

African Central Government Debt Statistical Yearbook 2003 -2009

Statistical report

Part I Pan-African comparisons tables

- Two countries out of 17 showed no data inconsistencies in the first part of the yearbook, Morocco and Tunisia
- The 2008 data lacked GDP data from several countries. GDP data was entered for those countries that had not included GDP data
- For some countries like Madagascar, Mozambique, Tanzania, Uganda, and Zambia – “Nominal GDP data for 2008 & 2009 was not available at time of this data compilation“. Consequently, alternative publicly available data sources were used to complete the data set.
- Exchange rate: The same can be said for exchange rate data as for the GDP data. For the 2011 Statistical Yearbook, Reuters, Oanda, and national sources were used as references.

Corrections by Item, Tables part I

	GDP	Exchange rate Local currency/ Euro	Exchange rate Local currency/ USD	Billion or Million?
Angola	Historical data validated with national sources	Oanda end of December (historical data)	Reuters USD Ask (historical data)	
Cameroon	Historical data validated with national sources		Reuters USD Ask (historical data)	
Gabon	OECD African central government debt survey		Reuters USD Ask (historical data)	
Kenya	Historical data validated with national sources			
Madagascar	OECD African central government debt survey			In millions, Table 2 corrected
Malawi	No historical revisions or updates. Only available data for 2003-2007.			
Mauritius	OECD African central government debt survey			
Morocco	OECD African central government debt survey			
Mozambique	OECD African central government debt survey	Oanda end of December (historical data)	Central Bank of Mozambique (historical data)	In appropriate units of local currency (MZN Billion)?
Namibia	No historical revisions or updates. Only available data for 2003-2007.			
Nigeria	OECD African central government debt survey			
Sierra Leone	OECD African central government debt survey 2011			
South Africa	South Africa Statistical Office (historical data)			
Tanzania	OECD African central government debt survey, available data for 2003-2007	Oanda end of December (historical data)	Central Bank of Tanzania (historical data)	In millions, Corrected
Tunisia	OECD African central government debt survey			
Uganda	OECD African central government debt survey			
Zambia	OECD African central government debt survey, available data for 2003-2007			

Corrections by Item, Tables part I

	Missing values	Duplicate numbers	Not available data	Total debt as % of GDP	New countries
Angola				revision due to GDP's changes	
Cameroon		use Central African CFA franc		revision due to GDP's changes	
Gabon		use Central African CFA franc	marketable debt 2003-2006	revision due to GDP's changes	NEW
Kenya				revision due to GDP's changes	
Madagascar	GDP 2008-2009. Estimations were used		total central government debt and marketable debt for 2008-2009		
Malawi					
Mauritius			non-marketable data for 2003-2008		NEW
Morocco					
Mozambique	GDP 2008-2009. Estimations were used				
Namibia					
Nigeria		Debt stock table corrected			
Sierra Leone					NEW
South Africa				revision due to GDP's changes	
Tanzania	GDP 2008-2009. Estimations were used		all non-marketable debt		
Tunisia					
Uganda	GDP 2008-2009. Estimations were used	GDP 2007,2008,2009	non-marketable debt 2009		
Zambia	GDP 2008-2009. Estimations were used				

Part II Country tables

Table 1, debt stocks

	Historical revisions	Units	General comments
Angola	yes, all period	Angola Kwanza	<ol style="list-style-type: none"> 1. Non-marketable debt has been changed 2. Interest payments – foreign currency has been added 3. Nominal GDP has been changed 4. Exchange rate for EUR and USD has been changed 5. Because of change in Non-marketable debt and GDP all proportions have changed which have GDP or total debt as denominator.
Cameroon	no historical revisions	Central African CFA franc	<ol style="list-style-type: none"> 1. Non-marketable debt changes for 2007 from yearbook 2. Nominal GDP has been changed 3. Exchange rate for EUR always the same for all years 4. Change in proportions because of change in Non-marketable debt and nominal GDP
Gabon	new country	Central African CFA franc	
Kenya	small change in 2007	Kenya Shilling	<ol style="list-style-type: none"> 1. Change in debt data for 2007 for both marketable debt and non-marketable debt. 2. Memorandum items in local-currency debt, change in 2007 3. Memorandum items in interest payments, change in 2003 and 2004 4. Nominal GDP has been changed 5. Change in proportions because of change in GDP and 2007 debt data (not great though)
Madagascar	yes, all period	Madagascar Ariary	<ol style="list-style-type: none"> 1. Non-marketable debt change in 2004 2. Memorandum items – interest payments, foreign currency debt interest payment added 3. Proportions change because of change in non-marketable debt from 2007 4. Marketable data for 2008-2009 is not available
Malawi		Malawi Kwacha	The table was not updated
Mauritius	new country	Mauritian rupee	
Morocco	updated	Morocco Dirhan	
Mozambique	yes, all period	Mozambique Metical	All table changed
Namibia	no historical revisions	Namibia Dollar	The table was not updated
Nigeria	updated	Nigeria Naira	
Sierra Leone	new country	Sierra Leone Leone	
South Africa	no historical revisions	South Africa Rand	<ol style="list-style-type: none"> 1. Nominal GDP data has changed from 2004 to 2007 2. Proportions change because of change in nominal GDP
Tanzania	Only a small change in 2004	Tanzania Shilling	<ol style="list-style-type: none"> 1. Note data in yearbook in billion of TZS but in million TZS in 2010. 2. Change in 2004 local currency marketable debt 3. Memorandum items – change in 2004 in local currency marketable debt. 4. Change in exchange rate for every year 2003 to 2007 for both EURO and USD.
Tunisia	no historical revisions	Tunisia Dinar	<ol style="list-style-type: none"> 1. Memorandum items – local currency marketable debt, change in 2003, 2004, and 2006. 2. Nominal GDP, change in 2005, 2006 and 2007. 3. Proportions change because of change in nominal GDP.
Uganda		Uganda Shilling	Non-marketable debt is reported for 2003-2008. Therefore, total central debt data changed.

	Historical revisions	Units	General comments
Zambia	yes , all period	Zambia Kwacha	<ol style="list-style-type: none"> 1. Non-marketable debt in yearbook need to be multiplied by 1000 – seem to be in billions when marketable debt is in millions. 2. Marketable debt – change in every year for local currency debt, short-term, medium-term and long-term 3. Non-marketable debt, numbers for 2003 and 2004 seem right. 4. Non-marketable debt, new for 2010 foreign currency loans from commercial creditors. 5. Non-marketable debt, change in 2006 for bilateral and multilateral loans foreign currency

Internal data consistency

The differences between table II.1 and II.2 is most probably due to changes in exchange rates during the year and in some cases changes in indices (for index-linked bonds). There should be no internal inconsistencies in table II.2.

Table 2. Influences on debt stocks, corrections

	Accumulations	Decumulations
Angola	<ol style="list-style-type: none"> 1. Non-marketable debt has changed 2. In memorandum items local currency is always equal to foreign currency in yearbook – in new data (2010) it is correct 	
Cameroon		1. Decumulations in 2006 and 2007 change
Gabon		
Kenya	<ol style="list-style-type: none"> 1. In memorandum items, local currency is always equal to foreign currency in yearbook – in new data (2010) it is correct 2. Memorandum items in 2005 change in medium term securities local currency. 	
Madagascar	<ol style="list-style-type: none"> 1. For 2010 data foreign currency, non-marketable debt changes dramatically from 2008 data. The numbers are entered in this way. This is so for every year from 2003 to 2007 but not for 2008 and 2009. Divide by 1.000.000? 2. Accumulation for 2004 and 2007 marketable debt change 4. In memorandum items, local currency is always equal to foreign currency in yearbook – in new data (2009) it is correct 5. Memorandum items change from 2004 to 2007, all numbers. 	3. Decumulation for 2005 and 2006 marketable debt change
Malawi		
Mauritius		
Morocco	<ol style="list-style-type: none"> 1. Small changes in 2005 Accumulations issuance non-marketable debt other. 3. Change in 2007 in accumulation non-marketable debt foreign currency in bilateral loans and loans from commercial creditors. 	2. Small change in 2005 Decumulations non-marketable debt other and local currency loans from commercial creditors.

Accumulations		Decumulations
Mozambique	All data changed	
Namibia		
Nigeria		
Sierra Leone		
South Africa	<ol style="list-style-type: none"> 1. Change in marketable debt local currency 2003 2. In 2003 change in non-marketable debt loans from commercial creditors both local and foreign currency and change in others local currency. 3. Lots of changes in 2003 to 2007 in many items. Have to look at the whole table. 4. Memorandum items – change in every year. Have to look at the whole table. 	
Tanzania	<ol style="list-style-type: none"> 1. Data only from 2010. 	
Tunisia	<ol style="list-style-type: none"> 1. Change in 2003 Accumulations capitalization and other. 3. Change in 2006 Accumulations other non-marketable debt. 4. Change in 2007 Accumulations capitalization marketable debt local currency. 5. Change in 2007 Accumulations other local currency. 6. Change in memorandum items long-term securities foreign currency 	<ol style="list-style-type: none"> 2. Change in 2003 Decumulations repayments marketable debt local currency.
Uganda	<ol style="list-style-type: none"> 1. Memorandum items, medium-term securities local currency not entered in 2010 data for year 2003 to 2007. 2. Change in 2006 and 2007 for marketable debt local currency in both Accumulations and Decumulations. 	
Zambia		

Average term to maturity and refixing

Issue: there is not a standard definition and formula to estimate the average term to maturity in order to ensure the comparability across countries.

Some suggested basic points to consider:

- The average maturity of debt refers to the time issuers of debt such as municipal and federal governments maintain outstanding financial obligations. Since financial instruments involving debt span multiple periods for repayment, the average maturity of those debts and their individual interest payments can be measured.
- Maturity of debt is used to assess financial risk, compare returns on investment, and evaluate yield in terms of time.
- The shorter the time multiple debt instruments are issued for, the lower the average maturity of debt will be.
- Shorter average maturity is one of several factors affecting the risk debt. This is because the probability of the debt issuer experiencing refinancing issues rises.
- Example: Average maturity of debt is calculated by adding each debt's time to maturity and dividing by the total number of debt products.

Meantime, with the provided data, in order to standardize the figures, we use the following ad-hoc method to calculate the average term to maturity:

items	code	ad hoc formula YB, Yearbook 2010	ad hoc formula YB, Yearbook 2011
Average term to maturity	TM	$(A+D)/2$	$((A*TA)+(D*TD))/TAD$
Marketable debt	A	$b+c$	$((b*bA)+(c*cA))/TA$
Local currency	b		
Foreign currency	c		
Non-marketable debt	D	$(e+f)/2$	$((e*eD)+(f*fD))/TD$
Local currency	e		
Foreign currency	f		

Other abbreviations:	
Total debt	TAD
Total Marketable debt	TA
Local currency marketable debt	bA
Foreign currency marketable debt	cA
Total Non-marketable debt	TD
Local currency non-marketable debt	eD
Foreign currency non-marketable debt	fD

Table 3. term to maturity and refixing

	resume	Historical revisions	Formula			Average term to interest-rate refixing	Comments
			average term to maturity	marketable debt	non-marketable debt		
Angola	Not available	not available	not available	not available	not available	not available	not available
Cameroon	Ad-hoc method	Revisions for all items new data for the common period 2003-2007.	In YB 2010 the formula is $TM = (A + D) / 2$. In YB 2011 the formula is $TM = A + D$	In YB 2010 and YB 2011 the formula is A.	In YB 2010 the formula is $D = (e + f) / 2$. In YB 2011 the formula is $D = e + f$	not available	For the new edition (YB 2011) a different formula is used to calculate the average term to maturity
Gabon	Unknown method	new country	From 2003 -2006 $TM = D$. From 2007-2009, A and D data is used. However, the method is unknown.	Marketable debt data is not available for 2003-2006. From 2007-2009, items b and c are available. A is similar to b (local currency). However, the method is unknown.	Data for all periods is available; items e and f are also available. D (non-marketable debt) is similar to f (foreign currency)	Only available for non-marketable debt. The method is unknown.	For the items where the average term to maturity is calculated, we need to know the method.
Kenya	Ad-hoc method	No historical revisions or updates. Only available data for 2003-2007.	In YB 2010 $TM = A + D$. For YB 2011, to calculate TM an ad hoc estimation was done.	$A = b$	$D = f$	not available	We need more data and details about the method
Madagascar	Not available	not available	not available	not available	not available	not available	not available
Malawi	Ad-hoc method	No historical revisions or updates. Only available data for 2003-2007.	In YB 2010 $TM = A + D$. For YB 2011, to calculate TM an ad hoc estimation was done.	$A = b$	$D = f$	not available	We need more data and details about the method
Mauritius	Not available	not available	not available	not available	not available	not available	not available

Morocco	Unknown method	No historical revisions	Average term to maturity for TM; A (marketable debt) and D (non-marketable debt) seem to be wrong. Please review the relating formulas		all data is available	We need a method notes	
Mozambique	Incomplete data	Only 2007 is reported	Unknown method	not available	local currency item is the only item reported	The data is available, but the figures are not consistent	We need more data and details about the method
Namibia	Not available	not available	not available	not available	not available	not available	not available
Nigeria	Not available	not available	not available	not available	not available	not available	not available
Sierra Leone	Unknown method	new country	TM = A	A = b	not available	not available	We need more data and details about the method
South Africa	Ad-hoc method	No historical revisions	TM = A + D	A = b + c	D = e	not available	For the YB 2010 and YB 2011 the same ad hoc formula is used to calculate the average term to maturity.
Tanzania	Ad-hoc method	No historical revisions or updates. Only available data for 2003-2007.	TM = A	A = b	not available	not available	We need more data and details about the method
Tunisia	Unknown method	Historical revisions for 2006 and 2007. New data for 2003-2005.	TM = (A + D) / 2	A = (b + c) / 2	unknown method	not available	We need a method notes
Uganda	Unknown method	No historical revisions	In YB 2010, TM = A, in YB 2011 unknown method	A = b, was used in both Ybooks	not available	not available	We need more data and details about the method
Zambia	Not available	not available	not available	not available	not available	not available	not available

Table 4. Ownership of local-currency marketable debt, data availability

	Historical revisions	Residents and Non-Residents	Non-resident holders data availability
Angola			not available
Cameroon			not available
Gabon	new country		not available
Kenya			not available for 2008 and 2009
Madagascar			not available for 2008 and 2009
Malawi			Not available for 2003 -2005 and 2008-2009.
Mauritius	not available	not available	not available
Morocco	Only update 2008-2009	none	not available
Mozambique	not available	not available	not available
Namibia	not available	not available	not available
Nigeria			not available
Sierra Leone	new country		not available
South Africa			2003 is not available
Tanzania			not available
Tunisia			not available for 2003-2008
Uganda			not available
Zambia	not available	not available	not available

Internal data consistency

There can be differences between tables II.1 and II.4. The reason is that table II.1 is simply static information that every Debt Managers has at hand, how high is the debt at year-end. Table II.4 Ownership is a sort of summary of information usually from third parties, mostly securities depositories, back offices of banks and financial institutions etc. Although much care is taken to get the exact right number, sometimes things just do not add up. It is difficult to get the static number of debt outstanding at any particular date to match exactly the numbers one gets from third parties regarding ownership of these debts.

Regarding mismatches between table II.1 and II.4, the numbers for Angola are high for 2009 and for 2005 - 2007. Other years are OK. Gabon is OK. Kenya is OK except for 2008 and 2009. The numbers for Madagascar are high. Malawi is OK. Nigeria is OK except for 2009. Sierra Leone is OK except for 2003. South Africa is not OK. Tanzania is OK (difference very small). Uganda is OK (difference very small). Table II.4 is empty for Mauritius, Mozambique, Namibia, and Zambia.

Interest rates

Basic interest rate structure		
Short-term securities	Medium-term securities	Long-term securities
1 month	18 months	12 years
3 months	2 years	15 years
6 months	3 years	17 years
9 months	5 years	20 years
12 months	7 years	30 years
	10 years	40 years

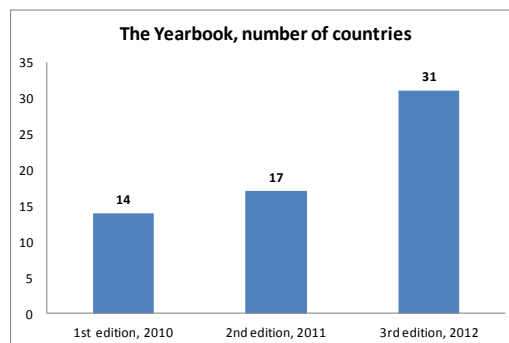
- There is a problem with the availability of the data on a monthly basis.
- Is it possible to complete the time series for the upcoming editions?

Charts, Interest rates, Yield-to-maturity (YTM)				
Data availability and comments				
	Historical revisions	Data availability		
		Interest rates, short-term securities, YTM %	Interest rates, medium-term securities, YTM %	Interest rates, long-term securities, YTM %
Angola				not available
Cameroon		not available		
Gabon	not available	not available	not available	not available
Kenya				
Madagascar			not available	not available
Malawi				not available
Mauritius				
Morocco				
Mozambique	not available	not available	not available	not available
Namibia	not available	not available	not available	not available
Nigeria	not available	not available	not available	not available
Sierra Leone				not available
South Africa				
Tanzania				not available
Tunisia				
Uganda				not available
Zambia				

Second edition of the African Central Government Debt Statistical Yearbook 2003-2009,

General improvements

- The second edition of the statistical yearbook includes 17 countries. Three additional countries are included: Gabon, Mauritius, and Sierra Leone.
- For the third edition, 14 additional countries have been approached, hopefully bringing the total number of participating countries to 31.



- Statistics in the first section includes Pan-African comparative tables within a new standard framework to facilitate cross-country analysis.
- Revised supplementary macroeconomic indicators such as GDP and exchange rate.
- Country data on outstanding amounts of marketable and non-marketable debt show historically revised figures and more accurate time series.
- Historically revised data on accumulations and decumulations of marketable and non-marketable debt and owner ship of local currency marketable debt.
- Consistent information across tables from Section 1 (comparative tables) and Section 2 (individual countries) is ensuring.