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***Unless an objection from the authorities is received prior to the conclusion of the Board's consideration, the document will be published.**



KINGDOM OF THE NETHERLANDS—ARUBA

March 31, 2021

STAFF REPORT FOR THE 2021 ARTICLE IV CONSULTATION DISCUSSIONS—DEBT SUSTAINABILITY ANALYSIS¹

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Prepared by the Staff of the International Monetary Fund

The severe GDP contraction due to COVID-19 and the fiscal response that followed led to a sharp rise in the budget deficit and public debt in 2020. The consequent increase in Aruba's public debt vulnerabilities reflects the high debt burden and gross financing needs and sustainability hinges on the assumption that the authorities would continue to receive financial support on favorable terms from the Netherlands. Under the baseline scenario, central government debt will rise from 72 percent of GDP in 2019 to 117 percent in 2020, peak in 2021 at 130 percent of GDP, and gradually decline to about 96 percent of GDP by 2026. Gross financing needs are expected to remain elevated at around 14 percent of GDP over 2021–26. Debt dynamics are vulnerable to a real growth rate shock and worsened primary balance, but risks are partly mitigated by the possibility of conversion of the loans extended by the Netherlands into grants. Total external debt is projected to peak at 132 percent of GDP in 2021 and gradually decrease over the medium term while remaining well above pre-COVID levels, and is sensitive to current account and real exchange rate shocks. Once the economic recovery is on a stable footing, substantial and sustained fiscal consolidation will be needed to put public debt on a firm downward path to restore debt sustainability.

¹ Prepared by Ali Al-Sadiq and Pablo Bejar.

PUBLIC DEBT

A. Background

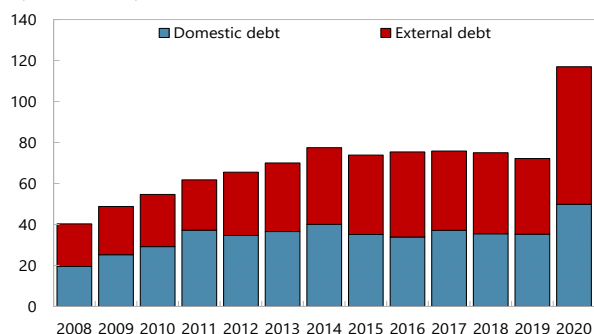
1. DSA debt perimeter. For the purpose of this DSA, the debt perimeter covers the central government sector due to a lack of consolidated general government² and public sector data and excludes short-term debt which is roughly 2 percent of GDP. Prior to the COVID-induced recession, the debt of state-owned enterprises (SOEs) presented low fiscal risk to the central government as the three largest SOEs (Aruba Airport Authority, Aruba Port Authority, and Utilities Aruba) were profitable companies with good credit standing. While the balance sheets of these entities have deteriorated as a result of the pandemic, to date there are no explicit contingent liabilities or guarantees.

2. Debt developments. Public debt increased sharply in 2020 as a result of COVID-19. In 2019, the public debt stock had declined from 75 to 72 percent of GDP mainly as a result of the authorities' fiscal consolidation efforts. However, this downward trend was abruptly reversed in 2020 with the outbreak of the pandemic. The combination of a sharp GDP contraction (projected at 25.5 percent in real terms) and the deterioration of the primary deficit to 11.7 percent of GDP due to lower revenues and COVID-19 response measures resulted in a sharp increase in Aruba's public debt ratio to 117 percent of GDP. The debt-to-GDP ratio significantly exceeds the emerging market debt burden benchmark of 70 percent of GDP over the projection horizon.³

3. Debt profile. Domestic debt, which accounts for about 49 percent of total gross public debt, stood at 35 percent of GDP at end-2019 while external debt amounted to 37 percent of GDP. Aruba's debt profile is dominated by medium- and long-term maturities, which mitigates debt sustainability risks.

Public Debt Evolution

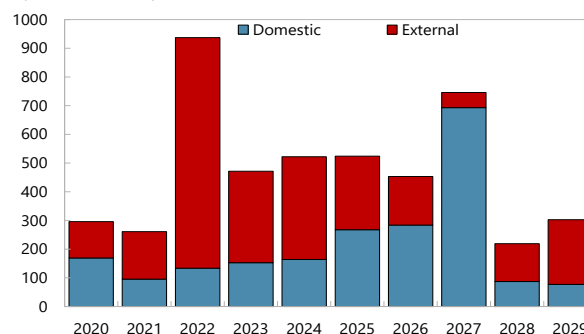
(Percent of GDP)



Sources: Authorities' data and IMF staff estimates.

Outstanding Amortization Schedule

(Millions of florins)



Sources: Authorities' data and IMF staff estimates.

² Besides the central government (GOA), the general government includes the general health insurance (AZV), the social security fund (SVB), the waste collection and management entity (Serlimar), the Aruba Tourism Authority (ATA), the University of Aruba (UA), and the Foundation for Basic Professional Education (SEPB).

³ All ratios to GDP reflect the revised nominal GDP series published by the Aruba Central Bureau of Statistics on February 22: <https://cbs.aw/wp/index.php/2021/02/22/gdp-data-series-2000-2018/>. Hence, these ratios are not comparable with those published in previous DSAs.

B. Baseline Scenario

4. Macroeconomic assumptions. The macroeconomic and policy assumptions follow the team's baseline projections. Starting in 2021, the economy is projected to gradually recover from the COVID-19-induced contraction and expand at 5 percent of GDP, with average annual GDP growth of 5.7 percent over the forecast horizon. Inflation is expected to remain low. The overall deficit, which widened to 17 percent of GDP in 2020, is expected to remain high at 18.6 percent of GDP in 2021 due to weak recovery in tax revenues and continued COVID-19 related spending. The deficit is expected to decline over the medium-term to 1 percent of GDP by 2024 before turning positive, corresponding to a primary surplus of about 5.4 percent of GDP.⁴

5. Debt projections. Under current policies, public debt is forecast to peak at 130 percent of GDP in 2021 and gradually decline over the medium term to 96 percent of GDP in 2026 as improvements in the primary balance and continued economy recovery offset adverse real interest rate dynamics. The primary deficit is projected to reach 13 percent of GDP in 2021 and gradually declines to turn to positive thereafter, exceeding the debt stabilizing primary balance of 1.7 percent of GDP by 2023.

6. Gross financing needs (GFNs). Under the baseline, GFNs are projected to remain elevated over the medium term and be met by debt-creating flows, peaking in 2022 at 25 percent of GDP and gradually declining to an average of about 8.8 percent of GDP over 2023–26. More than half of GFNs in 2021 are expected to be financed by the continued liquidity support from the Dutch movement, who also agreed to cover external debt repayments in 2021–22, amounting to Afl. 523 million. Beyond 2021, about half of GFNs are assumed to be met through domestic borrowing, with external borrowing covering the remaining part.

C. Shocks and Stress Tests

7. Debt dynamics and GFNs remain vulnerable to macroeconomic risks. Shocks to the baseline macroeconomic variables further worsen the debt path and increase GFNs, with the debt ratio remaining well above the high-risk MAC-DSA benchmarks for emerging market economies. Results of stress tests simulated by staff are summarized below:

- **Primary balance shock.** Under this scenario, the primary balance is assumed to deteriorate by 4.9 percentage points (a half standard deviation) relative to the baseline over the projection horizon. This would result in public debt increasing to 107 percent of GDP by 2026 (10.7 percentage points of GDP higher than in the baseline). GFNs would average 14.6 percent of GDP over the projection horizon.
- **Growth shock.** A one standard deviation shock (8.6 percent) to real GDP growth, for two consecutive years starting in 2022, would substantially raise public debt to 146 percent of GDP in 2023 before gradually declining to 130 percent by 2026. GFNs during 2022–23 will exceed the

⁴ Although Aruba is a high scrutiny case, the realism outputs from the MAC-DSA are not included as Aruba has a limited forecast history making them relatively uninformative.

benchmark of 15 percent of GDP for emerging economies and slightly return to below the threshold by 2026, averaging 11.5 percent of GDP. Debt service would absorb about 61.5 percent of total revenues in 2026.

- **Real interest rate and real exchange rate shocks.** Under the real interest rate shock scenario, the real interest rate is increased by 384bps over 2022–26.⁵ In the real exchange rate shock scenario, the nominal exchange rate depreciates by 5 percent over 2022–26. The debt level and GFNs would moderately increase relative to the baseline, resulting in increase of debt ratio by 5.5 and 3.1 percentage points, respectively.
- **Combined macro-fiscal shock.** A combination of various macro-fiscal shocks—growth, inflation, primary balance, exchange rate depreciation, and an increase in real interest rate—would raise the debt ratio to 147 percent of GDP in 2026 while GFNs would exceed the benchmark of 15 percent of GDP, averaging 19.9 percent of GDP. The debt service-to-revenue ratio would jump to 76 percent, 28 percentage points higher than in the baseline. Differently from other scenarios, the debt-to-GDP ratio enter a modest decreasing trend due to the long-term impact on debt service.

8. The heat map indicates heightened risks from the debt level and high financing needs even in the baseline scenario. However, these risks would be mitigated somewhat by the low share of short-term debt. Furthermore, the fan charts reflect very high uncertainty surrounding the public debt trajectory over the medium term.

D. Risk Assessment

9. Aruba’s sizable debt burden and GFNs continue posing risks to debt sustainability. Aruba’s debt ratio significantly exceeds the 70 percent of GDP benchmark for emerging market economies throughout the projection horizon. GFNs average 14 percent of GDP and remain significantly larger than their pre-COVID-19 level. Risks to debt sustainability are high, but partly mitigated by the sizable share of obligations to the Dutch government and the possibility of refinancing and/or restructuring those loans, including converting some of them into grants. Implementing substantial and sustained fiscal consolidation over the medium term will be necessary to put public debt on a firm downward path, with limited scope for deviations from the established consolidation path.

EXTERNAL DEBT

10. The external debt-to-GDP ratio is also on the rise.⁶ External debt is estimated to have increased to 131 percent of GDP at end-2020 from 89 percent of GDP in 2019. The surge was triggered by both a rise in central government borrowing and a drop in nominal GDP as a result of COVID-19. Most external debt

⁵ In this scenario, the interest rate is assumed to increase by the difference between the average real interest rate level over projection and maximum real historical level.

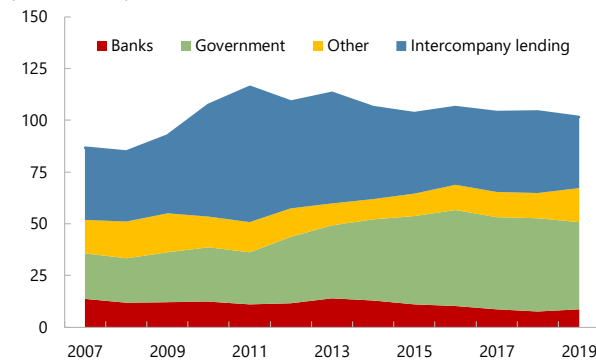
⁶ External debt (gross, public and private) includes government, central bank, commercial banks, other sectors, and intercompany lending.

has a long-term maturity, is denominated in U.S. dollars and is held by the central government, private firms, and commercial banks.

11. External debt is projected to remain high in the medium term. Under the baseline, external debt peaks at 132 percent of GDP in 2021 and declines gradually to reach about 120 percent of GDP by 2026. It may rise above the current baseline if the government increases reliance on external borrowing to meet its financial needs over the medium term.

External Debt By Issuer

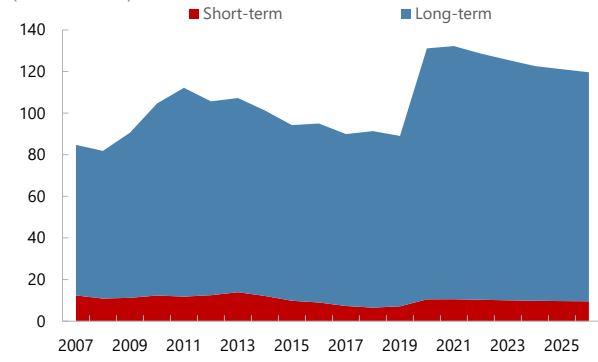
(Percent of GDP)



Source: Authorities' data.

External Debt By Maturity

(Percent of GDP)



Sources: Authorities' data and IMF staff estimates.

12. Aruba's external debt remains vulnerable to shocks. The non-interest current account balance that stabilizes Aruba's external debt profile corresponds to a deficit 0.4 percent of GDP. The results of the stress tests show that external debt is sensitive to current account and exchange rate shocks. An increase in the current account excluding interest payments by half a standard deviation in each year from 2021 onwards would set external debt on an upward trajectory to reach 143.8 percent of GDP in 2026. A one-time real exchange rate depreciation of 30 percent in 2021 would make external debt peak at 146.8 percent of GDP in 2021 before it gradually declines to reach 130.7 percent of GDP by 2026. In a combined shock scenario, where permanent $\frac{1}{4}$ standard deviation shocks are applied to the real interest rate, growth rate, and the current account balance, the external debt debt-to-GDP ratio reaches 133 percent in 2026.

Figure 1. Aruba: Public Sector Debt Sustainability Analysis (DSA) - Baseline Scenario

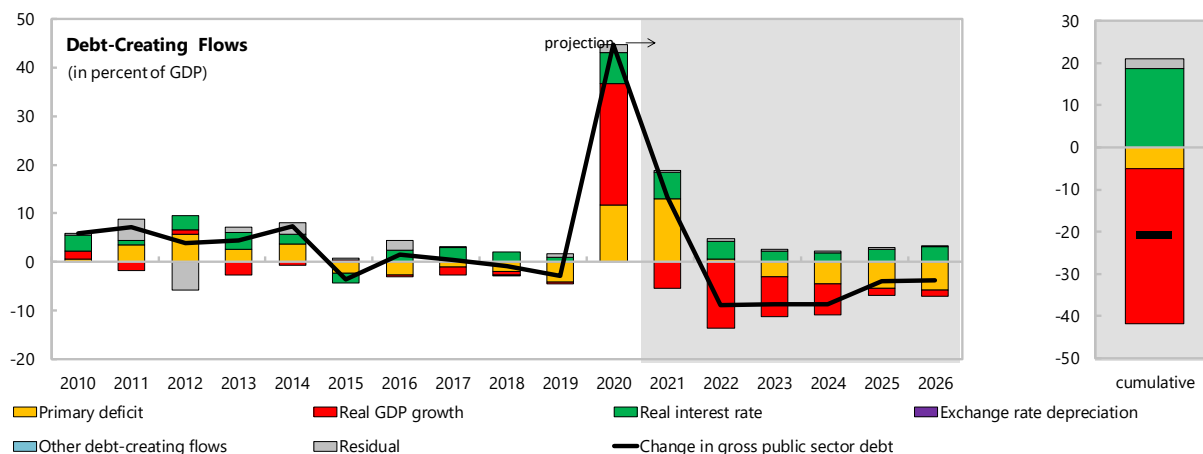
(in percent of GDP unless otherwise indicated)

Debt, Economic and Market Indicators ^{1/}

	Actual			Projections						As of November 09, 2020	
	2010-2018 ^{2/}	2019	2020	2021	2022	2023	2024	2025	2026	Sovereign Spreads	
Nominal gross public debt	69.9	72.2	117.0	130.3	121.4	112.7	103.9	99.9	96.2	EMBIG (bp) ^{3/}	270
Public gross financing needs	8.8	4.4	23.7	24.6	25.0	11.3	9.4	8.1	6.2	5Y CDS (bp)	n.a.
Net public debt	68.9	71.2	115.6	129.0	120.2	111.6	102.9	98.9	95.2	Ratings	Foreign Local
Real GDP growth (in percent)	0.8	0.4	-25.5	5.0	12.0	7.5	6.3	1.6	1.4	Moody's	n.a. n.a.
Inflation (GDP deflator, in percent)	1.8	3.9	-1.3	0.1	2.0	3.2	3.3	2.7	2.1	S&Ps	BBB+ BBB+
Nominal GDP growth (in percent)	2.6	4.4	-26.5	5.1	14.2	10.9	9.8	4.3	3.6	Fitch	BB BB
Effective interest rate (in percent) ^{4/}	5.4	5.3	5.4	5.0	5.5	5.4	5.3	5.4	5.3		

Contribution to Changes in Public Debt

	Actual			Projections						cumulative	debt-stabilizing primary balance ^{9/}
	2010-2018	2019	2020	2021	2022	2023	2024	2025	2026		
Change in gross public sector debt	2.9	-2.8	44.8	13.4	-8.9	-8.7	-8.8	-4.0	-3.8	-20.8	
Identified debt-creating flows	2.4	-3.5	43.0	12.9	-9.3	-9.1	-9.1	-4.3	-4.1	-23.0	
Primary deficit	0.9	-4.2	11.7	13.0	0.6	-3.0	-4.5	-5.4	-5.8	-5.1	1.7
Primary (noninterest) revenue and grants	23.1	23.7	24.4	21.6	21.7	23.7	24.0	24.4	24.6	140.0	
Primary (noninterest) expenditure	24.0	19.6	36.0	34.6	22.3	20.6	19.5	19.1	18.8	134.9	
Automatic debt dynamics ^{5/}	1.4	0.7	31.3	-0.1	-9.9	-6.0	-4.6	1.0	1.7	-17.9	
Interest rate/growth differential ^{6/}	1.4	0.7	31.3	-0.1	-9.9	-6.0	-4.6	1.0	1.7	-17.9	
Of which: real interest rate	2.0	1.0	6.3	5.5	3.7	2.2	1.8	2.6	3.1	18.8	
Of which: real GDP growth	-0.6	-0.3	25.0	-5.5	-13.6	-8.2	-6.4	-1.6	-1.4	-36.7	
Exchange rate depreciation ^{7/}	0.0	0.0	0.0	
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	
Privatization/Drawdown of deposits (+financing)(negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Please specify (2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Residual, including asset changes ^{8/}	0.6	0.7	1.7	0.4	0.4	0.4	0.3	0.3	0.3	2.2	



Source: IMF staff.

1/ Public sector is defined as central government.

2/ Based on available data.

3/ Long-term bond spread over U.S. bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as $[(r - \pi(1+g) - g + ae(1+r))/(1+g+\pi+gn)]$ times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate;

a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

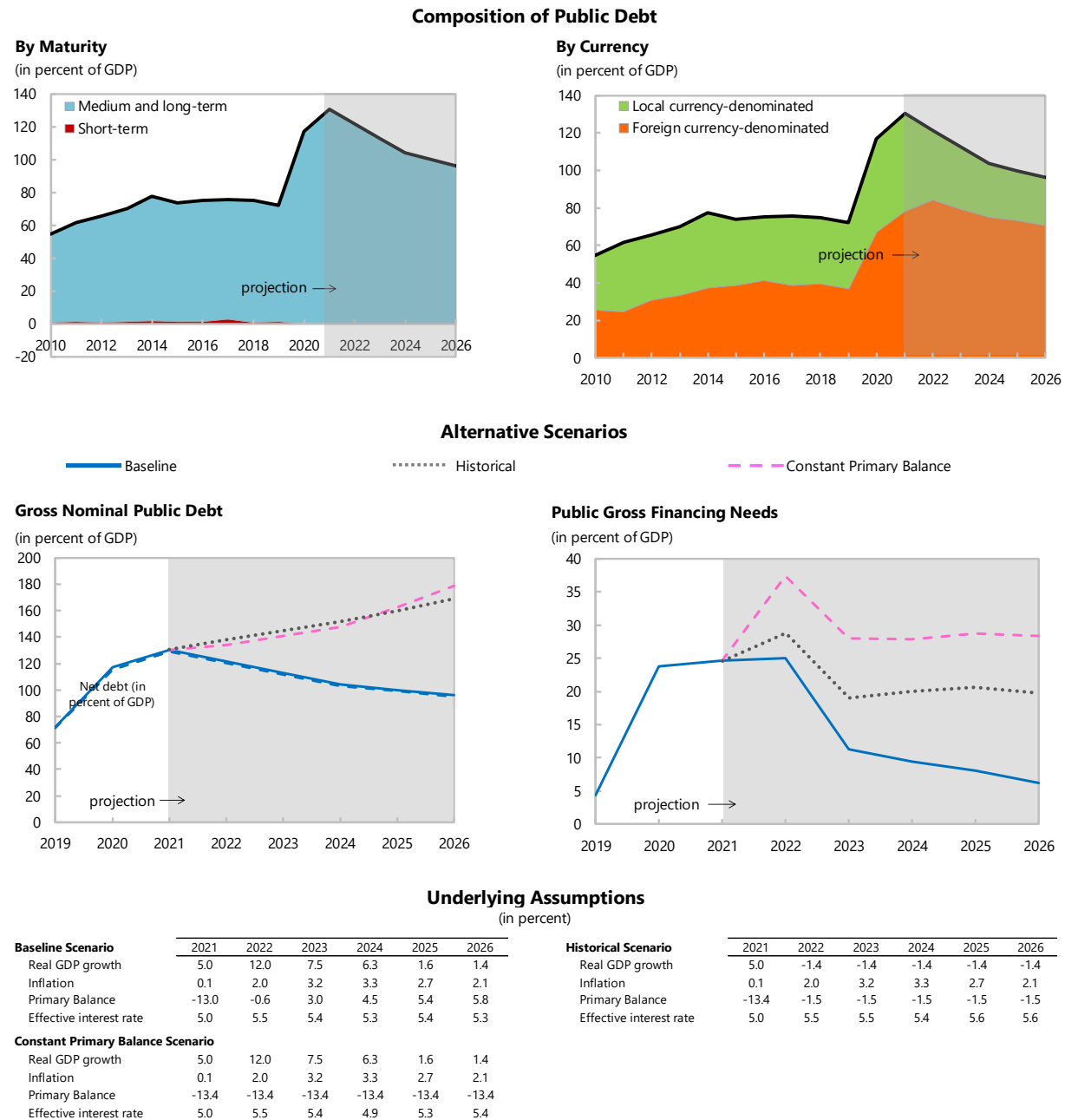
6/ The real interest rate contribution is derived from the numerator in footnote 5 as $r - \pi(1+g)$ and the real growth contribution as $-g$.

7/ The exchange rate contribution is derived from the numerator in footnote 5 as $ae(1+r)$.

8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

Figure 2. Aruba: Public DSA - Composition of Public Debt and Alternative Scenarios



Source: IMF staff.

Figure 3. Aruba: Public DSA Risk Assessment 2020-2025

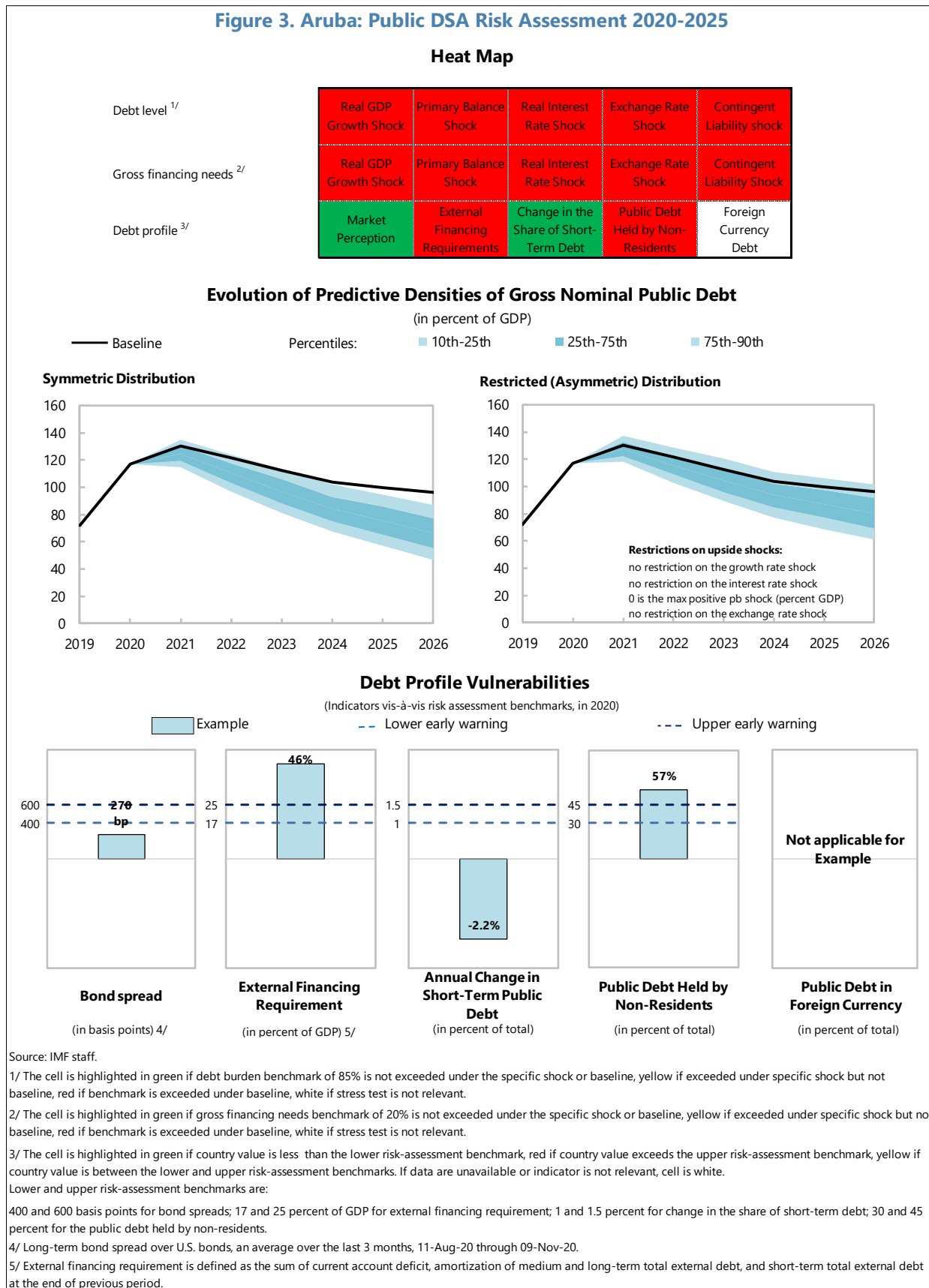
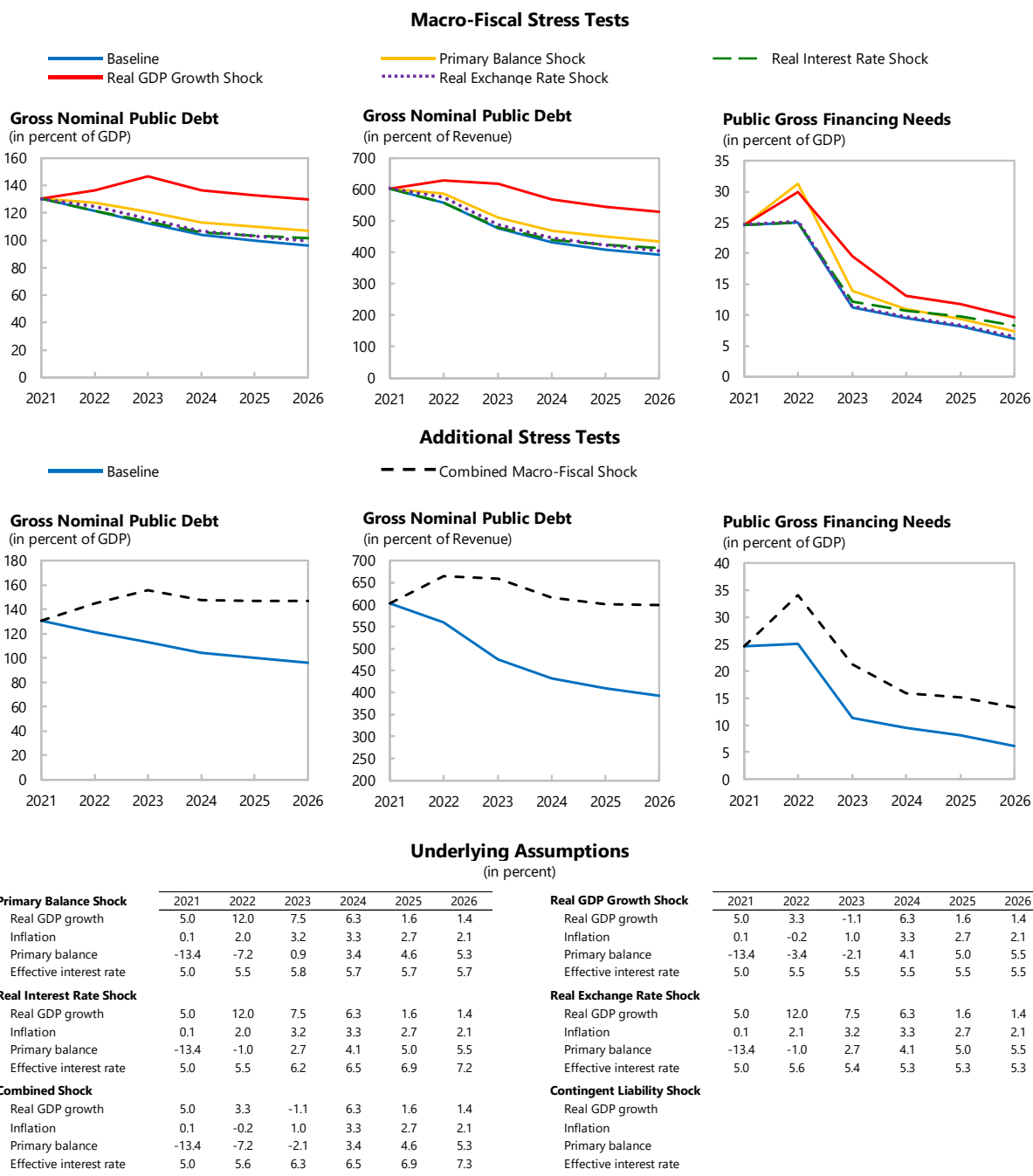


Figure 4. Aruba: Public DSA - Stress Tests



Source: IMF staff.

Appendix V. Aruba: External Debt Sustainability Framework, 2014-2026

(In percent of GDP, unless otherwise indicated)

	Actual						Projections								Debt-stabilizing non-interest current account 6/ -0.4			
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026					
Baseline: External debt	101.3	94.3	95.0	90.0	91.3	89.0												
Change in external debt	-6.0	-7.0	0.8	-5.1	1.4	-2.3												
Identified external debt-creating flows (4+8+9)	-6.3	-8.5	-6.1	-6.9	-5.9	-2.3												
Current account deficit, excluding interest payments	2.4	-6.2	-7.2	-3.6	-2.3	-5.2												
Deficit in balance of goods and services	-1.4	-10.4	-11.2	-8.6	-9.0	-9.6												
Exports	82.3	82.4	78.6	74.6	79.9	76.7												
Imports	80.9	72.0	67.4	65.9	70.9	67.0												
Net non-debt creating capital inflows (negative)	-8.7	1.3	-0.9	-2.6	-3.3	4.0												
Automatic debt dynamics 1/	-0.1	-3.5	2.0	-0.7	-0.4	-1.1												
Contribution from nominal interest rate	2.4	2.3	2.6	2.6	2.7	2.7												
Contribution from real GDP growth	-0.9	0.4	-0.5	-2.1	-1.0	-0.4												
Contribution from price and exchange rate changes 2/	-1.5	-6.3	-0.2	-1.2	-2.0	-3.5												
Residual, incl. change in gross foreign assets (2-3) 3/	0.4	1.5	6.9	1.8	7.3	0.0												
External debt-to-exports ratio (in percent)	123.0	114.3	120.9	120.6	114.4	116.1												
Gross external financing need (in billions of US dollars) 4/	1.0	0.7	0.7	0.7	0.8	0.7												
in percent of GDP	36.2	24.4	22.4	24.2	24.4	20.0	10-Year	10-Year										
Scenario with key variables at their historical averages 5/									86.5	85.8	85.2	84.6	84.2	83.9	0.0			-3.5
Key Macroeconomic Assumptions Underlying Baseline							Historical Average	Standard Deviation										For debt stabilization
Nominal GDP (US dollars)	2.8	3.0	3.0	3.1	3.2	3.3			2.5	2.6	2.9	3.3	3.6	3.7	3.9			4.0
Real GDP growth (in percent)	0.9	-0.4	0.5	2.3	1.2	0.4	0.8	2.2	-25.5	5.0	12.0	7.5	6.3	1.6	1.4			1.4
Exchange rate appreciation (US dollar value of local currency, d)	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	0.0	0.0			0.0
GDP deflator (change in domestic currency)	1.4	6.6	0.2	1.3	2.3	3.9	2.0	2.2	-1.3	0.1	2.0	3.2	3.3	2.7	2.1			2.1
GDP deflator in US dollars (change in percent)	1.4	6.6	0.2	1.3	2.3	3.9	2.0	2.2	-1.3	0.1	2.0	3.2	3.3	2.7	2.1			2.1
Nominal external interest rate (in percent)	2.3	2.5	2.8	2.9	3.1	3.1	2.4	0.6	4.0	4.6	4.7	4.6	4.5	4.3	4.2			4.2
Growth of exports (US dollar terms, in percent)	6.5	6.3	-4.0	-1.7	10.9	0.2	16.1	94.5	-48.2	5.6	46.5	17.8	13.8	7.3	5.7			
Growth of imports (US dollar terms, in percent)	-0.1	-5.5	-5.8	1.4	11.4	-1.3	11.4	78.3	-28.4	0.2	22.1	13.5	11.7	5.9	5.0			
Current account balance, excluding interest payments	-2.4	6.2	7.2	3.6	2.3	5.2	-0.7	8.2	-10.9	-2.0	0.4	0.9	1.1	1.4	1.6			
Net non-debt creating capital inflows	8.7	-1.3	0.9	2.6	3.3	-4.0	3.4	8.4	4.1	0.8	0.5	0.5	0.5	0.5	0.5			

1/ Derived as $[-g - r(1+g) + ea(1+r)] / (1+g+r+gr)$ times previous period debt stock, with r = nominal effective interest rate on external debt; r = change in domestic GDP deflator in US dollar terms, g = real GDP growth rate,

e = nominal appreciation (increase in dollar value of domestic currency), and a = share of domestic-currency denominated debt in total external debt.

2/ The contribution from price and exchange rate changes is defined as $[-r(1+g) + ea(1+r)] / (1+g+r+gr)$ times previous period debt stock. r increases with an appreciating domestic currency ($e > 0$) and rising inflation (based on GDP deflator).

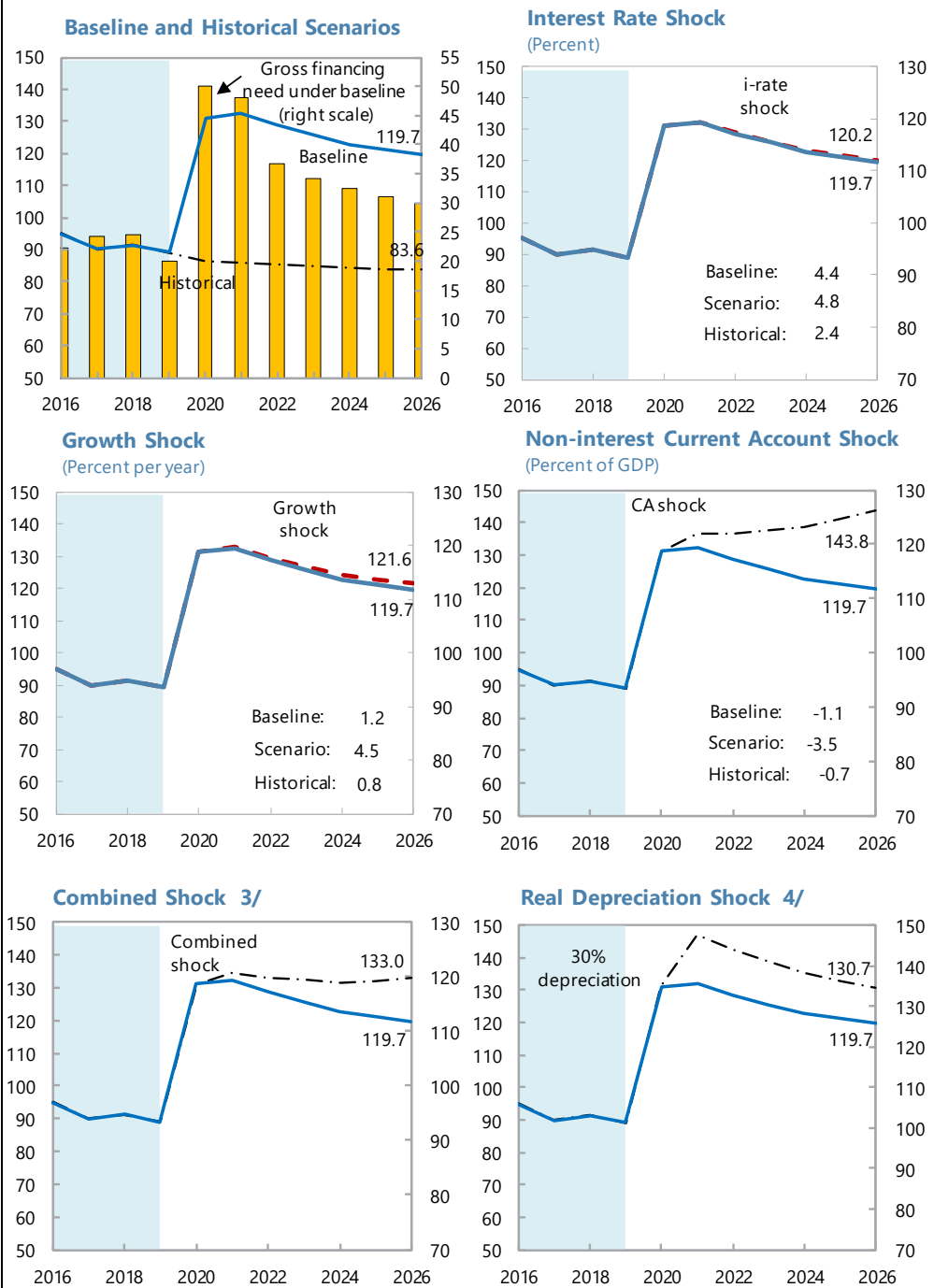
3/ For projection, line includes the impact of price and exchange rate changes.

4/ Defined as current account deficit, plus amortization on medium- and long-term debt, plus short-term debt at end of previous period.

5/ The key variables include real GDP growth; nominal interest rate; dollar deflator growth; and both non-interest current account and non-debt inflows in percent of GDP.

6/ Long-run, constant balance that stabilizes the debt ratio assuming that key variables (real GDP growth, nominal interest rate, dollar deflator growth, and non-debt inflows in percent of GDP) remain at their levels of the last projection year.

Figure 5. Aruba: External Debt Sustainability: Bound Tests 1/2/
(External debt in percent of GDP)



Sources: IMF country desk data; and staff estimates.

1/ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.

2/ For historical scenarios, the historical averages are calculated over the ten-year period, and the information is used to project debt dynamics five years ahead.

3/ Permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and current account balance.

4/ One-time real depreciation of 30 percent occurs in 2021.