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NICARAGUA

JOINT WORLD BANK-IMF DEBT SUSTAINABILITY ANALYSIS

Approved by:

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NICARAGUA: JOINT BANK-FUND DEBT SUSTAINABILITY ANALYSIS	
Risk of external debt distress	Moderate
Overall risk of debt distress	Moderate
Granularity in the risk rating	Debt is sustainable with some space to absorb shocks
Application of judgment	No

Compared to the previous DSA prepared in the context of the requests for purchase under the RFI and disbursement under the RCF in November 2020, Nicaragua's debt path and space to absorb shocks improved even as the overall and external debt distress risk rating remain moderate.[1] Under the baseline scenario, external debt burden indicators remain below the threshold. However, the Present Value (PV) of public and Publicly Guaranteed Debt (PPG), and external debt-to-GDP ratio breach the threshold over an extended period under three standardized stress scenarios: an export contraction shock, a capital flows shock, and a combination of external shocks. The PV of the public debt-to-GDP ratio is projected to be below the threshold under the baseline scenario, but it is projected to surpass the threshold under most standardized stress scenarios, notably lower GDP growth, and realization of contingent liability shocks. Downside risks are linked to weaker economic activity, risks of exogenous shocks such as climate-related natural disasters, and uncertainty over external financing as well as associated fiscal pressures that could adversely affect the debt profile.

[1] The Composite Index (CI) is estimated at 3.01 and is based on the latest World Bank's CPIA and the October 2022 WEO. Nicaragua's debt-carrying capacity remains medium.

PUBLIC DEBT COVERAGE

1. Nicaragua's public debt statistics are reported at the Consolidated Public Sector (CPS) level. The public debt definition used in this Debt Sustainability Analysis (DSA) covers the consolidated debt of the budgetary central government, decentralized entities, the state-owned enterprises guaranteed debt, and the Central Bank of Nicaragua (BCN) (Text Table 1).[2, 3] Consistent with previous DSAs since 2013, this DSA assumes the delivery of expected Heavily Indebted Poor Countries (HIPC) debt relief by Non-Paris Club creditors that have yet to deliver it (see Paragraph 5).

2. The DSA is conducted on a residency basis. In the case of Nicaragua, there are no foreign holdings of local currency debt issued domestically (as in previous DSAs).

Text Table 1. Nicaragua: Public Debt Coverage Under the Baseline Scenario

	Subsectors of the Public Sector	Sub-sectors Covered
1	Central Government	X
2	State and Local Government	
3	Other Elements in the General Government	
4	o/w: Social Security Fund	X
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 plus social security, 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	0.0	
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	2.2	
5	Financial Market (the default value of 5 percent of GDP is the minimum value)	5 percent of GDP	5.0	
	Total (2+3+4+5) (in percent of GDP)		9.2	

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%.

Sources: National authorities and IMF staff calculations

BACKGROUND ON DEBT

3. Amid a strong economic recovery in 2021, Nicaragua's debt trajectory slightly decreased compared to the 2020 DSA (Text Table 2 and Table 2). The economic recovery in 2021 combined with prudent fiscal policy have enabled the fiscal deficit to narrow to 1.4 percent of GDP, which helped contain the debt-to-GDP ratio. Indeed, the stock of public debt decreased by almost a percentage point in 2021, to 56.9 percent of GDP and is expected to reach about 58 percent in 2022 (compared with 61 percent in the 2020 DSA). About 85 percent of total public debt is owed to external creditors (US$7.8 billion), of which 76 percent is owed by the Non-Financial Public Sector (NFPS), and 24 percent by the BCN. Domestic PPG debt amounts to 20.4 percent of total public debt.

[2] There is no non-guaranteed state-owned-enterprises' debt recorded in Nicaragua.

[3] Debt data on extra budgetary funds, non-guaranteed state-owned enterprises, and debt of all state and local governments is not available, therefore these components of the contingent liabilities are at the LIC-DSF default values. The authorities intend to strengthen their capabilities to widen the coverage of debt reporting and monitoring. In the tailored shock scenarios, contingent liability shock is set as 9.2 percent of GDP in 2022.

4. **External PPG debt reached 45.3 percent of GDP in 2021.** All PPG external debt is placed in medium and long-term instruments. On composition, 83 percent of PPG external debt is held by multilaterals, with the largest being the Central American Bank for Economic Integration (CABEI), followed by the Inter-American Development Bank (IDB). Nicaragua is eligible for blended loans from both the IDB and CABEI. The remaining 17 percent is held mostly by Japan, South Korea, Germany, India, and Kuwait.

5. **A large stock of debt to non-Paris Club creditors is still pending debt relief under the HIPC Initiative.**[4] In this report the debt stock has already been adjusted downwards to incorporate total expected debt relief amounts of about US$790 million as of December 2021. This debt corresponds to debt of the BCN. All five non-Paris Club creditors have held negotiations with the authorities on the terms of possible debt relief agreements, but the negotiation and reconciliation process are still ongoing.

Text Table 2. Nicaragua: Public and Private Debt

	Current DSA				DSA Nov. 2020			
	2019	2020	2021	2022	2019	2020	2021	2022
	(in percent of GDP)							
Public Sector Debt	**50.2**	**57.8**	**56.9**	**58.1**	**51.0**	**57.4**	**60.0**	**60.9**
Public Sector External Debt (incl. guarantees)	**41.6**	**46.6**	**45.3**	**45.2**	**42.1**	**48.9**	**51.2**	**51.8**
Medium and long-term debt	41.6	46.6	45.3	45.2	42.1	48.9	51.2	51.8
Short-term debt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Public Sector Domestic Debt	**8.6**	**11.2**	**11.6**	**12.9**	**8.9**	**8.6**	**8.8**	**9.1**
Medium and long-term debt	7.4	7.7	7.4	12.8	7.6	8.4	8.7	9.0
Short-term debt	1.2	3.5	4.2	0.1	1.2	0.1	0.1	0.1
Private Sector External Debt	**44.0**	**44.4**	**40.1**	**35.4**	**44.2**	**46.9**	**46.1**	**44.4**

Sources: National authorities and IMF staff calculations.

6. **Public domestic debt stood at 11.6 percent of GDP in 2021.** On maturity terms, 63.9 percent of public domestic debt is in medium- and long-term instruments, and 36.1 percent is in short term. On composition, the NFPS debt accounts for 54 percent (most of which is held in the government bonds "*Bonos de la República*"), and the BCN debt accounts for 46 percent.

7. **Private external debt reached 40.1 percent of GDP in 2021.** While private external debt increased by 0.5 percent in nominal terms compared to 2020, the ratio decreased by 4.3 percentage points compared to 2020, due to the sharp real GDP growth in 2021.

MACROECONOMIC ASSUMPTIONS

8. **The economic outlook has improved following a strong recovery in 2021, compared to the 2020 DSA (Text Tables 3 and 4).** Economic activity rebounded strongly in 2021 as real GDP grew by 10.3 percent and is projected to reach 4 percent in 2022, sustained by the recovery of aggregate demand, underpinned by strong remittances. The real GDP surpassed the pre-crisis level (end-2017) by end-2021, and the growth rate in 2022 is broadly in line with the historical average. The reassessment of potential GDP, due to sustained domestic demand, suggests that Nicaragua could achieve long term growth of up to

[4] The decision point and completion point were reached in December 2000 and January 2004, respectively.

3.5 percent from a previous level of 3 percent (estimated in 2020), but well below the 4.5 percent estimated pre-crisis.[5] Fiscal revenues assumptions remain conservative, despite revised growth projections. A gradual recovery in investment sustained by FDI and credit are expected to underpin the gradual rise of potential GDP growth, although they are expected to remain below historical averages. Inflation increased to 7.2 percent in 2021 and it is assumed to average 6.9 percent over the medium term due to the global shocks on food and fuel prices and decline to 4.0 percent over the long term. The banking system remains well capitalized and liquid. Bank deposits continue to grow and credit rebounded (12.4 and 12.0 percent y-o-y, respectively, as of September 2022), which enabled profitability of banks to improve, as total distressed assets declined.[6] The baseline scenario assumes the current crawling peg exchange rate regime is maintained.

Text Table 3. Nicaragua: Medium-Term Macroeconomic Framework

	2020	2021	2022	2023	2024	2025	2026	2027
		Prel.	Projections					
Growth and Prices	(Annual percentage change)							
Real GDP growth	-1.8	10.3	4.0	3.0	3.3	3.5	3.5	3.5
Consumer price inflation (end of period)	2.9	7.2	11.2	6.1	4.8	4.0	4.0	4.0
	(Percent of GDP, unless otherwise indicated)							
Consolidated Public Sector								
Revenue (Incl. grants)	31.1	33.2	30.3	29.6	29.7	29.7	29.8	29.7
Expenditure	33.7	34.6	33.7	32.2	32.1	31.7	31.9	31.8
Overall balance, after grants	-2.6	-1.4	-3.3	-2.6	-2.4	-2.0	-2.0	-2.1
Public sector debt	57.8	56.9	58.1	56.1	55.3	54.5	54.3	54.2
Balance of Payments								
Current account	3.9	-2.3	-1.7	-1.8	-2.4	-2.6	-2.6	-2.5
Gross international reserves (US$ million)	3,003	3,828	4,286	4,344	4,345	4,552	4,867	5,157
In months of imports excl. maquila	7.1	6.5	6.3	6.3	5.9	5.8	5.9	5.9
Net international reserves (U.S.$ million)	1,887	2,531	2,792	2,917	2,877	2,956	3,116	3,247

Sources: National authorities and IMF staff calculations.

9. **With the strong recovery and the rise in oil prices, the external position swung into a deficit in 2021, but it is expected to remain below pre-crisis period (around 2½ percent of GDP) due to robust remittances.** The economic recovery resulted in a current account deficit in 2021 (from a surplus of 3.9 percent of GDP in 2020). The rise in main export prices (gold, coffee) and a relatively robust external demand supported the increase in exports, and strong remittances (15½ percent of the GDP) helped to partially offset the import surge. Remittances cover the trade balance, and the small current account deficit

[5] The long-term growth projection is based on a growth accounting exercise, using a neoclassical production function, and based on annual data from 1994 to 2021. The analysis yields a growth mean of 3.5 percent per year, which remains below pre-crisis and historical average rates, as investors and creditors are expected to remain cautious. Private consumption growth and the associated increase in imports are supported by remittances and FDI, albeit they are conservatively projected at lower growth levels than historical averages.

[6] Total distressed assets, comprised of NPLs, restructured, refinanced, and forborne loans, as well as repossessed assets, reached 22.6 percent in September 2020 and fell to 12.1 percent in September 2022.

is financed by the recovery of FDI inflows (mainly in mining). The external position at end-2021 improved markedly compared to 2018. By end-June 2022, gross international reserves doubled to over US$4.3 billion; about 6 months of imports (excluding *maquila*), albeit GIR is still at the lower end of the recommended range.[7]

Text Table 4. Nicaragua: Key Macroeconomic Assumptions Underlying the DSA

	2021		2022 - 2025 Avg		2026 - 2036 Avg	
	Previous DSA	Current DSA	Previous DSA	Current DSA	Previous DSA	Current DSA
Real GDP (annual percentage change	-0.5	10.3	2.2	3.5	2.8	3.5
Consumer prices (period average)	1.2	3.3	3.5	6.9	3.5	4.0
			(In percent of GDP)			
Total revenue and grants	30.1	33.2	30.9	29.7	31.9	29.4
Of which: Revenue	29.6	32.3	30.4	29.5	31.4	29.2
Total expenditure	34.6	33.5	34.4	32.4	35.1	32.8
Overall balance	-4.6	-0.3	-3.5	-2.7	-3.2	-3.4
Current account balance	-0.2	-2.3	-1.2	-2.1	-2.0	-2.4

Sources: National authorities and IMF staff calculations.

10. On the fiscal side, the NFPS fiscal primary deficit narrowed in 2021 on the back of recovering revenues, but the implementation of new temporary subsidies to mitigate the impact of rising commodity prices will deteriorate the fiscal position in 2022. Facing rising oil, fuels, energy, wheat, and fertilizers prices, the government adopted in May 2022 a temporary package of new subsidies, costing an estimated 1.2 percent of GDP (Text Table 5). This increase in total subsidies is the key factor behind the projected widening of the CPS deficit to 3.3 percent of GDP in 2022. Net external financing of the CPS increased by 1 percentage point of GDP in 2021 (to 5.7 percent of GDP) but is projected to fall to 4.0 percent of GDP in 2022.

Text Table 5. Nicaragua: Fiscal Policy Measures Amid Rising Oil and Food Prices

Measures	**Estimated cost for 2022**		
	Millions of C$	Millions of US$	Percent of GDP
1. Electricity rate subsidy	1,783.5	49.2	0.32
2. Water rate subsidy	392.0	10.5	0.07
3. Gasoline and diesel subsidy	3,973.1	110.5	0.70
4. Liquified gas subsidy	261.9	7.2	0.05
5. Collective transport subsidy	178.3	4.9	0.03
6 Wheat reserves imports	281.4	7.8	0.05
Total Estimated Cost	**6,870.2**	**190.1**	**1.22**

Sources: National authorities and IMF staff calculations.

[7] Using the Fund's adequacy metric for a low-income country with a crawling exchange rate, Nicaragua's characteristics, and a range of opportunity costs for holding reserves, the recommended GIR level ranges from 5.3 to 8.9 months of non-maquila imports.

11. Staff projects an amelioration of the fiscal position over 2023-27. A decrease in the overall deficit will be driven by:

- A projected decline in tax revenues in 2022 and 2023 responding to the economic deceleration projected those years amid a dim global outlook compared to 2021 and reverting to a modest increase for the period 2024-27 as economic activity gradually improves.

- Consistent with the authorities' commitment to maintain fiscal prudence in line with available financing, the baseline scenario assumes a reduction in expenditures over 2022-25 (and maintained thereafter). This consolidation, equivalent to about 1½ percentage points cumulative over four years, is assumed to take the form of reduced current expenditures while maintaining adequate levels of social spending to reduce poverty and its impact is already incorporated as one of the determinants of the protracted medium-term growth recovery. In addition, it includes the expiration of crisis and pandemic related temporary measures.

- Over the medium term, the overall fiscal deficit will stem mainly from imbalances in the finances of the Social Security System (INSS) and the state-owned enterprises, particularly energy and transportation agencies. In fact, INSS is assumed to continue receiving transfers from the government as the ongoing discussions have not yet yielded agreed measures to reduce the INSS deficit.

12. On financing mix, the new external financing share is projected to account for about 54 percent over the medium term but decline over the long term (to about 36 percent). Concessional financing is projected to account for about 36 percent of total financing over medium term and 22 percent over long term. We assume limited new external financing from international financial institutions other than from CABEI, as Nicaragua faces international sanctions since 2018, due to the enactment of the RENACER Act by the United States on November 10, 2021. Although there is room to increase domestic financing with Treasury bonds, this would raise debt servicing costs, as interest rates are expected to continue to rise. The authorities are exploring other financing sources, and any new sources should be incurred on concessional and transparent terms to maintain fiscal sustainability.[8]

13. The baseline assumptions are credible. The realism tools suggest significant deviations from recent experience of LICs and Nicaragua's historical experience, reflecting the impact of the three-year contraction on the economy.

- **Drivers of debt dynamics (Figure 3).** Changes between the sum of debt dynamics contributions of 2016-2021 against 2021-2026 reflect the impact of projected GDP growth, after a three-year recession (2018-2020). This crisis period resulted in an increase of external PPG debt as Nicaragua benefited from external aid for the pandemic and two hurricanes. In the projected period, external financing is expected to decline which is also reflected in the projected change in external private

[8] In January 2022, Nicaragua and China signed a Memorandum of Understanding (MOU) for co-operation on China's Belt and Road Initiative (BRI). Yet, to date, there is no information on expected financing or projects related to this MOU.

sector debt. Similar to the 2019 and 2020 DSAs, the unexplained residual in Figure 3 remains significant in the absence of arrears or debt restructuring.

- **Realism of projected fiscal adjustment (Figure 4).** The baseline projected fiscal adjustment of 1 percent of GDP over three years is below the top quartile for LICs. However, the impact of climate change-related natural disasters has not yet been taken into account; this may dampen growth and exert pressure on the fiscal adjustment path. The current baseline incorporates the 2022 fiscal measures to mitigate the impact of food and oil rising prices, estimated at 1.2 percent of GDP and are assumed to be fully unwound in 2023, as announced. In the medium-term, while growth will revert to potential, fiscal revenue remains subdued in the absence of structural reforms to improve tax administration.

- **Consistency between fiscal adjustment and growth (Figure 4).** The baseline projected growth path substantially deviates from the multiplier-based projections owing to the large economic recovery in 2021 from the three-year crisis. Going forward, economic growth is expected to return to potential (3.5 percent).

- **Consistency between investment and growth (Figure 4).** The maintained contribution of public investment to growth in the current DSA reflects government policies to support the economy during the pandemic and the reconstruction after the hurricanes, within the financing envelope. Private investment contribution is cautiously recovering.

COUNTRY CLASSIFICATION AND STRESS TESTS

14. Nicaragua's debt-carrying capacity under the Composite Indicator (CI) rating of 3.01 is assessed as medium, unchanged from the 2020 DSA (Text Table 6). The WB CPIA score of 3.3—has decreased from the 2020 DSA—contributes a large portion of the CI score. Accordingly, the relevant indicative threshold for the medium category are 40 percent for the PV of debt-to-GDP ratio, 180 percent for the PV of debt-to-exports ratio, 15 percent for the debt service-to-exports ratio, and 18 percent for the debt service-to-revenue ratio, respectively (Text Table 7). These thresholds are applicable to the public and publicly guaranteed external debt. The benchmark for the PV of total public debt under medium debt carrying capacity is 55 percent.[9, 10]

[9] As in the previous DSA, the updated three-year moving average CPIA rating was used.
[10] Other components of the CI score are real growth rate, import coverage of reserves, import coverage of reserves squared, remittances, and world economic growth (see specific values in Text Table 6).

Text Table 6. Nicaragua: Calculation of the CI

Components	2019	2020	2021	(A) 10-yr average	(B) Weights	(C) = (A)*(B) 10-yr average	(C) = (A)*(B) Contribution of Components
CPIA	3.44	3.38	3.28	3.36	0.39	1.30	43%
Real growth rate (in percent)	-3.78	-1.79	10.34	2.40	2.72	0.07	2%
Import coverage of reserves (in percent)	35.18	50.58	46.08	39.29	4.05	1.59	53%
Import coverage of reserves^2 (in percent)	12.38	25.58	21.24	15.43	-3.99	-0.62	-20%
Remittances (in percent)	13.34	14.71	15.33	13.74	2.02	0.28	9%
World economic growth (in percent)	2.81	-2.95	6.02	2.90	13.52	0.39	13%
CI Score						3.01	100%

Sources: National authorities and IMF staff calculations.

Text Table 7. Nicaragua: PPG External Debt Thresholds and Total Public Debt Benchmarks

EXTERNAL Debt Burden Thresholds	Weak	Medium	Strong
PV of Debt in % of			
Exports	140	180	240
GDP	30	40	55
Debt Service in % of			
Exports	10	15	21
Revenue	14	18	23

Sources: National authorities and IMF staff calculations.

DEBT SUSTAINABILITY

EXTERNAL DEBT SUSTAINABILITY ANALYSIS

15. The evolution of external debt in the baseline scenario is benign. PPG external debt is relatively stable and is expected to decrease gradually to 45.1 percent of GDP over the medium term and up to around 31.6 percent of GDP in 2042 (Table 1; better than the 2017, 2019 and 2020 DSA). The present value of PPG external debt is projected to decline from 31.6 percent to 26.6 percent of GDP over the 10-year projection term and remain well under the threshold of 40 percent (Table 3 and Figure 1). A slight downward path—still under the threshold—can be observed for other solvency (PV of external debt-to-exports from 63.2 to 54.5 percent) and liquidity indicators (debt service-to-exports and debt service-to-revenue from 5.2 to 5.0 percent and from 8.7 to 8.4 percent, respectively) (Figure 1). These dynamics are driven by a consistent recovery in GDP growth over the medium term. At the same time, private external debt is projected to decline as the debt owed to Venezuela is paid down.[11]

[11] Nicaragua's collaboration with Venezuela was agreed upon on April 2007 and based on a broad framework for oil import-related financing as well as other financing (e.g., FDI) and debt servicing schemes (through in-kind repayments). PDVSA, a Venezuelan state-owned oil company, supplied petroleum and was a financial agent for FDI and other arrangements in Nicaragua. ALBANISA (51% stake owned by PDVSA and 49% stake owned by PETRONIC, Nicaragua's state-owned oil

16. Three of the standardized stress scenarios breach the threshold for external PPG debt-to-GDP ratio (Table 3 and Figure 1), a slight improvement relatively to the 2020 DSA. Simulations include standardized tailored shock scenarios[12]—contingent liability, natural disaster, and commodity price shocks (Table 3). The scenario with combination of external shocks in 2022 is the worst performing scenario. It reaches up to 46 percent in the short term over 2024-26, and then decreases below the threshold of 40 percent to around 37 percent of GDP in the long term (Table 3). The scenarios of shocks to exports and capital flows slightly breach the threshold over 2024-2028 but revert to about 35 percent in the long run. Differently from previous DSAs, the contingent liability scenario does not show a breach of the threshold for external PPG debt-to-GDP ratio. Under this scenario, the external PPG debt-to-GDP ratio increased from 32 percent in 2022 to 38 percent in 2024, and then gradually returns to 31 percent over the long term. Thus, only the alternative scenario in which key variables are considered at their historical averages shows a breach of the threshold for external PPG debt-to-GDP ratio and an increased trajectory.

PUBLIC SECTOR DEBT SUSTAINABILITY ANALYSIS

17. In the baseline scenario, public debt is projected to peak at 58.1 percent of GDP in 2022 and remain around 55 percent of GDP over the forecast period (Table 2). Public debt is projected to decrease in 2023 to 56.1 percent of GDP as nominal GDP dynamic outpaces debt creating flows and is expected to reach 54.2 percent of GDP by 2027. External PPG debt is projected to decline from around 45.3 percent of GDP in 2021 to 31.6 percent of GDP by 2042. Domestic public debt is projected to increase by 9 percentage points and climb to 21 percent of GDP by 2042 as the primary deficit increases and the average real interest rate on domestic debt remains elevated. Under the baseline scenario there is no breach of the PV of public debt benchmark of 55 percent of GDP while PV of public debt is gradually approaching the benchmark. While the solvency indicator (PV of debt-to-revenues) remains above 130 percent over the projection period, the liquidity indicator (debt service to revenue) shows a gradual increase over the long term (reaching 30.7 percent). The increase in debt service-to-revenue, driven by an increase in public domestic and external interest payments, would reduce fiscal space over the projection period. The increasing interest rate responds to shift to domestic debt issuance, which has a market-determined rate of interest, as well as a gradual decline in concessional resources.

18. The standardized shock scenarios demonstrate a relative strength of public debt sustainability to deviations in the baseline assumptions (Table 4 and Figure 2). Threshold breaches occur under only a shock to GDP growth, while it remains below the threshold under all other standard scenarios. The shock scenario with largest impact on debt-to-GDP ratios is a contraction of GDP by 1.6 and 1.3 percent in 2023 and 2024, respectively (Table 4).[13] On the other hand, the primary balance scenario

company) imported oil from PDVSA and sold in Nicaragua at market prices. Under the agreement, 100 percent of the oil bill was paid by ALBANISA to PDVSA within 90 days. On behalf of PDVSA, 50 percent of the oil bill (FOB) was then transferred to Caja Rural Nacional (CARUNA), a privately owned Nicaraguan financial cooperative, in the form of a long-term loan (payable over 25 years, with a 2-year grace period, 2 percent interest, and grant element of 30 percent). Of the funds received, 38 percent were used for quasi-fiscal operations (e.g., subsidies and transfers for electricity and transport, and public sector wage bonuses) and the remainder used to finance for-profit projects. Payments to PDVSA for oil or the debt service on oil financing could be made in cash or in kind (WB 2017 Nicaragua SCD).

[12] The combination of these tests is deemed sufficient for Nicaragua.

[13] This standardized scenario is based on 10-year historical average and standard deviation.

demonstrates that the public debt path is not sensitive to plausible deviations from the fiscal consolidation plans. Meanwhile, the tailored shocks to natural disasters and commodity prices breach the 55 percent threshold, showing that despite debt sustainability not being sensitive to the standard shocks, it could be at risk from other external shocks.

RISK RATING AND VULNERABILITIES

19. Risks to the outlook are mostly to the downside, primarily due to global headwinds. A more severe global downturn than currently incorporated into the baseline assumptions, further monetary tightening (in the U.S.), or a prolongation of Russia's invasion of Ukraine, could result in lower growth due to a decline in demand from trading partners, and tighter financial conditions. Continued inflationary pressures could pose risks to food affordability, and the fiscal position. Fiscal balances, economic activity and social outcomes could be strained by natural disasters, given Nicaragua's high exposure and economic dependence on climate sensitive sectors. A further deterioration in the business climate and stricter international sanctions could pose elevated risks to trade and financing flows, and thereby growth. Materialization of such risks would result in larger gross financing needs and debt level, which in turn would require adjustment of fiscal and monetary policies, including through targeted and time-bound fiscal support measures and tighter monetary stance, and acceleration of structural reforms to enhance competitiveness, facilitate job creation, strengthen economic resilience, and support the most vulnerable.

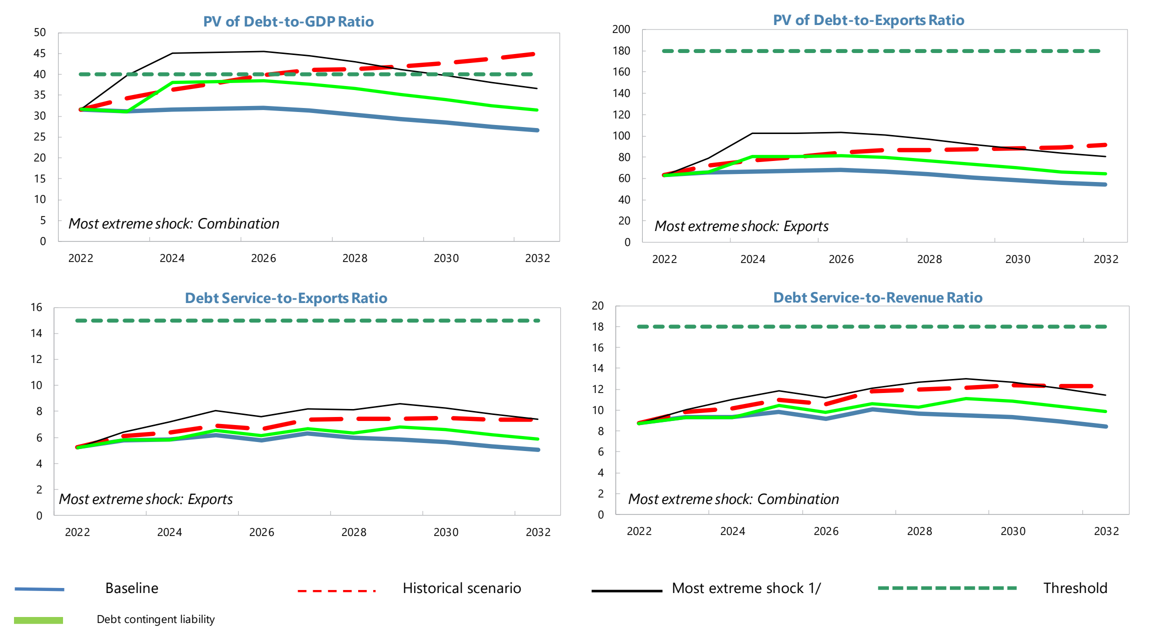
20. Nicaragua's risk of external debt distress is assessed to be moderate with space to absorb shocks under the updated LIC DSA. Under the baseline scenario, all external debt burden indicators remain below the threshold over the 10-year projection horizon. However, under the stress scenario of export shocks, the PV of PPG external debt-to-GDP ratio threshold is breached continuously over the projection horizon. This is also true under the stress scenario of export shocks and under the ALBANISA contingent liability scenario. Nicaragua still has vulnerability of external PPG debt to external shocks and contingent liability risk of the private debt from Venezuela, which were present on past DSAs, calling for the need to strengthen external buffers.

21. Public debt in Nicaragua remains at a moderate risk of debt distress. Under the baseline, PV of public debt-to-GDP ratio is projected to remain below the threshold over the 10-year projection horizon. However, under the stress scenario of growth shocks in 2022–23—even considering the projected 4.0 percent GDP growth in the baseline scenario—the PV of public debt-to-GDP ratio is projected to be on an upward trajectory and above the threshold over the projection horizon. Similarly, under the ALBANISA contingent liability scenario, the PV of public debt-to-GDP ratio is projected to be close to the threshold over the projection horizon.

AUTHORITIES' VIEWS

22. The authorities broadly agreed with staff's assessment that Nicaragua's debt is sustainable as overall and external debt distress risk rating remain moderate. The authorities also concurred on the vulnerability of external debt to external shocks and of public debt to growth and contingent liability shocks. Given Nicaragua's vulnerabilities, the authorities remain committed in seeking mostly concessional financing, while they continue to develop the domestic government debt market.

Figure 1. Nicaragua: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2022-32



Customization of Default Settings	Size	Interactions
Tailored Stress		
Combined CL	No	
Natural disaster	No	No
Commodity price	No	No
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.

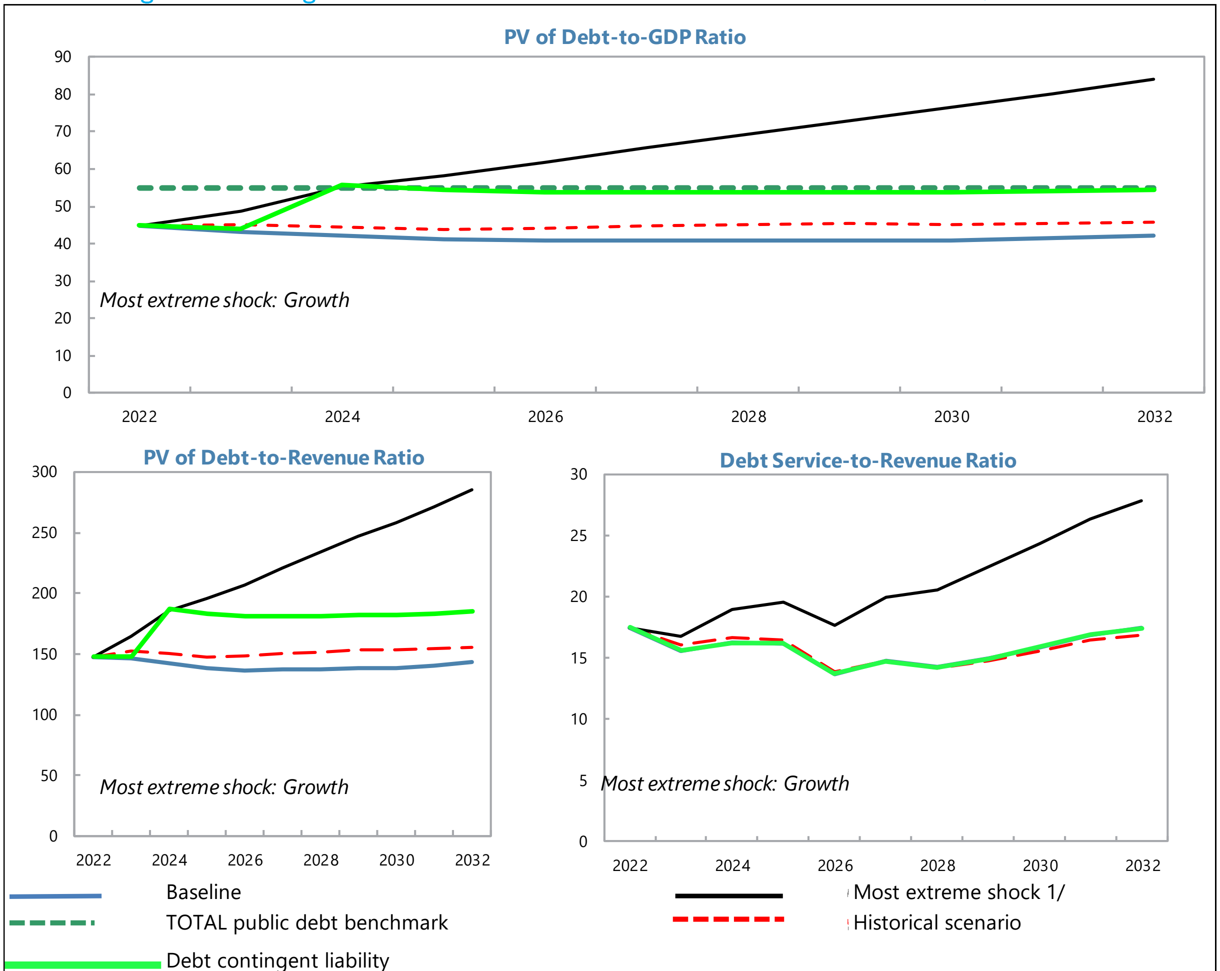
Borrowing assumptions on additional financing needs resulting from the stress tests*	Default	User defined
Shares of Marginal Debt		
External PPG MLT debt	100%	
Terms of Marginal Debt		
Avg. nominal interest rate on new borrowing in USD	2.0%	2.0%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	27	27
Avg. grace period	4	4

* 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 2032. 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. Nicaragua: Indicators of Public Debt Under Alternative Scenarios, 2022-32



Borrowing assumptions on additional financing needs resulting from the stress tests*	Default	User Defined
Shares of marginal debt		
External PPG medium and long-term	78%	78%
Domestic medium and long-term	22%	22%
Domestic short-term	0%	0%
Terms of Marginal Debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	2.0%	2.0%
Avg. maturity (incl. grace period)	27	27
Avg. grace period	4	4
Domestic MLT debt		
Avg. real interest rate on new borrowing	0.0%	0.0%
Avg. maturity (incl. grace period)	5	5
Avg. grace period	1	1
Domestic short-term debt		
Avg. real interest rate	0.0%	0.0%

* 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 2032. 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 extreme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

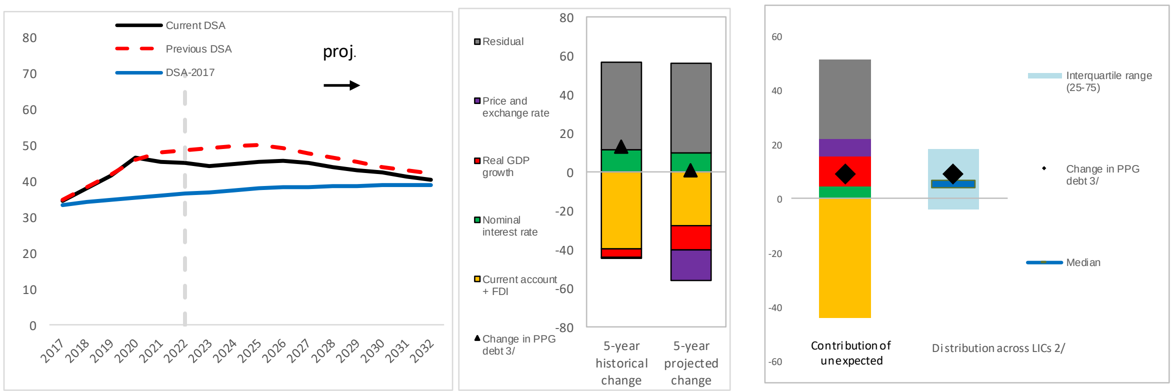
Figure 3. Nicaragua: Drivers of Debt Dynamics – Baseline Scenario External Debt

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)

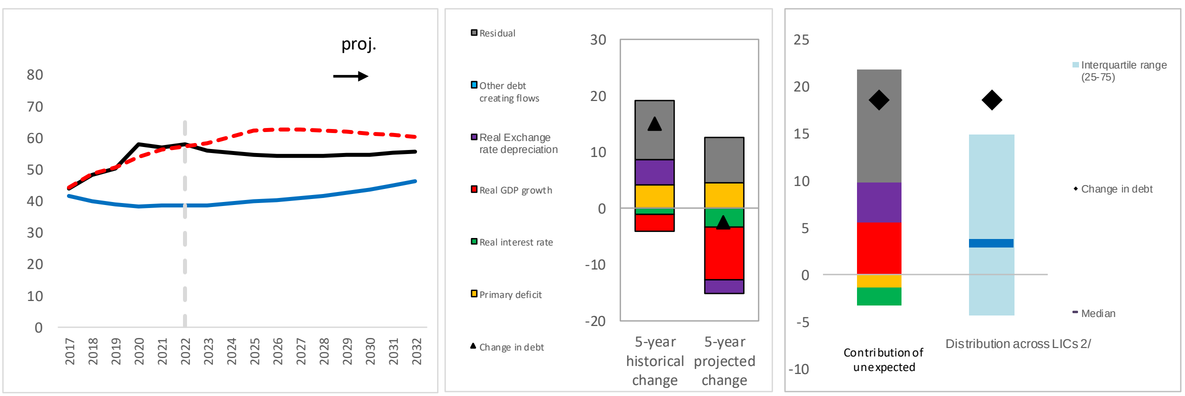


Public debt

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.

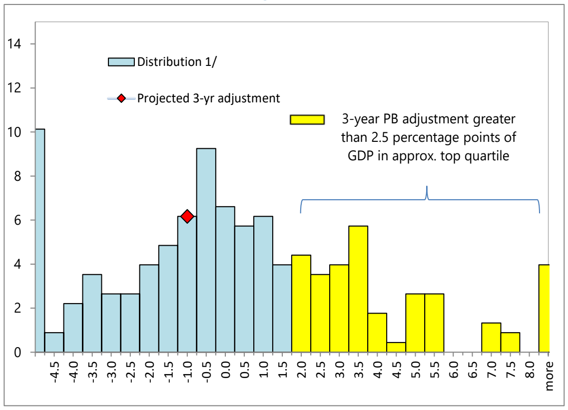
2/ Distribution across LICs for which LIC DSAs were produced.

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.

Sources: Country authorities; and staff estimates and projections

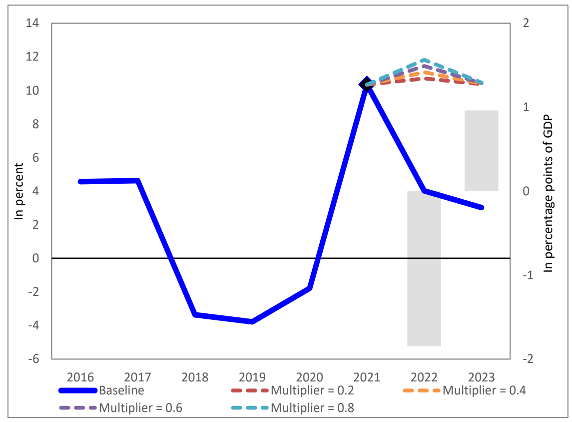
Figure 4. Nicaragua: Realism Tool

3-Year Adjustment in Primary Balance
(Percentage points of GDP)



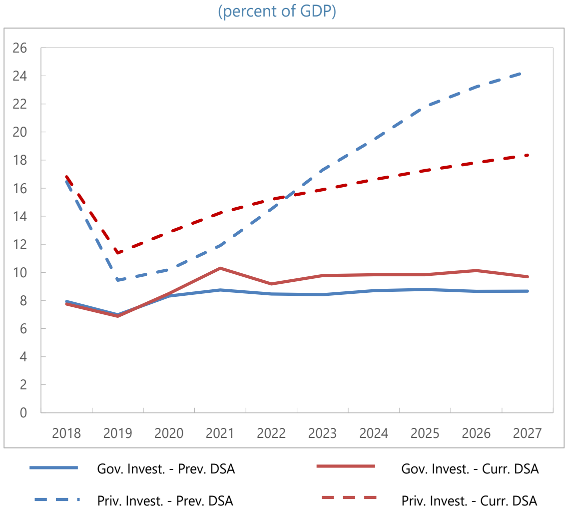
1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

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
(percent of GDP)



Contribution to Real GDP growth
(percent, 5-year average)

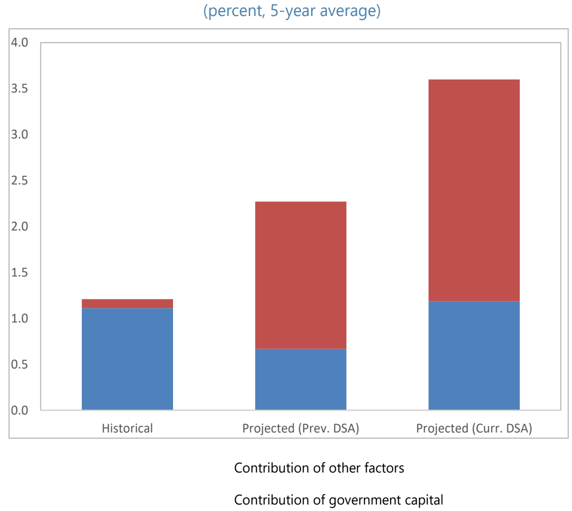
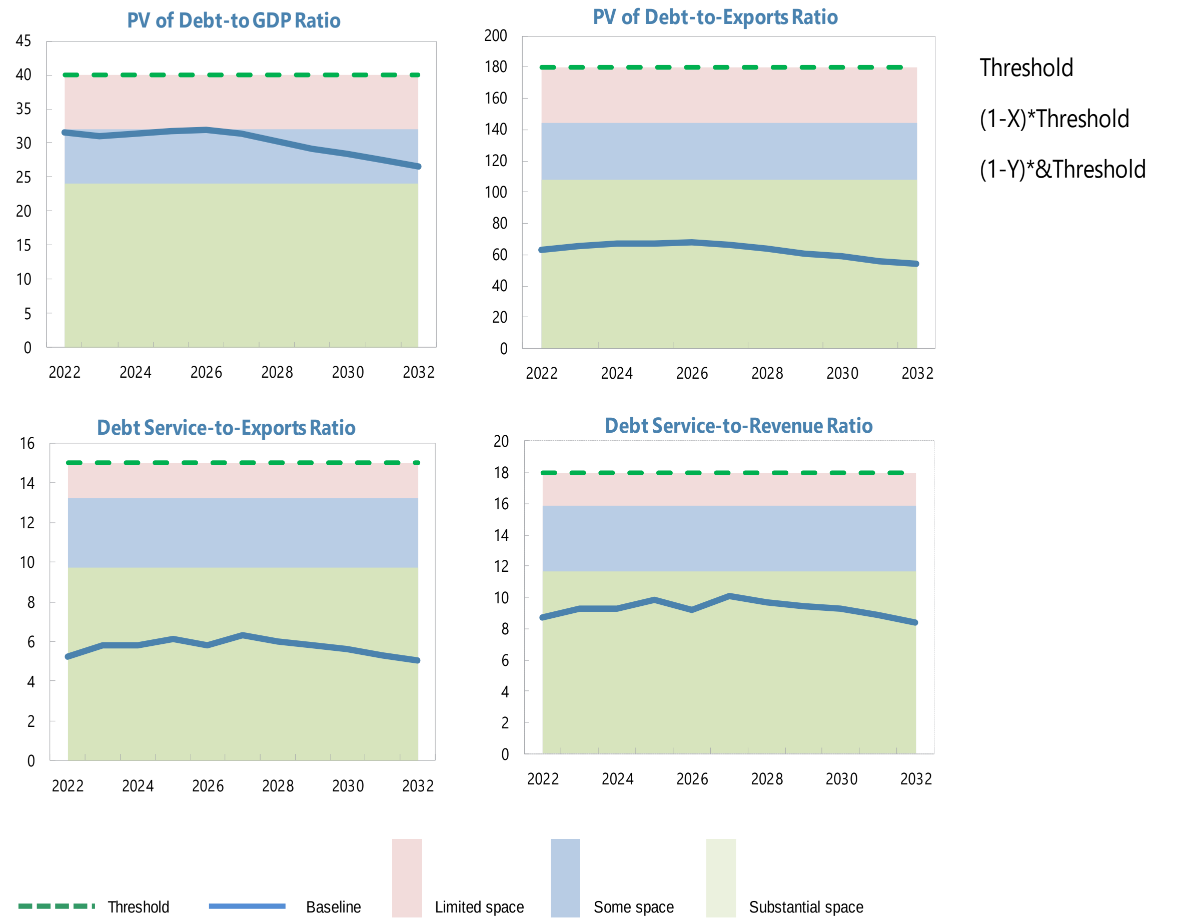


Figure 5. Nicaragua: Qualification of the Moderate Category, 2022-2032 1/



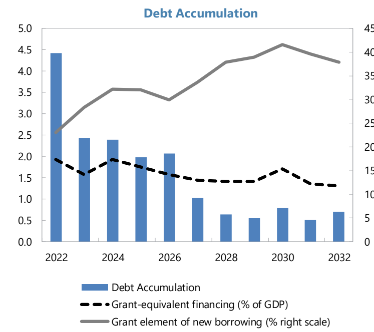
Sources: Country authorities; and staff estimates and projections.

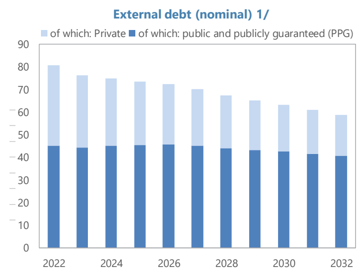
1/ For the PV debt/GDP and PV debt/exports thresholds, x is 20 percent and y is 40 percent. For debt service/Exports and debt service/revenue thresholds, x is 12 percent and y is 35 percent.

Table 1. Nicaragua: External Debt Sustainability Framework, Baseline Scenario, 2019–42
(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 8/	
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2032	2042	Historical	Projections
												80.6	69.4
												36.7	43.8
Change in external debt	3.3	5.5	-5.7	-4.8	-4.2	-1.4	-1.3	-1.3	-2.3	-2.1	-1.6		
												-4.1	-5.6
Non-interest Current Account Deficit	-8.4	-7.8	0.9	-0.1	-0.3	0.4	0.5	0.3	0.2	-0.8	3.1	3.2	0.0
Deficit in balance of goods and services	4.3	4.7	12.1	14.7	12.5	13.3	13.5	13.5	13.5	11.1	11.9	13.4	12.8
Exports	45.3	42.4	47.3	50.0	47.2	47.1	47.1	47.1	47.2	48.9	48.0		
Imports	49.6	47.2	59.3	64.7	59.7	60.4	60.6	60.7	60.7	60.0	59.8		
Net current transfers (negative = inflow)	-13.9	-15.3	-15.6	-19.1	-16.5	-16.5	-16.6	-16.8	-16.8	-16.0	-13.5	-13.0	-16.6
of which: official	-1.0	-1.0	-0.9	-0.4	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2		
Other current account flows (negative = net inflow)	1.3	2.7	4.4	4.3	3.7	3.6	3.6	3.6	3.4	4.1	4.7	2.8	3.8
Net FDI (negative = inflow)	-3.5	-3.9	-8.6	-7.8	-5.1	-5.0	-5.1	-5.2	-5.2	-5.0	-5.0	-6.6	-5.3
Endougenous Debt Dynamics 2/	5.1	4.0	-7.8	-1.3	-0.1	-0.4	-0.4	-0.2	-0.1	-0.2	-0.9		
Contribution from nominal interest rate	2.4	3.8	1.4	1.8	2.1	2.0	2.1	2.2	2.3	1.8	0.5		
Contribution from real GDP growth	3.2	1.5	-8.5	-3.1	-2.2	-2.4	-2.5	-2.4	-2.4	-2.0	-1.4		
Contribution from price and exchange rate changes	-0.5	-1.4	-0.7	...	...	...	...	...	...	...	...		
Residual 3/	10.1	13.2	9.9	4.4	1.3	3.6	3.6	3.7	2.8	3.9	1.2	5.4	3.2
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	...	...	31.1	31.6	31.1	31.5	31.7	32.0	31.3	26.6	19.9		
PV of PPG external debt-to-exports ratio	...	...	65.7	63.2	65.8	66.8	67.2	67.9	66.3	54.5	41.5		
PPG debt service-to-exports ratio	1.5	1.2	1.7	5.2	5.8	5.8	6.2	5.8	6.3	5.0	4.3		
PPG debt service-to-revenue ratio	2.2	1.7	2.5	8.7	9.3	9.3	9.8	9.2	10.1	8.4	7.2		
Gross external financing need (Million of U.S. dollars)	918.9	1125.4	2761.8	3101.0	2804.0	2999.1	3156.5	3246.7	3353.4	3417.7	6123.1		
Key Macroeconomic Assumptions													
Real GDP growth (in percent)	-3.8	-1.8	10.3	4.0	3.0	3.3	3.5	3.5	3.5	3.5	3.5	3.2	3.5
GDP deflator in US dollar terms (change in percent)	0.6	1.6	0.8	8.1	6.3	2.9	2.0	2.0	2.0	2.0	2.0	0.6	3.0
Effective interest rate (percent) 4/	2.8	4.5	1.7	2.4	2.9	2.7	2.9	3.2	3.4	3.2	1.2	2.5	3.1
Growth of exports of G&S (US dollar terms, in percent)	2.8	-6.5	23.9	18.9	3.4	6.1	5.6	5.5	5.6	5.3	5.3	4.5	7.0
Growth of imports of G&S (US dollar terms, in percent)	-7.4	-5.0	39.9	22.6	1.0	7.6	5.9	5.5	5.6	5.5	5.5	3.2	6.8
Grant element of new public sector borrowing (in percent)	...	...	...	23.0	28.4	32.2	32.0	29.9	33.6	37.8	35.4	...	34.1
Government revenues (excluding grants, in percent of GDP)	30.5	30.2	32.3	29.9	29.4	29.4	29.5	29.6	29.5	29.2	28.8	27.9	29.5
Aid flows (in Million of US dollars) 5/	130.1	120.5	128.8	312.6	290.1	430.4	424.6	423.2	434.7	535.4	676.8		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	1.9	1.6	1.9	1.8	1.6	1.4	1.3	1.0	...	1.6
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	27.2	31.0	35.3	34.9	32.9	37.2	42.0	41.1	...	37.6
Nominal GDP (Million of US dollars)	12,611	12,586	14,001	15,737	17,233	18,324	19,331	20,400	21,528	28,175	48,261		
Nominal dollar GDP growth	-3.2	-0.2	11.2	12.4	9.5	6.3	5.5	5.5	5.5	5.5	5.5	3.8	6.6
Memorandum Items:													
PV of external debt 7/	...	...	71.1	66.9	63.1	61.4	59.8	58.5	56.2	44.9	30.0		
In percent of exports	...	...	150.5	133.9	133.7	130.3	126.9	124.0	119.0	91.9	62.5		
Total external debt service-to-exports ratio	26.8	30.3	21.6	23.9	24.5	23.2	22.8	22.0	21.6	16.2	9.6		
PV of PPG external debt (in Million of US dollars)			4350.4	4968.7	5351.4	5763.9	6126.8	6527.6	6737.5	7505.9	9612.5		
(PVt-PVt-1)/GDPt-1 (in percent)				4.4	2.4	2.4	2.0	2.1	1.0	0.7	0.4		
Non-interest current account deficit that stabilizes debt ratio	-11.7	-13.3	6.6	4.7	3.9	1.8	1.8	1.7	2.5	1.3	4.7		

Definition of external/domestic debt	Residency-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) + Ɛα (1+r)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, ρ = growth rate of GDP deflator in U.S. dollar terms, Ɛ=nominal appreciation of the local currency, and α= share of local currency-denominated external debt in total external debt.

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.

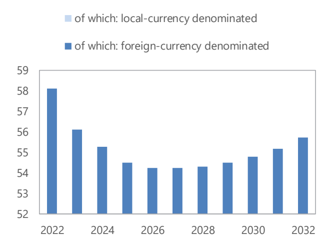
8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

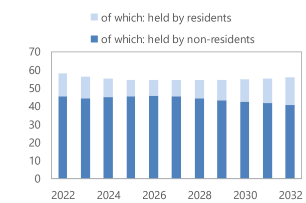
Table 2. Nicaragua: Public Sector Debt Sustainability Framework, Baseline Scenario, 2019–42
(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 6/	
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2032	2042	Historical	Projections
Public Sector Debt 1/	50.2	57.8	56.9	58.1	56.1	55.3	54.5	54.3	54.2	55.7	52.3	46.4	55.2
of which: external debt	41.6	46.6	45.3	45.2	44.3	44.9	45.4	45.8	45.1	40.5	31.6	36.7	43.8
Change in Pub;ic Sector Debt	1.9	7.6	-0.9	1.2	-2.0	-0.8	-0.8	-0.3	0.0	0.5	-0.3		
Identified debt-creating flows	2.1	1.5	-5.1	-3.0	-1.6	-1.0	-1.2	-1.2	-1.1	-0.5	1.3	-0.1	-1.2
Primary deficit	-0.3	1.1	0.0	1.8	0.9	0.8	0.5	0.6	0.6	1.3	3.3	0.8	0.9
Revenue and grants	31.6	31.1	33.2	30.3	29.6	29.7	29.7	29.8	29.7	29.4	29.0	29.1	29.7
of which: grants	1.0	1.0	0.9	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
Primary (noninterest) expenditure	31.3	32.2	33.1	32.1	30.5	30.5	30.3	30.4	30.3	30.7	32.3	29.9	30.6
Automatic Debt Dynamics	2.4	0.3	-5.1	-4.9	-2.5	-1.8	-1.8	-1.8	-1.6	-1.8	-2.0		
Contribution from interest rate/growth differential	1.9	0.9	-6.5	-4.9	-2.5	-1.8	-1.8	-1.8	-1.6	-1.8	-2.0		
of which: contribution from average real interest rate	0.0	0.0	-1.1	-2.7	-0.8	0.0	0.1	0.1	0.2	0.0	-0.2		
of which: contribution from real GDP growth	1.9	0.9	-5.4	-2.2	-1.7	-1.8	-1.9	-1.8	-1.8	-1.9	-1.8		
Contribution from real exchange rate depreciation	0.5	-0.6	1.4	...	...	...	...	...	...	...	...		
Other Identified Debt-creating Flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Privatization receipts (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Recognition of 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	-0.1	6.1	4.2	4.3	-0.4	0.1	0.5	1.0	1.0	1.0	-1.6	1.4	1.1
Sustainability Indicators													
PV of public debt-to-GDP ratio 2/	...	11.2	43.0	44.8	43.2	42.1	41.1	40.8	40.8	42.1	40.8		
PV of public debt-to-revenue and grants ratio	...	36.0	129.5	147.8	145.9	141.8	138.1	136.7	137.2	143.0	140.8		
Debt service-to-revenue and grants ratio 3/	5.3	3.3	5.3	17.5	15.6	16.2	16.2	13.7	14.7	17.4	30.7		
Gross financing needs 4/	1.4	2.2	1.7	7.1	5.5	5.6	5.4	4.6	4.9	6.4	12.2		
Key Macroeconomic and Fiscal Assumptions													
Real GDP growth (in percent)	-3.8	-1.8	10.3	4.0	3.0	3.3	3.5	3.5	3.5	3.5	3.5	3.2	3.5
Average nominal interest rate on external debt (in percent)	1.8	1.2	2.0	1.8	2.0	2.0	2.0	2.0	2.4	2.1	1.5	1.6	2.1
Average real interest rate on domestic debt (in percent)	1.3	1.2	-2.7	1.4	1.5	4.8	6.9	9.3	11.1	5.7	3.2	1.5	6.6
Real exchange rate depreciation (in percent, + indicates depreciation)	1.0	-1.2	2.8	...	...	...	...	...	...	...	...	1.2	...
Inflation rate (GDP deflator, in percent)	5.5	5.5	3.3	10.2	8.4	5.0	4.0	4.0	4.0	4.0	4.0	5.2	5.1
Growth of real primary spending (deflated by GDP deflator, in percent)	-2.8	1.3	13.5	0.9	-2.3	3.3	2.8	3.9	3.0	3.8	3.9	5.5	2.8
Primary deficit that stabilizes the debt-to-GDP ratio 5/	-2.3	-6.5	0.9	0.6	2.9	1.6	1.3	0.8	0.6	0.8	3.6	-2.6	1.0
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	**Residency-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 plus social security, central bank, government-guaranteed debt . Definition of external debt is Residency-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. Nicaragua: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2022-32

	Projections 1/										
	2022	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
PV of debt-to GDP ratio											
Baseline	32	31	31	32	32	31	30	29	28	27	27
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	32	36	**40**	**44**	**48**	**51**	**53**	**56**	**59**	**62**	**65**
A2. Alternative Scenario: ALBA debt contingent liability scenario	32	31	38	38	38	38	37	35	34	33	31
B. Bound Tests											
B1. Real GDP growth	32	33	36	37	37	36	35	34	33	32	31
B2. Primary balance	32	32	32	33	33	32	31	30	29	28	28
B3. Exports	32	35	**41**	**42**	**42**	**41**	40	38	37	35	34
B4. Other flows 3/	32	37	**43**	**43**	**43**	**42**	**41**	39	38	36	35
B5. Depreciation	32	39	35	36	36	35	34	33	32	31	30
B6. Combination of B1-B5	32	**40**	**46**	**46**	**46**	**45**	**44**	**42**	**40**	39	37
C. Tailored Tests											
C1. Combined contingent liabilities	32	36	36	37	37	37	36	35	34	33	32
C2. Natural disaster	32	37	38	38	39	39	38	37	37	36	35
C3. Commodity price	32	31	31	32	32	31	30	29	28	27	27
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	40	40	40	40	40	40	40	40	40	40	40
PV of debt-to-exports ratio											
Baseline	63	66	67	67	68	66	64	61	59	56	55
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	63	77	86	94	102	108	113	117	121	126	132
A2. Alternative Scenario: ALBA debt contingent liability scenario	63	66	81	81	81	80	77	73	70	66	64
B. Bound Tests											
B1. Real GDP growth	63	66	67	67	68	66	64	61	59	56	55
B2. Primary balance	63	67	69	69	70	69	66	63	61	58	57
B3. Exports	63	79	103	103	103	101	97	92	88	84	81
B4. Other flows 3/	63	78	91	91	91	89	86	81	78	73	71
B5. Depreciation	63	66	60	61	62	60	58	55	54	51	50
B6. Combination of B1-B5	63	83	87	96	96	94	90	86	82	77	75
C. Tailored Tests											
C1. Combined contingent liabilities	63	76	77	78	79	78	75	72	70	67	66
C2. Natural disaster	63	80	82	83	85	84	82	80	78	75	74
C3. Commodity price	63	66	67	67	68	66	64	61	59	56	55
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	180	180	180	180	180	180	180	180	180	180	180
Debt service-to-exports ratio											
Baseline	5	6	6	6	6	6	6	6	6	5	5
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	5	6	6	7	7	8	8	9	9	9	9
A2. Alternative Scenario: ALBA debt contingent liability scenario	5	6	6	7	6	7	6	7	7	6	6
B. Bound Tests											
B1. Real GDP growth	5	6	6	6	6	6	6	6	6	5	5
B2. Primary balance	5	6	6	6	6	6	6	6	6	5	5
B3. Exports	5	6	7	8	8	8	8	9	8	8	7
B4. Other flows 3/	5	6	6	7	6	7	7	7	7	7	6
B5. Depreciation	5	6	6	6	6	6	6	5	5	5	5
B6. Combination of B1-B5	5	6	7	7	7	7	8	8	8	7	7
C. Tailored Tests											
C1. Combined contingent liabilities	5	6	6	6	6	7	6	6	6	6	5
C2. Natural disaster	5	6	6	7	6	7	7	6	6	6	6
C3. Commodity price	5	6	6	6	6	6	6	6	6	5	5
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	15	15	15	15	15	15	15	15	15	15	15
Debt service-to-revenue ratio											
Baseline	9	9	9	10	9	10	10	9	9	9	8
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	9	10	10	11	11	13	13	14	15	15	16
A2. Alternative Scenario: ALBA debt contingent liability scenario	9	9	9	10	10	11	10	11	11	10	10
B. Bound Tests	9	9	9	10	10	11	10	11	11	10	10
B1. Real GDP growth	9	10	11	11	11	12	11	11	11	10	10
B2. Primary balance	9	9	9	10	9	10	10	10	10	9	9
B3. Exports	9	10	10	11	10	11	11	12	12	11	11
B4. Other flows 3/	9	9	10	11	10	11	12	12	12	11	11
B5. Depreciation	9	12	12	12	11	12	12	11	11	10	10
B6. Combination of B1-B5	9	10	11	12	11	12	13	13	13	12	12
C. Tailored Tests											
C1. Combined contingent liabilities	9	9	10	10	10	11	10	10	10	9	9
C2. Natural disaster	9	9	10	10	10	11	10	10	10	10	9
C3. Commodity price	9	9	9	10	9	10	10	9	9	9	8
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	18	18	18	18	18	18	18	18	18	18	18

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. Nicaragua Sensitivity Analysis for Key Indicators of Public Debt, 2022-32

	Projections 1/										
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
					PV of Debt-to-GDP Ratio						
Baseline	45	43	42	41	41	41	41	41	41	41	42
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	45	45	45	44	44	45	45	45	45	46	46
A2. Alternative Scenario: ALBA debt contingent liability scenario	45	44	**56**	54	54	54	54	54	54	54	54
B. Bound Tests											
B1. Real GDP growth	45	49	**55**	**58**	**62**	**66**	**69**	**73**	**76**	**80**	**84**
B2. Primary balance	45	45	45	44	45	45	46	46	47	48	49
B3. Exports	45	46	51	50	49	49	49	48	48	48	48
B4. Other flows 3/	45	49	53	52	52	52	51	51	50	50	50
B5. Depreciation	45	50	47	44	43	42	40	39	38	37	37
B6. Combination of B1-B5	45	44	44	43	44	44	45	46	46	47	48
C. Tailored Tests											
C1. Combined contingent liabilities	45	51	50	50	50	50	51	51	52	52	53
C2. Natural disaster	45	52	52	52	52	53	54	55	**55**	**56**	**57**
C3. Commodity price	45	46	47	50	52	**56**	**59**	**63**	**66**	**70**	**74**
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	55	55	55	55	55	55	55	55	55	55	55
					PV of Debt-to-Revenue Ratio						
Baseline	148	146	142	138	137	137	138	138	139	141	143
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	148	152	150	148	148	150	152	153	153	154	156
A2. Alternative Scenario: ALBA debt contingent liability scenario	18	16	16	16	14	15	14	15	16	17	17
B. Bound Tests											
B1. Real GDP growth	148	165	186	195	207	221	234	247	258	272	285
B2. Primary balance	148	150	151	149	150	152	154	157	159	162	166
B3. Exports	148	156	171	167	165	165	165	164	162	163	164
B4. Other flows 3/	148	165	180	176	174	174	173	172	170	170	170
B5. Depreciation	148	169	159	150	144	140	136	133	129	127	125
B6. Combination of B1-B5	148	147	148	146	146	149	152	154	156	160	163
C. Tailored Tests											
C1. Combined contingent liabilities	148	172	169	167	167	169	171	173	175	178	181
C2. Natural disaster	148	177	175	174	175	178	181	184	187	191	195
C3. Commodity price	148	154	160	166	176	188	199	212	224	238	251
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	18	16	16	16	14	15	14	15	16	17	17
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	18	16	17	16	14	15	14	15	16	16	17
A2. Alternative Scenario: ALBA debt contingent liability scenario	18	16	16	16	14	15	14	15	16	17	17
B. Bound Tests											
B1. Real GDP growth	18	17	19	20	18	20	21	22	24	26	28
B2. Primary balance	18	16	16	16	14	15	15	15	16	17	18
B3. Exports	18	16	17	17	14	15	15	17	18	19	19
B4. Other flows 3/	18	16	17	17	15	16	16	18	18	19	20
B5. Depreciation	18	16	18	18	15	17	16	16	17	17	17
B6. Combination of B1-B5	18	15	16	16	14	15	14	15	16	17	18
C. Tailored Tests											
C1. Combined contingent liabilities	18	16	17	18	16	17	16	16	17	18	18
C2. Natural disaster	18	16	17	19	16	17	17	17	18	19	19
C3. Commodity price	18	16	16	16	15	17	17	19	21	23	24
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.