

INTERNATIONAL DEVELOPMENT ASSOCIATION

INTERNATIONAL MONETARY FUND

NICARAGUA

JOINT WORLD BANK-IMF DEBT SUSTAINABILITY ANALYSIS

November 2020

Prepared Jointly by the staffs of the International Development Association (IDA)
and the International Monetary Fund (IMF)

Nicaragua: Joint Bank-Fund Debt Sustainability Analysis	
Risk of External Debt Distress:	Moderate ¹
Overall Risk of Debt Distress:	Moderate
Granularity in the Risk Rating:	Limited space to absorb shocks
Application of Judgment:	No
Macroeconomic Projections:	Real GDP at -5.5 percent in 2020. Reduced exports, tourism, remittances, and FDI effect a current account deterioration of more than 5½ percentage points of GDP in 2020. ² Protracted negative effects in activity, exports, remittances and inflows are projected.
Financing Strategy:	Same as previous DSA with additional financing needs filled by RFI/RCF, other multilateral institutions (i.e. WB ³ and IADB).
Realism Tools Flagged:	None
Mechanical Risk Rating under the External DSA:	Moderate
Mechanical Risk Rating under the Public DSA:	Moderate

¹ Nicaragua's Composite Indicator score is 2.94 which is based on October 2019 WEO and 2018 CPIA and the classification of debt-carrying capacity is medium.

² Historical data for the current account balance has been revised with respect to the last Bank-IMF DSA (February 2020).

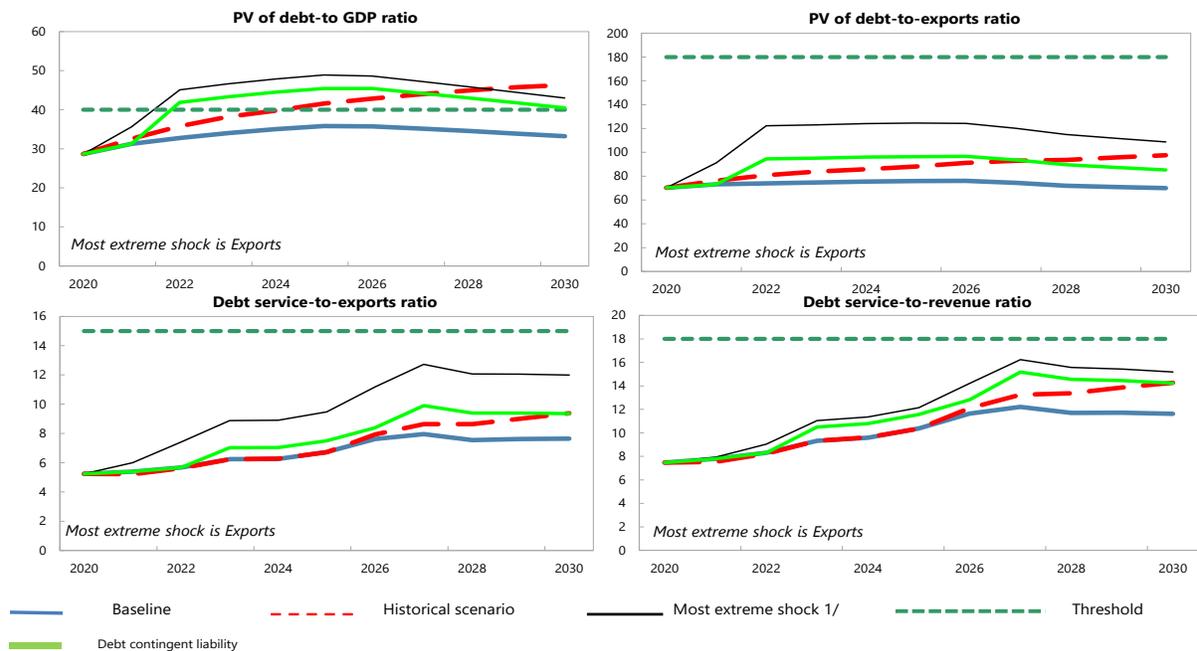
³ In response to the COVID-19 pandemic, the World Bank is making available, on humanitarian grounds, an emergency health loan of US\$13.1 million, due for Board review in November 2020.

Joint Bank-Fund Debt Sustainability Analysis⁴

Risks of external debt distress and overall risk of debt distress are both assessed as moderate with limited space to absorb shocks, which is unchanged relative to the previous DSA of February 2020. The baseline scenario assumes that the government adopts a multi-year fiscal consolidation plan with permanent measures of at least 3 percent of GDP and unwinds the temporary programs implemented in response to COVID-19. The reduction in the fiscal deficit over 2021–23 equals 3.6 percent of GDP that allows to lower the debt level over those years. Under the baseline scenario, external debt burden indicators, remain below the threshold. However, the present value (PV) of public and publicly guaranteed (PPG) external debt-to-GDP ratio breaches over an extended period under the most extreme shock scenario and contingent liability tailored shock which is related to the external cooperation with Venezuela. The overall risk of public debt distress is also assessed as moderate. The PV of 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 the most extreme shock scenario, notably lower GDP growth, and realization of contingent liability shock. Were external financing envisaged under the baseline not to materialize in the near and/or medium term, the authorities would be prepared to implement contingency measures to ensure debt sustainability.

⁴ Debt coverage is the same as in the previous DSA reported in February 2020.

Figure AI.1. Nicaragua: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2020–30



Customization of Default Settings		
	Size	Interactions
Tailored Tests		
Combined CLs	No	
Natural Disasters	No	No
Commodity Prices ^{2/}	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.

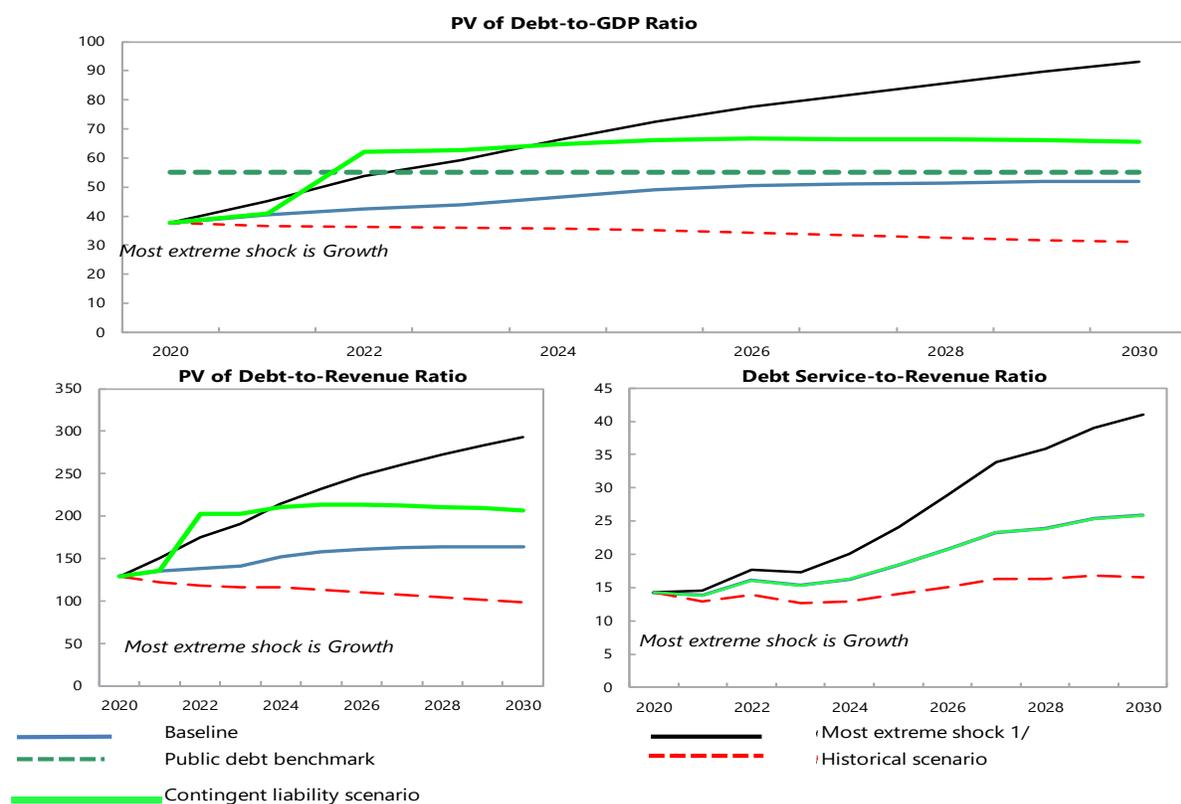
Borrowing Assumptions for Stress Tests*		
	Default	User defined
Shares of marginal debt		
External PPG MLT debt	100%	
Terms of marginal debt		
Avg. nominal interest rate on new borrowing in USD	3.5%	3.5%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	20	20
Avg. grace period	4	4

* 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: National authorities and IMF staff calculations.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2030. Stress tests with one-off breaches are also presented (if any), while these one-off breaches are deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most extreme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

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

Figure AI.2. Nicaragua: Indicators of Public Debt Under Alternative Scenarios, 2020–30

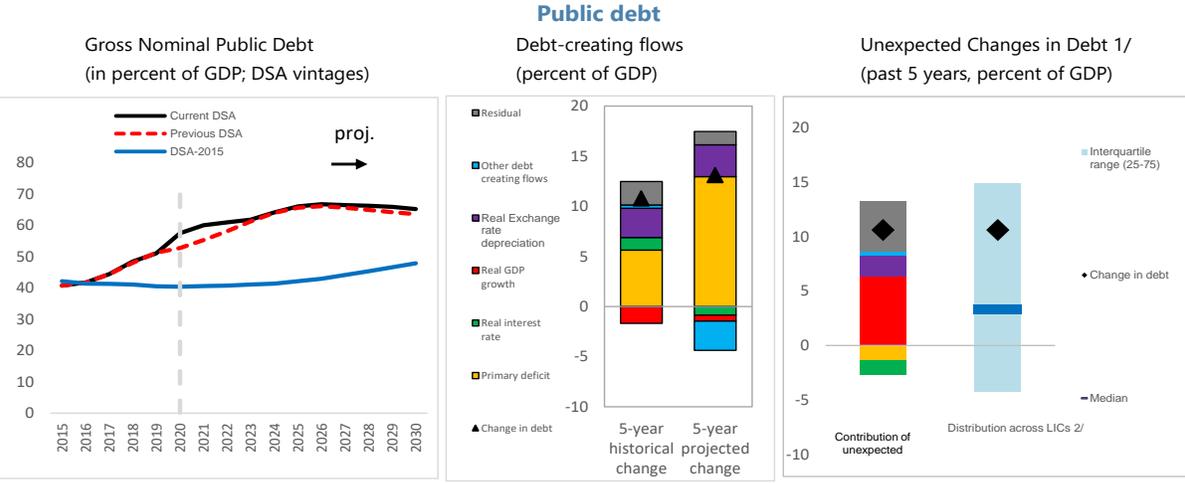
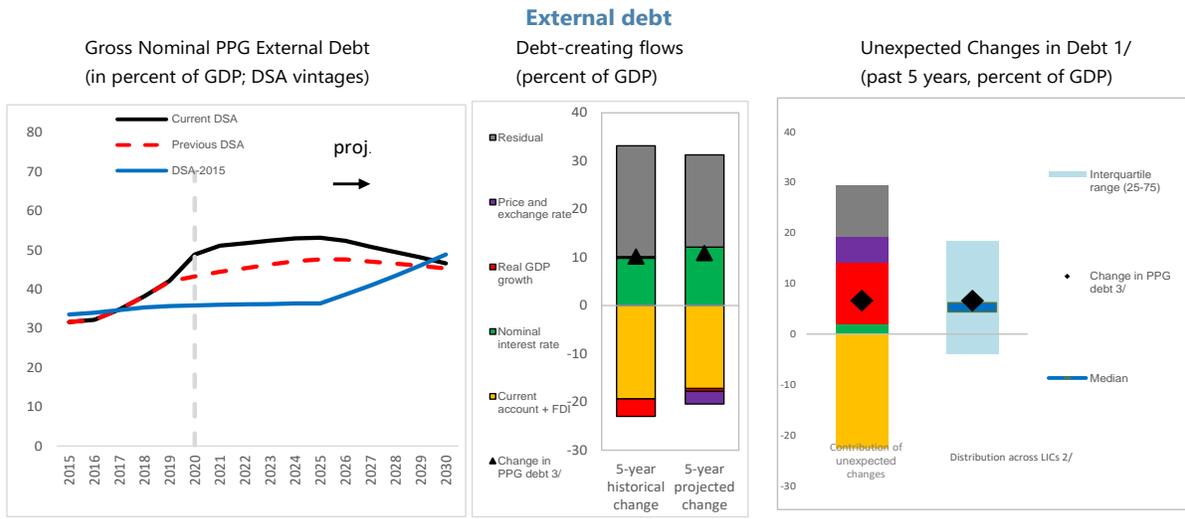
Borrowing Assumptions for Stress Tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	55%	55%
Domestic medium and long-term	45%	45%
Domestic short-term	0%	0%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	3.5%	3.5%
Avg. maturity (incl. grace period)	20	20
Avg. grace period	4	4
Domestic MLT debt		
Avg. real interest rate on new borrowing	1.5%	1.5%
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: National authorities and IMF staff calculations.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2030. 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 AI.3. Nicaragua: Drivers of Debt Dynamics-Baseline Scenario



Sources: National authorities and IMF staff calculations.

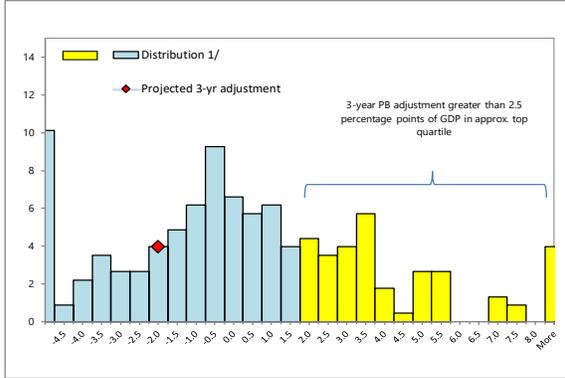
1/ Difference between anticipated and actual contributions on debt ratios.

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

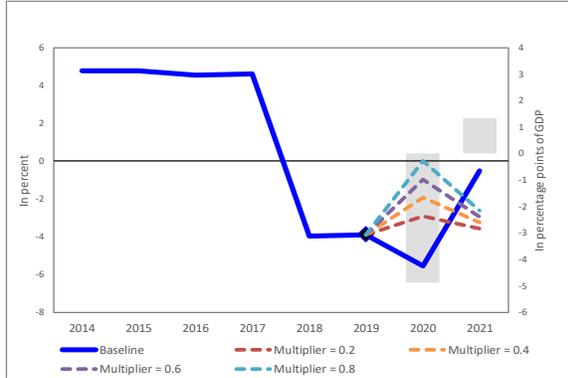
3/ Given the relatively low private external debt for average low-income countries, a ppt change in PPG external debt should be largely explained by the drivers of the external debt dynamics equation.

Figure AI.4. Nicaragua: Realism Tools

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



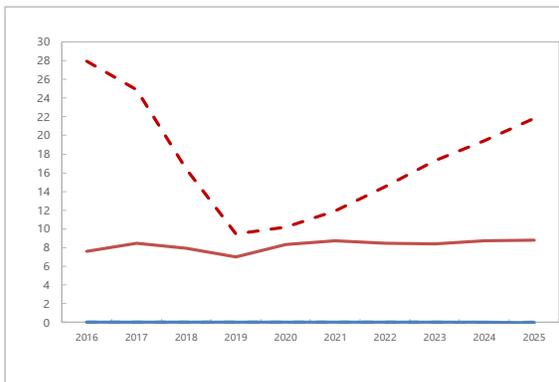
Fiscal Adjustment and Possible Growth Paths 1/
(Percent and Percentage points of GDP)



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.

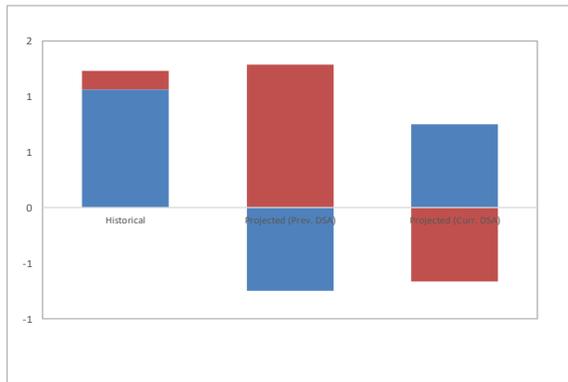
1/ Bars refer to annual projected fiscal adjustment (right-hand side scale) and lines show possible real GDP growth paths under different fiscal multipliers (left-hand side scale).

Public and Private Investment Rates
(percent of GDP)



— Gov. Invest. - Prev. DSA — Gov. Invest. - Curr. DSA
 - - - Priv. Invest. - Prev. DSA - - - Priv. Invest. - Curr. DSA

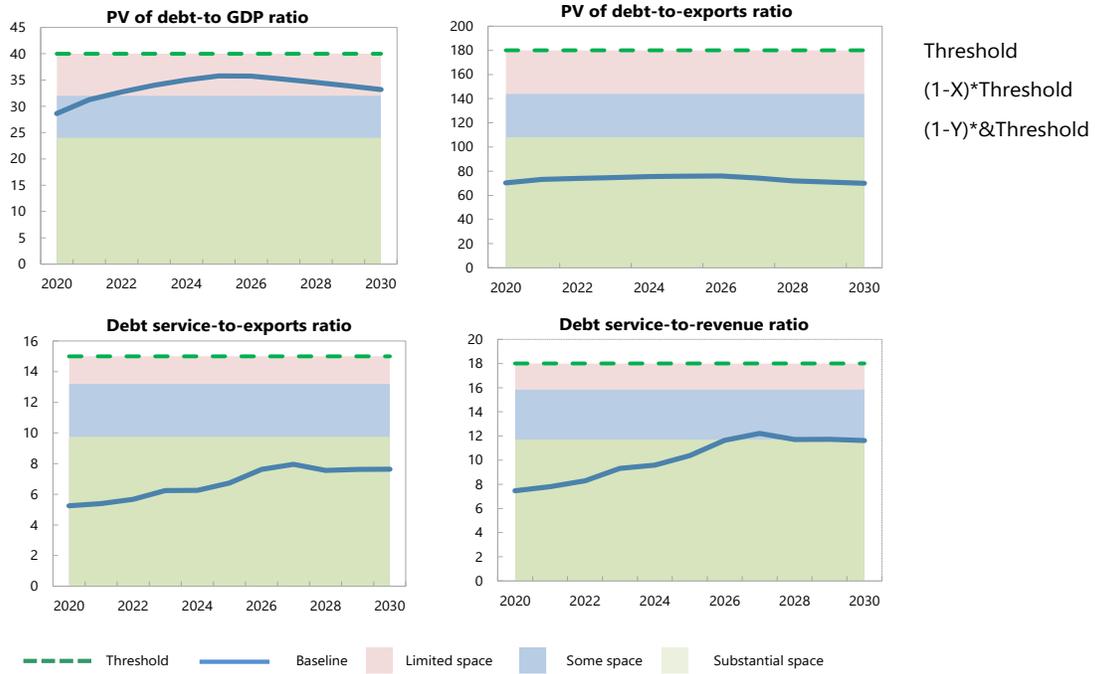
Contribution to Real GDP growth
(percent, 5-year average)



■ Contribution of other factors
 ■ Contribution of government capital

Sources: National authorities and IMF staff calculations.

Figure AI.5. Nicaragua: Qualification of the Modern Category, 2020–30 1/



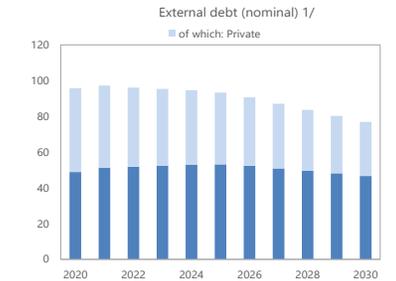
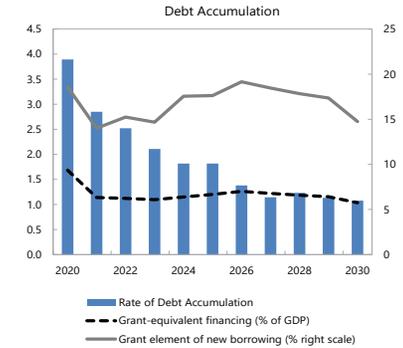
Sources: National authorities and IMF staff calculations.

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 AI.1. Nicaragua: External Debt Sustainability Framework, Baseline Scenario, 2017–40
(In Percent of GDP, unless otherwise specified)

	Actual			Projections								Average 8/	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2040	Historical	Projections
External debt (nominal) 1/	78.5	82.3	86.4	95.7	97.3	96.1	95.4	94.7	93.4	76.9	51.6	77.4	90.1
<i>of which: public and publicly guaranteed (PPG)</i>	34.9	38.2	42.1	48.9	51.2	51.8	52.5	53.0	53.2	46.6	35.2	34.3	50.7
Change in external debt	1.0	3.8	4.1	9.3	1.6	-1.1	-0.7	-0.7	-1.3	-3.4	-2.7		
Identified net debt-creating flows	-2.7	0.4	-6.3	3.5	-0.6	-3.4	-2.6	-2.5	-3.0	-3.3	-1.7	-2.2	-2.4
Non-interest current account deficit	5.1	-0.3	-8.4	-2.9	-2.5	-2.2	-1.6	-0.5	0.3	0.4	0.6	5.7	-0.7
Deficit in balance of goods and services	13.4	9.2	4.3	6.6	7.4	8.6	9.9	11.1	12.1	12.0	12.6	15.9	10.5
Exports	41.6	42.4	45.5	40.8	42.7	44.3	45.5	46.3	47.1	47.5	45.4		
Imports	55.0	51.6	49.8	47.4	50.1	52.9	55.4	57.5	59.3	59.5	58.1		
Net current transfers (negative = inflow)	-11.4	-12.3	-14.0	-11.1	-11.2	-11.8	-12.4	-12.6	-12.8	-12.7	-13.0		
<i>of which: official</i>	-1.0	-0.7	-0.6	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5		
Other current account flows (negative = net inflow)	3.1	2.8	1.3	1.6	1.2	0.9	0.9	1.0	1.0	1.2	0.9	2.3	1.1
Net FDI (negative = inflow)	-7.0	-5.8	-3.7	-1.0	-1.3	-1.4	-1.6	-2.2	-3.2	-3.3	-2.3	-6.8	-2.5
Endogenous debt dynamics 2/	-0.8	6.5	5.8	7.5	3.2	0.2	0.6	0.1	-0.1	-0.5	0.0		
Contribution from nominal interest rate	2.0	2.2	2.4	2.4	2.8	2.8	2.4	1.8	1.8	1.8	1.6		
Contribution from real GDP growth	-3.5	3.3	3.3	5.1	0.5	-2.5	-1.9	-1.7	-1.9	-2.3	-1.5		
Contribution from price and exchange rate changes	0.6	1.1	0.1	...	...	...	...	...	...	...	...
Residual 3/	3.7	3.5	10.4	5.8	2.2	2.2	1.9	1.8	1.7	-0.1	-1.0	4.3	1.5
<i>of which: exceptional financing</i>	0.0	0.0	0.0	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Sustainability indicators													
PV of PPG external debt-to-GDP ratio	...	...	23.2	28.6	31.3	32.7	34.0	35.0	35.8	33.2	27.7		
PV of PPG external debt-to-exports ratio	...	...	50.9	70.3	73.2	74.0	74.7	75.5	75.9	69.9	60.9		
PPG debt service-to-exports ratio	14.4	15.5	1.5	5.2	5.4	5.7	6.2	6.3	6.7	7.6	8.2		
PPG debt service-to-revenue ratio	21.2	23.7	2.2	7.5	7.8	8.3	9.3	9.6	10.4	11.6	11.5		
Gross external financing need (Million of U.S. dollars)	1488.4	883.9	2.7	1140.6	1272.4	1328.1	1346.7	1329.9	1332.0	1436.8	1826.5		
Key macroeconomic assumptions													
Real GDP growth (in percent)	4.6	-4.0	-3.9	-5.5	-0.5	2.7	2.0	1.8	2.1	3.0	3.0	3.3	1.6
GDP deflator in US dollar terms (change in percent)	-0.8	-1.3	-0.2	0.1	1.2	0.5	0.5	0.8	2.2	3.5	3.5	1.0	1.2
Effective interest rate (percent) 4/	2.7	2.6	2.8	2.6	2.9	2.6	1.9	2.0	2.4	3.1	2.4	2.4	2.4
Growth of exports of G&S (US dollar terms, in percent)	10.6	-3.4	3.0	-15.3	5.5	7.0	5.4	4.2	4.6	4.6	6.2	7.7	3.4
Growth of imports of G&S (US dollar terms, in percent)	3.9	-11.1	-7.4	-10.0	6.6	8.9	7.4	6.1	6.1	5.2	5.2	4.1	4.6
Grant element of new public sector borrowing (in percent)	...	...	...	18.6	14.0	15.2	14.7	17.6	17.6	14.8	6.0	...	16.8
Government revenues (excluding grants, in percent of GDP)	28.3	27.7	30.5	28.6	29.5	30.2	30.4	30.2	30.6	31.2	32.5	...	26.6
Aid flows (in Million of US dollars) 5/	142.7	87.6	73.2	162.4	157.6	159.3	162.5	179.9	195.5	206.9	184.6		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	1.7	1.1	1.1	1.1	1.1	1.2	1.0	0.7	...	1.2
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	25.1	23.5	24.6	25.0	27.6	27.1	25.4	18.4	...	26.3
Nominal GDP (Million of US dollars)	13,786	13,064	12,535	11,850	11,937	12,319	12,627	12,916	13,287	16,940	28,808		
Nominal dollar GDP growth	3.8	-5.2	-4.0	-5.5	0.7	3.2	2.5	2.3	2.9	5.3	6.6	4.3	2.8
Memorandum items:													
PV of external debt 7/	...	...	67.4	75.5	77.4	77.1	76.9	76.7	76.0	63.5	44.2		
In percent of exports	...	...	148.2	185.2	181.3	174.2	169.1	165.4	161.1	133.7	97.2		
Total external debt service-to-exports ratio	30.5	30.5	26.7	33.3	34.0	32.5	30.4	27.8	27.4	23.8	17.8		
PV of PPG external debt (in Million of US dollars)	...	...	2906.5	3394.3	3731.9	4033.0	4292.6	4522.0	4756.5	5622.8	7970.7		
(Pvt-Pvt-1)/GDPt-1 (in percent)	...	...	...	3.9	2.8	2.5	2.1	1.8	1.8	1.1	0.8		
Non-interest current account deficit that stabilizes debt ratio	4.2	-4.1	-12.5	-12.3	-4.1	-1.1	-0.8	0.3	1.7	3.8	3.3		

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



Sources: National authorities and IMF staff calculations.

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - p(1+g) + \epsilon\alpha(1+r)] / (1+g+p+g)$ times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate; p = growth rate of GDP deflator in U.S. dollar terms; ϵ = nominal appreciation of the local currency, and α = share of local currency-denominated external debt in total external debt.

3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

4/ Current-year interest payments divided by previous period debt stock.

5/ Defined as grants, concessional loans, and debt relief.

6/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).

7/ Assumes that PV of private sector debt is equivalent to its face value.

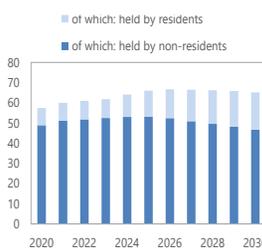
8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

Table AI.2. Nicaragua: Public Sector Debt Sustainability Framework, Baseline Scenario, 2017–40
(In Percent of GDP, unless otherwise specified)

	Actual			Projections								Average 6/	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2040	Historical	Projections
Public sector debt 1/	44.4	48.4	51.0	57.4	60.0	60.9	61.8	64.1	66.0	65.2	60.7	44.2	63.7
of which: external debt	34.9	38.2	42.1	48.9	51.2	51.8	52.5	53.0	53.2	46.6	35.2	34.3	50.7
Change in public sector debt	2.7	4.0	2.6	6.4	2.5	1.0	0.9	2.3	1.9	-0.7	-0.8		
Identified debt-creating flows	0.2	5.8	3.0	6.8	2.0	0.5	0.5	1.9	1.5	-0.9	-1.2	-0.4	1.0
Primary deficit	0.9	2.5	-0.2	4.7	3.4	1.9	0.9	2.2	2.3	1.0	0.9	0.6	2.1
Revenue and grants	29.4	28.3	31.1	29.2	30.1	30.7	31.0	30.7	31.1	31.7	33.0	28.0	30.9
of which: grants	1.0	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		
Primary (noninterest) expenditure	30.3	30.8	30.9	33.9	33.4	32.6	31.9	32.9	33.4	32.7	33.8	28.5	33.0
Automatic debt dynamics	-0.7	3.4	2.8	3.2	0.3	-1.1	-0.4	-0.2	-0.7	-2.0	-2.1		
Contribution from interest rate/growth differential	-1.5	2.3	2.1	2.8	0.1	-1.8	-1.3	-1.2	-1.3	-1.9	-1.2		
of which: contribution from average real interest rate	0.3	0.5	0.2	-0.2	-0.2	-0.3	-0.1	-0.1	0.0	0.1	0.6		
of which: contribution from real GDP growth	-1.8	1.8	2.0	3.0	0.3	-1.6	-1.2	-1.1	-1.3	-1.9	-1.8		
Contribution from real exchange rate depreciation	0.8	1.1	0.7	...	...	...	...	...	...	...	...
Other identified debt-creating flows	0.0	0.0	0.3	-1.1	-1.6	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-0.3
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	0.3	-1.1	-1.6	-0.2	0.0	0.0	0.0	0.0	0.0		
Residual	2.5	-1.8	-0.4	0.1	0.7	1.2	1.2	1.3	1.0	0.2	-0.4	0.8	0.6
Sustainability indicators													
PV of public debt-to-GDP ratio 2/	...	...	32.6	37.6	40.5	42.4	43.8	46.6	49.1	52.0	53.4		
PV of public debt-to-revenue and grants ratio	...	...	104.6	129.0	134.8	137.8	141.5	151.6	157.8	163.9	161.8		
Debt service-to-revenue and grants ratio 3/	10.0	8.4	9.7	14.3	13.8	16.1	15.3	16.3	18.4	25.9	14.9		
Gross financing need 4/	3.8	4.8	2.8	8.8	7.5	6.8	5.6	7.2	8.0	9.2	5.8		
Key macroeconomic and fiscal assumptions													
Real GDP growth (in percent)	4.6	-4.0	-3.9	-5.5	-0.5	2.7	2.0	1.8	2.1	3.0	3.0	3.3	1.6
Average nominal interest rate on external debt (in percent)	2.0	1.9	1.8	1.2	1.2	1.3	1.8	1.9	1.9	2.1	3.1	1.6	1.8
Average real interest rate on domestic debt (in percent)	4.4	3.7	2.3	2.8	2.8	2.6	2.7	2.6	2.1	1.6	1.4	2.0	2.2
Real exchange rate depreciation (in percent, + indicates depreciation)	2.1	2.4	1.5	...	...	...	...	...	...	...	...	0.3	...
Inflation rate (GDP deflator, in percent)	4.1	3.6	4.7	3.9	4.3	3.5	3.5	3.5	3.5	3.5	3.5	6.0	3.6
Growth of real primary spending (deflated by GDP deflator, in percent)	5.5	-2.2	-3.5	3.4	-1.8	0.2	-0.3	5.1	3.5	2.5	3.4	5.0	2.1
Primary deficit that stabilizes the debt-to-GDP ratio 5/	-1.8	-1.6	-2.8	-1.8	0.8	0.9	0.0	-0.2	0.3	1.7	1.6	-2.0	0.8
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: National authorities and IMF staff calculations.

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 stabilize 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 AI.3. Nicaragua: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2020–30 (In Percent)

	Projections 1/										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
PV of debt-to-GDP ratio											
Baseline	29	31	33	34	35	36	36	35	35	34	33
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	29	33	36	38	40	42	43	44	45	46	46
A2. Alternative Scenario: ALBA debt contingent liability scenario	29	31	42	43	45	45	45	44	43	42	40
B. Bound Tests											
B1. Real GDP growth	29	33	37	39	40	41	40	40	39	38	38
B2. Primary balance	29	30	32	33	34	35	35	35	34	33	33
B3. Exports	29	36	45	47	48	49	49	47	46	44	43
B4. Other flows 3/	29	33	37	38	39	40	40	39	38	37	36
B5. Depreciation	29	39	37	39	40	41	41	40	40	39	39
B6. Combination of B1-B5	29	37	40	42	43	44	44	43	42	41	40
C. Tailored Tests											
C1. Combined contingent liabilities	29	34	35	37	38	39	40	39	39	38	37
C2. Natural disaster	29	35	37	39	41	42	43	43	42	42	42
C3. Commodity price	29	31	33	34	35	36	36	35	35	34	33
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	70	73	74	75	76	76	76	74	72	71	70
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	70	76	81	84	86	88	91	93	94	96	98
A2. Alternative Scenario: ALBA debt contingent liability scenario	70	73	95	95	96	96	97	94	90	87	85
B. Bound Tests											
B1. Real GDP growth	70	73	74	75	76	76	76	74	72	71	70
B2. Primary balance	70	71	73	73	74	75	75	73	71	70	69
B3. Exports	70	91	122	123	124	125	124	120	115	112	109
B4. Other flows 3/	70	78	83	84	85	85	85	83	80	78	76
B5. Depreciation	70	73	67	67	68	69	69	67	66	65	64
B6. Combination of B1-B5	70	86	83	92	93	94	93	91	88	86	84
C. Tailored Tests											
C1. Combined contingent liabilities	70	80	80	81	83	84	85	83	81	80	79
C2. Natural disaster	70	84	85	87	89	91	93	92	90	90	90
C3. Commodity price	70	73	74	75	76	76	76	74	72	71	70
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	5	6	6	6	7	8	8	8	8	8
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	5	5	6	6	6	7	8	9	9	9	9
A2. Alternative Scenario: ALBA debt contingent liability scenario	5	5	6	7	7	8	8	10	9	9	9
B. Bound Tests											
B1. Real GDP growth	5	5	6	6	6	7	8	8	8	8	8
B2. Primary balance	5	5	6	6	6	7	7	8	7	7	8
B3. Exports	5	6	7	9	9	9	11	13	12	12	12
B4. Other flows 3/	5	5	6	7	7	7	8	9	8	8	8
B5. Depreciation	5	5	6	6	6	6	7	7	7	7	7
B6. Combination of B1-B5	5	6	7	7	7	8	9	10	9	9	9
C. Tailored Tests											
C1. Combined contingent liabilities	5	5	6	6	7	7	8	8	8	8	8
C2. Natural disaster	5	6	6	7	7	7	8	9	8	8	9
C3. Commodity price	5	5	6	6	6	7	8	8	8	8	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	15	15	15	15	15	15	15	15	15	15	15
Debt service-to-revenue ratio											
Baseline	7	8	8	9	10	10	12	12	12	12	12
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	7	8	8	9	10	10	12	13	13	14	14
A2. Alternative Scenario: ALBA debt contingent liability scenario	7	8	8	10	11	12	13	15	15	14	14
B. Bound Tests											
B1. Real GDP growth	7	8	8	10	11	12	13	15	15	14	14
B2. Primary balance	7	8	9	11	11	12	13	14	13	13	13
B3. Exports	7	8	9	11	11	12	14	16	16	15	15
B4. Other flows 3/	7	8	9	10	10	11	13	13	13	13	13
B5. Depreciation	7	10	10	11	12	13	14	14	13	14	13
B6. Combination of B1-B5	7	8	10	11	11	12	14	15	14	14	14
C. Tailored Tests											
C1. Combined contingent liabilities	7	8	9	10	10	11	12	13	12	12	12
C2. Natural disaster	7	8	9	10	10	11	12	13	13	13	13
C3. Commodity price	7	8	8	9	10	10	12	12	12	12	12
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: National authorities and IMF staff calculations.

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 AI.4. Nicaragua: Sensitivity Analysis for Key Indicators of Public Debt, 2020–30

	Projections 1/										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
PV of debt-to-GDP ratio											
Baseline	29	31	33	34	35	36	36	35	35	34	33
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	29	33	36	38	40	42	43	44	45	46	46
A2. Alternative Scenario: ALBA debt contingent liability scenario	29	31	42	43	45	45	45	44	43	42	40
B. Bound Tests											
B1. Real GDP growth	29	33	37	39	40	41	40	40	39	38	38
B2. Primary balance	29	30	32	33	34	35	35	35	34	33	33
B3. Exports	29	36	45	47	48	49	49	47	46	44	43
B4. Other flows 3/	29	33	37	38	39	40	40	39	38	37	36
B5. Depreciation	29	39	37	39	40	41	41	40	40	39	39
B6. Combination of B1-B5	29	37	40	42	43	44	44	43	42	41	40
C. Tailored Tests											
C1. Combined contingent liabilities	29	34	35	37	38	39	40	39	39	38	37
C2. Natural disaster	29	35	37	39	41	42	43	43	42	42	42
C3. Commodity price	29	31	33	34	35	36	36	35	35	34	33
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	70	73	74	75	76	76	76	74	72	71	70
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	70	76	81	84	86	88	91	93	94	96	98
A2. Alternative Scenario: ALBA debt contingent liability scenario	70	73	95	95	96	96	97	94	90	87	85
B. Bound Tests											
B1. Real GDP growth	70	73	74	75	76	76	76	74	72	71	70
B2. Primary balance	70	71	73	73	74	75	75	73	71	70	69
B3. Exports	70	91	122	123	124	125	124	120	115	112	109
B4. Other flows 3/	70	78	83	84	85	85	85	83	80	78	76
B5. Depreciation	70	73	67	67	68	69	69	67	66	65	64
B6. Combination of B1-B5	70	86	83	92	93	94	93	91	88	86	84
C. Tailored Tests											
C1. Combined contingent liabilities	70	80	80	81	83	84	85	83	81	80	79
C2. Natural disaster	70	84	85	87	89	91	93	92	90	90	90
C3. Commodity price	70	73	74	75	76	76	76	74	72	71	70
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	5	6	6	6	7	8	8	8	8	8
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	5	5	6	6	6	7	8	9	9	9	9
A2. Alternative Scenario: ALBA debt contingent liability scenario	5	5	6	7	7	8	8	10	9	9	9
B. Bound Tests											
B1. Real GDP growth	5	5	6	6	6	7	8	8	8	8	8
B2. Primary balance	5	5	6	6	6	7	7	8	7	7	8
B3. Exports	5	6	7	9	9	9	11	13	12	12	12
B4. Other flows 3/	5	5	6	7	7	7	8	9	8	8	8
B5. Depreciation	5	5	6	6	6	6	7	7	7	7	7
B6. Combination of B1-B5	5	6	7	7	7	8	9	10	9	9	9
C. Tailored Tests											
C1. Combined contingent liabilities	5	5	6	6	7	7	8	8	8	8	8
C2. Natural disaster	5	6	6	7	7	7	8	9	8	8	9
C3. Commodity price	5	5	6	6	6	7	8	8	8	8	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	15	15	15	15	15	15	15	15	15	15	15
Debt service-to-revenue ratio											
Baseline	7	8	8	9	10	10	12	12	12	12	12
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	7	8	8	9	10	10	12	13	13	14	14
A2. Alternative Scenario: ALBA debt contingent liability scenario	7	8	8	10	11	12	13	15	15	14	14
B. Bound Tests											
B1. Real GDP growth	7	8	8	10	11	12	13	15	15	14	14
B2. Primary balance	7	8	9	11	11	12	13	14	13	13	13
B3. Exports	7	8	8	9	10	10	11	12	12	12	11
B4. Other flows 3/	7	8	9	11	11	12	14	16	16	15	15
B5. Depreciation	7	8	9	10	10	11	13	13	13	13	13
B6. Combination of B1-B5	7	10	10	11	12	13	14	14	13	14	13
C. Tailored Tests											
C1. Combined contingent liabilities	7	8	9	10	10	11	12	13	12	12	12
C2. Natural disaster	7	8	9	10	10	11	12	13	13	13	13
C3. Commodity price	7	8	8	9	10	10	12	12	12	12	12
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: National authorities and IMF staff calculations.

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.