

INTERNATIONAL DEVELOPMENT ASSOCIATION

INTERNATIONAL MONETARY FUND

COTE D'IVOIRE

Joint Bank-Fund Debt Sustainability Analysis – 2018 Update

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

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<i>Risk of external debt distress</i>	<i>Moderate</i>
<i>Overall risk of debt distress</i>	<i>Moderate</i>
<i>Granularity in risk rating</i>	<i>Limited space to absorb shocks</i>
<i>Application of judgment</i>	<i>No</i>

Côte d'Ivoire has a moderate risk of external debt distress, with limited space to absorb shocks. All liquidity and solvency external debt indicators lie below their thresholds under the baseline scenario. However, the ratios of external debt service to revenue and exports are projected to rise, diminishing room to maneuver, and an export shock would cause breaches of their relevant thresholds under the worst-case stress scenarios. This underscores the substantial downside risks originating from external shocks and the need to boost domestic revenue mobilization. The overall risk of public debt distress is also moderate, with public debt to GDP ratio expected to decrease gradually. A sustained compliance with the WAEMU fiscal deficit convergence criterion and a prudent external borrowing strategy balancing the costs and economic return of new loans will be crucial to preserve debt sustainability.

PUBLIC DEBT COVERAGE

1. The definition of public debt covers the central government, social security, and government guarantees to other entities in the public and private sectors, including to state-owned enterprises (Text Table 1). Debt coverage is similar to the previous DSA and does not include non-guaranteed debt of state-owned enterprises (SOEs), which represents about 4.5 percent of GDP.¹ However, a contingent liability tailored test is designed to fully capture risks associated with SOEs' debt as well as public-private partnership (PPP) capital stock (Text Table 1).

Text Table 1. Côte d'Ivoire: Coverage of Public Sector Debt and Design of the Contingent Liability Stress Test

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, 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	4.5	Part of the stock NOT guaranteed by the government
4 PPP	35 percent of PPP stock	1.2	
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)		10.7	

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%.

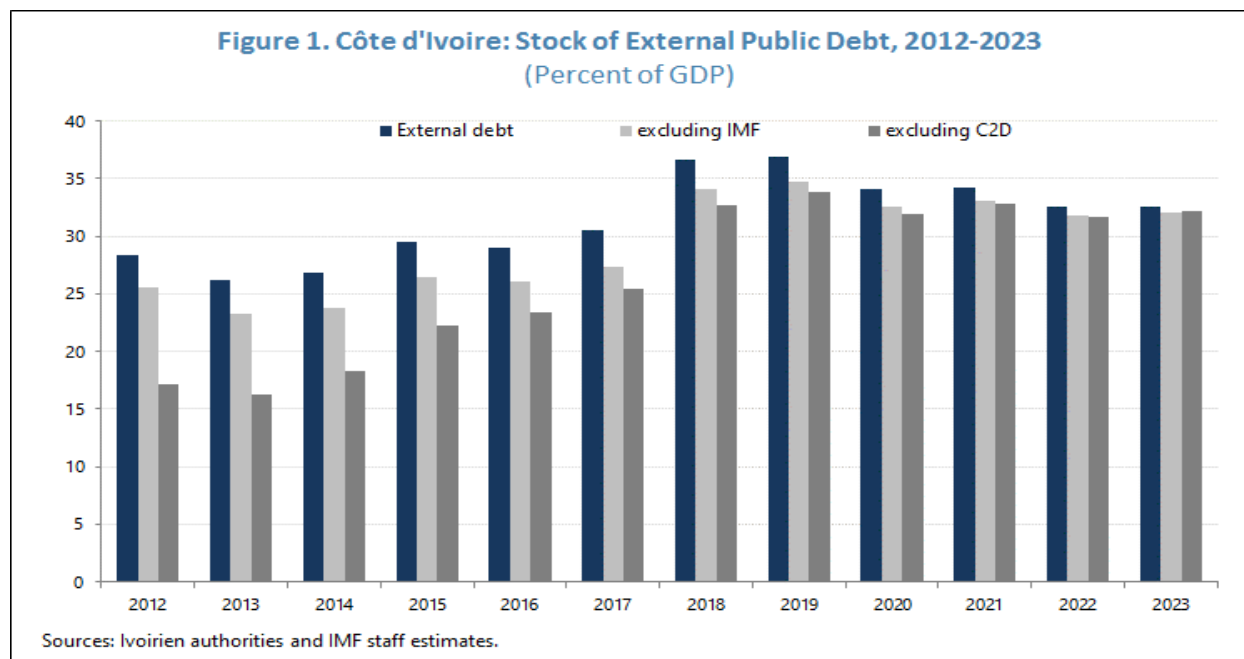
DEBT LANDSCAPE

2. External debt, defined on a currency basis, increased by 2.0 percentage points of GDP in 2017 and is projected to increase by 7.3 percentage points of GDP in 2018 (Figure 1).² The increase in 2017 was mainly driven by Eurobonds issuance. The projected increase in 2018 reflects the two Eurobonds issued in March 2018 (4.7 percent of GDP), the government-guaranteed loans to restructure the debt of the state-owned oil refining company (SIR) (1.5 percent of GDP) and the national electricity company (CI-ENERGIES) (0.6 percent of GDP). The external debt stock at end-2017 was lower than

¹ This corresponds to SOEs total debt stock deducted from guaranteed debt by the government and transferred debt to the government, which are already included in the central government debt.

² In this DSA, the analysis is done on currency basis. Public and Publicly Guaranteed external debt covers only the central government according to the definition agreed under the current ECF/EFF program. It therefore excludes non-guaranteed SOEs' debt. Including non-guaranteed SOE's debt in Public and Publicly Guaranteed external debt will be facilitated by Côte d'Ivoire making the transition to the GFSM 2001 fiscal reporting standards. It excludes French claims under C2D debt-for-development swaps, which were cancelled in the context of beyond HIPC debt relief. Under the C2D mechanism, debt service due on these claims is returned as grants to the government to finance development projects. Flows associated with the C2D process are included by IMF staff in the external and fiscal accounts to capture gross cash flows (debt service and grants). See IMF Country Report n°14/358 and Supp.1, 11/21/2014 for a detailed discussion. External debt in the DSA includes borrowing from the IMF.

expected at the time of the 3rd program review, at 25.4 percent of GDP, due to postponed contracting of the government-guaranteed loan for the SIR debt restructuring and delayed disbursements of project-related loans. Financing for the restructuring of SIR's debts is expected to be contracted by December 2018. In addition, a new government counter-guarantee for the World Bank-guaranteed loan to support arrears clearance at—and enhance the credit quality of—CI-ENERGIES is expected to be provided by end-2018. Therefore, external debt is projected to reach 32.7 percent of GDP at end-2018.



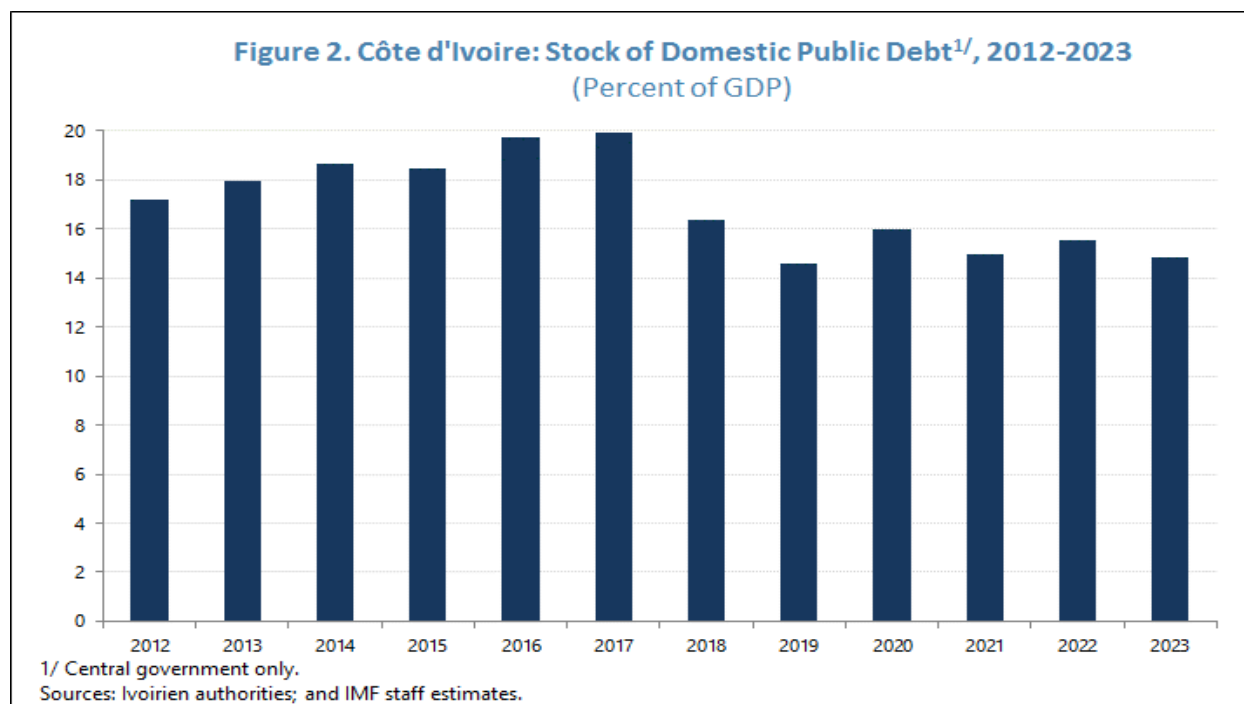
3. The composition of external debt was broadly balanced between official and commercial creditors at end-2017 (Text Table 2). Official creditors accounted for 47.2 percent of the external debt, of which 26.1 percent was owned to multilateral creditors (particularly the IMF and the World Bank) and 21.1 percent to bilateral creditors. Commercial creditors, mainly those grouped in the London Club, accounted for 52.8 percent of the external debt stock.

Text Table 2. Côte d'Ivoire: Composition of External Debt per Creditor Group

	2016	2017	2018	2019	2020	2021	2022	2023		
	Million USD	Million USD	Percent of total	Percent of GDP	Million USD	Million USD	Million USD	Million USD		
Total	7,870.3	10,292.7	100.0	25.4	13,873.2	15,781.5	16,385.5	18,405.8	19,440.3	21,352.2
including C2D and FCFA-denominated loans	9,770.7	12,368.0	120.2	30.5	15,578.8	17,188.2	17,490.8	19,220.5	19,958.4	21,570.2
Multilateral creditors	2,064.2	2,691.3	26.1	6.6	3,473.2	4,154.7	4,492.0	4,816.5	5,126.3	5,312.1
IMF	991.8	1,291.1	12.5	3.2	1,246.1	1,377.8	1,230.2	1,047.8	880.3	706.4
World Bank	522.0	779.2	7.6	1.9	1,355.5	1,679.7	1,958.0	2,254.3	2,533.4	2,728.4
AfDB group	45.5	191.0	1.9	0.5	332.1	461.6	573.5	697.0	812.1	894.0
Other multilaterals	505.0	429.9	4.2	1.1	539.4	635.6	730.2	817.4	900.6	983.3
Official bilateral creditors	1,543.9	2,169.6	21.1	5.4	2,425.3	2,675.3	2,928.2	3,486.2	4,066.9	4,564.6
Paris Club	241.5	207.3	2.0	0.5	231.9	262.9	316.0	688.5	1,090.2	1,495.7
Non-Paris Club	1,302.4	1,962.3	19.1	4.8	2,193.4	2,412.4	2,612.2	2,797.7	2,976.7	3,068.9
Commercial creditors	4,262.2	5,431.8	52.8	13.4	7,974.7	8,951.5	8,965.3	10,103.1	10,247.1	11,475.5
London Club	4,219.7	5,397.8	52.4	13.3	7,174.6	8,025.5	7,968.4	8,817.5	8,728.1	9,523.8
Other commercials	42.5	34.0	0.3	0.1	800.1	926.0	997.0	1,285.6	1,519.0	1,951.7

Sources: Ivoirien authorities; and IMF staff estimates.

4. Reliance on domestic sources of financing is expected to decline in 2018. Domestic debt increased by 2.8 percentage points of GDP between 2012 and 2017, reaching 19.9 percent of GDP in 2017. Reversing that trend, domestic debt is projected to decrease by 3.5 percent of GDP in 2018 as the government issued sizeable Eurobonds to meet most of its gross financing need this year. A large part of the domestic debt consists of securities issued in the regional auction market and syndicated loans.



UNDERLYING ASSUMPTIONS

5. The assumptions in the baseline scenario are consistent with the macroeconomic framework outlined in the staff report for the fourth reviews under the EFF/ECF arrangements (Text Table 3). These include a gradual increase in the contribution of domestic demand and net exports to GDP in the medium term, fiscal consolidation to comply with the program objective and WAEMU fiscal deficit convergence criterion of 3 percent of GDP from 2019 onward. A gradual improvement in the external position is expected, as well as a move toward more commercial debt to cover the gross financing needs as Côte d'Ivoire transitions to emerging market status.

- **Sustained GDP growth over the medium term.** Real GDP growth is expected to remain broadly unchanged in the medium term compared to the previous DSA, averaging 7.1 percent during the first six years of the projection period. Growth is supported by robust domestic demand and a recovery in net exports in the medium term. Reflecting a stabilization process, real GDP is projected to grow by almost 5.9 percent over 2024–29 on average and 5.5 percent over 2030–38 as investment normalizes and net trade contribution lessens further into the projection period.

- **Inflation is expected to remain subdued at about 2 percent**, reflecting good domestic supply conditions and the strength of the Euro to which the CFA Franc is pegged.
- **The primary fiscal balance is expected to improve.** This reflects the government's efforts to mobilize domestic revenue and contain non-priority expenditure to meet the WAEMU fiscal deficit convergence criterion of 3 percent of GDP from 2019 onward.
- **The non-interest current account deficit is projected to narrow over the projection horizon.** The deficit is projected to stabilize at about 1.3 percent of GDP, reflecting an improvement in exports of goods and services and weaker import growth as fiscal consolidation takes place and exports of services and manufactured goods expand. These assumptions are subject to downside risks including unfavorable terms-of-trade shocks and weaker-than-expected global growth in the context of rising protectionism.
- **Côte d'Ivoire's financing needs are expected to be covered mainly by commercial debt in the medium term as it transitions toward an emerging market economy.** The grant element of concessional loans is projected to decline, as the government is expected to retain access to concessional and semi-concessional lending, in addition to non-concessional lending to satisfy its short-term financing needs. This is consistent with the authorities' medium-term debt management strategy, which envisages a 50-50 split between financing sources in domestic and foreign currencies to meet gross financing needs in 2019–23. In the medium to long term, the government is expected to rely increasingly on non-concessional debt and less on concessional and semi-concessional lending.

Text Table 3. Côte D'Ivoire : Macroeconomic Assumptions

	<i>Previous DSA</i>			<i>Current DSA</i>		
	2018-23	2024-29	2030-38	2018-23	2024-29	2030-38
Nominal GDP (USD Billion) 1/	61.3	99.5	172.5	54.0	86.8	147.6
Real GDP (y/y % change)	6.9	5.8	5.5	7.1	5.9	5.5
Fiscal (central government)						
Revenue and grants 2/	19.4	20.0	21.2	20.7	21.3	22.9
of which: grants	0.9	0.3	0.1	1.0	0.1	0.0
Primary expenditure	22.0	22.6	23.0	21.7	21.8	23.4
Primary basic balance (excluding C2D grants)	1.3	2.1	1.8	0.5	1.2	1.2
Balance of payments						
Exports of goods and services	26.6	29.4	32.2	35.6	33.1	27.7
Imports of goods and services	26.1	26.8	29.3	35.0	31.0	25.6
Non-interest current account deficit 3/	1.0	0.2	0.1	1.9	0.9	1.2
New foreign direct investment (net inflows)	3.1	2.7	2.0	1.8	2.3	2.2
Sources: Ivorian authorities, and IMF staff estimates						
1/ Changes from the 3th review DSA reflects an updated nominal GDP following the release of final 2016 national accounts and estimates 2017 national accounts and revised CFA/USD exchange rate assumptions.						
2/ C2D grants are excluded from revenue and grants.						
3/ C2D grants are excluded from official transfers.						

6. The realism of the macroeconomic framework is confirmed by several checks (Figure 6). Côte d'Ivoire's public and external debt trajectories are broadly similar in the current and previous DSAs. The projected medium-term debt-creating flows do not deviate significantly from the historical outturns. The projected fiscal adjustment for the next three years is in the low end of the top quartile of the distribution of approved Fund-supported programs for LICs since 1990. The assumed fiscal consolidation plans are consistent with the WAEMU regional fiscal deficit convergence criterion of 3 percent of GDP, which the authorities have committed to meet starting from 2019. Regarding the relation between fiscal adjustment and growth, the baseline projection does not deviate significantly from the growth paths implied by LIC's typical fiscal multipliers extracted from the empirical literature. The contribution of government capital to real GDP growth is projected to increase slightly over the medium term, building on the higher capital stock accumulated since 2011.

COUNTRY CLASSIFICATION AND DETERMINATION OF SCENARIO STRESS TESTS

7. Côte d'Ivoire has a medium debt carrying capacity. Contrary to the previous DSA that relied exclusively on the Country Policy and Institutional Assessment (CPIA) for assessing the debt carrying capacity, the new DSA depends on a Composite Indicator (CI) that includes the CPIA and other variables from the macroeconomic framework.³ With a CI score of 2.96, Côte d'Ivoire has a medium

³ The other variables from the macroeconomic framework consist of five variables: real GDP growth, remittances, import coverage of reserves, the square of import coverage of reserves, and world economic growth. The CI uses

(continued)

debt carrying capacity. This represents an upgrade compared to the status of weak debt carrying capacity in the previous DSA. Consequently, Côte d'Ivoire's relevant external debt burden thresholds and total public debt benchmarks are defined according to its new debt carrying capacity.

8. Given Côte d'Ivoire's continuous reliance on global capital markets, a tailored test for market financing was conducted. Côte d'Ivoire issued sizeable Eurobonds in 2017 and 2018 and its debt management strategy aims at leveraging global capital markets to finance part of the country's gross financing needs in 2019-23. Consequently, a tailored test for market financing assumes a temporary increase in the cost of new commercial external borrowing by 400 basis points combined with a nominal depreciation of 15 percent of the CFA Franc vis-à-vis the US Dollar and a shortening of maturities and of grace periods.⁴

9. A contingent liability tailored shock was conducted to capture potential fiscal risks arising from SOEs, PPPs, and the financial market. This tailored stress test includes 4.46 percent of GDP representing SOEs' debt stock. It also includes 1.24 percent of GDP to accommodate potential fiscal risks on 35 percent of the PPP capital stock, and a financial sector shock of 5 percent of GDP.

10. Standard stress tests on real GDP growth, primary balance, exports, current transfers, and foreign exchange (FX) depreciation have also been applied. The first four shocks set each of the above variables to its historical average minus one standard deviation, or to its baseline projection minus one standard deviation, whichever is lower, for 2018 and 2019. The last shock—FX depreciation—considers a nominal depreciation of 30 percent of the CFA Franc vis-à-vis the US Dollar in the first year of the projection.

EXTERNAL DEBT SUSTAINABILITY ANALYSIS

11. The external DSA assessment indicates that all public and publicly guaranteed (PPG) debt indicators are below their corresponding thresholds for the next ten years in the baseline scenario. The PV of external debt-to-GDP is expected to gradually decrease from a peak of 32.9 percent in 2018 to 26 percent in 2028 as fiscal consolidation takes place and the authorities rely on a balanced mix of loans in domestic and foreign currencies to meet their financing needs. However, liquidity indicators (debt service-to-exports and debt service-to-revenues), while remaining below their corresponding thresholds, are expected to increase gradually, in part reflecting repayments on the existing Eurobonds. In particular, the PV of debt-service-to-revenues is peaking in 2025 in the baseline scenario at a level very close to the applicable threshold.

12. A shock on exports has the largest negative impact on Côte d'Ivoire's external debt sustainability. Under the standard stress test on exports, the PV of debt-service-to-revenue ratio

ten years of data (5 years of history and 5 years of projections) to smooth out economic cycles. As data on the CPIA are not projected, its projected value over 5 years is set equal to the 2017 CPIA.

⁴ The considered shortening of maturities of commercial external borrowing are as follows. If the original maturity is greater than 5 years, the new maturity is set to 5 years. If the original maturity is less than 5 years, the new maturity is shortened by 0.7 years.

breaches its threshold starting from 2024. The PV of debt-service-to-revenue is expected to reach its peak level of 23.9 percent (against a threshold of 18 percent) in 2025 and to remain near that level in the remaining years of the projection. This result underscores the substantial downside risks for debt sustainability originating from external shocks (such as negative terms of trade shocks) that could hit the Ivoirian economy.

PUBLIC DEBT SUSTAINABILITY ANALYSIS

13. Under the baseline scenario, the PV of public debt-to-GDP ratio is below its threshold of 55 percent (Figure 4). The PV of public debt-to-GDP is expected to decrease gradually over the projection period, edging down from 48.9 percent in 2018 to 37.7 percent by 2028. The trend reflects a gradual decline of the foreign currency-denominated debt ratio combined with a stabilization of domestic currency-denominated debt ratio. Similarly, the PV of debt-to-revenue ratio starts at about 239.3 percent in 2018 and approaches about 175.0 percent in 2028. However, the debt service-to-revenue ratio deteriorates as it is projected to reach 30.8 percent in 2028, an increase of 3.2 percentage points compared to its projected 2018 level. This is driven by a gradual shift toward more commercial debt as well as Eurobond bullet repayment.

14. Stress tests highlight that Côte d'Ivoire's most extreme public debt vulnerability could emerge from a shock to GDP growth (Figure 4 and Table 4). Under the standard stress test of real GDP growth shock, the PV of public debt-to-GDP would breach its corresponding threshold of 55 percent starting from 2020, to reach 88.5 percent by the last year of the projection period. All other tailored and standard stress tests show that the PV of public debt remains below the thresholds. In addition to highlighting the very strong sensitivity to GDP growth shocks, this underscores the importance of minimizing forecast errors by pinpointing projections of real GDP growth as precisely as possible through a strong statistical system and capacities.

15. The tailored scenario stress test for the combined contingent liabilities shows a considerable increase in debt over the first two years of the projection (Table 4). The PV of public debt-to-GDP increases by 8.8 percentage points between 2018 and 2019 and remains above its 2018 level until 2024. This accentuates the need for the Ivoirian authorities to improve fiscal transparency and fiscal risk management and accelerate Public Financial Management (PFM) reforms, in line with regional directives.

RISK RATING AND VULNERABILITIES

16. The debt sustainability analysis under the new DSA indicates that Côte d'Ivoire remains at moderate risk of external debt distress, as in the June 2018 DSA. While none of the external debt indicators breach their corresponding threshold under the baseline scenario, the PV of the external debt service-to-revenue ratio increases substantially toward the applicable threshold, and standard stress tests show that it would cross the threshold in the most extreme shock scenario. As in the previous DSA, this suggests that the external debt service-to-revenue ratio is the most volatile debt indicator for Côte

d'Ivoire, which reinforces the need to intensify revenue mobilization over the medium term. It is also crucial to have a prudent external borrowing strategy aimed at balancing the costs and risks of new loans to preserve Côte d'Ivoire's room for maneuver and medium-term debt sustainability.

17. The new DSA also indicates that the overall risk of debt distress is moderate. While the overall debt sustainability risk is moderate, the PV of public debt-to-GDP breaches its threshold of 55 percent starting from 2020 under the most extreme shock arising from the standard stress tests.

18. The country has limited space to absorb shocks to debt sustainability (Figure 7). The DSA results highlight the need to carefully monitor debt indicators, ensure that GDP growth projections are conducted in a cautious way, and implement judicious policies to preserve macroeconomic stability. Within this context and to better capture fiscal risks, the authorities should accelerate the PFM reforms, in line with the WAEMU directives. To create fiscal space, the authorities should also increase their efforts in mobilizing domestic revenue while containing public expenditure, including the wage bill and subsidies. In 2017, the authorities have been conducting liability management operations to lower the debt service and smooth its profile over the short and medium term. Yet, the limited distance between the debt service-to-revenue ratio and its risk threshold over the medium term constrains the room for maneuver and calls for greater efforts on revenue mobilization as well as careful debt management.

AUTHORITIES' VIEWS

19. The authorities broadly agreed with the main conclusions of the DSA, particularly that Côte d'Ivoire has a moderate risk of debt distress. They welcomed the upgrade of Côte d'Ivoire's debt carrying capacity from weak to medium under the CI measured by the new DSA. They concurred with the importance of strengthening and monitoring the public sector's debt. In this context, they intend to adopt a medium-term debt management strategy with a view to ensuring that the risk of debt distress does not exceed a moderate level. Recognizing the risk related to sustained and substantial reliance on foreign currency borrowing in the recent years, their medium-term debt management strategy envisages a 50-50 split between sources in domestic and foreign currency to meet their financing needs over 2019–23. They also agreed on the need to foster the deepening of the regional debt market to better leverage domestic savings for development objectives. However, the authorities found the baseline macroeconomic assumptions of the DSA too conservative, particularly regarding the growth projections over the medium and long term. They also underscored that their external debt in Euros should be treated differently in the DSA since the exchange rate risk on that debt is limited, given the CFA Franc peg with the Euro and the guarantee of the French Treasury.

Table 1. Côte d'Ivoire: External Debt Sustainability Framework, Baseline Scenario, 2015–38

(Percent of GDP; unless otherwise indicated)

	Actual			Projections							Average 8/		
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2028	2038	Historical	Projections
External debt (nominal) 1/	37.1	39.0	39.6	47.6	47.0	42.8	44.7	43.9	45.1	39.6	31.6	53.3	43.6
<i>of which: public and publicly guaranteed (PPG)</i>	22.2	23.4	25.4	32.8	33.7	31.7	32.1	31.0	31.5	27.7	20.2	33.1	30.9
Change in external debt	2.8	1.9	0.6	8.0	-0.6	-4.2	1.9	-0.8	1.2	-2.1	-1.6		
Identified net debt-creating flows	1.4	-2.7	-0.9	-0.4	-1.3	-1.1	-1.2	-1.9	-2.2	-1.8	-0.9	-6.3	-1.7
Non-interest current account deficit	-0.9	-0.4	2.0	2.2	1.5	1.6	1.3	0.7	0.4	0.8	-0.3	-3.1	1.0
Deficit in balance of goods and services	-3.5	-3.0	-0.9	0.0	0.0	-0.1	-0.5	-1.4	-1.8	-2.1	-1.6	-6.1	-1.3
Exports	37.7	33.4	34.0	36.2	36.2	35.9	36.5	34.8	34.2	31.7	25.1		
Imports	34.2	30.3	33.1	36.3	36.2	35.8	35.9	33.4	32.4	29.6	23.5		
Net current transfers (negative = inflow)	1.0	1.2	1.4	0.9	1.0	1.0	1.2	1.5	1.6	2.1	2.1	1.3	1.6
<i>of which: official</i>	-0.5	-0.4	-0.7	-1.3	-1.2	-1.1	-1.0	-0.7	-0.6	0.0	0.0		
Other current account flows (negative = net inflow)	1.5	1.4	1.5	1.3	0.5	0.6	0.7	0.7	0.7	0.8	-0.9	1.6	0.8
Net FDI (negative = inflow)	-1.4	-1.6	-1.6	-1.6	-1.6	-1.7	-1.8	-1.9	-2.0	-2.4	-0.5	-1.4	-2.0
Endogenous debt dynamics 2/	3.8	-0.7	-1.3	-1.0	-1.1	-0.9	-0.7	-0.7	-0.6	-0.1	0.0		
Contribution from nominal interest rate	1.5	1.6	1.6	1.6	2.2	2.1	2.1	2.1	2.1	2.0	1.7		
Contribution from real GDP growth	-3.2	-2.8	-2.8	-2.6	-3.3	-3.1	-2.7	-2.8	-2.7	-2.1	-1.7		
Contribution from price and exchange rate changes	5.5	0.5	-0.1	...	...	...	...	...	...	...	...	1.1	1.7
Residual 3/	1.4	4.5	1.5	8.4	0.7	-3.1	3.1	1.1	3.4	-0.4	-0.7		
<i>of which: exceptional financing</i>	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	...	...	28.4	32.9	33.7	31.0	31.1	29.6	30.0	25.8	18.5		
PV of PPG external debt-to-exports ratio	...	...	83.4	90.7	93.2	86.5	85.2	84.9	87.6	81.2	73.6		
PPG debt service-to-exports ratio	17.1	13.2	5.1	4.7	7.0	7.4	5.6	5.8	5.7	11.5	11.1		
PPG debt service-to-revenue ratio	34.9	23.7	9.1	9.0	13.1	13.6	10.2	10.0	9.7	17.0	11.6		
Gross external financing need (Million of U.S. dollars)	1948.8	1555.5	2888.6	2682.3	3164.8	2732.4	1357.8	1878.3	1913.6	4108.2	6504.5		
Key macroeconomic assumptions													
Real GDP growth (in percent)	8.8	8.0	7.7	7.4	7.5	7.2	7.0	6.7	6.5	5.5	5.5	5.6	6.6
GDP deflator in US dollar terms (change in percent)	-13.8	-1.3	0.3	5.5	-0.3	3.1	2.2	2.5	1.5	1.5	1.8	1.2	2.0
Effective interest rate (percent) 4/	4.1	4.6	4.3	4.6	4.9	5.0	5.3	5.1	5.1	5.1	5.4	3.5	5.0
Growth of exports of G&S (US dollar terms, in percent)	-9.9	-5.7	10.0	20.6	7.2	9.5	11.1	4.5	6.2	4.5	4.2	3.4	8.2
Growth of imports of G&S (US dollar terms, in percent)	-6.7	-5.6	17.9	24.1	7.0	9.3	9.8	1.8	4.7	4.3	6.2	4.6	7.8
Grant element of new public sector borrowing (in percent)	...	...	...	10.5	17.6	28.4	15.5	25.2	11.7	10.9	9.6	...	14.8
Government revenues (excluding grants, in percent of GDP)	18.5	18.6	19.2	19.2	19.4	19.6	19.9	20.1	20.3	21.6	23.9	17.8	20.4
Aid flows (in Million of US dollars) 5/	556.3	556.3	577.6	1206.7	1108.0	1089.7	1103.5	968.8	829.7	471.2	742.9		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	2.2	2.0	1.7	1.6	1.2	1.0	0.3	0.2	...	1.1
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	21.3	33.4	52.9	32.8	43.3	24.5	11.2	9.8	...	24.8
Nominal GDP (Million of US dollars)	33,131	35,297	38,130	43,199	46,309	51,181	55,956	61,206	66,215	95,781	192,636		
Nominal dollar GDP growth	-6.2	6.5	8.0	13.3	7.2	10.5	9.3	9.4	8.2	7.1	7.4	6.7	8.7
Memorandum items:													
PV of external debt 7/	...	...	42.5	47.7	47.1	42.2	43.7	42.5	43.5	37.7	29.8		
In percent of exports	...	...	125.1	131.7	129.9	117.6	119.9	122.0	127.3	118.7	119.0		
Total external debt service-to-exports ratio	21.8	19.1	21.1	15.5	19.3	15.3	8.1	12.3	13.2	18.7	16.8		
PV of PPG external debt (in Million of US dollars)	...	...	10819.7	14191.4	15628.3	15885.6	17390.3	18102.6	19835.0	24686.4	35545.6		
(PVt-PVt-1)/GDPt-1 (in percent)	...	...	8.8	8.8	3.3	0.6	2.9	1.3	2.8	0.6	0.4		
Non-interest current account deficit that stabilizes debt ratio	-3.7	-2.3	1.4	-5.8	2.1	5.8	-0.6	1.5	-0.7	2.9	1.3		

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - p(1+g)] / (1+g+p+g)$ times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and p = growth rate of GDP deflator in U.S. dollar terms.

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

Projected residuals reflect projected reserves accumulation, private capital flows and inflows from other countries not captured under the BOP (if any).

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.

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

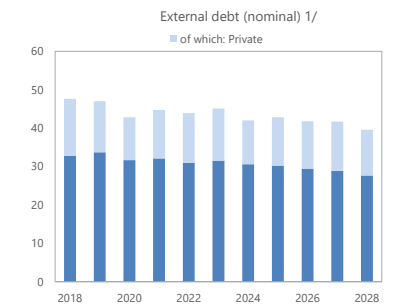
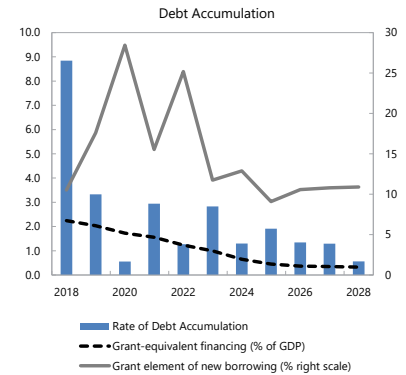
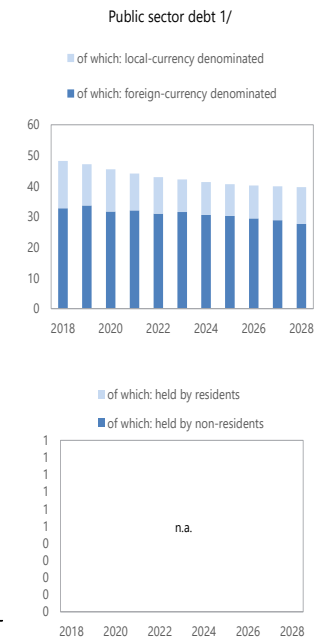


Table 2. Côte d'Ivoire: Public Sector Debt Sustainability Framework, Baseline Scenario, 2015–38

(Percent of GDP; unless otherwise indicated)

	Actual			Projections								Average 6/	
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2028	2038	Historical	Projections
Public sector debt 1/	40.7	43.1	45.3	48.2	47.2	45.5	44.1	42.9	42.2	39.7	38.6	50.3	42.9
of which: external debt	22.2	23.4	25.4	32.8	33.7	31.7	32.1	31.0	31.5	27.7	20.2	33.1	30.9
Change in public sector debt	3.8	2.4	2.2	2.9	-1.1	-1.7	-1.4	-1.2	-0.7	-0.3	-0.1		
Identified debt-creating flows	0.5	2.0	-0.6	1.3	-1.3	-1.3	-1.0	-0.9	-0.5	-0.2	-0.2	-2.7	-0.5
Primary deficit	1.3	2.3	2.8	2.2	1.1	0.7	0.7	0.7	0.8	0.4	0.4	1.1	0.8
Revenue and grants	20.0	20.0	20.4	20.4	20.5	20.7	20.8	20.8	20.9	21.6	23.9	18.9	20.9
of which: grants	1.4	1.4	1.2	1.3	1.2	1.1	1.0	0.7	0.6	0.0	0.0		
Primary (noninterest) expenditure	21.3	22.2	23.2	22.6	21.6	21.4	21.6	21.5	21.7	22.0	24.3	19.9	21.7
Automatic debt dynamics	-0.6	-0.1	-3.3	-0.9	-2.0	-2.0	-1.8	-1.6	-1.3	-0.6	-0.6		
Contribution from interest rate/growth differential	-2.2	-1.3	-1.3	-2.0	-2.0	-1.8	-1.6	-1.5	-1.4	-0.8	-0.6		
of which: contribution from average real interest rate	0.8	1.7	1.8	1.1	1.4	1.4	1.4	1.3	1.2	1.3	1.4		
of which: contribution from real GDP growth	-3.0	-3.0	-3.1	-3.1	-3.4	-3.2	-3.0	-2.8	-2.6	-2.1	-2.0		
Contribution from real exchange rate depreciation	1.6	1.2	-2.0	...	...	...	...	...	...	...	...
Other identified debt-creating flows	-0.2	-0.1	-0.1	0.0	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	-1.9	0.0
Privatization receipts (negative)	-0.2	-0.1	-0.1	0.0	-0.4	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	3.3	0.4	2.8	2.7	0.3	-0.5	-0.5	-0.4	-0.1	0.1	0.0	-0.1	0.1
Sustainability indicators													
PV of public debt-to-GDP ratio 2/	...	...	46.7	48.9	47.0	44.8	43.0	41.4	40.5	37.7	36.8		
PV of public debt-to-revenue and grants ratio	...	...	229.1	239.3	228.5	216.2	206.1	198.9	194.2	175.0	153.7		
Debt service-to-revenue and grants ratio 3/	28.8	35.6	37.3	27.6	29.9	33.4	29.2	26.4	23.4	30.8	30.2		
Gross financing need 4/	6.9	9.3	10.3	7.8	6.8	7.6	6.8	6.2	5.7	7.1	7.6		
Key macroeconomic and fiscal assumptions													
Real GDP growth (in percent)	8.8	8.0	7.7	7.4	7.5	7.2	7.0	6.7	6.5	5.5	5.5	5.6	6.6
Average nominal interest rate on external debt (in percent)	4.3	4.0	4.1	3.6	5.0	5.1	5.0	4.9	4.8	5.2	5.6	2.6	4.9
Average real interest rate on domestic debt (in percent)	1.5	6.4	7.1	4.1	3.8	3.2	3.6	3.7	3.9	4.3	4.2	1.8	3.9
Real exchange rate depreciation (in percent, + indicates depreciation)	9.3	5.5	-8.8	...	...	...	...	...	...	...	...	1.0	...
Inflation rate (GDP deflator, in percent)	3.1	-1.1	-1.7	0.4	1.1	1.8	1.6	1.6	1.5	1.5	1.8	2.9	1.4
Growth of real primary spending (deflated by GDP deflator, in percent)	17.0	12.8	12.2	5.0	2.6	6.1	7.9	6.4	7.5	6.4	6.3	8.5	6.1
Primary deficit that stabilizes the debt-to-GDP ratio 5/	-2.5	-0.1	0.6	-0.7	2.1	2.3	2.1	1.9	1.5	0.7	0.6	-0.7	1.3
PV of contingent liabilities (not included in public sector debt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

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



Sources: Country authorities; and staff estimates and projections.

1/ Coverage of debt: The central government plus social security, government-guaranteed debt. Definition of external debt is Currency-based.

2/ The underlying PV of external debt-to-GDP ratio under the public DSA differs from the external DSA with the size of differences depending on exchange rates projections.

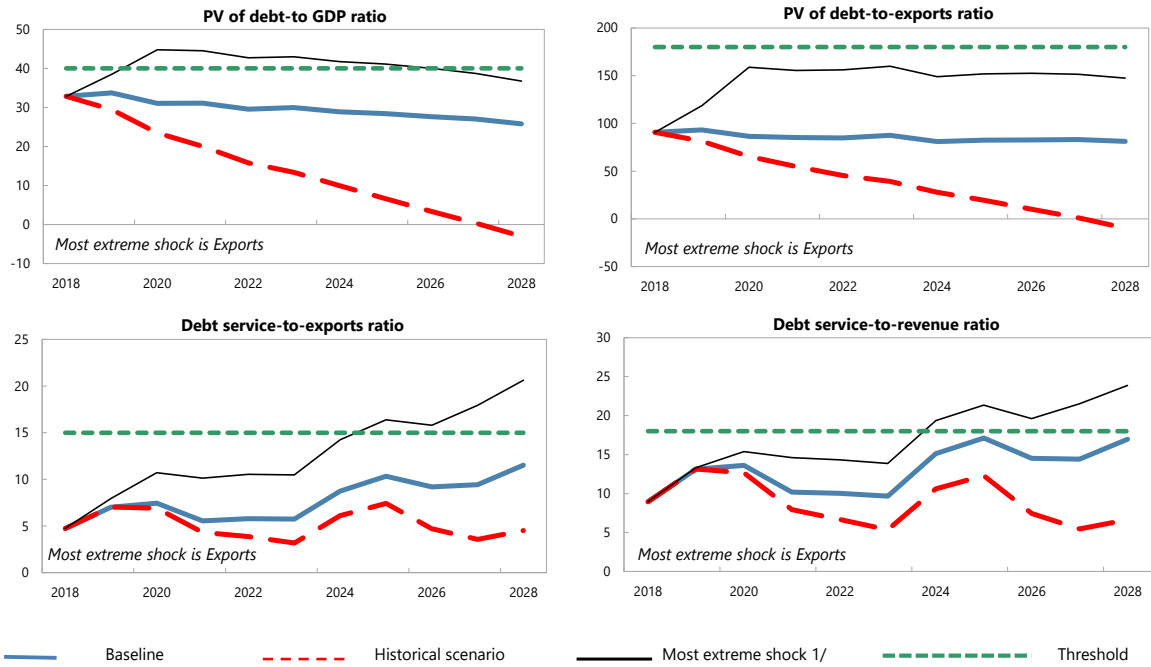
3/ Debt service is defined as the sum of interest and amortization of medium and long-term, and short-term debt.

4/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period and other debt creating/reducing flows.

5/ Defined as a primary deficit minus a change in the public debt-to-GDP ratio (-): a primary surplus, which would 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.

Figure 3. Côte d'Ivoire: Indicators of Public and Publicly Guaranteed External Debt under Alternative Scenarios, 2018–28^{1/}



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

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	5.0%	7.0%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	17	17
Avg. grace period	6	6

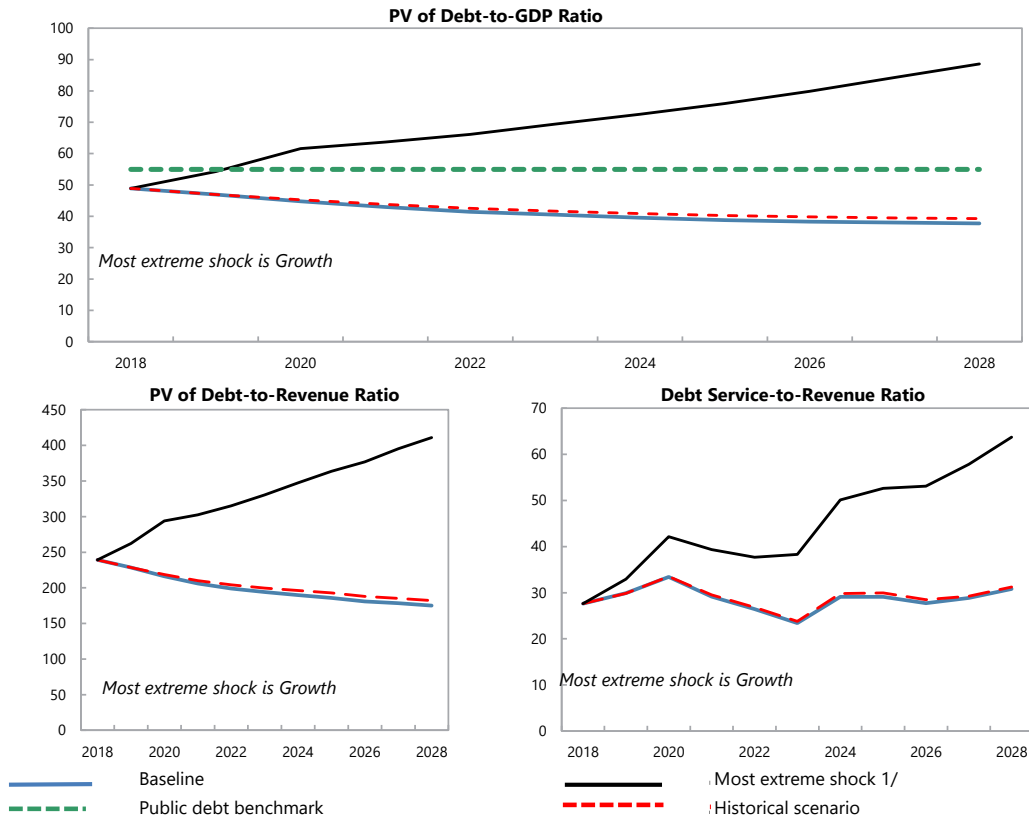
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2028. 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 4. Côte d'Ivoire: Indicators of Public Debt Under Alternative Scenarios, 2018–38



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	35%	35%
Domestic short-term	10%	10%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	5.0%	7.0%
Avg. maturity (incl. grace period)	17	17
Avg. grace period	6	6
Domestic MLT debt		
Avg. real interest rate on new borrowing	4.6%	4.6%
Avg. maturity (incl. grace period)	4	4
Avg. grace period	3	3
Domestic short-term debt		
Avg. real interest rate	4.0%	4.0%

* 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 2028. 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.

Table 3. Côte d'Ivoire: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2018–28
(Percent)

	Projections 1/										
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
PV of debt-to GDP ratio											
Baseline	33	34	31	31	30	30	29	28	28	27	26
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2018-2028 2/	33	29	23	20	16	13	10	7	3	0	-3
B. Bound Tests											
B1. Real GDP growth	33	37	38	38	36	37	35	35	34	33	32
B2. Primary balance	33	34	33	33	31	32	31	31	30	29	28
B3. Exports	33	39	45	45	43	43	42	41	40	39	37
B4. Other flows 3/	33	35	34	34	32	32	31	31	30	29	28
B5. One-time 30 percent nominal depreciation	33	43	36	36	34	35	34	33	32	32	30
B6. Combination of B1-B5	33	42	40	40	38	39	37	37	36	35	33
C. Tailored Tests											
C1. Combined contingent liabilities	33	40	37	37	36	37	36	36	35	35	34
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	33	35	33	33	32	32	31	31	30	29	28
C4. Market Financing	33	38	35	35	33	34	33	32	31	30	29
Threshold	40	40	40	40	40	40	40	40	40	40	40
PV of debt-to-exports ratio											
Baseline	91	93	87	85	85	88	81	82	83	83	81
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2018-2028 2/	91	81	65	55	45	39	28	19	10	1	-10
B. Bound Tests											
B1. Real GDP growth	91	93	87	85	85	88	81	82	83	83	81
B2. Primary balance	91	95	92	90	90	93	87	89	89	90	88
B3. Exports	91	119	159	156	156	160	149	152	152	152	147
B4. Other flows 3/	91	97	94	92	92	95	88	90	90	90	88
B5. One-time 30 percent nominal depreciation	91	93	80	79	78	81	75	76	76	77	75
B6. Combination of B1-B5	91	112	94	111	111	114	106	108	108	108	105
C. Tailored Tests											
C1. Combined contingent liabilities	91	109	104	102	102	109	102	104	105	107	106
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	91	97	93	92	92	95	88	89	90	90	88
C4. Market Financing	91	93	87	86	86	89	82	83	83	83	81
Threshold	180	180	180	180	180	180	180	180	180	180	180
Debt service-to-exports ratio											
Baseline	5	7	7	6	6	6	9	10	9	9	12
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2018-2028 2/	5	7	7	4	4	3	6	7	5	4	5
B. Bound Tests											
B1. Real GDP growth	5	7	7	6	6	6	9	10	9	9	12
B2. Primary balance	5	7	8	6	6	6	9	11	10	10	12
B3. Exports	5	8	11	10	11	10	14	16	16	18	21
B4. Other flows 3/	5	7	8	6	6	6	9	11	10	10	12
B5. One-time 30 percent nominal depreciation	5	7	7	5	5	5	8	10	9	9	11
B6. Combination of B1-B5	5	8	10	7	8	8	11	13	12	12	15
C. Tailored Tests											
C1. Combined contingent liabilities	5	7	8	7	7	7	10	12	11	11	13
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	5	7	8	6	6	6	9	11	10	10	12
C4. Market Financing	5	7	8	6	7	7	13	11	13	9	11
Threshold	15	15	15	15	15	15	15	15	15	15	15
Debt service-to-revenue ratio											
Baseline	9	13	14	10	10	10	15	17	15	14	17
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2018-2028 2/	9	13	13	8	7	5	11	12	7	5	7
B. Bound Tests											
B1. Real GDP growth	9	15	17	12	12	12	19	21	18	18	21
B2. Primary balance	9	13	14	11	11	10	16	18	15	15	18
B3. Exports	9	13	15	15	14	14	19	21	20	22	24
B4. Other flows 3/	9	13	14	11	11	10	16	18	16	16	18
B5. One-time 30 percent nominal depreciation	9	17	17	12	12	11	18	21	18	17	20
B6. Combination of B1-B5	9	15	18	13	13	13	19	21	19	19	22
C. Tailored Tests											
C1. Combined contingent liabilities	9	13	16	12	12	12	17	19	17	17	19
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	9	14	15	11	11	11	16	18	16	16	18
C4. Market Financing	9	13	14	11	11	11	23	18	20	14	16
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. Côte d'Ivoire: Sensitivity Analysis for Key Indicators of Public Debt, 2018–28
(Percent)

	Projections 1/										
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
PV of Debt-to-GDP Ratio											
Baseline	49	47	45	43	41	41	40	39	38	38	38
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2018-2028 2/	49	47	45	44	43	42	41	40	40	39	39
B. Bound Tests											
B1. Real GDP growth	49	54	62	64	66	69	73	76	80	84	89
B2. Primary balance	49	48	48	46	44	43	42	42	41	41	40
B3. Exports	49	51	57	55	53	52	51	50	50	49	48
B4. Other flows 3/	49	48	47	46	44	43	42	41	41	40	40
B5. One-time 30 percent nominal depreciation	49	55	50	46	43	40	38	35	33	31	29
B6. Combination of B1-B5	49	47	48	47	46	46	45	45	46	46	47
C. Tailored Tests											
C1. Combined contingent liabilities	49	58	55	53	51	50	49	48	48	47	47
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	49	50	54	58	62	67	70	74	78	83	87
C4. Market Financing	49	47	45	43	42	41	40	39	38	38	38
Public debt benchmark	55	55	55	55	55	55	55	55	55	55	55
PV of Debt-to-Revenue Ratio											
Baseline	239	229	216	206	199	194	190	186	181	178	175
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2018-2028 2/	239	228	219	210	204	200	196	193	188	185	182
B. Bound Tests											
B1. Real GDP growth	239	262	294	302	315	330	347	364	377	395	411
B2. Primary balance	239	235	231	220	213	208	203	199	193	191	187
B3. Exports	239	249	277	265	256	251	246	241	234	228	221
B4. Other flows 3/	239	235	229	219	211	206	202	198	192	189	185
B5. One-time 30 percent nominal depreciation	239	267	244	224	207	194	181	168	156	146	136
B6. Combination of B1-B5	239	231	230	223	219	218	217	217	215	216	216
C. Tailored Tests											
C1. Combined contingent liabilities	239	281	266	255	247	241	236	232	225	223	219
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	239	255	273	291	308	325	341	355	369	388	404
C4. Market Financing	239	229	217	207	200	196	192	187	182	178	174
Debt Service-to-Revenue Ratio											
Baseline	28	30	33	29	26	23	29	29	28	29	31
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2018-2028 2/	28	30	34	30	27	24	30	30	28	29	31
B. Bound Tests											
B1. Real GDP growth	28	33	42	39	38	38	50	53	53	58	64
B2. Primary balance	28	30	34	31	28	26	32	31	29	31	33
B3. Exports	28	30	35	33	30	27	33	33	32	35	37
B4. Other flows 3/	28	30	34	30	27	24	30	30	29	30	32
B5. One-time 30 percent nominal depreciation	28	30	36	30	27	24	30	32	29	29	32
B6. Combination of B1-B5	28	30	35	31	29	26	33	34	32	34	36
C. Tailored Tests											
C1. Combined contingent liabilities	28	30	41	33	30	40	35	34	32	36	36
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	28	31	38	37	36	38	49	51	52	56	62
C4. Market Financing	28	30	34	30	28	25	37	30	33	28	30

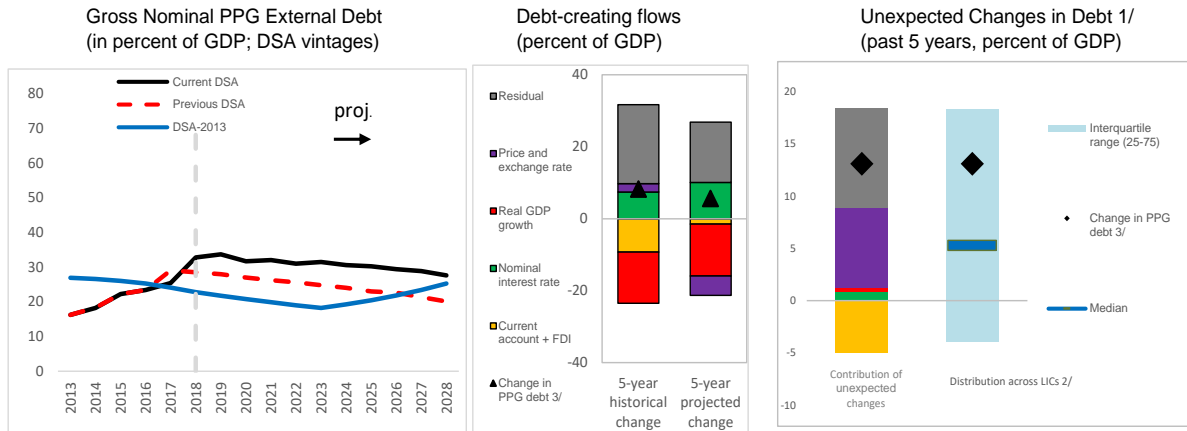
Sources: Country authorities; and staff estimates and projections.

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

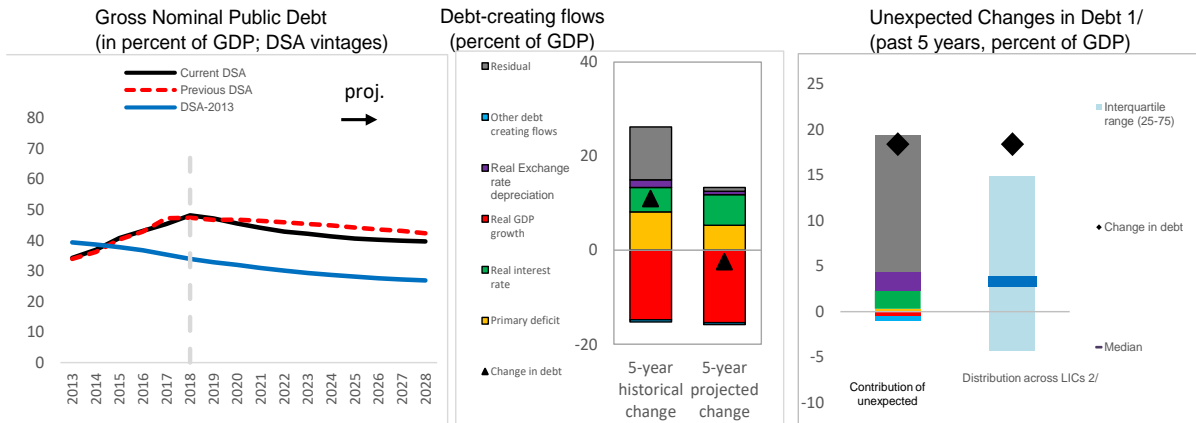
2/ Variables include real GDP growth, GDP deflator and primary deficit in percent of GDP.

3/ Includes official and private transfers and FDI.

Figure 5. Côte d'Ivoire: Drivers of Debt Dynamics—Baseline Scenario External Debt



Public debt



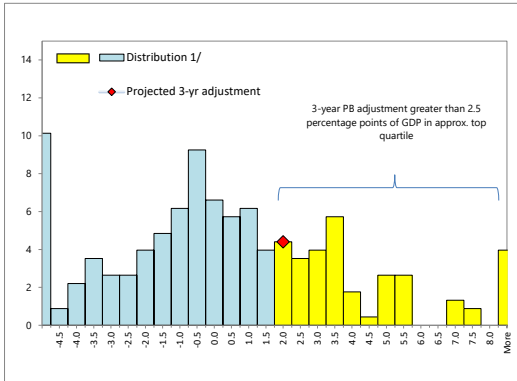
1/ Difference between anticipated and actual contributions on debt ratios.

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.

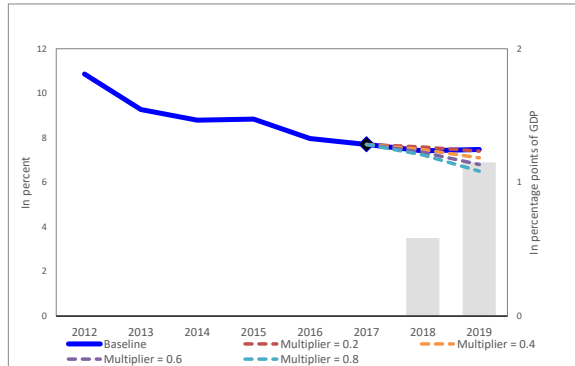
Figure 6. Côte d'Ivoire: Realism Tools

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



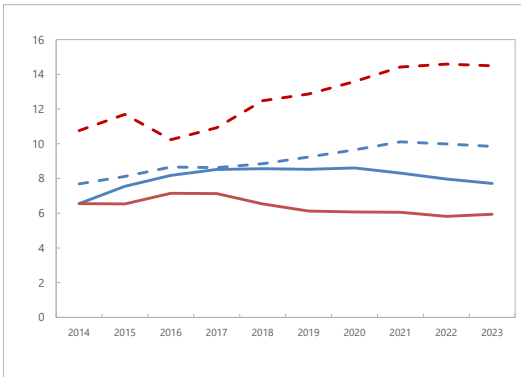
1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

Fiscal Adjustment and Possible Growth Paths 1/



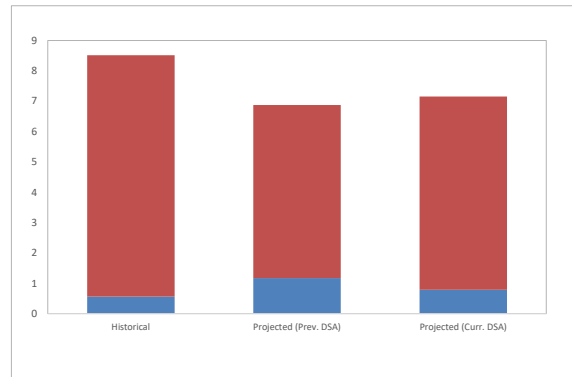
1/ Bars refer to annual projected fiscal adjustment (right-hand side scale) and lines show possible real GDP growth paths under different fiscal multipliers (left-hand side scale).

**Public and Private Investment Rates
(% of GDP)**



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

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



■ Contribution of other factors
 ■ Contribution of government capital

Figure 7. Côte d'Ivoire: Qualification of the Moderate Category, 2018–28^{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.