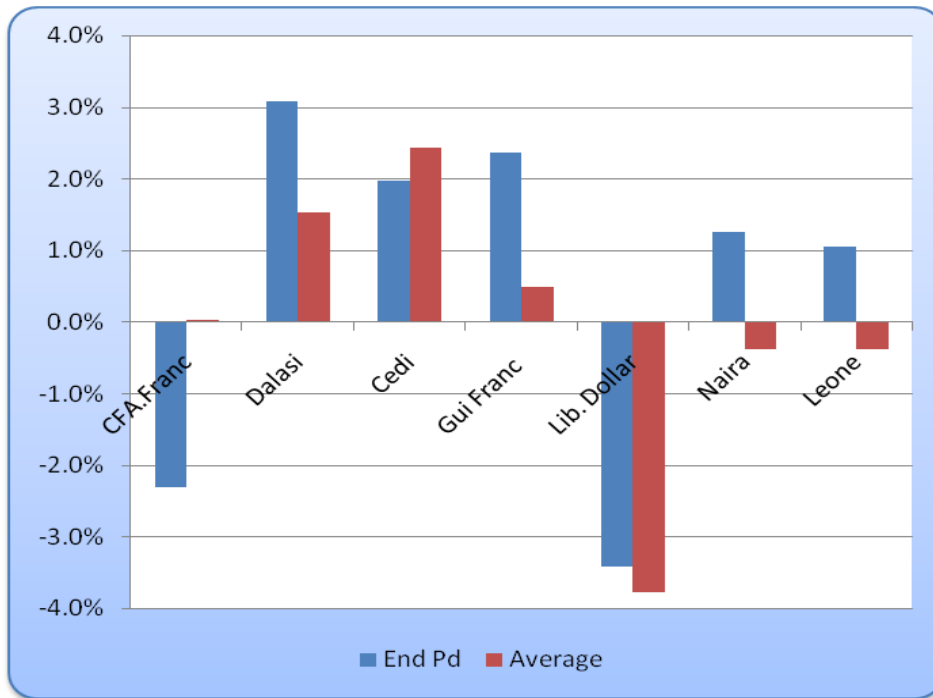
Graph 2.2: Quarterly Trends of the WAUA in relation to ECOWAS Currencies (Nov./Aug. 2012 variations in %)



Source: IMF, Central Banks, ECOWAS, WAMA

2.3 Half-yearly Trends

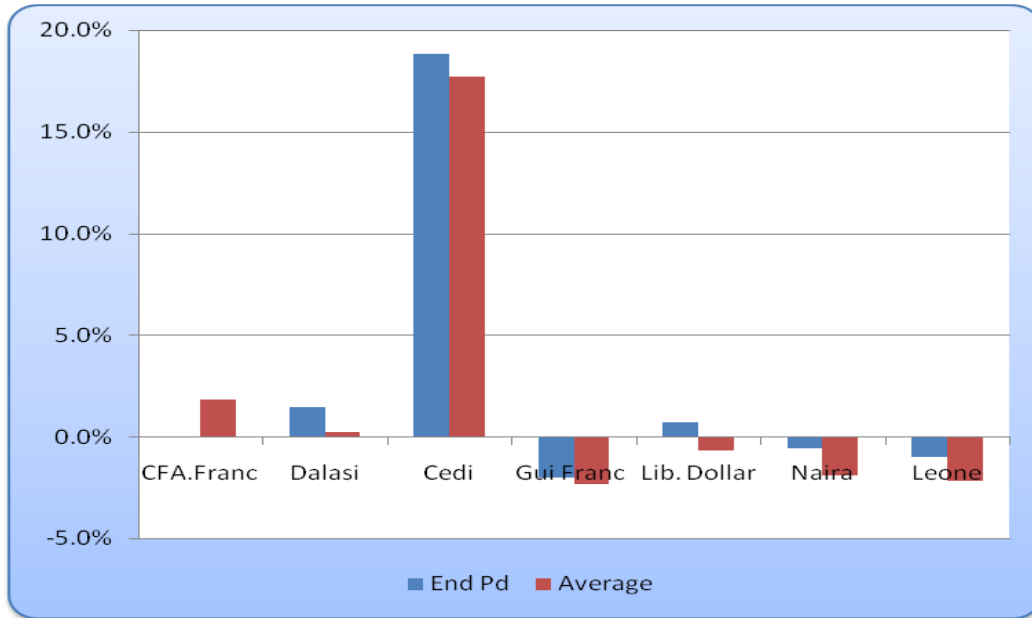
Graph 2.3: Quarterly Trends in the WAUA rates relatively to ECOWAS Currencies (Nov./May 2012 variations in %)



Source: IMF, Central Banks, ECOWAS, WAMA

2.4 Trends from the beginning of the year

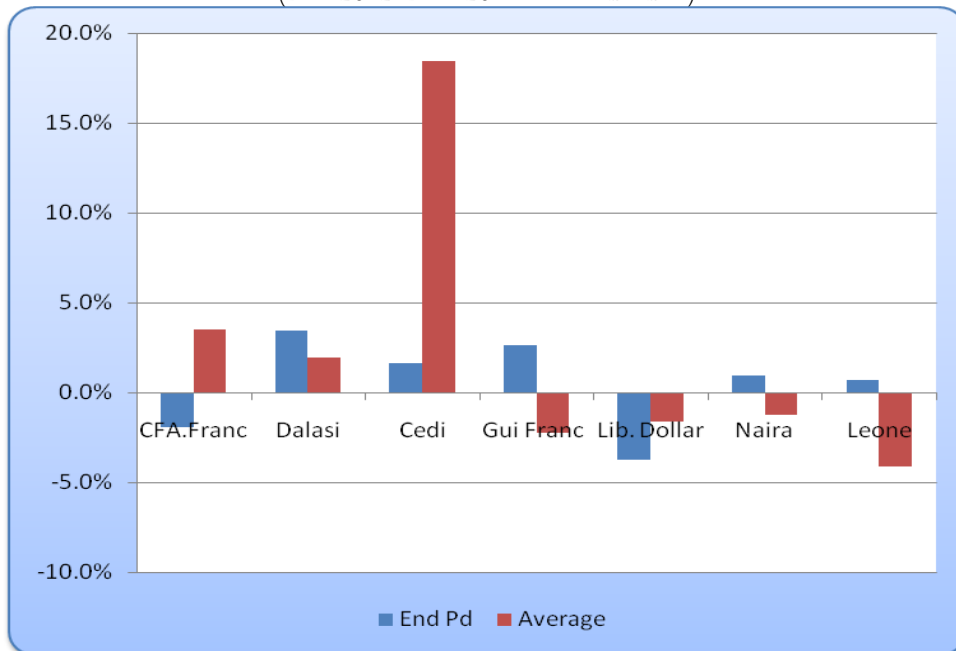
Graph 2.4: Quarterly Trends of the WAUA in relation to ECOWAS Currencies (Nov. 2012/Dec. 2011 variations in %)



Source: IMF, Central Banks, ECOWAS, WAMA

2.5 Annual Trends

Graph 2.5: Annual trends in the WAUA relatively to ECOWAS Currencies (Nov 2012/Nov. 2011 variations in %)



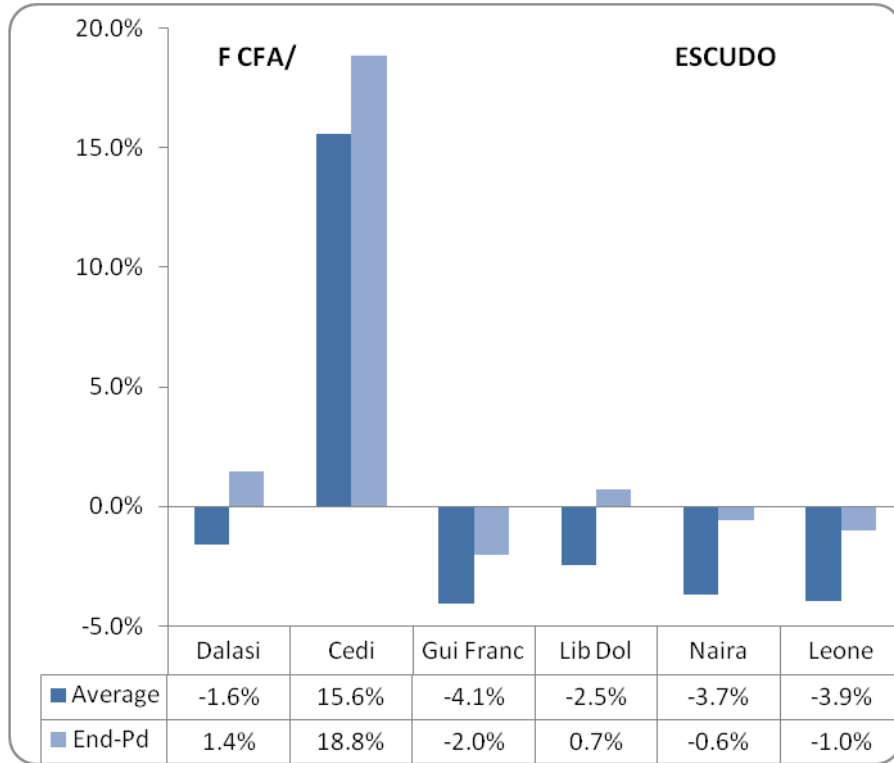
Source: IMF, Central Banks, ECOWAS, WAMA

IV. Trends in the Bilateral Exchange Rates of ECOWAS Currencies

Trends in bilateral exchange rates are assessed based on the patterns of monthly average rates and end-period rates between December 2011 and November 2012. The graphs below show that the Guinean Franc is the only currency that firmed up against all the other currencies during the first eleven months of 2012. Apart from this currency, the Leone and Naira are the currencies that appreciated the most against the other ECOWAS currencies. On the other hand, the Cedi is the currency that depreciated the most against all the other currencies in the region. This currency is followed the Liberian Dollar which also depreciated against all other currencies, with the exception of the Cedi.

3.1 CFA Franc and Escudo

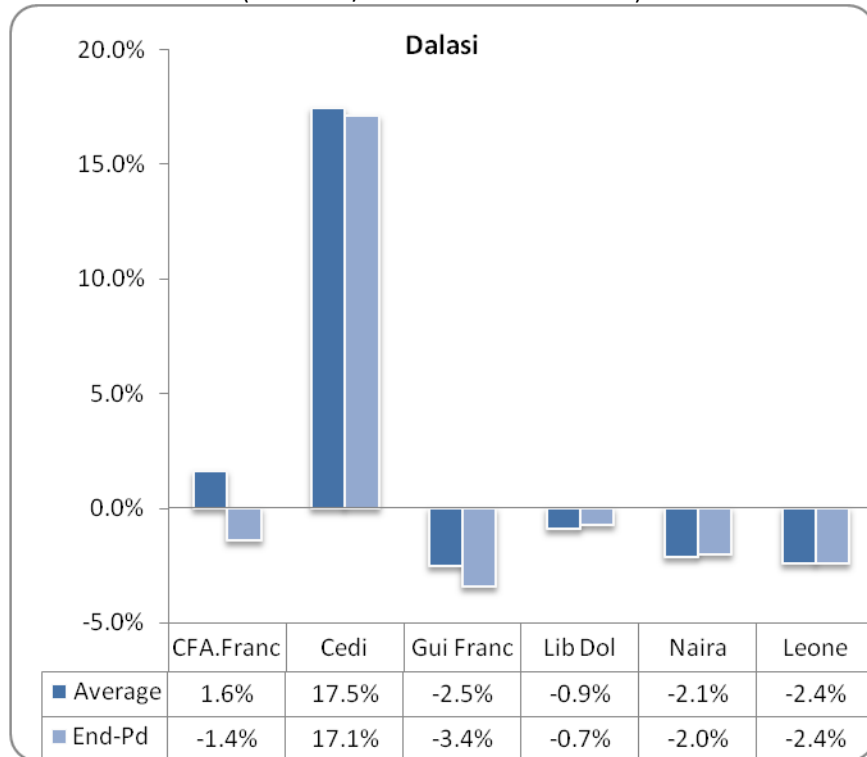
Graph 3.1: Trends in the CFA rates against the other ECOWAS currencies (Nov 2012/Dec. 2011 variations in %)



Source: IMF, Central Banks, ECOWAS, WAMA

3.2 Dalasi

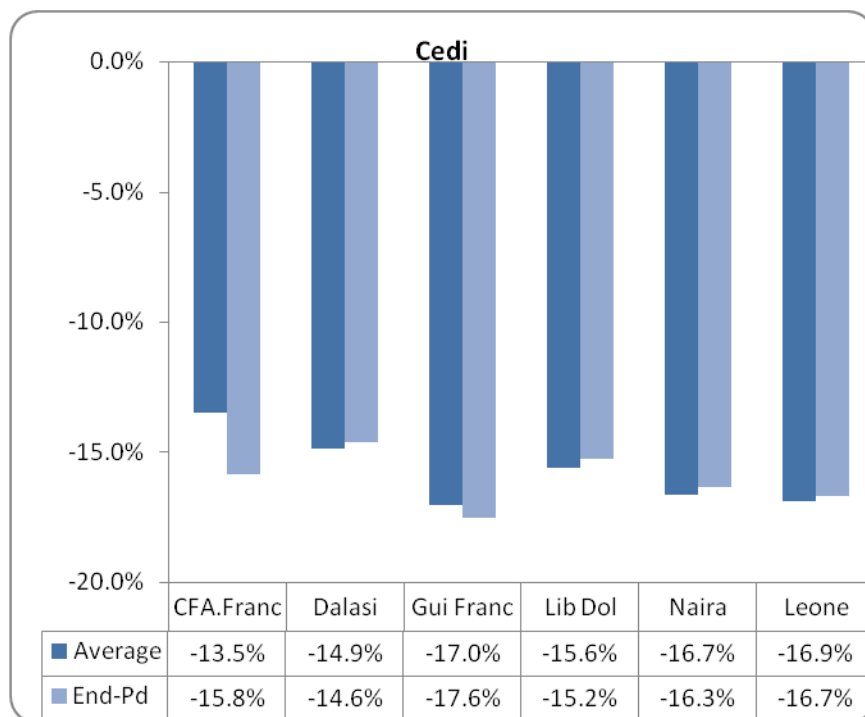
Graph 3.2: Trends in the Dalasi relatively to the other ECOWAS currencies
(Nov 2012/Dec. 2011 variations in %)



Source: IMF, Central Banks, ECOWAS, WAMA

3.3 Cedi

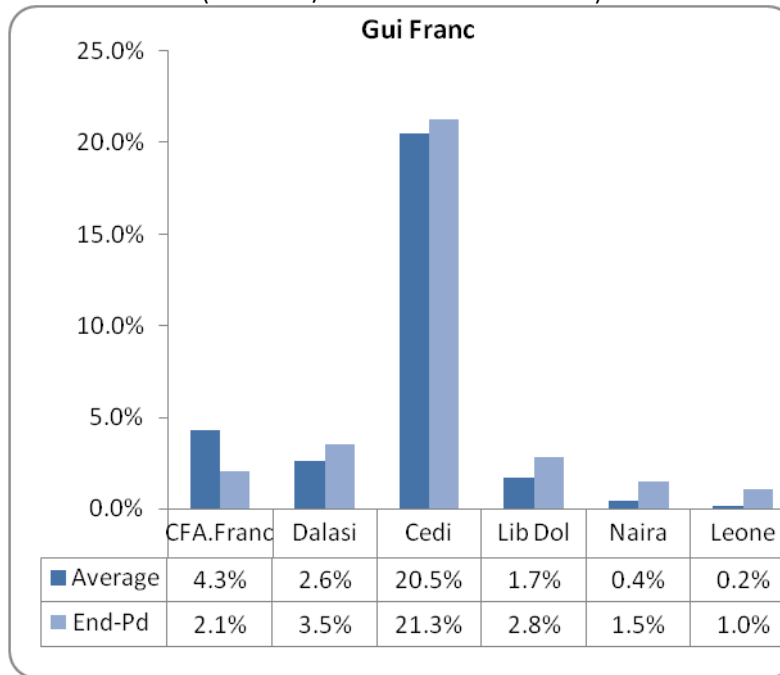
Graph 3.3 Trends in the Cedi rate in relation to the other ECOWAS currencies
(Nov 2012/Dec. 2011 variations in %)



Source: IMF, Central Banks, ECOWAS, WAMA

3.4 Guinean Franc

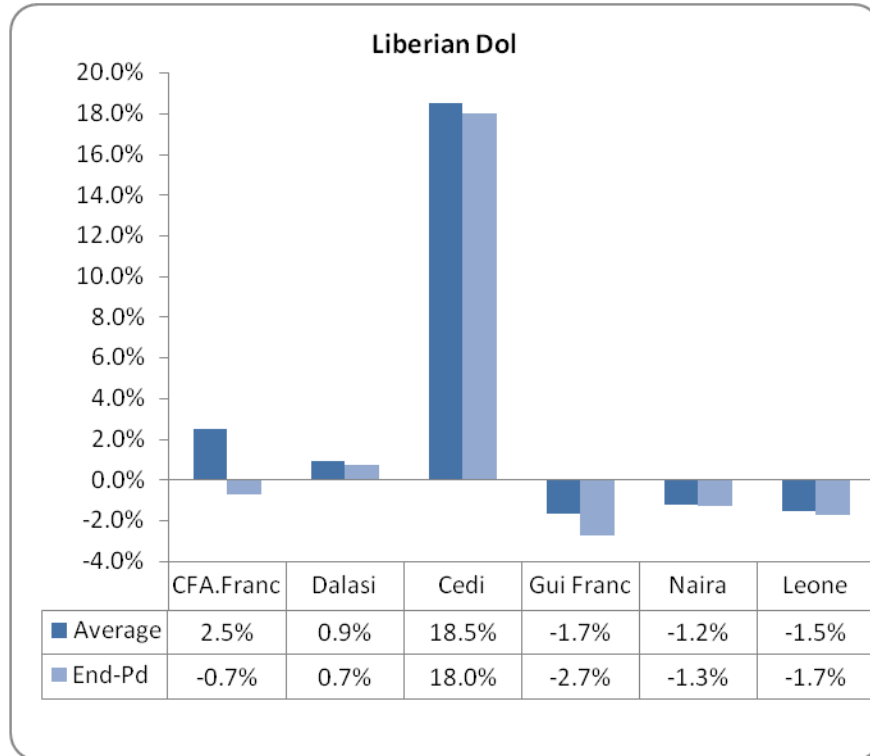
Graph 3.4: Trends in the Guinean Franc rate in relation to the other ECOWAS currencies (Nov 2012/Dec. 2011 variations in %)



Source: IMF, Central Banks, ECOWAS, WAMA

3.5 Liberian Dollar

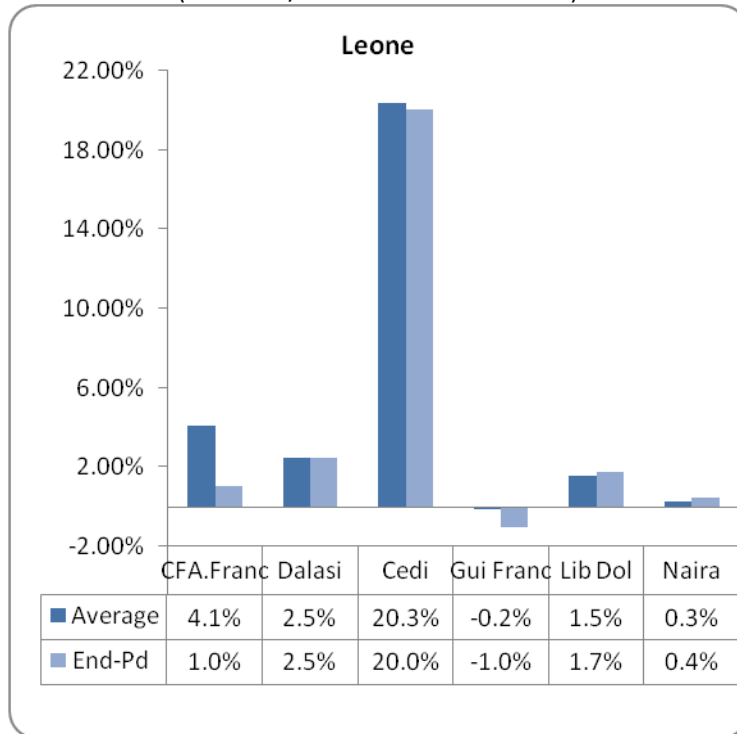
Graph 3.5: Trends in the Liberian Dollar rate in relation to the other ECOWAS currencies (Nov 2012/Dec. 2011 variations in %)



Source: IMF, Central Banks, ECOWAS, WAMA

3.6 Leone

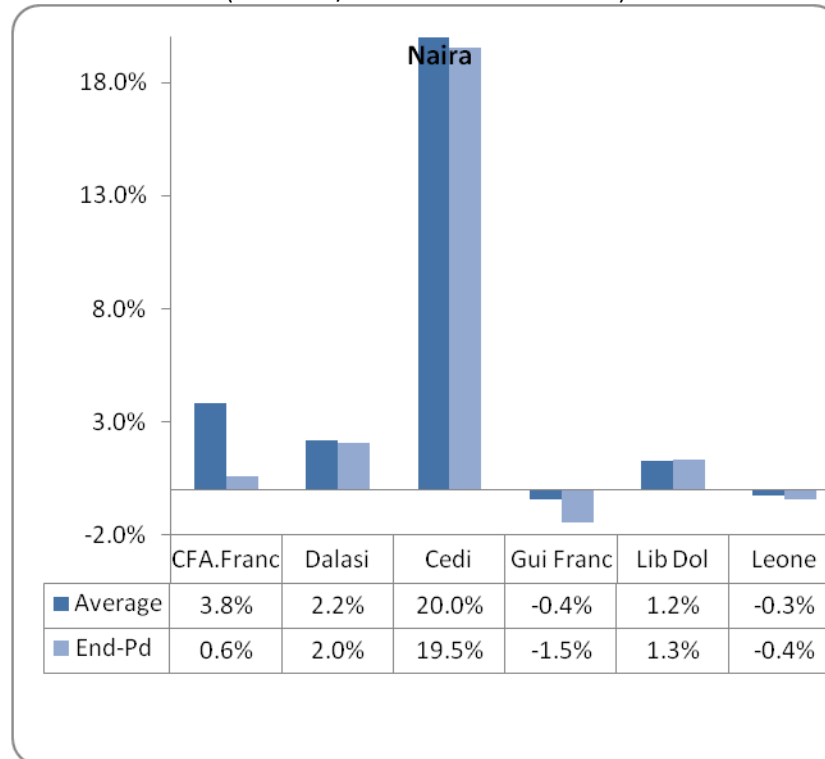
Graph 3.6: Trends in the Leone rate in relation to the other ECOWAS currencies (Nov 2012/Dec. 2011 variations in %)



Source: IMF, Central Banks, ECOWAS, WAMA

3.7 Naira

Graph 3.7: Trends in the Naira rate in relation to the other ECOWAS currencies (Nov 2012/Dec. 2011 variations in %)



Source: IMF, Central Banks, ECOWAS, WAMA

V. Analysis of the Variability and Characteristics of the ECOWAS Exchange Rates

4.1 Trends of descriptive statistics

As shown in Graphs 4.1 and table 4.1, over the last three years (December 2009 – November 2012), the highest monthly trends were recorded by the Guinean Franc and the Cedi. In terms of variability, the Dalasi and the Guinean franc recorded the highest standard deviations. Over the period, the highest monthly depreciation was observed by the Guinean franc, followed by the Leone and the Dalasi. On the other hand, the most significant monthly appreciation was observed by the Dalasi, followed by the Naira.

With regards to the Kurtosis statistics, the values farthest away from 3 were those of the Dalasi and the Naira, reflecting a very sharp evolution. For the other currencies, in particular the Liberian Dollar and the CFA Franc, the Kurtosis coefficients were relatively close to 3.

Besides, the Skewness statistics is negative for the CFA, Escudo, Dalasi, and Naira, indicating an asymmetry to the left of trends. This seems to imply that these currencies were more sensitive to negative shocks than positive shocks during the review period. In other words, trends in indicators whose impact is such that depreciation in these currencies would trigger a quicker reaction of the exchange rate. Conversely, an economic policy measure aimed at strengthening these currencies will dawdle in producing effects. For the other currencies in the region, the contrary applies. In other words, over the review period, these currencies were more sensitive to the indicators' trends which are conducive to the appreciation of the exchange rate.

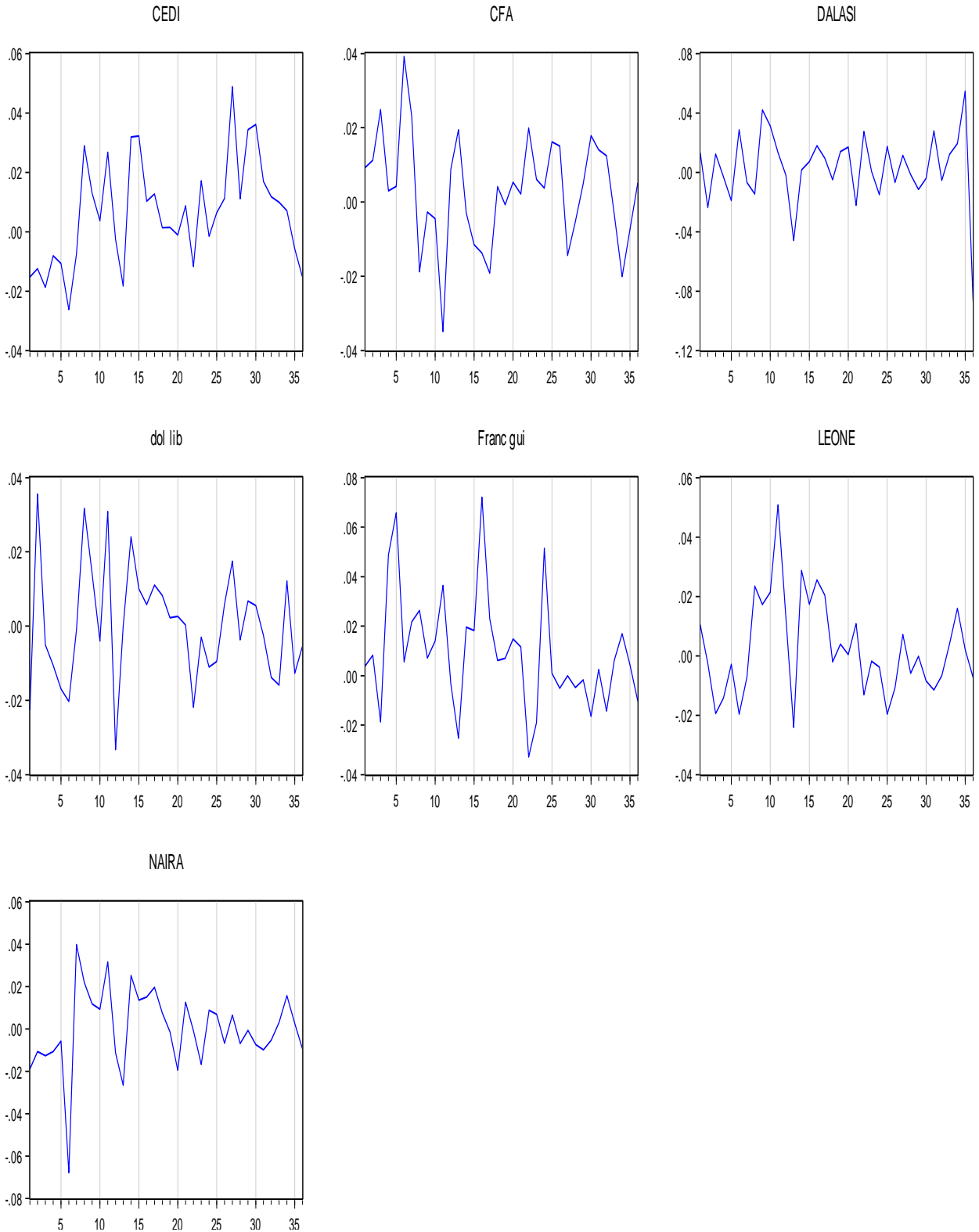
Table 4.1: Trends in some descriptive statistics (Nov. 2008 - Nov. 2011) 2011)

	CEDI	CFA	DALASI	LIB_DOL	GUI_FRA NC	LEONE	NAIRA
Mean	0.006275	0.003068	0.002882	0.000309	0.009446	0.002537	1.09E-05
Median	0.006755	0.004127	0.004399	-0.000516	0.006188	-0.000990	-0.000749
Maximum	0.048810	0.039188	0.054563	0.035567	0.072071	0.050779	0.039680
Minimum	-0.026300	-0.034886	-0.086962	-0.033333	-0.032879	-0.024190	-0.068033
Std. Dev.	0.017861	0.014884	0.025089	0.015805	0.023492	0.016252	0.018990
Skewness	0.365213	-0.172054	-1.130655	0.302081	0.841176	0.705602	-0.927197
Kurtosis	2.538515	3.262608	6.216755	2.893987	3.735738	3.465696	6.064301
Jarque-Bera Probability	1.119736 0.571285	0.281060 0.868898	23.19155 0.000009	0.564375 0.754132	5.057424 0.079762	3.312556 0.190848	19.24308 0.000066
Sum	0.225906	0.110431	0.103755	0.011132	0.340042	0.091339	0.000394
Sum Sq. Dev.	0.011165	0.007754	0.022032	0.008743	0.019315	0.009244	0.012621
Observations	36	36	36	36	36	36	36

Source: IMF, Central Banks, ECOWAS, WAMA

Graph 4.1: Monthly trends in ECOWAS currencies in relation to the WAUA between November 2008 and November 2011

(Fluctuations in monthly averages in %)



Source: IMF, Central Banks, ECOWAS, WAMA

4.2 Trends in the Exchange Rate Pressure Index (ERPI)

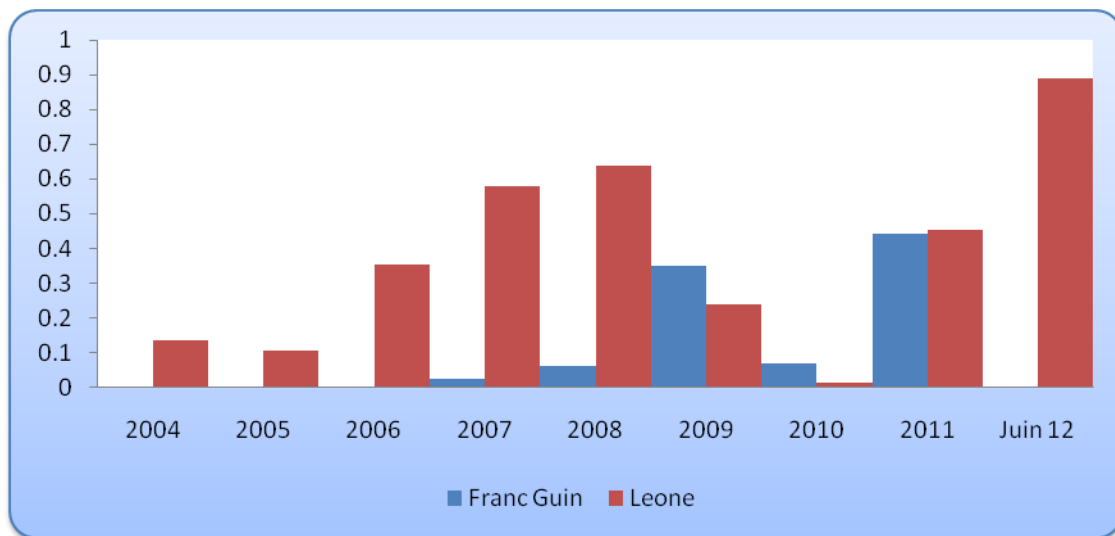
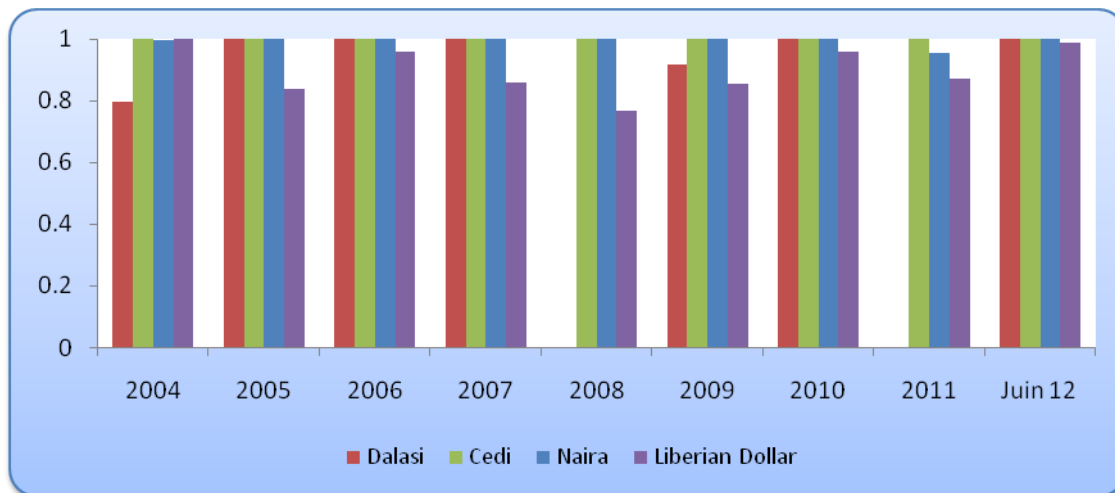
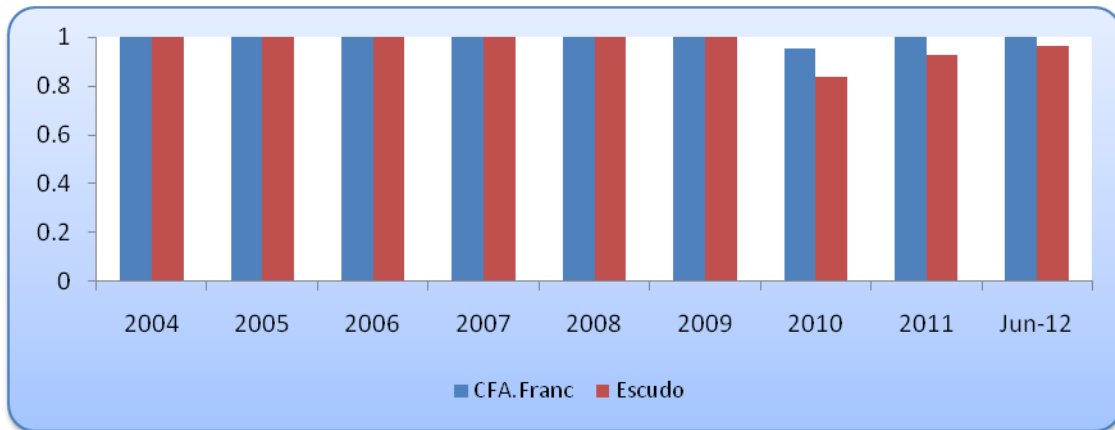
Graph 4.2: Trends in the Exchange Rate Pressure Index of ECOWAS Currencies*



Source: IMF, WAMA, Central Banks

4.3 Trends in the Resistance Index

Graph 4.3: Trends in the Resistance Index of ECOWAS Currencies (1=very good resistance; 0= no resistance)



Source: IMF, WAMA, Central Banks

VI. Conclusion

During the first eleven months of 2012, the Guinean franc, Leone, and Naira slightly strengthened against the WAUA whilst the Cedi and, to a lesser extent, the Liberian Dollar and the CFA-Escudo pair weakened against the West African Unit of Account. This situation was reflected on the trends in the bilateral exchange rates. In fact, the Guinean Franc is the only currency that appreciated against all other ECOWAS currencies. With the exception of this currency, the Leone and Naira are the currencies that appreciated the most against the other currencies in ECOWAS. Conversely, the Cedi recorded the highest depreciation in relation to all other ECOWAS currencies, closely followed by the Dalasi which also depreciated against all ECOWAS currencies. During the first eleven months of 2012, the variations in the bilateral exchange rates of ECOWAS currencies reached nearly 20%. This is a major challenge in view of the adoption of the exchange rate mechanism for ECOWAS.

Moreover, the analysis of descriptive statistics resulting from trends observed over the last three years (November 2009-November 2012) highlighted that the Guinean franc, the Leone, and, to a lesser extent, the Dalasi recorded the highest fluctuation amplitudes. However, the analysis of the variability trends indicates greater stability of ECOWAS currencies compared to previous years.

Trends in the exchange rate pressure index, shows that, apart from the effect of the financial crisis on the Accra and Lagos stock markets, this index remained within the threshold. Similarly, it appears that, apart from the Leone and the Guinean Franc, resistance indices were very favourable.

Globally, the exchange rates movement of ECOWAS currencies not only reflects the trends in the international foreign exchange market but also the economic situation of specific countries. In most cases, the intervention of Central Banks on the foreign exchange market enabled to achieve relative stability of exchange rates and contain

fluctuations in more reasonable proportions. In this context, policies aimed at increasing foreign exchange reserves should be promoted.

APPENDICES

Tables 1: Trends in the average monthly exchange rates of the WAUA in relation to ECOWAS currencies

2008	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.	OCT.	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
Guinean Franc	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.	DEC.	Average
Currency													
CFA.Franc	760.04	751.31	741.00	726.79	729.75	729.22	733.08	734.67	749.29	753.86	756.70	768.94	744.6
Escudo	128.8	127.3	125.6	123.2	123.7	123.6	124.3	124.5	127.0	127.8	128.3	130.3	126.2
Dalasi	42.88	43.19	43.97	44.38	44.16	44.78	45.53	44.51	45.74	45.77	45.07	45.86	44.7
Cedi	2.26	2.34	2.36	2.39	2.39	2.40	2.39	2.42	2.39	2.43	2.42	2.44	2.4
GNF	9408.93	9580.01	10270.46	10505.99	10569.71	10643.55	10800.84	10926.62	10567.36	10366.13	10898.96	10909.33	10,454.0
Liberian Dollar	111.86	112.98	113.63	114.89	115.84	116.10	116.40	116.43	113.88	113.54	112.29	111.22	114.1
Naira	231.06	234.19	237.70	242.37	244.16	243.82	239.03	242.03	241.83	237.79	239.86	241.49	239.6
Leone	6530.91	6644.63	6814.47	6953.53	6939.28	6966.57	6969.41	7045.13	6952.65	6939.9494 9	6913.7882 22	6777.48	6,870.6

	Jan-12	Feb.-12	March-12	Apr.-12	May -12	June-12	Jul -12	Aug -12	Sept-12	Oct -12	Nov -12
Currency											
CFA.Franc	780.5117	769.2536	765.2026456	769.019	782.7569	793.7798	803.6404	800.8898	784.8135	778.9815	783.0246
Dalasi	45.54091	46.06097	45.99098115	45.45376	45.26411	46.52484	46.27109	46.83085	47.73226	50.33668	45.95931
Cedi	2.466801	2.587205	2.615893263	2.705712	2.803323	2.850564	2.884163	2.912759	2.933381	2.916394	2.871597
GNF	10853.14	10852.65	10799.71312	10781.23	10602.91	10629.65	10476	10542.12	10720.71	10766.92	10655.09
Liberian Dollar	111.8759	113.8343	113.4104859	114.1779	114.8085	114.5176	112.9329	111.1412	112.4953	111.0586	110.4684
Naira	239.8609	241.4232	239.7562831	239.5971	237.8157	235.4415	234.1751	234.894	238.5782	239.1963	236.9019
Leone	6703.989	6752.18	6712.270692	6711.251	6654.714	6578.121	6533.592	6559.592	6664.571	6678.501	6629.676

Source: IMF, WAMA, Central Banks

Table 2: Trends in the end-period exchange rates of the WAUA against ECOWAS currencies

	Dec 09	Dec 10	March 11	June 11	Sep 11	Dec 11	Jun 12	Jul 12	12 Aug	Sep 12	Oct 12	Nov 12
Currency												
CFA.Franc	717.12	765.61	735.43	726.35	755.08	778.86	795.82	807.65	795.01	784.56	778.44	778.7915
Dalasi	42.55	42.68	44.65	45.95	46.49	46.50	46.32	46.31	46.87	48.24	45.49	47.1608
Cedi	2.24	2.26	2.37	2.40	2.38	2.42	2.87	2.90	2.92	2.93	2.89	2.8805
GNF	7,639.15	9211.33	10369.15	10814.05	10283.43	10850.30	10,521.76	10,415.62	10,590.59	10,768.33	10,744.52	10,628.7833
Liberian Dollar	108.47	110.39	113.74	117.00	112.84	110.19	113.54	110.82	111.74	112.41	111.52	110.9613
Naira	230.36	227.94	238.57	241.65	241.51	239.05	235.31	234.22	236.15	239.10	238.83	237.6254
Leone	6,035.44	6435.91	6903.76	6977.74	6931.61	6698.73	6,552.33	6,532.02	6,590.15	6,675.29	6,676.07	6,630.4780

Source: IMF, WAMA, Central Banks