

# SAVING BEHAVIOR AND EXTERNAL DEBT SERVICE: THE WEST AFRICAN PERSPECTIVE

## ABSTRACT

The paper investigated the effect of saving behavior and debt-service on the debt burden and its effect on some economic indicators, debt service to export, export to GDP, debt service to GDP, savings rate and income per capita of 14 West African Countries. The data from the World Bank economic indicators for the period 1985-2015 were used as models. This was analyzed using fixed and random effect regressions and Hausman tests to determine the most appropriate estimator. The results revealed that the national savings of these countries should play a significant role in terms of payment of debt services and the countries' ability to reducing their total debt burden. It is also revealed that an increase in the export/GDP growth will lead to growth in the country's economy by providing more resources to pay the national debt, both external and domestic debt. The national saving rate should aim at improving the economic growth rate through a higher saving rate. The paper recommends that these countries should pursue a balanced saving policy, increase the export/GDP ratio and total revenue generated for a fully sustainable reduction of total debt burden so that future generations would not inherit a huge debt burden.

**Keywords:** External debt service, west Africa, saving behavior, Nigeria

## INTRODUCTION

External debt burden had been the core problem of developing countries and has been an adverse impact on the growth of their economics Moreputlea *et al.*, (2017). The case of West African countries being part of the African Countries where debt burden had defiled most solutions offered by creditors countries is not different Milton and Iyare (1994). According to Milton and Iyare, (1994), the solution offered by these creditor countries were in the area of rescheduling of debts.

This implies stretching the debt for a longer period, thereby increasing the total debt burden, as the interest would keep accumulating. That is why the Jubilee, (2000) had been clamouring on total debt forgiveness, whereby the total debt including debt-service would be extinguished/cleared offering total liberation from debts (Jubilee USA network, 2002).

Payments of debt-service and debts also reduce the funds to be utilized for constructive activities of these countries which will help to increase economic growth. Imran Shurf *et al.*,(2009), quoting the case of Nigeria wherein 2000 the payment of debt-service of US \$1.9 billion was paid, which was four times greater than what Federal Government budgeted for education, for health, and for the year 2001, debt-service payments were the US \$2.13 being six times greater than education and seven times greater than health expenditure.

On the other hand, some studies had identified problems of the African debt burden. One of such study, Milton and Iyare, (1994) had identified the need of increasing total revenue generated by

countries stating that an increase in export/GDP ratio would go a long way to solving debt-burden of most African Countries.

In this regard, Flana Rodriques, (1989) stated that savings had been more positively related to macroeconomic stability and GDP growth than to the real interest rate. According to Vince Fitzgered (1996), there should be a "right" level of saving from which without intervention, households would trade-off present consumption to what they would be saving. The savings will be invested in the economy to get real returns. Also, the level of savings undertaken by communities would be affected by the government's own savings and dissavings Unbreen and Auan (2012). According to Vince Fitzgered, (1996) government, the persistent running of recurrent operation or operating deficits would create liabilities for the future household if there were no corresponding assets to compensate them. Some studies that investigated causes of the growth of their external debt found out the countries in the quest to accelerate growth, invested more than domestic savings could be permitted. Babic *et al.*,(1986). They further stated that the debt problem was primarily the outcome of inappropriate domestic policies, excessively ambitious development plans which invariably mean large import requirements, over investment and faulty calculations of commodity price movements.

In the case of rescheduling or refinancing, if it brings about changes in economic structure by improving the country.s balance of payment performance, then it will be a mere postponement of debt service problems.

Therefore, the main issue is how could external debt and debt-service charges be cleared or reduced to a manageable level so that the growth prospects of West African Countries be enhanced. This paper charts a course by investigating how savings behavior and debt-service affect the economic growth of the West African Countries. The rest of the article is organized into four sections as flows; section two will discuss the literature review In section three data and methodology, and model specification and analytical framework are stated. The section will state the findings and results, while the conclusion follows.

## LITERATURE REVIEW

Kenrick Hunte, (2002) endorsed the relationship between saving behavior and the external body in Sub-Saharan African. He stated that for more than two decades, the debts of these countries increased, economic growth, investment, and savings had declined. He noted that external debt burden reduction would spur economic growth. In conclusion, he stated that for the last two decades, evidence suggested that while saving, investment and economic growth had been high

in Sub-Saharan Africa, Thus, leading to service debt over the years, requiring debt rescheduling and debt relief. The paper confirmed that a debtor's debt-service rate cannot be larger than the savings rate and demonstrated that sovereign debt-service capacity was equal to the saving rate in the long-run. The implication being that improving the national saving rate above the debt-service rate will ensure debt sustainability, reduce the debt-service impact on the economy and enhance the investment environment in Sub-Saharan Africa.

According to Nicholas and Odhiambo (2006), foreign savings substitute rather than complement domestic savings, and the growth of exports had a positive effect on domestic savings.

Ashim, (1997); used some simple macroeconomic concepts and identified the effect of foreign influences on savings in their final analysis stated that efforts should be made to raise their domestic savings ratio, and an estimate of a minimum saving ratio of 26% was necessary to meet the requirements of infrastructure investment in the immediate future. And that there was no need to be afraid that foreign infrastructure will lower domestic savings also, if policies successfully stimulate investment, domestic savings would rise.

Nicholas and Odhiambo (2006) reported the impact of financial liberalization on domestic saving, using South African time series data. The results among others were that foreign savings substitute rather than complement domestic savings, the growth of exports has a positive effect on domestic savings and that current domestic savings do not depend on the last period's savings.

Unbreen and Auan (2012) investigated the problem of the impact of foreign aid; external debt and economic growth, their findings were that it could not be wrong that external debt was a burden that put the economy into trouble and foreign aid was playing a constructive job in spurring the economic activity of the economy. They recommended that developing countries should try to pay more attention to the issue of poor quality of governance and must indulge in those activities that argument the earned revenues.

The study was done by Checherita *et al.*, (2010), on the impact of high and growing government debt on the economic growth of the euro area stated that there is a turning point, beyond which government debt to GDP ratio had a deleterious impact on longer-term growth. The study identified that the negative growth effect of high debt would start around 70-80% of GDP and that around this level there would be a need for prudent indebtedness policies. Also that the annual change of public debt ratio and the budget deficit to GDP ratio is negatively and linearity associated with per capita GDP growth. The study went further to state that the channel through which government debt level was found to have an impact on economic growth was private

saving, public investment total factor productivity, and sovereign rate. And also found out that the government debt-to-GDP ratio would have a deleterious impact on large-term growth at about 90-100% of GDP. Confidence intervals for the debt during point suggest that the negative growth effect of high debt may start already from levels around 70-80% of GDP which would call for even more prudent indebtedness policies.

## **DATA AND METHODOLOGY**

The data sets for this study were obtained from the World Bank Economic indicators for 14 West African Countries for the period 1985-2015. The names of the 14 West African Countries are available in the appendix attached in the end. Our model was analyzed using OLS to determine the most appropriate estimator.

## **MODEL SPECIFICATION**

The study adopted and modified the general model proposed by Hunte, (2002). The study examined the relationship between savings behavior and external debt services in West African countries. The panel regression model specified in the work is as follows:

$$\text{LnDS} = \beta_0 + \beta_1 \text{GSR}_{it} + \beta_2 \text{Y}_{it} + \text{U}_{it}$$

Where LnDS is total debt services in natural logs, GSR is a gross savings rate, Y is a growth rate of per capita income, while  $\mu_i$  is the unique intercept for each individual,  $\beta_1$  and  $\beta_2$  are parameter estimates, and  $\mu_{it}$  is the error term.

## **ANALYTICAL FRAMEWORK**

The analysis will start from the view of Hunt (2002) quoting Sachs, (1989) and Borenstein, (1989) that external and annual debt-service payment for Sub-Saharan Africa has been accepted as key factors retarding investment and economic growth. According to him also debt-service to GDP, DS/GDP) ratio is influenced through economic indicators representing prior claims on current and future exports and the degree of trade openness.

Stating that a prior claim on exports is defined as the ratio of debt service to exports (DS/X) and the degree of trade openness is defined as the ratio of exports to GDP (X/GDP). These debt-service indicators will be analyzed to show their influence on the economic growth of these countries. These will also include the indicators used in Hasan *et al.*, (1999), Chete, 1998 and Ojo, (1994) these are debt-service to exports, debt-service to GDP and external debt/GDP, the ratios are used to assess the debt situation, especially in heavily indebted countries.

Other relevant economic indicators are the balance of payment deficit, according to Yasiu, (2001), Cuddington, *et al.*, (1990), Checherita *et al.*, 2010, showing that running deficits on the

revenue account of the budget for a long time, the persistence of fiscal and trade deficits, reflect partly the economic situation of a country. The balance of payment is used alongside since it shows the creditworthiness of the country. The economic indicator used for this is the export /GDP ratio.

Since we are interested in the indicators that will wipe out the indebtedness of these countries, the savings ratios will be used also, to evaluate the debt situations of these West Africa Countries.

The savings ratios play a critical role in the economy of a nation because where a country does not save, she will not have anything to fall back at the time of distress. According to Hunt, (2003) external debt sustainability could only be achieved in the long run, if the saving rate is equal to or greater than the external debt service/GDP ratio in these economies.

The World Bank and IMF also specified the threshold levels for the debt ratio stating that debt-service to export should be with the range of 20 to 25% while exports to GDP should be at least 40%.

## RESULTS AND DISCUSSION

Table 1 presents the statistical description of the panel series. The mean of the debt-service to export ratio is 13.25%, the ratio is almost half of the World Bank and IMF recommended threshold level. The result is that it is low for this to encourage economic growth. The mean ratio of the exports to GDP, X/GDP is 26.30%, while the recommended threshold from the World Bank and IMF is at least 40%. The debt-service to export ratio has a media of 9.31 and a maximum of 119.67%, the maximum here means that some countries of West Africa can meet and exceed the minimum recommended level. While in the ratio of export to GDP (X/GDP), the maximum is 82.44% exceeding the recommended World Bank and IMF threshold.

**Table I: Economic Indicators of West African Countries, 1985 – 2015**

Status	DS/X	X/GDP	DS/GDP	GSR	Y
Mean	13.25317	26.30116	3.318823	-312.0013	2.702206
Medium	9.313485	24.86118	2.139564	4.098641	2.702703
Maximum	119.6796	82.44639	85.74802	2991.226	48.78049
Minimum	0.237163	4.902490	0.0517719	-82850.23	-87.24832
Observations	404	423	403	337	421

**Table 2: Relationship between Gross savings rate, the growth rate of per capita income and debt service**

Dependent Variable: LN\_DS  
 Method: Least Squares  
 Date: 10/28/19 Time: 07:56  
 Sample: 1 434  
 Included observations: 349

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	17.22015	0.138735	124.1226	0.0000
GSR	0.026070	0.007422	3.512591	0.0005
Y	0.001510	0.000208	7.260041	0.0000
R-squared	0.190811	Mean dependent var		18.25665
Adjusted R-squared	0.186134	S.D. dependent var		1.578136
S.E. of regression	1.423708	Akaike info criterion		3.552965
Sum squared resid	701.3228	Schwarz criterion		3.586103
Log-likelihood	-616.9925	Hannan-Quinn criteria.		3.566157
F-statistic	40.79428	Durbin-Watson stat		1.896925
Prob(F-statistic)	0.000000			

The debt-service to GDP ratio is a long-run measure of the creditworthiness of a country. Here, it has a mean of 3.31% which is in all consideration very low. Although the maximum is showing a good figure of 85.75% this means that only a few countries could attain this level.

Then coming to the savings ratios in the statistical description, the mean of saving ratio is -312% meaning that it is negative, Hunt, (2002), the study recommended that the saving rate should be equal to or greater than the external debt service/GDP ratio. But here the debt-service to GDP ratio has a mean of 3.31% while the saving ratio is -312%. Therefore, the countries of the West African cannot be able to reduce their debt to a manageable level, not to talk about wiping out their debt. The income per capita grew at an average rate of 2.70%, in contrast, the average percentage change in gross savings stood at negative of 312%.

The panel estimation in Table 2 reveals that savings rate and income growth have a significant positive effect on debt services. The results indicate that a unit change in the savings rate leads to a 0.026 increase in debt-service. A unit change in income growth leads to a 0.001 increase in debt-service. Moreover, the repressors accounted for about 19.08% of the variation in the dependent variable.

## CONCLUSION

The paper had examined the relationship between savings behavior and debt servicing, through its economic indicators as follows; export of goods and services, % of GDP, gross savings & GNI, Debt services, % of export, and gross savings in current US Dollars. The aim is to find a way forward toward the eradication of external debts. The results showed that the countries could not attain the recommended threshold stipulated by the World Bank & IMF of at least 40% which is 25% of debt service to export rate. These countries will not be able to find resources for boosting their economic activities. The tax gap framework has stipulated that economic growth can be committed by a lack of internal savings (saving-investment gap) or by an inadequate supply of foreign exchange import-export gap. The external capital requirements are determined by larger of the two gaps, therefore, most of these west African countries could not generate the required capital for capital investment but only very few countries could attain the maximum of 119.6796% in debt service to export, in export to GDP, 85.748 in debt service to GDP and a whopping figure of 2991.226 in Gross saving rate. Even though the maximum above are quite encouraging but the mean figures are too low for the majority of the countries. Therefore, for any meaningful growth, these economic indicators have to be largely improved upon.

These countries are still developing countries where their most earnings are from the agricultural process which requires simple capital technology and a lot of human capital resources, most of these countries have them in large quantities. Therefore, for any meaningful development in these countries, the countries should encourage and chart their course in agriculture. The youths and small scale enterprises should be encouraged into large scale farming, and also process industries for these farming products. The outcome will be that the farm products will be processed to an acceptable grade for the international markets. This, in turn, will generate foreign exchange. The government of these countries should develop agricultural policy reforms and effective export promotion policy so that their agricultural products could be exported and generate adequate revenue. Also, there is a need for govt. to encourage the increasing flow of public and private resources into the agricultural sector and the infrastructures, to the firms, communities, and individuals with export potential or be able to lower the prices of agricultural inputs.

Govt. should create a policy of making effort to raise their national savings and when this is achieved, effort should be made to channel the revenue into investments. Another way of

encouraging savings is through a pension scheme, which in Nigeria had been made compulsory for both public and private companies. In this way, the gratuities are paid instrumentally, and the most sum being invested. Another group of these countries had not tackled is those privately employed, some earning high but the majority are on low incomes. This group should also be managed to encourage them to save. There is another group that their monies are stacked in the bedroom pillows they have nothing to do with the banks. These types of monies are redundant and do not generate any income. There is also the question of when good policies are made, there is a basic need for political will to stick to the policy, and policy continuation when there is a new government in power.

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## APPENDIX

Time		Debt service on external debt	Debt service (% of exports)	Exports of goods and services (% of GDP)	GNI (current US\$)	GNI per capita, (current US\$)	Gross savings (% of GNI)	Gross savings (current US\$)
1985	Benin	49152000	12.39053805	23.65261835	1024412705	260	2.688994287	27546399.11
1986	Benin	61900000	14.28126923	16.67592095	1310102040	270	4.219479762	55279490.45
1987	Benin	40800000	7.038288339	15.26752812	1533812034	310	4.439123848	68087815.77
1988	Benin	28303000	6.784011046	13.80373921	1595446186	360	0.782411517	12482954.71
1989	Benin	25902000	7.195550598	13.49542898	1464137968	340	4.631851439	67816695.52
1990	Benin	37098000	8.909971512	19.18130301	1921032590	370	9.884723626	189888762.2
1991	Benin	30255000	5.105826768	21.00248606	1955598277	380	10.92617069	213672005.7
1992	Benin	27460000	4.804925207	23.23914805	1634867229	370	9.929243	162329939.9
1993	Benin	31484000	5.202696009	22.46438304	2234725313	380	9.857948533	220298071.2
1994	Benin	39584000	6.850256989	28.32701862	1562942647	330	14.8321694	231818301
1995	Benin	47920000	7.22255437	27.3689425	2125371588	360	16.22812968	344908057.5
1996	Benin	43665000	6.127543339	26.49881155	2315095357	350	15.54692084	359926042.5
1997	Benin	51804000	8.410460037	27.17613459	2238481480	380	16.4034987	367189280.4
1998	Benin	58585000	9.161037247	27.09293955	2441702753	370	15.88521175	387869652.5
1999	Benin	68827000	10.23144367	23.68818308	2677449098	380	13.22994235	354224972.1
2000	Benin	75299000	12.83477954	21.14038924	2556919381	390	13.76696971	352010316.7
2001	Benin	46989000	8.150259932	20.34916272	2665637617	390	15.09435694	402360856.7
2002	Benin	55839000	8.50426041	20.18788163	3026431437	390	15.05404174	455600251.8
2003	Benin	38564000	5.031126158	18.98405146	3867272608	440	12.26377651	474273669.6
2004	Benin	40621000	4.889526278	18.8185548	4484423932	530	14.77134531	662409744
2005	Benin	47871000	5.804828414	18.93203883	4785944401	600	12.95910777	620215692.6
2006	Benin	41435000	4.08097413	18.52802261	5112167930	630	13.68597223	699649883.4
2007	Benin	36072000	2.100922568	22.58650821	5921075693	670	15.2594552	903523892.5
2008	Benin	62395000	3.417006834	22.85463824	7121478911	750	12.88038175	917273669.8
2009	Benin	52947000	2.501957082	20.37180711	7064203260	790	11.96299343	845090172.2
2010	Benin	56221000	2.240495817	23.78772956	6916757693	790	11.25871379	778737952

2011	Benin	70857000	2.396717989	21.38207854	7798579809	800	12.95701825	1010463409
2012	Benin	85121000	2.815619789	24.59335432	8085816013	820	13.82661564	1117994702
2013	Benin	88875000	3.281556094	28.15332243	9087751417	890	16.80783135	1527453932
2014	Benin	83515000	2.597636023	32.07625794	9646277722	930	18.70656036	1804486765
2015	Benin	75587000	3.527143826	28.221547	8263954911	870	15.85014929	1309849191
	Burkina							
1985	Faso	29463000	15.86283856	9.921464694	1546793451	210	..	..
	Burkina							
1986	Faso	36776000	16.71876548	8.990563134	2030903473	240	..	..
	Burkina							
1987	Faso	36127000	11.07303855	11.3588168	2361035336	270	..	..
	Burkina							
1988	Faso	42710000	12.11734415	10.99870019	2602940567	330	..	..
	Burkina							
1989	Faso	38546000	13.14168556	8.748862592	2603688479	330	..	..
	Burkina							
1990	Faso	34296000	7.803066178	10.96669141	3093955988	330	..	..
	Burkina							
1991	Faso	46388000	11.37712431	10.44754844	3125829320	360	..	..
	Burkina							
1992	Faso	33436000	8.887479979	8.846480369	2232271772	320	..	..
	Burkina							
1993	Faso	37966000	11.51418927	8.951543281	2318405445	280	..	..
	Burkina							
1994	Faso	43589000	14.88258714	14.20162115	1881027157	230	..	..
	Burkina							
1995	Faso	48445000	..	14.14055654	2369479998	230	..	..
	Burkina							
1996	Faso	48530000	..	10.56360521	2593450635	250	..	..
	Burkina							
1997	Faso	51435000	..	10.812531	2445476494	250	..	..
	Burkina							
1998	Faso	54152000	..	12.80810302	2802106122	250	..	..
1999	Burkina	64952000	..	9.518368069	2988520582	260	..	..

	Faso							
	Burkina							
2000	Faso	47489000	18.45119364	9.532602085	2602231361	250	..	..
	Burkina							
2001	Faso	38362000	13.03806917	9.243405422	2788422513	240	..	..
	Burkina							
2002	Faso	44443000	13.6547648	9.176684898	3186797137	240	..	..
	Burkina							
2003	Faso	47153000	12.02994926	8.710212821	4180054621	280	..	..
	Burkina							
2004	Faso	52793000	8.938445846	11.32844027	4807847964	340	..	..
	Burkina							
2005	Faso	45988000	7.768897339	9.743996418	5442137633	410	12.01370842	653802547.2
	Burkina							
2006	Faso	44734000	5.937363691	11.51886315	5842308110	430	10.93144461	638648674.9
	Burkina							
2007	Faso	42068000	4.654300104	10.54970221	6753605287	460	13.65113917	921944057
	Burkina							
2008	Faso	41673000	3.873902262	9.967296937	8347656049	520	13.69996803	1143626210
	Burkina							
2009	Faso	43615000	3.824430464	12.69934858	8342689809	550	15.72722261	1312073398
	Burkina							
2010	Faso	48996000	2.473583168	19.22674197	9202852644	610	23.89261731	2198802364
	Burkina							
2011	Faso	67380000	2.31291253	25.00369048	10391738252	610	22.4982557	2337959844
	Burkina							
2012	Faso	71047000	2.093786738	25.51852207	10720553975	640	22.18351426	2378195620
	Burkina							
2013	Faso	78692000	2.39878907	26.19375313	11727950240	680	19.76732483	2318302020
	Burkina							
2014	Faso	92199000	2.738711324	25.65086816	12016279659	680	18.85002933	2265072240
	Burkina							
2015	Faso	112087000	4.385902995	24.56253505	10811530894	650	..	..
1985	Cote	1114203000	23.66550635	46.77491298	6295644348	620	..	..

	d'Ivoire						
	Cote						
1986	d'Ivoire	1320864000	26.56054101	39.49590841	8468160649	710	..
	Cote						
1987	d'Ivoire	1368247000	21.60803996	33.4299902	9196580292	790	..
	Cote						
1988	d'Ivoire	1074862000	20.63923941	30.48812849	9302464669	890	..
	Cote						
1989	d'Ivoire	1076041000	18.40580002	32.03333564	8372493877	810	..
	Cote						
1990	d'Ivoire	1261900000	19.06148387	31.68987467	9209159713	750	..
	Cote						
1991	d'Ivoire	1279548000	22.35290396	30.01172634	9121517377	730	..
	Cote						
1992	d'Ivoire	1159594000	18.71296673	31.90948693	9807255444	760	..
	Cote						
1993	d'Ivoire	1093857000	19.37429774	29.44245287	9679054334	730	..
	Cote						
1994	d'Ivoire	1244179000	22.05395174	40.52740186	7539428502	670	..
	Cote						
1995	d'Ivoire	1046132000	19.11349854	41.75929966	10012665109	680	..
	Cote						
1996	d'Ivoire	1374698000	17.420395	41.10099509	11223283349	710	..
	Cote						
1997	d'Ivoire	1166670000	12.06404762	42.91595731	11002798845	750	..
	Cote						
1998	d'Ivoire	1383487000	16.48526609	41.39640228	12020812548	750	..
	Cote						
1999	d'Ivoire	1451118000	18.5757044	42.4023849	11742586598	720	..
	Cote						
2000	d'Ivoire	1022454000	15.84814829	40.78102913	9715070572	640	..
	Cote						
2001	d'Ivoire	619327000	8.011015213	40.70005794	9911757704	590	..
	Cote						
2002	Cote	830942000	9.91377243	47.46234948	10806672899	560	..

	d'Ivoire							
	Cote							
2003	d'Ivoire	570892000	6.17321457	41.89141613	13017765217	610	..	..
	Cote							
2004	d'Ivoire	391860000	2.854832374	46.40501472	14763108933	770	..	..
	Cote							
2005	d'Ivoire	307094000	1.348978935	49.89836053	16432853988	930	13.81729417	2270575776
	Cote							
2006	d'Ivoire	270033000	0.809218022	52.36758894	17091275139	940	13.83740027	2364988152
	Cote							
2007	d'Ivoire	431245000	2.072877161	47.22598261	19535375620	970	12.52135968	2446094647
	Cote							
2008	d'Ivoire	1047994000	7.034075601	47.11608733	23327069457	1080	14.48469678	3378855279
	Cote							
2009	d'Ivoire	1133069000	7.328413156	50.85444236	23342791967	1170	15.98519882	3731391706
	Cote							
2010	d'Ivoire	751409000	3.968954082	50.63264302	23972203265	1200	15.89399693	3810141250
	Cote							
2011	d'Ivoire	730969000	3.128599704	53.8199572	24393312491	1130	15.81008754	3856604060
	Cote							
2012	d'Ivoire	720156000	2.439129742	48.47613246	26178127365	1240	14.61390038	3825645454
	Cote							
2013	d'Ivoire	1053145000	4.043337251	41.53105069	29861760088	1340	18.56597301	5544126320
	Cote							
2014	d'Ivoire	1002723000	4.213722242	39.27464911	34463016583	1460	..	..
	Cote							
2015	d'Ivoire	808070000	3.550377053	38.08170957	31821243238	1490	..	..
	Guinea-							
1985	Bissau	9406000	33.18232044	9.757991707	159531246.9	190	-3.89425277	-6212550
	Guinea-							
1986	Bissau	7488000	60.70103093	5.235219028	129407982.9	160	13.9174557	18010298.69
	Guinea-							
1987	Bissau	10746000	56.14285714	11.36700301	165536369.5	170	13.50493391	22355577.29
	Guinea-							
1988	Guinea-	9703000	47.81761006	12.44089594	154458085.3	180	15.55418712	24024699.62

1989	Bissau Guinea-	11193000	46.9622093	8.890718949	200843049.9	200	7.362724174	14787519.78
1990	Bissau Guinea-	8430000	22.11494253	9.935989367	233321979	220	15.13681145	35317508.04
1991	Bissau Guinea-	22994000	64.69253731	9.982487202	240150556.5	230	4.192899404	10069271.25
1992	Bissau Guinea-	6646000	34.6921797	4.902489849	212813497.3	230	8.248251429	17553392.33
1993	Bissau Guinea-	3792000	13.95023328	8.86943639	221580819.2	220	7.918306357	17545448.09
1994	Bissau Guinea-	7681000	19.14219474	16.45440776	221530040.3	210	7.92502609	17556313.49
1995	Bissau Guinea-	15509000	51.09496452	11.66716961	235946462.9	210	10.4114012	24565332.86
1996	Bissau Guinea-	11111000	37.28036402	10.52440406	251819733.6	230	7.055516983	17767184.07
1997	Bissau Guinea-	8720000	14.46183609	21.01676321	253850820.7	230	15.27835126	38784220.06
1998	Bissau Guinea-	7060000	..	14.44369762	192357503.9	150	..	..
1999	Bissau Guinea-	8517000	..	24.86117665	210146632	160	..	..
2000	Bissau Guinea-	5233000	..	21.75585741	357773157.8	200	..	..
2001	Bissau Guinea-	4822000	6.422516305	21.19459929	376388143.3	240	0.964334402	3629640.353
2002	Bissau Guinea-	3700000	5.433583697	17.83312057	407103018.4	290	5.949283226	24219711.59
2003	Bissau Guinea-	7905000	10.54003677	18.67981089	465381728.1	320	6.622409664	30819484.54
2004	Bissau	9923000	11.59033722	18.45989158	520827023.6	370	8.050468289	41929014.38
2005	Guinea-	6371000	6.585213466	19.85465601	575359912.8	420	2.747276234	15806726.14

2006	Bissau Guinea-	9825000	12.49043603	17.02955129	586243648.5	430	-3.132554065	-18364399.24
2007	Bissau Guinea-	10558000	7.352832515	20.17721466	692094004	450	4.429558527	30656708.97
2008	Bissau Guinea-	9744000	5.599077418	19.89275516	850553307.7	500	2.938233415	24991241.5
2009	Bissau Guinea-	10189000	6.200069877	18.74007873	815593315.2	550	0.385941706	3147714.752
2010	Bissau Guinea-	17474000	9.479239606	19.97809953	845414290.8	570	-1.795084985	-15175905
2011	Bissau Guinea-	5113000	1.713645423	26.72144411	1104814496	630	6.82873424	75444845.75
2012	Bissau Guinea-	6909000	4.41153756	14.33548355	994713353.3	610	1.135724195	11297200.22
2013	Bissau Guinea-	1533000	0.762051902	19.0986227	1025761370	620	2.55066345	26163720.35
2014	Bissau Guinea-	1989000	0.721122378	18.81627716	1104870128	620	..	..
2015	Bissau	2461000	0.628187738	27.93465166	1053021166	610	..	..
1985	Mali	53091000	20.14254376	17.01653806	1366264559	180	-3.075344812	-42017346.24
1986	Mali	61679000	20.72021527	14.49123888	1827610129	200	2.4058708	43969938.44
1987	Mali	69471000	19.02578291	15.56172645	2070498992	240	10.83770877	224394650.7
1988	Mali	78198000	23.10238568	14.58072076	2142869530	290	7.769909229	166499017.3
1989	Mali	69588000	18.73011771	15.81019386	2181821902	290	15.8691927	346237522
1990	Mali	67834000	14.65627305	15.65359181	2666059800	290	11.69563436	311812606
1991	Mali	45320000	9.182681745	16.21126857	2721462314	320	11.58141467	315183835.6
1992	Mali	58477000	11.93771506	15.62910335	2823397108	330	12.97336857	366289713.1
1993	Mali	78718000	16.08131152	15.85350477	2820491620	320	9.188489916	259160588.1
1994	Mali	88199000	21.14279503	19.44277535	2058618936	280	13.69487358	281925260.8
1995	Mali	86757000	15.79390578	19.56106766	2659084561	270	10.5683675	281021828.4
1996	Mali	116431000	20.75950909	18.87147761	2730573834	270	9.94509	271558025.3

1997	Mali	84853000	10.62360206	23.82655929	2643959129	280	14.2767343	377471019.7
1998	Mali	82012000	11.0679588	21.25395252	2869578167	280	14.57139022	418137432.3
1999	Mali	106546000	13.84817501	20.25098892	3394863474	290	10.51107596	356836678.6
2000	Mali	93740000	12.91354629	22.47859046	2924051198	280	10.07375002	294561608.2
2001	Mali	80312000	8.715861071	26.31243707	3299284700	300	12.64560504	417214512.4
2002	Mali	82563000	7.455082886	28.08745381	3649581791	290	12.44717169	454269711.7
2003	Mali	77012000	6.392596679	25.76934039	4543662842	350	15.25230602	693013361.4
2004	Mali	99055000	7.897728908	23.67718471	5262754105	400	14.35771744	755611363.8
2005	Mali	100009000	6.723318101	22.98886934	6038384906	460	13.51641801	816173345
2006	Mali	85511000	4.321248065	28.4289451	6642384317	490	18.75455078	1245749340
2007	Mali	64237000	3.170847274	24.15211115	7924811204	540	18.22092922	1443974240
2008	Mali	69124000	2.605431585	25.26775633	9527511175	610	13.67205254	1302606334
2009	Mali	68488000	3.08562083	21.73447722	9943827256	670	17.78312502	1768323233
2010	Mali	61558000	2.446700942	22.83717018	10259757671	690	13.34864509	1369538639
2011	Mali	68368000	2.342046783	22.72617792	12516311301	730	14.82479814	1855517885
2012	Mali	60267000	1.751775994	27.85634001	11941110864	730	16.81004409	2007306001
2013	Mali	101876000	2.988219614	26.20015104	12380692656	760	24.19906684	2996012092
2014	Mali	99086000	2.961863037	23.1152469	13619774969	790	20.86409668	2841643017
2015	Mali	106134000	4.203432958	22.41046159	12352234321	760	..	..
1985	Niger	107453000	18.12747814	20.68595238	1398279076	220	8.555081173	119623910
1986	Niger	128800000	19.05465538	20.00042463	1886598070	250	9.990145937	188473900.5
1987	Niger	161430000	20.32756573	20.80292187	2171449444	270	4.485096442	97391601.76
1988	Niger	169009000	23.91968376	18.29988212	2234695251	330	13.58522483	303588374.2
1989	Niger	122255000	12.62788954	16.599715	2197434965	320	6.762986004	148612219.1
1990	Niger	98704000	6.594579413	14.81109288	2423376168	300	2.531089351	61337816.12
1991	Niger	107172000	12.26785066	14.05215925	2287930552	290	3.60532973	82487440.38
1992	Niger	53161000	5.40932282	16.75507572	2314386034	280	7.530607111	174287319.2
1993	Niger	89732000	15.96367117	15.64210647	1582564714	230	7.200296768	113949356
1994	Niger	66155000	12.61145721	16.53195694	1532407808	200	2.385877724	36561376.53
1995	Niger	55812000	7.794589817	17.68076289	1830111960	180	-0.841549427	-15401296.72
1996	Niger	56413000	7.064717256	18.54129815	1959428681	190	4.188103382	82062898.86

1997	Niger	64266000	14.32423319	16.82413966	1816816152	190	3.601589595	65434261.51
1998	Niger	62022000	9.427823557	17.7817055	2053176239	190	4.432525964	91007569.9
1999	Niger	31942000	8.67157063	15.90004769	1998515205	180	3.725604467	74456771.75
2000	Niger	26560000	6.820699683	17.79943768	1781941337	170	5.305430851	94539665.45
2001	Niger	28287000	5.938894149	16.92293128	1930329245	170	7.412857553	143092557.2
2002	Niger	26146000	4.93372592	15.90795476	2146275950	160	4.976436759	106808065.3
2003	Niger	37693000	6.630130956	15.1978674	2705236782	190	7.999670481	216410028.3
2004	Niger	43361000	6.319278817	17.36427331	3039991090	210	6.312595153	191902330.2
2005	Niger	40693000	5.380833358	16.59528979	3395616379	250	13.73759996	466476194.1
2006	Niger	170714000	25.32490134	16.41245874	3647941672	260	14.99507913	547011740.2
2007	Niger	32073000	2.271362471	17.42843418	4290922504	280	14.70980727	631186430.7
2008	Niger	27383000	1.429741868	17.73013095	5384333669	320	18.1089196	975044655.2
2009	Niger	38454000	2.580039117	20.32151346	5362461169	330	10.42318489	558939242.2
2010	Niger	23398000	1.173123722	22.19825258	5674417311	350	20.28299898	1150942006
2011	Niger	34895000	2.280245773	20.90236652	6362151476	360	16.24873852	1033769357
2012	Niger	36597000	2.148781198	21.85891404	6806859287	390	21.88699955	1489817261
2013	Niger	48831000	2.653293899	22.63550033	7483215934	400	21.67171369	1621741132
2014	Niger	62351000	3.343806067	20.98005056	8093702659	420	..	..
2015	Niger	90229000	6.312656754	17.17690863	7079378713	390	..	..
1985	Senegal	189446000	19.19385708	27.83198915	2835100685	430	4.449710727	126153779.3
1986	Senegal	299639000	25.94243471	24.55937541	4024763229	490	2.047796095	82418944.23
1987	Senegal	387021000	31.51207931	21.24802486	4842405872	630	5.433899798	263131482.9
1988	Senegal	388497000	30.48606146	22.29160729	4766951884	730	1.959191442	93393713.34
1989	Senegal	381129000	27.61500242	24.46295596	4708364020	720	1.46516276	68985196.21
1990	Senegal	324147000	18.28068224	25.41053581	5519847742	710	1.654346562	91317411.37
1991	Senegal	313225000	20.05309943	23.09263558	5422333891	710	2.330274166	126355245.8
1992	Senegal	209390000	12.54239404	22.34883017	5872286223	750	3.20760715	188359872.7
1993	Senegal	126708000	8.694959052	20.26430448	5487729754	710	0.444270254	24380350.93
1994	Senegal	234250000	16.32843197	31.75373917	3735087167	580	5.437397129	203091522.4
1995	Senegal	282896000	16.46578148	30.8663417	4723855369	560	8.24611798	389534687
1996	Senegal	292535000	19.39426977	26.9840158	4992915108	530	7.914971975	395187831.5

1997	Senegal	251115000	17.49929204	27.31488948	4600439037	540	11.00202429	506141420.2
1998	Senegal	323452000	19.81169852	27.69656396	4974446152	530	11.36682278	565436478.1
1999	Senegal	240888000	14.24854152	28.05646822	5051305254	530	12.40868684	626800650.4
2000	Senegal	225693000	14.77920645	27.92511633	4589011850	510	14.07713941	646001595.5
2001	Senegal	213255000	12.60814809	28.72629254	4799782720	490	14.13558744	678477483.5
2002	Senegal	221524000	12.77460984	28.54887099	5232162430	470	11.99265527	627475203.6
2003	Senegal	244328000	11.53148276	26.62284815	6764878045	550	16.75412257	1133395959
2004	Senegal	341435000	13.48796154	27.13868	7941187476	670	15.92035639	1264265347
2005	Senegal	203533000	6.364899107	27.01740321	8551475411	770	16.24009266	1388767531
2006	Senegal	186365000	6.190539418	25.62624281	9270535888	810	15.37405928	1425257683
2007	Senegal	190166000	3.507033934	25.44627592	11188702544	870	17.57908238	1966871238
2008	Senegal	181225000	3.272030743	26.14877029	13380373094	990	17.14574496	2294164646
2009	Senegal	197414000	4.229490536	24.40525886	12638806452	1040	15.55146916	1965520088
2010	Senegal	304727000	4.372073083	24.9003456	12787054488	1050	17.66111072	2258335851
2011	Senegal	361364000	6.175961382	26.39188228	14086549899	1020	17.85112331	2514607392
2012	Senegal	318553000	5.432190708	27.95058619	13900878559	1030	18.72358924	2602743402
2013	Senegal	400928000	5.772857491	28.42238183	14488132874	1050	17.45491725	2528891603
2014	Senegal	357682000	5.29601201	28.1122585	14931131799	1030	16.37554529	2445054249
2015	Senegal	377308000	7.585284346	29.18622591	13237706540	980	..	..
1985	Togo	111289000	26.87522013	48.40875729	725410304.2	230	13.87848652	100675971.3
1986	Togo	144481000	28.13973542	43.98475744	1018463752	250	14.09214783	143523417.6
1987	Togo	90558000	15.8175368	41.36920658	1200519317	310	13.21646353	158666197.8
1988	Togo	131438000	22.38181664	43.6585288	1330500616	390	13.22977182	176022195.6
1989	Togo	91330000	15.18943543	39.66847468	1313452205	400	13.33166846	175105093.4
1990	Togo	85652000	11.47779125	33.47388988	1597942475	400	21.35159869	341186264.6
1991	Togo	54161000	7.519591014	33.44277751	1571531335	400	14.27856012	224392046.5
1992	Togo	36124000	5.432456365	26.9345382	1665493179	410	10.37370857	172773408.7
1993	Togo	26474000	6.014315237	24.38386236	1207186870	330	2.822456344	34072322.39
1994	Togo	22893000	4.714595841	30.54855885	931147837.5	300	15.03895025	140034860
1995	Togo	29081000	5.423786277	32.43691281	1264862640	300	17.33087814	219211802.8
1996	Togo	58199000	9.266156	33.28203792	1439045817	310	12.11791646	174382369.9

1997	Togo	55914000	9.821258372	28.97501226	1470050894	350	5.258919974	77308800.06
1998	Togo	39849000	6.977739272	29.68634233	1563958019	320	7.099446162	111032357.5
1999	Togo	42436000	7.621699908	28.87468935	1537543546	310	5.414397283	83248716
2000	Togo	30244000	5.465485288	34.38355145	1265266220	290	5.082377938	64305611.21
2001	Togo	34279000	6.49117333	33.80127725	1302971341	260	4.622605766	60231228.31
2002	Togo	14821000	2.313864267	36.51717143	1452941738	250	8.39637346	121994414.5
2003	Togo	19375000	2.39301866	43.36845744	1650239373	280	4.976719943	82127791.97
2004	Togo	21990000	2.651520561	38.56471513	1903513822	330	2.26125156	43043236
2005	Togo	21251000	2.344002666	40.04429806	2079925591	360	4.974971203	103475699.2
2006	Togo	26753000	2.769170947	38.20071263	2165013546	380	8.34716036	180717152.5
2007	Togo	15449000	1.290228245	37.91928644	2493199664	400	8.023653546	200045703.3
2008	Togo	195251000	15.88709674	35.4935713	2794207661	390	-0.628707992	-17567406.88
2009	Togo	53774000	4.201021391	36.74112591	2803416787	430	1.830809807	51325229.48
2010	Togo	36342000	2.582110281	40.16387027	2761612189	450	0.038518963	1063744.381
2011	Togo	14913000	0.705142889	39.4346813	3197519381	450	-7.403964712	-236743206.6
2012	Togo	22993000	1.111950426	46.67172911	3282166608	470	1.774781656	58251290.88
2013	Togo	52379000	2.204379367	52.70867238	3438677562	490	-5.181100507	-178161340.6
2014	Togo	59326000	2.708173659	44.49845301	4032303011	540	2.007829563	80961771.95
2015	Togo	59633000	3.166286906	42.21731387	3711095706	540	-6.737532838	-250036291.9
1985	Gambia	8963000	6.951466213	43.86485011	250974678.3	310	20.57881978	51647626.75
1986	Gambia	31103000	31.31921497	46.62415215	214199884.5	310	25.43760316	54487316.59
1987	Gambia	25483000	19.15279707	49.41808688	250476591.7	330	37.25675372	93319446.88
1988	Gambia	22933000	14.6094571	50.36571732	271923275.3	310	29.53323093	80307728.85
1989	Gambia	23780000	13.6605721	55.05998399	267267458.7	310	18.55787229	49599153.67
1990	Gambia	37730000	21.78548059	59.90273626	291575060.3	320	23.76553988	69294387.22
1991	Gambia	30894000	13.21973637	29.43891965	670174119.2	410	19.95557871	133737123.8
1992	Gambia	29657000	12.3600968	30.59270667	695658104.5	550	24.69662725	171804089
1993	Gambia	27978000	11.13712345	28.19201565	736114620.8	750	0.501733544	3693333.972
1994	Gambia	31119000	13.38809589	21.23961801	728459558.7	730	0.372985262	2717046.796
1995	Gambia	28048000	15.08312312	23.77564904	770633069	740	-0.194245836	-1496922.648
1996	Gambia	27971000	12.05787341	21.7986716	832133538.2	750	1.003725102	8352333.204

1997	Gambia	26652000	11.28969503	22.93220255	779877139.7	730	4.358363695	33989882.12
1998	Gambia	25745000	..	25.30557465	814984158.8	710	..	..
1999	Gambia	21370000	..	24.39736108	785843994.3	680	..	..
2000	Gambia	21840000	..	25.79867432	752681081.7	670	..	..
2001	Gambia	14507000	..	21.82079813	656184060.9	600	..	..
2002	Gambia	15037000	..	27.15738458	545288099.1	480	..	..
2003	Gambia	20506000	14.49823288	31.09378645	464321035.4	420	9.699949242	45038904.75
2004	Gambia	37793000	20.53384493	20.33146428	551599208.8	420	11.89690757	65623248.01
2005	Gambia	28685000	14.64168068	20.74701785	591849405.4	400	7.362295119	43573699.89
2006	Gambia	30342000	14.35091682	14.73656553	617208279.1	410	6.16892114	38075092.01
2007	Gambia	33931000	12.97894078	14.73448008	754335945.2	450	8.247572619	62214404.87
2008	Gambia	17113000	5.1364721	16.17402414	931333334.8	520	8.259557218	76924009.68
2009	Gambia	19511000	6.718313403	22.90781387	892548464.2	580	22.2770947	198833866.7
2010	Gambia	24099000	8.410920031	23.76736365	944381893.5	590	10.52941827	99437919.62
2011	Gambia	26930000	10.29804626	26.28303683	888511026.3	520	29.93731274	265996324.6
2012	Gambia	26337000	9.360814004	30.76598373	893932356.7	520	28.46215466	254432409.9
2013	Gambia	29146000	10.82741675	29.19588043	881379327.3	500	..	..
2014	Gambia	47476000	17.4647824	26.10351925	820322624.8	460	..	..
2015	Gambia	38334000	14.36177833	21.68269609	909968844.9	450	..	..
1985	Ghana	159397000	20.96109467	10.65448567	4424969155	350	8.178591494	361900150.9
1986	Ghana	227929000	25.54011905	16.57609705	5601277826	400	7.089882882	397124037.7
1987	Ghana	415015000	43.517934	19.66260054	4936761905	420	7.782732354	384214966
1988	Ghana	545667000	54.99321999	18.1833835	5066668170	440	10.2218586	517907656.3
1989	Ghana	453889000	48.45626398	16.74263732	5133900903	410	11.66708279	598976468.8
1990	Ghana	368049000	36.45120152	16.87789041	5776765510	400	10.7382369	620322765.6
1991	Ghana	301427000	25.58148217	16.96354606	6474875000	420	12.09206658	782946195.7
1992	Ghana	319044000	25.88145383	17.22595549	6307702517	440	7.051822878	444808009.2
1993	Ghana	308200000	23.1956576	20.25391906	5853944530	420	13.08657589	766080893.7
1994	Ghana	368909000	24.33142816	25.25863593	5333534519	380	19.47735366	1038831381
1995	Ghana	405866000	23.26769038	24.49644594	6332009174	380	17.99522634	1139459383
1996	Ghana	482544000	25.07415872	32.11218217	6791288685	380	18.47614731	1254768502

1997	Ghana	559035000	30.37520964	32.41029093	6757509277	400	10.61715847	717455468.8
1998	Ghana	582314000	20.53889149	33.87135176	7329127595	390	18.40667626	1349048789
1999	Ghana	526165000	18.92541092	32.07833895	7555452363	400	9.564986777	722678019.5
2000	Ghana	467594000	16.95564846	48.80225762	4836061112	340	15.72932251	760679649.2
2001	Ghana	312285000	11.3432613	45.23301647	5206827726	300	21.5304456	1121053211
2002	Ghana	222098000	7.257726608	42.61625189	6036889828	280	19.15615072	1156435714
2003	Ghana	502195000	7.129167122	40.67904265	7467434241	320	21.62437029	1614785631
2004	Ghana	277249000	7.470537983	39.30332512	8683188883	390	23.39380048	2031327882
2005	Ghana	340492000	7.93040382	36.44921695	10600650557	470	19.46507481	2063424561
2006	Ghana	289001000	5.01882417	25.19262597	20281934315	600	16.59370854	3365525066
2007	Ghana	234863000	3.358036364	24.5250906	24618642536	800	11.55519916	2844733175
2008	Ghana	294807000	3.744322619	25.0294573	28410855657	1160	9.380723761	2665143887
2009	Ghana	290459000	3.292041293	29.29186598	25883819208	1200	15.35234444	3973773078
2010	Ghana	378875000	3.448521122	29.47671798	31640997973	1250	15.38596312	4868272278
2011	Ghana	352335000	2.197525345	36.93660855	38336161728	1400	18.03422695	6913630412
2012	Ghana	536073000	2.872452609	40.35921817	39809765731	1560	21.06134854	8384473513
2013	Ghana	999060000	5.620590195	34.1890785	46453675605	1730	16.14443891	7499685279
2014	Ghana	835499000	5.049909298	39.52355867	36899140302	1580	19.34933549	7139738451
2015	Ghana	1055831000	5.848300238	43.85040613	36411505263	1470	17.51294308	6376726191
1985	Guinea	71934000	..	..	..	..	..	..
1986	Guinea	71729000	11.76753783	31.09189988	1770900899	..	12.3703825	219067214.9
1987	Guinea	164240000	26.24865224	31.63135298	1917338057	..	12.96538555	248590271.4
1988	Guinea	127461000	21.53259567	26.87258549	2253095764	430	11.65664289	262635327.3
1989	Guinea	114226000	15.64302163	31.09360076	2262129380	420	16.00376107	362025781.1
1990	Guinea	169146000	19.68999251	31.0752358	2517716177	430	20.34592538	512252654.7
1991	Guinea	136041000	15.64274755	30.33087892	2848990569	430	20.68235441	589238326.7
1992	Guinea	86301000	12.09144409	24.87461354	3143625277	460	20.64227764	648915857.6
1993	Guinea	83145000	10.65140729	26.51847392	3195763318	470	24.18466676	772884708.7
1994	Guinea	97019000	13.98696393	22.75232735	3310018923	460	22.3536944	739911514.6
1995	Guinea	176726000	24.11748125	21.11880776	3613129879	470	21.11089985	762764230.4
1996	Guinea	115460000	14.502971	19.19510114	3780126076	470	16.35944552	618407665.8

1997	Guinea	157437000	19.73859824	19.56108748	3672870551	470	18.38428404	675230954.5
1998	Guinea	160806000	18.34387381	21.28670436	3468766055	430	14.08014229	488407196.2
1999	Guinea	134811000	16.06388586	21.63951826	3382322291	420	15.79677973	534298002.1
2000	Guinea	156943000	18.74956318	24.52387304	2922237098	380	16.51224813	482527040.6
2001	Guinea	106224000	12.03790781	28.57866275	2746252750	340	15.61026673	428697379.3
2002	Guinea	101183000	12.53625008	26.47781058	2917012439	330	12.63711571	368626237.3
2003	Guinea	104054000	14.28481655	25.95674335	3200990696	320	20.65661422	661216299.2
2004	Guinea	170495000	20.77459211	24.62597518	3395183789	350	13.63133474	462808867.4
2005	Guinea	174555000	18.79158144	34.78565309	2657936712	340	10.34558733	274979163.7
2006	Guinea	174043000	15.49871983	40.59000697	2593527162	300	3.353576555	86975918.85
2007	Guinea	173408000	12.97803303	28.76476572	3763725917	310	-6.074360785	-228622291.1
2008	Guinea	156374000	10.58243284	34.93271676	3992667540	350	1.351471622	53959768.76
2009	Guinea	140444000	12.27517852	26.53766338	4107952429	390	-3.345933543	-137449358.3
2010	Guinea	97843000	6.288915437	28.35010641	4302274718	400	-7.054181581	-303490270.8
2011	Guinea	195504000	12.79509935	30.25425227	4624809469	420	-6.846698687	-316646769.2
2012	Guinea	169336000	7.994372554	29.71700213	5234948923	440	-23.93482256	-1252975736
2013	Guinea	83677000	4.14531221	28.45685617	5777915797	470	-18.39446296	-1062816581
2014	Guinea	75620000	3.489840935	27.63430545	6134091142	490	..	..
2015	Guinea	99657000	5.191815362	26.80918101	6225650529	490	..	..
1985	Liberia	40322000	7.77085771	54.85754017	807674200	360	..	..
1986	Liberia	32077000	6.120584261	55.17474937	745235500	350	..	..
1987	Liberia	16170000	2.905687351	..	789700000	360	..	..
1988	Liberia	24452000	..	..	844500000	400	..	..
1989	Liberia	5702000	..	..	587200000	290	..	..
1990	Liberia	3196000	..	..	..	..	..	..
1991	Liberia	17191000	..	..	..	..	..	..
1992	Liberia	564000	..	..	..	..	..	..
1993	Liberia	22248000	..	..	..	..	..	..
1994	Liberia	14791000	..	..	..	..	..	..
1995	Liberia	1665000	..	..	..	..	..	..
1996	Liberia	1431000	..	..	..	..	..	..

1997	Liberia	188000	..	8.786752281	262700000	120	..	..
1998	Liberia	1027000	..	10.78976641	320900000	130	..	..
1999	Liberia	3708000	..	14.55409688	334400000	120	..	..
2000	Liberia	1857000	..	31.37613063	427664600	150	..	..
2001	Liberia	1431000	..	33.9731286	364500300	130	..	..
2002	Liberia	1476000	..	42.3572744	379200400	120	..	..
2003	Liberia	664000	..	36.05769231	263100100	80	..	..
2004	Liberia	1389000	0.431125839	67.62165578	308400200	90	-18.78378097	-57929218.06
2005	Liberia	1843000	0.519574242	59.09090909	394400200	120	-26.91886485	-106168056.8
2006	Liberia	2095000	0.411216005	82.44638626	452028800	130	107.8740922	487621964.3
2007	Liberia	643114000	114.3864915	74.96341136	584827100	160	-11.05238317	-64637331.95
2008	Liberia	934689000	119.6795699	34.39249071	690440500	180	35.28704476	243636048.3
2009	Liberia	27441000	5.811555507	15.26438098	1010547300	220	25.76324062	260349732.4
2010	Liberia	6145000	1.427634802	19.13907751	1113297000	250	7.274286788	80984416.59
2011	Liberia	3206000	0.237163293	21.80743497	1420555200	320	19.06468416	270824362.1
2012	Liberia	4607000	0.649245192	32.91270527	1473530000	340	15.30091685	225463600
2013	Liberia	6426000	0.756024447	34.57971744	1645006500	370	-9.125240539	-150110800
2014	Liberia	17472000	2.428325605	28.43201689	1680000000	370	-16.00778099	-268930720.6
2015	Liberia	44305000	7.644893169	19.46902655	1754000000	380	-3.292439604	-57749390.66
1985	Sierra Leone	23816000	14.87890288	14.82245064	828277247.7	240	8.312886349	68853746.26
1986	Sierra Leone	60587000	39.68471517	11.9168357	450594854.6	170	0.780193054	3515509.759
1987	Sierra Leone	16424000	8.974549448	31.9642233	670298992	180	16.21251791	108672344.1
1988	Sierra Leone	18499000	11.81151989	28.7246765	998083957.7	170	16.54181901	165101241.8
1989	Sierra Leone	7456000	4.18824123	23.91764149	884574408.6	210	10.71490122	94781274.07
1990	Sierra Leone	21281000	10.11708483	34.6898949	579840580	190	4.491787423	26045206.24
1991	Sierra Leone	15385000	6.835343837	31.24937598	719590265.2	170	7.236174786	52070809.33

	Leone							
	Sierra							
1992	Leone	34670000	16.97529372	31.59094322	605307997.6	130	-3.200326213	-19371830.52
	Sierra							
1993	Leone	31307000	17.48228282	24.28254806	724812334.8	160	-0.007896231	-57232.85945
	Sierra							
1994	Leone	158947000	73.03340396	29.51154637	798475970.7	160	5.931340098	47360325.42
	Sierra							
1995	Leone	82926000	63.18453622	18.58843638	818478665.4	180	-3.533483724	-28920810.42
	Sierra							
1996	Leone	65700000	58.40901212	17.4452346	909237714.7	210	2.041663276	18563572.52
	Sierra							
1997	Leone	15680000	30.70200264	13.19969466	832918925.6	200	-3.454286505	-28771406.04
	Sierra							
1998	Leone	25599000	43.89798989	14.0615622	637317815.4	170	2.63303629	16780809.36
	Sierra							
1999	Leone	30567000	86.30083652	13.8278916	644969853.9	150	0.684992663	4417996.177
	Sierra							
2000	Leone	47697000	75.65560075	18.13484356	616098892.2	140	-9.796402486	-60355527.2
	Sierra							
2001	Leone	96306000	112.3028985	7.919753956	1052309961	150	-1.566722821	-16486780.31
	Sierra							
2002	Leone	15702000	13.0486695	8.64834831	1208969738	200	1.374033326	16611647.1
	Sierra							
2003	Leone	18853000	10.22384895	14.06719234	1344452566	270	2.834117398	38103364.07
	Sierra							
2004	Leone	22153000	10.03875883	16.6701068	1399108717	270	3.815633747	53384864.36
	Sierra							
2005	Leone	18355000	6.720532452	17.81746697	1589854495	280	5.797811505	92176766.81
	Sierra							
2006	Leone	24670000	7.835367959	16.86538448	1847768963	300	4.403822356	81372462.66
	Sierra							
2007	Leone	10670000	2.815908421	15.60358163	2264481829	360	9.593636766	217246161.3
	Sierra							
2008	Sierra	5912000	1.649463704	13.51919175	2700760456	420	8.501127282	229595083.9

	Leone							
	Sierra							
2009	Leone	7946000	2.040763503	13.30412338	2701055496	440	7.109124452	192021396.8
	Sierra							
2010	Leone	11615000	2.681901021	16.54730779	2645049921	420	20.91676823	553258961.5
	Sierra							
2011	Leone	18664000	3.351678834	16.26669339	2901403971	420	0.965855055	28023356.91
	Sierra							
2012	Leone	20731000	1.651148607	32.90532706	3924034071	530	9.148478311	358989405.9
	Sierra							
2013	Leone	27373000	1.364178322	28.62675705	4893437932	650	-12.95155537	-633776323.2
	Sierra							
2014	Leone	35119000	2.300832641	30.76003938	4896148549	690	6.289482016	307942382.5
	Sierra							
2015	Leone	52396000	6.570904308	19.36254375	4195109987	550	..	..
1985	Nigeria	4428669000	28.31705013	17.38520372	27850734197	370	16.36490068	4557744989
1986	Nigeria	2050757000	30.99039635	13.3160286	19297432918	280	11.90034412	2296460923
1987	Nigeria	1106408000	11.67464419	26.9418556	21698370291	240	16.50219441	3580707250
1988	Nigeria	2210434000	28.22562809	22.85462467	22761747680	280	18.40486842	4189269711
1989	Nigeria	2117490000	24.06136064	43.98131664	22145148494	270	34.17288536	7567636208
1990	Nigeria	3335543000	22.25494899	35.34424954	27869540092	290	25.35354063	7065915171
1991	Nigeria	2944753000	21.39393574	41.701081	24936706068	270	28.63688282	7141095297
1992	Nigeria	2414572000	18.15488807	37.50937693	26351429581	270	21.45216755	5652952827
1993	Nigeria	1490998000	12.83783947	33.82986234	13442668212	190	15.79405278	2123142113
1994	Nigeria	1871671000	18.31916172	24.31022827	15733167942	170	8.334201273	1311233883
1995	Nigeria	1832904000	14.04573271	35.76149311	26326364554	180	15.0268842	3956032315
1996	Nigeria	2228630000	12.69004321	32.23856801	32757101375	230	11.12346712	3643725402
1997	Nigeria	1415896000	8.37684574	41.77459666	33586182894	280	15.11220836	5075613940
1998	Nigeria	1331989000	12.51609611	29.69151987	29178147841	270	-2.300973052	-671381318.7
1999	Nigeria	1072055000	6.971407364	33.86953256	34395096606	280	19.18023534	6597060476
2000	Nigeria	1854816000	8.20591157	51.73036068	40237931960	270	33.85119143	13621019375
2001	Nigeria	2524307000	12.45974843	45.44807099	40042783070	310	11.56836133	4632293831

2002	Nigeria	1476880000	7.828034571	35.96569057	53019380411	350	8.523603076	4519161540
2003	Nigeria	1631344000	5.925619559	39.78789958	59996101998	410	5.077515705	3046311501
2004	Nigeria	1710307000	4.470197684	30.16075216	77987520042	610	11.95820952	9325911045
2005	Nigeria	8807116000	15.41074879	31.65697107	98881173161	670	22.27582585	22026597931
2006	Nigeria	6710138000	10.98078777	43.11132956	1.40787E+11	850	40.21650722	56619616463
2007	Nigeria	1010498000	1.442365645	33.72852105	1.54603E+11	980	17.52295492	27090986422
2008	Nigeria	686065000	0.475236709	39.88312915	1.9291E+11	1160	27.65639304	53351982782
2009	Nigeria	757175000	0.728836798	30.76861617	1.54918E+11	1160	16.03856733	24846702320
2010	Nigeria	1256895000	0.376474688	25.26411563	3.49553E+11	1470	26.91434153	94079982722
2011	Nigeria	525161000	0.342970822	31.32980522	3.89088E+11	1730	27.37779468	1.06524E+11
2012	Nigeria	1337210000	0.25379401	31.43874755	4.38814E+11	2480	35.01527003	1.53652E+11
2013	Nigeria	495657000	0.395408342	18.04990659	4.89445E+11	2700	20.2360372	99044327441
2014	Nigeria	4545934000	0.310352049	18.43512599	5.48656E+11	2980	22.92358919	1.25772E+11
2015	Nigeria	1463890000	0.510096989	10.63193501	4.70329E+11	2870	18.0819185	85044508139

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