



CÔTE D'IVOIRE

EIGHTH REVIEW UNDER THE EXTENDED CREDIT FACILITY ARRANGEMENT—DEBT SUSTAINABILITY ANALYSIS

November 24, 2015

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Prepared by the International Monetary Fund and
the International Development Association

- This debt sustainability analysis (DSA) concludes that Côte d'Ivoire continues to face a moderate risk of debt distress.¹
- *The DSA updates the joint Bank-Fund LIC-DSA that was considered by the Executive Board in December 2014 at the 6th Review of under the ECF Arrangement.² Compared to the last DSA, the current analysis assumes that a larger share of the fiscal deficit is financed through domestic borrowing and non-concessional external borrowing. It also includes the actual terms of the 2015 Eurobond and revised disbursement schedules of four large project loans. In addition, the underlying macroeconomic assumptions have been updated to reflect recent domestic and global developments, notably an improved business environment, lower world prices for oil and mining products and a depreciation of the CFAF vis-à-vis the US dollar.*
- *Under the baseline scenario, there are no breaches of the respective policy-dependent thresholds for any of the debt indicators. However, the stress tests show that the external debt outlook continues to be vulnerable to adverse macroeconomic shocks.*
- *The accumulation of external debt, in particular of non-concessional debt, should be monitored carefully, and new borrowing guided by prudent debt management. It would be important to avoid an excessive bunching of maturities in the mid-2020s, and to take adequate account of rollover and foreign exchange risks. Borrowing plans should take into account potential changes in international financial market conditions and volatility.*

¹ In the LIC-DSA framework Côte d'Ivoire is rated as having weak policy performance with a Country Policy and Institutional Assessment (CPIA) average rating for 2012–14 of 3.17.

² The DSA was prepared jointly by the staff of the IMF and World Bank, in collaboration with the authorities of Côte d'Ivoire. The 2014 DSA can be found in IMF Country Report n°14/358, Supp.1, 11/21/2014. Due to data limitations the DSA covers central government debt for domestic debt, central government and private external debt, but not public enterprise debt.

- *Promoting economic diversification and strengthening revenue mobilization are important to increase Côte d'Ivoire's resilience to exogenous shocks. Efforts to improve the business environment and enhance revenue mobilization by broadening the tax base should be continued and stepped up.*
- *Strengthening debt management would enhance Côte d'Ivoire's capacity to pursue a prudent borrowing policy and manage contingent fiscal risks. To this end, the long-delayed restructuring of the public debt department into front-, middle-, and back-offices should be completed rapidly. Also, the planned strengthening of the National Debt Policy Committee and of the recently developed centralized database to monitor public sector's debt (public enterprises and other public entities) should be implemented quickly.*

BACKGROUND

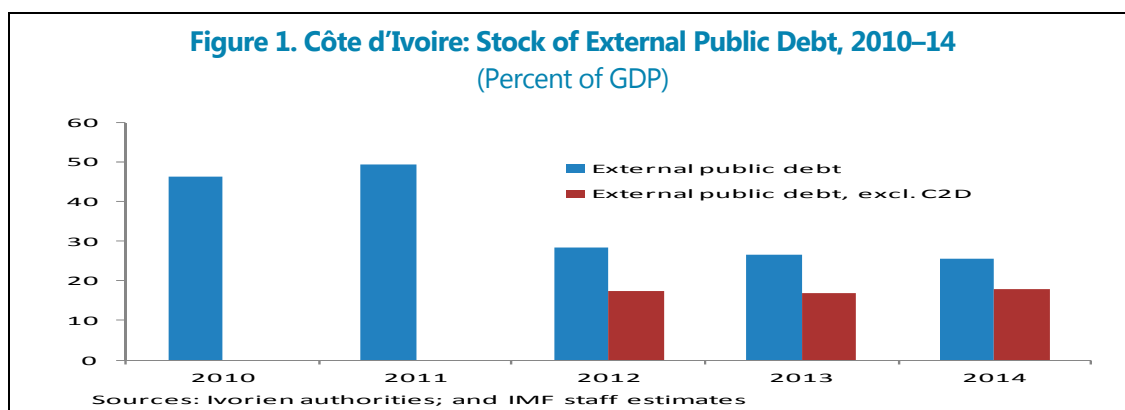
1. As a result of Côte d'Ivoire's completion point under the enhanced HIPC initiative in 2012, the external debt (central government) position and vulnerability improved.³ Since 2012, the government has used the borrowing space created by the HIPC completion point to finance its ambitious investment plans, including several large key investments in the energy and infrastructure sectors,⁴ as well as to access the Eurobond market (\$750 million in 2014 and \$1 billion in 2015). Côte d'Ivoire's entry on the Eurobond market was met favorably with both issuances oversubscribed and terms that compared favorably with those given to other African countries. In support of the 2014 issuance, Moody's and Fitch assigned the country sovereign bond risk ratings of B1 and B, respectively, both with a positive outlook. Most recently in early November 2015, Moody's upgraded Côte d'Ivoire's risk rating to Ba3 (stable outlook). As a result, outstanding public and publicly-guaranteed government (PPG) external debt increased from \$4.7 billion at end-2012 to \$5.9 billion at end-2014 (Figure 1 and Table 1), but has stayed broadly unchanged in terms of GDP—17.3 percent at end-2012 and 17.8 percent at end-2014. At end-2014, commercial creditors accounted for 55.5 percent of PPG external debt (for the most part Eurobonds⁵), multilateral creditors 25.5 percent, and official bilateral creditors 19 percent. Compared to end-2012 there has been a shift in the shares in favor of official bilateral creditors and away from

³ In this DSA PPG external debt covers only the central government. It excludes French claims under C2D debt-for-development swaps, which were cancelled in the context of providing beyond HIPC debt relief. Under the C2D mechanism, debt service due on these claims is returned in the form of grants to the government to finance development projects. In the staff report the flows associated with the C2D process are included in the external and fiscal accounts so as to capture the gross cash-flows (debt service and grants). See IMF Country Report n°14/358 and Supp.1, 11/21/2014 for a detailed discussion.

⁴ Three loans were contracted during 2013–14 to finance the following projects: the Soubre hydroelectric dam (2013), an extension of the Port of Abidjan (2014), and potable water for Abidjan (2014). On a contracted basis, these loans amount to \$1.39 billion. In addition, a project loan for the extension and rehabilitation of the electricity network of about \$775 million is expected to be signed before end-2015.

⁵ At end-2014, outstanding Eurobonds include the 2014 issuance as well as the issuance in 2009 in exchange of outstanding Brady Bonds in a London Club restructuring agreement in 2010 following Côte d'Ivoire's decision point in 2009. At end-2014, the latter stock amounts to \$2.5 billion.

multilateral creditors; this shift is entirely accounted for by an increase in the share of non-traditional creditors (by just over 6 percent of total debt) while that of Paris Club members has correspondingly decreased.



Text Table 1. Côte d'Ivoire: Composition of External Debt per Creditor Group^{1/}
(As of end-2014, nominal)

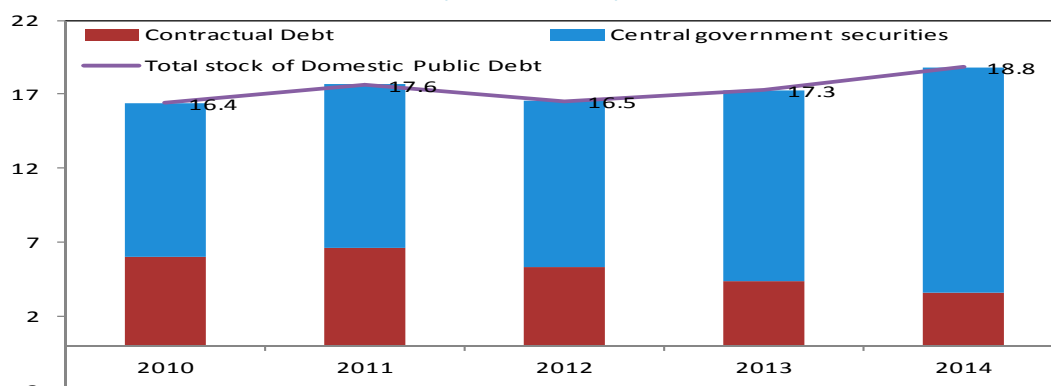
	Million US dollars	Percent of total	Percent of GDP
Total	5,996	100.0	17.8
<i>Including C2D</i>	8,579		25.4
Multilateral creditors	1,531	25.5	4.5
IMF	1,016	16.9	3.0
World Bank	157	2.6	0.5
AfDB group	44	0.7	0.1
Other multilaterals	314	5.2	0.9
Official bilateral creditors	1,135	18.9	3.4
Paris Club	556	9.3	1.6
Non-Paris Club	579	9.7	1.7
Commercial creditors	3,330	55.5	9.9
London club	3,271	54.5	9.7
Other commercials	60	1.0	0.2

Sources : Ivorien authorities; and IMF staff estimates
^{1/} currency definition of external debt.

2. Domestic public debt (central government only) has trended up since 2012. This increase reflects notably large issuances of government bonds with longer maturities to fund the budget and pay off below the line obligations, as well as the inclusion of certain past arrears to the BCEAO (0.5 percent of GDP).⁶ As of end-2014, the total stock of domestic debt represented about 18.8 percent of GDP of which 81 percent consisted of government securities issued on the regional bond market.

⁶ These include, T-bills and T-bonds obligations stemming from the restructuring at end-2011, restructuring of domestic debt arrears incurred during the 2010–11 post-election crisis (5.4 percent of GDP), floating debt, and securitized debt issued as payment for previously unbudgeted liabilities. The arrears to the BCEAO relate to payments to the IMF, prior to the HIPC decision point in 2009, which were honored by the BCEAO even though the government did not pay the counterpart debt service to the BCEAO.

Figure 2. Côte d'Ivoire: Stock of Domestic Public Debt^{1/}, 2010–14
(Percent of GDP)



Sources: Ivoirien authorities; and IMF staff estimates
1/ Central government only.

Text Table 2. Côte d'Ivoire: Domestic Public Debt,^{1/} as of end-2014

	Billions of CFA Francs	Percent of total	Percent of GDP
Total	3,138	100.0	18.8
Securities	2,541	81.0	15.3
Contractual Debt	597	19.0	3.6

Sources : Ivoirien authorities; and IMF staff estimates

^{1/} Central Government only.

3. In early 2015, the government began collecting quarterly data on the debt stock of public enterprises. The data should be considered as preliminary as several issues remain concerning the reporting by public enterprises;⁷ for example, certain items in the database are not reported on a consistent basis across public enterprises, and the database does not include full documentation of loan terms or debt service schedules. The involved government departments plan to gradually refine the database. The preliminary data indicate that public enterprise debt at end-June 2015 amounted to about 3.3 percent of GDP, of which 1.1 percent are loans on-lent from the central government⁸ (all external debt), and is already recorded on the central government's balance sheet. Total public enterprise external debt, excluding on-lent government loans, amounts 0.5 percent of GDP, and domestic debt 1.7 percent of GDP. Arrears on public enterprise debt amounts to 0.13 percent: 0.05 percent of GDP on on-lent loans (the central government has maintained full payment to the creditors), 0.06 percent on other external debt, and

⁷ These include, amongst others, Air Côte d'Ivoire, ANSUT, CI-Energies, FER, and PETROCI.

⁸ The loan is contracted by the government and on-lent to the public enterprise which, in turn, pays the debt service falling due on the loan to the government.

0.2 percent of GDP on domestic debt. For the most part the arrears are on long-past debt service, but in a few cases arrears accrued in the first half of 2015. The absence of debt service schedules and loan terms, and consolidated fiscal accounts for the public enterprise sector and central government precludes the integration of public enterprise debt in the DSA.

UNDERLYING ASSUMPTIONS

Box 1. Côte d'Ivoire: Key Macroeconomic Assumptions

- Real GDP growth:** The baseline scenario assumes that growth would remain strong over the medium term (7.8 percent on average during 2015–20), reflecting a rise in investor confidence boosted by the end of elections-related uncertainty and improved business climate. Major PPP projects are expected to be carried out during 2015–20 (e.g., the Abidjan metrorail and the renovation of the Abidjan-Ouagadougou railway), and strong private investment is expected in agro-business industry, hotels and housing. In the long term, real GDP would stabilize at about 5 percent.
- Inflation:** Inflation would hover around 2 percent (below the WAEMU's convergence criteria of 3 percent) on the back of expected strong agriculture output and improved supply channels.
- Fiscal balance:** Total revenue and grants (excluding C2D grants) would increase gradually from 20.5 percent of GDP in 2015–20 to 23.7 percent of GDP over the long run, reflecting the authorities' efforts to broaden the tax base and improve revenue administration efficiency. Primary expenditures would increase from 23.1 percent of GDP in 2015–20 to 25.3 percent of GDP in the long term to address infrastructure gap and meet growing social needs. As a result, the primary fiscal deficit (excluding C2D grants) would gradually decrease to 1.6 percent of GDP in 2027–35 from 2.6 percent of GDP during 2015–20.
- External balance:** Driven by an upward trend in imports associated with strong domestic demand, the non-interest current account deficit is assumed to widen over time to reach 6 percent of GDP over the long term from 2.1 percent of GDP during 2015–20. Over the medium term, this deficit would be partly financed by higher FDI flows (3.3 percent of GDP in 2015–20 compared with 1.9 percent of GDP in 2014).
- Financing:** Domestic debt in terms of GDP, is projected to decline modestly to 17.5 percent of GDP on average during to 2015–20 before increasing to 20.2 percent of GDP over 2021–35, in line with the national and regional authorities' efforts to deepen the financial market. New external borrowing is assumed to decline over time from 3 percent over the medium term to 2.5 percent of GDP in the long run. The borrowing assumptions are broadly consistent with the government's medium term debt strategy for 2015–19. The baseline scenario includes the 2015 \$1 billion Eurobond that was issued; both this Eurobond and the 2014 Eurobond are assumed to be rolled over in 2024–27. It also incorporates projected disbursements of four large semi-concessional loans (Soubre hydroelectric dam, extension of the Port of Abidjan (2014), potable water for Abidjan (2014), and extension and rehabilitation of the electricity network (2015) during 2015–19: \$364 million in 2015, \$601 million in 2016, \$448 million in 2017, \$317 million in 2018, and \$42 million in 2019. The main source of new borrowing, excluding the 2015 Eurobond, are multilateral and official bilateral creditors, but over time this source declines to about 19 percent of total new borrowing during 2030–35 while that of commercial creditors rises to 81 percent.

4. The key changes in the baseline macroeconomic assumptions relation to the 2014 LIC DSA are as follows:

- **Global environment.** The nominal exchange rate (FCFA/USD) is assumed to be higher by an average of 18 percent over the forecast horizon compared with the 2014 DSA. Oil prices are projected to be lower 33 percent on average.
- **GDP over the medium term.** GDP growth assumptions are higher in the medium term than in the 2014 DSA, based on assumed higher private sector investment on the back of an improved business climate. However, nominal GDP in US dollar terms is lower than before due to an assumed strong appreciation of the US dollar.
- **The primary fiscal deficit.** The deficit is larger than before, reflecting lower total revenues due to lower projected oil and other commodities prices.
- **The external current account deficit.** As in the last DSA, the current account deficit is projected to rise, but at a lesser pace during 2021–26 because of lower projected import prices.
- **Debt composition.** The stock of domestic public debt has been revised significantly upward at end-2015 to reflect the recent inclusion of certain past arrears to the BCEAO, including payments to the Fund, other unbudgeted liabilities incurred prior to 2011 (see footnote 6). In addition, the debt service schedule on the stock of government debt to the BCEAO was restructured over 50 years, resulting in lower payments in the medium term. The current DSA assumes that a larger share of the fiscal deficit is financed from domestic borrowing than in the previous DSA, in line with ongoing reforms to foster the development of secondary market and deepen the regional bond market. The remainder is financed through (lower) external borrowing with a higher share of non-concessional financing than before, reflecting the strong appetite of commercial creditors for Côte d'Ivoire debt as demonstrated by the highly successful and oversubscribed recent Eurobond issues and the likelihood of less borrowing at concessional terms being available. After 2015 no new Eurobonds are assumed to be issued, except to refinance the 2014 and 2015 Eurobonds which mature in 2024–28.
- **New external borrowing.** The actual terms of the 2015 Eurobond (interest rate of 6.375 percent, and amortization in 3 equal payments in 2026–28) are incorporated, and it is assumed to be refinanced with two \$500 million Eurobonds in 2026 and 2027; previously it was assumed to be a 10-year bullet with an interest rate of 6.5 percent and refinanced in 2025. The projected disbursement schedules of the 4 large project loans have been revised to take into account actual disbursements and new information, with smaller disbursements in 2016–18, reflecting primarily a longer disbursement schedule for the Port of Abidjan project through to 2019.

Text Table 3. Côte d'Ivoire: LIC DSA Macroeconomic Assumptions: Comparison with the 2014 LIC DSA
(Percent of GDP, unless otherwise indicated)

	Previous DSA			Current DSA		
	2015-20	2021-26	2027-34	2015-20	2021-26	2027-35
Nominal GDP (\$ Billion) 1/	52.7	85.0	144.1	41.4	68.3	116.5
Real GDP (percent change)	6.9	5.1	5.1	7.8	5.2	5.0
Fiscal (central government)						
Revenue and grants ²	20.3	23.1	24.6	20.5	21.7	23.7
of which : grants	1.6	0.9	0.3	1.0	0.6	0.3
Primary expenditure	22.4	24.2	25.9	23.1	23.7	25.3
Primary fiscal deficit (excluding C2D grants)	0.8	0.5	1.3	2.6	2.0	1.6
Balance of payments						
Exports of goods and services	44.5	50.9	61.5	40.6	46.1	56.3
Imports of goods and services	43.1	51.0	61.3	40.9	47.9	59.6
Non-interest current account deficit ³	1.3	4.1	5.7	2.8	3.6	5.6
New external borrowing ^{4/}	4.1	3.1	2.0	3.1	2.7	2.4
Net foreign direct investment	3.6	2.2	1.9	3.3	3.7	2.9
<i>Memorandum Item</i>						
C2D grants				0.6	0.3	...

Sources: Ivoirien authorities; and IMF staff estimates.
1/ The changes from the Article IV LIC DSA reflect the updated nominal GDP historical series and the revised exchange rate assumptions of CFA/USD.
2/ C2D grants are excluded from revenue and grants.
3/ C2D grants are excluded from official transfers.
4/ Includes publicly guaranteed external borrowing.

DEBT SUSTAINABILITY ANALYSIS

A. External Debt

5. The results of the external DSA confirm that Côte d'Ivoire's debt dynamics remain sustainable (Figure 2; Tables 3a and 3b).⁹ They also confirm that Côte d'Ivoire's risk of debt distress has not changed and remains at a moderate level.¹⁰

6. The baseline shows similar debt vulnerabilities as in the previous DSA, although there has been a slight worsening. Under the baseline scenario, the deterioration in debt vulnerability occurs primarily in the early years of the DSA—the debt stock indicators improve slightly in the longer run compared to the last DSA, while for the debt service indicators the deterioration persists. The deterioration reflects three factors: the lower projected levels of fiscal and export revenues (owing to less optimistic oil prospects and lower projected commodities prices; a reduction in the grant equivalent share of new borrowing by about one-third compared to the last DSA; and the reduction in the dollar value of GDP because of the assumed appreciation of the US dollar vis-à-vis the CFA franc. This worsening is offset partly by the lower amount of

⁹ In the LIC-DSA framework Côte d'Ivoire is rated as having weak policy performance with a Country Policy and Institutional Assessment (CPIA) average rating for 2012–14 of 3.17.

¹⁰ In the current and last DSA an adjustment to the real GDP and non-interest current account averages of the past 10 years was made to take into account the political crisis in 2011, the mid-point of the averaging period; but this did not involve the complete exclusion of the crisis year from the calculated averages. If the crisis year is excluded, the debt indicators improve under the baseline because past average growth would be higher. For most extreme shocks scenarios, the indicators would also improve reflecting lower standard deviations as well as the higher growth average. Under the historical scenario (permanent shock) the indicators would deteriorate reflecting a higher average current account deficit (in the crisis year the current account deficit was lower as imports collapsed).

projected external borrowing compared with the last DSA, reflecting the smaller projected external current account deficit and greater use of the regional debt market to finance the fiscal deficit. The hump in the debt service indicators is spread over a slightly wider time period, because of the 3-year amortization profile of the 2015 Eurobond which previously had been assumed to be a bullet bond. For the most part the historical scenario is somewhat improved compared with the last DSA, reflecting the shift in the period covered by the 10-year average, which results in a smaller projected primary current account than before. Under the stress tests, all the debt stock indicators show a slight improvement compared with the last DSA, except for the extreme (combination shock) case; also, under the negative FDI shock the debt-to-exports indicator worsens. In contrast the debt service indicators show a broad but small deterioration under all stress tests.

B. Total Public Debt

7. Under the baseline, adding domestic public debt in the analysis leads to a modest near-term deterioration of Côte d'Ivoire's debt position. Under the baseline scenario, all public debt indicators would decrease over time. More specifically, the PV of total public debt would diminish to 32 percent of GDP at the end of the projection period from 41 percent of GDP in 2015, while the debt service-to-revenue ratio, after peaking at 17.8 percent in 2024 with the bullet payment of the 2014 Eurobond, would decline and stabilize at around 13.6 percent during 2025–35.

8. During the first three years of the projection period, the baseline projection of the PV of total public debt-to-GDP indicator marginally breaches its threshold value, but significant vulnerabilities in domestic public debt are not detected. The breach in 2015–17 is caused primarily by the accumulation of external PPG debt, although the inclusion in 2015 of certain previously omitted domestic debt liabilities (see ¶4) contributes to the breach. After 2015, both external and domestic debt drive the reduction in the size of the breach. More generally, the higher level of the trajectory of total public debt over the projection horizon under the baseline and stress tests (compared to the previous DSA) reflects the inclusion of previously omitted liabilities (see above) and smaller repayments over a longer time period under the restructuring agreement for outstanding central bank advances (see ¶4). As such, the minor breach of the threshold by the PV of total public-debt-to-GDP indicator does not suggest that domestic debt vulnerabilities have become significant.

CONCLUSION

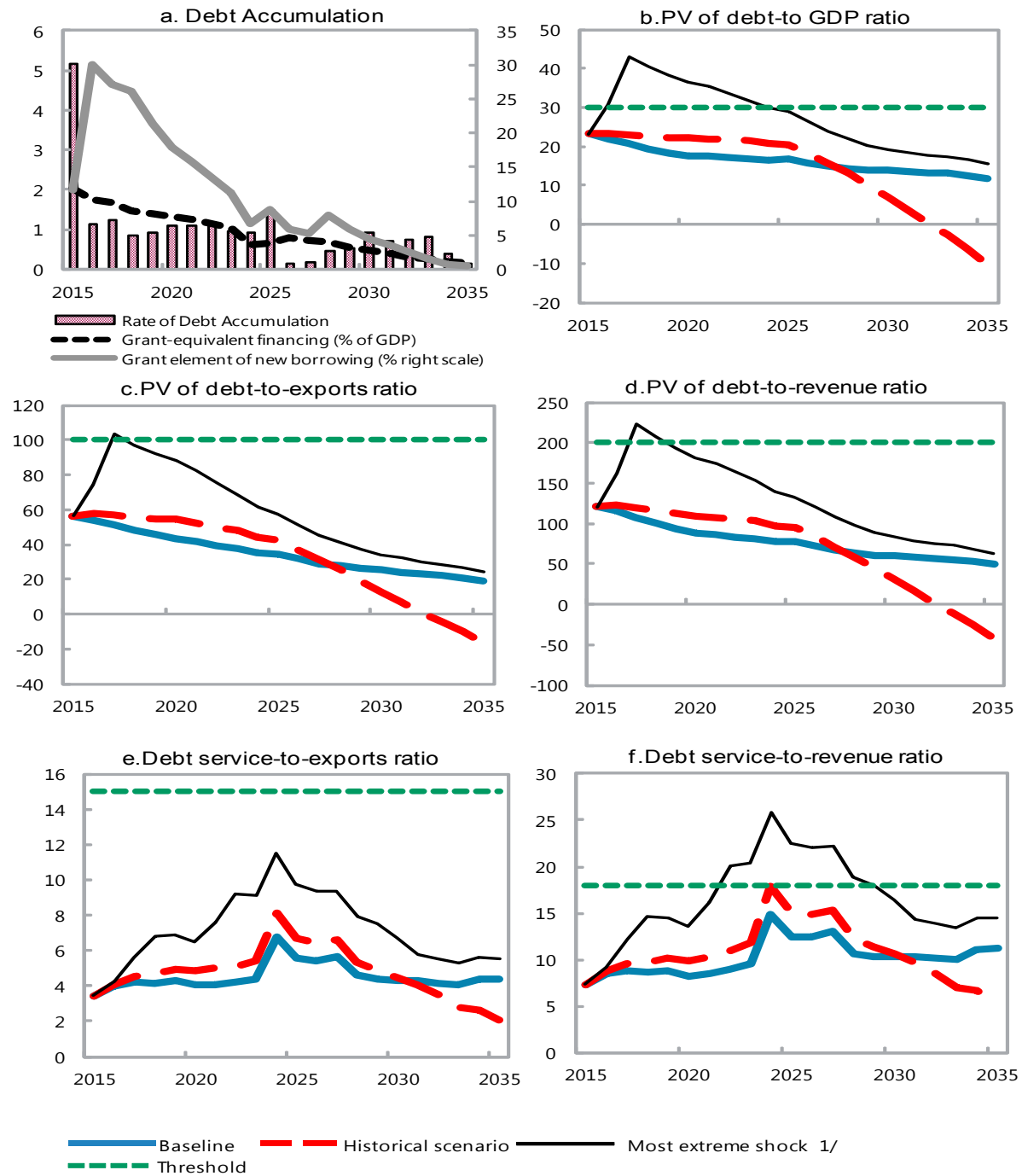
9. Côte d'Ivoire remains at a moderate risk of debt distress. This is unchanged from the last DSA in November 2014. In the baseline scenario, all debt indicators remain below their respective policy-dependent thresholds. Under the stress tests, all the debt stock indicators are projected to breach their threshold values in the case of the extreme (combination) shock. In addition, the debt-to-GDP indicator breaches, for one year, its threshold under an export shock (2017) and depreciation shock (2016). As regards the debt service indicators, the debt-service-to-exports indicator does not breach its threshold value, while the debt-service-to-fiscal revenues indicator temporarily breaches its threshold value in the mid-2020's under a majority of stress tests. The DSA shows that Côte d'Ivoire continues to be vulnerable to adverse macroeconomic shocks, in particular to exports, growth, foreign direct investment, as well as fiscal performance. It points to the need to avoid aggravating the concentration of maturities in the mid-2020s.

10. Sound macroeconomic policies and prudent debt management will be important to maintain a sustainable external position. The identified vulnerabilities to debt sustainability point to the importance of measures to minimize the risks of sub-par economic growth, exports, and fiscal performance. To this end the authorities' structural reform efforts since 2011 need to be sustained to overcome bottlenecks to continued strong growth and export performance and to strengthen the contribution of the private sector, notably through improvements in the business climate. Furthermore to support public spending needs on infrastructure investment and public services without excessive recourse to borrowing, efforts to enhance revenue performance are needed. As regards public debt management, the authorities are continuing to strengthen debt management: the re-organization of the debt department into a front-, middle-, and back-office structure is expected to be implemented in 2016 and the National Debt Policy Committee is being strengthened and is expected to be fully operational in 2016. A World Bank Debt Management Performance Assessment (DemPa) for Côte d'Ivoire is currently being finalized and will provide a benchmarking of debt management and identify areas where further improvements are needed. In addition, the authorities should expand their efforts to monitor public enterprise debt, including by strengthening the newly-developed database and by introducing an early warning system, to ensure that it remains at sustainable levels and does not pose risks to the central government budget. While the authorities plan to use Private-Public-Projects (PPPs) to encourage private financing to avoid excessive public borrowing to finance a wide array of projects, it will be important to pay close attention to contingent liabilities. A deeper regional market would help expand potential financing sources and the authorities should press ahead with their plans to achieve this, including the establishment of primary dealers and the creation of a secondary market for sovereign financing.

11. An excessive buildup in maturities falling due in the mid-2020's should be avoided. In particular, because of the bunched repayment obligations of the 2014 and 2015 Eurobonds during 2024–28 debt management should take account of potential rollover and foreign exchange risks. Future plans to raise resources in international financial markets, should also take into account the potential volatility in these markets and possible deterioration of lending terms. To the extent possible, recourse to international financial markets should be avoided when market conditions are unfavorable.

12. The authorities of Côte d'Ivoire broadly concur with the main conclusions of this DSA, and in particular that Côte d'Ivoire's risk of debt distress is moderate. They noted with satisfaction that in the context of the Fund's new debt limits policy staff considers Côte d'Ivoire's debt monitoring capacity to be adequate; they agreed that it was important to continue to strengthen debt management, to refine the database for public enterprises, and to maintain a prudent borrowing policy. They concurred with staff on the importance of fostering private sector development to preserve high and sustained growth, while maintaining a sound macroeconomic environment. That said, the authorities stressed that they considered the baseline macroeconomic assumptions used in this report are too conservative and do not sufficiently reflect the future dividends of recent strong economic performance and of the reforms taken since 2012. In particular, they considered that the confirmation of political stability following the recent peaceful presidential election would have a very positive impact on growth. In this regard, the authorities would have appreciated the inclusion of another scenario based on higher growth rates driven by a stronger level of private investment.

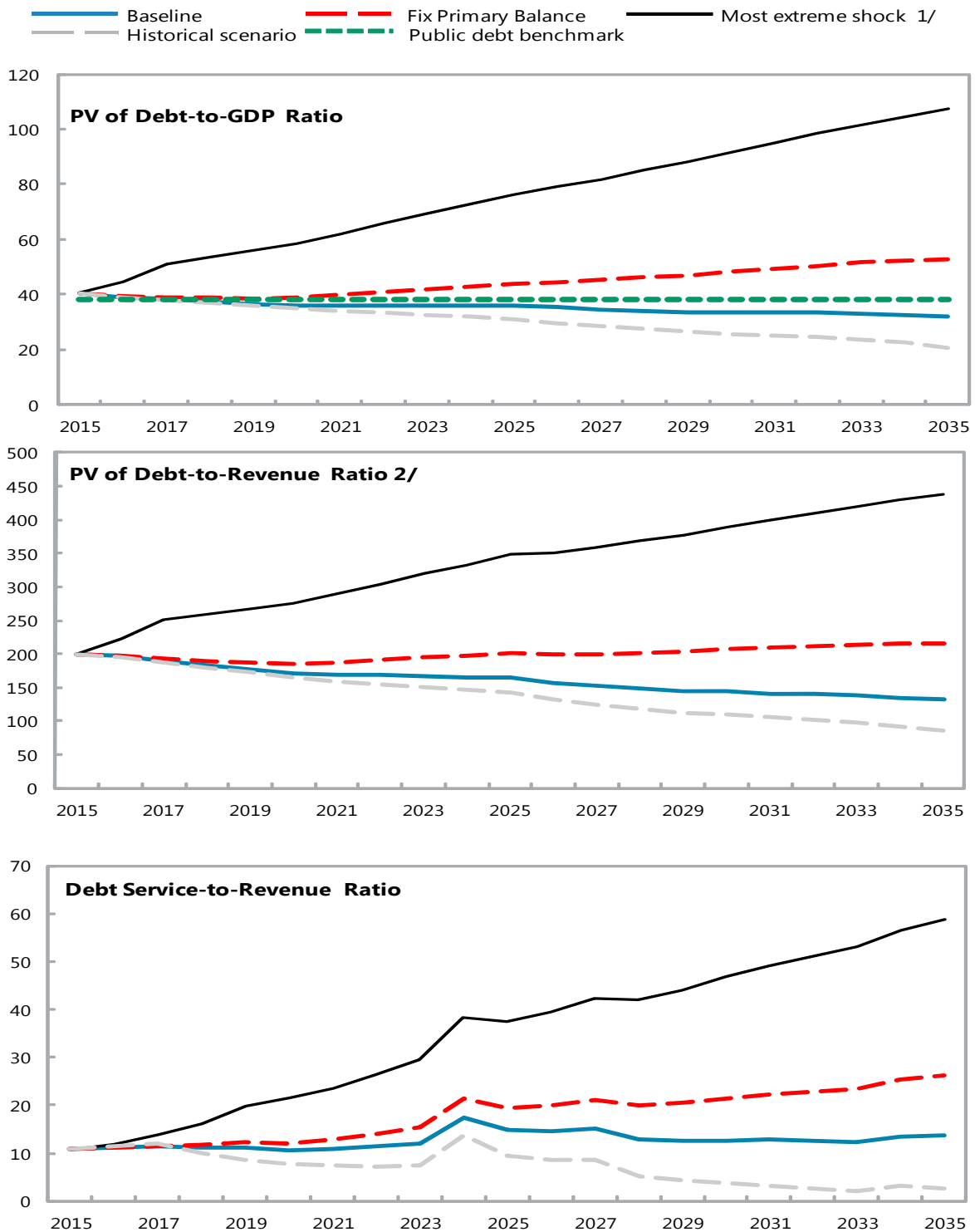
Figure 3. Côte d'Ivoire: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2015–35^{1/}



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2025. In figure b. it corresponds to a Combination shock; in c. to a Combination shock; in d. to a Combination shock; in e. to a Combination shock and in figure f. to a Combination shock

Figure 4. Côte d'Ivoire: Indicators of Public Debt Under Alternative Scenarios, 2015–35^{1/}



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2025.

2/ Revenues are defined inclusive of grants.

**Table 1. Côte d'Ivoire: External Debt Sustainability Framework,
Baseline Scenario, 2012–35^{1/}**
(Percent of GDP, unless otherwise indicated)

	Actual			Historical ^{6/} Average	Standard ^{6/} Deviation	Projections						2015-2035					
	2012	2013	2014			2015	2016	2017	2018	2019	2020	Average	2025	2035	Average		
External debt (nominal) 1/	35.6	31.9	33.6			38.8	37.3	35.0	32.7	30.5	28.6				25.3	39.3	
<i>of which: public and publicly guaranteed (PPG)</i>	17.0	16.4	19.5			25.1	24.1	23.3	22.2	21.2	20.4				20.1	14.6	
Change in external debt	-37.1	-3.6	1.6			5.2	-1.5	-2.3	-2.3	-2.2	-1.8				-0.2	2.2	
Identified net debt-creating flows	-4.5	-3.8	-3.0			-2.0	-2.2	-1.7	-1.6	-1.4	-1.1				-0.1	3.1	
Non-interest current account deficit	-0.2	0.6	0.3	-3.9	4.1	1.6	2.1	2.9	3.1	3.2	3.6				3.6	6.9	4.8
Deficit in balance of goods and services	-4.1	-3.0	-2.9			-1.3	-0.5	0.3	0.6	1.0	1.7				1.4	3.8	2.7
Exports	48.4	41.8	42.3			41.0	40.5	40.5	40.6	40.5	40.5				48.5	62.0	52.2
Imports	44.2	38.8	39.4			39.7	40.0	40.8	41.2	41.6	42.2				50.0	65.9	54.9
Net current transfers (negative = inflow)	1.9	1.4	0.2	1.7	0.9	0.0	0.0	-0.2	-0.4	-0.6	-0.9				-0.7	0.3	-0.3
<i>of which: official</i>	0.2	0.2	-0.7			-1.0	-0.9	-0.8	-0.7	-0.7	-0.7				-0.1	0.1	
Other current account flows (negative = net inflow)	2.0	2.1	3.0			2.8	2.7	2.8	2.8	2.9	2.9				2.8	2.8	
Net FDI (negative = inflow)	-1.2	-1.3	-1.9	-1.6	0.4	-2.1	-2.9	-3.3	-3.5	-3.7	-4.0				-3.5	-2.7	-3.2
Endogenous debt dynamics 2/	-3.1	-3.1	-1.3			-1.5	-1.4	-1.3	-1.1	-1.0	-0.7				-0.2	-1.0	
Denominator: 1+g+r+gr	1.1	1.1	1.1			0.9	1.1	1.1	1.1	1.1	1.1				1.1	1.1	
Contribution from nominal interest rate	1.4	1.4	1.2			1.6	1.5	1.4	1.3	1.2	1.2				1.1	0.7	
Contribution from real GDP growth	-7.3	-2.7	-2.3			-3.0	-2.9	-2.7	-2.4	-2.2	-1.9				-1.2	-1.7	
Contribution from price and exchange rate changes	2.7	-1.8	-0.2			...	...	...	...	...	...				...	...
Residual (3-4) 3/	-32.6	0.2	4.6			7.2	0.7	-0.6	-0.7	-0.8	-0.7				-0.2	-0.9	
<i>of which: exceptional financing</i>	-29.8	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	
PV of external debt 4/	...	...	32.2			36.9	35.0	32.4	30.0	27.7	25.8				22.1	36.7	
In percent of exports	...	...	76.2			89.9	86.4	80.1	74.0	68.3	63.6				45.5	59.1	
PV of PPG external debt	...	...	18.1			23.2	21.9	20.7	19.5	18.4	17.6				16.8	11.9	
In percent of exports	...	...	42.8			56.5	54.0	51.2	48.0	45.4	43.4				34.6	19.2	
In percent of government revenues	...	...	100.9			121.1	115.9	107.9	99.7	92.9	87.4				77.8	49.0	
Debt service-to-exports ratio (in percent)	9.8	11.4	6.1			8.7	8.6	8.5	8.0	7.6	7.2				7.6	5.3	
PPG debt service-to-exports ratio (in percent)	1.8	2.3	2.4			3.4	4.0	4.2	4.2	4.3	4.1				5.5	4.4	
PPG debt service-to-revenue ratio (in percent)	4.6	5.1	5.6			7.3	8.5	8.8	8.7	8.8	8.2				12.5	11.2	
Total gross financing need (Billions of U.S. dollars)	1.8	2.1	1.1			1.7	1.3	2.0	2.0	2.2	2.2				3.9	37.2	
Non-interest current account deficit that stabilizes debt ratio	36.9	4.2	-1.3			-3.6	3.7	5.2	5.3	5.5	5.5				3.9	4.7	
Key macroeconomic assumptions																	
Real GDP growth (in percent)	10.7	8.7	7.9	3.6	4.4	8.4	8.4	8.1	7.8	7.5	7.0	7.8	5.2	5.0	5.0		
GDP deflator in US dollar terms (change in percent)	-3.6	5.4	0.6	3.9	6.5	-14.5	2.8	3.1	3.0	2.8	3.5	0.1	2.1	2.1	2.1		
Effective interest rate (percent) 5/	2.1	4.6	4.1	2.9	0.8	4.4	4.4	4.2	4.2	4.2	4.2	4.3	4.5	2.0	4.6		
Growth of exports of G&S (US dollar terms, in percent)	-4.0	-1.0	9.8	6.6	6.6	-10.1	10.1	11.4	11.2	10.4	10.8	7.3	10.6	9.7	10.4		
Growth of imports of G&S (US dollar terms, in percent)	26.6	0.6	10.0	8.2	10.7	-6.5	12.1	13.9	12.0	11.5	12.4	9.2	9.8	9.1	10.5		
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	11.7	30.1	27.1	26.2	21.3	17.8	22.4	8.7	0.5	6.3		
Government revenues (excluding grants, in percent of GDP)	18.4	18.5	17.9			19.1	18.9	19.2	19.5	19.8	20.1		21.6	24.3	22.4		
Aid flows (in Billions of US dollars) 7/	0.2	0.2	0.3			0.6	0.5	0.6	0.8	0.9	1.0		1.0	0.7			
<i>of which: Grants</i>	0.2	0.2	0.3			0.4	0.4	0.4	0.4	0.4	0.5		0.3	0.2			
<i>of which: Concessional loans</i>	0.0	0.0	0.0			0.2	0.1	0.2	0.4	0.4	0.5		0.8	0.4			
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			2.0	1.8	1.7	1.5	1.4	1.3		0.7	0.2	0.6		
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			25.5	52.5	47.8	49.2	45.4	42.4		16.6	6.5	20.1		
Memorandum items:																	
Nominal GDP (Billions of US dollars)	27.1	31.1	33.7			31.3	34.8	38.8	43.1	47.7	52.8		75.5	151.4	97.2		
Nominal dollar GDP growth	6.7	14.6	8.6			-7.3	11.4	11.5	11.0	10.5	10.7	8.0	7.4	7.2	7.3		
PV of PPG external debt (in Billions of US dollars)	...	...	5.6			7.3	7.7	8.1	8.4	8.8	9.3		12.8	18.1			
(PVT-PVt-1)/GDPT-1 (in percent)	...	...	...			5.2	1.1	1.2	0.9	0.9	1.1	1.7	1.5	0.1	0.7		
Gross workers' remittances (Billions of US dollars)	-0.5	-0.6	-0.6			-0.6	-0.5	-0.5	-0.4	-0.3	-0.2		0.1	-0.4			
PV of PPG external debt (in percent of GDP + remittances)	...	...	18.5			23.6	22.2	21.0	19.7	18.5	17.7		16.8	11.9			
PV of PPG external debt (in percent of exports + remittances)	...	...	44.8			59.2	56.2	52.9	49.2	46.1	43.8		34.5	19.3			
Debt service of PPG external debt (in percent of exports + remittance)	...	...	2.5			3.6	4.1	4.3	4.3	4.3	4.1		5.5	4.4			

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - p(1+g)] / (1+g+p+gr)$ 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.

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

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

6/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

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

8/ 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).

Table 2. Côte d'Ivoire: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2015–35
(Percent)

	Projections							2025	2035
	2015	2016	2017	2018	2019	2020			
PV of debt-to GDP ratio									
Baseline	23	22	21	19	18	18	17	12	
A. Alternative Scenarios									
A1. Key variables at their historical averages in 2015-2035 1/	23	23	23	23	22	22	21	-10	
A2. New public sector loans on less favorable terms in 2015-2035 2	23	22	22	21	21	20	22	21	
B. Bound Tests									
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	23	24	25	23	22	21	20	14	
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	23	26	32	30	29	27	22	13	
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	23	23	23	22	21	20	19	13	
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	23	26	30	28	27	25	21	13	
B5. Combination of B1-B4 using one-half standard deviation shocks	23	31	43	40	38	37	29	15	
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	23	31	29	28	26	25	24	17	
PV of debt-to-exports ratio									
Baseline	57	54	51	48	45	43	35	19	
A. Alternative Scenarios									
A1. Key variables at their historical averages in 2015-2035 1/	57	57	57	56	55	54	42	-17	
A2. New public sector loans on less favorable terms in 2015-2035 2	57	55	54	52	51	50	46	34	
B. Bound Tests									
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	57	54	52	48	46	44	35	19	
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	57	70	97	91	87	83	57	25	
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	57	54	52	48	46	44	35	19	
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	57	65	74	69	66	63	44	20	
B5. Combination of B1-B4 using one-half standard deviation shocks	57	74	103	97	92	88	58	24	
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	57	54	52	48	46	44	35	19	
PV of debt-to-revenue ratio									
Baseline	121	116	108	100	93	87	78	49	
A. Alternative Scenarios									
A1. Key variables at their historical averages in 2015-2035 1/	121	123	120	116	112	110	95	-43	
A2. New public sector loans on less favorable terms in 2015-2035 2	121	119	114	108	104	101	103	87	
B. Bound Tests									
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	121	127	128	118	111	104	93	59	
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	121	137	167	154	145	136	104	52	
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	121	123	121	112	104	98	88	55	
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	121	140	155	144	134	126	98	52	
B5. Combination of B1-B4 using one-half standard deviation shocks	121	163	223	207	194	181	133	63	
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	121	165	153	141	132	124	111	70	

Table 2. Côte d'Ivoire: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2015–35 (concluded)
(Percent)

Debt service-to-exports ratio								
Baseline	3	4	4	4	4	4	6	4
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	3	4	5	5	5	5	7	2
A2. New public sector loans on less favorable terms in 2015-2035 2	3	4	4	4	4	4	4	6
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	3	4	4	4	4	4	6	4
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	3	4	6	7	7	6	9	6
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	3	4	4	4	4	4	6	4
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	3	4	5	5	5	5	7	5
B5. Combination of B1-B4 using one-half standard deviation shocks	3	4	6	7	7	7	10	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	3	4	4	4	4	4	6	4
Debt service-to-revenue ratio								
Baseline	7	8	9	9	9	8	12	11
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	7	9	10	10	10	10	15	5
A2. New public sector loans on less favorable terms in 2015-2035 2	7	8	8	8	8	7	9	17
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	7	9	10	10	10	10	15	13
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	7	8	10	11	11	11	17	12
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	7	9	10	10	10	9	14	13
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	7	8	10	11	11	10	16	12
B5. Combination of B1-B4 using one-half standard deviation shocks	7	9	12	15	14	13	23	14
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	7	12	12	12	12	12	18	16
<i>Memorandum item:</i>								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	-1	-1	-1	-1	-1	-1	-1	-1

Sources: Country authorities; and staff estimates and projections.

1/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.

2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline, while grace and maturity periods are the same as in the baseline.

3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).

4/ Includes official and private transfers and FDI.

5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.

6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

**Table 3. Côte d'Ivoire: Public Sector Debt Sustainability Framework,
Baseline Scenario, 2012–35**
(Percent of GDP, unless otherwise indicated)

	Actual			Average ^{5/}	Standard Deviation ^{5/}	Estimate					Projections			
	2012	2013	2014			2015	2016	2017	2018	2019	2020	2015-20 Average	2025	2035	2021-35 Average
Public sector debt 1/	33.7	34.2	38.3			42.6	41.4	40.9	40.1	39.3	38.7		39.2	34.8
<i>of which: foreign-currency denominated</i>	17.2	16.4	19.5			25.1	24.1	23.3	22.2	21.2	20.4		20.1	14.6
Change in public sector debt	-36.2	0.5	4.1			4.3	-1.2	-0.5	-0.9	-0.7	-0.6		0.1	-0.7
Identified debt-creating flows	-6.1	-1.0	2.4			1.9	-0.1	0.0	0.0	-0.1	0.0		0.6	0.5
Primary deficit	2.4	1.9	2.3	1.0	1.3	3.1	2.8	2.7	2.5	2.3	2.2	2.6	1.9	1.7
Revenue and grants	18.9	19.2	18.9			20.4	20.0	20.2	20.5	20.7	21.1	20.5	21.9	24.4
<i>of which: grants</i>	0.6	0.7	0.9			1.2	1.1	1.0	0.9	0.9	0.9		0.3	0.1
Primary (noninterest) expenditure	21.3	21.0	21.2			23.5	22.7	22.9	22.9	23.0	23.3	23.1	23.9	26.1
Automatic debt dynamics	-8.5	-2.9	0.2			-1.0	-2.8	-2.7	-2.5	-2.4	-2.2		-1.3	-1.1
Contribution from interest rate/growth differential	-7.5	-2.2	-2.0			-2.4	-2.6	-2.4	-2.3	-2.2	-1.9		-1.3	-1.1
<i>of which: contribution from average real interest rate</i>	-0.8	0.5	0.5			0.6	0.7	0.7	0.6	0.6	0.6		0.6	0.6
<i>of which: contribution from real GDP growth</i>	-6.7	-2.7	-2.5			-3.0	-3.3	-3.1	-2.9	-2.8	-2.6		-1.9	-1.7
Contribution from real exchange rate depreciation	-1.0	-0.7	2.2			1.4	-0.1	-0.3	-0.2	-0.2	-0.3		...	...
Other identified debt-creating flows	0.0	0.0	-0.1			-0.2	-0.1	0.0	0.0	0.0	0.0		0.0	0.0
Privatization receipts (negative)	0.0	0.0	-0.1			-0.2	-0.1	0.0	0.0	0.0	0.0		0.0	0.0
Recognition of implicit or contingent liabilities	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 (specify, 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
Residual, including asset changes	-30.1	1.5	1.7			2.3	-1.0	-0.5	-0.9	-0.7	-0.6		-0.5	-1.3
Other Sustainability Indicators														
PV of public sector debt	...	...	36.9			40.6	39.1	38.4	37.3	36.5	35.9		36.0	32.1
<i>of which: foreign-currency denominated</i>	...	...	18.1			23.2	21.9	20.7	19.5	18.4	17.6		16.8	11.9
<i>of which: external</i>	...	...	18.1			23.2	21.9	20.7	19.5	18.4	17.6		16.8	11.9
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...
Gross financing need 2/	3.7	3.3	3.8			5.4	5.0	5.0	4.8	4.7	4.5		5.2	5.0
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	195.5			199.5	196.1	189.7	182.4	176.3	170.2		164.0	131.4
PV of public sector debt-to-revenue ratio (in percent)	...	...	205.7			212.4	207.2	199.5	191.1	184.7	178.2		166.6	132.2
<i>of which: external 3/</i>	...	...	100.9			121.1	115.9	107.9	99.7	92.9	87.4		77.8	49.0
Debt service-to-revenue and grants ratio (in percent) 4/	6.9	7.5	8.2			10.9	11.0	11.4	11.2	11.3	10.7	11.1	14.9	13.6
Debt service-to-revenue ratio (in percent) 4/	7.1	7.8	8.7			11.6	11.7	12.0	11.7	11.8	11.2	11.7	15.1	13.7
Primary deficit that stabilizes the debt-to-GDP ratio	38.6	1.3	-1.9			-1.1	4.0	3.2	3.3	3.1	2.8	2.5	1.9	2.4
Key macroeconomic and fiscal assumptions														
Real GDP growth (in percent)	10.7	8.7	7.9	3.6	4.4	8.4	8.4	8.1	7.8	7.5	7.0	7.8	5.2	5.0
Average nominal interest rate on forex debt (in percent)	1.0	4.3	3.4	2.0	1.1	4.3	3.9	3.9	3.8	3.9	4.0	4.0	4.4	4.8
Average real interest rate on domestic debt (in percent)	-2.3	0.4	1.6	-0.9	2.1	0.8	1.3	1.6	1.5	1.5	1.4	1.4	0.9	0.9
Real exchange rate depreciation (in percent, + indicates depreciation)	-2.2	-4.3	14.1	0.3	9.0	7.6	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	4.4	2.0	0.6	3.1	2.4	2.1	2.3	2.0	2.0	2.0	2.0	2.1	2.1	2.1
Growth of real primary spending (deflated by GDP deflator, in percent)	36.7	7.2	8.6	5.3	11.5	20.4	4.8	9.1	7.8	8.0	8.0	9.7	5.1	5.7
Grant element of new external borrowing (in percent)	...	...	...	...	...	11.7	30.1	27.1	26.2	21.3	17.8	22.4	8.7	0.5

Sources: Country authorities; and staff estimates and projections.

1/ [Indicate coverage of public sector, e.g., general government or nonfinancial public sector. Also whether net or gross debt is used.]

2/ 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.

3/ Revenues excluding grants.

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

5/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

Table 4. Côte d'Ivoire: Sensitivity Analysis for Key Indicators of Public Debt 2015–35

	Projections							
	2015	2016	2017	2018	2019	2020	2025	2035
PV of Debt-to-GDP Ratio								
Baseline	41	39	38	37	37	36	36	32
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	41	39	38	37	36	35	31	21
A2. Primary balance is unchanged from 2015	41	40	39	39	39	39	44	53
A3. Permanently lower GDP growth 1/	41	40	40	39	40	40	50	82
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2016-20	41	45	51	54	56	59	76	107
B2. Primary balance is at historical average minus one standard deviations in 2016-201	41	39	38	37	36	35	35	32
B3. Combination of B1-B2 using one half standard deviation shocks	41	41	41	43	45	47	60	83
B4. One-time 30 percent real depreciation in 2016	41	48	47	45	44	43	43	42
B5. 10 percent of GDP increase in other debt-creating flows in 2016	41	49	48	46	45	44	43	38
PV of Debt-to-Revenue Ratio 2/								
Baseline	199	196	190	182	176	170	164	131
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	199	196	188	179	172	164	141	85
A2. Primary balance is unchanged from 2015	199	198	194	189	187	184	200	216
A3. Permanently lower GDP growth 1/	199	199	195	192	191	190	226	336
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2016-20	199	222	251	259	268	275	348	438
B2. Primary balance is at historical average minus one standard deviations in 2016-201	199	194	186	179	173	167	161	129
B3. Combination of B1-B2 using one half standard deviation shocks	199	203	202	208	214	220	275	339
B4. One-time 30 percent real depreciation in 2016	199	243	232	221	212	203	195	170
B5. 10 percent of GDP increase in other debt-creating flows in 2016	199	247	237	227	218	209	198	156
Debt Service-to-Revenue Ratio 2/								
Baseline	11	11	11	11	11	11	15	14
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	11	12	12	10	9	8	9	3
A2. Primary balance is unchanged from 2015	11	11	11	12	12	12	19	26
A3. Permanently lower GDP growth 1/	11	11	12	12	12	12	22	41
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2016-20	11	12	14	16	20	21	38	59
B2. Primary balance is at historical average minus one standard deviations in 2016-201	11	11	11	11	11	10	14	13
B3. Combination of B1-B2 using one half standard deviation shocks	11	12	13	11	11	14	28	44
B4. One-time 30 percent real depreciation in 2016	11	13	15	15	16	16	24	28
B5. 10 percent of GDP increase in other debt-creating flows in 2016	11	11	14	21	21	15	21	18

Sources: Country authorities; and staff estimates and projections.

1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of the length of the projection period.

2/ Revenues are defined inclusive of grants.