2017

Tanzania National Debt Sustainability Analysis,201

The United Republic of Tanzania

Ministry of Finance

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF FINANCE AND PLANNING

TANZANIA NATIONAL DEBT SUSTAINABILITY ANALYSIS

NOVEMBER, 2017

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Executive Summary

The 2017 debt sustainability analysis (DSA) exercise was conducted in accordance with Regulation 38 (d) of the Government Loans, Guarantees and Grant Act CAP 134, which requires the Government to conduct DSA on annual basis. The main objective of the exercise was to evaluate the capacity of the country to meet its current and future debt obligations without recourse to exceptional financing. The exercise involved assessing various debt indicators subjected to different macroeconomic scenarios and recommend measures for maintaining debt at sustainable levels.

The DSA took into account recent economic developments in power supply and construction, as well as changes in the medium term development plans particularly the construction of Standard Gauge Railway, Stigler's Gorge hydro power plant and industrialization. These projects require large financing in the form of semi-concessional and commercial borrowing. In this regard, the main objective of the 2017 DSA was to assess the impact of Government existing and prospective external and domestic borrowing. The ultimate goal was to use the findings of the analysis to inform policies and adoption of measures to contain the public debt within acceptable levels.

The DSA is based on the assumption that real GDP growth rates would remain strong, averaging 7.4 percent in the medium term (2017/18 - 2020/21), and thereafter growing at 8.0 percent until 2025. Domestic revenue is expected to increase to an average of 17.2 percent of GDP in the medium term and further up to 18.9 percent in the long term, while total expenditure is projected at an average of 21.8 percent of GDP in the medium term and 22.2 percent in the long run. The current account deficit is expected to widen marginally to an average of around 5.0 percent of GDP in the long run, driven mainly by increase in interest payment on non-concessional loans.

Based on the recent developments, external concessional financing is projected to continue declining over the medium term to long term as significant infrastructure developments prevail. As a result, the government is expected to continue receiving a mix of concessional-and commercial loans in the medium term,. On the domestic front, it is assumed that , Government will roll over maturing principal while paying interest through domestic revenue; financing of budget through marketable long-term instruments; and smoothening redemption profile.

Basing on the above assumptions, the DSA results suggest that Tanzania's risk of debt distress remaining low., debt burden indicators remains below indicative thresholds under both baseline and alternative scenarios. Sustainablity of the debt is highly dependant on the robust growth rates that the country has been enjoying for the past 10 years, which is envisaged to continue throughout the projection period. The robust GDP growth is projected to enhance the country's capacity to sustain borrowing to finance infrastructure projects.

The country's public debt is however susceptible to external shocks. Results from sensitivity analysis indicate that the country's external debt would significantly increase in the event of export and exchange rate shocks. To mitigate these vulnerabilties, the Government should strive to sustain sound macroconomic performance in both medium and long-run. The Government will further continue strengthen policies and institutions with a view of improving CPIA rating. The improvement of CPIA rating would not only improve credit rating but also create more room for borrowing that could be earmarked to further transform the Tanzanian economy.

Chapter 1: Introduction

1. The Government of Tanzania conducted a debt sustainability analysis (DSA) in line with Regulation 38 (d) of the Government Loans, Guarantees and Grant Act CAP 134, which requires the Government to conduct DSA on annual basis. The objective of the DSA is to evaluate the capacity of the country to meet its current and future debt obligations without recourse to exceptional financing and compromising growth and development. The exercise involves assessing the trend of various debt indicators subjected to different macroeconomic scenarios and recommend measures for maintaining debt at sustainable levels.

2. The 2017 DSA exercise used the World Bank/IMF Debt Sustainability Framework for Low Income Countries (DSF-LICs) analytical tool. The framework takes into account indicative thresholds for debt burden indicators determined by the quality of the Country's Policies and Institutions Assessment (CPIA), and comprises baseline and alternative scenarios. According to the 2016 CPIA rating, Tanzania is classified as medium policy performer with a three-year moving average CPIA score of 3.71

3. The main objective of the 2017 DSA was to assess the impact of existing Government debt level and prospective new external and domestic borrowing to finance infrastructural projects. The ultimate goal is to inform policies and adoption of measures to contain the public debt within acceptable levels.

4. The DSA took into account recent developments in power supply and construction activities, as well as changes in the medium term development plans, particularly construction of Standard Gauge Railway, Stigler's Gorge hydro power plant, and industrialization. It is expected that these projects will have a positive impact on GDP growth, thus justifying the need to increase semi-concessional and commercial borrowing for their implementation.

5. The data used for DSA comprised of public and publicly guaranteed external debt, private sector external debt, domestic debt and assumed liabilities from government

guarantees. The analysis covered 10-year historical data and 20 years projections, using 2016/17 as base year.

6. The rest of this report is organised as follows. Chapter 2 discusses macroeconomic performance, chapter 3 discusses debt portfolio review, chapter 4 discusses underlying DSA assumptions, and chapter 5 discusses results and interpretation of DSA results. Chapter 6 provides concluding remarks and way forward.

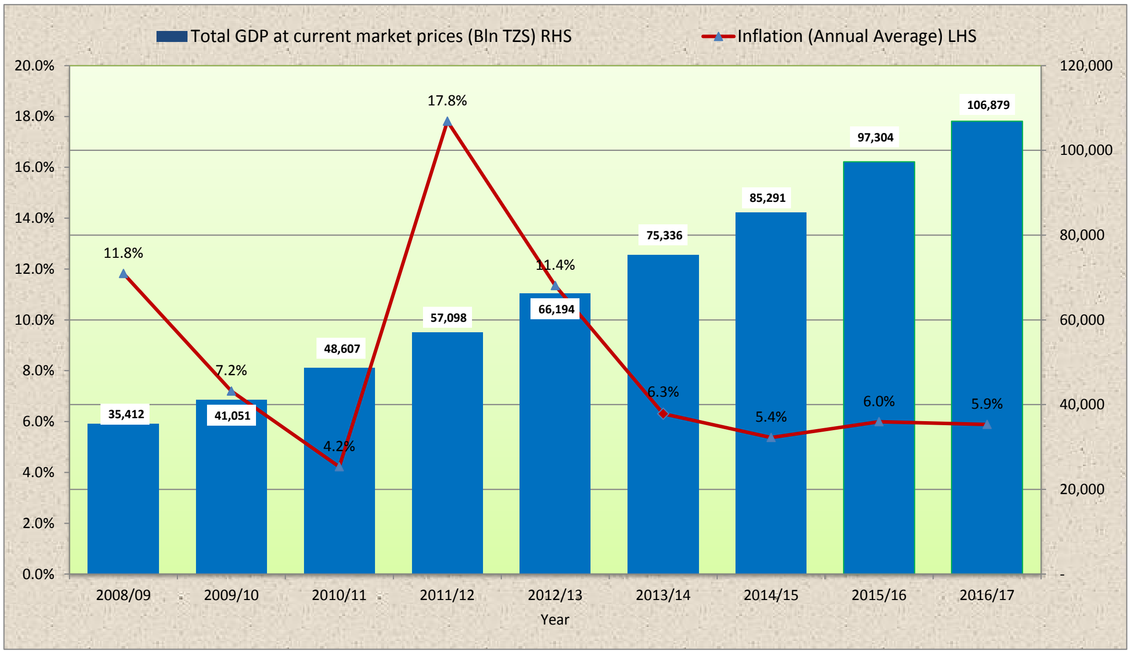
Chapter 2: Macroeconomic Performance

7. Tanzania's real GDP growth for the last decade (from 2007 to 2016), remained strong, averaging 6.7 percent. In 2016, real GDP grew by 7.0 percent, supported mainly by increased power supply specifically from natural gas, and stability in transport services.

8. Economic activities which recorded high growth include: construction (13.0 percent); information and communication (13.0 percent); transport and storage (11.8 percent); and mining and quarrying (11.5 percent). Agriculture on the other hand registered a growth of 2.1 percent in 2016 compared to 2.3 percent in 2015 due to below average rainfall, which affected some crop producing areas. Despite the slowdown in growth, agricultural activities continued to account for the largest share in GDP, contributing for 29.1 percent in 2016. GDP in the first half (January to June) of 2017 expanded by 6.8 percent compared to a growth rate of 7.7 percent recorded in the corresponding period. The growth was mainly driven by improvements in mining, transport, construction and communication activities.

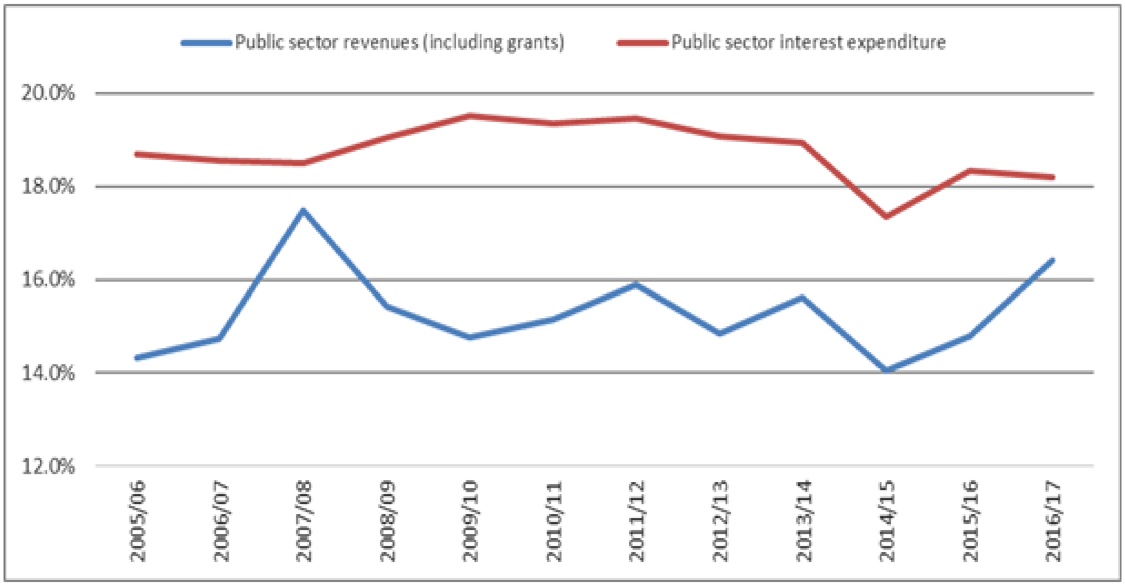
9. Inflation remained at single digit in 2016/17, consistent with prudent monetary policy, fiscal consolidation, general slowdown in global commodity prices especially oil prices, and improvement in domestic food supply. Headline inflation averaged 5.9 percent in 2016/17, down from 6.0 percent recorded in 2015/16. In the same period, food inflation declined from 8.1 percent to 7.6 percent, while core inflation (excluding food and energy) remained below 3.0 percent.

Chart 1: Real GDP and Inflation Development



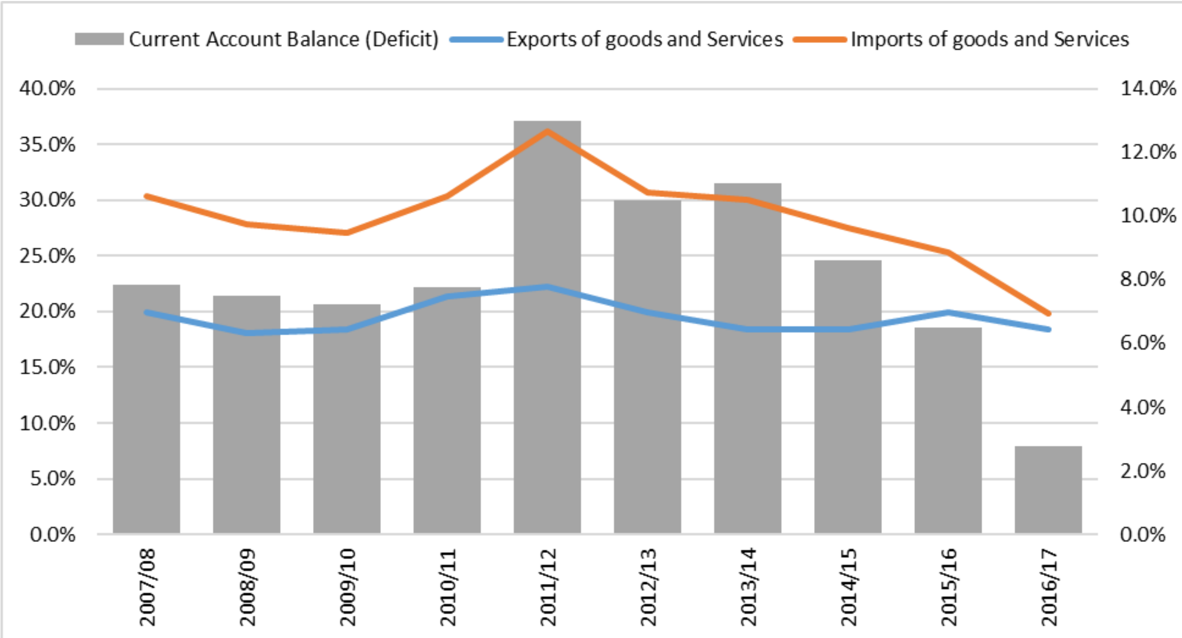
10. Implementation of the 2016/17 budget was characterized by significant shortfalls in disbursements of Government Budget Support (GBS) and external non-concessional loans. Total revenue collection in 2016/17 was 9.9 percent below the annual estimate but 19.7 percent higher than the amount collected in 2015/16. Domestic revenue increased to 15.6 percent of GDP, from 14.3 percent in 2015/16. In the same period, tax effort increased to 13.1 percent from 12.8 percent. Building on the need to ensure fiscal consolidation, the Government implemented measures to streamline expenditure, including reducing leakages and misappropriation of public funds. Total expenditure was 17.7 percent of GDP compared with 18.3 percent recorded in 2015/16, with overall fiscal deficit narrowing to 1.5 percent of GDP (**Chart 2**).

Chart 2: Fiscal Deficit (percent of GDP)



11. Over the past five years, Current Account (CA) deficit averaged 8 percent of GDP with the highest being 13 percent in 2011/12 and the lowest 2.8 percent in 2016/17. This is largely due to decline in imports that outweighed marginal fall in exports particularly in 2016/17. The import bill remained subdued partly due to substitution of oil with gas in power generation and completion of major projects such as construction of cement factory, power plants and exploration activities. It is worth noting that oil accounts for over 25 percent of the goods import bill. Despite the decline of total exports, good performance was recorded in services exports, particularly transportation and tourism receipts. In addition, gold – the leading commodity export – recorded significant increase in export receipts on account of higher volumes and recovering prices in the world market.

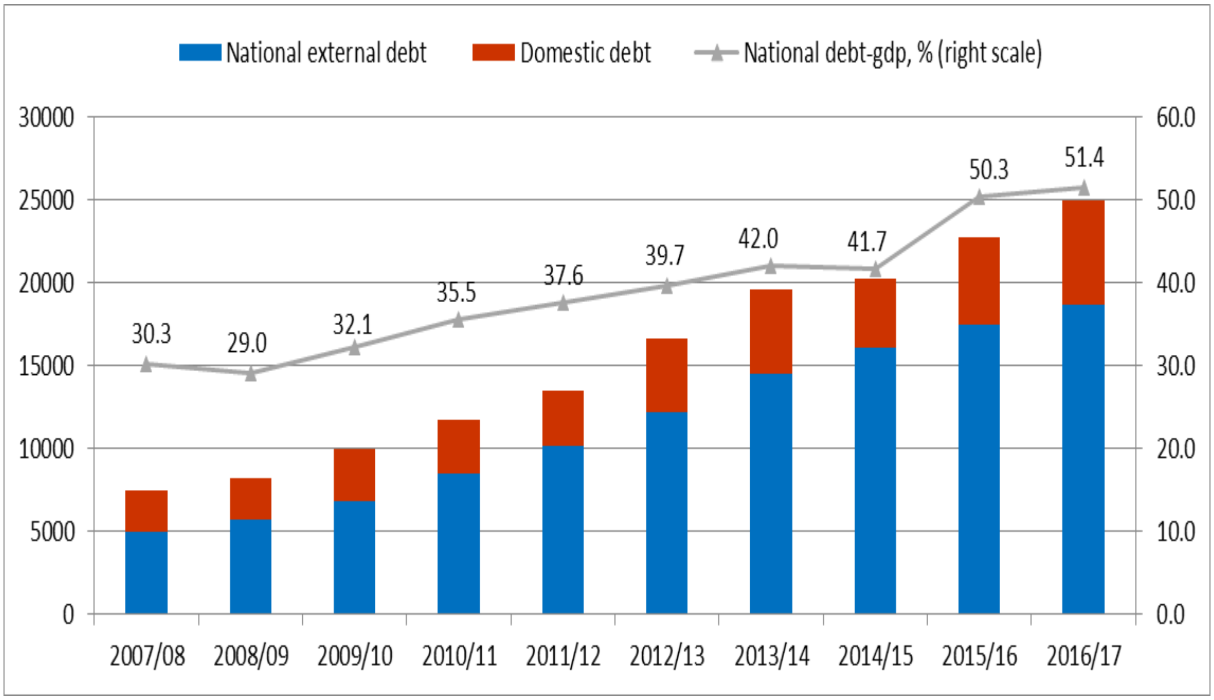
Chart 3: Current Account Development (percent of GDP)



Chapter 3: Debt Portfolio Review

12. The national debt stock, comprising public (external and domestic) and private external debt, amounted to USD 24,987.5 million (51.4 per cent of GDP) at the end of June 2017, which was an increase of 10 percent, from 22,723.25 million (50.3 per cent of GDP) end June 2016, (Chart 4). Total public debt amounted to USD 21,259.9 million, accounting for 43.7 percent of GDP. Expressed in domestic currency, public debt increased by 12.6 percent to TZS 47,412.9 million during the period ending June, 2017.

Chart 4 : National Development (Millions of USD)



3.1 External Debt

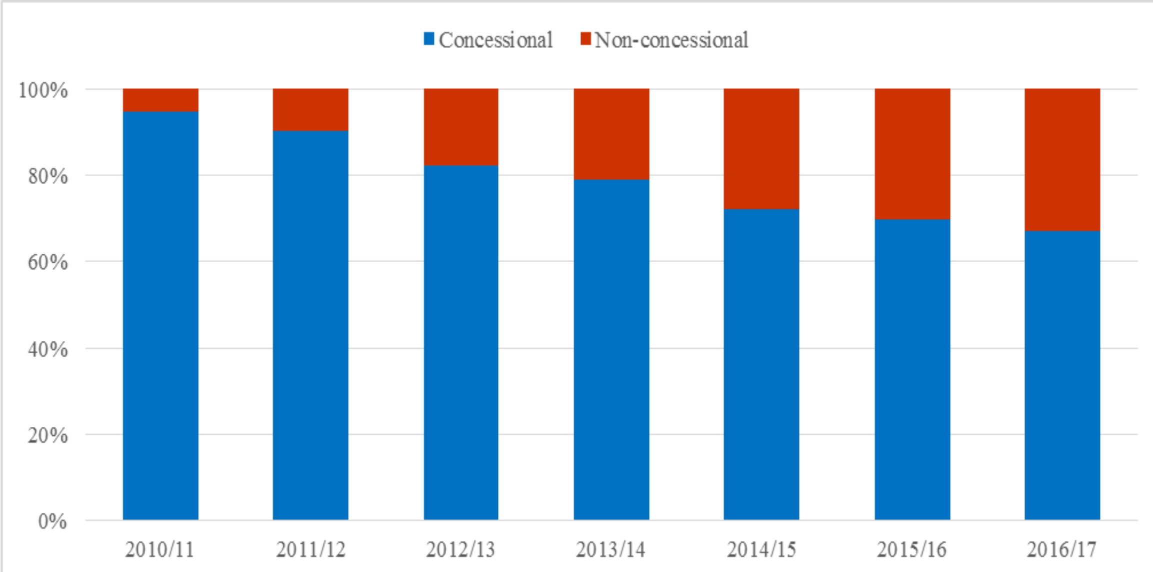
13. Total external debt stock increased by 6.8 percent to USD 18,612.2 million at the end of June 2017 from end June 2016 (chart 5). The increase was mainly due to disbursements to finance public infrastructure. The stock of external debt increased to 38.3 percent of GDP, from 35.9 percent registered during the corresponding period in 2016. The total public external debt stock increased by 6.0 percent, to

USD 14,884.7 million (30.6 percent of GDP) from the level recorded at the end of June 2016, (**Chart 5).**

Chart 5: External Debt Development (Million of USD)

14. In terms of concessionality , public external debt portfolio consisted predominantly of loans contracted on concessional terms, mainly from multilateral creditors. However, due to dwindling resources from traditional creditors and the quest to finance development projects, the Government has recently been borrowing from commercial sources. Accordingly, the share of concessional debt has declined from about 95 percent in 2010/11, when the Government started contracting commercial debt, to around 67 percent in June 2017 (**Chart 6)**.

Chart 6: Concessionality of Public External Debt



15. Despite the recent change in the development financing landscape, the proportion of debt owed to multilateral institutions remained dominant, accounting for 47.0 percent of the external debt stock, followed by debt from commercial (including export credit) and bilateral which accounted for 42.7 percent and 10.3 percent respectively (**Table 1**).

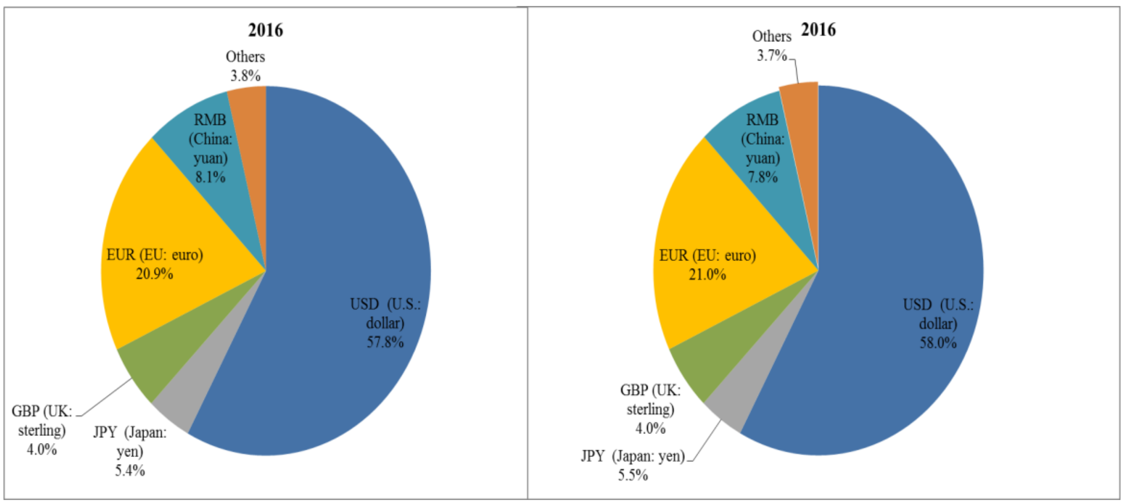
Table 1: External Debt by Creditor Category (Millions of USD*)*

	2014/15		2015/16		2016/17	
Creditor category	Amount	Share (%)	Amount	Share (%)	Amount	Share (%)
Multilateral	7,756.7	48.4	8,172.8	46.9	8,756.0	47.0
DOD	7,745.5	48.33	8,165.1	46.83	8,741.1	46.96
Interest arrears	11.2	0.07	7.7	0.04	14.9	0.08
Bilateral	1,601.6	9.99	1,842.9	10.57	1,918.2	10.31
DOD	923.3	5.76	1,112.5	6.38	1,133.4	6.09
Interest arrears	678.3	4.23	730.4	4.19	784.8	4.22
Commercial	5,311.3	33.14	5,991.2	34.36	6,210.9	33.37
DOD	4,871.5	30.40	5,592.9	32.08	5,845.2	31.41
Interest arrears	439.8	2.74	398.3	2.28	365.7	1.96
Export credit	1,357.2	8.47	1,427.6	8.19	1,727.1	9.28
DOD	1,150.8	7.18	1,218.3	6.99	1,492.5	8.02
Interest arrears	206.4	1.29	209.3	1.20	234.6	1.26
External debt stock	16,026.8	100.0	17,434.5	100.0	18,612.2	100.0

Note: DOD denotes disbursed outstanding debt

16. The currency composition of outstanding public debt shows that a large proportion of debt was denominated in USD, at 58.0 percent in June 2017 compared to 57.8 percent recorded at end of June 2016. The proportion of debt denominated in Euro and Chinese Yuan was 21 percent and 7.9 percent, respectively (**chart 7**). The total debt portfolio exposure to risk is mainly driven by USD exchange rate fluctuations.

Chart 7: Composition of Disbursed Outstanding Debt by Currency

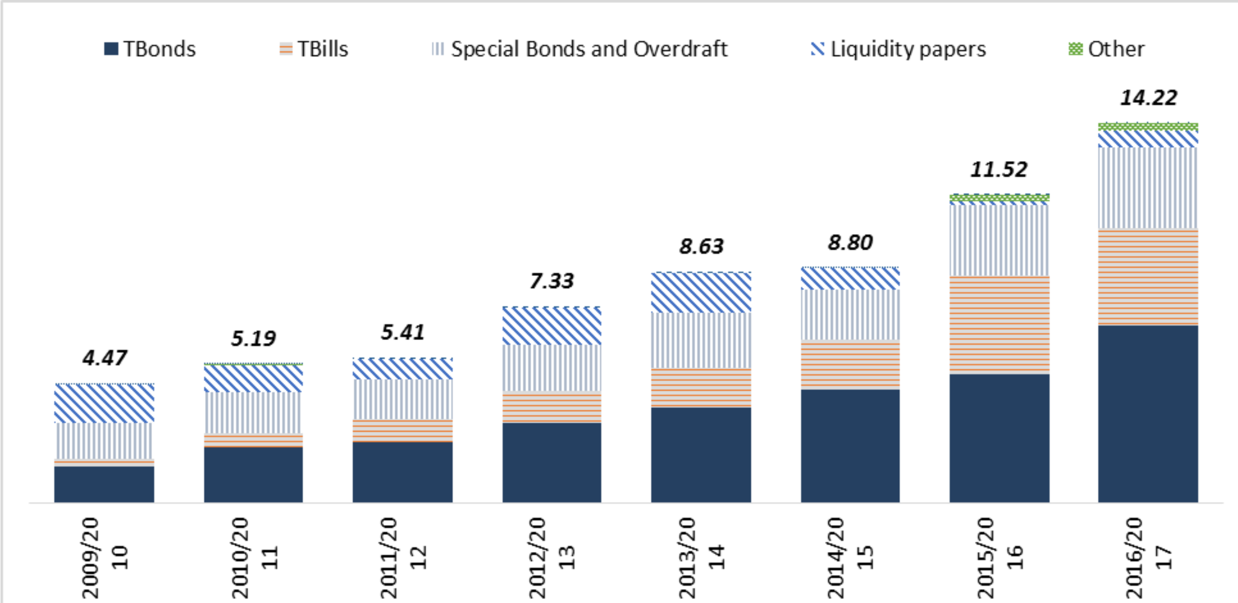


3.2: Domestic Debt

17. The stock of domestic debt at the end of June, 2017 was TZS 14,217.83 billion equivalents to 13.1 percent of GDP. This is an increase of 23.4 percent from TZS 11,523.34 billion recorded at end June 2016. The increase was mainly on account of government borrowing to refinance matured securities.

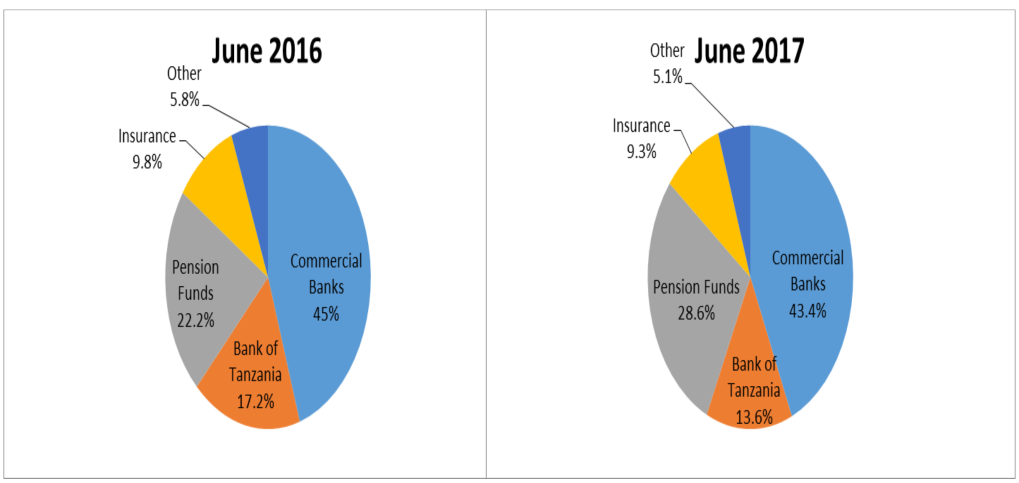
18. The profile of domestic debt by instrument shows that the proportion of Government bonds was the largest, accounting for 38 percent compared to 33 recorded in June, 2016. The greater share of Treasury bonds is consistent with the Government's strategy of lengthening debt maturity through issuance of long term instruments. The interest rate structure of domestic debt reveals a low vulnerability to interest rate risk as 98 percent of the domestic debt carries fixed interest rate (Chart 8).

Chart 8: Evolution of Domestic Debt in TZS billion



19. Considering domestic debt by holder category, commercial banks remained the leading investors in domestic debt, accounting for 43.4 percent of total domestic debt compared with 45 percent as at end-June 2016, followed by Pension funds, which accounted for 28.6 percent of the total domestic debt (**Chart 9**).

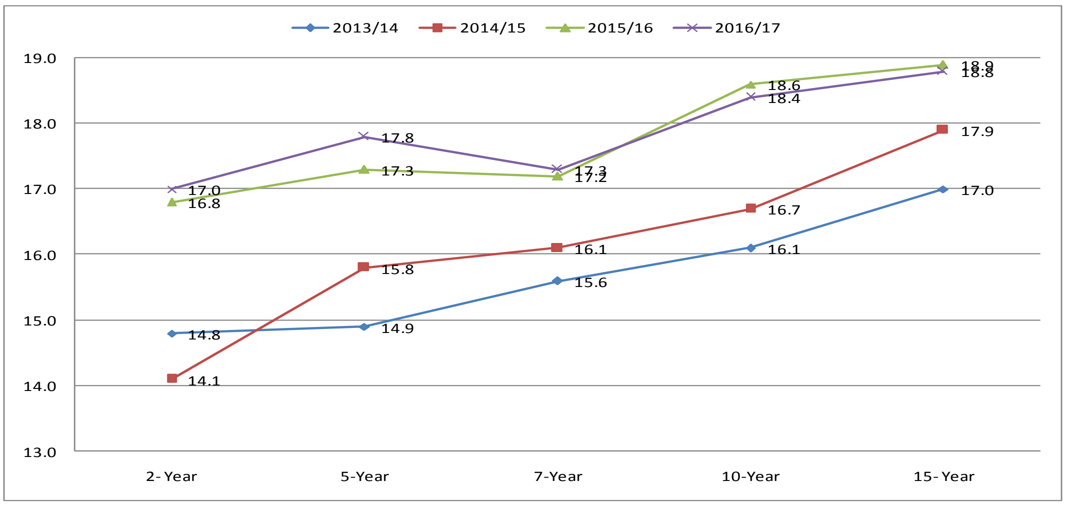
Chart 9: Domestic Debt by Holder Category



Weighted Average Yields on Treasury Bonds

20. In the recent past, the cost of Government borrowing through treasury bonds has been increasing, driven by the liquidity shortage in the market. The yields on treasury bonds during 2016/17 depicted mixed behaviour. While the yields on medium term instruments increased, the longer maturity yields slightly decreased. The decrease in yields for 10 and 15 years reflects increased demand for longer tenure following increased public awareness and investors' appetite. This is in line with government strategy of lengthening the maturity profile and borrowing at minimum cost to bridge the budget financing gap (**Chart 10**)

Chart 10: Treasury Bonds Weighted Average Yield



3.3: Cost and Risk Characteristic of the existing Debt Portfolio

21. The existing portfolio entails significant exposure to exchange rate fluctuations as 69 per cent of debt is denominated in foreign currency. This represents potential risk given the historical trend of TZS depreciation against major foreign currencies. The Average Time to Maturity (ATM) of the overall debt portfolio for existing debt is 11.2 years. The ATM for external debt is 14.8 years while for domestic debt is 3.3 years. The longer ATM for external debt is mainly due to concessional loans whose maturities are 40 years with a longer grace period of 10 years. The weighted average interest rate for domestic debt is 10.7 percent while for external debt is 2.5 percent.

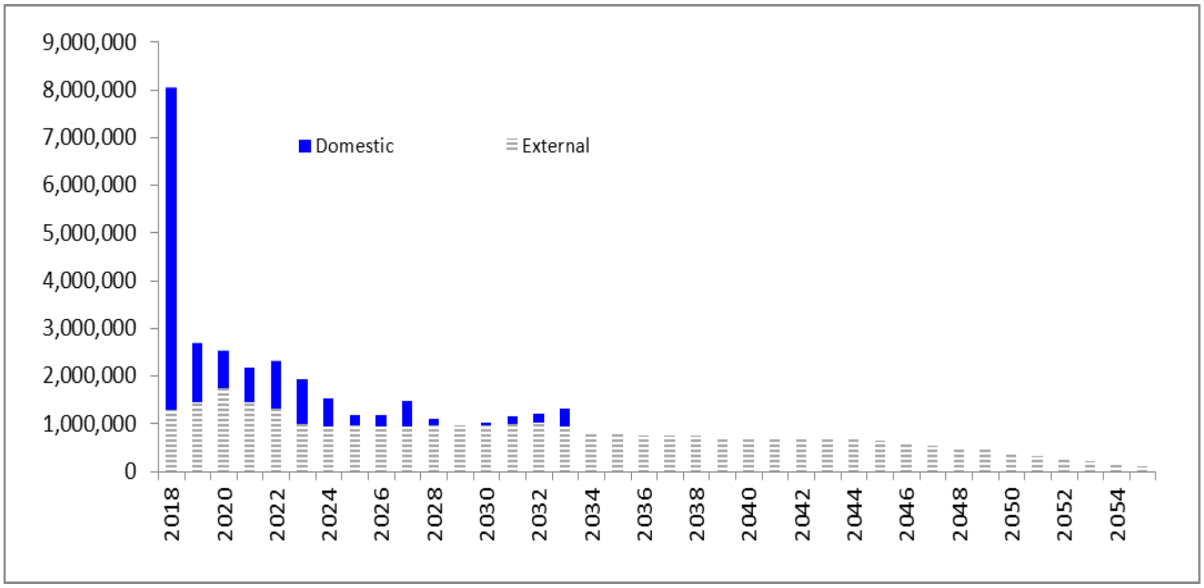
22. The Average Time to Re-fixing (ATR) of the overall debt portfolio is 10.9 years, which implies that it takes 10.9 years for the entire debt portfolio's interest rates to reset. The ATR of 10.9 years is attributed to a significant share of concessional loans from multilaterals and bilateral creditors. The ATR for external debt is 14.3 years while for domestic debt is 3.3 years. However, debt re-fixing in one year as a percentage of total debt is 27.6 percent, implying that there is high exposure to interest rate risk. This is due to a proportional increase in floating rate non-concessional external loans as well as short term domestic debt in the portfolio.

Table 2 Cost and risk indicators for existing debt as at end June 17

Risk Indicators		External debt	Domestic debt	Total debt
Amount (in millions of TZS)		30,986,938.7	13,947,447.0	44,934,385.6
Amount (in millions of USD)		13,825.8	6,223.1	20,048.9
Nominal debt as % GDP		29.0	13.0	42.0
PV as % of GDP		18.4	13.0	31.5
Cost of debt	Interest payment as % GDP	0.7	1.4	2.1
	Weighted Av. IR (%)	2.5	10.7	5.0
Refinancing risk	ATM (years)	14.8	3.3	11.2
	Debt maturing in 1yr (% of total)	4.2	48.2	17.9
	Debt maturing in 1yr (% of GDP)	1.2	6.3	7.5
Interest rate risk	ATR (years)	14.3	3.3	10.9
	Debt refixing in 1yr (% of total)	18.3	48.3	27.6
	Fixed rate debt (% of total)	82.9	99.8	88.2
FX risk	FX debt (% of total debt)			69.0
	ST FX debt (% of reserves)			11.6

Note: Debt stock exclude external interest arrears and other domestic debt liabilities

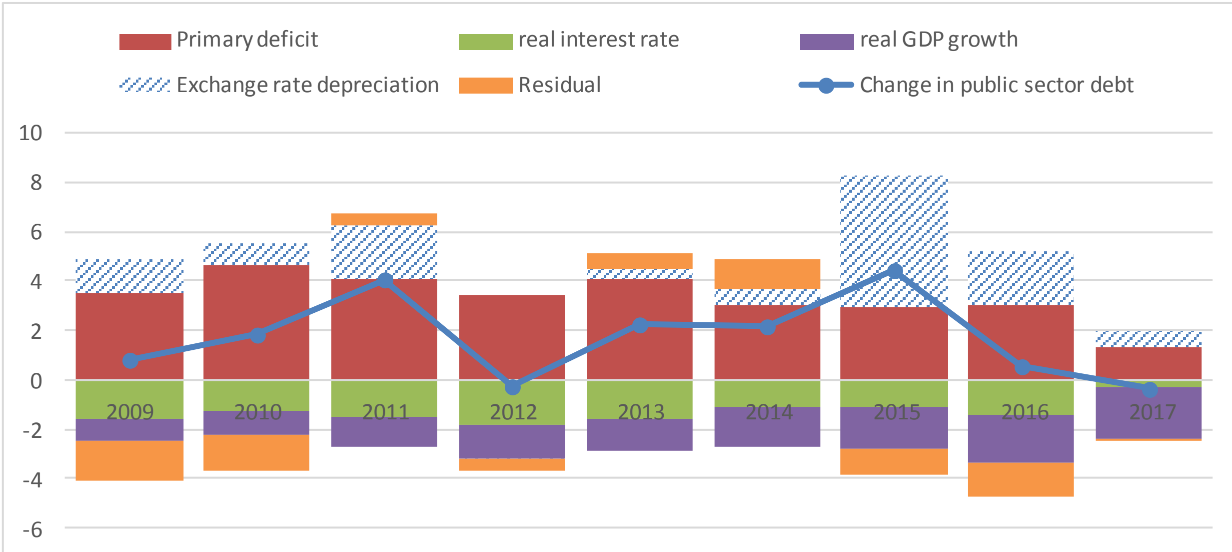
Chart 11: Redemption Profile of Existing Debt (Millions of TZS)



3.4 Drivers of Debt Accumulation

23. The primary deficit continues to be the key driver of public debt accumulation in Tanzania. Automatic debt dynamics; explained by real GDP growth, inflation and exchange rate movements and real interest rate have also been playing a key role in influencing debt dynamics **(Chart 11)**

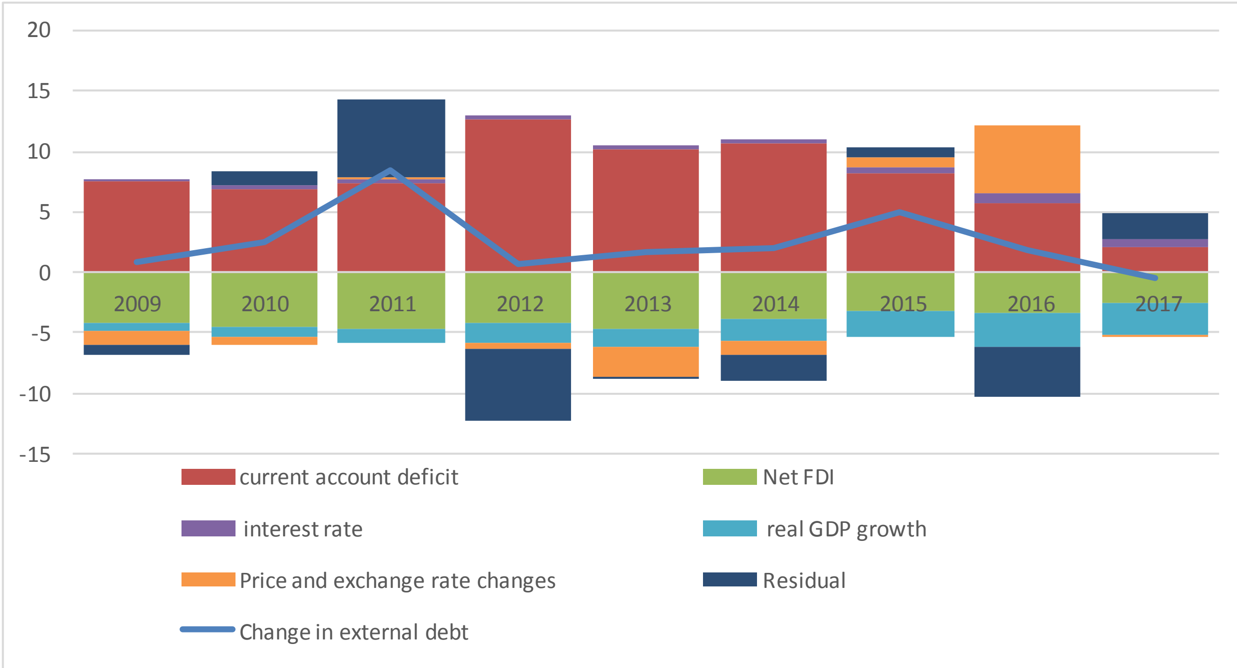
Chart 11: Contribution to Changes in Public debt



24. The strong growth continues to enable the country sustain borrowing requirements without worsening the debt to GDP ratios. The impact of real interest rates has also been minimal, given that the greater proportion of concessional debt in the country's debt portfolio.

25. The stock flow adjustments, mainly attributed to exchange rate revaluations, have been the major contributor to changes in total external debt. The contributions to changes in total external debt are shown in the **Chart 12** below.

Chart 12: Contributions to Changes in External Debt



Chapter 4: Underlying DSA Assumptions

4.1 Macroeconomic Assumptions

26. Real GDP growth is projected to remain strong, averaging 7.4 percent in the medium term (2017/18 – 2020/21), and thereafter growing at 8 percent until 2025. In the long run (2022 – 2038), the economic growth is expected to stabilize at around 7 percent. Real GDP growth will largely be driven by implementation of flagship projects under FYDP II in the following key areas:
    (i) Infrastructural development, including construction of SGR (central line), Stigler's Gorge dam and power plant, ports, airports, and utility;
    (ii) The scaling-up of onshore gas production and its distribution (LNG and CNG) that is expected to stimulate industrial and domestic use as well as export;
    (iii) Improvement and stability in power supply mainly from natural gas and hydro, which is expected to boost performance of other sectors including manufacturing;
    (iv) Increase in Foreign Direct Investment flow as a result of improved ease of doing business environment;
    (v) Investments in coal and iron ore extraction, including Mchuchuma coal and Liganga iron ore and steel plant; and
    (vi) Setting up of new special economic zones (EPZ), including construction of Bagamoyo SEZ and Mbegani Port.

27. Inflation is projected to remain at an average of 5.0 percent in the medium term and beyond, driven by the reduction in production costs on account of reliable and affordable power supply; prudent fiscal and monetary policies; improved transport services; and stability of the Tanzanian shilling against the US Dollar. However, upside risks remain, associated with uncertainties in weather conditions; fluctuations in global commodity prices; and food shortage in neighbouring countries.

28. In the medium term, Government will continue to pursue fiscal policy that is geared towards improving domestic resource mobilization and public expenditure management. Domestic revenue is expected to increase to an average of 17.2 percent of GDP in the medium term and further up to 18.9 percent in the long run, while total expenditure is projected at an average of 21.8 percent of GDP in the medium term, and 22.2 percent in the long run. The fiscal deficit projected to decline from an average of 3.7 percent of GDP in the medium term to 3.0 percent in the long run, consistent with East Africa Community (EAC) convergence criteria. The fiscal outlook is based on:

(i) Increase in domestic revenue mobilization through improvement in revenue administration (tax and non-tax) and further widening of the tax base;

(ii) Maintaining annual public investment between 30 to 40 percent of the total budget; and

(iii) Decline in grants and concessional borrowing as the country attains the lower middle income status;

29. In the medium term, imports are expected to increase on the back of the implementation of flagship projects under FYDP II. As a result, current account deficit is expected to widen to an average of 4.9 percent of GDP. However, imports of oil (which accounts for over 25 percent of total goods imports) are expected to remain subdued on account of increase in usage of natural gas in power generation. In the long run, the current account deficit is expected to widen marginally to an average of around 5.0 percent of GDP, driven mainly by increase in interest payment on non-concessional loans. However, improvement in export performance resulting from envisaged industrial investment and expected increase in mineral exports from new discoveries of helium and nickel as well as Government efforts to ensure transparency in mineral production and exports will partially offset the impact of increase in interest payments.

Table 3: Key Historical and Projected Macroeconomic Variables

Key Variable	Historical Average 2006-2017	Projected Average 2018-2038
Non-interest current account in percent of GDP	-8.0	-4.1
Real GDP growth (in percent)	6.6	7.6
US GDP Deflator (percent change)	3.1	2.9
Growth of exports of G&S (US dollar terms, in percent)	9.6	9.4
Current official transfers in percent of GDP	2.2	0.8
Net non-debt creating flows (FDI) to GDP ratio	3.9	2.7

4.2 New Financing

30. External new financing assumptions are based on the recent financing trends, which indicate a gradual decline in concessional loans available to the Low Income Countries such as Tanzania. In the medium term, the government is expected to continue receiving a mix of concessional- and commercial loans.

(i) The preference will be on concessional loans from multilateral and bilateral creditors followed by semi-concessional loans.

(ii) The shortfall in financing needs will be covered by non-concessional loans, particularly for financing projects under FYDP II

31. However, following a decline of resources from concessional sources and government quest to undertake flagship projects as outlined in the FYDP II, much of the financing will be sourced through the commercial window. This is true particularly for financing the Standard Gauge Railway, Stigler's Gorge Hydropower plant, and Airport terminal III phase II projects.

4.3 Domestic Financing

32. Domestic debt management aims at, among others, rolling over maturing principal while paying interest through domestic revenue; financing of budget through marketable Long-term instruments; and smoothening the redemption profile. In the long term, the composition of domestic borrowing is expected to shift towards medium- and long-term instruments as the Government intensifies efforts to develop the domestic debt market.

The main assumptions for the DSA are:

(i) Maintaining Net Domestic Financing (NDF) at or below 1.0 percent of GDP in the medium term in line with the projected fiscal deficit and strategies for developing domestic market;

(ii) In the medium term, matured debt instruments will be rolled over and in the long run, part of it will be paid using government revenue;

(iii) Five percent of matured short term instruments will be rolled over into long term instruments for a period of five years and thereafter maintain the same level;

(iv) Short term and long term instruments will continue to be used for liquidity management and financing purposes, respectively;

(v) Maturing special bonds and stocks will be securitized into marketable treasury bonds in line with East African Monetary Union (EAMU) Protocol and the strategy of developing domestic market

Chapter 5 : DSA Results and Analysis in the Baseline Scenario

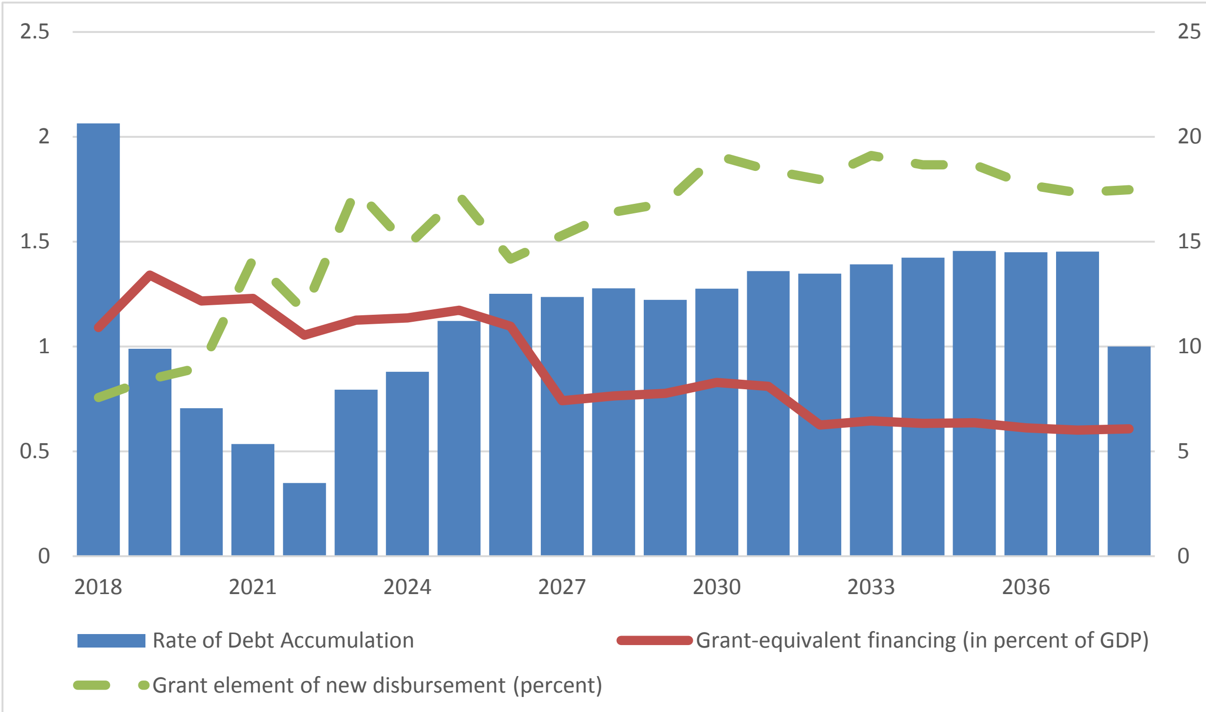
33. The DSA was conducted using the World Bank/IMF Debt Sustainability Framework for Low Income Countries (DSF-LICs) analytical tool. The DSF uses thresholds of debt burden indicators, which depend on the quality of a country's policies and institutions as measured by the World Bank under the CPIA. According to the 2016 CPIA rating by the World Bank, Tanzania is classified as medium policy performer with a three-year moving average CPIA score of 3.7. Relevant solvency thresholds of external debt for Tanzania are shown in column three (3) of (**Table 4).**

Table 4 : Indicative External debt burden thresholds

	Weak **CPIA <3.25**	**Medium** **3.25 < CPIA <3.75**	**Strong** **CPIA >3.75**
Solvency Ratios			
PV of Debt to GDP	30	40	50
PV of Debt to Exports	100	150	200
PV of Debt to Revenue	200	250	300
Liquidity Ratios			
Debt Service to Exports	15	20	25
Debt Service to Revenue	18	20	22
PV of Public debt to GDP	36	56	74

34. Based on the baseline assumptions, external debt will accumulate rapidly in the short-term, consistent with anticipated financing needs for infrastructure projects. In the long term, debt accumulation is however expected to subside, reflecting economic return after completion of major projects currently in pipeline. Moreover, the grant element of new borrowing is projected to decline significantly in the long run, reflecting reduced access to concessional financing. This trend is consistent with the country's desire to become a middle income country by 2025, and recourse to huge non-concessional borrowing envisaged in the projection period.

Chart 13: External Debt Accumulation under Baseline Scenario



5.2 Debt Burden Indicators

35. The findings of the DSA show that Tanzania remains at a low risk of debt distress, with all relevant debt ratios below their thresholds throughout the projection period. The present value (PV) of external debt to GDP in 2017/18 is projected at 19.7 percent and is projected to decrease moderately to medium term to long term and reaching 12.8 percent by 2037/2038. The long term projection is supported by strong GDP growth and expected slowdown of borrowing after completion of projects in FYDP II. The PV of external debt-to-export is projected to decrease from 81.8 percent in 2017/18 to 80.7 percent in 2019/2020 and thereafter stabilizes at around 57.8 percent in the long term.

36. The liquidity indicators as measured by the ratios of debt service to revenues and exports, are projected to decrease gradually from 13.3 percent and 9.3 percent to average of 7.2 percent and 8.3 percent in the medium term, and thereafter

moderate to average 7.1 percent and 6.1 percent in the long term respectively (Table 5).

Table 5 : Tanzania's External and Public DSA Indicators

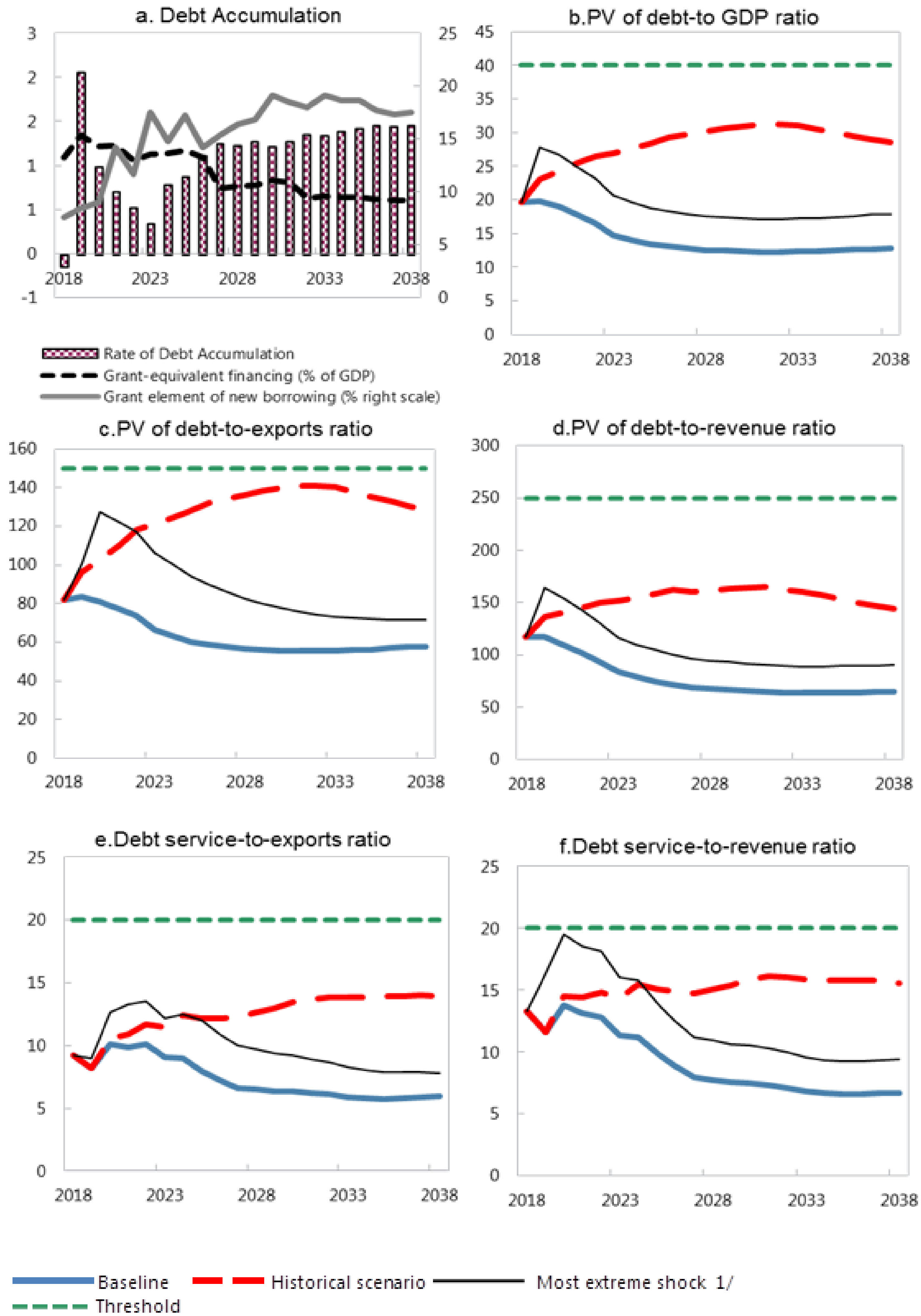
External DSA	Threshold	2017/18	2018/19	2019/20	2027/28	2028/29	2036/37	2037/38
PV of debt-to GDP ratio	**40**	19.7	19.8	19.0	12.6	12.5	12.7	12.8
PV of debt-to-exports ratio	**150**	81.8	83.2	80.7	56.7	56.3	57.4	57.8
PV of debt-to-revenue ratio	**250**	117.1	117.3	110.1	67.3	66.7	64.5	64.7
Debt service-to-exports ratio	**20**	9.3	8.2	10.1	6.5	6.4	5.9	6.0
Debt service-to-revenue ratio	**20**	13.3	11.6	13.8	7.7	7.5	6.6	6.7
Fiscal DSA								
PV of Debt-to-GDP Ratio	**56**	34.4	33.0	31.2	20.5	20.2	19.7	19.0
PV of Debt-to-Revenue Ratio	**N/A**	194.5	183.9	170.7	107.8	105.9	99.2	95.0
Debt Service-to-Revenue Ratio	**N/A**	26.3	23.0	25.2	13.8	13.6	11.7	11.3

5.3 Sensitivity Analysis of External Debt

37. The finding of the standard stress tests show that external debt would be sustainable in the medium to long-term, but is mostly sensitive to export shocks, exchange and interest rates movements. In a historical scenario where the key variables are set at their average of the past 10 years, Tanzania's external debt ratios are projected to increase significantly relative to the baseline, reflecting low inflows of non-debt-creating FDI, and the high level of average fiscal deficits over this period **(chart 14**).

38. The PV of external debt–to-GDP ratio is projected to remain below its threshold throughout the projection period, though increasing from 19.7 percent in 2017/18 to 20 percent in 2018/19 and stabilizing at around 13 percent in the long-term after subjecting to one time 30 percent depreciation shock. Likewise, a 30 percent shock to exchange rate escalates debt service-to-revenue ratio from 9.2 percent (indicate year) to around 13 percent (indicate year). This signifies that, the debt service cost is highly vulnerable to exchange rate movements. Similarly, debt service to exports rises to 9 percent in 2021/22 from 7.8 percent recorded in June 2017, when subjected to one time 30 percent shock.

Chart 14: Indicators of External Public and publicly guaranteed debt under alternative scenarios

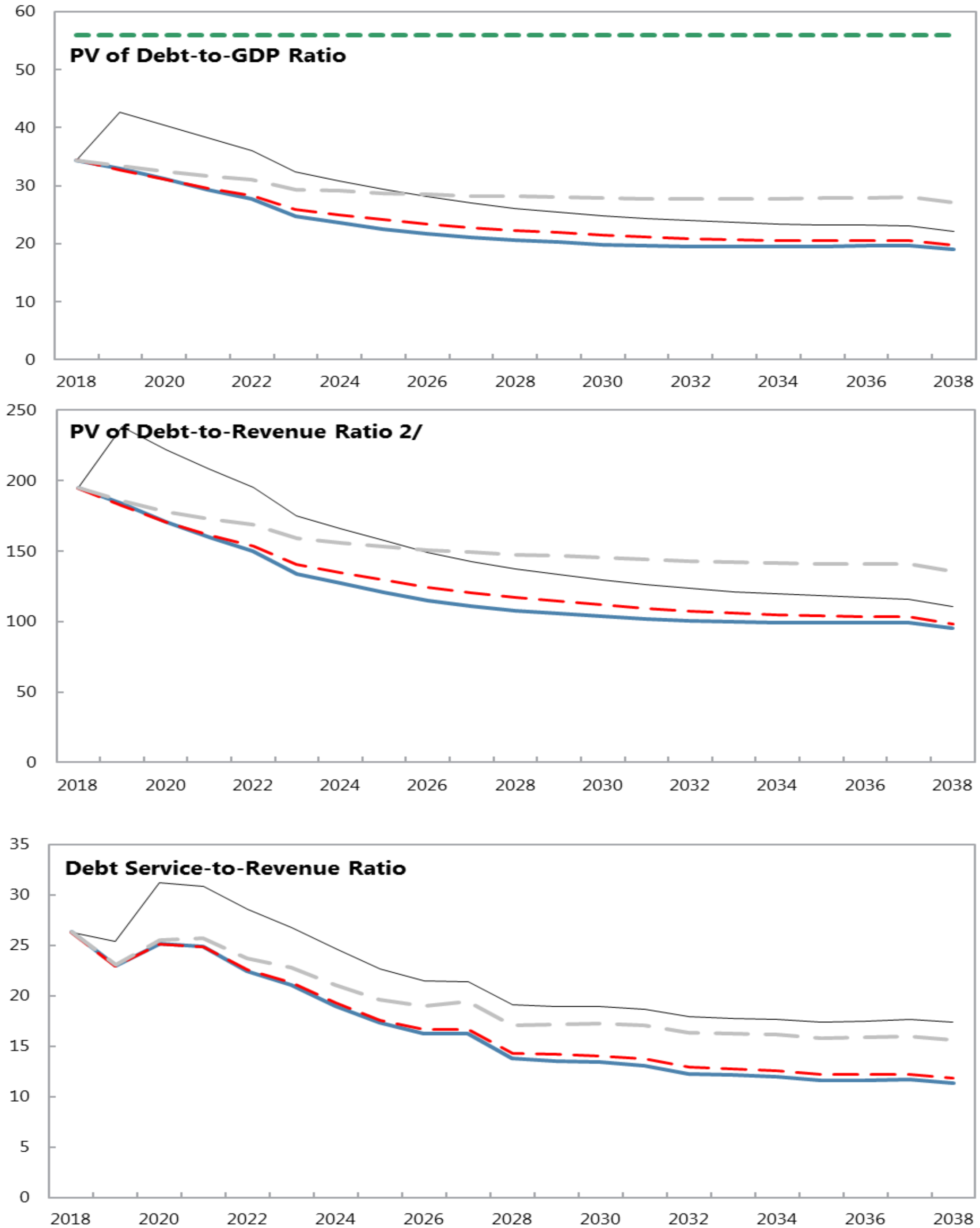


5.4 Evolution of Public Debt Burden Indicators

39. Public debt indicators suggest a sustainable debt position well below the threshold of 56 percent of GDP throughout the projection period. The present value (PV) of public debt to GDP in 2017/18 was projected at 34.4 percent and is projected to decrease moderately to an average of 32.1 percent in the medium term and reach an average of 19.9 in the long term. The projection is supported by strong GDP growth and slowdown in debt accumulation. The PV of public debt-to-revenue is projected to decrease from 194.5 percent in 2017/18 to an average of 177.3 percent in the medium term, and thereafter stabilizing at average of 112 percent in the long term.

40. The liquidity indicator for public debt service to revenues projected to decline gradually from 26.3 percent to an average of 24.1 percent in the medium term, thereafter stabilizing at 12.6 in the long term signifying less debt service pressure due to less accumulation debt in the long term. (**Chart 15)**

Chart 15: Indicators of Public Debt under Alternative Scenarios



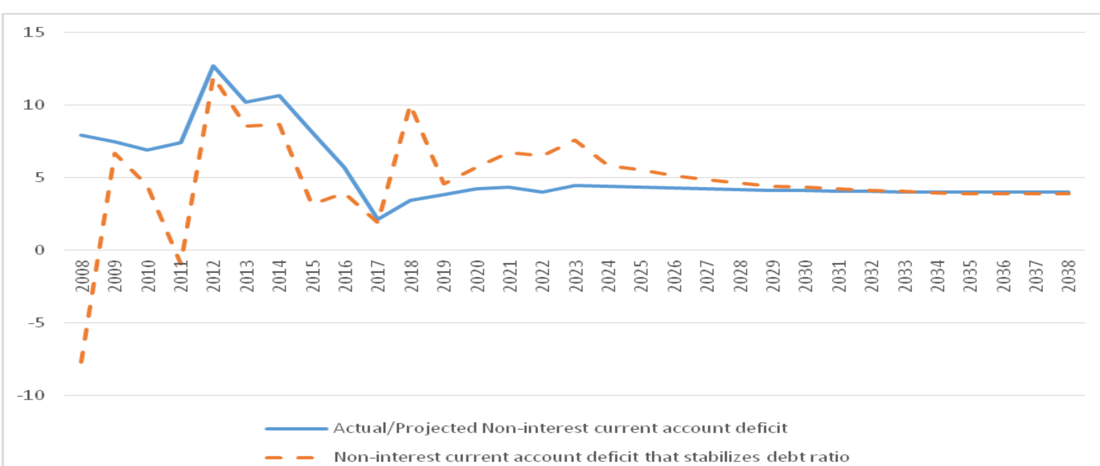
5.5 Sensitivity Analysis of Public Debt

The standard sensitivity test for public debt indicate an increase in the debt indicators relative to the baseline scenario in the medium term, but do not breach indicative thresholds. Sensitivity tests considered included lowering real GDP growth by 3.0 percent and maintaining primary balance constant at 0.5 percent of GDP throughout the projection period, compared to the level registered in 2016/17. The results showed that, on average PV of public debt-to-GDP would increase by 9.0 percent in the medium term and thereafter by 5.0 percent throughout the projection period. This implies that, the current fiscal stance is sustainable in the medium to long term, and does not jeopardize debt sustainability even after subjecting the economy to adverse shocks.

Similarly, the PV of public debt-to-revenue increases to an average of 47.9 percent in the medium term and converges gradually to an average of 25.4 percent in the long-run.

The DSA analysis further suggest that, maintaining a primary deficit below 3 percent of GDP in the projection period would stabilize public debt to GDP ratio at the current levels. Similarly, a current account deficit of around 4 percent, which is lower than the baseline projections, would stabilize the external debt to GDP ratio at its current level. This implies that the external debt to GDP ratio will continue to decline in the outlook period.

Chart 16: Non-interest current account that stabilizes external debt



Chapter 6: Conclusion and Way Forward

The 2017 DSA reveals that Tanzania remains at a low risk of external debt distress, with all debt burden indicators remaining below their respective thresholds in both the baseline and alternative scenarios. Analysis of public debt sustainability, which combines domestic and external public debt, also revealed no significant vulnerabilities associated with the portfolio. It is worth noting that, this sustainability is dependant on robust GDP growth rates that the country has been enjoying for the past 10 years, which is envisaged to continue throughout the projection period. The robust GDP growth continues to enhance the country's capacity to sustain borrowing to finance priority infrastructure projects.

Sensitivity analysis results indicate that the country's external debt portfolio is susceptible to export and exchange rate shocks. Government is committed to sustain sound macroconomic performance in both medium and long-run to mitigate these vulnerabilties. The Government will further continue to strengthen policies and institutions with a view to improving CPIA rating, as this plays a significant role in enhancing the country's debt carrying capacity.

Government is committed to ensure effective implementation of projects to achieve a higher economic growth rates and generate additional revenues that will enhance capacity to continue meeting debt service obligations. Fiscal discipline will also be maintained to ensure that primary balance remains within sustainable levels. In addition, creating fiscal space for higher infrastructure investment is important, and this underscores the need for sustained efforts to raise additional domestic revenue to avoid excessive recourse to borrowing. Apart from creating fiscal space, scaling-up domestic revenues will likely enhance the country's creditworthiness for non-concessional loans, which may help reduce the cost of borrowing from such sources going forward. Finally, new borrowing by Government will be done in a manner that will not compromise economic growth and development of the domestic debt market.

APPENDECES

Table xx .Tanzania: External Debt Sustainability Framework, Baseline Scenario, 2015-2038 1/

(In percent of GDP, unless otherwise indicated)

	Actual			Historical 6/ Average	Standard 6/ Deviation	Projections									
	2015	2016	2017			2018	2019	2020	2021	2022	2023	2018-2023 Average	2028	2038	2024-2038 Average
External debt (nominal) 1/	**36.7**	**38.5**	**38.0**			**32.2**	**31.4**	**30.0**	**27.5**	**25.0**	**21.9**		**17.4**	**16.9**	
of which: public and publicly guaranteed (PPG)	30.9	31.4	31.1			28.0	27.4	26.2	24.5	22.6	20.3		16.9	16.8	
Change in external debt	5.0	1.8	-0.5			-5.8	-0.8	-1.4	-2.4	-2.5	-3.1		-0.5	0.1	
Identified net debt-creating flows	4.2	6.0	-2.6			-0.8	-0.4	0.5	0.4	0.3	0.9		1.5	2.4	
Non-interest current account deficit	**8.2**	**5.7**	**2.2**	**8.0**	**2.9**	**3.4**	**3.8**	**4.3**	**4.3**	**4.0**	**4.5**		**4.2**	**4.0**	4.1
Deficit in balance of goods and services	9.2	5.4	1.4			3.6	4.0	4.9	5.0	4.7	5.4		5.7	6.3	
Exports	18.4	19.9	18.3			24.1	23.8	23.6	23.1	22.4	22.2		22.2	22.2	
Imports	27.5	25.3	19.7			27.7	27.8	28.5	28.2	27.1	27.6		27.9	28.4	
Net current transfers (negative = inflow)	-1.2	-0.7	-0.9	-2.2	1.0	-0.9	-0.9	-0.8	-0.7	-0.6	-0.6		-0.6	-0.6	-0.6
of which: official	-0.6	-0.1	-0.3			-0.3	-0.3	-0.2	-0.2	-0.2	-0.2		-0.2	-0.2	
Other current account flows (negative = net inflow)	0.2	1.1	1.6			0.7	0.6	0.2	0.0	0.0	-0.3		-0.9	-1.6	
Net FDI (negative = inflow)	**-3.2**	**-3.4**	**-2.6**	**-3.9**	**0.7**	**-2.6**	**-3.0**	**-2.6**	**-2.8**	**-2.5**	**-2.5**		**-2.0**	**-1.0**	-1.7
Endogenous debt dynamics 2/	**-0.8**	**3.6**	**-2.1**			**-1.6**	**-1.2**	**-1.1**	**-1.2**	**-1.2**	**-1.1**		**-0.7**	**-0.5**	
Contribution from nominal interest rate	0.5	0.9	0.6			0.9	0.9	1.0	0.9	0.8	0.7		0.5	0.5	
Contribution from real GDP growth	-2.1	-2.8	-2.5			-2.5	-2.1	-2.1	-2.1	-2.0	-1.8		-1.2	-1.1	
Contribution from price and exchange rate changes	0.9	5.5	-0.2			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**0.9**	**-4.2**	**2.1**			**-5.1**	**-0.4**	**-2.0**	**-2.8**	**-2.9**	**-4.0**		**-1.9**	**-2.3**	
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	
PV of external debt 4/	...	...	28.6			23.9	23.8	22.8	20.9	18.9	16.3		13.1	12.9	
In percent of exports	...	...	156.1			99.2	100.0	96.7	90.2	84.4	73.7		59.1	58.4	
PV of PPG external debt	**...**	**...**	**21.7**			**19.7**	**19.8**	**19.0**	**17.9**	**16.5**	**14.8**		**12.6**	**12.8**	
In percent of exports	**...**	**...**	**118.2**			**81.8**	**83.2**	**80.7**	**77.3**	**73.8**	**66.6**		**56.7**	**57.8**	
In percent of government revenues	**...**	**...**	**139.2**			**117.1**	**117.3**	**110.1**	**102.3**	**93.8**	**83.6**		**67.3**	**64.7**	
Debt service-to-exports ratio (in percent)	**6.6**	**9.9**	**10.1**			**16.8**	**13.7**	**14.6**	**13.8**	**12.7**	**11.6**		**6.8**	**6.0**	
PPG debt service-to-exports ratio (in percent)	**3.6**	**5.3**	**7.8**			**9.3**	**8.2**	**10.1**	**9.9**	**10.1**	**9.0**		**6.5**	**6.0**	
PPG debt service-to-revenue ratio (in percent)	**5.1**	**7.4**	**9.2**			**13.3**	**11.6**	**13.8**	**13.1**	**12.8**	**11.4**		**7.7**	**6.7**	
Total gross financing need (Billions of U.S. dollars)	3.0	2.0	0.7			2.6	2.4	3.2	3.3	3.4	4.1		5.7	18.4	
Non-interest current account deficit that stabilizes debt ratio	3.1	4.0	2.6			9.3	4.6	5.7	6.8	6.5	7.6		4.7	3.9	
Key macroeconomic assumptions															
Real GDP growth (in percent)	7.0	7.0	7.0	6.6	0.6	7.0	7.2	7.5	7.8	8.1	8.1	7.6	7.8	7.0	7.4
GDP deflator in US dollar terms (change in percent)	-2.6	-13.0	0.6	3.1	8.4	1.6	2.6	1.6	2.5	3.1	5.8	2.9	3.6	3.4	3.4
Effective interest rate (percent) 5/	1.5	2.2	1.8	1.4	0.5	2.5	3.2	3.6	3.4	3.3	3.2	3.2	3.2	3.4	3.3
Growth of exports of G&S (US dollar terms, in percent)	3.7	1.1	-1.0	9.6	10.9	42.8	8.6	8.4	8.3	7.9	13.3	14.9	11.6	10.6	11.0
Growth of imports of G&S (US dollar terms, in percent)	-4.4	-14.4	-16.0	6.5	16.6	52.6	10.4	11.7	9.3	7.1	16.7	18.0	11.8	10.8	11.3
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	7.6	8.4	9.0	14.2	11.7	17.5	11.4	16.4	17.5	17.3
Government revenues (excluding grants, in percent of GDP)	12.8	14.3	15.6			16.8	16.9	17.3	17.5	17.6	17.7		18.7	19.8	18.9
Aid flows (in Billions of US dollars) 7/	1.3	0.8	1.2			1.8	1.7	1.7	1.7	1.7	1.8		1.2	3.0	
of which: Grants	0.6	0.2	0.4			0.5	0.6	0.6	0.6	0.6	0.7		0.6	0.7	
of which: Concessional loans	0.7	0.6	0.8			1.3	1.1	1.1	1.1	1.1	1.0		0.7	2.3	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			1.1	1.3	1.2	1.2	1.1	1.1		0.8	0.6	0.8
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			29.6	31.3	33.8	37.2	35.2	41.4		27.8	22.7	27.7
Memorandum items:															
Nominal GDP (Billions of US dollars)	48.5	45.1	48.6			52.8	58.1	63.4	70.1	78.1	89.3		153.6	430.0	
Nominal dollar GDP growth	4.1	-6.9	7.7			8.7	10.0	9.2	10.5	11.4	14.4	10.7	11.6	10.6	11.0
PV of PPG external debt (in Billions of US dollars)			10.4			10.3	11.4	12.0	12.4	12.8	13.1		19.1	54.7	
(PVt-PVt-1)/GDPt-1 (in percent)						-0.1	2.1	1.0	0.7	0.5	0.3	0.7	1.2	1.5	1.3
Gross workers' remittances (Billions of US dollars)	0.4	0.4	0.4			0.4	0.4	0.4	0.4	0.4	0.5		0.8	2.3	
PV of PPG external debt (in percent of GDP + remittances)	...	...	21.5			19.5	19.7	18.9	17.8	16.4	14.7		12.5	12.8	
PV of PPG external debt (in percent of exports + remittances)	...	...	113.6			79.3	80.8	78.5	75.3	72.1	65.0		55.4	56.5	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	7.5			9.0	8.0	9.8	9.6	9.8	8.8		6.4	5.8	

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/ 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 xx. Tanzania: Public Sector Debt Sustainability Framework, Baseline Scenario, 2015-2038

(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2015	2016	2017	Average 5/	Standard Deviation 5/	2018	2019	2020	2021	2022	2023	2018-23 Average	2028	2038	2024-38 Average
Public sector debt 1/	30.9	31.4	31.1			42.7	40.6	38.3	36.0	33.7	30.2		24.8	23.0	
of which: foreign-currency denominated	30.9	31.4	31.1			28.0	27.4	26.2	24.5	22.6	20.3		16.9	16.8	
Change in public sector debt	4.4	0.5	-0.4			11.6	-2.1	-2.3	-2.3	-2.3	-3.5		-0.6	-0.7	
Identified debt-creating flows	5.5	1.8	-0.4			-0.4	0.1	0.0	-0.4	-0.7	-1.7		0.2	0.6	
Primary deficit	3.0	3.1	1.3	3.1	1.2	1.7	2.0	1.4	1.4	1.3	1.0	1.4	1.6	1.7	1.6
Revenue and grants	14.0	14.8	16.4			17.7	17.9	18.3	18.4	18.4	18.5		19.0	20.0	
of which: grants	1.2	0.5	0.9			0.9	1.1	1.0	0.9	0.8	0.8		0.4	0.2	
Primary (noninterest) expenditure	17.0	17.9	17.7			19.4	19.9	19.7	19.7	19.7	19.4		20.6	21.7	
Automatic debt dynamics	2.5	-1.2	-1.7			-2.1	-1.9	-1.4	-1.8	-1.9	-2.7		-1.4	-1.2	
Contribution from interest rate/growth differential	-2.8	-3.4	-2.4			-2.5	-2.3	-1.9	-2.2	-2.4	-3.5		-1.9	-1.6	
of which: contribution from average real interest rate	-1.1	-1.4	-0.3			-0.5	0.6	1.0	0.6	0.3	-0.9		-0.1	-0.1	
of which: contribution from real GDP growth	-1.7	-2.0	-2.0			-2.0	-2.9	-2.8	-2.8	-2.7	-2.5		-1.8	-1.5	
Contribution from real exchange rate depreciation	5.3	2.2	0.7			0.5	0.5	0.5	0.4	0.4	0.8		...	...	
Denominator = 1+g	1.1	1.1	1.1			1.1	1.1	1.1	1.1	1.1	1.1		1.1	1.1	
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	
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 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	-1.1	-1.3	0.0			12.0	-2.2	-2.3	-1.9	-1.6	-1.8		-0.8	-1.3	
Other Sustainability Indicators															
PV of public sector debt	...	...	21.7			34.4	33.0	31.2	29.4	27.6	24.7		20.5	19.0	
of which: foreign-currency denominated	...	...	21.7			19.7	19.8	19.0	17.9	16.5	14.8		12.6	12.8	
of which: external	...	...	21.7			19.7	19.8	19.0	17.9	16.5	14.8		12.6	12.8	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	3.6	4.1	2.7			6.3	9.9	9.1	8.3	7.6	6.9		5.7	5.2	
in billions of U.S. dollars	1.8	1.9	1.3			3.3	5.8	5.8	5.8	6.0	6.2		8.8	22.4	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	132.0			194.5	183.9	170.7	159.9	150.0	133.8		107.8	95.0	
PV of public sector debt-to-revenue ratio (in percent)	...	...	139.2			204.6	195.5	180.3	168.0	156.7	139.8		109.9	95.8	
of which: external 3/	...	...	139.2			117.1	117.3	110.1	102.3	93.8	83.6		67.3	64.7	
Debt service-to-revenue and grants ratio (in percent) 4/	4.7	7.1	8.7			26.3	23.0	25.2	24.9	22.5	21.1		13.8	11.3	
Debt service-to-revenue ratio (in percent) 4/	5.1	7.4	9.2			27.7	24.4	26.6	26.2	23.5	22.1		14.1	11.4	
Primary deficit that stabilizes the debt-to-GDP ratio	-1.5	2.5	1.7			-10.0	4.1	3.7	3.7	3.6	4.5		2.2	2.5	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	7.0	7.0	7.0	6.6	0.6	7.0	7.2	7.5	7.8	8.1	8.1	7.6	7.8	7.0	7.4
Average nominal interest rate on forex debt (in percent)	1.3	1.6	1.6	1.0	0.4	2.1	3.1	3.5	3.3	3.2	3.1	3.0	3.2	3.4	3.2
Average real interest rate on domestic debt (in percent)	...	...	...	#DIV/0!	#DIV/0!	...	6.4	7.6	7.1	6.7	3.6	6.3	6.4	6.1	6.5
Real exchange rate depreciation (in percent, + indicates depreciation)	22.5	7.8	2.4	6.1	8.1	1.7	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	5.8	6.7	2.7	8.5	3.0	3.9	4.4	3.4	4.4	5.0	8.2	4.9	6.0	5.8	5.7
Growth of real primary spending (deflated by GDP deflator, in percent)	-2.7	12.3	6.1	1.6	4.3	16.8	10.3	6.3	8.0	8.0	6.6	9.3	8.7	7.6	8.2
Grant element of new external borrowing (in percent)	...	...	...	...	...	7.6	8.4	9.0	14.2	11.7	17.5	11.4	16.4	17.5	...

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 xx. Tanzania: Public Sector Debt Sustainability Framework, Baseline Scenario, 2015-2038

(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2015	2016	2017	Average 5/	Standard Deviation 5/	2018	2019	2020	2021	2022	2023	2018-23 Average	2028	2038	2024-38 Average
Public sector debt 1/	30.9	31.4	31.1			42.7	40.6	38.3	36.0	33.7	30.2		24.8	23.0	
of which: foreign-currency denominated	30.9	31.4	31.1			28.0	27.4	26.2	24.5	22.6	20.3		16.9	16.8	
Change in public sector debt	4.4	0.5	-0.4			11.6	-2.1	-2.3	-2.3	-2.3	-3.5		-0.6	-0.7	
Identified debt-creating flows	5.5	1.8	-0.4			-0.4	0.1	0.0	-0.4	-0.7	-1.7		0.2	0.6	
Primary deficit	3.0	3.1	1.3	3.1	1.2	1.7	2.0	1.4	1.4	1.3	1.0	1.4	1.6	1.7	1.6
Revenue and grants	14.0	14.8	16.4			17.7	17.9	18.3	18.4	18.4	18.5		19.0	20.0	
of which: grants	1.2	0.5	0.9			0.9	1.1	1.0	0.9	0.8	0.8		0.4	0.2	
Primary (noninterest) expenditure	17.0	17.9	17.7			19.4	19.9	19.7	19.7	19.7	19.4		20.6	21.7	
Automatic debt dynamics	2.5	-1.2	-1.7			-2.1	-1.9	-1.4	-1.8	-1.9	-2.7		-1.4	-1.2	
Contribution from interest rate/growth differential	-2.8	-3.4	-2.4			-2.5	-2.3	-1.9	-2.2	-2.4	-3.5		-1.9	-1.6	
of which: contribution from average real interest rate	-1.1	-1.4	-0.3			-0.5	0.6	1.0	0.6	0.3	-0.9		-0.1	-0.1	
of which: contribution from real GDP growth	-1.7	-2.0	-2.0			-2.0	-2.9	-2.8	-2.8	-2.7	-2.5		-1.8	-1.5	
Contribution from real exchange rate depreciation	5.3	2.2	0.7			0.5	0.5	0.5	0.4	0.4	0.8		...	...	
Denominator = 1+g	1.1	1.1	1.1			1.1	1.1	1.1	1.1	1.1	1.1		1.1	1.1	
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	
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 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	-1.1	-1.3	0.0			12.0	-2.2	-2.3	-1.9	-1.6	-1.8		-0.8	-1.3	
Other Sustainability Indicators															
PV of public sector debt	...	...	21.7			34.4	33.0	31.2	29.4	27.6	24.7		20.5	19.0	
of which: foreign-currency denominated	...	...	21.7			19.7	19.8	19.0	17.9	16.5	14.8		12.6	12.8	
of which: external	...	...	21.7			19.7	19.8	19.0	17.9	16.5	14.8		12.6	12.8	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	3.6	4.1	2.7			6.3	9.9	9.1	8.3	7.6	6.9		5.7	5.2	
in billions of U.S. dollars	1.8	1.9	1.3			3.3	5.8	5.8	5.8	6.0	6.2		8.8	22.4	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	132.0			194.5	183.9	170.7	159.9	150.0	133.8		107.8	95.0	
PV of public sector debt-to-revenue ratio (in percent)	...	...	139.2			204.6	195.5	180.3	168.0	156.7	139.8		109.9	95.8	
of which: external 3/	...	...	139.2			117.1	117.3	110.1	102.3	93.8	83.6		67.3	64.7	
Debt service-to-revenue and grants ratio (in percent) 4/	4.7	7.1	8.7			26.3	23.0	25.2	24.9	22.5	21.1		13.8	11.3	
Debt service-to-revenue ratio (in percent) 4/	5.1	7.4	9.2			27.7	24.4	26.6	26.2	23.5	22.1		14.1	11.4	
Primary deficit that stabilizes the debt-to-GDP ratio	-1.5	2.5	1.7			-10.0	4.1	3.7	3.7	3.6	4.5		2.2	2.5	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	7.0	7.0	7.0	6.6	0.6	7.0	7.2	7.5	7.8	8.1	8.1	7.6	7.8	7.0	7.4
Average nominal interest rate on forex debt (in percent)	1.3	1.6	1.6	1.0	0.4	2.1	3.1	3.5	3.3	3.2	3.1	3.0	3.2	3.4	3.2
Average real interest rate on domestic debt (in percent)	...	...	...	#DIV/0!	#DIV/0!	...	6.4	7.6	7.1	6.7	3.6	6.3	6.4	6.1	6.5
Real exchange rate depreciation (in percent, + indicates depreciation)	22.5	7.8	2.4	6.1	8.1	1.7	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	5.8	6.7	2.7	8.5	3.0	3.9	4.4	3.4	4.4	5.0	8.2	4.9	6.0	5.8	5.7
Growth of real primary spending (deflated by GDP deflator, in percent)	-2.7	12.3	6.1	1.6	4.3	16.8	10.3	6.3	8.0	8.0	6.6	9.3	8.7	7.6	8.2
Grant element of new external borrowing (in percent)	...	...	...	...	...	7.6	8.4	9.0	14.2	11.7	17.5	11.4	16.4	17.5	...

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.