INTERNATIONAL MONETARY FUND

SENEGAL

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REQUEST FOR A THREE-YEAR POLICY SUPPORT INSTRUMENT—DEBT SUSTAINABILITY ANALYSIS UPDATE

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Senegal remains at a low risk of debt distress with a slight improvement in the assessment compared with that in EBS/14/139 in December 2014. Under the baseline scenario, which is consistent with higher program ceilings for non-concessional and semi-concessional borrowing, all the debt burden indicators remain below their policy-dependent indicative thresholds. The probability approach also shows a favorable outlook. The stress tests result in one spike in debt service to revenue ratio, corresponding to the repayment of the Eurobond, but this does not lead to a breach of the threshold. The Debt Sustainability Analysis (DSA); however, suggests that achieving projected growth and a cautious approach to non-concessional borrowing are critical for safeguarding debt sustainability. In turn this will require the broadening, deepening and acceleration of reforms.

BACKGROUND

1. **Senegal's total public debt and external debt ratios both increased in 2014.** The ratio of the total public debt to GDP ratio amounted to about 53.1 percent at end 2014, up from 46.6 percent in 2013. At the same time, the stock of total external public and publicly guaranteed debt has increased from 32.4 percent in 2013 to about 39.4 percent at end 2014. These developments mainly reflect the authorities' increasing reliance on external non-concessional or semi-concessional borrowing to finance projects.

Table 1. Senegal: Total External Debt, Central Government

(Percent of total, as of end of year)

	2008	2009	2010	2011	2012	2013	2014
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Multilateral creditors	61.2	65.1	66.4	62.3	62.1	63.7	54.4
IDA/IBRD	35.6	29.7	29.2	30.5	30.2	29.6	26.8
AfDB/AfDF	7.6	8.3	9.0	9.9	9.8	11.0	9.5
IMF	2.6	6.8	10.8	5.3	6.1	7.4	5.1
OFID/BADEA/IsDB	8.6	11.9	10.1	9.7	8.4	8.0	6.7
EIB	0.9	1.0	1.0	0.9	0.8	0.8	0.5
Others	5.9	7.4	6.4	6.0	6.9	6.8	5.8
Bilateral creditors	38.7	29.3	27.8	24.9	26.5	26.2	25.6
OECD countries	11.2	10.2	9.7	7.3	10.4	10.1	11.8
Arab countries	21.2	14.1	10.3	7.7	6.9	6.1	5.7
Others	6.3	5.0	7.8	9.9	9.1	10.0	8.0
Commercial creditors	0.1	5.6	5.8	12.8	11.4	10.1	20.0
Memorandum Item							
Nominal GDP (CFAF billions)	5994	6050	6395	6783	7264	7387	7742

2. **In terms of composition, the bulk of Senegal's debt remains external and provided on concessional terms, but the share of financial market instruments—specifically, Eurobonds—has increased in 2014.** This reflected the use of a Credit Suisse line of credit (Euro 150 millions) and the issuance of a US$500 million Eurobond in July 2014. Although most of Senegal's (central government) external debt is still owed to multilateral creditors – primarily the World Bank and the African Development Bank -, the proportion of multilateral debt decreased in 2014, while that of bilateral debt remained broadly stable. The increase in gross public debt also overstates somewhat the increase in net debt. Market requirements generally require operations of at least US$500 million, and the government has also over-financed on the regional market. This, together with delays in implementing projects, has resulted in only part of the Credit Suisse and Eurobond actually being spent. The equivalent of about $550 million has been

built up in Government deposits at the Central Bank. Netting this out, public debt would only have risen from 46.6 percent of GDP in 2013 to 49.6 percent in 2014.

UNDERLYING ASSUMPTIONS AND BORROWING PLAN

3. **The DSA is consistent with the macroeconomic framework outlined in the staff report and updates the government borrowing plan produced in EBS/14/139 in December 2014 for the 2014 Article IV consultation and Eight Review under Policy Support Instrument (PSI).** As in the previous DSA, the baseline scenario assumes the implementation of sound macroeconomic policies and structural reforms, leading to an increase in economic growth, a better revenue mobilization and a narrowing of fiscal deficits over the long term. Other notable features include:

- **Real GDP growth** is expected to increase to above 5 percent in 2015 and to accelerate to 7.8 percent on average in 2020–34, compared to 7.3 percent long-term growth in the previous DSA. This continues to assume efficiency gains from reform implementation under the Plan Senegal Emergent (PSE)[1] and an opening of economic space to SMEs and FDI with a resultant increase in export growth.
- **Fiscal deficit.** The overall fiscal deficit is projected to decline to 4.7 percent of GDP in 2015 and gradually drop to 3 percent of GDP by 2018 in line with the authorities' commitment to meet the key WAEMU convergence criterion on the fiscal deficit, which they aim to reach one year ahead of the 2019 deadline.
- **Current account deficit.** The current account deficit is projected to narrow gradually from 8.8 percent of GDP in 2014 to 6.4 percent in 2020 and further down in the long term. This would be driven by projected fiscal consolidation and stronger dynamism in exports (mining in particular). Remittances are projected to remain significant as a share of GDP.
- **Inflation.** Inflation is expected to remain moderate, on average less than 1.3 percent in the medium term.
- **Financing.** Under this DSA update, financing assumptions take into account the costs and benefits of alternative sources, and it is assumed that government borrowing will remain consistent with Senegal's medium term debt strategy completed in the fall of 2012. This strategy aims at reducing rollover risks by extending the maturity of debt and giving priority to concessional financing to keep borrowing costs low. Where the government needs to resort to non-concessional financing of infrastructure projects, their preferred option is to explore access to financing from multilaterals, notably the World Bank and African Development Bank. The DSA baseline assumes that financing on such terms would be available. If such financing is not available, the authorities would consider issuing a new Eurobond in late-2015 or early-2016. While this would result in less favorable terms than multilateral financing, it would not affect the calculated low risk of external debt distress. The authorities intend to monitor closely the relative

[1] The Senegalese authorities' new development strategy,

benefits of tapping regional markets, particularly if conditions on international markets tighten. The DSA baseline also assumes that mobilizing concessional project financing would continue, specifically, in the short term as the PSE benefits from donor support. However, as Senegal progresses to middle income status, reliance on non-concessional financing will increase. As a result, the average grant element of new external borrowing is projected to decline gradually to about 9 percent.

- Discount rate: A discount rate of 5 percent has been used for this DSA.

Evolution of Selected Macroeconomic Indicators

	2012	2013	2014	2015	Long term 1/
Real GDP growth					
Current DSA	4.4	3.6	4.7	5.1	7.8
Previous DSA	3.4	3.5	4.5	4.6	7.3
Overall fiscal deficit (percent of GDP)					
Current DSA	5.2	5.5	4.9	4.7	2.6
Previous DSA	5.9	5.5	5.2	4.7	2.6
Current account deficit (percent of GDP)					
Current DSA	10.9	10.4	8.8	8.0	6.1
Previous DSA	10.8	10.9	10.3	8.8	7.5

1/ Defined as the last 15 years of the projection period. For the current DSA update, the long term covers the years 2020-2034 (same as the full DSA in December 2014).

EXTERNAL DSA

4. **Under the baseline scenario (Figure 1), and taking remittances into account, public and publicly guaranteed (PPG) external debt ratios remain comfortably below thresholds, but stress tests lead to some spikes.** The ratios of the PV of external PPG debt remain below their respective thresholds even under the most extreme stress tests. One spike in debt service reflects the repayment of the Eurobonds at maturity, but it does not lead to a breach of the threshold even under the most extreme stress test (a 30 percent depreciation of the currency). The PV of external PPG debt under the "historical" scenario (holding real GDP growth and the primary deficit constant at their historical levels), though below thresholds, bumps up after 2025, which underscores the importance of continuing the fiscal effort—that improves the current account - and raising growth.

5. **The probability of debt distress also appears to be low (Figure 2)**. Under the extreme shock scenario, the debt service-to-revenue tends to breach for 2015, given the significant depreciation of the CFAF relatively to the US dollar. As the breach falls within a ±10 percent band of threshold, the probability approach is taken; this confirms that the debt service remains below thresholds under the baseline and extreme scenarios. Other indicators for Senegal also remain below the thresholds in all cases. The requirements for low risk of debt distress are, accordingly, maintained. The depreciation of the CFAF, induces valuation effects which need to be looked at more closely going forward. Under the probability approach, the projected probability of debt distress (expressed as a percent) associated with each debt burden indicator is compared to a threshold level, which is different from the threshold used in the traditional approach.

PUBLIC DSA

6. Under the PSI baseline scenario, indicators of overall public debt (external plus domestic) do not show significant vulnerabilities. The PV of total public debt to GDP decreases over the projection period and remains well below the benchmark level of 74 percent associated with public debt vulnerabilities for strong performers. The PV of total public debt to revenue also remains below benchmark. Similar to the previous DSA, the thresholds for PPG external debt reflect Senegal's new CPIA score – which classified Senegal as a stronger performer - and designate levels above which the risk of public debt distress is heightened. The benchmarks are in PV terms. Benchmarks for total public debt differ from thresholds for PPG external debt in that they serve as reference points for triggering a deeper discussion of public domestic debt. Thresholds for PPG external debt play a fundamental role in the determination of the external risk rating.

7. The public debt outlook would be much less favorable in the absence of fiscal consolidation (Table 4 and Figure 3). In a scenario that assumes an unchanged primary fiscal deficit (as a percent of GDP) over the entire projection period, the PV of public debt to GDP slightly increases but does not reach the 74 percent benchmark level. Under the "historical" scenario (holding real GDP growth and the primary deficit constant at their historical levels), the PV of public debt to GDP approaches the benchmark level closely. The debt service-to-revenue ratio spikes in 2015 due to high amortization but declines in the medium term given the projected improvement in Government revenue. Overall risks remain low but stress tests highlight the importance of continuing the fiscal consolidation, enhancing fiscal revenues, and raising growth through a widening, deepening and acceleration of reforms.

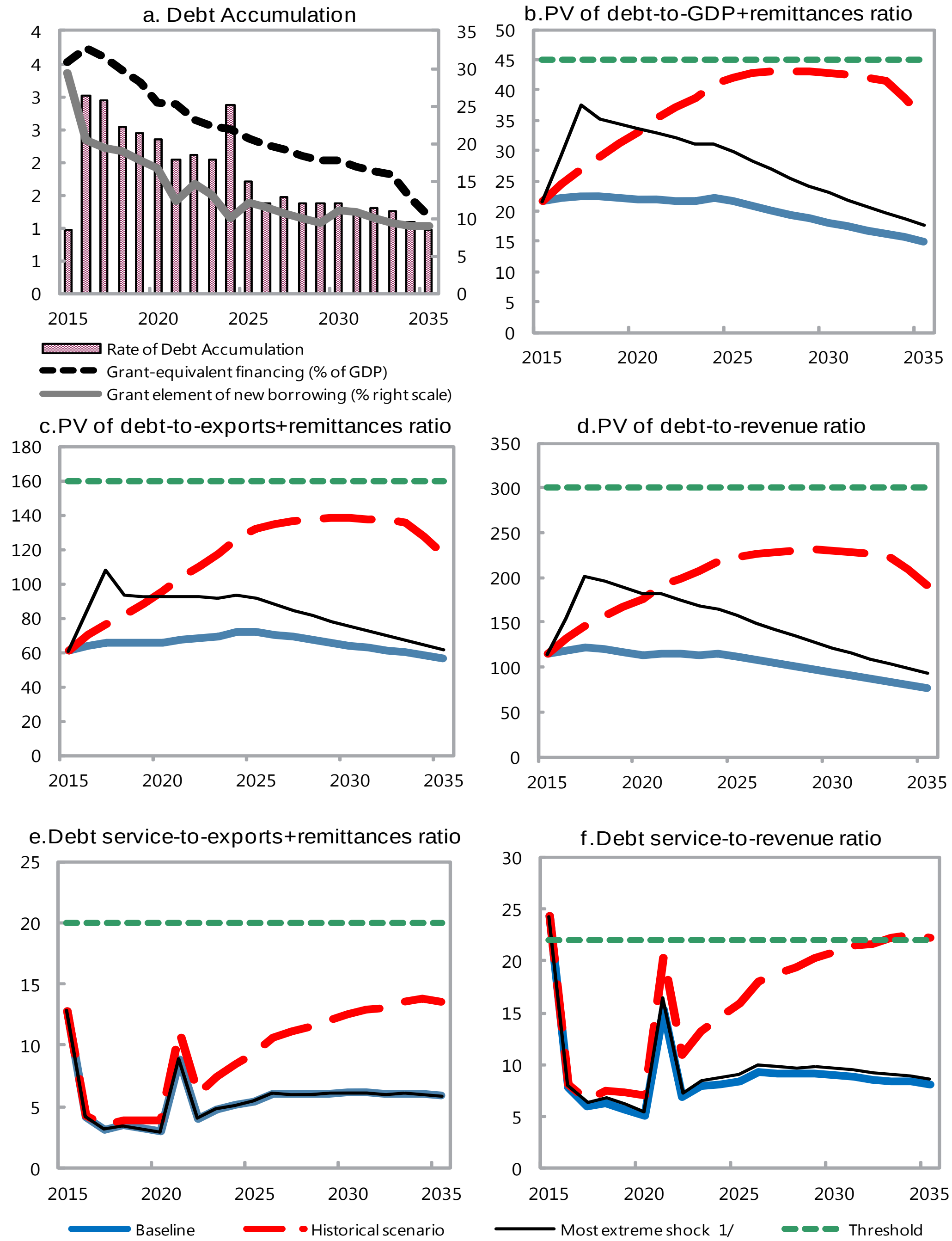
CONCLUSION

8. In staff's view, Senegal continues to face a low risk of debt distress. This assessment, however, hinges critically on (i) a continued reduction of the fiscal deficit; (ii) structural reforms that unlock growth and (iii) prudence in the shift towards less concessional financing. Fiscal reforms should continue and additional fiscal space for PSE-related and social spending should be secured through efforts to increase revenue—particularly collecting tax arrears, freezing public consumption in real terms, and improving the composition of spending. The authorities also need to focus spending on productive areas, working closely with development partners to strengthen project design, preparation and execution while ensuring the overall quality and efficiency of public investment. On the structural side, efforts supported by the World Bank to improve the investment climate need to be pursued.

9. A cautious approach to non-concessional borrowing will similarly be essential for safeguarding debt sustainability. The efforts of the authorities to seek non-concessional financing from the African Development Bank and World Bank are welcome. In addition to being lower cost than Eurobonds, such borrowing could be accompanied by support to ensure that the financing goes to projects that are well prepared and deliver expected economic and social benefits. If these efforts do not yield sufficient financing for the PSE, borrowing from markets should be carefully weighed and proceeds only spent on projects with feasibility studies that indicate positive socio-economic outcomes.

10. The conclusion also hinges on achieving projected growth. The authorities are strongly committed to reforms required for the PSE to succeed. These could lift growth to 7 to 8 percent in the medium term, driven by FDI and SME generated exports. The PSE offers an achievable development strategy, including the right mix of private investment to be crowded in by public investment in both human capital and infrastructure. However, unlocking private investment, including FDI and from SMEs, requires speeding up reforms to the business climate and improving public sector governance. Frontloading public investment without implementing the necessary structural reforms may jeopardize fiscal targets and debt sustainability while failing to raise growth from its sub-par trend. The main risks relate to weak or slow implementation of the reforms, revenue shortfalls that would not allow sufficient mobilization of resources in support of the plan, failure to curb unproductive public consumption, and delays in raising expenditure efficiency, in particular of domestically-financed capital expenditure.

Figure 1. Senegal: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2015–35 1/

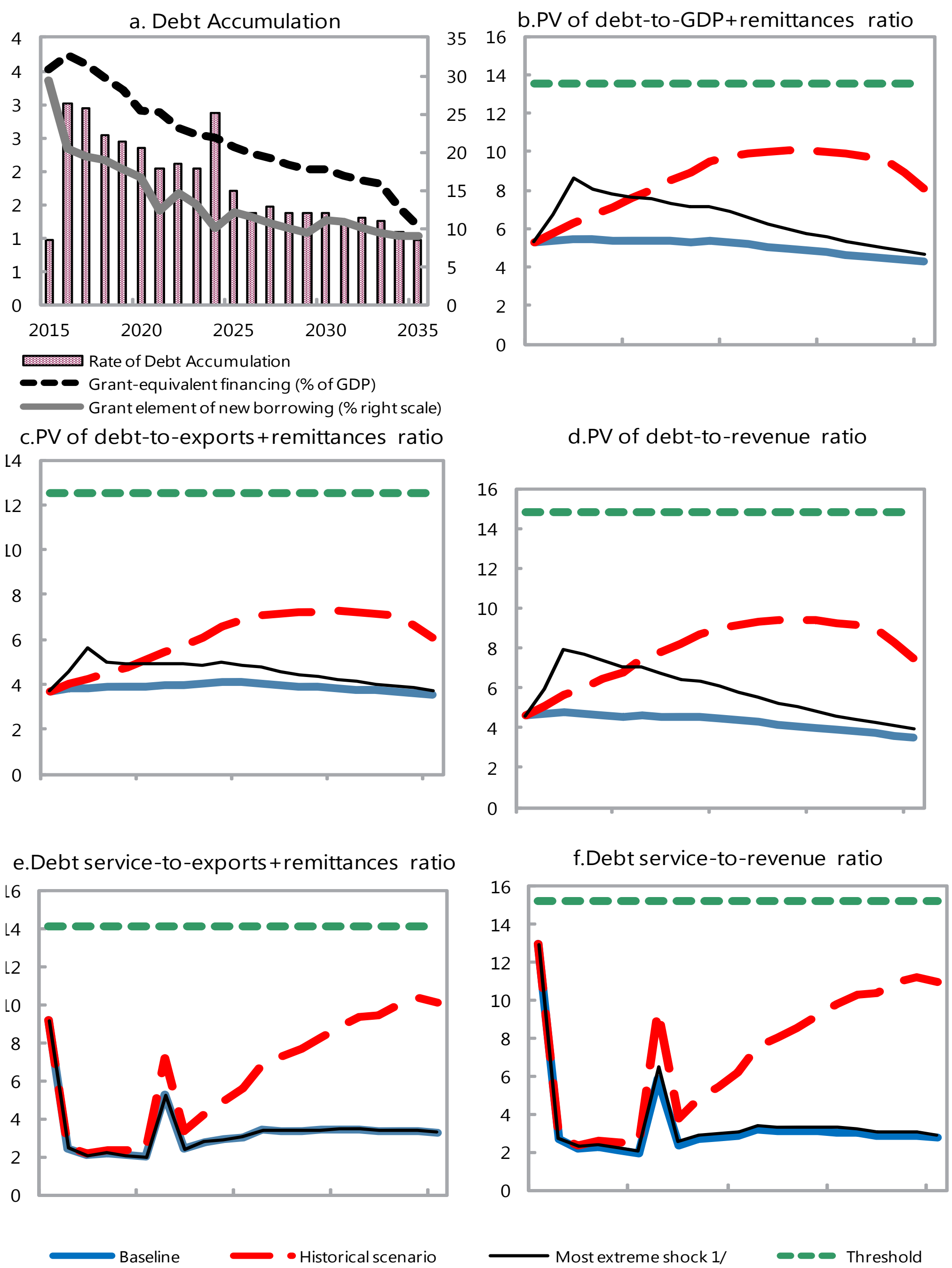


Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2025. In figure b. it corresponds to a Combination shock; in c. to a Combination shock; in d. to a Combination shock; in e. to a Growth shock and in figure f. to a Growth shock

Figure 2. Senegal: Probability of Debt Distress of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2015–35 [1/]

(In percent)



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2025. In figure b. it corresponds to a Combination shock; in c. to a Combination shock; in d. to a Combination shock; in e. to a Growth shock and in figure f. to a Growth shock

Table 1. Senegal: Public Sector Debt Sustainability Framework, Baseline Scenario, 2012–35 1/

(In percent of GDP, unless otherwise indicated)

	Actual			Historical 6/	Standard 6/	Projections									
	2012	2013	2014	Average	Deviation	2015	2016	2017	2018	2019	2020	2015-2020 Average	2025	2035	2021-2035 Average
External debt (nominal) 1/	**60.8**	**68.2**	**71.1**			**71.7**	**71.3**	**70.1**	**68.4**	**65.4**	**64.3**		**58.4**	**51.7**	
of which: public and publicly guaranteed (PPG)	30.6	32.4	39.4			35.7	37.7	37.5	36.6	35.6	34.6		30.8	20.1	
Change in external debt	6.3	7.4	2.9			0.6	-0.4	-1.2	-1.7	-3.0	-1.1		-1.7	2.1	
Identified net debt-creating flows	9.9	5.6	3.6			1.8	1.2	0.5	0.1	-0.2	0.0		0.1	0.6	
Non-interest current account deficit	**9.9**	**9.4**	**7.9**	**8.3**	**2.8**	**7.3**	**6.4**	**6.2**	**6.0**	**5.8**	**5.9**		**5.9**	**6.1**	5.9
Deficit in balance of goods and services	21.0	20.7	19.0			19.0	18.3	18.3	17.9	17.5	16.2		12.9	12.0	
Exports	27.9	28.1	27.4			26.4	25.5	25.5	25.5	25.2	25.2		22.7	20.3	
Imports	48.9	48.8	46.3			45.3	43.8	43.8	43.3	42.7	41.4		35.6	32.3	
Net current transfers (negative = inflow)	-12.3	-12.5	-12.4	-11.4	1.5	-13.0	-13.1	-12.9	-12.7	-12.3	-11.2		-7.4	-6.2	-7.4
of which: official	-1.0	-0.6	-0.7			-1.0	-1.2	-1.2	-1.2	-1.1	-0.9		-0.7	-0.5	
Other current account flows (negative = net inflow)	1.3	1.2	1.3			1.3	1.2	0.9	0.8	0.6	0.8		0.5	0.3	
Net FDI (negative = inflow)	**-1.5**	**-1.9**	**-2.0**	**-1.9**	**0.5**	**-2.1**	**-2.1**	**-2.2**	**-2.3**	**-2.3**	**-2.3**		**-2.3**	**-2.3**	-2.3
Endogenous debt dynamics 2/	**1.5**	**-2.0**	**-2.3**			**-3.4**	**-3.1**	**-3.5**	**-3.7**	**-3.7**	**-3.5**		**-3.4**	**-3.2**	
Contribution from nominal interest rate	1.0	0.9	0.9			0.8	0.7	0.7	0.8	0.8	0.8		0.7	0.5	
Contribution from real GDP growth	-2.4	-2.1	-3.1			-4.1	-3.8	-4.2	-4.4	-4.5	-4.3		-4.1	-3.7	
Contribution from price and exchange rate changes	3.0	-0.8	-0.1			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**-3.6**	**1.8**	**-0.7**			**-1.3**	**-1.6**	**-1.8**	**-1.7**	**-2.8**	**-1.1**		**-1.8**	**1.5**	
of which: exceptional financing	-1.4	-0.1	1.5			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 4/	...	...	54.8			60.5	58.8	58.2	57.2	54.8	54.2		51.0	47.5	
In percent of exports	...	...	200.3			229.6	231.0	227.9	224.7	217.7	214.9		224.7	233.7	
PV of PPG external debt	**...**	**...**	**23.1**			**24.6**	**25.3**	**25.6**	**25.4**	**25.0**	**24.4**		**23.3**	**15.9**	
In percent of exports	**...**	**...**	**84.3**			**93.2**	**99.2**	**100.2**	**99.7**	**99.2**	**96.9**		**102.8**	**78.3**	
In percent of government revenues	**...**	**...**	**110.0**			**114.9**	**118.9**	**121.1**	**119.4**	**116.5**	**113.5**		**111.7**	**76.3**	
Total gross financing need (Billions of U.S. dollars)	1.6	1.5	1.5			1.6	1.1	1.0	1.1	1.2	1.3		2.3	5.4	
Non-interest current account deficit that stabilizes debt ratio	3.6	2.1	4.9			6.7	6.8	7.5	7.7	8.8	7.0		7.6	4.0	
Key macroeconomic assumptions															
Real GDP growth (in percent)	4.4	3.6	4.7	3.8	1.2	5.1	5.9	6.5	7.0	7.3	7.3	6.5	7.6	8.2	7.8
GDP deflator in US dollar terms (change in percent)	-5.2	1.4	0.2	3.3	7.7	-16.7	6.3	3.3	3.5	3.6	4.2	0.7	2.4	2.5	2.5
Effective interest rate (percent) 5/	1.7	1.6	1.4	1.8	0.4	1.0	1.1	1.2	1.2	1.3	1.3	1.2	1.3	1.1	1.2
Growth of exports of G&S (US dollar terms, in percent)	4.7	6.0	2.0	7.4	10.0	-15.7	8.8	10.4	10.3	9.9	11.9	5.9	9.0	10.5	8.9
Growth of imports of G&S (US dollar terms, in percent)	8.2	5.0	-0.5	9.9	17.3	-14.4	8.7	10.2	9.4	9.5	8.5	5.3	7.9	10.5	8.6
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	29.3	21.7	21.9	22.5	22.6	22.8	23.5	22.5	22.1	21.8
Government revenues (excluding grants, in percent of GDP)	20.5	19.9	21.0			21.4	21.2	21.1	21.3	21.4	21.5		20.9	20.8	20.8
Aid flows (in Billions of US dollars) 7/	1.0	0.8	0.7			0.4	0.5	0.5	0.6	0.6	0.6		0.9	1.3	
of which: Grants	0.4	0.4	0.5			0.4	0.5	0.5	0.5	0.6	0.6		0.8	1.0	
of which: Concessional loans	0.6	0.4	0.2			0.0	0.1	0.1	0.1	0.1	0.1		0.1	0.3	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			3.5	3.8	3.7	3.5	3.4	3.1		2.7	1.5	2.4
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			70.2	54.8	55.2	56.9	57.2	56.2		54.5	45.0	51.2
Memorandum items:															
Nominal GDP (Billions of US dollars)	14.2	15.0	15.7			13.7	15.5	17.0	18.8	20.9	23.4		37.8	103.6	
Nominal dollar GDP growth	-1.1	5.1	4.9			-12.5	12.6	10.1	10.7	11.1	11.7	7.3	10.2	10.9	10.4
PV of PPG external debt (in Billions of US dollars)			3.4			3.5	3.9	4.4	4.8	5.3	5.8		8.8	16.5	
(PVt-PVt-1)/GDPt-1 (in percent)						1.0	3.0	3.0	2.5	2.4	2.3	2.4	1.7	1.0	1.6
Gross workers' remittances (Billions of US dollars)	1.9	2.1	2.1			1.9	2.2	2.3	2.5	2.7	2.8		3.0	6.9	
PV of PPG external debt (in percent of GDP + remittances)	...	...	20.3			21.5	22.1	22.5	22.4	22.1	21.8		21.6	14.9	
PV of PPG external debt (in percent of exports + remittances)	...	...	56.3			60.8	64.0	65.1	65.2	65.2	65.5		76.4	59.0	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	5.4			12.8	4.2	3.2	3.5	3.2	2.9		5.8	6.2	

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

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).

Table 2. Senegal: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2015–35

(In percent)

	Projections							
	2015	2016	2017	2018	2019	2020	**2025**	2035
PV of debt-to GDP ratio								
Baseline	25	25	26	25	25	24	**23**	16
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	25	28	31	33	35	37	**45**	34
A2. New public sector loans on less favorable terms in 2015-2035 2/	25	26	27	28	28	28	**29**	23
Authorities' PSE framework	26	31	33	36	38	41	**33**	22
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	25	26	28	27	27	26	**25**	17
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	25	27	32	31	31	30	**26**	16
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	25	28	31	31	30	30	**28**	19
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	25	29	32	31	31	30	**26**	16
B5. Combination of B1-B4 using one-half standard deviation shocks	25	33	43	42	41	39	**33**	19
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	25	35	36	36	35	34	**33**	22
PV of debt-to-exports ratio								
Baseline	93	99	100	100	99	97	**103**	78
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	93	110	120	130	141	148	**196**	168
A2. New public sector loans on less favorable terms in 2015-2035 2/	93	103	106	108	110	110	**126**	111
Authorities' PSE framework	95	115	124	135	143	151	**137**	82
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	93	100	101	100	100	98	**103**	78
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	93	121	159	156	155	150	**146**	101
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	93	100	101	100	100	98	**103**	78
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	93	112	124	123	121	117	**115**	80
B5. Combination of B1-B4 using one-half standard deviation shocks	93	124	162	159	157	151	**141**	93
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	93	100	101	100	100	98	**103**	78
PV of debt-to-revenue ratio								
Baseline	115	119	121	119	116	113	**112**	76
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	115	132	145	155	165	173	**213**	164
A2. New public sector loans on less favorable terms in 2015-2035 2/	115	123	129	130	129	128	**137**	109
Authorities' PSE framework	134	156	166	177	189	203	**164**	107
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	115	123	131	129	126	123	**120**	82
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	115	129	151	148	143	138	**125**	78
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	115	133	146	144	141	138	**134**	92
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	115	134	150	147	142	138	**125**	78
B5. Combination of B1-B4 using one-half standard deviation shocks	115	154	202	196	189	182	**158**	93
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	115	166	170	167	164	159	**156**	106

Table 3. Senegal: Public Sector Debt Sustainability Framework, Baseline Scenario, 2012–35

(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2012	2013	2014	Average 5/	Standard Deviation 5/	2015	2016	2017	2018	2019	2020	2015-20 Average	2025	2035	2021-35 Average
Public sector debt 1/	42.8	46.6	53.1			55.0	55.9	55.6	53.0	49.8	48.5		43.0	30.6	
of which: foreign-currency denominated	30.6	32.4	39.4			35.7	37.7	37.5	36.6	35.6	34.6		30.8	20.1	
Change in public sector debt	2.1	3.8	6.5			1.9	0.9	-0.4	-2.6	-3.1	-1.3		0.3	-1.6	
Identified debt-creating flows	2.1	3.5	6.3			4.6	-0.1	-1.4	-2.2	-2.4	-2.4		-1.1	-0.6	
Primary deficit	3.7	4.0	3.2	3.3	1.4	3.2	2.7	2.1	1.4	1.3	1.3	2.0	1.3	1.4	1.3
Revenue and grants	23.3	22.5	24.2			24.3	24.2	24.0	24.0	24.1	23.9		22.9	21.8	
of which: grants	2.8	2.5	3.3			2.9	2.9	2.8	2.7	2.6	2.4		2.0	1.0	
Primary (noninterest) expenditure	27.0	26.4	27.5			27.5	26.9	26.0	25.4	25.3	25.2		24.2	23.2	
Automatic debt dynamics	-1.1	-0.5	3.1			1.4	-2.8	-3.4	-3.6	-3.7	-3.7		-2.5	-2.0	
Contribution from interest rate/growth differential	-1.2	0.8	-0.5			-1.8	-2.7	-3.1	-3.2	-3.2	-3.1		-2.5	-2.0	
of which: contribution from average real interest rate	0.5	2.3	1.6			0.8	0.3	0.4	0.4	0.4	0.2		0.5	0.4	
of which: contribution from real GDP growth	-1.7	-1.5	-2.1			-2.6	-3.1	-3.4	-3.6	-3.6	-3.4		-3.0	-2.4	
Contribution from real exchange rate depreciation	0.1	-1.3	3.5			3.2	-0.1	-0.4	-0.4	-0.5	-0.6		...	...	
Other identified debt-creating flows	-0.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	-0.5	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	0.1	0.4	0.2			-2.7	1.1	1.0	-0.4	-0.7	1.1		1.4	-0.9	
Other Sustainability Indicators															
PV of public sector debt	...	...	36.8			43.8	43.4	43.7	41.7	39.2	38.3		35.6	26.4	
of which: foreign-currency denominated	...	...	23.1			24.6	25.3	25.6	25.4	25.0	24.4		23.3	15.9	
of which: external	...	...	23.1			24.6	25.3	25.6	25.4	25.0	24.4		23.3	15.9	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	11.5	12.1	12.9			14.5	8.3	7.0	7.2	5.8	4.7		5.3	4.3	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	151.9			180.4	179.8	182.3	173.8	162.7	160.4		155.5	121.2	
PV of public sector debt-to-revenue ratio (in percent)	...	...	175.6			204.9	204.5	206.8	196.3	182.8	178.1		170.5	126.8	
of which: external 3/	...	...	110.0			114.9	118.9	121.1	119.4	116.5	113.5		111.7	76.3	
Primary deficit that stabilizes the debt-to-GDP ratio	1.6	0.1	-3.3			1.3	1.8	2.4	4.0	4.4	2.6		1.0	2.9	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	4.4	3.6	4.7	3.8	1.2	5.1	5.9	6.5	7.0	7.3	7.3	6.5	7.6	8.2	7.8
Average nominal interest rate on forex debt (in percent)	2.5	2.5	2.5	2.5	0.6	1.6	2.0	2.0	2.1	2.1	2.2	2.0	2.2	2.4	2.3
Average real interest rate on domestic debt (in percent)	4.5	8.5	6.4	3.6	3.9	5.5	2.6	2.9	2.9	3.0	2.2	3.2	6.2	4.5	4.8
Real exchange rate depreciation (in percent, + indicates depreciation)	0.5	-4.3	11.2	1.2	8.8	8.6	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	2.6	-1.9	0.1	2.4	2.9	1.4	2.3	2.3	2.3	2.3	2.3	2.2	2.4	2.5	2.5
Growth of real primary spending (deflated by GDP deflator, in percent)	3.5	1.2	8.9	1.4	2.9	5.0	3.8	3.2	4.4	7.0	6.7	5.0	6.8	7.3	7.2
Grant element of new external borrowing (in percent)	...	...	...	...	...	29.3	21.7	21.9	22.5	22.6	22.8	23.5	22.5	22.1	...

Sources: Country authorities; and staff estimates and projections.

1/ [Indicate coverage of public sector, e.g., general government or nonfinancial public sector. Also whether net or gross debt is used.]

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.

Table 4. Senegal: Sensitivity Analysis for Key Indicators of Public Debt, 2015–35

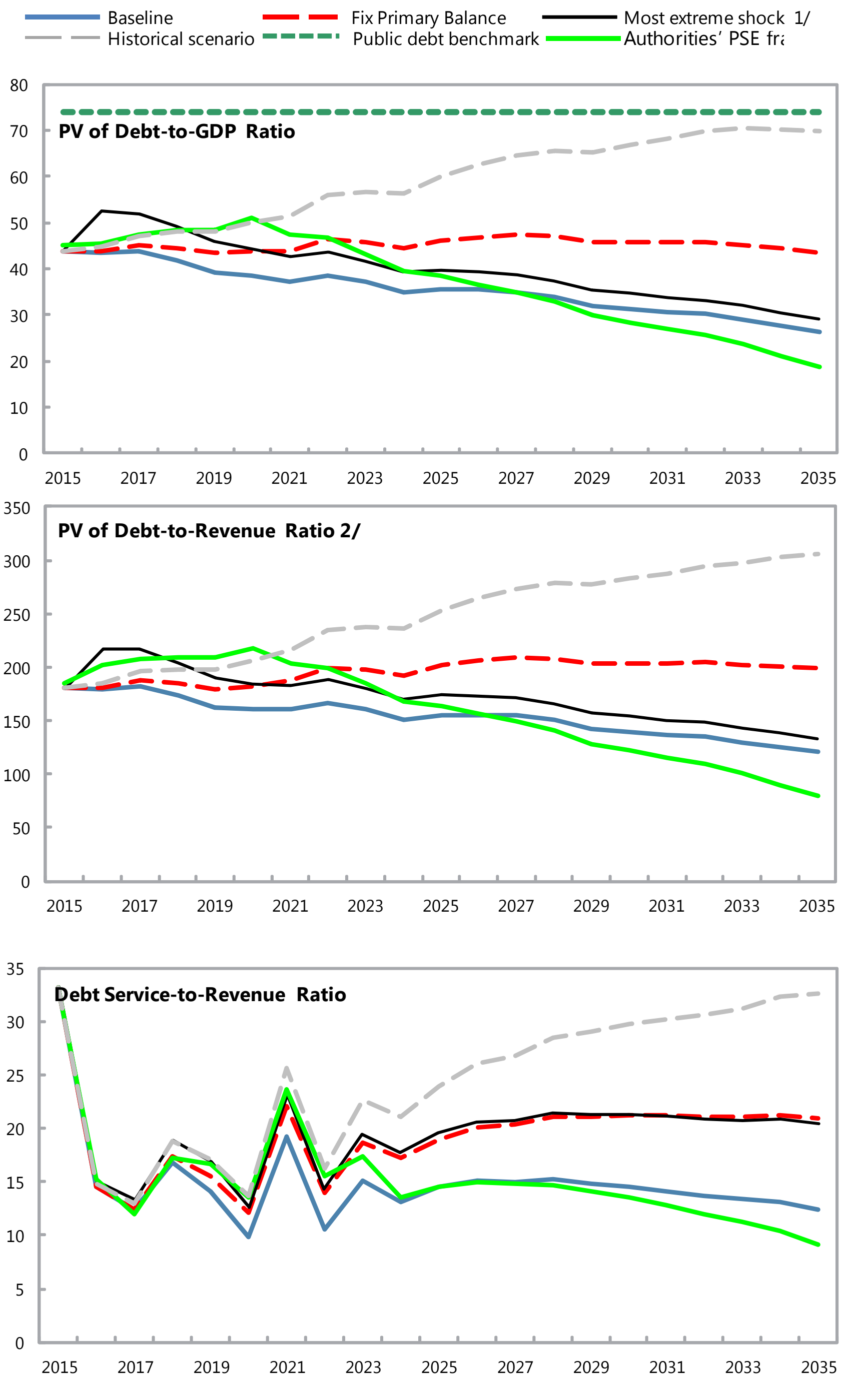
	Projections							
	2015	2016	2017	2018	2019	2020	2025	2035
PV of Debt-to-GDP Ratio								
Baseline	44	43	44	42	39	38	36	26
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	44	45	47	48	48	50	60	70
A2. Primary balance is unchanged from 2015	44	44	45	44	43	44	46	43
A3. Permanently lower GDP growth 1/	44	44	44	42	40	39	39	34
Authorities' PSE framework	45	45	48	48	49	51	38	19
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2016-2017	44	45	49	48	46	46	48	43
B2. Primary balance is at historical average minus one standard deviations in 2016-2017	44	45	48	45	42	41	38	27
B3. Combination of B1-B2 using one half standard deviation shocks	44	46	49	48	46	46	46	40
B4. One-time 30 percent real depreciation in 2016	44	53	52	49	46	44	40	29
B5. 10 percent of GDP increase in other debt-creating flows in 2016	44	52	52	49	46	45	40	29
PV of Debt-to-Revenue Ratio 2/								
Baseline	180	180	182	174	163	160	155	121
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	180	185	196	198	197	206	254	307
A2. Primary balance is unchanged from 2015	180	181	188	185	180	183	202	199
A3. Permanently lower GDP growth 1/	180	180	184	176	166	165	168	157
Authorities' PSE framework	185	203	207	209	209	217	164	79
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2016-2017	180	187	202	198	191	192	207	195
B2. Primary balance is at historical average minus one standard deviations in 2016-2017	180	187	198	189	176	173	165	126
B3. Combination of B1-B2 using one half standard deviation shocks	180	188	202	197	189	190	201	183
B4. One-time 30 percent real depreciation in 2016	180	217	217	205	190	185	174	134
B5. 10 percent of GDP increase in other debt-creating flows in 2016	180	215	216	204	191	187	176	131

Sources: Country authorities; and staff estimates and projections.

1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of the length of the projection period.

2/ Revenues are defined inclusive of grants.

Figure 3. Senegal: Indicators of Public Debt under Alternative Scenarios, 2015–35 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2025.

2/ Revenues are defined inclusive of grants.

Statement by Ngueto Tiraina Yambaye, Executive Director for Senegal and Daouda Sembene, Senior Advisor to the Executive Director
June 24, 2015

The new Policy Support Instrument (PSI) supports a three-year program of macroeconomic reforms embedded in a development strategy for inclusive growth and poverty reduction (Plan Senegal Emergent—PSE). The growth goals of above 7 percent enshrined in the PSE are achievable provided reforms are accelerated, broadened and deepened. Early signs indicate positive momentum owing to progress in reform implementation and favorable external factors. However, more remains to be done to solidify this momentum.

The authorities are committed to meeting the target of the West African Economic and Monetary Union of a fiscal deficit of 3 percent of GDP by 2018 and implementing structural reforms to boost economic growth, with the 2015 budget targeting a deficit of 4.7 percent of GDP. The authorities plan to strengthen tax and customs administration, and rationalize taxation of the financial sector and telecommunications. On expenditure, they will reorient lower priority spending, particularly public consumption, to provide room for higher public investment.

Risks to the program are significant but manageable. The political calendar may pose some risks to the planned fiscal consolidation. Reforms to curb unproductive public consumption and raise expenditure efficiency may slow down and there could be revenue shortfalls. External downside risks include slower growth in partner countries, continued volatility in oil prices—which may affect revenue targets and subsidies—and spillovers from regional shocks including extremism and natural disasters. To mitigate these risks, the authorities plan to supplement the fiscal deficit targets with a debt anchor and will expand use of the precautionary reserve envelope to link project financing to reform progress.