INTERNATIONAL DEVELOPMENT ASSOCIATION
INTERNATIONAL MONETARY FUND

KENYA

Joint World Bank-IMF Debt Sustainability Analysis

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Kenya: Joint Bank-Fund Debt Sustainability Analysis	
Risk of external debt distress	High
Overall risk of debt distress	High
Granularity in the risk rating	Sustainable
Application of judgment	No

Kenya's debt remains sustainable. The risk of debt distress has moved to high from moderate due to the impact of the global COVID-19 crisis which exacerbated existing vulnerabilities [1] The COVID-19 crisis has led to a sharp decline in export and economic growth. Addressing the crisis has required a strong fiscal response from the authorities that has also increased budget deficits. Consequently, a number of debt indicators have worsened. Kenya's external and public debt vulnerabilities also reflect the high deficits of the past, including due to a decline in tax revenues as a share of GDP in recent years. Solvency indicators for the PV of external debt-to-GDP ratio and PV of total public debt-to-GDP ratios are firmly below the indicative threshold/benchmark under the baseline scenario. However, there are breaches of one solvency indicator (i.e., the present value (PV) of external debt-to-exports ratio) and one liquidity indicator (i.e., the external debt service-to-exports ratio) above the thresholds under the baseline scenario. It is expected that Kenya's debt indicators will improve as exports rebound after the global shock dissipates. Kenya generally had enjoyed strong access to the international capital markets, and staff projections assume that existing Eurobonds will be rolled over once global capital markets reopen to frontier market issuers. This analysis highlights the need for sustained fiscal consolidation to reduce the level of public debt to more prudent levels over the medium term.[2] The DSA suggests that Kenya is susceptible to export and market financing shocks, and more prolonged and protracted shocks to the economy would also present downside risks to the debt outlook. The current macroeconomic framework reflects currently available information. Updates of the economic impact and policy response to the COVID-19 crisis are rapidly evolving and global risks are heavily tilted to the downside.

[1] IMF Country Report No. 18/295 (October 2018) contains the previous DSA conducted jointed with the World Bank.
[2] Kenya's debt-carrying capacity remains strong, as its CI, at 3.12 based on October 2019 WEO, remains above the upper threshold value of 3.05.

PUBLIC DEBT COVERAGE

1. **Kenya's public debt includes obligations of the central government.** Debt data include both external and domestic obligations and guarantees. The external DSA covers external debt of the central government and the central bank, as well as of the private sector; stress tests apply to public and publicly guaranteed (PPG) debt. The public DSA covers both external and domestic debt incurred or guaranteed by the central government; and public domestic debt is comprised of central government debt. In this analysis, total public debt refers to the sum of public domestic and public external debt, however, it does not cover the entire public sector such as extra-budgetary units and county governments.[3] Since the DSA coverage does not include debt of non-guaranteed state-owned enterprises (SOEs), an additional 2 percent of GDP is added to the contingent liability test. Contingent liabilities also include 5 percent of GDP for a loan default financial market shock, which is above the existing stock of financial sector NPLs. The debt coverage excludes legacy debt of the pre-devolution county governments (whose size is modest), and non-guaranteed debt of SOEs. The DSA uses a currency-based definition of external debt, as nonresidents' direct participation in the domestic debt market, at about one percent of total outstanding government securities, is not significant.

Kenya: Public Debt Coverage

	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	

	The country's coverage of public debt	The central government plus social security, central bank, government-guaranteed debt		
		Default	Used for the analysis	Reasons for deviations from the default settings
2	Other elements of the general government not captured in 1.	0 percent of GDP	0.0	
3	SoE's debt (guaranteed and not guaranteed by the government) 1/	2 percent of GDP	2.0	
4	PPP	35 percent of PPP stock	0.0	
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)		7.0	

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%.

BACKGROUND ON DEBT

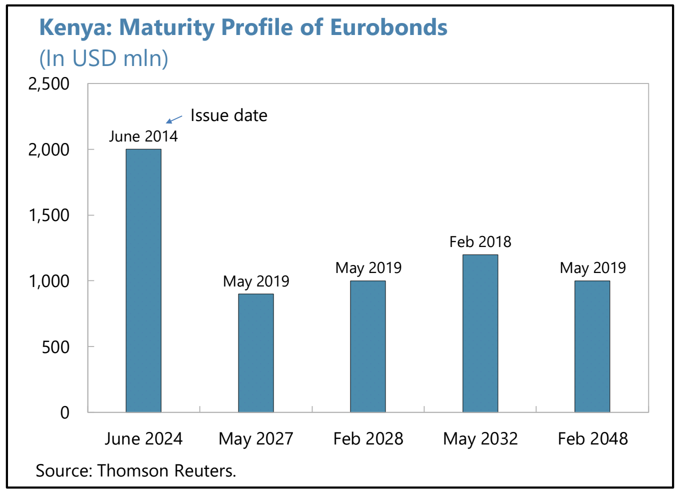
2. **Kenya's overall public debt has increased in recent years.** Gross public debt increased from 50.2 percent of GDP at end-2015 to an estimated 61.7 percent of GDP at end-2019, reflecting, among other factors, high deficits in the past, partly due to large infrastructure projects. About half of Kenya's public debt is owed to external creditors.

[3] County governments have not been allowed to borrow without government guarantee since 2010 while extra-budgetary units face no such constraint.

3. **Most of Kenya's external public debt remains on concessional terms, but its commercial component has increased.** Nominal PPG external debt at end-2019 was about 31½ percent of GDP evenly divided among multilateral, bilateral, and commercial creditors.

- At end-2019, multilateral creditors accounted for about 33½ percent of external credit to Kenya while debt from bilateral creditors accounted for 33 percent. Of Kenya's bilateral debt, about 72 percent is owed to non-Paris Club members, mainly due to loans from China to finance construction of the Standard Gauge Railway project (SGR).

- Kenya's reliance on commercial financing has increased. Commercial debt (mainly Eurobonds and syndicated loans) accounted for about 33 percent of external public debt at end-2019, up from 22¾ percent at end-2015. Existing Eurobonds, US$6.1bn in total, accounted for 60 percent of commercial debt at end-2019. In June 2014, Kenya issued its inaugural sovereign Eurobonds, at 5-year and 10-year maturities, raising US$2 billion in June and a further US$750 million in December 2014.[4] In February 2018, Kenya raised an additional US$2 billion in a new sovereign Eurobond issue,[5] followed by another sovereign bond issue of US$2.1 billion in May 2019.[6] Another major type of commercial borrowing is syndicated loans. In October 2015, Kenya contracted a two-year US$750 million syndicated loan at LIBOR plus 570 basis points, equivalent to an effective yield of 8 percent. Payment for nearly 90 percent of this syndicated loan was extended to April 2018 reflecting delays in the issuance of a planned Eurobond due to the protracted election period. In February 2018, the maturity of the syndicated loan was extended to seven years. In 2019, Kenya contracted a 10-year US$250 million syndicated loan in January and a 9-year US$1.25 billion syndicated loan in February for refinancing purposes.



[4] The June 2014 issuance comprised two tranches: a five-year $500 million bond at a coupon of 5.875 percent, and a 10-year $1.5 billion bond at 6.875 percent. In December 2014, Kenya added $250 million to the five-year tranche at a 5.0 percent yield and $500 million to the 10-year tranche at 5.9 percent. In June 2019, the $750 million five-year tranche matured.

[5] The February 2018 issuance comprised two tranches: a 10-year $1 billion bond at a coupon of 7.25 percent and a 30-year $1 billion bond at 8.25 percent.

[6] The May 2019 issuance comprised two tranches: a 7-year $900 million bond at a coupon of 7 percent and a 10-year $1.2 billion bond at 8 percent.

Kenya: External Public Debt

	2015		2016		2017		2018		2019	
	US$bn	Share	US$bn	Share	US$bn	Share	US$bn	Share	US$bn	Share
Multilateral creditors	7.3	46.5	7.6	41.2	8.2	35.8	8.6	32.1	10.2	33.4
Bilateral creditors	4.7	29.8	6.3	33.8	7.6	33.3	8.8	32.8	10.1	33.0
Commercial creditors	3.6	22.7	4.5	24.2	6.9	30.1	9.2	34.4	10.2	33.1
Others (supplier credits)	0.2	1.0	0.1	0.8	0.2	0.7	0.2	0.6	0.2	0.5
Total	15.8	100	18.5	100	22.8	100	26.7	100	30.7	100

Source: Kenyan National Treasury.

4. **Kenya's domestic public debt was 30.2 percent of GDP at end-2019.** Domestic debt is issued mostly in the form of Treasury bonds (about 70 percent in total stock) and Treasury bills. The 91-day, 182-day and 364-day average interest rates were 7.3 percent, 8.1 percent and 9.2 percent respectively in March 2020. The average time to maturity for government domestic debt securities was 5¾ years at end-2019. About half of government domestic debt securities are held by commercial banks, followed by pension funds.

UNDERLYING ASSUMPTIONS

5. **Under the baseline scenario, solid growth is expected over the medium term.** Despite a slowdown in 2020 related to the global shock caused by the COVID-19 crisis, medium- to- long-term growth prospects remain favorable. Key investment projects, improved public investment management, and improvements in the business environment should support growth of 5.8 percent in the medium to long term. Inflation is expected to remain close to the middle of the authorities' target range in the near and medium term.

6. **The fiscal deficit declined from a peak of 9.1 percent of GDP in 2016/17 to 7.8 percent of GDP in 2018/19.** Tax revenues have gradually declined since 2013/14 as a share of GDP, reaching their lowest level of the past 10 years in 2017/18. Tax revenues in 2018/19 slightly improved by 0.3 percentage points of GDP to 15.1 percent of GDP, while non-tax revenues were 0.2 percentage points of GDP less than in 2017/18. Kenya's revenue performance remains in line with the regional average. The decline in the deficit since 2016/17 was mainly achieved through spending cuts to both current outlays and development spending. Over the long term, the overall deficit is expected to decline and stay around 3.2 percent of GDP, with the primary deficit at around 0.3 percent of GDP. Regarding the financing mix for the medium term, as financing needs as a share of GDP decline and the domestic capital markets further deepen, gross external financing as a share of GDP is expected to gradually decline with a relatively stable grant element of new borrowing. As Kenya generally had enjoyed strong access to the international capital markets, staff projections assume resumption of market access once global capital markets reopen to frontier market issuers and additional Eurobonds will be issued to meet financing needs and maintain a market presence.

Kenya: External Borrowing Program (2020)		
PPG external debt contracted or guaranteed	Volume of new debt, US million 1/	Present value of new debt, US million 1/
Sources of debt financing		
Concessional debt, of which 2/	2,208	1,084
Multilateral debt	1,699	779
Bilateral debt	509	305
Non-concessional debt, of which 2/	1,813	1,266
Semi-concessional debt 3/	1,753	1,206
Commercial terms 4/	60	60
Memorandum items		
Indicative projections		
Year 2	5600	4400-4700
Year 3	5300	4100-4400

1/ Contracting and guaranteeing of new debt. The present value of debt is calculated applying the 5 percent program discount rate.
2/ Debt with a grant element that exceeds a minimum threshold. This minimum is typically 35 percent, but could be established at a higher level.
3/ Debt with a positive grant element which does not meet the minimum grant element.
4/ Debt without a positive grant element. For commercial debt, the present value would be defined as nominal/face value.

7. **The current account deficit is estimated to have narrowed to 4.5 percent of GDP in 2019**, mainly reflecting a reduced oil imports bill due to lower global oil prices, and lower capital imports after the completion of the SGR. Remittances are expected to have remained stable at 3 percent of GDP. In 2020, the positive impact from lower global energy prices is expected to contain the current account deficit despite a decline in exports such as agriculture and tourism on account of the COVID-19 crisis. In future years, staff projects a stable current account deficit, supported by stable exports (such as tea, horticulture, and tourism), and stable import growth as the pace of development expenditure, which has a high import intensity, stabilizes. Inward FDI inflows are expected to finance close to one third of the current account deficit throughout the projection period.

8. **The realism tools flag some optimism compared to historical performance, but staff is of the view that the projections are reasonable.** The baseline scenario assumes an improvement of the primary balance of 2 percentage points of GDP over the next three years, which falls in the middle of the distribution for LICs. Staff is of the view that this is realistic and in line with the authorities' plan for fiscal consolidation after the global shock is over. Slightly higher growth of exports compared to the historical average can be justified as exports recover from the early 2019 drought and the global shock in 2020, Kenya's improving business environment, key infrastructure projects coming to completion including the railways, large potential in a range of agricultural products (e.g., avocados), and the Big 4 Agenda push to stimulate manufacturing with a strong export emphasis. In addition, oil production is expected to begin in 2023 and boost exports (these are excluded from the baseline). Compared to

previous DSAs, the projected contribution of public investment to real GDP growth is in line with the previous DSA and below its historical contribution.

Kenya: Selected Macroeconomic Indicators

	2013	2014	2015	2016	2017	2018	2019
	Actual						Est.
Real GDP growth (percent)	5.9	5.4	5.7	5.9	4.8	6.3	5.4
CPI inflation, average (percent)	5.7	6.9	6.6	6.3	8.0	4.7	5.2
CPI inflation, eop (percent)	7.1	6.0	8.0	6.3	4.5	5.7	5.8
Current account balance (percent of GDP)	-8.8	-10.4	-6.7	-4.9	-6.2	-5.0	-4.5
Overall fiscal balance (percent of GDP) [1]	-5.2	-6.1	-8.4	-7.4	-9.1	-7.4	-7.8
Gross international reserves (in billions of US$)	6.4	8.0	7.5	7.5	7.1	8.1	9.1
Gross international reserves (months of imports)	3.8	5.4	5.6	4.7	4.2	4.8	6.2
Total public debt (gross, percent of GDP)	44.5	45.9	50.2	54.5	56.9	60.2	61.7
Private investment (percent of GDP)	14.3	17.2	15.1	8.9	10.2	9.3	10.0
Credit to the private sector (y/y growth, percent)	20.1	22.2	17.3	4.4	2.5	2.4	7.1

Sources: Kenyan authorities and IMF staff estimates and projections.

[1] Fiscal years (e.g., 2018 refers to FY 2017/18).

Kenya: Selected Macroeconomic Assumptions

	2017	2018	2019	2020	2021	Long-term 1/
Real GDP Growth						
Current DSA	4.8	6.3	5.4	0.8	5.5	5.8
Previous DSA (October 2018)	4.9	5.7	6.0	6.2	6.5	6.0
Primary Fiscal Deficit (percent of GDP)						
Current DSA	4.5	3.7	4.0	4.1	3.1	0.3
Previous DSA (October 2018)	4.8	2.6	0.5	-0.4	-0.4	0.9
Non-interest Current Account (percent of GDP)						
Current DSA	5.0	3.5	2.9	2.9	2.8	2.8
Previous DSA (October 2018)	5.1	4.8	4.1	3.8	4.0	2.5

Source: IMF staff estimates.

1/ For current DSA, average 2026-40. For previous DSA, average 2023-37.

COUNTRY CLASSIFICATION AND DETERMINATION OF SCENARIO STRESS TESTS

9. Kenya's debt carrying capacity is strong. The composite indicator (CI), which captures the impact of various factors through a weighted average of an institutional indicator,[7] real GDP growth, remittances, international reserves, and world growth, shows that Kenya's debt carrying capacity is strong. Kenya's CI based on the October 2019 WEO and the World Bank's 2018 CPIA is 3.12, above

[7] The World Bank's Country Policy and Institutional Assessment (CPIA).

the threshold value of 3.05. The debt carrying capacity, in turn, determines the PPG external debt thresholds and total public debt benchmarks.

Kenya: Composite Indicator and Threshold Tables

Country	Kenya
Country Code	664

Debt Carrying Capacity	Strong

Final	Classification based on current vintage	Classification based on the previous vintage	Classification based on the two previous vintages
Strong	Strong 3.12	Strong 3.13	Strong 3.12

APPLICABLE	
EXTERNAL debt burden thresholds	
PV of debt in % of	
Exports	240
GDP	55
Debt service in % of	
Exports	21
Revenue	23

APPLICABLE	
TOTAL public debt benchmark	
PV of total public debt in percent of GDP	70

10. Besides the six standardized stress tests, there are two tailored stress tests:

- One tailored stress test combines contingent liabilities of a one-time debt shock (equivalent to 7 percent of GDP) to capture a scenario reflecting both contingent liabilities from SOEs (equal to the indicated level of 2 percent of GDP) and a need for bank recapitalization (equal to the indicated level of 5 percent of GDP).

- The second tailored stress test is a market financing shock which is applied to low income countries with market access, such as Kenya which has outstanding Eurobonds. The scenario assesses rollover risks resulting from a deterioration in global risk sentiment, temporary nominal depreciation, and shortening of maturities of new external commercial borrowing.

EXTERNAL DEBT SUSTAINABILITY ANALYSIS

11. Due to the global shock from COVID-19, one of the solvency debt indicators breaches the threshold under the baseline scenario in 2020–2024 (Figure 1 and Table 1). The PV of PPG external debt-to-exports ratio breaches the indicative threshold of 240 percent in 2020–2024, as Kenya's exports of goods and services have been hit by the global shock, but the ratio gradually declines over the remaining projection period as exports recover from the 2020 global shock. The PV of PPG external debt as a share of GDP remains firmly below the 55 percent indicative threshold throughout the projection period, i.e., expected to decline from 27.6 percent in 2019 to 27.2 percent in 2024, followed by a steady decline over time (to 12.5 percent in 2040).

12. One of the debt liquidity indicators breaches the threshold for some years under the baseline scenario (Figure 1 and Table 1). The external debt service-to-exports ratio exceeds its threshold in 2024 by 15 percentage points mainly due to the repayment of commercial external debt, while the ratio exceeds its threshold over 2020–2028 and 2031–2032 partly due to lower exports and higher deficits caused by the global shock in 2020 and debt amortization profile. However, the debt service-to-exports ratio remains below the threshold afterwards.

13. Applying standard stress tests results in longer breaches in the PV of debt-to-exports ratio, debt service-to-exports ratio, and one-off breach of debt-service-to-revenue ratio relative to the thresholds (Figure 1 and Table 1). Specifically, under the most extreme shock scenario (i.e., a shock to export growth), the PV of debt-to-exports breaches the threshold over the projection period, by a large amount for some years. Furthermore, under the most extreme shock scenario (i.e., a shock to export growth), the debt service-to-exports ratio also exceeds the threshold over the projection period. The debt service-to-revenue ratio under all scenarios is below the threshold, except for a single one-off breach under the most extreme scenario in 2024.

PUBLIC DEBT SUSTAINABILITY ANALYSIS

14. Under the baseline scenario, total public debt as a share of GDP is expected to increase through 2022 on the back of the COVID-19 crisis, and then gradually decline over the medium-to-long term and remains firmly below the benchmark in PV terms (Figure 2 and Table 2). Public sector debt is projected to increase from 61.7 percent in 2019 to 69.9 percent in 2022, followed by a gradual decline. It remains strictly below the benchmark of 70 percent of GDP in PV terms. The PV of public debt-to-revenue ratio would increase from 313.9 percent in 2019 to 357.4 in 2022 before easing to 282.7 percent in 2030 and further to 190.7 percent in 2040. The debt service-to-revenue ratio is expected to remain stable in the longer term.

15. The alternative scenarios indicate that the PV of debt-to-GDP ratio would remain below the indicative benchmark most of the time (Figure 2 and Table 2). Under the most extreme shock scenario (i.e., a shock to the primary balance), the PV of the public debt-to-GDP ratio would breach the benchmark by a marginal amount in 2022–2024.

RISK RATING AND VULNERABILITIES

16. This DSA finds that Kenya's risk of debt distress has moved to high from moderate in the context of the ongoing global economic turmoil associated the COVID-19. The worsening of the global environment caused by the COVID-19 crisis has led to a sharp decline in export growth and

Kenya's economic growth. Addressing the crisis has triggered a strong fiscal response from the authorities that will also increase budget deficits. In light of these developments, a number of debt indicators have worsened. Kenya's external and public debt vulnerabilities also reflect the high deficits in the past, partly due to large infrastructure projects. There are breaches of both the solvency and liquidity indicators under the baseline scenario, i.e., the PV of external debt-to-exports and external debt service-to-exports ratios. The model-based mechanical external and overall risk of debt distress is "high", as it was in the October 2018 DSA.[8] It should be noted that one large breach of the one liquidity indicator in 2024 under the baseline is mainly attributed to Kenya's Eurobond repayment, and Kenya should be able to roll it over, given the historical record of strong market access when global capital markets reopen to frontier market issuers. Now the breach of the solvency indicator and the longer breaches of the liquidity indicator indicate that Kenya's external debt and overall debt distress is high. The DSA suggests that Kenya is susceptible to export and market financing shocks (Figure 5) and more prolonged and protracted shocks to the economy would also present downside risks to the debt outlook, including from the continued potential loss of market access for frontier economies at reasonable prices, thus raising the probability that the debt indicators would remain in breach of the thresholds over time.

17. Kenya's debt remains sustainable, and its debt indicators are expected to improve when the global economy rebounds from the COVID-19 crisis. Kenya's PV of external debt as a share of GDP will gradually decline over time, remaining well below the 55 percent indicative threshold. Kenya's external debt indicators are expected to improve as the authorities are committed to fiscal consolidation and exports are expected to recover after the global shock dissipates and Kenya further unlocks its substantial export potential. Stable and strong remittances would continue to be an important source for foreign currency receipts; and reserves are at a comfortable level.

18. The authorities are encouraged to further strengthen their debt management capacity to manage and prepare for large repayments on commercial borrowing. As part of this strategy, it is expected that the authorities will have a strategy on near-term external refinancing and over the next years, refinance loans at a longer maturity to limit refinancing risks. At the same time, concessional borrowing should continue to play an important role in financing investment projects due to its lower cost and longer maturity profile, while non-concessional borrowing should be limited to finance those projects with high social and economic returns. Kenya has about US$10 billion of committed but undisbursed official development assistance. To avoid commitment fees on undisbursed funds and reduce reliance on commercial financing, measures should be taken to unblock this low-cost financing. Looking ahead, public investment in infrastructure will be critical to raise growth and export potential, both of which will support Kenya's external debt sustainability. Delivering on fiscal consolidation is essential to further reduce risks. At the same time, the authorities are encouraged to expand the coverage of public debt to include county governments, extra budgetary units, and non-guaranteed SOE debt, and

[8] The October 2018 DSA found that in the baseline external debt service to exports exceeded the high-risk threshold for two years and that the ratio of debt service to exports touched the threshold for one year, which made the mechanical external risk of debt distress high. There was also a breach of the present value of external debt to exports in the stress test scenario. Given that the baseline breaches were temporary and related to a bullet Eurobond repayment, and in view of Kenya's strong access to international markets and a comfortable level of reserves, the final risk of debt distress was assessed as moderate with the use of judgement.

continue improving public debt management and revenue administration, which will be key to maintaining debt sustainability.

AUTHORITIES' VIEWS

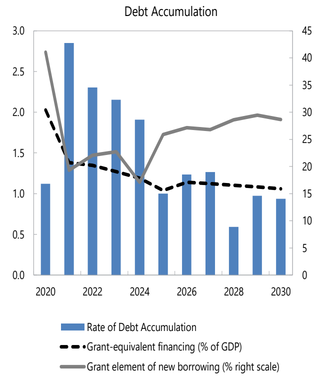
19. The authorities acknowledged that the indicators of debt level and debt services had deteriorated, noting the adverse impact of the global economic shock and the increased utilization of external commercial financing in the recent past. They agreed that sustained fiscal consolidation to reduce deficits, increasing the utilization of committed concessional financing and reducing uptake of new external commercial financing were important to strengthen debt sustainability. At the same time, they pointed out the large uncertainties in the outlook for economic growth and the external environment, which makes a precise evaluation of debt distress risk ratings difficult at this juncture and thus the use of judgement more warranted to maintain the pre-COVID-19 rating. The authorities noted the importance of expanding debt coverage to include counties, non-guaranteed debt contracted by the extra budgetary units, and SOEs. They planned to take a gradual approach to monitoring contingent liabilities, for example, to start to monitor external borrowing by large SOEs. The authorities noted that they were actively seeking to lengthen maturities and avoid bunching of repayments to limit refinancing risks, while pointing out the existence of a large liquidity buffer at the Central Bank of Kenya including the remaining deposits from last year's Eurobond issuance.

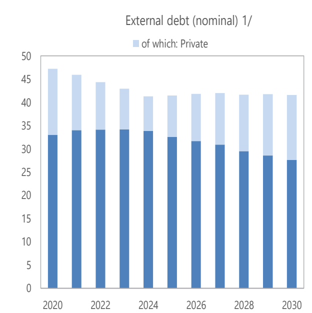
Table 1. Kenya: External Debt Sustainability Framework, Baseline Scenario, 2017–2040

(In percent of GDP, unless otherwise indicated)

	Actual			Projections												Average 8/	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2040	Historical	Projections
External debt (nominal) 1/	46.1	47.9	46.8	47.2	45.9	44.3	43.0	41.3	41.5	41.8	42.0	41.7	41.8	41.6	38.6	28.6	42.9
of which: public and publicly guaranteed (PPG)	28.8	30.6	31.5	33.0	34.0	34.2	34.2	33.8	32.6	31.7	30.9	29.5	28.6	27.6	17.4	15.5	31.8
Change in external debt	6.2	1.8	-1.1	0.4	-1.3	-1.6	-1.4	-1.7	0.2	0.3	0.2	-0.3	0.1	-0.1	-0.3		
Identified net debt-creating flows	-0.1	-1.3	-0.4	3.4	0.9	0.7	0.9	1.0	1.1	1.0	1.0	0.9	0.8	0.8	1.3	3.4	1.1
Non-interest current account deficit	5.0	3.5	2.9	2.9	2.8	2.8	2.9	3.0	2.9	2.9	2.9	2.8	2.7	2.7	3.1	5.6	2.9
Deficit in balance of goods and services	10.9	9.8	9.1	8.0	8.2	8.3	8.4	8.3	8.3	8.3	8.2	8.2	8.1	8.1	8.0	11.8	8.2
Exports	13.2	13.2	12.3	9.3	10.7	10.7	10.8	10.9	10.9	11.0	11.1	11.2	11.2	11.3	12.9		
Imports	24.2	23.0	21.4	17.3	18.9	19.1	19.2	19.2	19.2	19.3	19.3	19.4	19.4	19.4	20.9		
Net current transfers (negative = inflow)	-5.6	-5.7	-5.7	-5.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.6	-5.7	-5.7	-6.3	-5.6	-5.5
of which: official	-0.1	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Other current account flows (negative = net inflow)	-0.3	-0.6	-0.6	-0.1	0.1	0.0	0.0	0.2	0.1	0.1	0.2	0.2	0.3	0.4	1.4	-0.6	0.1
Net FDI (negative = inflow)	-1.3	-1.7	-1.2	-0.7	-0.9	-1.0	-1.0	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1	-1.0	-0.8	-1.4	-1.0
Endogenous debt dynamics 2/	-3.8	-3.2	-2.2	1.2	-1.0	-1.2	-1.0	-1.0	-0.8	-0.8	-0.9	-0.9	-0.9	-0.9	-1.0		
Contribution from nominal interest rate	1.2	1.4	1.6	1.6	1.4	1.4	1.4	1.3	1.4	1.4	1.4	1.4	1.4	1.3	1.1		
Contribution from real GDP growth	-1.7	-2.6	-2.4	-0.3	-2.4	-2.6	-2.4	-2.3	-2.2	-2.2	-2.3	-2.2	-2.2	-2.2	-2.1		
Contribution from price and exchange rate changes	-3.3	-2.0	-1.4	...	...	...	...	...	...	...	...	...	...	...	...		
Residual 3/	6.3	3.1	-0.7	-3.0	-2.2	-2.3	-2.3	-2.6	-0.9	-0.7	-0.8	-1.2	-0.7	-1.0	-1.6	0.5	-1.6
of which: exceptional financing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Sustainability indicators																	
PV of PPG external debt-to-GDP ratio	...	...	27.6	26.8	27.9	27.8	27.6	27.2	26.0	25.1	24.3	23.0	22.1	21.2	12.5		
PV of PPG external debt-to-exports ratio	...	...	225.2	288.1	260.6	258.5	255.2	249.4	237.7	228.8	219.0	205.5	196.2	187.3	96.6		
PPG debt service-to-exports ratio	17.0	19.6	31.4	27.5	25.9	25.5	24.4	36.1	24.1	22.8	21.9	24.8	19.8	19.6	9.4		
PPG debt service-to-revenue ratio	12.5	14.4	21.3	14.5	15.9	15.7	14.8	22.0	14.7	14.0	13.6	15.6	12.6	12.6	6.5		
Gross external financing need (Million of U.S. dollars)	14,462	15,845	12,905	13,723	10,962	10,916	10,523	12,319	14,559	15,867	17,411	18,147	17,231	17,405	28,933		
Key macroeconomic assumptions																	
Real GDP growth (in percent)	4.8	6.3	5.4	0.8	5.5	6.1	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.3
GDP deflator in US dollar terms (change in percent)	9.0	4.5	3.1	6.4	0.8	2.6	2.6	2.5	2.5	2.4	2.5	2.5	2.5	2.5	2.5	4.0	2.7
Effective interest rate (percent) 4/	3.3	3.5	3.7	3.5	3.1	3.3	3.4	3.3	3.7	3.7	3.6	3.6	3.5	3.5	3.0	8.8	3.5
Growth of exports of G&S (US dollar terms, in percent)	5.4	10.9	0.9	-18.7	22.3	9.1	9.1	9.4	8.8	8.8	9.7	9.2	9.2	9.2	10.5	5.0	7.8
Growth of imports of G&S (US dollar terms, in percent)	18.3	6.0	0.9	-13.3	16.3	9.4	9.1	8.8	8.6	8.6	8.7	8.6	8.6	8.5	9.5	6.7	7.4
Grant element of new public sector borrowing (in percent)	...	...	...	41.1	19.3	22.1	22.7	17.1	25.9	27.1	26.8	28.6	29.4	28.6	33.2	...	26.3
Government revenues (excluding grants, in percent of GDP)	17.9	18.0	18.0	17.7	17.4	17.5	17.8	17.9	17.9	17.9	17.8	17.8	17.7	17.7	18.6	17.0	17.7
Aid flows (in Million of US dollars) 5/	982.7	1086.8	1196.6	2627.7	2136.1	2274.1	2330.5	2368.5	2232.8	2655.9	2830.7	3007.6	3191.5	3374.7	5990.7		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	2.0	1.4	1.3	1.3	1.2	1.0	1.1	1.1	1.1	1.1	1.1	0.8	...	1.3
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	46.6	24.8	27.7	28.2	21.7	33.1	33.7	33.4	35.6	36.7	36.0	44.3	...	32.5
Nominal GDP (Million of US dollars)	79,010	87,824	95,385	102,214	108,702	118,237	128,276	139,123	150,866	163,492	177,378	192,387	208,718	226,367	510,898		
Nominal dollar GDP growth	14.2	11.2	8.6	7.2	6.3	8.8	8.5	8.5	8.4	8.4	8.5	8.5	8.5	8.5	8.5	10.0	8.2
Memorandum items:																	
PV of external debt 7/	...	...	43.0	41.0	39.8	37.9	36.4	34.6	34.9	35.2	35.4	35.1	35.3	35.2	33.6		
In percent of exports	...	...	350.3	440.7	372.0	353.1	336.5	317.6	319.2	320.9	318.9	314.4	313.6	310.8	260.5		
Total external debt service-to-exports ratio	110.4	122.6	96.1	121.3	76.0	68.6	58.6	63.4	71.3	71.6	71.8	68.7	58.6	52.8	25.8		
PV of PPG external debt (in Million of US dollars)			26342.8	27413.7	30328.2	32830.8	35376.6	37822.8	39216.9	41079.9	43146.5	44196.0	46069.8	48024.5	63701.5		
(PVt-PVt-1)/GDPt-1 (in percent)				1.1	2.9	2.3	2.2	1.9	1.0	1.2	1.3	0.6	1.0	0.9	0.5		
Non-interest current account deficit that stabilizes debt ratio	-1.2	1.7	4.0	2.5	4.1	4.4	4.2	4.7	2.7	2.6	2.7	3.1	2.6	2.9	3.4		

Definition of external/domestic debt	**Currency-based**
Is there a material difference between the two criteria?	**No**





Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as [r - g - ρ(1+g)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and ρ = 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/ Current-year interest payments divided by previous period debt stock.

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

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

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

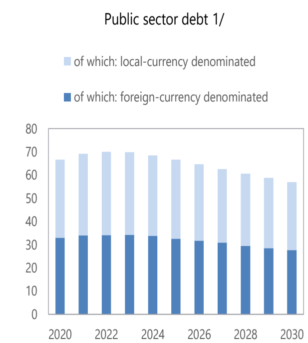
8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

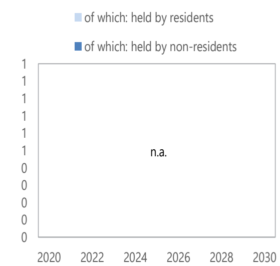
Table 2. Kenya: Public Sector Debt Sustainability Framework, Baseline Scenario, 2017–2040

(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 6/	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2040	Historical	Projections
Public sector debt 1/	56.9	60.2	61.7	66.7	69.1	69.9	69.8	68.5	66.7	57.0	40.8	41.2	64.9
of which: external debt	28.8	30.6	31.5	33.0	34.0	34.2	34.2	33.8	32.6	27.6	17.4	15.5	31.8
Change in public sector debt	6.3	3.4	1.5	5.0	2.4	0.8	-0.1	-1.3	-1.8	-1.8	-1.0		
Identified debt-creating flows	0.6	2.1	4.8	5.7	2.5	0.8	-0.1	-1.3	-1.8	-1.7	-1.0	3.9	-0.3
Primary deficit	4.5	3.7	4.0	4.1	3.1	2.1	1.1	0.0	-0.4	0.2	1.1	5.2	0.9
Revenue and grants	18.2	18.2	18.3	18.1	17.8	17.9	18.1	18.2	18.2	18.0	18.9	17.4	18.1
of which: grants	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3		
Primary (noninterest) expenditure	22.7	21.9	22.4	22.2	20.9	19.9	19.2	18.3	17.8	18.2	19.9	22.7	18.9
Automatic debt dynamics	-3.9	-1.6	0.7	1.7	-0.6	-1.2	-1.2	-1.4	-1.4	-1.9	-2.1		
Contribution from interest rate/growth differential	-2.1	-0.9	0.7	1.7	-0.5	-1.0	-1.0	-1.2	-1.2	-1.8	-2.0		
of which: contribution from average real interest rate	0.2	2.5	3.8	2.2	3.0	2.9	2.8	2.7	2.5	1.4	0.3		
of which: contribution from real GDP growth	-2.3	-3.4	-3.1	-0.5	-3.5	-3.9	-3.8	-3.9	-3.7	-3.2	-2.3		
Contribution from real exchange rate depreciation	-1.8	-0.7	0.0	...	...	...	...	...	...	...	...		
Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Privatization receipts (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Recognition of contingent liabilities (e.g., bank recapitalization)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Debt relief (HIPC and other)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Other debt creating or reducing flow (please specify)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual	5.8	1.3	-3.3	-0.8	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.3
Sustainability indicators													
PV of public debt-to-GDP ratio 2/	...	...	57.6	61.3	63.4	63.9	63.6	62.2	60.4	50.8	36.0		
PV of public debt-to-revenue and grants ratio	...	...	313.9	338.1	356.6	357.4	351.3	341.2	331.4	282.7	190.7		
Debt service-to-revenue and grants ratio 3/	38.2	42.3	53.5	53.8	68.0	74.5	71.5	78.6	70.4	63.9	41.0		
Gross financing need 4/	11.5	11.4	13.8	13.8	15.2	15.4	14.0	14.4	12.4	11.7	8.8		
Key macroeconomic and fiscal assumptions													
Real GDP growth (in percent)	4.8	6.3	5.4	0.8	5.5	6.1	5.8	5.8	5.8	5.8	5.8	5.8	5.3
Average nominal interest rate on external debt (in percent)	3.2	3.4	3.9	3.6	3.3	3.5	3.6	3.5	3.7	3.3	2.2	5.0	3.5
Average real interest rate on domestic debt (in percent)	-0.9	7.3	6.7	6.0	8.2	7.4	6.7	6.5	6.1	3.7	1.3	1.7	5.8
Real exchange rate depreciation (in percent, + indicates depreciation)	-8.2	-2.6	-2.6	...	...	...	...	...	...	...	...	-2.0	...
Inflation rate (GDP deflator, in percent)	10.9	2.4	4.0	8.5	5.0	5.1	5.2	5.1	5.1	5.0	5.0	6.8	5.4
Growth of real primary spending (deflated by GDP deflator, in percent)	-1.6	2.5	7.7	-0.1	-0.7	1.3	1.9	0.8	3.0	6.3	7.5	6.6	3.4
Primary deficit that stabilizes the debt-to-GDP ratio 5/	-1.9	0.3	2.6	-0.9	0.7	1.2	1.2	1.4	1.4	2.0	2.1	0.3	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?	No





Sources: Country authorities; and staff estimates and projections.

1/ Coverage of debt: The central government plus social security, central bank, government-guaranteed debt. Definition of external debt is 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 stabilizes the debt ratio only in the year in question.

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

Table 3. Kenya: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2020–2030 (In percent)

	Projections 1/										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
PV of debt-to GDP ratio											
Baseline	27	28	28	28	27	26	25	24	23	22	21
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	27	29	30	32	33	33	33	34	34	34	35
B. Bound Tests											
B1. Real GDP growth	27	28	29	28	28	27	26	25	24	23	22
B2. Primary balance	27	29	31	31	30	29	29	28	27	26	25
B3. Exports	27	30	33	32	32	30	29	28	27	25	24
B4. Other flows 3/	27	29	30	30	29	28	27	26	25	23	22
B5. Depreciation	27	35	31	31	31	29	28	27	26	25	24
B6. Combination of B1-B5	27	32	31	31	31	29	29	28	26	25	24
C. Tailored Tests											
C1. Combined contingent liabilities	27	30	30	30	29	29	28	27	26	25	24
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	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	27	31	31	31	31	30	28	27	25	24	23
Threshold	55	55	55	55	55	55	55	55	55	55	55
PV of debt-to-exports ratio											
Baseline	**288**	**261**	**258**	**255**	**249**	238	229	219	206	196	187
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	**288**	**270**	**283**	**293**	**299**	**301**	**305**	**307**	**305**	**306**	**307**
B. Bound Tests											
B1. Real GDP growth	**288**	**261**	**258**	**255**	**249**	238	229	219	206	196	187
B2. Primary balance	**288**	**268**	**286**	**284**	**278**	**267**	**262**	**252**	238	228	219
B3. Exports	**288**	**355**	**438**	**431**	**419**	**400**	**385**	**367**	**343**	**325**	**308**
B4. Other flows 3/	**288**	**271**	**278**	**274**	**267**	**255**	**245**	234	219	209	199
B5. Depreciation	**288**	**261**	229	227	222	212	204	195	184	177	170
B6. Combination of B1-B5	**288**	**344**	**276**	**361**	**353**	**338**	**326**	**312**	**293**	**280**	**267**
C. Tailored Tests											
C1. Combined contingent liabilities	**288**	**276**	**277**	**274**	**268**	**261**	**254**	**244**	230	222	213
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	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	**288**	**261**	**259**	**258**	**253**	**242**	231	219	203	192	182
Threshold	240	240	240	240	240	240	240	240	240	240	240
Debt service-to-exports ratio											
Baseline	**27**	**26**	**26**	**24**	**36**	**24**	**23**	**22**	**25**	20	20
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	**27**	**25**	**25**	**24**	**36**	**25**	**24**	**24**	**27**	**24**	**24**
B. Bound Tests											
B1. Real GDP growth	**27**	**26**	**26**	**24**	**36**	**24**	**23**	**22**	**25**	20	20
B2. Primary balance	**27**	**26**	**26**	**26**	**38**	**26**	**24**	**24**	**27**	**22**	**22**
B3. Exports	**27**	**33**	**38**	**38**	**55**	**37**	**35**	**35**	**40**	**33**	**32**
B4. Other flows 3/	**27**	**26**	**26**	**25**	**37**	**25**	**23**	**23**	**26**	**21**	21
B5. Depreciation	**27**	**26**	**26**	**23**	**35**	**23**	**22**	21	**23**	18	18
B6. Combination of B1-B5	**27**	**32**	**36**	**35**	**50**	**34**	**32**	**32**	**35**	**29**	**28**
C. Tailored Tests											
C1. Combined contingent liabilities	**27**	**26**	**26**	**25**	**37**	**25**	**24**	**23**	**26**	21	21
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	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	**27**	**26**	**27**	**28**	**41**	**30**	**38**	**32**	**31**	17	17
Threshold	21	21	21	21	21	21	21	21	21	21	21
Debt service-to-revenue ratio											
Baseline	14	16	16	15	22	15	14	14	16	13	13
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	14	15	15	15	22	15	15	15	17	15	15
B. Bound Tests											
B1. Real GDP growth	14	16	16	15	23	15	14	14	16	13	13
B2. Primary balance	14	16	16	16	23	16	15	15	17	14	14
B3. Exports	14	16	16	16	**23**	16	15	15	18	14	14
B4. Other flows 3/	14	16	16	15	22	15	14	14	16	13	13
B5. Depreciation	14	20	20	18	**27**	18	17	16	18	14	14
B6. Combination of B1-B5	14	17	18	17	**24**	17	16	16	18	14	14
C. Tailored Tests											
C1. Combined contingent liabilities	14	16	16	15	22	15	15	14	16	13	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	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	14	16	16	17	**25**	18	**23**	20	20	11	11
Threshold	23	23	23	23	23	23	23	23	23	23	23

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. Kenya: Sensitivity Analysis for Key Indicators of Public Debt, 2020–2030
(In percent)

	Projections 1/										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
					PV of Debt-to-GDP Ratio						
Baseline	61	63	64	64	62	60	58	56	54	53	51
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	61	64	66	69	**71**	**73**	**75**	**76**	**77**	**78**	**79**
B. Bound Tests											
B1. Real GDP growth	61	65	67	67	66	65	63	61	60	58	57
B2. Primary balance	61	67	**72**	**72**	**70**	68	66	64	61	59	57
B3. Exports	61	65	69	68	67	65	63	60	58	56	54
B4. Other flows 3/	61	64	66	66	64	62	60	58	56	54	52
B5. Depreciation	61	67	65	63	61	58	54	51	49	46	43
B6. Combination of B1-B5	61	64	68	67	65	63	60	58	55	53	51
C. Tailored Tests											
C1. Combined contingent liabilities	61	**70**	**70**	70	68	66	64	62	60	58	56
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	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	61	63	64	64	63	61	59	56	54	52	50
Public debt benchmark	70	70	70	70	70	70	70	70	70	70	70
					PV of Debt-to-Revenue Ratio						
Baseline	338	357	357	351	341	331	321	311	301	292	283
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	338	360	372	380	390	402	411	420	428	435	441
B. Bound Tests											
B1. Real GDP growth	338	364	373	370	362	355	346	339	331	325	317
B2. Primary balance	338	375	405	397	385	374	362	350	340	329	319
B3. Exports	338	368	384	377	366	355	343	332	321	310	299
B4. Other flows 3/	338	363	369	363	352	342	331	320	310	300	290
B5. Depreciation	338	376	366	351	332	316	300	284	269	255	241
B6. Combination of B1-B5	338	358	382	372	358	345	331	318	306	294	282
C. Tailored Tests											
C1. Combined contingent liabilities	338	395	394	386	375	363	351	340	330	320	310
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	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	338	357	358	353	344	334	322	310	299	289	279
					Debt Service-to-Revenue Ratio						
Baseline	54	68	75	71	79	70	68	69	69	66	64
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	54	67	72	71	79	74	76	82	88	89	91
B. Bound Tests											
B1. Real GDP growth	54	69	77	75	82	75	73	75	75	73	71
B2. Primary balance	54	68	80	81	84	81	83	78	76	74	73
B3. Exports	54	68	75	72	80	71	69	71	71	68	66
B4. Other flows 3/	54	68	75	72	79	71	69	70	70	67	65
B5. Depreciation	54	66	74	70	80	70	67	68	68	64	62
B6. Combination of B1-B5	54	66	74	77	79	71	75	71	68	65	65
C. Tailored Tests											
C1. Combined contingent liabilities	54	68	85	76	82	86	76	74	73	74	70
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	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	54	68	75	74	82	74	77	76	73	64	62

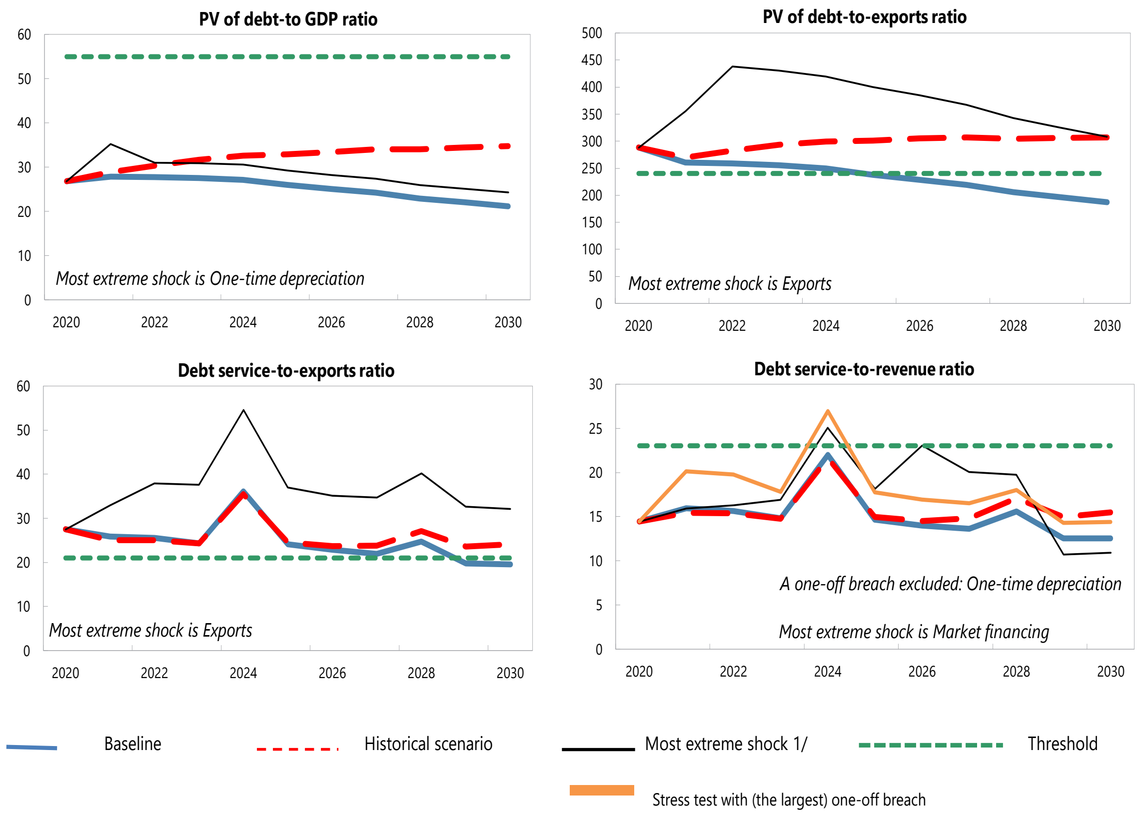
Sources: Country authorities; and staff estimates and projections.

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

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

3/ Includes official and private transfers and FDI.

Figure 1. Kenya: Indicators of Public and Publicity Guaranteed External Debt under Alternatives Scenarios, 2020–2030



Customization of Default Settings	Size	Interactions
Tailored Tests		
Combined CLs	No	
Natural Disasters	n.a.	n.a.
Commodity Prices 2/	n.a.	n.a.
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	3.6%	3.6%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	22	22
Avg. grace period	5	5

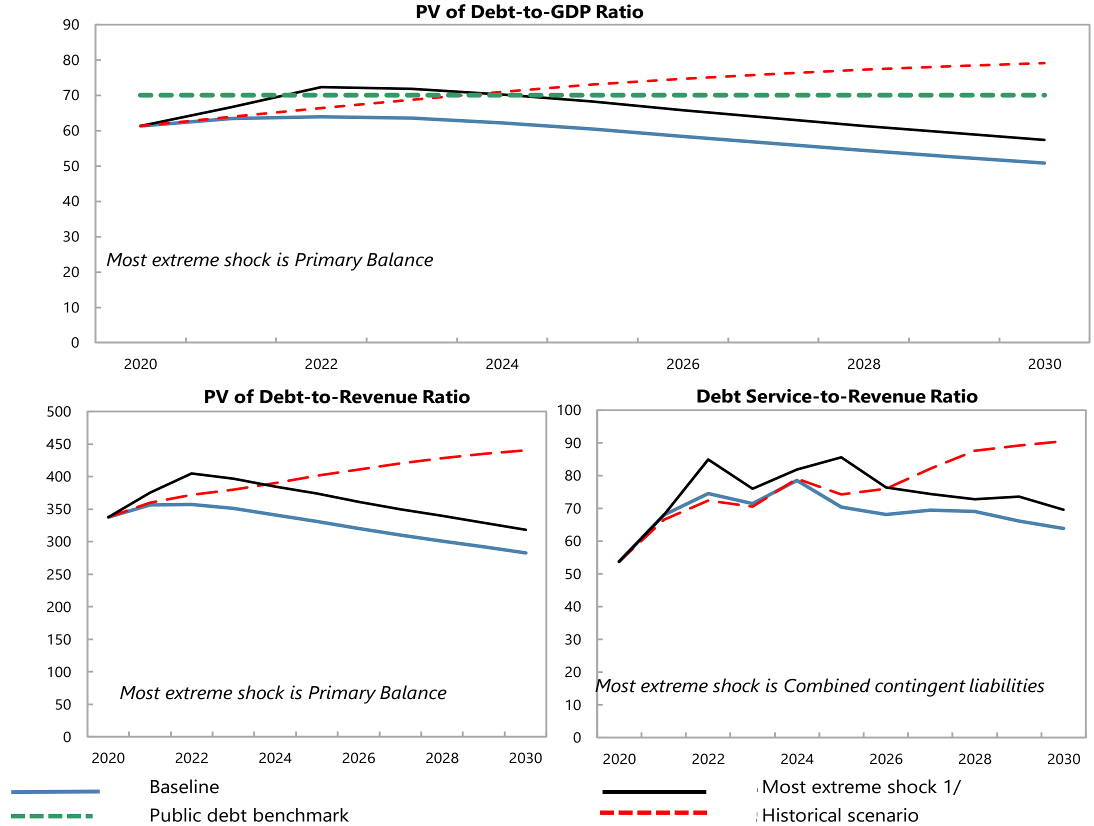
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

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 2030. Stress tests with one-off breaches are also presented (if any), while these one-off breaches are deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme 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 2. Kenya: Indicators of Public Debt Under Alternative Scenarios, 2020–2030



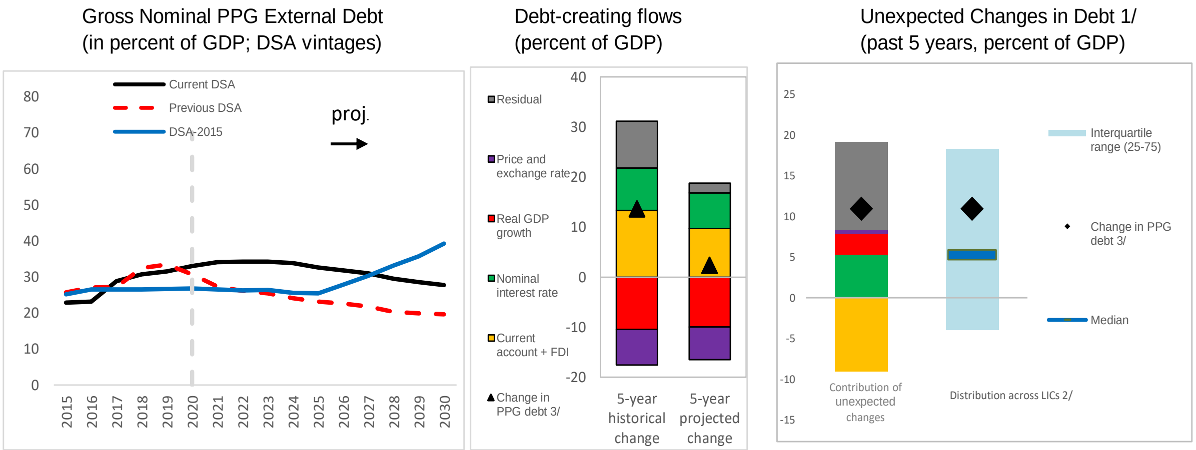
Borrowing Assumptions for Stress Tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	27%	27%
Domestic medium and long-term	50%	50%
Domestic short-term	23%	23%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	3.6%	3.6%
Avg. maturity (incl. grace period)	22	22
Avg. grace period	5	5
Domestic MLT debt		
Avg. real interest rate on new borrowing	4.0%	4.0%
Avg. maturity (incl. grace period)	4	4
Avg. grace period	3	3
Domestic short-term debt		
Avg. real interest rate	0%	0%

* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.

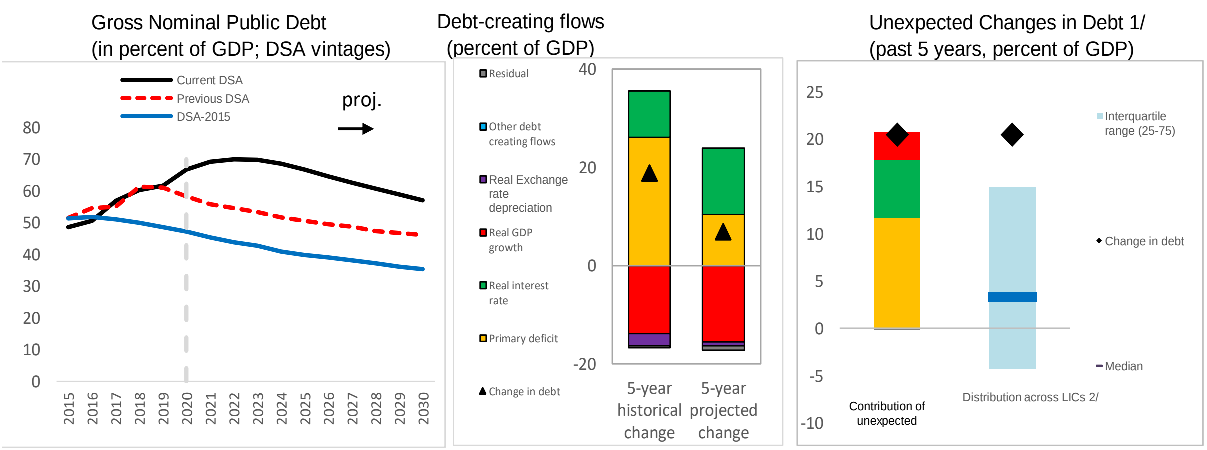
Sources: Country authorities; and staff estimates and projections.

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

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



Public debt



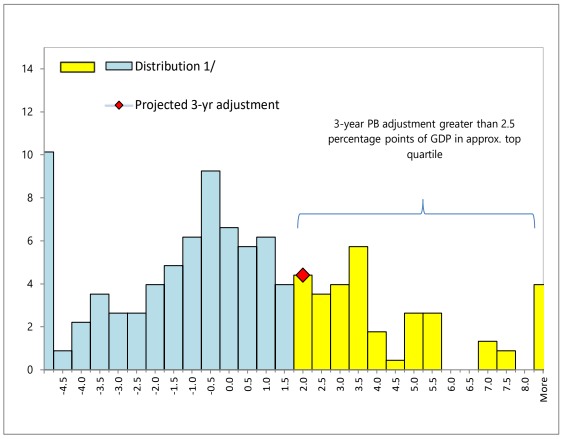
1/ Difference between anticipated and actual contributions on debt ratios.

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.

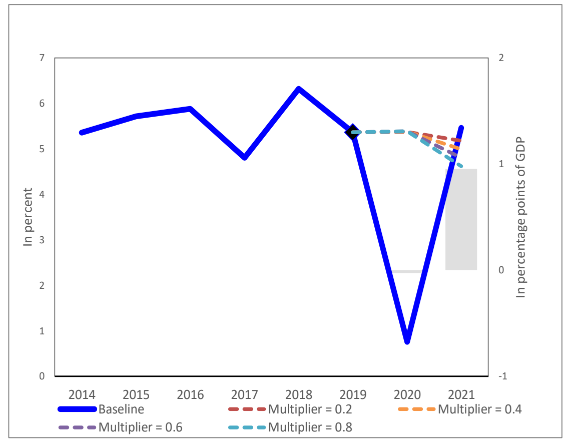
Figure 4. Kenya: Realism Tools

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



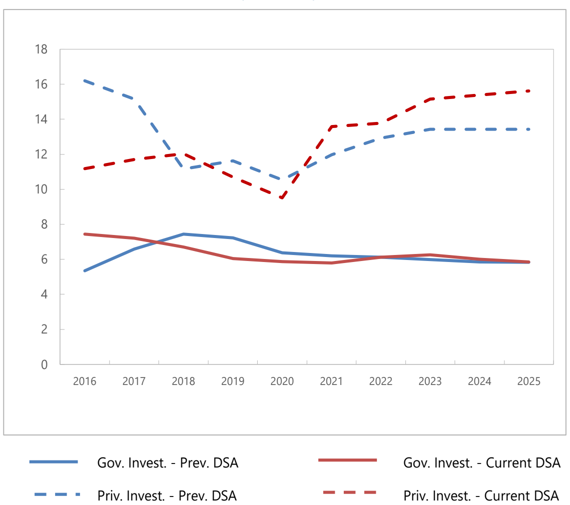
1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

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)



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

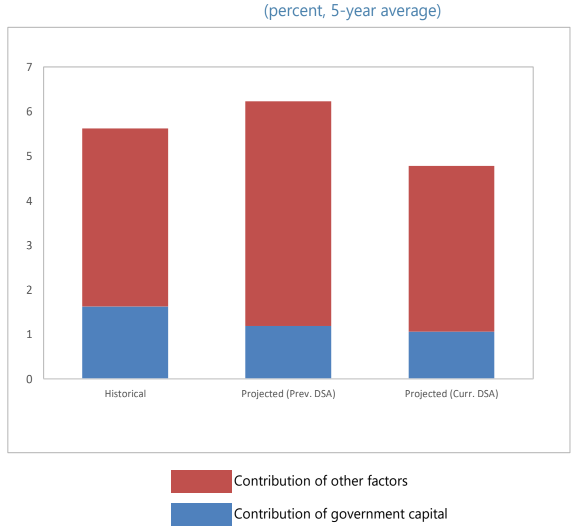
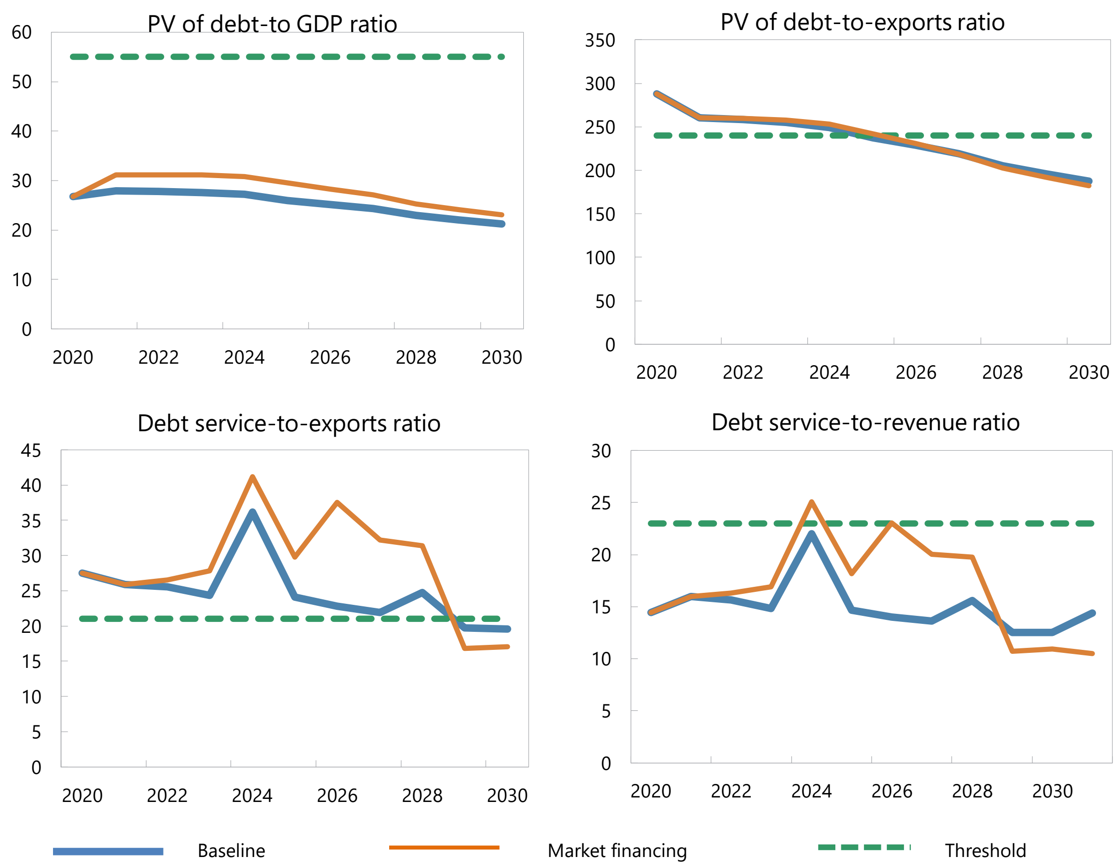


Figure 5. Kenya: Market-Financing Risk Indicators

	GFN 1/	EMBI 2/
Benchmarks	14	880
Values	15	350
Breach of benchmark	Yes	No
Potential heightened liquidity needs	Moderate	

1/ Maximum gross financing needs (GFN) over 3-year baseline projection horizon.
2/ EMBI spreads correspond to the latest available data.



Sources: Country authorities; and staff estimates and projections.