NEPAL

JOINT WORLD BANK IMF DEBT SUSTAINABILITY ANALYSIS

Approved by:

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NEPAL – JOINT BANK-FUND DEBT SUSTAINABILITY ANALYSIS	
Risk of external debt distress	Low
Overall risk of debt distress	Low
Granularity in the risk rating	Not Applicable
Application of judgment	Yes

Both external and overall debt in Nepal are assessed at low risk of debt distress.[1] Two external debt indicators, PV of PPG external debt-to-exports ratio and debt service-to-exports ratio, breach the indicative thresholds under three shock scenarios, suggesting a mechanical rating of moderate risk of debt distress. However, staff has applied judgement to assess Nepal's external debt to be at low risk of debt distress due to low ratios of PV of PPG external debt-to-GDP and PPG external debt service-to-revenue and unusually high remittance levels; the PV of public debt-to-GDP does not breach the benchmark under any stress test. Remittances, rather than exports, are the major source of foreign exchange to balance the current account and service external debt. Both external debt and public debt are projected to peak in FY2024/25, reflecting declining fiscal deficits and increasing reliance on domestic borrowing as Nepal's financing markets gradually deepen. These findings stress the importance of implementing reforms to increase the economy's resilience to external shocks through, for example, encouraging diversification, improving productivity and competitiveness, and enhancing monitoring of risks related to contingent liabilities.

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[1] Nepal's debt carrying capacity remains strong. Nepal's composite indicator (CI) score is calculated at 3.18, based on the October 2021 World Economic Outlook (WEO) and the 2020 World Bank Country Policy and Institutional Assessment (CPIA) index.

PUBLIC DEBT COVERAGE

1.   The coverage of public debt in this analysis is broad. Public debt includes general government debt, government guarantees, and central bank borrowing on behalf of the government, domestic and external (Text Table 1). Nepal's provincial and local governments have no debt. Their borrowing framework is under consideration and should be monitored carefully. The social security fund and extra budgetary funds currently are not allowed to borrow and thus do not have any outstanding debt. The Nepal Rastra Bank (NRB, Nepal's central bank) borrowed from the IMF through the Rapid Credit Facility and on-lent the funds (about US$50 million) to the government in 2015.[2] Bond issuances by the central bank are only for the purpose of monetary policy operations. The government has provided guarantees for the debts of State-Owned-Enterprises (SOEs), and the current stock—totaling NPR 24 billion (0.6 percent of GDP)—is included in the debt stock. SOEs cannot borrow externally. On domestic borrowings by SOEs, the majority of the medium- and long-term loans are from the central government, and thus are already covered under central government debt. SOE liabilities not covered by public debt appear limited and the government is working to improve its debt statistics, including that of SOEs.[3]

Text Table 1. Nepal: Public Debt Coverage

	Subsectors of the public sector	Check box
1	Central government	X
2	State and local government	X
3	Other elements in the general government	X
4	o/w: Social security fund	X
5	o/w: Extra budgetary funds (EBFs)	X
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, state, and local governments plus central bank (borrowed on behalf of the government)		
		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	0	
3	SoE's debt (guaranteed and not guaranteed by the government) 1/	2 percent of GDP	2.0	
4	PPP	35 percent of PPP stock	2.9	
5	Financial market (the default value of 5 percent of GDP is the minimum value)	5 percent of GDP	5	
	Total (2+3+4+5) (in percent of GDP)		9.9	

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%.

2.   The contingent liability stress test is based on the default setting and includes contingent liabilities stemming from SOE debt (2 percent of GDP), PPP projects (2.9 percent of GDP) and financial market (5 percent of GDP). PPP projects have not been formally compiled by the government. According to the PPI database of the World Bank, Nepal's PPP contracts are estimated to account for 8.4 percent of GDP as of 2020. Already incorporated in the baseline debt figures is the Net Acquisition of
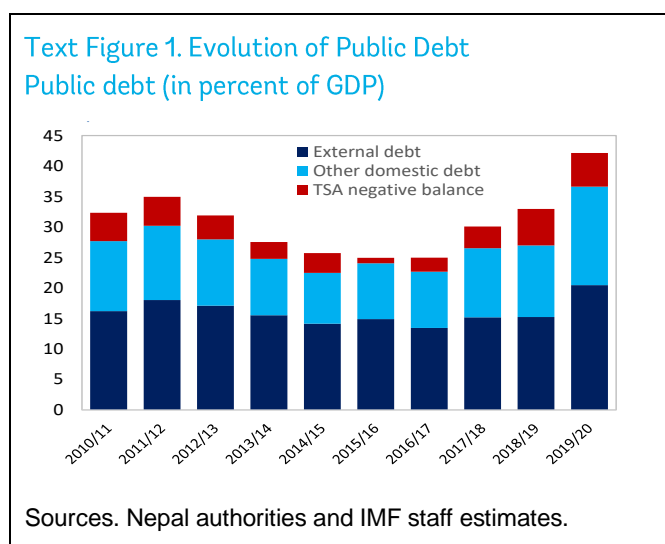
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[2] The 2020 IMF disbursement of around US$214 million under the Rapid Credit Facility was used for direct budget support.
[3] Strengthening fiscal risk management through structural reforms remains critical, including through the development of a fiscal register to identify, disclose, and manage fiscal risks, including those emanating from SOEs and guarantees, drawing on Fund TA. Efforts are also bolstered by the establishment of the PDMO to consolidate public debt management functions, prepare a medium-term debt management strategy, and develop comprehensive debt bulletins.

Financial Assets (NAFA), likely representing loans and capital injections to SOEs from the government.[4] The NAFA has averaged around 1.3 percent of GDP annually in recent years and the program baseline assumes NAFA of this size will continue in the foreseeable future because winding down government support to SOEs will take time. The stress test on contingent liabilities from SOE debt is thus in addition to the NAFA assumed in the baseline.

BACKGROUND ON DEBT

3.   Nepal's total public debt has been increasing over recent years, particularly in FY2019/20 due to the COVID-19 pandemic (Text Figure 1). Following a gradual decline from 35 percent of GDP in FY2011/12 to 25 percent in FY2016/17, and against the background of the country's transition to fiscal federalism, Nepal's public debt has risen over the last several years to 42.2 percent of GDP in FY2019/20. The substantial increase in FY2019/20 is driven by the impact of and responses to the COVID-19 pandemic.[5] Although Nepal's access to concessional financing has kept external debt servicing requirements low, total public debt service represented around 31 percent of fiscal revenues in FY20. Looking forward, new large-scale investments are expected to be financed in part through new borrowings. To the extent that debt finances capital expenditure, concerns about growing debt burdens negatively impacting growth may be mitigated.

Text Figure 1. Evolution of Public Debt
Public debt (in percent of GDP)

Sources. Nepal authorities and IMF staff estimates.

4.   Public debt includes negative balance of the Treasury Single Account (TSA). According to the Government Finance Statistics Manual and Public Sector Debt Statistics Guide, the negative cash balance of the TSA should be considered as government gross debt. While there are positive cash balances in other bank accounts under the control of the Financial Comptroller General Office (FCGO) and the net balance across all government accounts was positive, those other cash balances cannot be used to offset the

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[4] Within the NAFA there is financing of SOEs to implement the authorities' development program, including financing to the Nepal Electricity Authority to increase electrification across the country and financing for airport construction to support tourism.

[5] The shift in debt levels for historical figures compared to the last LIC DSF reflects the GDP rebasing to FY2010/11 (from FY2000/01 previously) issued in March 2021 by the Central Bureau of Statistics.

negative cash balance of the TSA for the purposes of measuring gross debt in the LIC DSF. The negative TSA balance has been rising over recent years and is estimated at 5.5 percent of GDP by the end of FY2019/20.

5. **External public debt had been largely stable prior to COVID-19.** The external debt-to-GDP ratio declined from 18 percent of GDP in FY2011/12 to 14.2 percent in FY2014/15 and stayed relatively flat until FY2018/19. External public debt rose by about 5 percent of GDP in FY2019/20, partially reflecting development partner support for Nepal's COVID-19 response. The net present value (PV) of external debt is estimated at 12.5 percent of GDP in FY2019/20, due to the high degree of concessionality. Nepal's external debt was owed mainly to multilateral creditors (88 percent of all external debt), such as the World Bank's International Development Association (IDA) and the Asian Development Bank (ADB). Their loans had low interest rates (1 percent on average) and long maturities (around 25 years on average). For the bilateral loans, Japan was the largest bilateral creditor, followed by China, India, and Korea (Text Table 2).

Text Table 2. Nepal: External Public Debt, at end FY2019/20 1/

	In millions of US$s	In percent of GDP	In percent of external debt
Total external	6,723	20.5%	100%
Multilateral	5,930	18.1%	88%
ADB	2,243	6.8%	33%
IDA	3,341	10.2%	50%
Bilateral	793	2.4%	12%
Paris Club	358	1.1%	5%
Non-Paris Club	435	1.3%	6%

Sources: Nepalese authorities; and IMF staff estimates.

1/ Nepal's fiscal year starts in mid-July. For example, FY2019/20 covers mid-July 2019 to mid-July 2020.

6. **Domestic public debt has been increasing more rapidly in recent years.** Domestic public debt rose from 10.1 percent of GDP in FY2015/16 to 21.7 percent in FY2019/20. About one-quarter of domestic debt is in short-term treasury bills with a maturity of up to 1 year (28-days, 91-days, 182-days, and 364-days) and is held mainly by domestic financial institutions. Close to half of domestic debt is in medium- to long-term development bonds with maturities of 3-15 years and interest rates of 3-6.5 percent per annum (Text Table 3). The negative TSA balance accounts for about one-quarter of total domestic debt in FY2019/20. All domestic public debt was held by residents, so the analysis is currency-based.

7. **The stock of private external debt in Nepal has not been published by the authorities, but it is estimated to be very small.** While the government and the NRB are encouraging commercial banks to access external loans to alleviate Balance of Payments (BOP) pressures, bank external borrowing has been constrained by limited access and high relative cost. Regulations by the authorities—such as imposing a maximum spread limit on banks' foreign loans—hamper banks' ability to borrow overseas. So far, there

has been very little foreign borrowing by the non-public sector. Reflecting recent government efforts to encourage foreign loans, private external debt is assumed to increase to 1 percent of GDP in the long term.[6]

Text Table 3. Nepal: Public Domestic Debt, at end FY2019/20 1/			
	In billions of Nepalese rupees	In percent of GDP	In percent of domestic debt
Total domestic	849	21.7%	100%
Treasury bills	210	5.4%	25%
Treasury bonds	398	10.2%	47%
Development bonds	390	10.0%	46%
Others	8	0.2%	1%
TSA negative balance	217	5.5%	26%
Government guarantees	24	0.6%	3%
Sources: Nepalese authorities; and IMF staff estimates.			
1/ Nepal's fiscal year starts in mid-July. For example, FY2019/20 covers mid-July 2019 to mid-July 2020.			

BACKGROUND ON MACRO FORCAST

8.   While Nepal has achieved respectable growth in the past, the country has been hard hit by the COVID pandemic and is facing significant challenges going forward. Ongoing disruptions from the pandemic are compounded by structural constraints such as slow domestic job creation, vulnerability to natural disasters including those caused by climate change and environmental degradation, and large infrastructure gaps. Nepal needs to invest in education and health and to strengthen its social protection system, while recognizing the intertemporal tradeoff.[7] Reforms to improving the business climate and reducing product and labor market frictions would also help improve Nepal's competitiveness.[8] These reforms would also strengthen the country's aspiration to reach middle-income country status by 2030.[9]

9.   The proposed Extended Credit Facility (ECF) is designed to support Nepal's COVID responses and post-COVID recovery in the near term and to pave the way for sustained growth and poverty reduction over the medium term. The ECF and financing from other development partners, particularly the World Bank and the ADB, will help fill the external and fiscal financing gaps that have emerged due to the pandemic. The ECF in its early part would accommodate spending to address health needs, support

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[6] Private external borrowings were estimated at about 0.1 percent of GDP at mid-July 2019, and given the current regulations, the scope for further increase will likely be limited.

[7] Less borrowing today would mean fewer resources available toady for priority areas such as education, health, and infrastructure, but at the same time would help lower interest spending in the future, creating more room for priority spending.

[8] See page 10 of WB Nepal Country Economic Memorandum for a discussion of the impact of migration and remittances on competitiveness.

[9] World Bank Country and Lending Groups – World Bank Data Help Desk

the economy, and protect the most vulnerable. Fiscal deficits would gradually decline once the health crisis wanes, helping to stabilize public debt, while creating fiscal space for public investment in education, health, and infrastructure and for strengthening social safety net. The program also supports a comprehensive fiscal structural reform agenda, particularly in the areas of revenue mobilization and public financing management. The program follows a carefully sequenced strategy to further strengthen financial sector regulation and supervision.

10. **Growth and inflation**: Growth had been strong prior to the COVID-19 pandemic, due to strong performances in agriculture, reconstruction activities, and tourism (Text Table 4). Real GDP growth reached 6.7 percent in FY2018/19. With the COVID-19 shock, growth fell to -2.1 percent in FY2019/20, as tourist arrivals collapsed, and domestic activities declined substantially due to containment measures. The economy is expected to gradually recover—at 2.7 percent in FY2020/21—and eventually stabilize at around 5 percent over the mid- to long-term. The FY2020/21 growth forecast assumes a modest rebound as containment measures have been lifted and various economic sectors, other than tourism, gradually recover. While vaccination efforts have started, and vaccines are expected to be widely available only in the first half of FY2022/23, further supporting the recovery. The inflation rate rose from 4.6 percent y/y in FY2018/19 to 6.1 percent in FY2019/20 owing to a surge in food prices. Inflation is estimated at 3.6 percent in 2020/21 and is expected to rise to 5.7 percent in FY2021/22 and peak at 5.8 percent in 2022/23 before gradually moderating to around 5.3 percent in FY2025/26.

Text Table 4. Nepal: Selected Macroeconomic Assumptions 1/

	Previous DSA 2/				Current DSA				Current vs. Previous	
	2019/20	2020/21	MT	LT	19/20	20/21	MT	LT	MT	LT
Real growth (%)	1.0	3.5	5.2	5.2	-2.1	2.7	5.3	5.1	0.1	-0.1
CPI (period average, %)	6.7	6.5	5.3	5.0	6.1	3.6	5.6	5.0	0.3	0.0
Revenues and grants (% GDP)	24.0	25.2	25.2	25.1	22.1	24.2	26.3	27.0	1.1	1.9
Grants (% GDP)	1.2	1.5	1.4	1.2	0.6	0.7	0.9	0.7	-0.5	-0.5
Primary expenditure (% GDP)	30.6	31.0	28.9	27.7	26.8	27.6	29.7	29.0	0.7	1.2
Net acquisition of non-financial assets (% GDP)	6.1	7.0	6.7	6.0	4.8	5.5	6.1	5.8	-0.6	-0.2
Primary balance (% GDP)	-6.6	-5.8	-3.8	-2.6	-4.7	-3.4	-3.4	-1.9	0.4	0.7
Net incurrence of liabilities (% GDP)	8.8	7.5	5.6	4.8	6.5	7.6	5.7	4.4	0.0	-0.5
Net domestic financing (% GDP)	5.2	5.9	4.2	3.8	4.1	4.5	3.5	3.0	-0.7	-0.8
Exports of G&S (y/y growth)	-7.0	7.8	10.7	8.7	-13.7	-17.5	19.6	9.2	8.9	0.5
Imports of G&S (y/y growth)	-12.3	7.6	5.9	6.6	-19.0	22.0	5.1	6.7	-0.8	0.1
Remittances (y/y growth)	-22.6	9.3	6.3	5.1	-3.0	8.2	3.9	7.7	-2.4	2.6
Current account balance (% GDP)	-7.6	-7.1	-5.3	-4.2	-1.0	-8.2	-5.4	0.3	-0.1	4.5

Note: MT (medium term) is the average over the next 5 years, and LT (long term) is the average over the following 7-20 years.

Sources: Nepalese authorities; and IMF staff estimates

1/ Nepal's fiscal year starts in mid-July. For example, FY2019/20 runs from mid-July 2019 to mid-July 2020.

2/ Previous DSA refers to RCF Request IMF CR 20/155.

11. **The outlook for growth and inflation is subject to high uncertainty**. The depth and duration of the pandemic, as well as the associated disruption to the supply chain, are the main risks to the outlook. Should the pandemic intensify more than expected through the program period (including because of new variants and uncertainty regarding the widespread availability of COVID-19 vaccines), it will weaken

recovery prospects in major economic partners, and create disruptions to Nepal's domestic activity, remittances, and tourism. Rising vulnerabilities in the banking system generate additional risks, and global responses to rising inflation also weigh on the outlook.

12.   Fiscal: The overall fiscal deficit of the central government in FY2019/20 was 5.3 percent of GDP, similar to that in FY2018/19. The deficit in 2020/21 is estimated at 4.2 percent of GDP, reflecting surprisingly strong revenue collection and a moderate spending increase from the previous year. However, spending is projected to increase substantially in FY2021/22 as the economy recovers, widening the overall deficit to 6.3 percent of GDP. The deficit will gradually decline over the medium term, with primary deficit decreasing from 5.4 percent of GDP in FY2021/22 to 3.5 percent of GDP (overall deficit of 4.5 percent) in FY2023/24 and stabilize at around 2 percent of GDP from FY2025/26 onwards (Text Figure 2) The improvements in fiscal balances are driven by continued revenue mobilization efforts by the government, tapering of Covid-19 related expenditure, and less duplication of spending responsibilities across levels of government. While the debt dynamics of existing debt stock and the fiscal path suggest a debt-stabilizing primary deficit of around 3.3 percent of GDP, the continuation of the sizeable NAFA would lead to a much lower level of about 2.1 percent. As a result, the proposed fiscal path is expected to stabilize public debt even when the NAFA is assumed to remain in place. This likely represents a conservative scenario, as the authorities are expected to take steps to improve SOE operations over the medium- and long-term and the public debt outlook would improve relative to the program baseline.[10]

Text Figure 2. Debt-Stabilizing Primary Deficit
(in percent of GPD)

Source: IMF staff estimates.
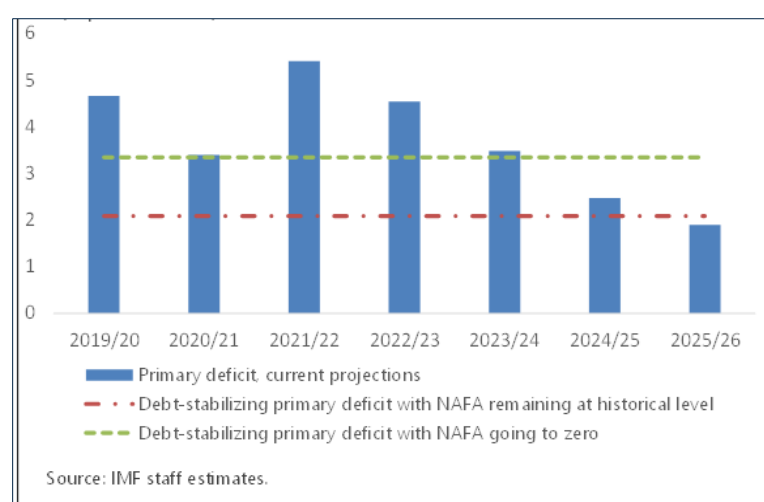
13.   External sector: The current account deficit was high at 6.9 percent of GDP in FY2018/19 but narrowed considerably in FY2019/20 to around 1 percent of GDP, driven primarily by a reduction in imports from 36.2 percent of GDP to 29.8 percent (Text Figure 3). Remittances also declined slightly, from 22.7 percent of GDP to 22.2 percent. Large inflows, mainly official loans and trade credits, alongside a still

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[10] Subnational government are not expected to have any borrowings except from the central government.

significant positive net errors and omissions (1.7 percent of GDP), more than financed the current account deficit and led to an increase in gross official reserves from US$8.5 billion at the end of FY2018/19 to US$10.6 billion at the end of FY2019/20. The current account deficit is estimated to have deteriorated to 8.2 percent of GDP in FY2020/21, reflecting primarily a substantial increase in imports (by 6.9 percent of GDP) and only a moderate increase in remittances (by 1.3 percent of GDP). The overall BOP deficit is estimated at -0.1 percent of GDP and reserves at US$10.9 billion for FY2020/21. The current account is projected to improve gradually through FY2025/26. Exports as a share of GDP are expected to gradually recover to their pre-COVID level by FY2022/23 (around 8 percent of GDP). Even as remittances are expected to decline as a percent of GDP—including because of growth underperformance in migrant-hosting countries, return migration, and fewer new workers traveling abroad— they will remain sizeable at about 20 percent of GDP over the medium- and long-term.[11]

Text Figure 3. Remittances and Exports(In percent of GDP)

Sources: Nepali authorities and IMF staff estimates.
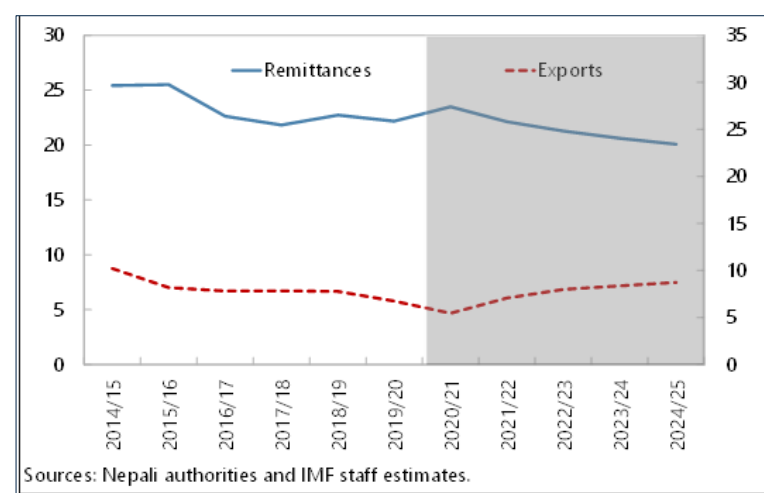
14. **Financing:** In the near term, the large BOP and fiscal financing needs are expected to be filled by concessional loans from development partners, mainly multilateral development banks, as well as from debt service relief through the Catastrophe Containment and Relief Trust (CCRT) and the G20 Debt Service Suspension Initiative (DSSI).[12] Over the longer term, as Nepal gradually deepens its financial markets, it is assumed that a larger share of its fiscal financing needs will be met by domestic borrowings (Table 2).

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[11] Remittances in the first eight months of FY2020/21 have held up, though volatile. Several factors have affected the performance of remittances, including the repatriation of savings by returning migrants, an increase in amounts remitted, and greater formalization of remittance flows. In the near-term, the baseline scenario incorporates a conservative assumption that these factors are temporary, and remittances will remain subdued. In the medium term, remittances are projected to moderate as a share of GDP as large infrastructure projects in migrant-hosting countries are completed (e.g., the Dubai Expo 2020, Qatar World Cup 2022). If remittances overperform, it would strengthen Nepal's international reserve position.

[12] Nepal received CCRT debt relief of SDR2.9 million in FY2019/20 and SDR7.13 million in FY2020/21. The debt service suspension under the DSSI is projected at around US$32.5 million in FY2020/21.

15. **Realism of baseline (Figure 4)**: The overall fiscal deficit is estimated to be 4.2 percent of GDP in FY2020/21 and is projected to then widen to 6.3 percent of GDP by FY2021/22. Under various assumptions on fiscal multipliers, growth would be lower than in the baseline scenario. The deviation of the growth projection from what is implied by the fiscal multipliers can be explained by the fact that growth in FY2020/21 and FY2021/22 to a large extent reflects the gradual normalization of economic activities from COVID-19 as well as a large base effect from the sharp contraction in FY2019/20. Finally, on the contribution of public capital to GDP growth, the difference between the baseline projection and historical experiences to a large extent reflects the GDP rebasing and the revised investment classifications in the national account.

COUNTRY CLASSIFICATION AND DETERMINATION OF SCENARIO STRESS TEST

16. **Nepal's debt carrying capacity is strong.** A composite indicator (CI) is used to capture the different factors affecting a country's debt carrying capacity. The CI captures the impacts of the different factors through a weighted average of the World Bank's Country Policy and Institutional Assessment (CPIA) score, the country's real GDP growth, remittances, foreign exchange reserves, and world growth. The calculation of the CI is based on 10-year averages of the variables, across 5 years of historical data and 5 years of projections. Nepal's CI score is calculated at 3.18, based on the October 2021 World Economic Outlook and the 2020 World Bank CPIA index, which lies in a range of a *strong* rating (Text Table 5).

17. **Tailored stress tests**: The revised LIC-DSF includes stress tests to assess the sensitivity of projected debt burden indicators to changes in assumptions. In this analysis, all stress tests were kept at their default settings (historical average minus one standard deviation, or the baseline projection minus one standard deviation, whichever is lower). In addition, to reflect Nepal's vulnerability to natural disasters, such as the 2015 earthquakes, a natural disaster shock was applied as one of the stress tests. A one-off shock of 10 percentage points of GDP to the debt-to-GDP ratio in the second year of the projection period (FY2021/22) is assumed, and real GDP growth and exports were lowered by 1.5 and 3.5 percentage points, respectively, in the year of the shock for the stress test.

EXTERNAL DEBT SUSTAINABILITY

18. **All external debt indicators point to low risk of debt distress under the baseline (Figure 1, Table 1, Table 3).** Under the baseline scenario, the PV of PPG external debt-to-exports ratio is projected at 254 percent in the first year—LIC-DSF allows to discount this one-off breach of the PV of PPG external debt-to-exports ratio (240 percent)—and declines to 122 percent in FY2039/2040. Other indicators (PV of external debt-to-GDP ratio, debt service-to-exports ratio, and debt service-to-revenue ratio) are all well below the respective thresholds.

19. **External debt is most vulnerable to shocks to exports.** The PV of PPG external debt-to-exports ratio breaches the threshold in two of the shock scenarios. This includes the shock to exports and the combined shock (to real GDP growth, primary balance, export, other flows, and depreciation).

Text Table 5. Nepal: Debt Carrying Capacity and Thresholds

Country	Nepal
Country Code	558

Debt Carrying Capacity	Strong

Final	Classification based on current vintage	Classification based on the previous vintage	Classification based on the two previous vintages
Strong	Strong	Strong	Strong
	3.18	3.18	3.15

Calculation of the CI Index

Components	Coefficients (A)	10-year average values (B)	CI Score components (A*B) = (C)	Contribution of components
CPIA	0.385	3.403	1.31	41%
Real growth rate (in percent)	2.719	4.466	0.12	4%
Import coverage of reserves (in percent)	4.052	56.689	2.30	72%
Import coverage of reserves^2 (in percent)	-3.990	32.136	-1.28	-40%
Remittances (in percent)	2.022	15.494	0.31	10%
World economic growth (in percent)	13.520	3.137	0.42	13%
CI Score			3.18	100%
CI rating			**Strong**	

Applicable thresholds

APPLICABLE		APPLICABLE	
EXTERNAL debt burden thresholds		**TOTAL public debt benchmark**	
		PV of total public debt in percent of GDP	70
PV of debt in % of			
Exports	240		
GDP	55		
Debt service in % of			
Exports	21		
Revenue	23		

Cut-off Values of the CI

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

OVERALL RISK OF PUBLIC DEBT DISTRESS

20.   Under the baseline scenario, public debt in PV terms as a share of GDP remains firmly below the 70 percent benchmark during the projection period (Figure 2, Table 2, Table 4). Public debt is projected to gradually increase from 42.2 percent of GDP at the end of FY2019/20, to peak at 55.3 percent in FY2024/25 under the baseline scenario. The PV of the debt-to-GDP ratio is expected to increase from 34.6 percent of GDP in FY2019/20 to peak at 44.6 percent in FY2025/26, which is well below the 70 percent benchmark.

21.   Public debt is most vulnerable to a growth shock. The growth shock is defined as a temporary shock to real GDP growth in the second and third year of the projection period and is set to either 10-year historical average growth minus one standard deviation or projected growth minus one standard deviation, whichever is lower. The shock would raise PV of debt-to-GDP ratio close to the threshold of 70 percent over a number of years. The PV of debt-to-revenue ratio and debt service-to-revenue ratio also rise significantly under such a shock. Under all other shock scenarios, the PV of debt-to-GDP ratio remains well below the indicative thresholds.

RISK RATINGS AND VULNERABILITIES

22.   The risk of both public external debt distress and overall debt distress are assessed as low. All debt indicators remain below thresholds/benchmarks under the baseline except for the PV of external debt-to-exports, which shows a short-lived breach that is to be discounted from the analysis. The PV of public debt remains below its benchmark under all stress tests. Two indicators for external debt (PV of external debt-to-exports ratio and debt service-to-exports ratio) breach the indicative thresholds under three shock scenarios. However, staff judge the risk of external and public debt distress to be low, given that remittances, rather than exports, are the major source of foreign exchange to balance the current account and service external debt.[13] More specifically, (i) remittances (averaged 22.2 percent of GDP during 2016-2025) dwarf exports (7.6 percent of GDP) as the main source of foreign exchange for Nepal, but are only captured to a limited extent by the LIC DSF; (ii) the PV of PPG external debt is 13.6 percent of GDP in FY2020/21, well below the indicative threshold; and (iii) external debt is well below thresholds in baseline and shock scenarios across all other metrics (e.g., external debt service/revenues, external debt service/exports). Nevertheless, uncertainty in unwinding rolling back pandemic related forbearance measures and climate related shocks pose a risk on the assessment of low risk of debt distress.

23.   While Nepal's debt remains sustainable, a number of steps could be taken to mitigate any potential risks. Both external debt and public debt are projected to peak in FY2024/25, reflecting declining fiscal deficits and increasing reliance on domestic borrowing as Nepal's financing markets gradually deepen. To build up Nepal's resilience to shocks, the Nepalese authorities should continue to make efforts to improve productivity and competitiveness through stepping up quality investment in infrastructure, as well as streamlining regulations and administrative processes. It is also important to pursue rigorous analysis of the risks related to contingent liabilities, for example, related to non-guaranteed commercial SOE debt, PPP projects, and budget support for the financial sector. Closing the data gap by compiling PPP projects and private sector external debt would help improve debt sustainability analysis and monitor related risks. The authorities will also need to make significant progress in implementing a medium-term debt strategy and developing the government bond market to facilitate greater domestic financing. Finally, improvements are needed in subnational governments' public financial management and reporting, along with the implementation of a prudent framework for subnational borrowing.

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[13] In reference to the LIC DSF guidance note, the use of staff judgement is based on both the general provision to take into account country specific factors that are not fully accounted for in the model and the specific provision for other considerations.

AUTHORITIES' VIEWS

24. **The authorities broadly agreed with the assessment of the DSA**. They underscored that the government's effective management of public finances in past years reduced public debt risk, providing fiscal room to maneuver when the COVID shock hit. The authorities stressed that, with the establishment of Public Debt Management Office (PDMO) in FY 2018/19, significant progress has been made in public debt statistics, public debt management and fiscal risk management. The authorities argued against the inclusion of the negative TSA balance as part of domestic public debt, on the grounds that the government also has offsetting positive balances in its many other accounts with the NRB and the net balance across all government accounts is positive. A working group with representatives of the MOF, PDMO and NRB has been formed to look at the issue.

Table 1. Nepal: External Debt Sustainability Framework, Baseline Scenario, 2020-2040 (In percent of GDP, unless otherwise indicated)

	Actual 9/	Projections								Average 8/	
	2020	2021	2022	2023	2024	2025	2026	2031	2040	Historical	Projections
External debt (nominal) 1/	20.7	22.5	25.4	26.1	26.7	26.8	26.2	23.4	22.1	16.4	25.1
of which: public and publicly guaranteed (PPG)	20.5	22.3	25.2	25.8	26.3	26.4	25.7	22.8	21.1	16.3	24.6
Change in external debt	5.3	1.8	2.9	0.7	0.6	0.1	-0.6	-0.4	0.0		
Identified net debt-creating flows	0.6	7.2	7.8	4.3	3.1	2.1	1.5	-1.9	-2.8	-1.7	1.7
Non-interest current account deficit	0.9	8.0	8.9	6.0	4.7	3.9	3.4	-0.1	-1.1	-0.6	3.4
Deficit in balance of goods and services	27.1	35.0	34.9	31.4	29.5	28.1	26.7	23.2	18.2	26.5	27.7
Exports	6.7	5.4	7.1	8.0	8.4	8.7	9.0	9.5	9.8		
Imports	33.8	40.4	41.9	39.4	37.8	36.8	35.7	32.7	28.0		
Net current transfers (negative = inflow)	-24.9	-26.2	-25.1	-24.4	-23.7	-23.1	-22.1	-22.1	-22.0	-26.0	-23.2
of which: official	-0.6	-0.6	-0.9	-1.0	-1.0	-0.9	-0.7	-0.6	-0.7		
Other current account flows (negative = net inflow)	-1.3	-0.8	-0.9	-1.1	-1.1	-1.0	-1.2	-1.2	2.7	-1.1	-1.1
Net FDI (negative = inflow)	-0.5	-0.5	-0.3	-0.4	-0.5	-0.8	-0.8	-0.9	-0.9	-0.4	-0.7
Endogenous debt dynamics 2/	0.2	-0.3	-0.7	-1.3	-1.1	-1.0	-1.1	-0.9	-0.8		
Contribution from nominal interest rate	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2		
Contribution from real GDP growth	0.3	-0.5	-0.9	-1.5	-1.3	-1.3	-1.3	-1.1	-1.0		
Contribution from price and exchange rate changes	-0.2	...	...	...	...	...	...	...	...		
Residual 3/	4.7	-5.3	-4.9	-3.6	-2.5	-2.0	-2.1	1.5	2.8	2.0	-1.5
of which: exceptional financing	-2.2	-0.6	-1.7	-0.9	-0.6	-0.4	0.0	0.0	0.0		
Sustainability indicators											
PV of PPG external debt-to-GDP ratio	12.5	13.8	14.9	15.1	15.3	15.3	15.0	13.1	12.0		
PV of PPG external debt-to-exports ratio	185.6	254.1	210.7	189.4	183.5	175.5	166.9	138.5	122.4		
PPG debt service-to-exports ratio	10.0	15.0	11.8	10.8	10.3	9.8	9.4	8.9	6.3		
PPG debt service-to-revenue ratio	3.1	3.5	3.5	3.5	3.4	3.3	3.2	3.2	2.3		
Gross external financing need (Million of U.S. dollars)	402.5	2959.1	3582.4	2724.1	2339.9	2041.0	1949.9	340.3	-615.9		
Key macroeconomic assumptions											
Real GDP growth (in percent)	-2.1	2.7	4.4	6.3	5.4	5.1	5.1	5.1	5.1	4.4	5.0
GDP deflator in US dollar terms (change in percent)	1.5	-0.6	2.7	2.3	2.4	2.2	2.1	2.5	2.5	0.8	2.2
Effective interest rate (percent) 4/	0.8	1.0	0.9	0.9	0.9	0.9	0.6	1.0	1.1	0.9	0.9
Growth of exports of G&S (US dollar terms, in percent)	-13.7	-17.5	39.1	22.9	12.9	12.2	10.7	10.1	8.6	4.7	11.4
Growth of imports of G&S (US dollar terms, in percent)	-19.0	22.0	11.3	2.2	3.5	4.6	4.0	7.5	7.4	7.9	7.1
Grant element of new public sector borrowing (in percent)	...	51.1	50.7	51.2	51.3	51.9	52.5	52.7	52.9	...	52.0
Government revenues (excluding grants, in percent of GDP)	21.5	23.5	23.8	24.6	25.4	26.1	26.2	26.3	26.5	17.7	25.6
Aid flows (in Million of US dollars) 5/	205.9	903.1	1109.6	1056.7	1072.9	1032.3	966.3	1270.7	2492.9		
Grant-equivalent financing (in percent of GDP) 6/	...	2.6	3.1	2.7	2.5	2.2	1.9	1.7	1.7	...	2.2
Grant-equivalent financing (in percent of external financing) 6/	...	59.3	59.0	62.3	63.1	65.2	68.3	66.1	66.3	...	64.4
Nominal GDP (Million of US dollars)	33983.4	34692.3	37207.9	40466.8	43678.4	46922.3	50376.2	73607.9	144326.2		
Nominal dollar GDP growth	-0.6	2.1	7.3	8.8	7.9	7.4	7.4	7.8	7.8	5.3	7.3
Memorandum items:											
PV of external debt 7/	12.7	14.1	15.2	15.4	15.7	15.7	15.5	13.8	13.0		
In percent of exports	188.3	258.2	214.4	193.3	187.6	180.0	171.7	145.1	132.6		
Total external debt service-to-exports ratio	12.1	18.6	15.0	14.1	13.9	13.7	13.7	15.1	15.9		
PV of PPG external debt (in Million of US dollars)	4252.9	4803.7	5541.1	6126.0	6699.7	7189.6	7567.2	9678.5	17352.4		
(PVt-PVt-1)/GDPt-1 (in percent)		1.6	2.1	1.6	1.4	1.1	0.8	0.7	0.9		
Non-interest current account deficit that stabilizes debt ratio	-4.4	6.1	6.0	5.3	4.2	3.9	4.0	0.3	-1.1		

Definition of external/domestic debt	Currency-based
Is there a material difference between the two criteria?	No

Debt Accumulation

- Debt Accumulation
- Grant-equivalent financing (% of GDP)
- Grant element of new borrowing (% right scale)

External debt (nominal) 1/
- of which: Private
- of which: public and publicly guaranteed (PPG)

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 (ie. changes in arrears and debt relief including CCRT and DSSI); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.
  The residuals in this table are mainly related to reserve drawdown and net errors and omissions.

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.

9/ Fiscal year. For example, year 2020 means FY2019/20 (mid-July 2019 to mid-July 2020).
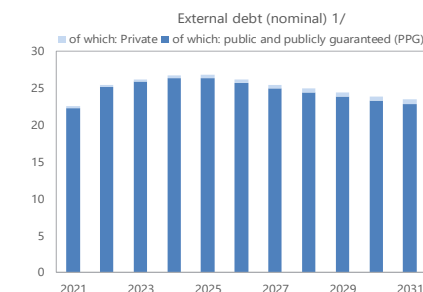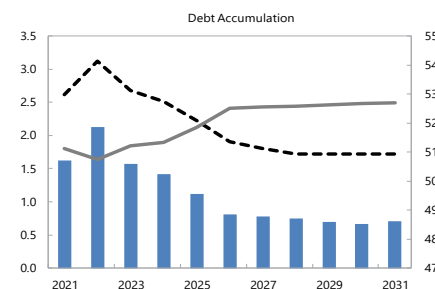
Table 2. Nepal: Public Sector Debt Sustainability Framework. Baseline Scenario, 2020-2040 (In percent of GDP, unless otherwise indicated)

	Actual 7/	Projections								Average 8/	
	2020	2021	2022	2023	2024	2025	2026	2031	2040	Historical	Projections
Public sector debt 1/	**42.2**	**47.2**	**51.6**	**53.6**	**54.9**	**55.3**	**55.0**	**53.8**	**53.2**	**31.1**	**53.4**
of which: external debt	**20.5**	**22.3**	**25.2**	**25.8**	**26.3**	**26.4**	**25.7**	**22.8**	**21.1**	**16.3**	**24.6**
Change in public sector debt	9.2	5.0	4.4	2.0	1.3	0.4	-0.2	-0.1	-0.3		
Identified debt-creating flows	**8.0**	**5.3**	**3.9**	**2.0**	**1.3**	**0.4**	**-0.2**	**0.0**	**-0.2**	**1.2**	**1.1**
Primary deficit	**4.7**	**3.4**	**5.4**	**4.5**	**3.5**	**2.5**	**1.9**	**2.0**	**1.7**	**1.0**	**2.8**
Revenue and grants	22.1	24.2	24.7	25.6	26.4	27.0	27.1	27.0	27.3	19.2	26.4
of which: grants	0.6	0.7	0.9	1.0	1.0	0.9	0.9	0.7	0.7		
Primary (noninterest) expenditure	26.8	27.6	30.1	30.1	29.9	29.5	29.0	29.0	29.0	20.3	29.2
Automatic debt dynamics	**1.5**	**-1.4**	**-2.8**	**-3.8**	**-3.4**	**-3.3**	**-3.4**	**-3.3**	**-3.2**		
Contribution from interest rate/growth differential	0.4	-1.4	-2.8	-3.8	-3.4	-3.3	-3.4	-3.3	-3.2		
of which: contribution from average real interest rate	-0.3	-0.3	-0.8	-0.7	-0.7	-0.6	-0.7	-0.6	-0.6		
of which: contribution from real GDP growth	0.7	-1.1	-2.0	-3.1	-2.8	-2.7	-2.7	-2.6	-2.6		
Contribution from real exchange rate depreciation	1.0	...	...	...	...	...	...	...	...		
Other identified debt-creating flows	**1.9**	**3.3**	**1.3**	**1.3**	**1.3**	**1.3**	**1.3**	**1.3**	**1.3**	**1.3**	**1.4**
Privatization receipts (negative)	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		
Debt relief (HIPC and other) 2/	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)	1.9	3.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3		
Residual	**1.1**	**-0.3**	**0.5**	**0.0**	**0.0**	**0.0**	**0.0**	**-0.1**	**-0.1**	**-0.2**	**0.0**
Sustainability indicators											
PV of public debt-to-GDP ratio 3/	**34.6**	**38.7**	**41.6**	**43.2**	**44.1**	**44.5**	**44.6**	**44.4**	**44.4**		
PV of public debt-to-revenue and grants ratio	**156.7**	**159.4**	**168.6**	**168.6**	**167.4**	**164.6**	**164.4**	**164.4**	**162.8**		
Debt service-to-revenue and grants ratio 4/	**31.2**	**27.9**	**23.2**	**24.0**	**30.0**	**33.2**	**32.4**	**37.2**	**39.7**		
Gross financing need 5/	13.5	13.5	12.4	12.0	12.7	12.7	12.0	13.3	13.8		
Key macroeconomic and fiscal assumptions											
Real GDP growth (in percent)	-2.1	2.7	4.4	6.3	5.4	5.1	5.1	5.1	5.1	4.4	5.0
Average nominal interest rate on external debt (in percent)	0.8	1.0	0.9	0.9	0.9	0.9	0.5	0.9	0.9	0.9	0.8
Average real interest rate on domestic debt (in percent)	-0.7	-0.5	-2.3	-1.8	-1.5	-1.3	-1.2	-1.3	-1.1	-2.8	-1.5
Real exchange rate depreciation (in percent, + indicates depreciation)	6.8	...	...	...	...	...	...	...	...	1.8	...
Inflation rate (GDP deflator, in percent)	3.6	3.6	5.7	5.8	5.6	5.5	5.3	5.8	5.8	6.1	5.5
Growth of real primary spending (deflated by GDP deflator, in percent)	-2.2	6.1	13.6	6.5	4.4	3.9	3.4	5.1	5.1	11.6	5.8
Primary deficit that stabilizes the debt-to-GDP ratio 6/	-4.5	-1.6	1.0	2.5	2.2	2.0	2.1	2.1	2.0	-0.9	1.7
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		

Definition of external/domestic debt	Currency-based
Is there a material difference between the two criteria?	No

Public sector debt 1/

Sources: Country authorities; and staff estimates and projections.
1/ Coverage of debt: The central, state, and local governments plus central bank (borrowed on behalf of the government). Definition of external debt is Currency-based.
2/ CCRT is already included in primary balance and thus not show separately here.
3/ 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.
4/ Debt service is defined as the sum of interest and amortization of medium and long-term, and short-term debt.
5/ 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.
6/ 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.
7/ Fiscal year. For example, year 2020 means FY2019/20 (mid-July 2019 to mid-July 2020).
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.
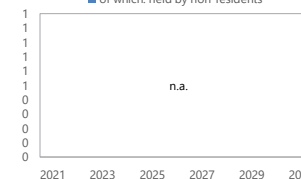
Figure 1. Nepal: Indicators of public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2021-2031

PV of debt-to GDP ratio

Most extreme shock: Combination

PV of debt-to-exports ratio

Most extreme shock: Exports

Debt service-to-exports ratio

Most extreme shock: Exports

Debt service-to-revenue ratio

Most extreme shock: One-time depreciation

Baseline	Historical scenario	Most extreme shock 1/	Threshold
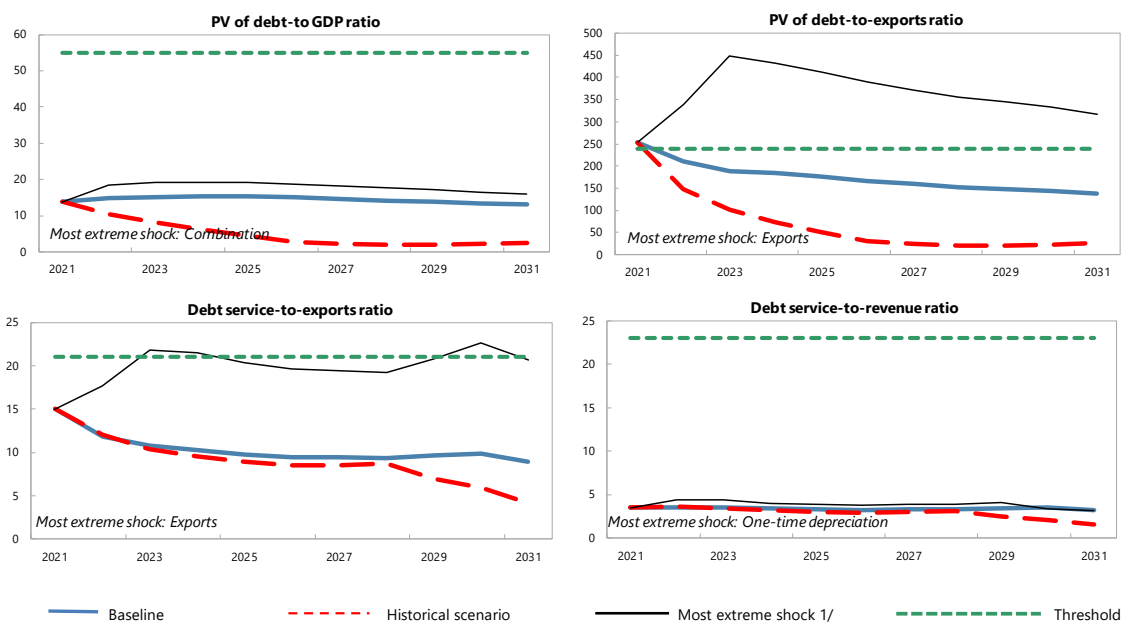
Customization of Default Settings		
	Size	Interactions
Tailored Stress		
Combined CL	No	
Natural disaster	No	No
Commodity price	n.a.	n.a.
Market financing	n.a.	n.a.

Borrowing assumptions on additional financing needs resulting from the 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	0.8%	0.8%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	36	36
Avg. grace period	6	6

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.

* 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 2031. 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 2. Nepal: Indicators of Public Debt under Alternative Scenarios, 2021-2031
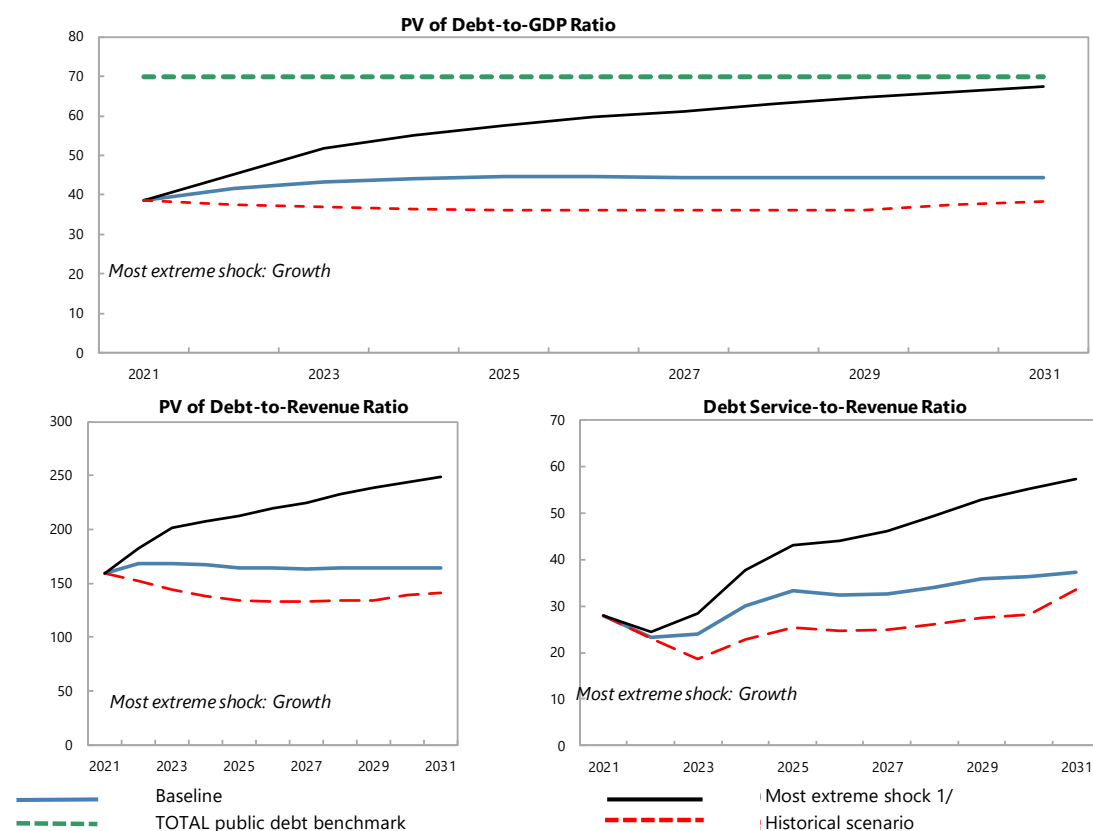
PV of Debt-to-GDP Ratio

Most extreme shock: Growth

PV of Debt-to-Revenue Ratio

Most extreme shock: Growth

Debt Service-to-Revenue Ratio

Most extreme shock: Growth

———— Baseline	———— Most extreme shock 1/
- - - - TOTAL public debt benchmark	- - - - Historical scenario

Borrowing assumptions on additional financing needs resulting from the stress tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	20%	20%
Domestic medium and long-term	54%	54%
Domestic short-term	26%	26%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	0.8%	0.8%
Avg. maturity (incl. grace period)	36	36
Avg. grace period	6	6
Domestic MLT debt		
Avg. real interest rate on new borrowing	-0.8%	-0.8%
Avg. maturity (incl. grace period)	7	7
Avg. grace period	0	0
Domestic short-term debt		
Avg. real interest rate	-1.8%	-1.8%

* 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 2031. 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. Nepal: Drivers of Debt Dynamics – Baseline Scenario

External debt

Gross Nominal PPG External Debt
(in percent of GDP; DSA vintages)

Debt-creating flows
(percent of GDP)

Unexpected Changes in Debt 1/
(past 5 years, percent of GDP)

Public debt

Gross Nominal Public Debt
(in percent of GDP; DSA vintages)

Debt-creating flows
(percent of GDP)

Unexpected Changes in Debt 1/
(past 5 years, percent of GDP)
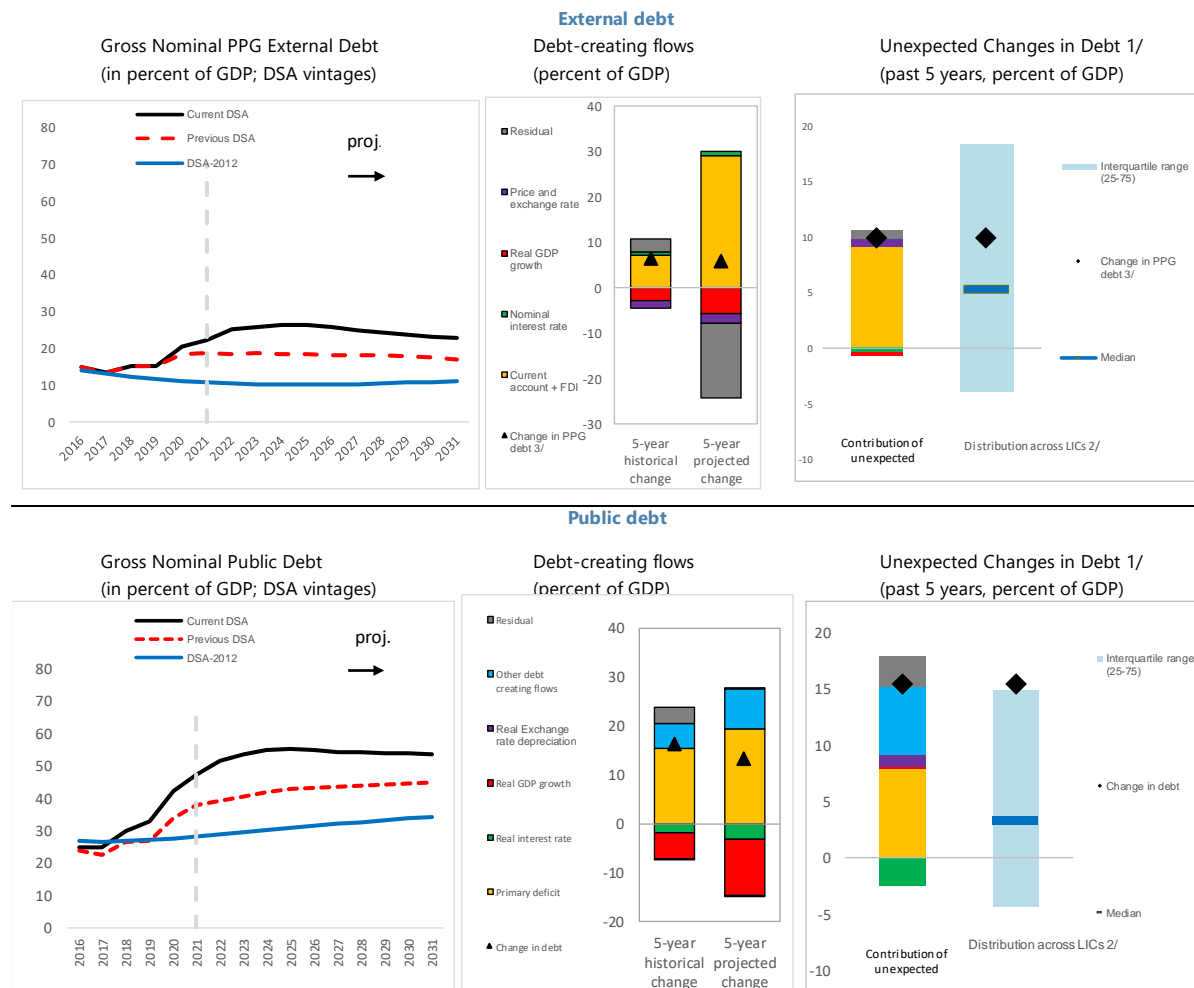
1/ Difference between anticipated and actual contributions on debt ratios.

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. Nepal: 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.
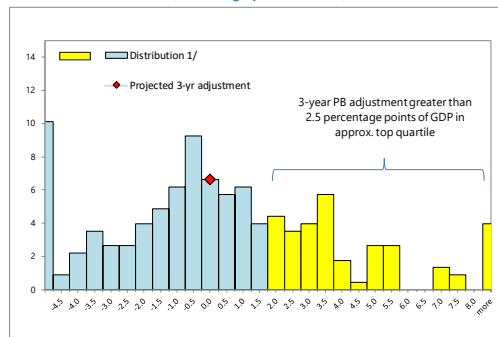
Fiscal Adjustment and Possible Growth Paths 1/

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).
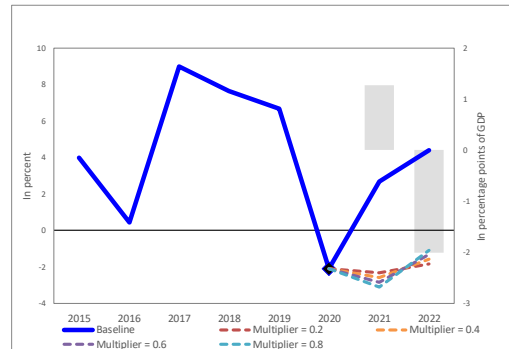
Public and Private Investment Rates 1/
(percent of GDP)

1/ Investments for the current DSA reflect rebased GDP series.
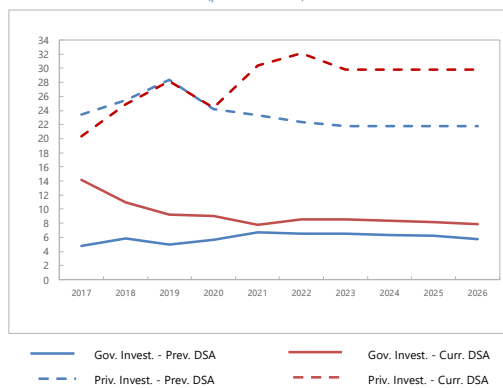
Contribution to Real GDP growth
(percent, 5-year average)

Table 3. Nepal: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2021-2031 (In percent)

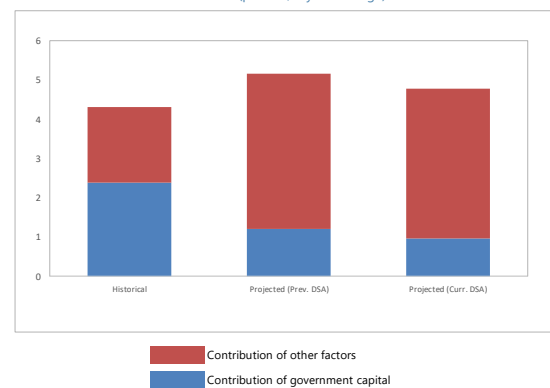|	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
						Projections 1/					
PV of debt-to GDP ratio											
Baseline	14	15	15	15	15	15	15	14	14	13	13
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	14	10	8	6	4	3	2	2	2	2	3
B. Bound Tests											
B1. Real GDP growth	14	16	17	17	17	17	16	16	15	15	15
B2. Primary balance	14	15	16	16	16	16	16	15	15	15	14
B3. Exports	14	16	18	18	18	18	17	17	16	16	15
B4. Other flows 3/	14	16	18	18	18	18	17	17	16	16	15
B5. Depreciation	14	19	14	14	15	14	14	14	13	13	13
B6. Combination of B1-B5	14	18	19	19	19	19	18	18	17	16	16
C. Tailored Tests											
C1. Combined contingent liabilities	14	16	16	17	17	17	16	16	16	15	15
C2. Natural disaster	14	16	17	17	17	17	17	17	16	16	16
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	55	55	55	55	55	55	55	55	55	55	55
PV of debt-to-exports ratio											
Baseline	254	211	189	183	176	167	159	153	149	145	138
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	254	148	101	74	51	31	25	21	21	23	27
B. Bound Tests											
B1. Real GDP growth	254	211	189	183	176	167	159	153	149	145	138
B2. Primary balance	254	215	198	193	185	177	170	163	160	156	149
B3. Exports	254	339	449	432	411	390	372	356	346	334	316
B4. Other flows 3/	254	232	226	218	207	197	188	179	174	168	159
B5. Depreciation	254	211	139	137	132	126	121	116	113	112	109
B6. Combination of B1-B5	254	346	218	367	350	332	317	303	293	284	269
C. Tailored Tests											
C1. Combined contingent liabilities	254	224	205	200	192	184	177	171	168	165	158
C2. Natural disaster	254	231	211	207	199	192	185	180	177	174	168
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	240	240	240	240	240	240	240	240	240	240	240
Debt service-to-exports ratio											
Baseline	15	12	11	10	10	9	9	9	10	10	9
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	15	12	10	10	9	8	9	9	7	6	4
B. Bound Tests											
B1. Real GDP growth	15	12	11	10	10	9	9	9	10	10	9
B2. Primary balance	15	12	11	10	10	10	10	9	10	10	9
B3. Exports	15	18	22	21	20	20	19	19	21	23	21
B4. Other flows 3/	15	12	11	11	10	10	10	10	11	11	10
B5. Depreciation	15	12	11	10	9	9	9	9	9	8	7
B6. Combination of B1-B5	15	17	20	19	18	17	17	17	19	19	18
C. Tailored Tests											
C1. Combined contingent liabilities	15	12	11	11	10	10	10	10	10	10	9
C2. Natural disaster	15	12	11	11	10	10	10	10	10	10	9
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	21	21	21	21	21	21	21	21	21	21	21
Debt service-to-revenue ratio											
Baseline	3	4	4	3	3	3	3	3	3	3	3
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	3	4	3	3	3	3	3	3	2	2	2
B. Bound Tests											
B1. Real GDP growth	3	4	4	4	4	4	4	4	4	4	4
B2. Primary balance	3	4	4	3	3	3	3	3	4	4	3
B3. Exports	3	4	4	4	3	3	3	3	4	4	4
B4. Other flows 3/	3	4	4	4	3	3	3	3	4	4	4
B5. Depreciation	3	4	4	4	4	4	4	4	4	3	3
B6. Combination of B1-B5	3	4	4	4	4	4	4	4	4	4	4
C. Tailored Tests											
C1. Combined contingent liabilities	3	4	4	3	3	3	3	3	4	4	3
C2. Natural disaster	3	4	4	3	3	3	3	3	4	4	3
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	23	23	23	23	23	23	23	23	23	23	23

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. Nepal: Sensitivity Analysis for Key Indicators of Public Debt, 2021-2031

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
					Projections 1/						
PV of Debt-to-GDP Ratio											
Baseline	39	42	43	44	45	45	44	44	44	44	44
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	39	38	37	36	36	36	36	36	36	38	38
B. Bound Tests											
B1. Real GDP growth	39	45	52	55	58	60	61	63	65	66	68
B2. Primary balance	39	44	48	49	49	49	48	48	47	47	47
B3. Exports	39	43	46	47	47	47	47	47	47	47	46
B4. Other flows 3/	39	43	46	47	47	47	47	47	47	47	46
B5. Depreciation	39	41	41	41	40	39	38	37	37	36	35
B6. Combination of B1-B5	39	42	44	45	45	45	44	44	44	44	44
C. Tailored Tests											
C1. Combined contingent liabilities	39	50	51	51	51	51	50	50	49	49	49
C2. Natural disaster	39	51	52	53	53	53	52	52	52	52	52
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.
TOTAL public debt benchmark	70	70	70	70	70	70	70	70	70	70	70
PV of Debt-to-Revenue Ratio											
Baseline	159	169	169	167	165	164	163	164	164	164	164
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	159	152	144	138	134	133	133	134	134	139	142
B. Bound Tests											
B1. Real GDP growth	159	182	201	208	212	219	225	232	238	244	249
B2. Primary balance	159	179	188	185	180	179	177	177	176	175	174
B3. Exports	159	173	181	179	175	175	173	174	173	172	172
B4. Other flows 3/	159	175	180	178	175	174	173	173	173	172	172
B5. Depreciation	159	169	159	155	149	146	141	139	136	133	130
B6. Combination of B1-B5	159	171	173	169	165	164	163	163	163	163	163
C. Tailored Tests											
C1. Combined contingent liabilities	159	205	200	195	190	188	185	184	183	181	180
C2. Natural disaster	159	208	205	201	196	195	193	193	193	192	192
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	28	23	24	30	33	32	33	34	36	36	37
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	28	23	19	23	25	25	25	26	28	28	34
B. Bound Tests											
B1. Real GDP growth	28	24	28	38	43	44	46	49	53	55	57
B2. Primary balance	28	23	28	36	37	36	36	37	39	39	40
B3. Exports	28	23	24	30	33	33	33	34	36	37	38
B4. Other flows 3/	28	23	24	30	33	33	33	34	36	37	38
B5. Depreciation	28	22	23	27	31	30	31	32	33	34	34
B6. Combination of B1-B5	28	23	24	32	34	33	33	34	36	36	37
C. Tailored Tests											
C1. Combined contingent liabilities	28	23	37	37	39	38	38	39	41	40	41
C2. Natural disaster	28	24	38	38	40	40	40	42	44	43	43
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 benchmark.
2/ Variables include real GDP growth, GDP deflator and primary deficit in percent of GDP.
3/ Includes official and private transfers and FDI.