INTERNATIONAL MONETARY FUND

MALAWI

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SECOND AND THIRD REVIEWS UNDER THE THREE-YEAR EXTENDED CREDIT FACILITY ARRANGEMENT AND REQUESTS FOR WAIVERS OF NONOBSERVANCE OF PERFORMANCE CRITERIA AND AUGMENTATION OF ACCESS—DEBT SUSTAINABILITY ANALYSIS[1]

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Malawi: Joint Bank-Fund Debt Sustainability Analysis	
Risk of external debt distress	*Moderate*
Overall risk of debt distress	*High*
Granularity in the risk rating	*Some space to absorb shocks*
Application of judgement	*No*

Malawi's external debt is assessed to be at a moderate risk of debt distress, but with some space to absorb shocks. Results of the model show that two external debt burden indicators (that is, PV of debt-to-exports ratio and debt service-to-exports ratio) would breach the thresholds determined by Malawi's debt carrying capacity[2] under the exports shock.

[1] The analysis presented in this document is based on the debt sustainability framework for low-income countries approved by the Boards of both the International Monetary Fund and the International Development Association.

[2] Malawi's debt carrying capacity is classified as "weak" according to the composite indicator score determined by the World Bank's Country Policy and Institutional Assessment (CPIA) Index and other key fundamentals including real GDP growth, import coverage of reserves, remittances as percent of GDP, and growth rate of the world economy. The relevant thresholds for external debt under this category are: 30 percent for PV of debt-to-GDP ratio, 140 percent for PV of debt-to-exports ratio, 10 percent for debt service-to-exports ratio, and 14 percent for debt service-to-revenue ratio. The benchmark on total public debt (sum of public and publicly guaranteed external debt and public domestic debt) is 35 percent for PV of total debt-to-GDP ratio.

Malawi is assessed to be at high overall risk of debt distress. This mainly reflects increasing amounts of domestic debt contracted at high interest rates during recent years. The present value of total public debt to GDP is projected to decline throughout the program period but would breach the benchmark until 2027.

The projected borrowing path and debt policies remain broadly unchanged since the last DSA.[3] *Budget credibility and fiscal discipline should be strengthened to avoid accumulation of domestic debt at high interest rates. Close attention will be needed on the financing terms of any proposed infrastructure investments given limited headroom for further borrowing. To enhance resilience to shocks, efforts should be stepped up to further diversify the economy, particularly exports, broaden the revenue base, and strengthen public financial management*

PUBLIC DEBT COVERAGE

1. Public debt used for the DSA is public and publicly guaranteed (PPG) external and public domestic debt, covering debt contracted and guaranteed by the central government and the Reserve Bank of Malawi (RBM). Due to data limitations, it does not include debt held by state and local governments, other elements in the general government (such as the social security fund and extra budgetary funds), or non-guaranteed state-owned enterprise (SOE) debt. Considering the limited debt coverage, the contingent liability of the general government is assumed to be 2 percent of GDP (whereas, it is assumed to be zero for many countries). However, the authorities are committed to strengthening the oversight and monitoring of SOEs, including conducting pilot audits of the largest SOEs, publishing consolidated annual reports on SOEs, and developing a prototype SOE database over the next few years (staff report Table -11a, ¶19 and MEFP ¶18). These steps will help gradually broaden the public debt coverage. For the current DSA, the stress tests, described below, include an adjustment to reflect the portions of the public sector not captured in the reported debt data (Text Table 1).

[3] IMF Country Report No. 18/336 Annex II.

Text Table 1. External and Public DSAs: Coverage of Public Debt and Design of Contingent Liabilities (Tailored) Stress Tests

	Subsectors of the public sector	Check box
1	Central government	X
2	State and local government	
3	Other elements in the general government	
4	o/w: Social security fund	
5	o/w: Extra budgetary funds (EBFs)	
6	Guarantees (to other entities in the public and private sector, including to SOEs)	X
7	Central bank (borrowed on behalf of the government)	X
8	Non-guaranteed SOE debt	

1	The country's coverage of public debt	The central government, central bank, government-guaranteed debt		
		Default	Used for the analysis	Reasons for deviations from the default settings
2	Other elements of the general government not captured in 1.	0 percent of GDP	2	Limited debt coverage.
3	SoE's debt (guaranteed and not guaranteed by the government) 1/	2 percent of GDP	2	
4	PPP	35 percent of PPP stock	0.00	
5	Financial market (the default value of 5 percent of GDP is the minimum	5 percent of GDP	5	
	Total (2+3+4+5) (in percent of GDP)		9.0	

1/ The default shock of 2% of GDP will be triggered for countries whose government-guaranteed debt is not fully captured under the country's public debt definition (1.). If it is already included in the government debt (1.) and risks associated with SoE's debt not guaranteed by the government is assessed to be negligible, a country team may reduce this to 0%.

BACKGROUND ON DEBT

2. **Malawi's public and publicly guaranteed (PPG) external debt stood at about US$2.15 billion (31.2 percent of GDP) in 2018**, up from $2.04 billion in 2017 (32.8 percent of GDP). The increase in PPG external debt during 2018 mainly reflects $127 million of new disbursements (with $97 million from multilaterals and $30 million from bilateral creditors) and principal payments of about US$50 million.

3. **Public external debt is held mainly by multilateral creditors** (79 percent of total, Text Table 2). The main provider is the International Development Association (IDA) followed by the African Development Fund (ADF) and the IMF. China and India are the main bilateral creditors.[4] Public external debt at end-2018 was concessional with an average grant element above 35 percent.

4. **New concessional external loans signed in 2019 as of end July ($124.5 million, mainly from multilateral creditors) are financing priority infrastructure projects.** They cover water and sanitation, irrigation, agricultural commercialization, financial advancement for rural markets, and digitalization.

[4] Data on private external debt remains unavailable, but the amounts are not believed to be large.

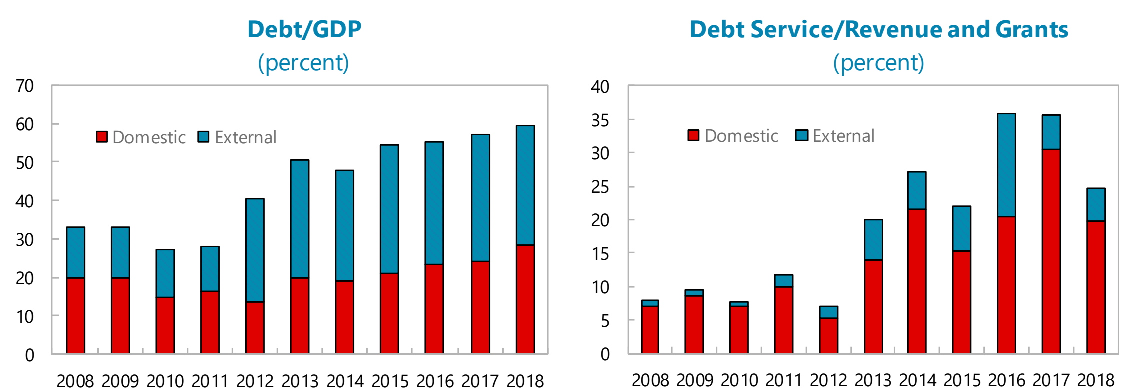
Text Table 2. Composition of Public and Publicly Guaranteed Medium- and Long-Term External Debt

(Million U.S. dollars)

	2015		2016		2017		2018	
	Actual	Share	Actual	Share	Actual	Share	Actual	Share
Multilateral	1,172	73	1,293	75	1,584	78	1,708	79
IDA	590	37	642	37	860	42	919	43
ADF	229	14	248	14	290	14	325	15
IMF	163	10	206	12	224	11	222	10
IFAD	72	4	73	4	77	4	79	4
Other multilateral	119	7	124	7	133	6	163	8
Bilateral	440	27	426	25	437	21	424	20
China	243	15	227	13	236	12	220	10
India	152	9	147	9	142	7	145	7
Others	45	3	52	3	58	3	59	3
Commercial	0.4	0	0	0	0	0	0	0
Guarantees to SOEs	n.a.	n.a.	n.a.	n.a.	20	1	20	1
Total	1,612	100	1,719	100	2,041	100	2,151	100

Sources: Malawian authorities and IMF staff calculations.

Text Figure 1. Public and Publicly Guaranteed Debt

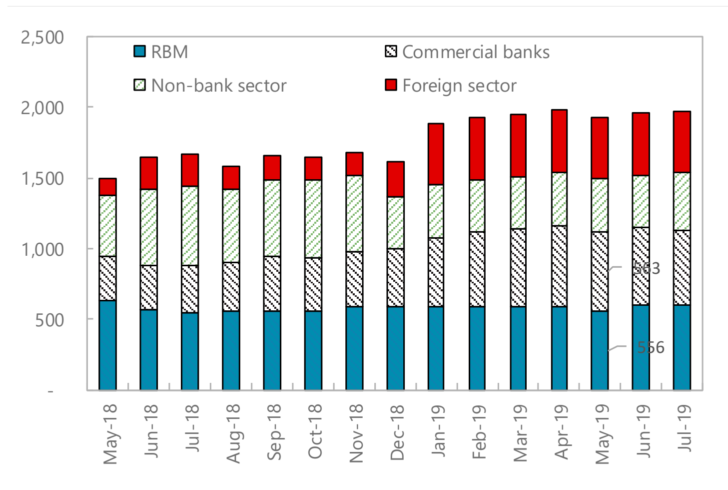


Sources: Malawian authorities and IMF calculations.

5. **Public domestic debt is held by commercial banks, the non-bank financial sector, and the RBM.** As noted in the previous DSA, the recent spike in public domestic debt reflects a progressive shift of debt from external to domestic borrowing during recent years (Text Table 3, Text Figure 1). Between July 2018 and July 2019, the RBM's share of outstanding treasury bills and notes declined from 33.0 percent to 30.5 percent while commercial banks' share increased from 20.1 percent to 26.9 percent (Text Figure 2).

Text Figure 2. Holdings of Treasury Bills and Notes

(at face value, billions of Kwacha)



Sources: Malawian authorities and IMF staff calculations.

6. **Public domestic debt, 28.4 percent of GDP at end-2018, is expected to edge up to 32 percent in 2019**—7 percentage points higher than envisaged in the previous DSA. The primary deficit (net of budget support and dedicated grants) in FY 2018/19 was 3.4 percent compared to the previously programmed level of 1.1 percent, mainly due to faster than envisaged implementation of rural electrification and domestically-financed development spending planned for FY 2019/20, expenditure overruns related to ensuring safety during elections and post-election protests, and disaster relief after Cyclone Idai. The current DSA continues to incorporate guarantees to SOEs of MK 17 billion (0.4 percent of GDP).

7. **As of July 2019, nonresidents held about MK 428 billion kwacha-denominated Treasury Notes** (28 percent of total or about 7.5 percent of projected 2019 GDP). Due to difficulties in monitoring such debt, the current DSA uses a currency-based definition for domestic/external debt, classifying the kwacha-denominated debt owed to nonresidents as domestic. The terms of these treasury bills/notes held by nonresidents and residents are the same.

Text Table 3. Composition of Gross Domestic Debt
(Percent of GDP)

	2012	2013	2014	2015	2016	2017	2018
Treasury bills at cost value	9.0	9.1	6.9	6.2	5.8	5.6	10.0
Treasury notes	2.7	1.8	5.4	9.6	12.9	15.1	15.8
Local registered stocks (LRS)	0.20	0.07	0.04	0.00	0.02	0.00	0.00
Ways and means advances from RBM	1.7	5.2	3.0	0.9	0.9	1.0	1.4
Promissory notes	0.1	3.6	3.7	4.2	3.7	2.3	0.8
Commercial bank advances	0.100	0.007	0.005	0.019	0.004	0.004	0.001
Gurantees to SOEs	n.a.	n.a.	n.a.	n.a.	n.a.	0.374	0.336
Total (including gurantees to SOEs)	**13.8**	**19.8**	**19.0**	**21.0**	**23.3**	**24.2**	**28.3**

Sources: Malawian authorities; IMF staff estimates.

BACKGROUND ON MACRO FORECASTS

8. **The medium- and long-term macroeconomic framework underlying this DSA is consistent with the scenario presented in the Staff Report for the Second and Third Reviews of the ECF arrangement** (Text Table 4 and Box 1). To compensate for expenditure overruns in FY 2018/19 and rein in the debt buildup, while accommodating for large post-flood recovery and reconstruction needs following Cyclone Idai, the current DSA maintains a domestic primary balance of 0.9 percent of GDP in FY 2019/20- a 2.1 percentage point improvement relative to FY 2018/19. The improvement is achieved mainly through higher tax revenues (e.g., improved revenue collection, impact of expeditiously implemented tax policies), reduced goods and services spending (including the unwinding of spending related to the holding of elections) while prioritizing post-cyclone rehabilitation and aligning capital spending with implementation capacity while prioritizing resilient reconstruction. Efforts to enhance SOE oversight and monitoring will also help generate SOEs' revenue generation capacity, ensure more efficient spending and public service delivery, and reduce potential transfers and eliminate bailouts. It is, however, a 0.4 percentage point loosening relative to the first review under the ECF arrangement, reflecting a 0.2 percent of GDP shortfall in domestic revenues and about 0.3 percent of GDP in increased spending (including 0.2 percent of GDP in for post cyclone rehabilitation,1.5 percent of GDP for reconstruction, and 0.5 percent of GDP for additional security partially offset by 1.9 percent of GDP in spending cuts or reprioritization).

Text Table 4. Macroeconomic Forecast and Assumptions
(Previous and Current DSAs)

Year	Real GDP growth (percent)		Primary deficit (percent of GDP)		Change in public debt (percent of GDP)		Current account (percent of GDP)		FDI (percent of GDP)	
	Previous	Current	Previous	Current	Previous	Current	Previous	Current	Previous	Current
2016	2.3	2.3	2.4	2.4	1.1	0.7	-13.0	-18.5	3.1	2.1
2017	4.0	4.0	3.6	2.1	2.1	2.0	-11.1	-22.3	2.1	2.0
2018	3.2	3.2	0.3	2.1	-0.3	2.5	-9.3	-20.6	2.0	2.3
2019	4.0	4.5	-1.0	2.2	-1.2	2.2	-7.6	-18.4	2.1	2.7
2020	5.0	5.1	-0.2	-0.6	-0.8	-1.8	-7.9	-17.2	2.3	3.0
2021	5.5	5.5	-0.3	-0.1	-1.4	-1.9	-7.7	-16.8	2.4	3.4
2022	6.0	6.0	-0.4	-0.3	-2.0	-4.2	-7.7	-15.7	2.5	3.7
2023	6.5	6.5	-0.6	-0.5	-2.2	-3.8	-7.6	-14.8	2.5	3.8
2024	6.5	6.5	-0.2	0.0	-2.0	-3.0	-7.9	-14.0	2.5	3.9
Avg 2024-38	6.5		0.1		-1.4		-7.1		3.1	
Avg 2025-39		5.6		0.3		-1.2		-13.4		4.3

Sources: Malawian authorities and IMF staff calculations and projections.

Box 1. Baseline Macroeconomic Assumptions

Real GDP growth is projected to rise to 4.5 percent this year, edge up to 5.1 percent next year, and gradually stabilize at 5.5 percent over the long term. These growth prospects are predicated on recent land reforms that will facilitate the use of irrigation infrastructure as well as further significant improvements in irrigation infrastructure and cropping techniques (including diversification away from maize production), enhanced electricity generation, better road and telecommunications networks, and greater access to finance for the private sector. It is also assumed that the quality and capacity of the government's public investment and debt management steadily improves, beginning with the reforms under the current ECF arrangement.

Inflation is projected to moderate below 9 percent by end-2019 (reflecting lower international fuel prices and improved inflation expectations) and continue on a gradual disinflation path to reach 5 percent by 2024. Tight fiscal and monetary policies are expected to continue anchoring inflation expectations.

The exchange rate is projected to remain constant in real effective terms.

Private sector credit growth is expected to continue picking up this year thanks to improved credit demand and gradually strengthen to about 16 percent over the medium term in line with stronger real growth.

The tax revenue to GDP ratio is anticipated to edge up by 0.6 percentage points during FY 2019/20 and gradually rise in the medium to long term, assuming the implementation of a mix of tax policy measures (streamlining various tax incentives, expanding the VAT base and improving SME taxation) and tax administration measures (rollout of the Integrated Tax Administration System and improving tax compliance).

External debt will be mainly contracted with multilateral creditors on concessional terms.

Box 1. Baseline Macroeconomic Assumptions (Concluded)

New disbursements on external loans. The disbursements for FY 2018/19 were broadly in line with expectations. Project capital spending covered by external loans is projected to remain at 3.9 percent of GDP in FY 2019/20 and rise slightly in subsequent fiscal years.

The current account deficit is projected to narrow only gradually, reflecting large and persistent import needs partly offsetting the impact of lower fuel import prices and steady growth of non-traditional exports.[1]

Gross official reserves (at $690 million as of end-July) are expected to increase to about $777 million at year-end, covering 2.9 months of next year's imports. Over the medium term, reserves are projected to gradually rise, covering 4.1 months of imports by 2024.

Net domestic financing. It is assumed that the government's net domestic financing moderates to 4.0 percent in FY 2019/20, following peaks above 6 percent in FY 2017/18 – 19/20. By FY 2023/24, net domestic financing is expected to be contained within 1 percent of GDP.

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[1] Fund staff has adopted the Malawi National Statistics Office's (NSO) trade data based on its improved reliability. Previously, the IMF's reported series was based on staff estimates. Consequently, the IMF's reported current account deficit widened for 2017 from 11.1 to 25.6 percent of GDP (reflecting export shares revised downward by 10.6 percent of GDP and import shares revised upward by 3.8 percent of GDP); and for 2018 from 9.3 to 20.6 percent of GDP (reflecting export shares revised downward by 11.5 percent of GDP and import shares revised up by 4 percent of GDP and services and unrequited transfers revised upward by 4.2 percent of GDP). Errors and omissions were adjusted by offsetting amounts, leaving the overall balance unchanged. Future TA missions on capital and financial accounts' statistics may result in reclassification of this offsetting adjustment.

9. In Malawi, one of the most important sources of financing the current account deficit has been capital account flows, consisting of project grants, dedicated grants, and off-budget support, which totaled around 6 percent of GDP over the past 5 years. These flows are expected to average at 5-6 percent of GDP over the medium term. This, combined with price and exchange rate factors, lead to large negative residuals going forward (Table 1).

10. Over the medium to long term, external financing in the form of project support loans is expected to gradually increase. There is an upside risk that the pace of this increase may accelerate if the economy's absorption capacity increases faster than expected. The grant element of project loans will remain relatively high over the forecast period, with no access to market financing. In line with a strengthening of Malawi's external position and ability to service external debt, project and dedicated grants are expected to decline to less than one percent over the long term, with no resumption of budget support operations assumed beyond the World Bank disbursement in FY 2019/20 for disaster relief and reconstruction.

11. The realism tools suggest that the baseline macroeconomic assumptions are reasonable (Figure 4).

- *The total fiscal adjustments* (reduction in primary deficit) are projected at 2.3 percent of GDP between 2018 and 2021. It lies in the middle of the top quartile based on the historical distribution of fiscal adjustment among low-income countries. Continued donor support would help stabilize the economy and boost private sector confidence, and reforms under the ECF arrangement would support an improved business environment and attract more FDI. Moreover, reforms to tax policy and administration would increase transparency of business processes, reduce corruption, strengthen compliance, and raise tax revenue. Higher tax revenue will in turn better support much needed high-quality social sector spending, helping achieve the SDGs.

- *The projected growth path* lies above what is implied by assuming only a fiscal impact from the last observed growth rate (which is 3.2 percent in 2018). However, as discussed in the staff report ¶18, the fiscal consolidation in FY 2019/20 is not expected to have a material impact on economic growth due to the composition of the consolidation measures. The baseline medium-term growth forecasts also build in significant improvements in the drivers of growth, which will help lift growth potential to a level significantly higher than its historical average. These improvements include more robust agricultural production which constitutes around 30 percent of GDP (owing to improvement in irrigation infrastructure, cropping techniques and diversification of producing crops), enhanced electricity generation (from new solar and hydro sources and a new interconnection with Zambia), better road and telecommunication networks, improved access to finance, and timely implementation of structural reforms that lower the cost of doing business, improve policies and governance, and reduce vulnerabilities to corruption, boosting private sector involvement and donor confidence. However, there are substantial downside risks. External risks include adverse weather, infestations, worsened terms of trade, while internal risks include intensified governance challenges and weaker-than-expected reform implementation.

- *Private investment rates* are expected to remain broadly unchanged starting in 2020, while *public investment rates* are trending up to 6.8 percent in 2024. For this year, domestically financed development spending has been higher than expected, raising public investment rates. The projected 5-year average *contribution of government capital to real GDP growth* is also expected to remain broadly unchanged from the last DSA, but higher than its historical average partly due to better absorption capacity to implement larger public investments.

COUNTRY CLASSIFICATION AND DETERMINATION OF SCENARIO STRESS TESTS

12. Malawi's debt carrying capacity is classified as remaining weak. The classification of the debt carrying capacity is guided by the composite indicator (CI) score. The CI, in turn, is determined by the World Bank's CPIA and other variables from the macroeconomic framework, such as real GDP growth, import coverage of reserves, remittances as percent of GDP, and growth of the world economy. Malawi's CI based on the current vintage (2018 CPIA and 2019 April WEO) is 2.72, above the threshold value of 2.69, however, considering the lower CI of 2.64 based on the previous vintage, the debt carrying capacity remains "weak".[5] The four external debt burden thresholds and the total public debt benchmark are determined by this classification of the debt carrying capacity (Text Table 5).

Text Table 5. Composite Indicator and Threshold Tables

APPLICABLE	
EXTERNAL debt burden thresholds	
PV of debt in % of	
Exports	140
GDP	30
Debt service in % of	
Exports	10
Revenue	14

APPLICABLE	
TOTAL public debt benchmark	
PV of total public debt in percent of GDP	35

New framework				
		Cut-off values		
Weak	CI ≤	2.69		
Medium	2.69	≤ CI ≤		3.05
Strong	CI >	3.05		

APPLICABLE	
EXTERNAL debt burden thresholds	
PV of debt in % of	
Exports	140
GDP	30
Debt service in % of	
Exports	10
Revenue	14

APPLICABLE	
TOTAL public debt benchmark	
PV of total public debt in percent of GDP	35

New framework				
		Cut-off values		
Weak	CI ≤	2.69		
Medium	2.69	< CI ≤		3.05
Strong	CI >	3.05		

[5] An upgrade of the debt carrying capacity from "weak" to "moderate" requires the CI to be above the threshold of 2.69 for at least two consecutive vintages.

13. There are two tailored stress tests:

- One tailored stress test combines contingent liabilities of a one-time debt shock (equivalent to 9 percent of GDP) in 2020, to capture the potential impact of limited public debt coverage (2 percent of GDP, instead of the default level of zero) and contingent liabilities from SOEs (equal to the default level of 2 percent of GDP—the medium SOE external liability identified by a Fund staff survey in 2016) and the need for bank recapitalization (equal to the default level of 5 percent of GDP—the average cost to the government of a financial crisis in a low-income country since 1980). Malawi's experience in recent years, such as the recapitalization of the RBM due to exchange rate devaluation and the Agricultural Development and Marketing Corporation (ADMARC) bailout, has illustrated that the materialization of contingent liabilities can contribute to an unexpected increase in the debt-to-GDP ratio.

- The second tailored stress test is a natural disaster induced one-off shock (of 10 percent of GDP) to external PPG debt-to-GDP ratio in 2020. While Malawi is not on the list of Fund's natural disaster-prone countries,[6] judgment was applied as the country is historically vulnerable to weather-related shocks—Malawi recently suffered from three consecutive weather shocks over two years (drought, floods, and a cyclone)—two of which resulted in a sharp increase in food insecurity, triggering a humanitarian crisis. Weather-related natural disasters are assessed to be the main driver of the unexpected changes in debt (Figure 3).

EXTERNAL DSA

14. Under the baseline scenario, all debt burden indicators remain below their indicative thresholds. The PPG external debt is projected to peak at 29.8 percent of GDP in 2019, with a PV of debt-to-GDP ratio peaking at 19 percent in 2019. The PV of PPG external debt is expected to decline gradually to around 16 percent over the long term. The debt service-to-exports ratio is expected to average around 7 percent in the next six years and gradually decline to about 4 percent over the longer term.

15. Under the historical scenario, external debt is projected to increase. This scenario envisages real GDP growth, the primary balance-to-GDP ratio, the GDP deflator, the non-interest current account, and net FDI flows permanently remain at their historical levels. However, as noted in the previous DSA, the likelihood is low for Malawi to repeat its history by running high and protracted current account deficits in the medium to long term. FDI inflows are expected to pick up steadily as macroeconomic stability is entrenched, and the business environment improves.

[6] This list is based on the IMF Policy Paper "Small states' resilience to natural disaster and climate change—role for the IMF" (December 2016).

16. Under the standard and tailored stress test scenarios, all but two debt burden indicators remain below their indicative thresholds. An export shock (nominal export growth set to its historical average minus one standard deviation) in 2020 and 2021, equivalent to a decline of 8 percent each year, is the most extreme shock for PV debt to GDP, PV debt and debt service to exports ratios. Under this shock both PV debt-to-exports and debt service-to-exports ratios would increase above their indicative thresholds over the medium term (Figure 1, Table 1, and Table 3).

OVERALL RISK OF PUBLIC DEBT DISTRESS

17. Total public debt is projected to rise to 61.8 percent this year, from 59.5 percent in 2018. This increase reflects a 1-percentage-point decrease of PPG external debt and a 3.7 percentage point increase of public domestic debt. Public domestic debt is expected to peak at 32 percent this year, before gradually declining to 21.3 percent by 2024, supported by continuous improvements in primary balances (Figure 3). As the RBM has stopped financing the central government deficit (RBM financing is limited to intra-year liquidity management), all net domestic financing will be met by commercial banks and non-banks. Guided by a multi-year strategy, the RBM will further unwind its holdings of government securities to be absorbed by private sector investors as the domestic debt market continues to develop.

18. Under the baseline, the PV of the total debt-to-GDP ratio is projected to remain continuously above the benchmark throughout 2026. This path is broadly unchanged from that envisaged in the last DSA—where the PV of total debt was expected to decline below 35 percent of GDP by 2026. The larger than previously envisioned domestic primary deficit for FY 2018/19 (-1.2 percent of GDP) is more than offset by corrective measures that are anticipated to produce domestic primary surpluses in the following years (0.9 percent of GDP in FY20/21 and around 2 percent of GDP in each of the next three fiscal years).

19. Under all the standard and tailored stress test scenarios, the PV of the total debt-to-GDP ratio remains above the benchmark through 2023, sometimes even well above it. The natural disaster shock constitutes the most extreme shock which elevates the PV of the total debt-to-GDP ratio to 59 percent and above 40 percent even in 2029. The real GDP growth shock is the most extreme shock for the PV of debt-to-revenue ratio and is expected to raise PV of debt by nearly 256 percent of revenue in the peak year of 2021 (Figure 2, Table 2, and Table 4). The growth shock is the most extreme shock for the debt service-to-revenue ratio: lower growth of 2.5 percent for 2020 and 2021 would raise the debt service to nearly 90 percent in the medium term.

RISK RATING AND VULNERABILITIES

20. Malawi is assessed to have a moderate risk of external debt distress with some space to absorb shocks, but a high overall risk of debt distress due to high public domestic debt (Figure 5). The main risks to the ratings assessment arise from weaker-than-expected policy implementation, limited data coverage, macroeconomic uncertainty (especially from weather shocks), tighter global financial conditions, and a weak global economy which could depress export growth. However, factors such as an adoption of the MTDS (Medium-Term Debt Management Strategy), prospects of stable demand for T-bills/T-notes, and putting in place a domestic revenue mobilization strategy, help mitigate risks keeping the debt outlook sustainable. Recently, the Malawian government developed and published the MTDS with support from WB. It includes cost and risk analysis of alternative borrowing strategies as a guidance to construct the optimal portfolio. Authorities also release a government issuance calendar at the beginning of each financial year to inform market participants and stakeholders. Second, with limited alternative investment opportunities especially with similar liquidity, demand for government bonds is expected to be stable. For many large banks, around 40 percent of their balance sheet is composed of T-bills/T-notes. In addition, the authorities plan to put in place a domestic revenue mobilization strategy that will be incorporated into the FY 2020/21 budget and to undertake a comprehensive review of tax system which are expected to significantly strengthen revenue going forward. All these factors underpin the argument that while the risk of overall debt distress is high, the outlook remains sustainable.

21. Absorption of the shocks that Malawi faces while maintaining macroeconomic stability and debt sustainability will require careful macroeconomic management and difficult policy choices.

- *Increasing fiscal restraint and budget credibility*. Malawi should increase fiscal restraint and budget credibility to contain fiscal deficits and reduce domestic borrowing at high interest rates. Budget credibility requires realistic revenue projections and prioritization of expenditures within the available resource envelope. Moreover, strengthening expenditure prioritization in line with development priorities will be key to achieving higher, more diversified, and resilient growth.

- *Prudent project selection*. Given limited headroom for further borrowing, close attention and prudence should be applied to project identification and the financing terms of any proposed infrastructure investments. The government should focus on projects with high returns that are closely aligned to development priorities and rely on concessional loans that contain borrowing costs. Reining in domestic borrowing, which currently occurs at high interest rates, would also serve this purpose and avoid crowding out of private sector credit expansion.

- *Broadening the revenue base and strengthening public financial management*. Given Malawi's high aid dependency, risks of negative financing shocks in the form of delayed donor support, or lower-than-expected revenue collection remain. Such an environment requires further efforts to maximize the impact of finite domestic resources, including broadening the tax base (e.g., currently under 50 percent of the TINS issues are active tax payers) and strengthening public procurement and public financial management.

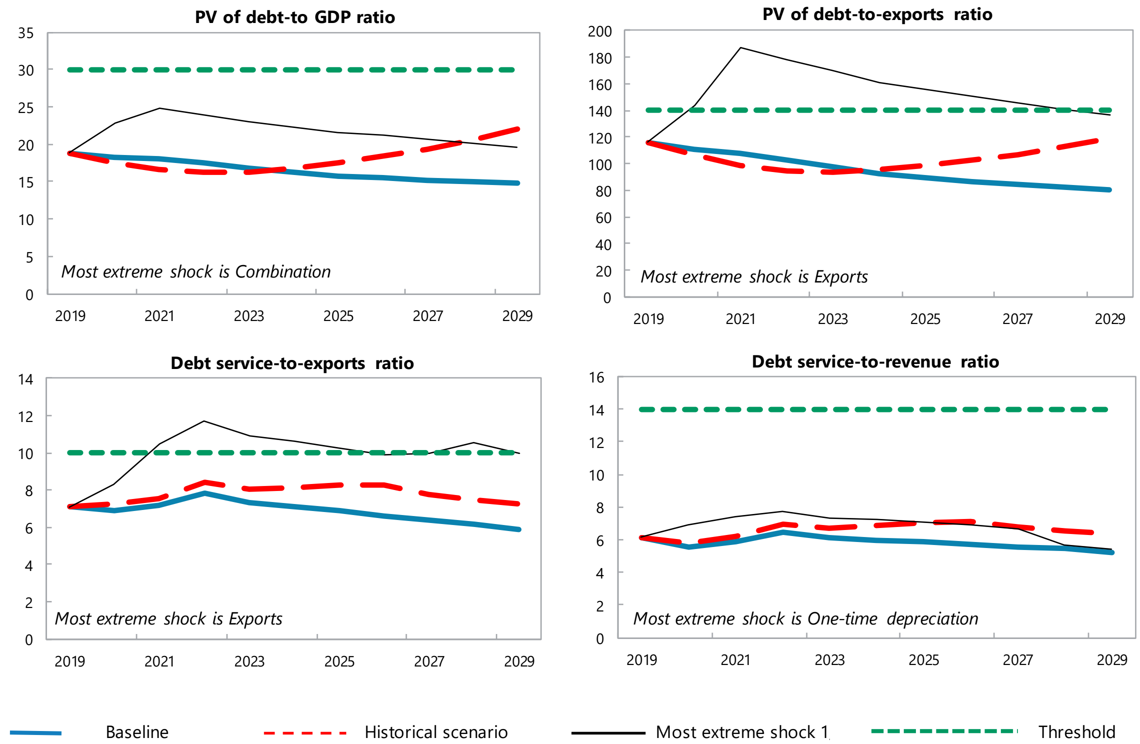
- *Reducing the sovereign-bank nexus*. There is a significant nexus between sovereign debt and the banking system since the RBM and commercial banks have been the main sources of domestic financing for the central government. Such large exposure of bank balance sheets to the sovereign risks a negative feedback loop if fiscal challenges emerge or liquidity conditions tighten.

- *Closely monitoring contingent liabilities.* Contingent liabilities have in general been one of the largest sources of fiscal risk. Malawi's experience in recent years, such as recapitalization of the RBM due to exchange rate devaluation and the ADMARC bailout, has illustrated that the materialization of contingent liabilities can contribute to unexpected increases in the debt-to-GDP ratio, crowding out private credit and jeopardizing debt sustainability. Efforts should be stepped up to estimate, disclose, manage, and contain contingent liabilities, especially those in the financial sector and state-owned enterprises.

AUTHORITIES' VIEWS

22. The authorities agreed with the DSA assessment of the risk of external debt distress remaining "moderate" and the overall risk of debt distress as high. They acknowledged the significant vulnerabilities from growing public domestic debt. Therefore, while the country has a strong need for critical infrastructure projects, the authorities are committed to ensuring that financing of the projects preserves debt sustainability.

Figure 1. Malawi: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2019–2029



Customization of Default Settings	Size	Interactions
Tailored Tests		
Combined CLs	Yes	
Natural Disasters	No	No
Commodity Prices [2/]	n.a.	n.a.
Market Financing	n.a.	n.a.

Note: "Yes" indicates any change to the size or interactions of the default settings for the stress tests. "n.a." indicates that the stress test does not apply.

Borrowing Assumptions for Stress Tests*	Default	User defined
Shares of marginal debt		
External PPG MLT debt	100%	
Terms of marginal debt		
Avg. nominal interest rate on new borrowing in USD	1.0%	1.0%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	33	33
Avg. grace period	6	6

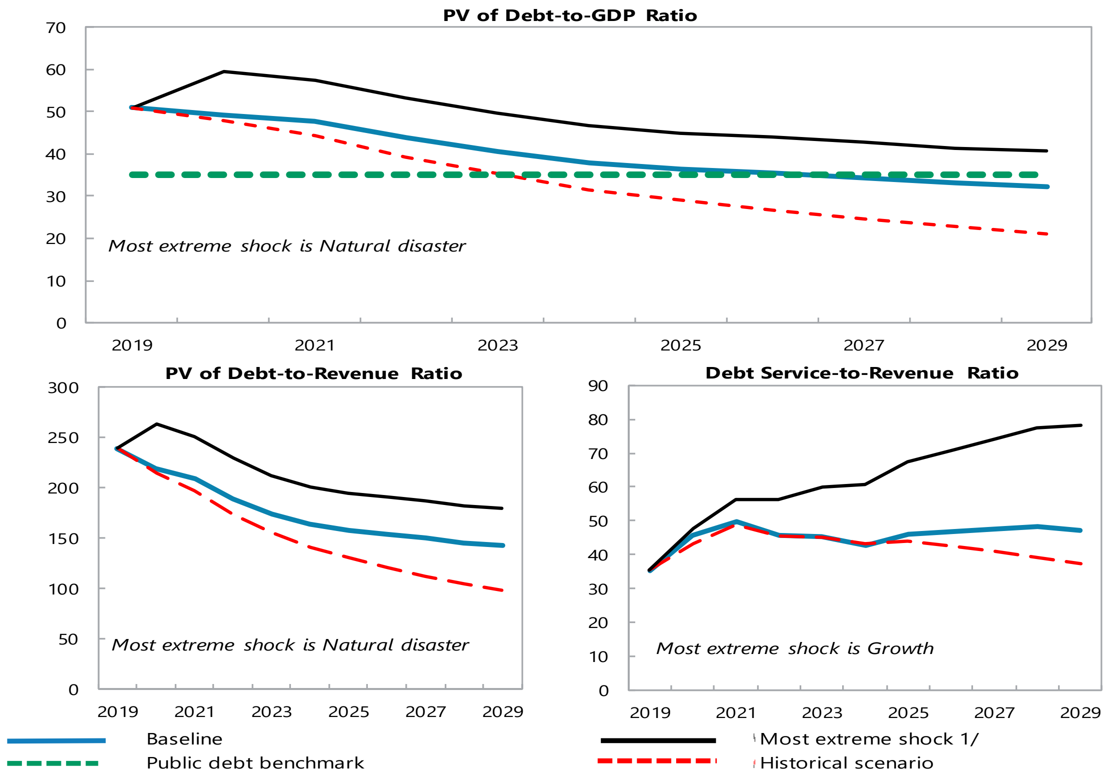
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2029. Stress tests with one-off breaches are also presented (if any), while these one-off breaches are deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

2/ The magnitude of shocks used for the commodity price shock stress test are based on the commodity prices outlook prepared by the IMF

Figure 2. Malawi: Indicators of Public Debt Under Alternative Scenarios, 2019–2029



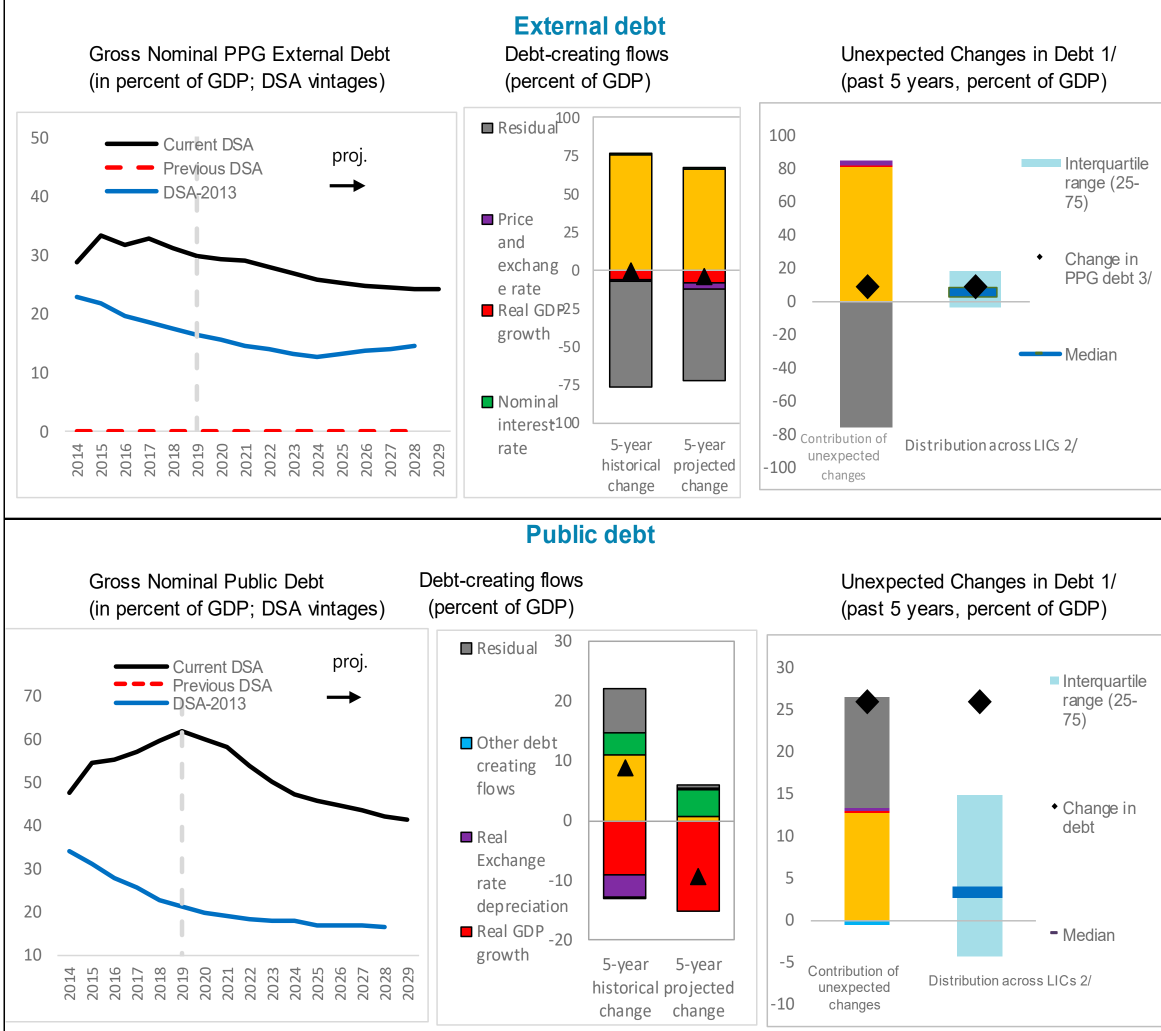
Borrowing Assumptions for Stress Tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	20%	20%
Domestic medium and long-term	24%	24%
Domestic short-term	56%	56%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	1.0%	1.0%
Avg. maturity (incl. grace period)	33	33
Avg. grace period	6	6
Domestic MLT debt		
Avg. real interest rate on new borrowing	7.6%	7.6%
Avg. maturity (incl. grace period)	2	2
Avg. grace period	1	1
Domestic short-term debt		
Avg. real interest rate	6%	6.0%

* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2029. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

Figure 3. Malawi: Divers of Debt Dynamics—Baseline Scenario



1/ Difference between anticipated and actual contributions on debt ratios.

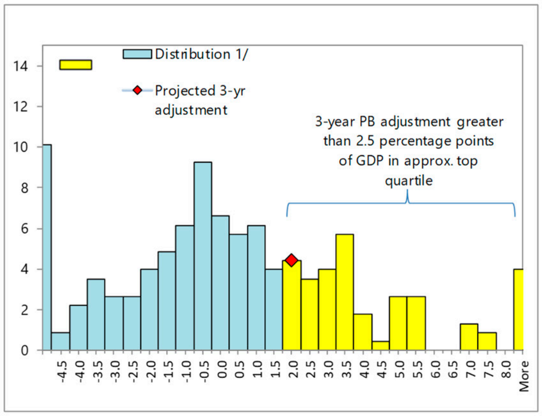
2/ Distribution across LICs for which LIC DSAs were produced.

3/ Given the relatively low private external debt for average low-income countries, a ppt change in PPG external debt should be largely explained by the drivers of the external debt dynamics equation.

Figure 4. Malawi: Realism Tools

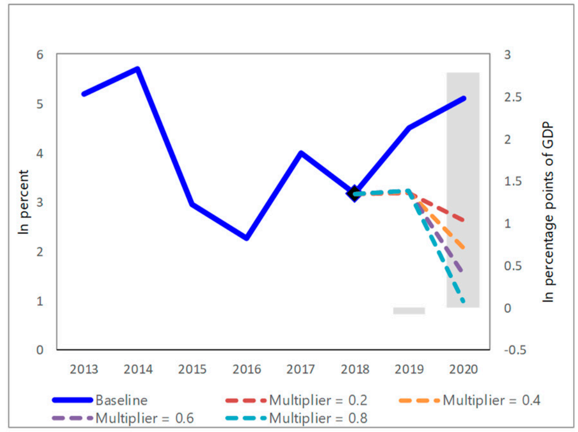
3-Year Adjustment in Primary Balance

(Percentage points of GDP)



1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

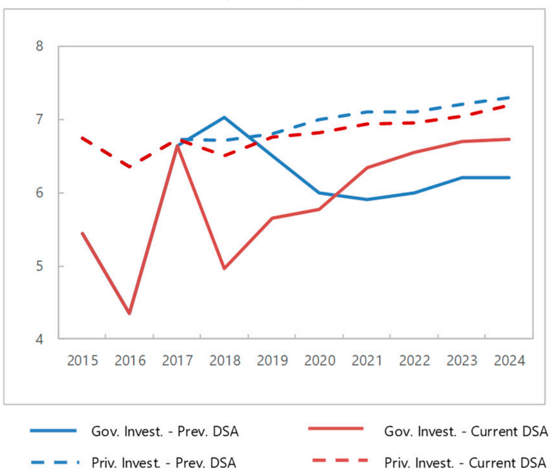
Fiscal Adjustment and Possible Growth Paths 1/



1/ Bars refer to annual projected fiscal adjustment (right-hand side scale) and lines show possible real GDP growth paths under different fiscal multipliers (left-hand side scale).

Public and Private Investment Rates

(% of GDP)



Contribution to Real GDP growth

(percent, 5-year average)

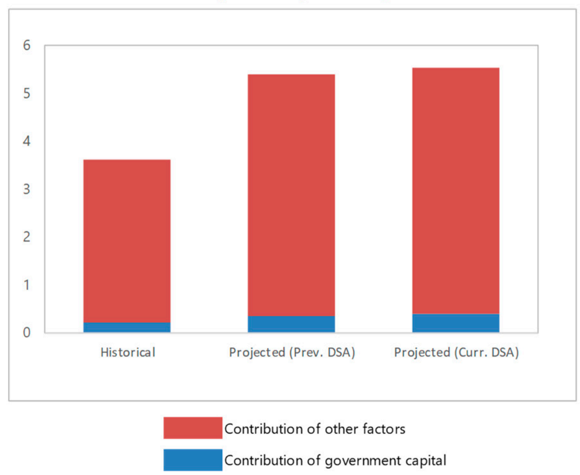


Figure 5. Malawi: Qualification of the Moderate Category, 2019-2029[1/]

Sources: Country authorities; and staff estimates and projections.

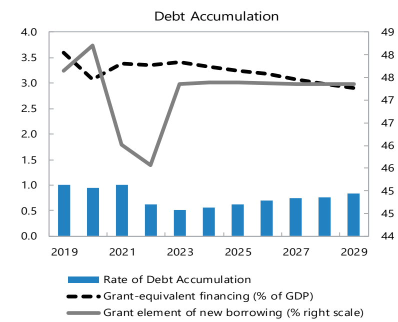
1/ For the PV debt/GDP and PV debt/exports thresholds, x is 20 percent and y is 40 percent. For debt service/Exports and debt service/revenue thresholds, x is 12 percent and y is 35 percent.

Table 1. Malawi: External Debt Sustainability Framework, Baseline Scenario, 2016–2039

(in percent of GDP, unless otherwise indicated)

	Actual 2016	2017	2018	Projections 2019	2020	2021	2022	2023	2024	2029	2039	Average 8/ Historical	Projections
External debt (nominal) 1/	35.9	36.5	34.7	33.0	32.5	32.0	30.9	29.5	28.4	26.3	27.6	28.8	29.2
of which: public and publicly guaranteed (PPG)	31.8	32.8	31.2	29.8	29.5	29.1	28.0	26.8	25.8	24.2	26.1	25.3	26.6
Change in external debt	-1.0	0.7	-1.9	-1.7	-0.5	-0.4	-1.2	-1.3	-1.1	-0.2	0.0		
Identified net debt-creating flows	21.5	15.9	15.0	14.6	13.0	12.1	10.5	9.3	8.3	8.2	6.5	11.0	10.0
Non-interest current account deficit	18.1	22.0	20.2	18.1	17.0	16.6	15.4	14.6	13.7	13.5	12.1	13.0	14.9
Deficit in balance of goods and services	22.9	27.3	26.3	24.5	23.0	22.8	21.5	20.6	19.6	19.1	17.1	20.4	20.8
Exports	21.5	16.9	16.1	16.2	16.5	16.9	17.2	17.4	17.6	18.5	20.1		
Imports	44.4	44.2	42.4	40.7	39.5	39.7	38.7	37.9	37.2	37.6	37.1		
Net current transfers (negative = inflow)	-4.9	-7.5	-8.1	-8.5	-8.1	-8.2	-8.1	-8.0	-7.8	-7.5	-6.5	-6.2	-7.9
of which: official	0.0	-0.2	0.0	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Other current account flows (negative = net inflow)	0.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.6	-1.2	2.0
Net FDI (negative = inflow)	-3.1	-2.1	-2.0	-2.3	-2.7	-3.0	-3.4	-3.7	-3.8	-4.2	-4.5	-1.7	-3.6
Endogenous debt dynamics 2/	6.4	-4.0	-3.2	-1.1	-1.3	-1.4	-1.6	-1.6	-1.5	-1.1	-1.1		
Contribution from nominal interest rate	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3		
Contribution from real GDP growth	-1.0	-1.3	-1.0	-1.4	-1.6	-1.7	-1.8	-1.9	-1.8	-1.4	-1.4		
Contribution from price and exchange rate changes	7.1	-3.0	-2.5	...	...	...	...	...	...	...	...		
Residual 3/	-22.5	-15.3	-16.9	-16.3	-13.5	-12.5	-11.7	-10.7	-9.5	-8.4	-6.4	-9.2	-10.7
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		
Sustainability indicators													
PV of PPG external debt-to-GDP ratio	...	...	19.9	18.9	18.2	18.2	17.6	16.9	16.3	14.8	15.9		
PV of PPG external debt-to-exports ratio	...	...	123.3	116.3	110.8	107.7	102.5	97.2	92.3	80.4	79.4		
PPG debt service-to-exports ratio	17.4	9.3	6.4	7.1	6.9	7.2	7.8	7.3	7.1	5.8	4.4		
PPG debt service-to-revenue ratio	20.2	8.0	5.1	6.1	5.5	5.9	6.5	6.1	6.0	5.2	5.4		
Gross external financing need (Billion of U.S. dollars)	1.0	1.3	1.4	1.3	1.3	1.3	1.3	1.3	1.2	1.6	2.5		
Key macroeconomic assumptions													
Real GDP growth (in percent)	2.3	4.0	3.2	4.5	5.1	5.5	6.0	6.5	6.5	5.5	5.5	4.5	5.7
GDP deflator in US dollar terms (change in percent)	-16.1	9.1	7.4	5.9	3.3	0.5	0.7	0.8	0.7	1.1	1.5	-1.0	1.5
Effective interest rate (percent) 4/	0.7	0.9	0.9	0.8	0.8	0.8	0.8	0.9	0.9	1.0	1.0	0.8	0.9
Growth of exports of G&S (US dollar terms, in percent)	-7.1	-10.7	5.6	11.4	10.2	8.6	8.7	8.6	8.7	7.6	8.5	3.8	8.6
Growth of imports of G&S (US dollar terms, in percent)	-4.3	13.0	6.2	6.2	5.2	6.6	4.1	5.2	5.1	6.8	7.6	3.8	6.1
Grant element of new public sector borrowing (in percent)	...	...	...	47.7	48.2	46.0	45.6	47.4	47.4	47.4	47.3	...	47.2
Government revenues (excluding grants, in percent of GDP)	18.5	19.5	20.2	18.8	20.5	20.5	20.7	20.7	20.8	20.8	16.5	18.3	20.5
Aid flows (in Billion of US dollars) 5/	0.3	0.4	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.7		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	3.6	3.1	3.4	3.4	3.4	3.3	2.9	1.8	...	3.2
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	75.6	72.9	72.1	75.8	78.6	77.1	71.4	59.2	...	74.4
Nominal GDP (Billion of US dollars)	5.5	6.2	6.9	7.6	8.3	8.8	9.4	10.1	10.8	14.9	29.4		
Nominal dollar GDP growth	-14.2	13.4	10.8	10.6	8.6	6.0	6.7	7.4	7.2	6.7	7.0	3.6	7.3
Memorandum items:													
PV of external debt 7/	...	...	23.3	22.1	21.3	21.1	20.4	19.6	18.8	17.0	17.4		
In percent of exports	...	...	144.6	135.9	129.1	125.1	118.9	112.7	107.0	92.0	86.5		
Total external debt service-to-exports ratio	17.4	9.3	8.8	9.2	8.8	9.0	9.5	8.8	8.5	6.8	4.9		
PV of PPG external debt (in Billion of US dollars)			1.4	1.4	1.5	1.6	1.7	1.7	1.8	2.2	4.7		
(PVt-PVt-1)/GDPt-1 (in percent)				1.0	0.9	1.0	0.6	0.5	0.6	0.8	1.2		
Non-interest current account deficit that stabilizes debt ratio	19.2	21.3	22.1	19.8	17.5	17.0	16.6	15.9	14.8	13.8	12.1		

Definition of external/domestic debt	Currency-based
Is there a material difference between the two criteria?	Yes



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/ Current-year interest payments divided by previous period debt stock.
5/ Defined as grants, concessional loans, and debt relief.
6/ 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).
7/ Assumes that PV of private sector debt is equivalent to its face value.
8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

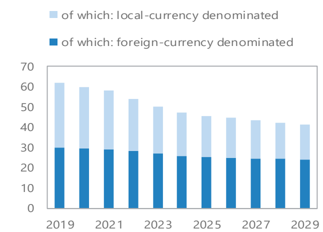
Table 2. Malawi: Public Sector Debt Sustainability Framework, Baseline Scenario, 2016–2039

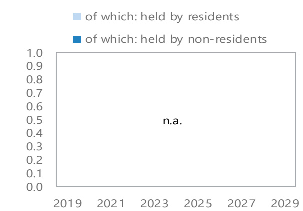
(in percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 6/	
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2029	2039	Historical	Projections
Public sector debt 1/	55.1	57.1	59.5	61.8	60.0	58.1	53.9	50.1	47.2	41.4	29.2	45.3	49.8
of which: external debt	31.8	32.8	31.2	29.8	29.5	29.1	28.0	26.8	25.8	24.2	26.1	25.3	26.6
Change in public sector debt	0.7	2.0	2.5	2.2	-1.8	-1.9	-4.2	-3.8	-3.0	-0.7	-0.6		
Identified debt-creating flows	-1.2	0.3	0.4	2.0	-2.1	-2.3	-3.9	-3.4	-2.6	-0.5	-0.7	0.5	-1.5
Primary deficit	2.4	3.5	2.1	2.2	-0.6	-0.1	-0.3	-0.5	0.0	0.8	0.8	1.5	0.2
Revenue and grants	21.1	22.7	21.5	21.3	22.5	22.8	23.2	23.3	23.2	22.6	17.2	22.9	22.8
of which: grants	2.6	3.3	1.3	2.5	2.0	2.3	2.5	2.6	2.4	1.9	0.7		
Primary (noninterest) expenditure	23.5	26.3	23.6	23.5	21.9	22.6	22.9	22.8	23.2	23.4	18.0	24.4	23.0
Automatic debt dynamics	-3.3	-3.2	-1.7	-0.2	-1.5	-2.2	-3.7	-2.9	-2.7	-1.3	-1.5		
Contribution from interest rate/growth differential	-0.8	-0.8	-0.2	0.6	-1.9	-2.5	-3.9	-3.2	-2.9	-1.5	-1.6		
of which: contribution from average real interest rate	0.4	1.3	1.6	3.1	1.1	0.7	-0.6	0.1	0.1	0.7	-0.1		
of which: contribution from real GDP growth	-1.2	-2.1	-1.8	-2.6	-3.0	-3.1	-3.3	-3.3	-3.1	-2.2	-1.6		
Contribution from real exchange rate depreciation	-2.6	-2.4	-1.5	...	...	...	...	...	...	...	...		
Other identified debt-creating flows	-0.3	0.0	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)	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Recognition of contingent liabilities (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		
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 debt creating or reducing flow (please specify)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual	1.9	1.7	2.0	-0.5	0.7	0.7	0.0	-0.1	-0.1	0.0	0.2	2.2	0.1
Sustainability indicators													
PV of public debt-to-GDP ratio 2/	...	...	48.2	51.0	49.4	47.6	43.8	40.5	37.9	32.3	19.4		
PV of public debt-to-revenue and grants ratio	...	...	223.9	239.3	219.5	209.2	189.2	173.8	163.4	142.7	112.8		
Debt service-to-revenue and grants ratio 3/	36.0	35.6	24.7	35.4	45.8	49.8	45.8	45.3	42.7	47.2	16.5		
Gross financing need 4/	5.7	7.6	7.4	9.7	9.7	11.2	10.3	10.0	9.9	11.4	3.6		
Key macroeconomic and fiscal assumptions													
Real GDP growth (in percent)	2.3	4.0	3.2	4.5	5.1	5.5	6.0	6.5	6.5	5.5	5.5	4.5	5.7
Average nominal interest rate on external debt (in percent)	1.1	1.0	1.1	0.9	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.0	1.0
Average real interest rate on domestic debt (in percent)	2.4	6.6	8.3	13.1	4.8	3.5	-1.1	1.6	1.7	5.3	4.5	2.4	4.9
Real exchange rate depreciation (in percent, + indicates depreciation)	-7.9	-8.0	-4.8	...	...	...	...	...	...	...	...	5.5	...
Inflation rate (GDP deflator, in percent)	20.5	10.9	7.7	8.0	7.9	6.7	5.8	5.1	4.4	5.1	6.5	16.0	5.6
Growth of real primary spending (deflated by GDP deflator, in percent)	-1.5	16.2	-7.1	3.9	-2.1	8.9	7.3	6.1	8.5	7.8	-2.3	3.6	5.7
Primary deficit that stabilizes the debt-to-GDP ratio 5/	1.7	1.5	-0.3	0.0	1.2	1.8	3.9	3.3	3.0	1.5	1.5	1.0	1.9
PV of contingent liabilities (not included in public sector debt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Definition of external/domestic debt	**Currency-based**
Is there a material difference between the two criteria?	**Yes**

Public sector debt 1/





Sources: Country authorities; and staff estimates and projections.
1/ Coverage of debt: The central government, central bank, government-guaranteed debt. Definition of external debt is Currency-based.
2/ The underlying PV of external debt-to-GDP ratio under the public DSA differs from the external DSA with the size of differences depending on exchange rates projections.
3/ Debt service is defined as the sum of interest and amortization of medium and long-term, and short-term debt.
4/ 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 and other debt creating/reducing flows.
5/ Defined as a primary deficit minus a change in the public debt-to-GDP ratio ((-): a primary surplus), which would stabilizes the debt ratio only in the year in question.
6/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

Table 3. Malawi: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2019–2029

	Projections 1/										
	2019	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
					PV of debt-to GDP ratio						
Baseline	18.9	18.2	18.2	17.6	16.9	16.3	15.8	15.5	15.2	15.0	14.8
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	18.9	17.5	16.7	16.2	16.2	16.8	17.5	18.4	19.4	20.6	22.0
B. Bound Tests											
B1. Real GDP growth	18.9	19.0	19.9	19.2	18.4	17.8	17.2	16.9	16.6	16.4	16.2
B2. Primary balance	18.9	18.7	19.2	19.0	18.6	18.3	18.0	17.9	17.8	17.6	17.5
B3. Exports	18.9	19.9	22.7	22.0	21.1	20.4	19.8	19.4	19.0	18.5	18.1
B4. Other flows 3/	18.9	21.0	23.9	23.2	22.3	21.5	20.9	20.5	20.0	19.4	18.9
B5. One-time 30 percent nominal depreciation	18.9	22.9	18.7	18.1	17.3	16.6	16.1	15.8	15.5	15.5	15.6
B6. Combination of B1-B5	18.9	22.8	24.8	24.0	23.1	22.3	21.7	21.2	20.7	20.1	19.7
C. Tailored Tests											
C1. Combined contingent liabilities	18.9	19.2	19.7	19.6	19.2	18.9	18.7	18.5	18.4	18.3	18.3
C2. Natural disaster	18.9	19.6	20.2	20.2	19.9	19.7	19.6	19.6	19.6	19.6	19.7
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	30	30	30	30	30	30	30	30	30	30	30
					PV of debt-to-exports ratio						
Baseline	116.3	110.8	107.7	102.5	97.2	92.3	89.0	86.2	83.9	81.9	80.4
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	116.3	106.4	98.8	94.2	93.3	95.5	98.8	102.3	107.1	112.7	119.2
B. Bound Tests											
B1. Real GDP growth	116.3	110.8	107.7	102.5	97.2	92.3	89.0	86.2	83.9	81.9	80.4
B2. Primary balance	116.3	113.3	113.7	110.8	107.3	103.9	101.7	99.8	98.0	96.2	94.8
B3. Exports	116.3	**143.6**	**187.2**	**178.3**	**169.4**	**161.2**	**155.5**	**150.6**	**145.8**	**140.8**	136.6
B4. Other flows 3/	116.3	127.5	**141.6**	135.0	128.3	122.1	117.8	114.1	110.2	106.0	102.5
B5. One-time 30 percent nominal depreciation	116.3	110.8	88.1	83.7	79.2	75.1	72.3	70.2	68.3	67.6	67.3
B6. Combination of B1-B5	116.3	**147.4**	134.5	**160.4**	**152.4**	**145.0**	139.9	135.5	130.6	126.0	122.2
C. Tailored Tests											
C1. Combined contingent liabilities	116.3	116.6	116.6	114.0	110.7	107.3	105.2	103.3	101.6	100.1	98.9
C2. Natural disaster	116.3	121.1	121.7	119.8	116.9	114.1	112.5	111.2	110.1	109.2	108.5
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	140	140	140	140	140	140	140	140	140	140	140
					Debt service-to-exports ratio						
Baseline	7.1	6.9	7.2	7.8	7.3	7.1	6.9	6.6	6.4	6.2	5.8
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	7.1	7.2	7.5	8.4	8.0	8.1	8.2	8.2	7.7	7.4	7.2
B. Bound Tests											
B1. Real GDP growth	7.1	6.9	7.2	7.8	7.3	7.1	6.9	6.6	6.4	6.2	5.8
B2. Primary balance	7.1	6.9	7.2	7.9	7.4	7.3	7.1	6.8	6.7	6.6	6.4
B3. Exports	7.1	8.3	**10.4**	**11.7**	**10.9**	**10.6**	**10.3**	9.9	**10.0**	**10.6**	9.9
B4. Other flows 3/	7.1	6.9	7.5	8.4	7.9	7.6	7.4	7.1	7.5	7.9	7.5
B5. One-time 30 percent nominal depreciation	7.1	6.9	7.2	7.5	7.0	6.8	6.6	6.4	6.1	5.1	4.9
B6. Combination of B1-B5	7.1	7.8	9.5	**10.4**	9.7	9.4	9.1	8.7	9.4	9.4	8.9
C. Tailored Tests											
C1. Combined contingent liabilities	7.1	6.9	7.3	8.0	7.5	7.3	7.2	6.9	6.7	6.5	6.1
C2. Natural disaster	7.1	7.1	7.6	8.3	7.8	7.6	7.4	7.2	7.0	6.8	6.4
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	10	10	10	10	10	10	10	10	10	10	10
					Debt service-to-revenue ratio						
Baseline	6.1	5.5	5.9	6.5	6.1	6.0	5.9	5.7	5.6	5.4	5.2
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	6.1	5.8	6.2	6.9	6.7	6.9	7.0	7.1	6.8	6.6	6.4
B. Bound Tests											
B1. Real GDP growth	6.1	5.8	6.5	7.1	6.7	6.6	6.4	6.3	6.1	5.9	5.7
B2. Primary balance	6.1	5.5	6.0	6.6	6.2	6.2	6.1	5.9	5.8	5.8	5.7
B3. Exports	6.1	5.6	6.2	7.0	6.6	6.5	6.3	6.1	6.3	6.7	6.3
B4. Other flows 3/	6.1	5.5	6.2	7.0	6.6	6.5	6.3	6.1	6.5	7.0	6.6
B5. One-time 30 percent nominal depreciation	6.1	7.0	7.4	7.8	7.3	7.2	7.1	6.9	6.7	5.7	5.4
B6. Combination of B1-B5	6.1	5.9	6.8	7.5	7.1	6.9	6.8	6.6	7.2	7.3	6.9
C. Tailored Tests											
C1. Combined contingent liabilities	6.1	5.5	6.0	6.6	6.3	6.2	6.1	6.0	5.8	5.7	5.4
C2. Natural disaster	6.1	5.5	6.0	6.6	6.3	6.2	6.2	6.0	5.9	5.8	5.5
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	14	14	14	14	14	14	14	14	14	14	14

Sources: Country authorities; and staff estimates and projections.
1/ A bold value indicates a breach of the threshold.
2/ Variables include real GDP growth, GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.
3/ Includes official and private transfers and FDI.

Table 4. Malawi: Sensitivity Analysis for Key Indicators of Public Debt, 2019–2029

	Projections 1/										
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
PV of Debt-to-GDP Ratio											
Baseline	**51.0**	**49.4**	**47.6**	**43.8**	**40.5**	**37.9**	**36.5**	**35.5**	34.4	33.1	32.3
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2(	**51**	**48**	**44**	**39**	**35**	32	29	27	25	23	21
B. Bound Tests											
B1. Real GDP growth	**51**	**52**	**54**	**52**	**50**	**48**	**48**	**48**	**48**	**48**	**48**
B2. Primary balance	**51**	**53**	**54**	**50**	**46**	**43**	**41**	**40**	**39**	**37**	**37**
B3. Exports	**51**	**51**	**52**	**48**	**44**	**42**	**40**	**39**	**38**	**36**	**35**
B4. Other flows 3/	**51**	**52**	**53**	**50**	**46**	**43**	**42**	**41**	**39**	**38**	**36**
B5. One-time 30 percent nominal depreciation	**51**	**50**	**47**	**43**	**39**	**35**	33	31	29	27	25
B6. Combination of B1-B5	**51**	**51**	**50**	**43**	**40**	**37**	**36**	35	34	33	32
C. Tailored Tests											
C1. Combined contingent liabilities	**51**	**57**	**55**	**51**	**47**	**44**	**42**	**41**	**40**	**38**	**37**
C2. Natural disaster	**51**	**59**	**57**	**53**	**50**	**47**	**45**	**44**	**43**	**41**	**41**
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Public debt benchmark	35	35	35	35	35	35	35	35	35	35	35
PV of Debt-to-Revenue Ratio											
Baseline	239.3	219.5	209.2	189.2	173.8	163.4	158.1	154.3	150.7	145.4	142.7
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2(	239	215	197	173	156	141	130	121	113	105	98
B. Bound Tests											
B1. Real GDP growth	239	231	237	221	211	205	206	207	209	208	211
B2. Primary balance	239	235	237	215	198	186	180	175	171	165	161
B3. Exports	239	226	228	207	191	180	174	170	166	160	156
B4. Other flows 3/	239	232	235	214	197	186	181	177	172	165	161
B5. One-time 30 percent nominal depreciation	239	226	208	186	168	154	144	136	128	119	113
B6. Combination of B1-B5	239	228	219	187	172	161	156	152	150	145	143
C. Tailored Tests											
C1. Combined contingent liabilities	239	256	243	220	202	191	184	179	175	169	165
C2. Natural disaster	239	264	251	229	212	201	195	191	187	182	179
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Debt Service-to-Revenue Ratio											
Baseline	35.4	45.8	49.8	45.8	45.3	42.7	46.0	46.6	47.5	48.2	47.2
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2(	35	43	49	46	45	43	44	43	41	39	37
B. Bound Tests											
B1. Real GDP growth	35	48	56	56	60	61	67	71	74	77	78
B2. Primary balance	35	46	60	64	61	56	58	57	56	56	54
B3. Exports	35	46	50	46	46	43	46	47	48	49	48
B4. Other flows 3/	35	46	50	46	46	43	46	47	48	50	49
B5. One-time 30 percent nominal depreciation	35	43	48	41	43	41	44	45	45	46	44
B6. Combination of B1-B5	35	45	50	46	45	42	46	46	48	49	49
C. Tailored Tests											
C1. Combined contingent liabilities	35	46	73	68	63	58	59	58	58	57	55
C2. Natural disaster	35	46	77	72	68	63	64	63	63	63	61
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Sources: Country authorities; and staff estimates and projections.

1/ A bold value indicates a breach of the threshold.

2/ Variables include real GDP growth, GDP deflator and primary deficit in percent of GDP.

3/ Includes official and private transfers and FDI.