INTERNATIONAL MONETARY FUND

REPUBLIC OF SOUTH SUDAN

STAFF REPORT FOR 2016 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS

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Despite moderate levels of external debt, the combined impact of a civil conflict, a large fall in oil prices, and high levels of fiscal spending has left South Sudan in debt distress. This crisis has caused payment delays on international obligations, on civil servant salaries, and other government obligations. Moreover, international lines of credit have been restructured on longer maturities, international reserves have declined to near exhaustion, and the country is currently constrained from accessing long term external financing. However, assuming implementation of the recently adopted economic *adjustment policies and a successful peace process, the debt outlook would improve considerably which could allow for a gradual resumption of external financing. However, vulnerabilities remain high and a prolonged period of lower oil prices or failure to address the country's economic and security problems could cause continued debt sustainability problems.*[1]

[1] The risk rating is assessed using Debt Sustainability Framework for Low-Income Countries (LIC DSF). The DSA presented in this document is based on a unified 5 percent discount rate. South Sudan has a "weak" policy performance based on the 2015 CPIA score of 1.9. The thresholds, which apply to external public and publicly-guaranteed debt, are: 30 percent for the present value (PV) of external debt-to-GDP ratio, 100 percent for the PV of external debt-to-exports ratio, 200 percent for the PV of external debt-to-revenue ratio, 15 percent for the PV of external debt service-to-exports ratio, and 18 percent for the debt service-to-revenue ratio.

See "Staff Guidance Note on the Application of the Joint Bank-Fund Debt Sustainability Framework for Low-Income Countries"

BACKGROUND

1. South Sudan has fallen into debt distress despite moderate levels of public external debt. At independence in July 2011, the country had neither domestic nor foreign debt.[2] However, since then the fiscal position deteriorated markedly because of a shutdown of oil production between January 2012 and April 2013, the civil conflict that erupted in December 2013, and the sharp drop in international oil prices since mid-2014. Moreover, a highly overvalued exchange rate in the period up to the liberalization of the foreign exchange market in December 2015 contributed to the rapid depletion of foreign exchange reserves. As a result, by June 2016, the stock of domestic and external debt owed or guaranteed by the central government amounted to about US$1.4 billion (38 percent of GDP), while foreign exchange reserves had dwindled to about US$70 million (about 2 weeks of prospective imports).[3]

2. The economic crisis and continued political instability led to credit rationing by external lenders in 2016, except for a few short-term oil advances. Total external debt therefore remained at about US$1 billion through 2016. By June 2016, debt to the World Bank amounted to US$34 million on IDA terms, while US$100 million had been borrowed from China Exim Bank to reconstruct Juba international airport. The balance of outstanding oil advances from international oil companies and traders is estimated at US$219 million. Finally, the Bank of South Sudan (BSS) has an outstanding liability to the Qatar National Bank amounting to about US$610 million, originating from short-term credit facilities (guaranteed by the Government of South Sudan) that fell into arrears in 2015.[4] In addition, South Sudan fell behind on payments to Sudan in 2015 and 2016 under the Transitional Financial Arrangement (TFA) signed in September 2012 (see details below). About US$290 million was in arrears by June 2016 according the authorities. However, preliminary information indicates that this amount was rescheduled with the recent signing of a new three-year extension agreement with Sudan in early 2017.

South Sudan Debt Stock as of June 2016

External debt (US$ millions) 1/	
World Bank (IDA)	34
China Exim Bank	100
Oil-related advances	219
QNB Line of credit	610
Total external borrowing	***963***
(In percent of GDP in US$)	*27.5*
Domestic debt (SSP billions)	
Borrowing from Bank of Sudan	17.3
Direct borrowing and interest accrued	14.8
Interest accrued on direct borrowing	0.4
Capital restoration and interest accrued	1.9
Interest accrued on capital restoration	0.2
Borrowing from commercial banks	1.8
Treasury bills	1.8
Interest accrued on Treasury bills	0.1
Arrears 2/	5.0
Total borrowing from domestic banking syste	***24.1***
(In percent of GDP in local currency)	*39.7*

1/ Excludes arrears of Transitional Financial Arrangement.
2/ Estimate and subject to verification.

3. With external financing in short supply, South Sudan has resorted to domestic borrowing the central bank and commercial banks. Domestic debt amounted to about SSP 24.1 billion by June 2016

[2] At South Sudan's secession an agreement was reached with Sudan that the latter would retain all external debts and assets (see below).

[3] By end-December 2016, foreign exchange reserves had fallen further to about 1 week of imports.

[4] This short-term debt was restructured in mid-2016 with an agreement to repay though monthly payments of US$10 million. This figure was reduced to US$5 million later in 2016.

(40 percent of GDP), of which total government borrowing from the BSS amounted to SSP 17.3 billion, and borrowing through Treasury bills from commercial banks amounted to SSP1.8 billion. Of the latter, about SSP1 billion were issued to domestic banks in 2012; since then they have been rolled over as the government has been unable to repay. The debt stock does not include domestic arrears accumulated in 2015/16 due to uncertainties about the amount. These arrears still need to be verified, but they could add another SSP 5 billion to government debt.[5]

ASSUMPTIONS

4. The baseline reflects a macroeconomic adjustment conditional on the implementation of the adopted budget for fiscal year 2016/17 (July–June) and a gradual return to peace and political stability in the next couple of years. The South Sudanese authorties announced a shift in policies in late 2016 with plans to embark on an economic adjustment program. The adopted policy measures involve multiple revenue measures and a sharp reduction in expenditures in 2016/17 that would substantially reduce the fiscal deficit and domestic financing needs.[6] Based on preliminary information, the envisaged polices have been broadly implemented during the first half of the fiscal year 2016/17. The baseline assumes continuation of this adjustment policy in the medium term. With implementation of economic stabilization policies and gradual peace, the baseline assumes that the economy and oil production will start to recover in 2018/19. There are, however, considerable downside risks to the baseline, as security conditions could deteriorate and undermine implementation of the envisaged stabilization policy, or international market conditions could change. To address these risks, customized scenarios have been prepared to illustrate the effect of (i) lower oil prices than envisaged in the baseline, and (ii) a delay in achieving peace and economic reforms.

5. The transition to economic and political stability will support broader economic recovery followed by new investments in economic development.[7] Over the medium term, prudent fiscal and monetary policies would ensure a return to price stability. At the same time, the government is expected to embark on a reform program, focusing on shifting the composition of spending towards social and infrastructure spending, and fostering transparency and accountability in the management of public resources.[8] Public investment is assumed to be scaled up over the medium term, with priority on transport

[5] Due to large fluctuations in exchange rates and domestic prices in the past couple of years, changes in debt and debt ratios should be carefully interpretated. For example, the large difference between the end-of-period and average exchange rate in 2015/16 and 2016/17 has led to a large discrepancy between measuring the debt-to-GDP ratio in local currency (as in the DSA template) and in U.S. dollars. For example, for 2015/16, the total debt-to-GDP ratio measured in local currency is 119 percent compared to 38 percent if measured in U.S. dollars. This factor also explains the very large residuals in Tables 1 and 3.

[6] See more details in the Staff Report for the 2016 Article Consultation for South Sudan.

[7] Unlike the previous DSA, estimates and projections for the DSA are based on fiscal year calculations, in line with projections in the staff report for the 2016 Article IV consultation.

[8] Under the baseline, the authorities are expected to proceed with plans to strengthen public financial management (including oil revenue management), primarily through improving budget execution and preventing domestic arrears, establishing a treasury single account, reorienting public spending towards development, and implementing the Petroleum Revenue Management Act and the forthcoming Public Procurement Act.

and energy infrastructure.[9] Economic stabilization and implementation of these reforms would lead to a recovery of oil production, a gradual resumption of trade, and an expansion of agriculture and mining activities, supporting a pickup in real GDP growth to 4½ percent per year from 2018/19 to 2021/22 (Box 1). In the outer years growth is expected to decline to about 2 percent, as oil production decreases in aging oil fields. The projections of public and publicly guaranteed debt (PPG) are derived from these assumptions.

Box 1. South Sudan: Macroeconomic Assumptions: 2016/17–2036/37

Real sector: Following several years of negative growth, real GDP is projected to expand by 4½ percent a year during 2019–22, largely driven by a recovery of oil production. Oil output is projected to remain at about 120,000 barrels per day in 2016/17–2017/18 and then gradually recover to about 145,000 barrels per day by 2019/20. It is assumed that investment in enhanced oil recovery and the reopening of oil fields that closed in 2013 would push up production to nearly 200,000 barrels per day by the mid-2020s. Thereafter, oil output is projected to fall to about 140,000 barrels per day in the 2030s. Non-oil real GDP growth is assumed to recover slowly from its current low base and reach an average of about 5 percent in the 2020s, primarily as the result of increased activity in agriculture, mining, and services. Average inflation is projected to fall from its current high level to high single digits within three years and remain at this level during the remaining forecast period.

Fiscal sector: Driven by the projected path for oil production and new tax measures, total revenue excluding grants is projected to rise from about 29 percent of GDP in 2015/16 to about 38 percent of GDP in 2019/20, and then gradually decrease to about 30 percent of GDP in the 2030s as oil production recedes. Noninterest expenditure is projected to decline to 34 percent of GDP in 2016/17, followed by a gradual recovery back to 38-39 percent of GDP in the mid-2020s, reflecting scaling up of public investments. Capital expenditures are projected to increase from very low levels to 7–9 percent of GDP in the 2020s. Based on these trends, the primary fiscal deficit (including grants) is projected to decline from around 9 percent of GDP in 2015/16 to 1–2 percent in the 2018–20. The primary balance is expected to remain close to balance in the 2020s, as declining oil revenue is compensated by lower payments to Sudan following completion of the TFA paymemts expected in 2022. In the outer years, the fiscal balance is projected to turn into deficit as oil revenue dwindles.

External sector: Exports of goods and services as a share of GDP are projected to increase in the medium term, supported by growth in both the oil and the non-oil sectors, and later decline as oil production begins to fade in the late 2020s. The share of imports of goods and services to GDP is expected to increase in the medium term because of the scaling up of public (and later private) investment but decrease after the mid-2020s as the non-oil economy develops and import substitution begins to take hold. Grants (current and capital transfers) are projected to gradually decline as the economy recovers and peace and development take hold. Current transfers to Sudan are expected to fall after 2022 as the obligations under the TFA is expected to be paid off.

6. The baseline assumes scaling up of external borrowing for infrastructure investments in the medium term while domestic borrowing will be cautious. In the short term, only limited domestic financing is projected through issuance of Treasury bills, while borrowing from the central bank is phased out by 2017/18. Concessional budget financing is projected to resume in 2017/18 but only with a relatively small amount. Over the medium term, new external debt is expected to be contracted to address the large infrastructure needs. Beyond completion of existing projects (where the Juba airport is by far the largest),

[9] If properly managed, a scaling up of public investment is expected to raise real incomes in the next two decades. The impact of the scaling up will depend on key structural conditions, such as absorptive capacity, the prudent management of mineral revenue, and a strengthening in the business environment.

implementation of a new investment program amounting to about US$1.5 billion is assumed to be financed over 5-6 years starting in 2017/18 (these estimates are based on identified priority projects in a preliminary public investment program prepared by the authorities). About half of this debt is assumed to be non-concessional, although the authorities are expected to approach multilateral and bilateral partners to increase the share of concessional debt.[10] These financing projections rely on the successful macroeconomic stabilization as assumed in the baseline. The projected overall external public sector borrowing requirements amounts to about US$2.8 billion in the next 10 years. In the 2030s, new external borrowing levels out at about US$250 million a year.

7. There are considerable downside risks to the baseline. There are external risks, mainly related to developments of oil prices, and internal political risks that could prevent the government from fully implementing the economic stabilization policy assumed in the baseline. Given South Sudan's short and volatile economic history, the standard DSA bounds tests do not apply. In this context two alternative scenarios have been developed: (i) a lower oil price scenario for the first five years of the projections period[11]; and (ii) a scenario that assumes postponement of peace and economic stabilization for the next three years. Comnpared to the baseline, this latter scenario assumes lower economic growth, a higher fiscal deficit, and constrained external borrowing (see text table).[12]

Macroeconomic Assumptions: Baseline and Alternative Scenario, 2018-20

	Baseline			Postponed adjustment		
	2018	2019	2020	2018	2019	2020
Real GDP growth (%)	1.1	3.5	6.2	0.0	0.0	0.0
Export growth (%)	8.0	10.9	17.3	7.8	4.4	3.1
Primary fiscal deficit (% of GDP)	3.2	1.8	2.5	8.2	8.8	12.5
Revenue and grants	31.8	33.4	35.8	29.8	30.4	32.8
Primary expenditures	35.0	35.2	38.3	38.0	39.2	45.3
New external disbursements (% of GDP)	4.7	10.0	10.6	2.0	1.6	2.5

EXTERNAL DEBT SUSTAINABILITY ANALYSIS

8. Assuming continuation of policies to achieve macroeconomic stability, South Sudan could gradually regain access to external financing but caution should be applied to the speed of scaling up and the terms of new borrowing. Under the baseline scenario, the PV of debt-to-GDP gradually

[10] Most of this new debt is assumed be contracted with 15-18 years of maturity and a 5 year grace. The expected increase in concessional debt in the medium term will increase the grant element compared to the past.

[11] This scenario assumes a 10 percent lower oil price for five years compared to the baseline. It is a static scenario where baseline macroeconomic assumptions are maintained except for export values.

[12] Some external borrowing may still take place in the form of either short-term oil advances or accumulation of external payments arrears.

increases to above the threshold value within a few years. It will peak at about 10 percentage points above the threshold in the late 2020s and then fall below the threshold towards the end of the sample period. The PV of debt-export-ratio follows a similar pattern, but since it starts much lower compared to the threshold, it will never exceed the thredshold. The other ratios will remain below the threshold for most years. Generally, the debt ratios tend to peak around 2030, reflecting a slowdown in borrowing for public investments.

9. The baseline is sensitive to developments of oil prices. A lower oil price by 10 percent compared to the baseline for five years (2017/18–2020/21) would raise the PV of debt by about 10 percentage points of GDP during the initial years and then gradually adjust towards the baseline (note that this scenario also incorporates a decline in nominal GDP compared to the baseline since the value of oil production effects GDP). As a result, the PV of debt-to-GDP ratio breaks the threshold for most of the projection period, while the PV of debt-to-export ratio exceeds the threshold only in the outer years.

10. A delay in implementing policies to stabilize the economy could significantly worsen debt indicators. While the economic and debt implications of continued economic and political instability are wide ranging and difficult to predict, this alternative scenario assumes three years delay beginning 2017/18 in addressing the fiscal imbalance. It assumes a gradually increasing deficit by 10 percent of GDP through the three years, through revenue losses and higher expenditures, and constant real GDP. Mooreover, access to external financing is assumed to be limited during this period, i.e. higher deficits are mostly financed through domestic financing. While PV of external debt ratios decline initially due to small new disbursements, there are significant effects in the period after three years since part of the repayment of the higher domestic debt burden implicitly will be financed through new external borrowing. This and a lower starting point for GDP and export will significantly raise PV of debt-to-GDP and PV of debt-to-export ratios compared to the baseline in the rest of the projection period. Debt thresholds will be exceeded by a wide margin for several debt indicators.

11. A lack of a resolution of Sudan's external debt could affect South Sudan in the future. Under a cooperation agreement signed with Sudan in September 2012, Sudan committed to assume all external debt of former Sudan subject to securing a "firm commitment" of international creditors for debt relief (i.e. Sudan's reaching the HIPC decision point) no later than two years from the date of agreement (this was termed the "zero option"). Absent such commitment, the agreement states that the two countries may discuss how to apportion the debt. Upon expiration of the two-year window, the two countries agreed in November 2014 to interpret the zero option in a "flexible" manner and extended the timing for debt relief until October 2016. In the meantime, the authorities indicated that South Sudan remains committed to support Sudan's efforts to obtain debt relief. Even if discussions were to be held in the future on how to apportion Sudan's debt, it is not possible to speculate at this point on what the allocation could be. Given the above, this risk has not been quantified in the DSA.

PUBLIC SECTOR DEBT SUSTAINABILITY ANALYSIS

12. Public debt indicators suggest a slightly lower debt burden in the medium term but debt sustainability is at risk in the outer years of the projection period of the baseline scenario. The baseline assumes fiscal consolidations and scaling up of external financing for infrastructure investments. Domestic financing adds to the debt burden particularly in the outer years when oil revenue is projected to level off. The PV of public sector debt-to-GDP ratio remains close to the public debt benchmark for most of

the period but exceeds it by about 6 percentage points towards the end of the projection period. A similar pattern emerges for the PV of debt-to-revenue and debt service-to-revenue ratios. Except for the initial couple of years, the debt service-to-revenue ratio stay below 20 percent.

13. The alternative scenarios demonstrate the risks to the baseline. In the lower oil price scenario, the PV of debt-to-GDP ratio rise about 10 percentage points in the initial 10 years bringing the ratio above the benchmark for most of the projection period. In the case of continued political instability and a three-year delay in implementing economic stabilization, a rising fiscal deficit to 10 percent of GDP above the baseline over the three years has significant effects on public debt stability. The effects are larger than for external debt since a large share of the higher deficit is assumed to be financed domestically. The PV of public debt is rising quickly by about 20 percent of GDP above the baseline and the debt and debt service burden on fiscal revenue are rising substantially as well. In the latter scenario, the PV of debt-to-GDP exceeds the benchmark throughout the projection period.

CONCLUSION

14. South Sudan is in debt distress. This reflects a situation with several debt indicators currently exceeding thresholds, external payments difficulties, very low foreign exchange reserves, and short-term repayment needs that exceed available resources unless policy adjustments are implemented. This situation is also supported by the country's current inability to access external financing, except for short-term oil-related advances. Moreover, while total public debt indicators improve in the long-term under the baseline scenario, public debt vulnerabilities remain a concern as external and public debt indicators exceed thredsholds in a substantial part of the sample period.

15. While the current situation is extremely difficult, the baseline scenario indicates that South Sudan could regain access to external financing. With peace, good policies, a cautious borrowing strategy, and a relatively stable external environment, South Sudan could attain external viability over a relatively short period and achieve an improvement in its risk of debt distress rating.

16. There are, however, substantial downside risks to the baseline scenario. In addition to subdued oil prices, these risks include lack of political commitment to implement strong macroeconomic adjustment measures, deadlock in implementing sustainable peace, under-investment for enhanced oil recovery, unresolved territorial issues with Sudan, and protracted rent seeking behavior and corruption. These risks of prolonged fragility underscore the importance of a commitment to internal peace, economic reforms, and close cooperation with the international community.

Table 1. South Sudan: External Debt Sustainability Framework, Baseline Scenario, 2014–2037[1]

(In percent of GDP, unless otherwise indicated)

	Actual			Historical 6/ Average	Standard 6/ Deviation	Projections									
	2014	2015	2016			2017	2018	2019	2020	2021	2022	2017-2022 Average	2027	2037	2023-2037 Average
External debt (nominal) 1/	**4.2**	**5.8**	**87.8**			**42.1**	**32.6**	**31.1**	**34.5**	**37.7**	**41.2**		**47.9**	**32.3**	
of which: public and publicly guaranteed (PPG)	4.2	5.8	87.8			42.1	32.6	31.1	34.5	37.7	41.2		47.9	32.3	
Change in external debt	3.2	1.6	82.1			-45.7	-9.5	-1.5	3.4	3.2	3.5		2.4	-2.5	
Identified net debt-creating flows	2.3	4.2	21.6			9.8	3.9	2.5	3.9	5.6	4.9		6.2	0.0	
Non-interest current account deficit	**-3.8**	**3.1**	**3.0**	**-2.6**	**5.5**	**-2.5**	**6.3**	**8.8**	**6.8**	**9.3**	**6.0**		**12.3**	**6.3**	8.6
Deficit in balance of goods and services	-10.9	2.3	8.0			6.1	14.3	15.5	8.5	9.9	5.0		8.5	7.2	
Exports	46.7	29.5	61.5			66.7	61.1	65.7	67.7	72.9	69.2		65.5	39.3	
Imports	35.8	31.8	69.4			72.8	75.4	81.1	76.2	82.8	74.3		73.9	46.5	
Net current transfers (negative = inflow)	-4.9	-5.0	-16.6	-7.7	4.5	-22.5	-16.5	-14.4	-11.5	-10.3	-9.5		-10.9	-1.7	-6.6
of which: official	-5.0	-6.0	-20.5			-22.7	-19.1	-17.3	-14.4	-12.5	-10.3		-4.7	-1.0	
Other current account flows (negative = net inflow)	12.0	5.8	11.7			13.9	8.5	7.7	9.8	9.7	10.4		14.7	0.8	
Net FDI (negative = inflow)	**4.6**	**-0.3**	**2.0**	**0.9**	**2.0**	**0.6**	**-2.4**	**-5.6**	**-2.5**	**-3.2**	**-1.3**		**-8.4**	**-6.8**	-7.5
Endogenous debt dynamics 2/	**1.5**	**1.4**	**16.6**			**11.7**	**0.0**	**-0.7**	**-0.4**	**-0.5**	**0.2**		**2.3**	**0.5**	
Contribution from nominal interest rate	1.5	1.1	0.7			0.1	0.4	1.4	1.2	1.4	1.4		1.8	1.2	
Contribution from real GDP growth	0.0	0.6	1.5			11.6	-0.4	-2.1	-1.7	-1.9	-1.2		0.5	-0.6	
Contribution from price and exchange rate changes	0.0	-0.3	14.4			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**0.9**	**-2.5**	**60.5**			**-55.5**	**-13.4**	**-4.0**	**-0.5**	**-2.3**	**-1.4**		**-3.8**	**-2.5**	
of which: exceptional financing	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 4/	...	...	74.4			37.5	29.0	27.0	29.8	32.7	35.9		41.7	26.2	
In percent of exports	...	...	121.1			56.3	47.4	41.2	44.0	44.8	51.9		63.7	66.8	
PV of PPG external debt	**...**	**...**	**74.4**			**37.5**	**29.0**	**27.0**	**29.8**	**32.7**	**35.9**		**41.7**	**26.2**	
In percent of exports	**...**	**...**	**121.1**			**56.3**	**47.4**	**41.2**	**44.0**	**44.8**	**51.9**		**63.7**	**66.8**	
In percent of government revenues	**...**	**...**	**259.8**			**109.2**	**97.0**	**86.7**	**87.0**	**87.3**	**104.7**		**109.6**	**96.3**	
Debt service-to-exports ratio (in percent)	**15.0**	**11.1**	**4.6**			**6.0**	**10.5**	**9.8**	**7.7**	**6.2**	**2.3**		**6.2**	**9.6**	
PPG debt service-to-exports ratio (in percent)	**15.0**	**11.1**	**4.6**			**6.0**	**10.5**	**9.8**	**7.7**	**6.2**	**2.3**		**6.2**	**9.6**	
PPG debt service-to-revenue ratio (in percent)	**26.7**	**16.1**	**9.9**			**11.7**	**21.5**	**20.7**	**15.1**	**12.1**	**4.7**		**10.6**	**13.9**	
Total gross financing need (Billions of U.S. dollars)	1.1	0.8	0.3			0.1	0.3	0.3	0.4	0.4	0.3		0.5	0.3	
Non-interest current account deficit that stabilizes debt ratio	-7.0	1.5	-79.1			43.2	15.7	10.3	3.4	6.0	2.5		9.9	8.8	
Key macroeconomic assumptions															
Real GDP growth (in percent)	-4.2	-12.8	-6.9	-10.6	10.8	-10.5	1.1	3.5	6.2	5.8	3.4	1.6	-1.0	2.0	2.1
GDP deflator in US dollar terms (change in percent)	0.8	7.5	-71.3	-3.7	40.7	-11.4	16.6	-0.3	7.2	-1.9	6.1	2.7	1.9	5.1	2.4
Effective interest rate (percent) 5/	142.7	24.2	3.2	56.7	75.2	0.1	1.2	4.5	4.6	4.2	4.0	3.1	4.0	3.6	3.9
Growth of exports of G&S (US dollar terms, in percent)	-9.7	-40.7	-44.4	-20.6	25.9	-13.8	8.0	10.9	17.3	11.7	4.2	6.4	-4.4	3.6	0.8
Growth of imports of G&S (US dollar terms, in percent)	7.8	-16.5	-41.7	-7.0	23.2	-16.8	22.2	11.0	6.9	12.7	-1.6	5.7	-4.0	1.0	1.4
Grant element of new public sector borrowing (in percent) 9/	...	...	...	...	...	5.3	12.7	8.8	8.0	8.4	11.8	9.2	11.3	13.5	12.9
Government revenues (excluding grants, in percent of GDP)	26.4	20.3	28.6			34.4	29.9	31.2	34.3	37.4	34.3		38.1	27.2	32.2
Aid flows (in Billions of US dollars) 7/	0.7	1.1	0.0			0.0	0.1	0.1	0.1	0.1	0.1		0.2	0.3	
of which: Grants	0.7	1.1	0.0			0.0	0.1	0.1	0.1	0.1	0.1		0.2	0.3	
of which: Concessional loans	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			1.0	2.5	3.1	2.4	2.8	3.2		3.7	3.5	3.6
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			54.0	38.1	25.1	19.4	25.3	37.7		45.5	62.4	54.0
Memorandum items:															
Nominal GDP (Billions of US dollars)	14.1	13.3	3.5			2.8	3.3	3.4	3.9	4.0	4.4		5.8	8.5	
Nominal dollar GDP growth	-3.4	-6.2	-73.3			-20.6	17.9	3.2	13.8	3.8	9.7	4.6	0.9	7.3	4.5
PV of PPG external debt (in Billions of US dollars)						0.9	0.9	0.9	1.1	1.3	1.6		2.4	2.2	
(PVt-PVt-1)/GDPt-1 (in percent)						2.2	-3.1	2.4	**5.8**	**5.2**	**5.7**	3.1	2.3	-0.4	0.9
Gross workers' remittances (Billions of US dollars)	0.3	0.2	0.2			0.2	0.2	0.2	0.2	0.3	0.3		0.3	0.1	
PV of PPG external debt (in percent of GDP + remittances)	...	...	70.1			35.0	27.3	25.4	28.1	30.6	33.3		39.8	25.9	
PV of PPG external debt (in percent of exports + remittances)	...	...	110.1			50.8	43.0	37.4	40.4	40.9	46.7		59.3	65.0	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	4.2			5.4	9.5	8.9	7.0	5.7	2.1		5.7	9.4	

Sources: Country authorities; and staff estimates and projections.

1/ Data for fiscal year July-June
2/ Derived as [r - g - ρ(1+g)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and ρ = growth rate of GDP deflator in U.S. dollar terms.
3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.
4/ Assumes that PV of private sector debt is equivalent to its face value.
5/ Current-year interest payments divided by previous period debt stock.
6/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.
7/ Defined as grants, concessional loans, and debt relief.
8/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).
9/ Variations in the grant element in the early years, where new disbursements are relatively small, reflect small nominal variations in new debt with significant differences in grant element.

Table 2. South Sudan: Public Sector Debt Sustainability Framework, Baseline Scenario, 2013–2036[1]

(In Percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2014	2015	2016	Average [5/]	Standard Deviation [5/]	2017	2018	2019	2020	2021	2022	2017-22 Average	2027	2037	2023-37 Average
Public sector debt	15.1	35.3	127.9			62.1	48.5	44.7	44.8	44.7	46.7		49.2	52.5	
of which: foreign-currency denominated	4.2	5.8	87.8			42.1	32.6	31.1	34.5	37.7	41.2		47.9	32.3	
Change in public sector debt	14.1	20.2	92.5			-65.8	-13.6	-3.9	0.1	-0.1	2.0		2.3	-0.7	
Identified debt-creating flows	2.2	15.5	61.4			-74.1	-9.9	-4.6	-0.8	-4.7	2.4		0.7	4.0	
Primary deficit	0.7	13.4	8.7	3.6	7.1	1.9	3.2	1.8	2.5	-2.4	3.9	1.8	-0.7	7.4	2.4
Revenue and grants	31.4	28.6	29.0			35.3	31.8	33.4	35.8	39.4	36.8		41.2	30.4	
of which: grants	5.0	8.3	0.4			1.0	1.9	2.2	1.5	2.0	2.5		3.1	3.2	
Primary (noninterest) expenditure	32.1	42.0	37.7			37.2	35.0	35.2	38.3	37.0	40.7		40.5	37.8	
Automatic debt dynamics	1.5	2.1	52.8			-76.0	-13.1	-6.4	-3.3	-2.2	-1.5		1.3	-3.3	
Contribution from interest rate/growth differential	1.5	2.4	-9.8			-20.1	-8.1	-3.1	-2.9	-2.3	-1.2		1.3	-2.3	
of which: contribution from average real interest rate	1.5	0.2	-12.4			-35.1	-7.4	-1.5	-0.3	0.1	0.3		0.8	-1.3	
of which: contribution from real GDP growth	0.0	2.2	2.6			14.9	-0.7	-1.6	-2.6	-2.5	-1.5		0.5	-1.0	
Contribution from real exchange rate depreciation	0.0	-0.3	62.5			-55.8	-5.0	-3.2	-0.5	0.1	-0.4		...	...	
Other identified debt-creating flows	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Debt relief (HIPC and other)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other (specify, e.g. bank recapitalization)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes	11.9	4.7	31.1			8.3	-3.7	0.7	0.9	4.5	-0.3		1.6	-4.7	
Other Sustainability Indicators															
PV of public sector debt	...	...	114.4			57.5	44.9	40.6	40.1	39.6	41.4		43.0	46.4	
of which: foreign-currency denominated	...	...	74.4			37.5	29.0	27.0	29.8	32.7	35.9		41.7	26.2	
of which: external	...	...	74.4			37.5	29.0	27.0	29.8	32.7	35.9		41.7	26.2	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	7.7	19.3	14.7			9.1	16.8	17.1	16.0	8.2	10.5		3.9	27.1	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	394.2			162.8	141.3	121.7	112.2	100.5	112.5		104.4	152.6	
PV of public sector debt-to-revenue ratio (in percent)	...	...	399.5			167.4	150.3	130.2	117.1	105.9	120.6		113.0	170.6	
of which: external 3/	...	...	259.8			109.2	97.0	86.7	87.0	87.3	104.7		109.6	96.3	
Debt service-to-revenue and grants ratio (in percent) 4/	22.4	11.5	9.8			11.4	20.8	19.7	14.8	11.7	4.5		9.9	12.5	
Debt service-to-revenue ratio (in percent) 4/	26.7	16.1	9.9			11.7	22.1	21.1	15.4	12.4	4.8		10.7	13.9	
Primary deficit that stabilizes the debt-to-GDP ratio	-13.4	-6.8	-83.9			67.7	16.8	5.7	2.4	-2.3	1.9		-2.9	8.1	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	-4.2	-12.8	-6.9	-10.6	10.8	-10.5	1.1	3.5	6.2	5.8	3.4	1.6	-1.0	2.0	2.1
Average nominal interest rate on forex debt (in percent)	142.7	24.2	...	....		0.1	1.2	4.5	4.6	4.2	4.0	3.1	4.0	3.6	3.9
Average real interest rate on domestic debt (in percent)	...	...	...			...	-35.7	-14.6	-7.6	-5.8	-5.8	-13.9	-5.2	-9.8	-6.3
Real exchange rate depreciation (in percent, + indicates depreciation)	1.5	-5.4	989.8	186.8	449.1	-57.9	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	0.0	7.5	64.7	29.4	26.1	295.2	57.7	18.2	9.3	7.3	6.9	65.8	7.5	10.9	7.8
Growth of real primary spending (deflated by GDP deflator, in percent)	25.2	14.1	-16.3	5.8	18.0	-11.6	-4.9	4.0	15.4	2.3	13.8	3.2	1.5	-0.4	1.7
Grant element of new external borrowing (in percent)	...	...	...	...	...	5.3	12.7	8.8	8.0	8.4	11.8	9.2	11.3	13.5	...

Sources: Country authorities; and staff estimates and projections.

1/ Data for fiscal year july-June. Public sector covers central government.

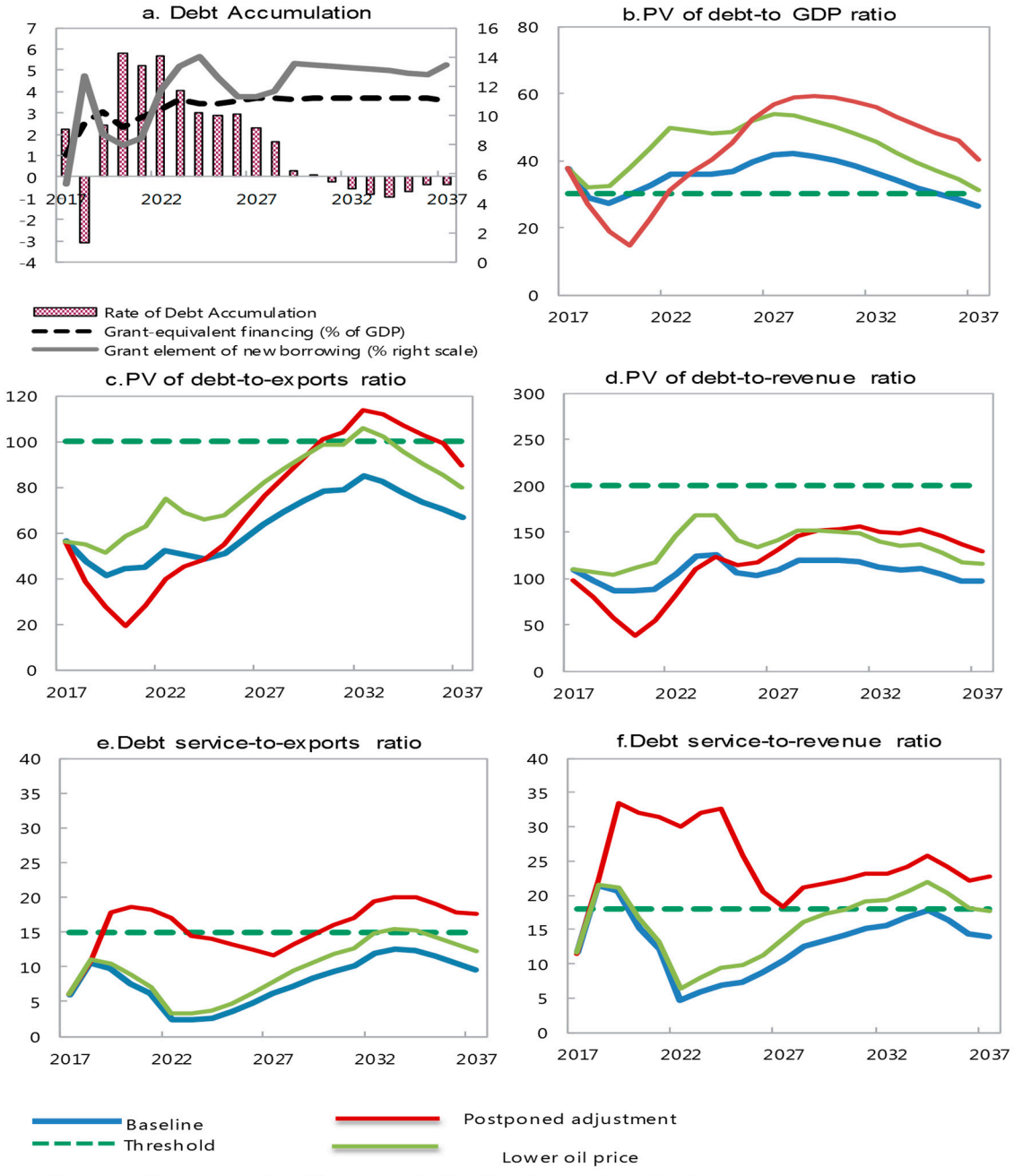
2/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period.

3/ Revenues excluding grants.

4/ Debt service is defined as the sum of interest and amortization of medium and long-term debt.

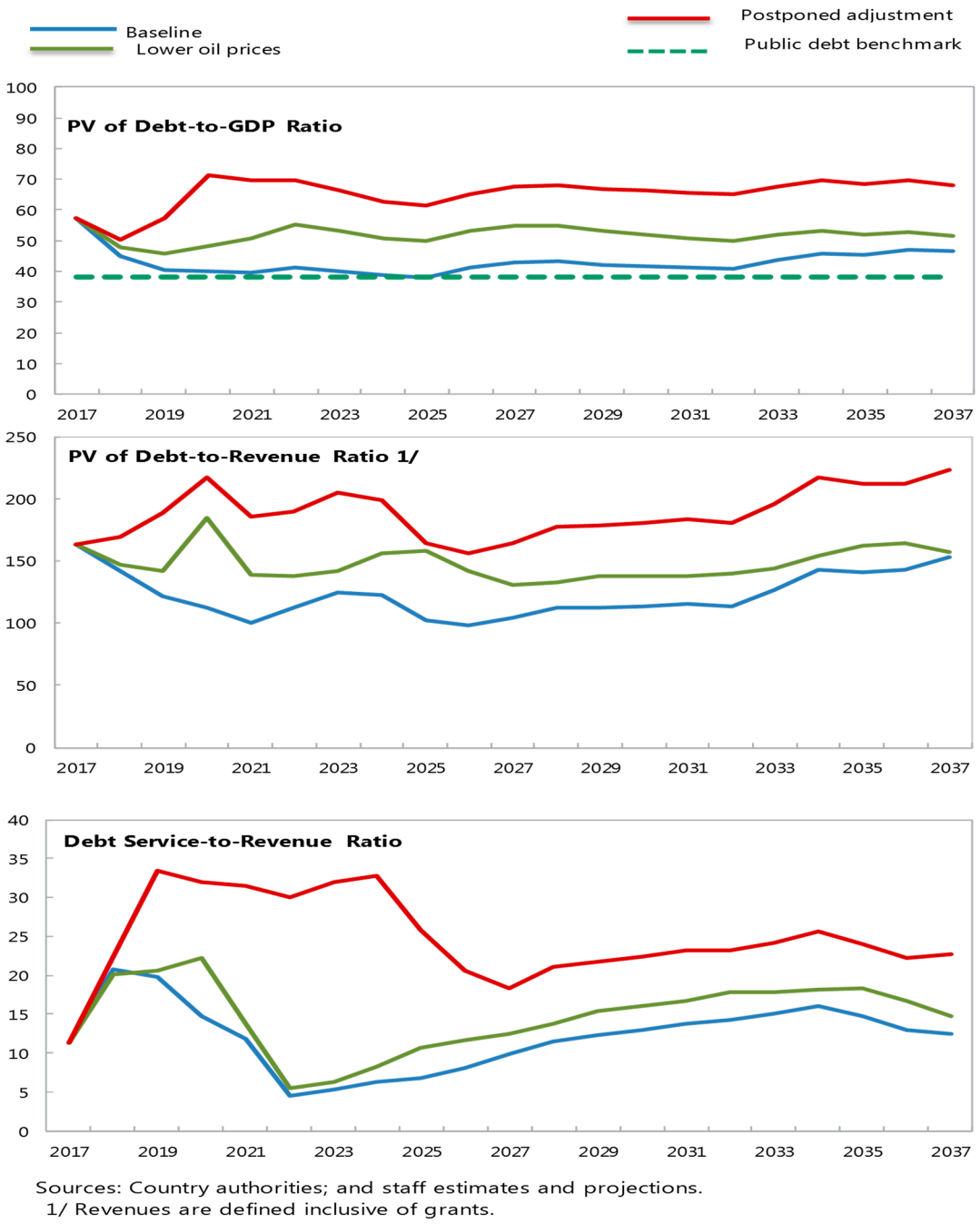
5/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

Figure 1. South Sudan: Indicators of Public and Publicly Guaranteed External Debt, 2017–2037



Sources: Country authorities; and staff estimates and projections.

Figure 2. South Sudan: Indicators of Public Debt, 2017–2037



Sources: Country authorities; and staff estimates and projections.
1/ Revenues are defined inclusive of grants.

Table 3. South Sudan: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2017-2037

	Projections							
	2017	2018	2019	2020	2021	2022	2027	2037
PV of debt-to GDP ratio								
Baseline	38	29	27	30	33	36	42	26
A1. Lower Oil Price	38	32	32	38	44	50	54	31
A2. Postponed adjustment	38	27	19	15	23	31	57	40
PV of debt-to-exports ratio								
Baseline	56	47	41	44	45	52	64	67
A1. Lower Oil Price	56	55	51	58	62	75	82	80
A2. Postponed adjustment	56	39	28	19	28	40	76	90
PV of debt-to-revenue ratio								
Baseline	109	97	87	87	87	105	110	96
A1. Lower Oil Price	109	107	104	111	117	145	141	115
A2. Postponed adjustment	97	79	58	38	55	81	130	129
Debt service-to-exports ratio								
Baseline	6	10	10	8	6	2	6	10
A1. Lower Oil Price	6	11	10	9	7	3	8	12
A2. Postponed adjustment	6	11	18	19	18	17	12	18
Debt service-to-revenue ratio								
Baseline	12	21	21	15	12	5	11	14
A1. Lower Oil Price	12	21	21	17	13	6	14	18
A2. Postponed adjustment	11	22	34	32	32	30	18	23

Sources: Country authorities; and staff estimates and projections.

Table 4. South Sudan: Sensitivity Analysis for Key Indicators of Public Debt 2017-2037

	Projections							
	2017	2018	2019	2020	2021	2022	2027	2037
PV of Debt-to-GDP Ratio								
Baseline	58	45	41	40	40	41	43	46
A1. Lower oil prices	58	48	46	48	51	55	55	52
A2. Higher deficits	58	50	57	71	70	70	68	68
PV of Debt-to-Revenue Ratio 1/								
Baseline	163	141	122	112	101	112	104	153
A1. Lower oil prices	163	147	142	184	139	137	131	157
A2. Higher deficits	163	169	188	217	186	190	165	223
Debt Service-to-Revenue Ratio 1/								
Baseline	11	21	20	15	12	5	10	12
A1. Lower oil prices	11	20	21	22	14	5	12	15
A2. Higher deficits	11	22	34	32	32	30	18	23
Debt Service-to-GDP Ratio								
Baseline	4	7	7	5	5	2	4	4
A1. Lower oil prices	4	7	7	6	5	2	5	5
A2. Higher deficits	4	7	10	10	12	11	8	7

Sources: Country authorities; and staff estimates and projections.
1/ Revenues are defined inclusive of grants.