



**BAUCHI STATE GOVERNMENT OF  
NIGERIA**

**2023**

**STATE DEBT SUSTAINABILITY ANALYSIS  
AND DEBT MANAGEMENT STRATEGY  
(STATE DSA-DMS)  
REPORT**

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## **1. Introduction**

Bauchi State Debt Sustainability Analysis and Debt Management Strategy (S'DSA-DMS) is conducted to ascertain the debt sustainability of the State as well as feasible debt management strategy using the actual historical figures for the period 2018-2022 to formulate trends and patterns in the State's public finances, and also evaluates the debt sustainability in 2023-2032 (the long-term). The analysis highlights recent trends in revenue, expenditure, and public debt, and the related policies adopted by the State in order to evaluate the prospective performance of the State's public finances.

The main objective of the debt strategy is to ensure that the government's financing needs and payment obligations are met at the lowest possible cost, consistent with a prudent degree of risk". Consequently, for the four Debt Management Strategies (DMS), the analysis calculates costs of carrying public debt, and measures risks associated to macroeconomic and fiscal shocks.

The State S-DSA results show that the State maintains a prudent debt position that appears to be sustainable in both the short and the long term. This position is guided by State's review in terms IGR mobilization to introduced tax administration reforms to capture more tax payers into the tax net to improve IGR mobilization as well as its control of recurrent expenditure growth. Given the State's own forecasts for the economy and reasonable assumptions concerning the State's revenue and expenditure policies going forward, the long-term outlook for the public debt appears sustainable

Bauchi State pursues a prudent debt management strategy that maintains an adequate cost of carrying debt and an admissible exposure to risks. A prudent debt management strategy emerges from the State's reliance on a mix of sources of finance, including external concessional loans and domestic low-cost financing. Given the State's own forecasts for the economy and reasonable assumptions concerning the State's budget and financing policies going forward, the medium-term cost-risk profile for the public debt portfolio appears consistent with debt-management objectives".

## **2. Bauchi State Fiscal and Debt Framework**

Bauchi State had been using the annual appropriation/budget through which government policies are translated into tangible results. The four cardinal rigorous processes of formulation, preparation, authorization and implementation over the years had given the State a clear resources

utilization to execute government policies. Similarly, the State is also utilizing the Medium-Term Expenditure Framework In terms of IGR mobilization, the State had relied heavily on successful tax administration to match the appropriated expenditure. With regards Recurrent Expenditure, the State had implemented the Human Resource Management Information System (HRMIS) under the World Bank's Governance and Capacity Building Programme to enroll electronically all personnel both active (serving) and inactive (retired) to administer and maintain personnel cost to block leakages. Overhead cost is also maintained to only costs that are absolutely necessary.

The main feature of the 2023 Budget in terms fiscal outcomes is to guarantee Budget accomplishment and renewed commitment. This is to ensure completion of on-going projects, prepare and capture new projects that will most likely to be implemented as well as maintaining a 43 percent to 57 percent Recurrent to Capital Expenditure ratio. The Budget is prepared based on the Medium-Term Expenditure Framework (MTEF) in compliance with the Bauchi State Fiscal Responsibility Law (2009) and the National Format and Chart of Accounts to improve the quality of financial reporting in line with the International Public-Sector Accounting Standards (IPSAS). The objective and target of the States' 2024 – 2026 MTEF is to ensure fiscal sustainability over the years. Sustainability remains the core requirement of the fiscal policy as the State has the responsibility to ensure that it meets current and future obligations.

<b>Macro-Economic Framework</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
Item	16.10%	13.10%	12.75%	12.30%
National Inflation	3.40%	3.20%	3.30%	3.46%
National Real GDP Growth	1.5000	1.5000	1.6000	1.7000
Oil Production Benchmark (NBPD)	\$62.00	\$70.00	\$66.00	\$62.00
Oil Price Bench Mark	415	435	435	435
NGN:USD Exchange Rate				
Other Assumptions				
Mineral Ratio	16%	22%	25%	25%
<b>Fiscal Framework</b>				
<b>Item</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
<b>Opening Balance</b>	<b>5,381,858,682</b>	<b>7,152,000,211</b>	<b>7,852,455,024</b>	<b>7,933,105,577</b>
<b>Recurrent Revenue</b>				
Statutory Allocation	45,613,660,401	60,432,050,359	70,845,427,570	77,446,953,496
Derivation	-	-	-	-
VAT	29,819,238,425	36,413,018,369	45,210,780,375	56,427,851,305
IGR	24,814,940,253	21,500,000,000	25,800,000,000	30,960,000,000.00
Excess Crude/ Other Revenue	2,909,170,732	1,779,330,946	1,183,183,238	742,676,005
<b>Total Recurrent Revenue</b>	<b>103,157,009,811</b>	<b>120,124,399,674</b>	<b>143,039,391,183</b>	<b>165,577,480,806</b>
<b>Recurrent Expenditure</b>				
Personal Cost	34,814,691,527	37,429,450,377	40,175,038,577	43,169,697,890
Social Contribution and Social Benefit	6,881,832,249	7,033,543,198	7,271,675,232	7,652,401,373
Overheads	29,416,412,722	30,805,917,778	31,417,418,717	32,312,907,820
Grants, Contribution and Subsidies	5,218,219,582	6,781,018,193	9,187,267,015	12,830,456,909
Public Debt Service	23,546,897,587	24,548,769,452	25,478,965,479	27,587,954,685
<b>Total</b>	<b>99,878,053,667</b>	<b>106,598,698,998</b>	<b>113,530,365,020</b>	<b>123,553,418,677</b>
<b>Transfer to Capital Account</b>	<b>8,660,814,826</b>	<b>20,677,700,886</b>	<b>37,361,481,188</b>	<b>49,957,167,706</b>
<b>Capital Receipts</b>				
Grants	15,950,000,000	16,165,000,000	10,915,000,000	10,110,000,000
Other Capital Receipts	5,250,000,000	4,970,000,000	4,080,000,000	4,360,000,000
<b>Total</b>	<b>21,200,000,000</b>	<b>21,135,000,000</b>	<b>14,995,000,000</b>	<b>14,470,000,000</b>
<b>Reserves</b>				
Contingency Reserve	-	-	-	-
Planning Reserve	2,367,197,807	2,833,535,034	3,230,801,308	3,922,203,106
<b>Total Reserves</b>	<b>2,367,197,807</b>	<b>2,833,535,034</b>	<b>3,230,801,308</b>	<b>3,922,203,106</b>
<b>Capital Expenditure</b>	<b>43,206,616,808</b>	<b>53,136,710,828</b>	<b>61,304,574,302</b>	<b>74,400,958,425</b>
Discretionary Funds	2,116,616,808	13,091,710,828	28,574,574,302	40,380,958,425
Non-Discretionary Funds	41,090,000,000	40,045,000,000	32,730,000,000	34,020,000,000
<b>Financing (Loans)</b>	<b>22,865,000,000</b>	<b>22,010,000,000</b>	<b>20,112,000,000</b>	<b>21,950,000,000</b>
<b>Total Revenue (Including Opening Balance)</b>	<b>152,603,868,493</b>	<b>170,421,399,885</b>	<b>185,998,846,207</b>	<b>209,930,586,383</b>
<b>Total Expenditure (Including Contingency Reserve)</b>	<b>145,451,868,282</b>	<b>162,568,944,861</b>	<b>178,065,740,630</b>	<b>201,876,580,208</b>
<b>Closing Balance</b>	<b>7,152,000,211</b>	<b>7,852,455,024</b>	<b>7,933,105,577</b>	<b>8,054,006,175</b>
<b>Ratios</b>				
Growth in Recurrent Revenue	15.88%	16.45%	19.08%	15.76%
Growth in Recurrent Expenditure	47.94%	6.73%	6.50%	8.83%
Capital Expenditure Ratio	31.33%	34.43%	36.24%	38.80%
Deficit (Financing) to Total Expenditure	15.72%	13.54%	11.29%	10.87%
Deficit (Financing) to Total GDP Ratio	N/A	N/A	N/A	N/A

### **3. REVENUE, EXPENDITURE, AND PUBLIC DEBT TRENDS (2018 – 2022)**

#### **3.1 Revenue, Expenditure, Overall and Primary Balance**

Bauchi State's aggregate revenue for the historical period (2018 – 2022) under review revealed a slight increase from N114 Billion in 2018 to N116 Billion in 2019. Thereafter shows a significant decrease to N103 Billion by the year 2020 owing to a sharp decline in federal transfers. Subsequently, the State revenue indicated a significant increase through the remaining historical period from N135 Billion to N154 Billion from 2021 – 2022 respectively. This increase resulted from improved IGR generation and grant received during the years.

The State's Federal Allocation, including transfers from the excess crude account, derivations, VAT allocation, exchange rate gain, augmentation among others slightly declined from N86.74 Billion in 2018 to N65.67 Billion in 2019 also to N63.45 Billion in 2020. The decline is largely attributable to a slide in federal oil receipts due to the lower oil prices and to rebel attacks on oil production facilities as well as the slow phase in financial activities during and after the Coronavirus pandemic. However, the Federal Allocation presents a significant increase by 13.7 percent from year 2020 to 2022 resulting from the growth increased in the financial resources to the real sector of the economy.

Bauchi State's Internally Generated Revenue (IGR) also showed a significant growth by 41 percent during the period under review from N6.53 Billion in 2018 to N25.23 Billion in 2022. The improvement in IGR was mainly because of tax administration reforms implemented. These reforms covered legal, institutional, and operational frameworks. Accordingly, several reform activities were instituted to strengthen the IGR collection. Specifically, as a bedrock for other reforms, new Revenue Administration law was passed, among other things, to consolidate State revenue code covering all state IGR sources. Collections were thereafter enhanced with improvement on all electronic platforms and payment gateways used by the State Internal Revenue Service. The State also expanded its Taxpayer database and developed an electronic taxpayer database system. Revenue sources were expanded to include Introduction of Land Use Charge and all revenue leakages were blocked through automation processes.

Bauchi State real aggregate expenditure grew by 17 percent in 2019, thereafter dropping by 23 percent in 2020; this fluctuation resulted from the suspension of borrowing cost for a year due to the drop in federation transfer. In 2021 aggregate spending increased by 37 percent thereafter; slightly dropping by 1.4 percent in the year 2022; this is based on the huge positive growth registered for capital projects.

The period under review showed expenditure variations in terms of overhead cost and other recurrent expenditure in favour of capital expenditure. The State cut down these cost to accommodate cost that are absolutely necessary which is guided by the formulation of a more realistic annual budget and medium term expenditure frame work for the period under review.

Chart 1: Revenue

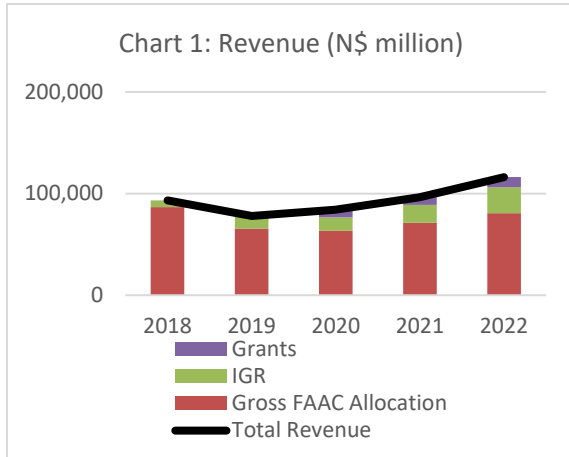


Chart 2: Expenditure

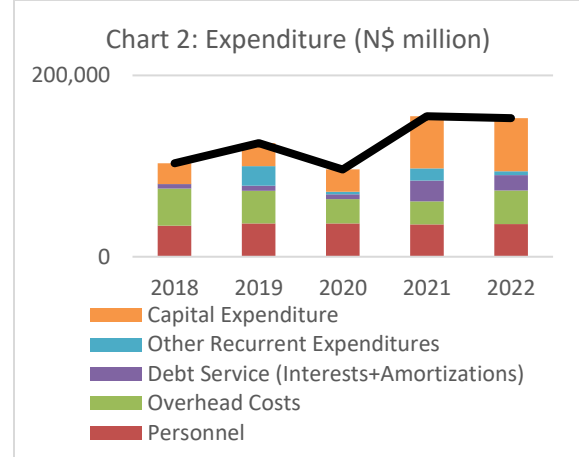


Chart 11: Fiscal Outturn

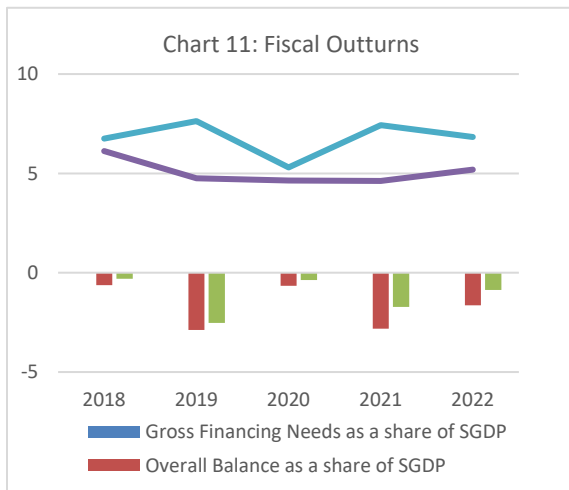


Chart 4: Principal Repayment

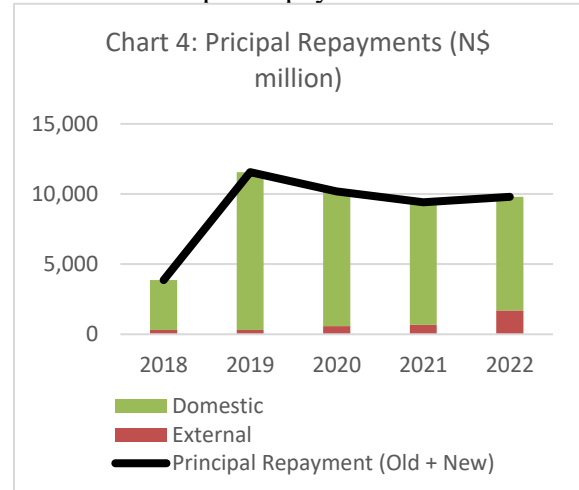


Chart 5: Interest Payment

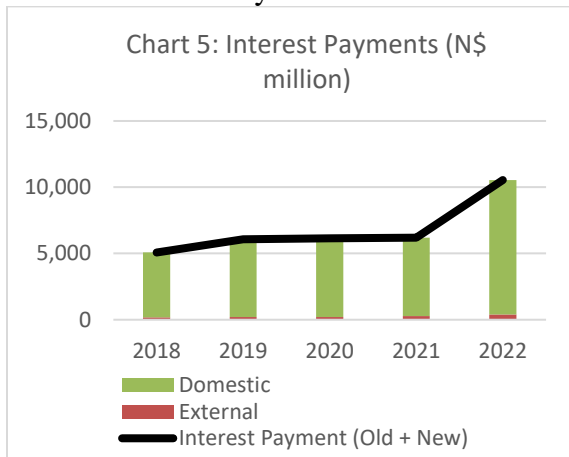
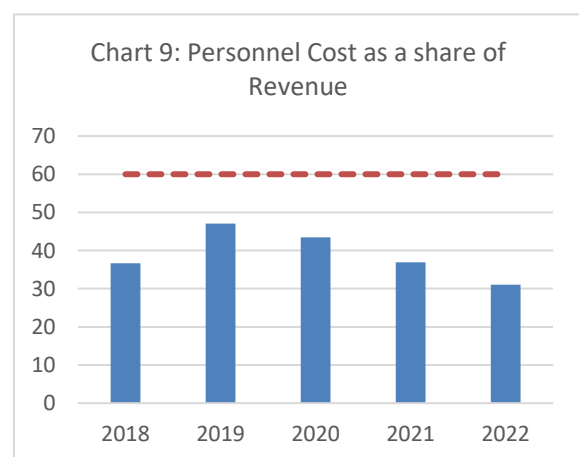


Chart 9: Personnel Cost



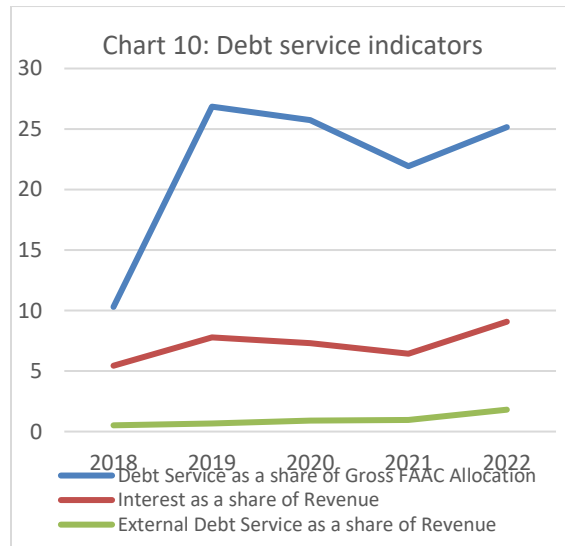
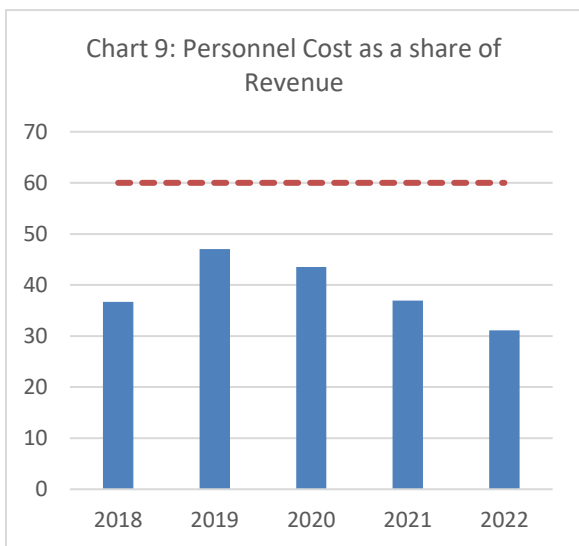
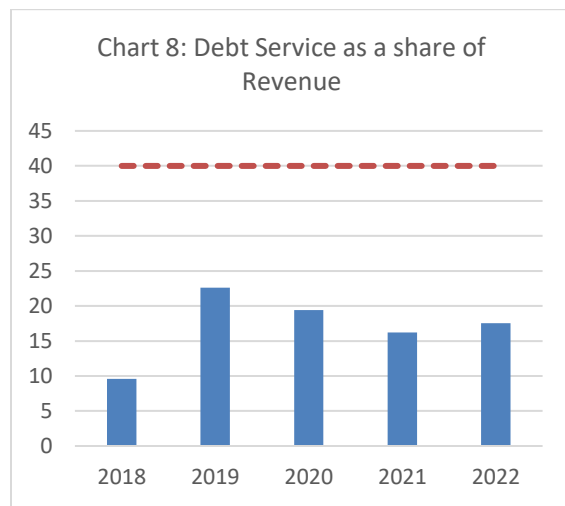
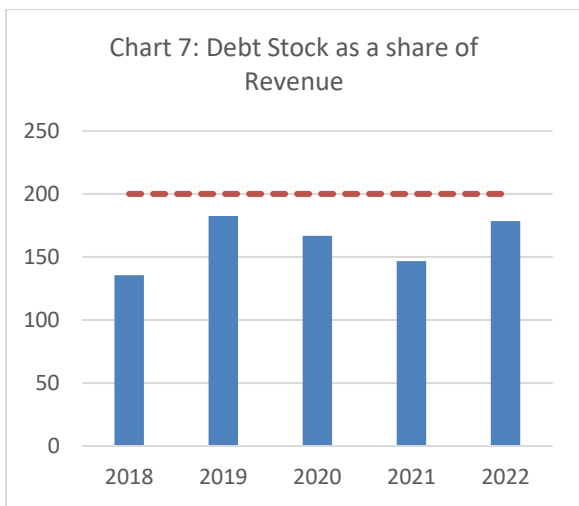
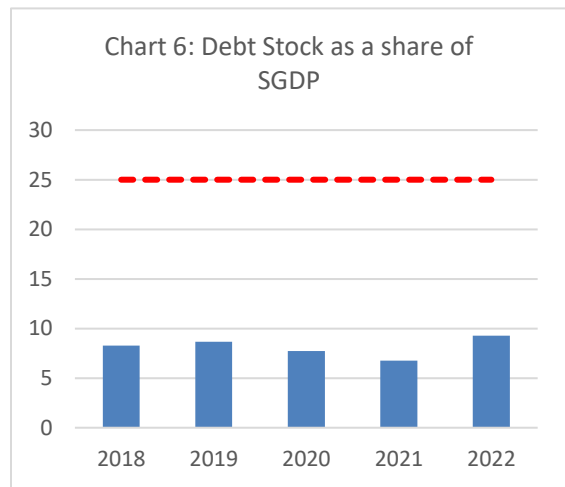
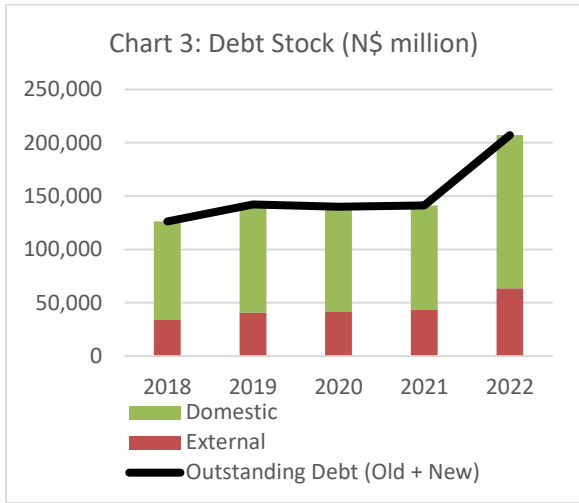
### **3.2 Existing Public Debt Portfolio**

Public debt includes the explicit financial commitments – like loans and securities – that have paper contracts instrumenting the government promises to repay. The State public debt showed a significant increase through the review period from N126 Billion in 2018 to N142 Billion in 2019. Though, slightly dropping to N140 Billion in 2020, thereafter presents a continuous increase for the remaining years to N141 and N207 Billion for 2021 and 2022 respectively.

The State's debt portfolio largely consists of External loans, domestic loans and arrears. The composition of the State existing public debt portfolio as at end 2022 as a share of total debt stands at 34.11 percent for External debt mainly from WB & AfDB, whereas; Domestic debt share stands at 48.53 percent which includes but not limited to Budget Support Facility, Salary Bailout Facility, Bond (FGN & State), Excess Crude Account Backed Loan, Commercial Banks Loan, Commercial Agriculture Loan and Infrastructure Loan; whereas, 17.36 percent remained the portion for arrears comprising of pension and gratuity, contractors and judgment debts among others .

Bauchi State is treading carefully with regards to its debt limit and borrowing needs. The debt portfolio carried an average, implicit interest rate of 12 percent in 2019-2022 and the interest payments represented just 11 percent of total expenditure. In addition, the State debt portfolio is exposed to currency, interest rate, and rollover risks. The State debt continues to increase with increase in External loan owing to interest rate and exchange rate risk exposure. The State External loan is at USD 133.93 at N306/1 USB which translates to NGN 41.38 Billion in 2018 to USD 165.78 at NGN 448.55 equivalent to NGN 74.36 Billion despite all the repayments made within the historical period. 73 percent of the domestic loans are CBN intervention loans, 18 percent represents Bond (FGN & State) which all have fixed-rate obligations, thus not affected by changes in interest rates as these loans have maturities running from 10 years and above. Only 9 percent of the State debt portfolio being commercial bank loan might be associated with potential deterioration of domestic financial conditions, thus, is negligible.





#### 4. Debt Sustainability Analysis

“The concept of debt sustainability refers to the ability of the government to honor its future financial obligations. Since policies and institutions governing spending and taxation largely determine such obligations, debt sustainability ultimately refers to the ability of the government to maintain sound fiscal policies over time without having to introduce major budgetary or debt adjustments in the future. Conversely, fiscal policies are deemed unsustainable when they lead to excessive accumulation of public debt, which could eventually cause the government to take action to address the unwanted consequences of a heavy debt burden” Government therefore should endeavor to strike a balance between revenue and expenditure, so that any debt incurred will not impact negatively on the State, leading to serious financial crisis.

Source: DMO/SFTAS Presentation

The ratio analysis computed based on the debt burden and performance indicators indicates that Bauchi State is way below the thresholds in terms of debt burden with indicative thresholds. This means that the State remain sustainable within the historical period as well as the projection period. Specifically, the ratio of debt as a percentage of the State GDP indicates an average of 8 percent, debt as a percentage of revenue indicates an average of 162 percent, debt service as a percentage of revenue indicates an average of 17 percent, while personnel cost as a percentage of revenue indicates an average of 39 percent through the historical period for debt burdens with indicative threshold. The following table presents the debt burden and performance indicators

Debt Burden	Indicative Threshold	2018	2019	2020	2021	2022
Debt as % of SGDP	<b>25</b>	8	9	8	7	9
Debt as % of Revenue	<b>200</b>	135	183	167	147	178
Debt Service as % of Revenue	<b>40</b>	10	23	19	16	18
Personnel Cost as % of Revenue	<b>60</b>	37	47	43	37	31
Debt Service as a share of Gross FAAC Allocation	<b>NA</b>	10	27	26	22	25
Interest as a share of Revenue	<b>NA</b>	5	8	7	6	9
External Debt Service as a share of Revenue	<b>NA</b>	1	1	1	1	2

#### 4.1 Medium-Term Budget Forecast

The State’s medium-term debt sustainability is predicated upon a gradual recovery of the Nigerian economy that will increase FAAC statutory allocation. According to the Federal Government and State’s own forecasts, the Nigerian economy is expected to gradually recover in the period 2023-2024, with real GDP expanding at an average annual rate of 3 percent and

domestic inflation decreasing below 10 percent by 2023. Such a moderate recovery will be supported by higher oil prices in global markets, an increase in domestic production, prudent fiscal policy, and the stabilization of the exchange rate relevant for international public-sector financial transactions at its current level. Oil and gas revenue, as well as shared resources such as custom duties and VAT, would then increase relative to the depressed levels observed in 2022, thus improving the State’s revenue position.

Bauchi State has adopted a “centralized IGR collection” using an “E-Bills Pay” platform used by the entire Banks network to drive the State IGR and “UPAY Portal” for the purpose of centrally processing of the State workers’ salaries with an integrated biometric data system. This is to support the continuation of recent efforts to mobilize local revenue sources, and unchanged policies concerning personnel and other operating expenses. At local level, the tax administration reforms adopted by the State Government to strengthen resources provided by IGR, are expected to continue in the next few years and will benefit from the overall economic recovery. On the other hand, no new policies are anticipated with regard to personnel and overhead costs, which are thus likely to preserve their historical trends

#### **4.2 Borrowing Options**

The State government intends to finance its new borrowing from 2023 to 2032 mainly through Other Domestic financing - Government to Government Facilities such as **CBN Development Finance loans** which runs at single digit interest rate with an average of 44.39 percent and Commercial Bank Loans (maturity 1-5 years) on quick win projects viz-a-viz the level of risk involved (political) estimated at 8.67 percent; whereas, projects with relative huge amount of money will the use of Commercial Bank Loans (maturity 6 year above) estimated at 13.24 percent; as well as the State Bonds (maturity 6 years above) also estimated at 10.33 percent. For External financing – Concessional financing the State will rely on the support of the Federal Government to make such funds available on on-lending required from Multilateral and other External financing that have minimal or no exchange rate risk.

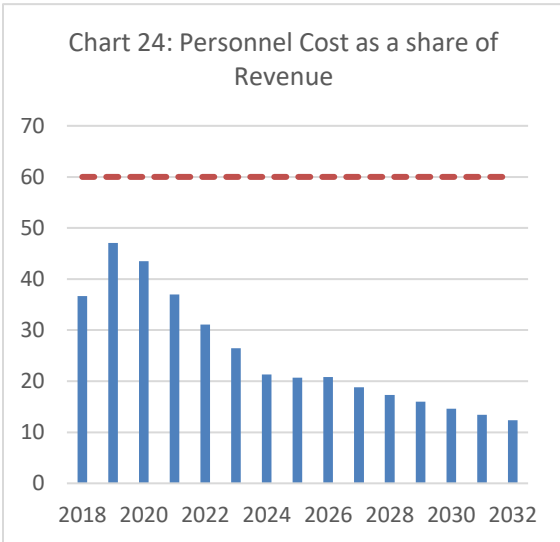
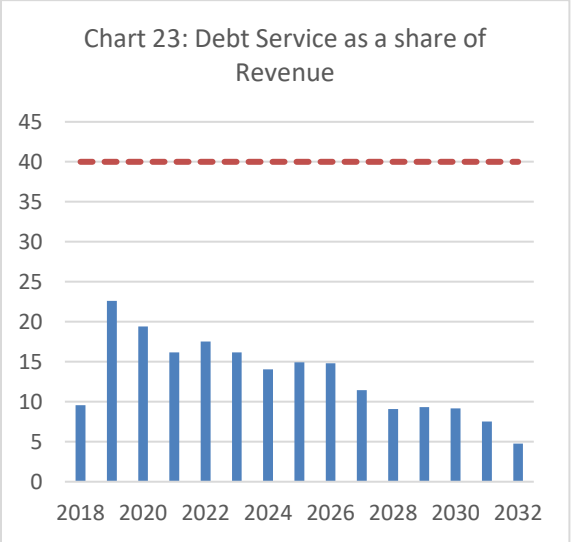
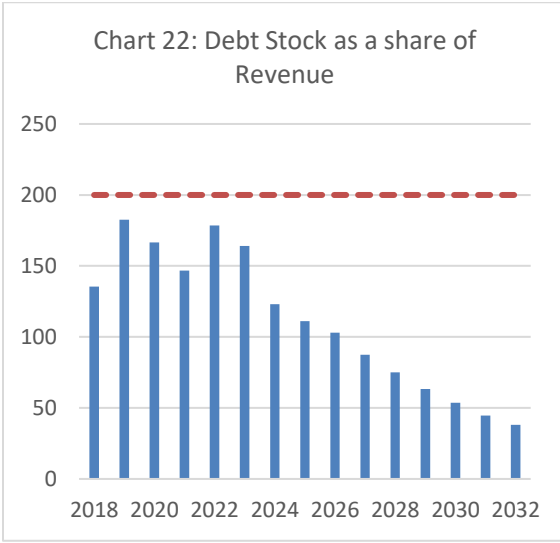
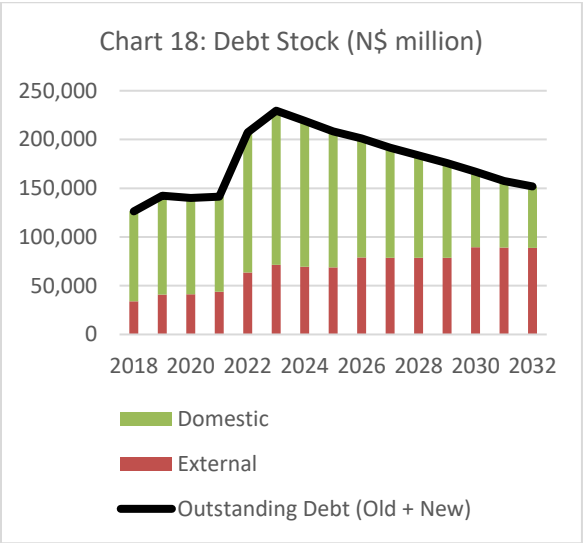
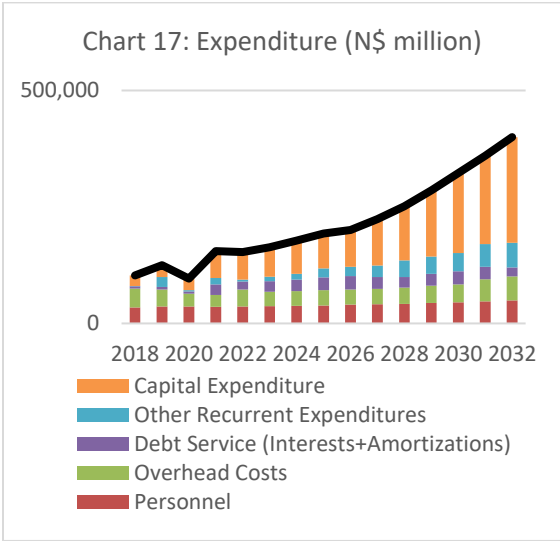
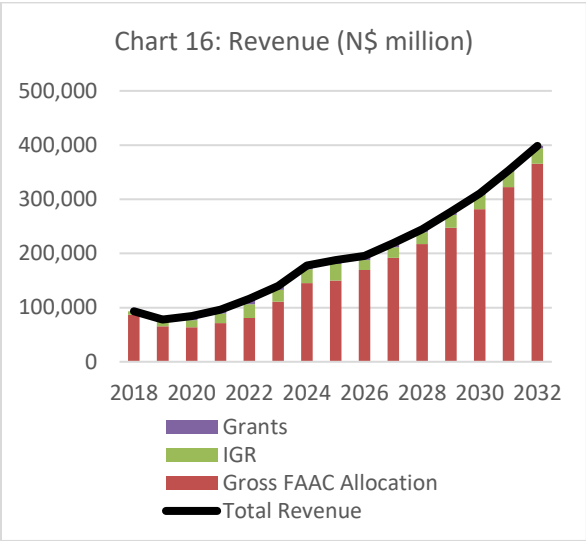
The following table presents the proposed financing terms for the borrowing options:

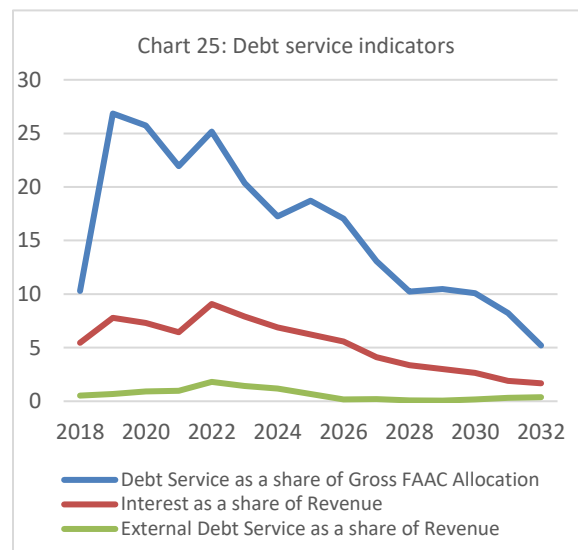
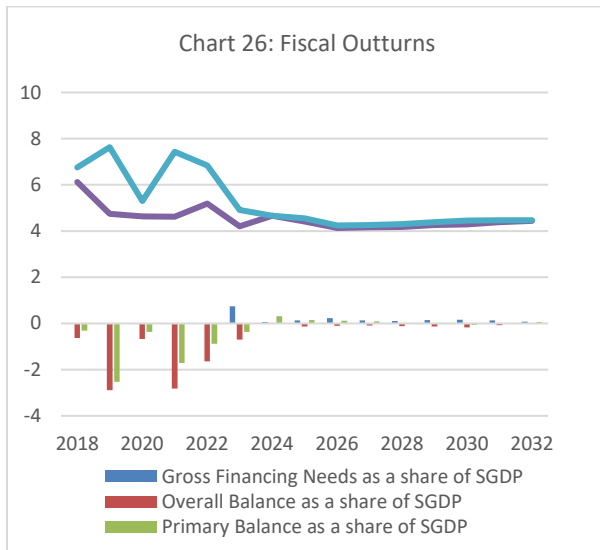
<b>Borrowing Terms for New Domestic Debt (issued/contracted from 2023 onwards)</b>	<b>Interest Rate (%)</b>	<b>Maturity (# of years)</b>	<b>Grace (# of years)</b>
Commercial Bank Loans (maturity 1 to 5 years, including Agric Loans, Infrastructure Loans, and MSMEDF)	21.00%	3	0
Commercial Bank Loans (maturity 6 years or longer, including Agric Loans, Infrastructure Loans, and MSMEDF)	20.00%	5	0
State Bonds (maturity 1 to 5 years)	16.50%	5	0
State Bonds (maturity 6 years or longer)	16.50%	7	0
Other Domestic Financing	9.00%	10	1
<b>Borrowing Terms for New External Debt (issued/contracted from 2023 onwards)</b>	<b>Interest Rate (%)</b>	<b>Maturity (# of years)</b>	<b>Grace (# of years)</b>
External Financing - Concessional Loans (e.g., World Bank, African Development Bank)	1.50%	30	3
External Financing - Bilateral Loans	5.00%	10	3
Other External Financing	5.00%	10	3

### 4.3 DSA Simulation Results

Bauchi State Total Revenue (including grants and excluding other capital receipts) is projected to increase from N139.84 Billion in 2023 to N398.48 Billion in 2032, representing an increase of N258.64 Billion or 184.96 percent over the projection period (Chart 16). Total expenditure is expected to expand from N163.15 Billion in 2023 to N399.92 Billion in 2032 also representing an increase by N236.77 Billion or 145.12 percent (Chart 17). Therefore, the fiscal deficit –computed as the difference between revenue and expenditure is expected to remain within a range of (N839.18) Billion and N5,555.05 Billion in nominal terms, compared to the 2022 deficit of N1,327.29 Billion.

Debt is projected to decline from N24,398.1 Billion as at end-2023 to N6,694.5 Billion by 2032. 73 percent of the State debt are FGN/CBN intervention facilities with a single digit interest rate and have longer maturity period (10 years and above). The State’s repayment capacity will continue to improve as the debt position decrease with the maturity of some of the facilities during the projection period: it is expected to increase from 164 percent of the Revenue in 2023 to 38 percent by 2032. As the fiscal deficit stabilizes in nominal terms over the next few years, and the public debt ratio improves indicating that all the ratios are currently way below the thresholds including Debt service and personnel cost as a share of revenue, the analysis of the Baseline Scenario under the reference debt strategy (S1) suggests the State will be able to preserve the sustainability of its debt in the medium-term to long term.





#### 4.4 DSA Sensitivity Analysis

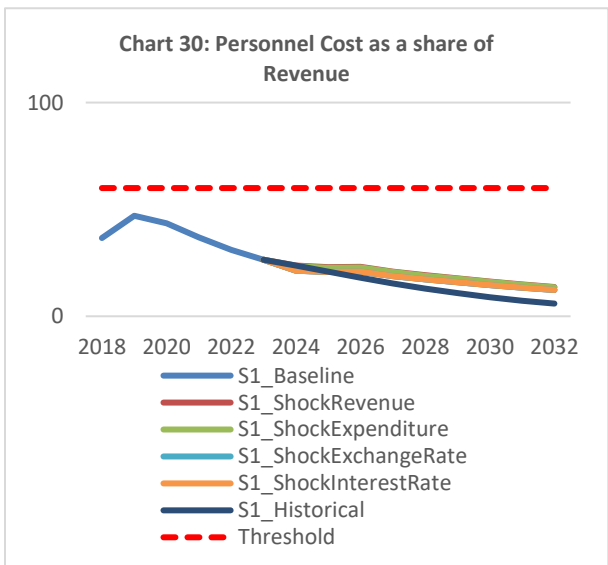
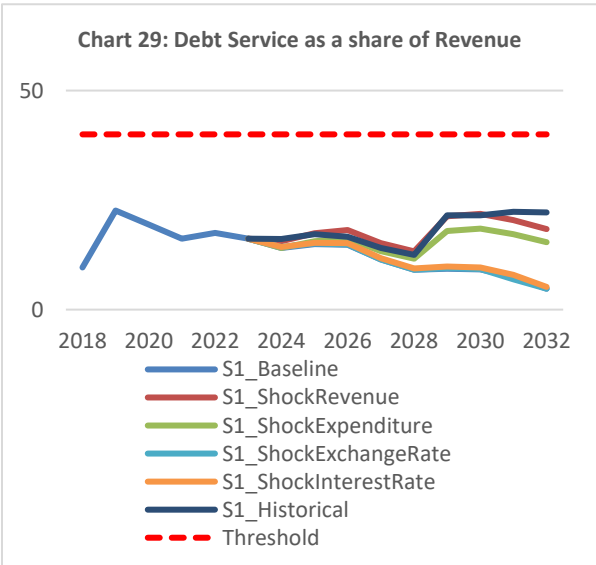
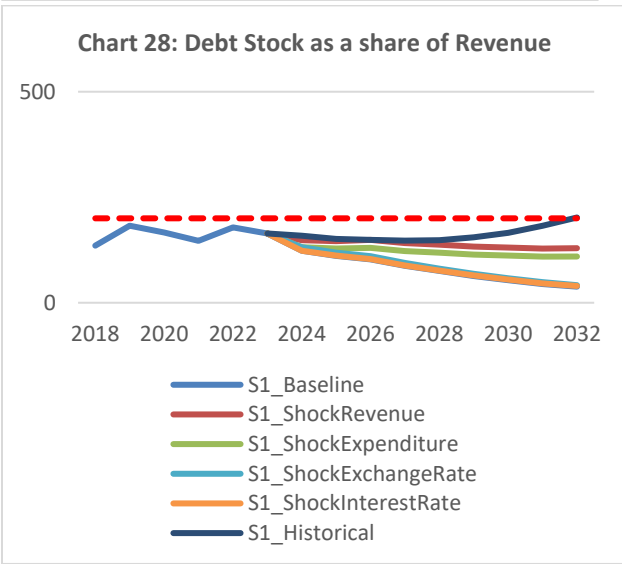
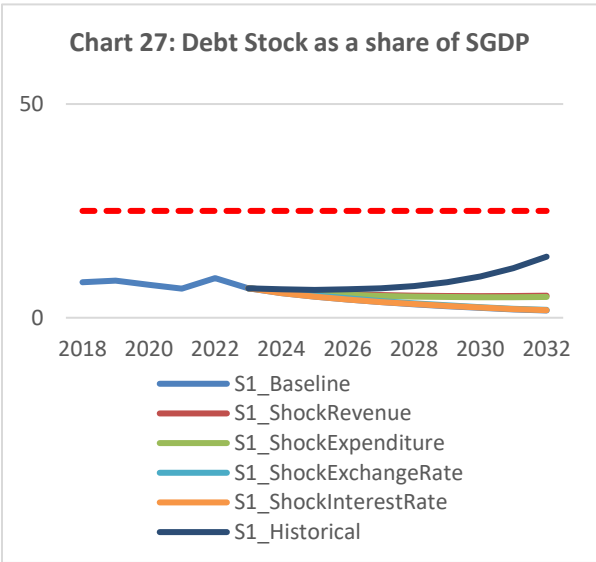
The State faces important sources of fiscal risks associated to the possibility of adverse country wide macroeconomic conditions and the reversal of the State’s revenue and expenditure policies. A sensitivity analysis is undertaken considering macroeconomic shocks and policy shocks to evaluate the robustness of the sustainability assessment for the baseline scenarios discussed in the previous sub-sections. When considering both macroeconomic and policy shocks, it is assumed that external and domestic borrowings cover any revenue shortfall and additional expenditure relative to the baseline scenario discussed earlier

The State’s debt sustainability is expected to moderately deteriorate if the revenue / historical shocks were to materialize under the reference debt strategy (S1), mainly as a consequence of a diminished repayment capacity. The public debt ratio in terms of debt stock as a share of revenue will slightly decline—mainly as a consequence of the revenue shortfall—and reach 149 percent of Total Revenue by 2026. Based on the historical shock, the public debt ratio grows up to unsustainable levels towards the end of the projected period which implies a moderate worsening of the State’s public debt position and a build-up of fiscal vulnerability in the long term.

The State’s debt sustainability would slightly decline if the exchange rate, interest rate, and expenditure shocks materialize under the reference debt strategy (S1), mainly as a consequence of a diminished repayment capacity. The projected fiscal deficits decrease systematically from N24 Billion by 2023 going forward.

The 2023 DSA analysis shows that Bauchi State remains at low risk of debt distress under sensitivity analysis. The State DSA analysis shows deterioration related to revenue shocks and

historical shocks that would lead to increase Gross Financing most likely at the end of the projection period. The shocks apply breached the threshold under debt as percent of Revenue in the year 2032 under the projection period. There is the need for the authorities to further diversify the sources of revenue away from crude oil (FAAC), as well as implement far reaching policies that will augment IGR into the state. This has become critical, given the continued volatility in the FAAC allocation





## **5. Debt Management Strategy**

“Public debt management is the process of establishing and executing a strategy for managing the government’s debt in order to raise the required amount of funding at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk”, Debt Management Strategy examines the costs and risks inherent in the current debt portfolio, as well as in the debt portfolios that would arise from a range of possible issuance strategies, considering factors such as the macroeconomic and financial market environment, the availability of financing from different creditors and markets, and vulnerabilities that may have an impact on future borrowing requirements and debt service costs.

The Debt Management Strategy provides alternative strategies to meet the financing requirements for Bauchi State. The strategies are shown by the breakdown of funding mix (domestic debt and external debt) and within the broad categories of domestic and external, the share of each stylized instrument has also been illustrated. Following four strategies are assessed by the government. The Bauchi’s Debt Management Strategy, 2022-2026, analyses the debt management strategies outcomes of the three debt management performance indicators namely Debt Stock to Revenue, Debt Services to Revenue and Interest to Revenue. The cost is measured by the expected value of a performance indicator in 2027, as projected in the baseline scenario. Risk is measured by the deviation from the expected value in 2027 caused by an un-expected shock, as projected in the most adverse scenario.

### **5.1 Alternative Borrowing Options**

The alternative borrowing options for the State is based on the premise that DMS S1 represents the status quo and the distribution is based on the State’s current debt portfolio and the capacity to repay. DMS S1 is premeditated on a heavy reliance on domestic borrowing in the ratio 80% as against 20% through external concessional loans. DMS S2 focuses more on financing through Domestic borrowings to External Concessional Loans in the ratio of 60% to 40%. DMS S3 focus on fifty percent equal distribution of the borrowing need between the external concessional borrowings and domestic borrowing; whereas, DMS S4, is a mirror reflection of strategy 2 (S2) in which the ratio of 60 percent to 40 percent is maintained for External Concessional loans to Domestic loans designed towards maintaining the ratio of an efficient portfolio of 60% to 40% ratio for external and domestic debt respectively. The need to borrow from external sources is highly driven by the concessional nature of the loan, longer maturity period, reasonable moratorium period, and flexible repayment terms. However, it is considered

more safer to borrow from domestic sources to mitigate certain risks (currency, interest rate and rollover), to develop domestic debt markets, to fund specific expenses (such as capital investments), to secure liquid assets for cash management.

For borrowings above seven billion, Bond issuance for a tenor above six years is highly considered. While borrowings below five billion naira the option of Commercial Bank loan is considered to be convenient; however, for borrowings above ten billion, other financing options in this case Government intervention facilities is considered most Convenience. However, all these factors are considered heavily as political risk as perceived by most financial institutions. Commercial Banks are always skeptical to fill in financing gap beyond the tenor of the existing administration, thus, most of the financing instruments are a short tenured.

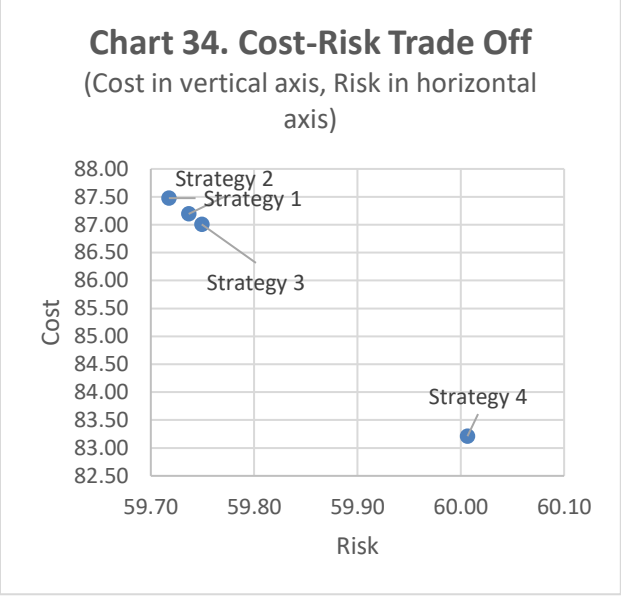
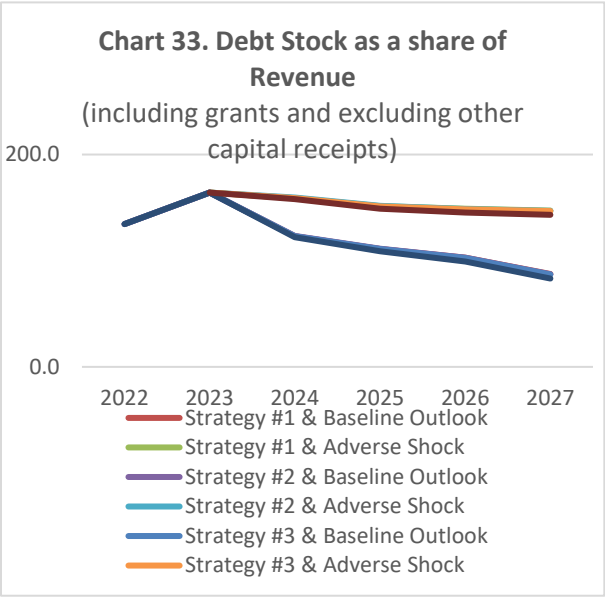
## **5.2 DMS Simulation of Results**

This section presents the result of the analysis in relation to the three debt-management performance indicators under the different debt strategies, the analysis of cost and risk for each alternative DMS in comparison to the reference debt strategy S1 through the projections to show the key findings and trade-offs of each debt strategy in terms of cost and risks.

### **5.2.1 Debt/Revenue**

This DMS ratio for the period 2022 to 2026 presents a close result for DMS S2, S3 when compared with the reference Strategy S1. On the other hand there is a significant difference between DMS S4 when compared to S1. The analysis established that the Cost ratio of Debt to Revenue estimated at S1- 87.5, S2- 87.2, S3- 87.0 and S4- 83.2; whereas the associated risk for S1, S2, and S3 stood at 59.7 with S4 having 60.0

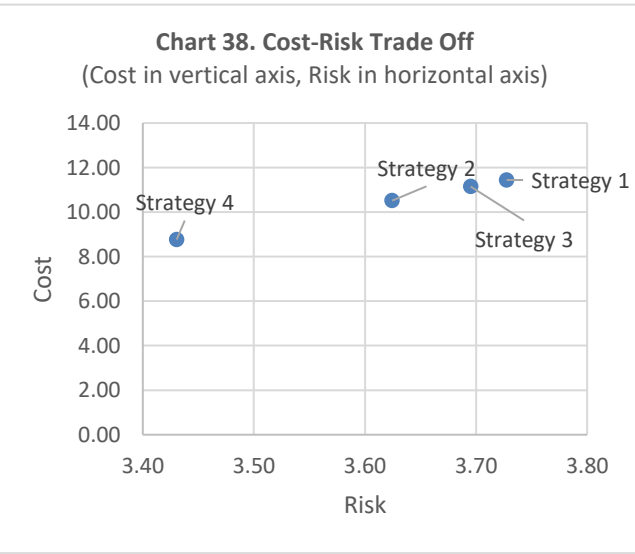
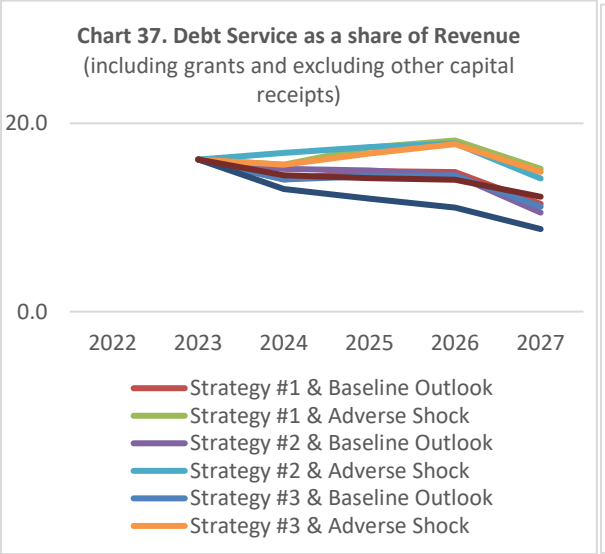
➤ Analysis using this debt indicator of debt to revenue shows that S4 is the least costly estimated at 83.2 percent when compared to S1- 87.5 percent, S2- 87.2 percent, and S3- 87.0 percent respectively. On the other hand, the analysis indicated that S4 is the most riskier with an estimated figure of 60.0 percent when compared to other DMS estimated at 59.7 for S1, S2 and S3 respectively.



**5.2.2 Debt Service/Revenue**

With regards Debt Service to Revenue, the cost ratio is estimated at 11.4 percent for S1, 10.5 percent for S2, 11.1 percent for S3 and 8.8 percent for S3 respectively; coupled with associated risk estimated at 3.7 percent for S1, 3.6 percent for S2, 3.7 percent for S3 and 3.4 percent for S4.

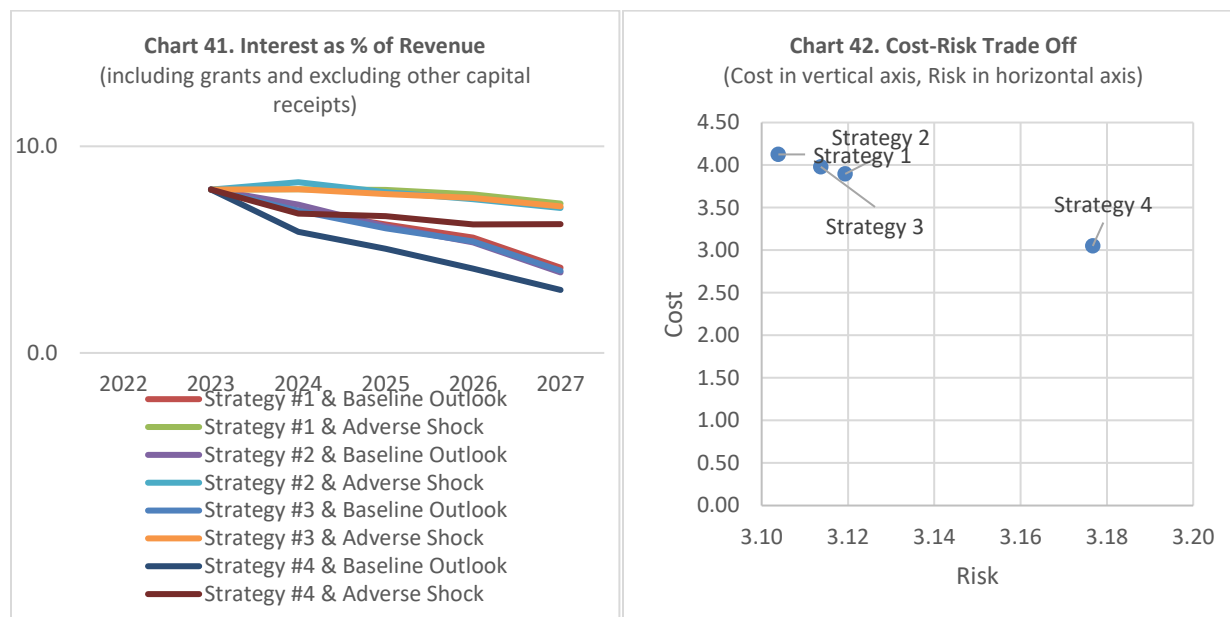
➤ Analysis using this debt indicator of debt service to revenue shows that S4 is the least costly and riskier which was estimated at 8.8 percent and 3.4 percent level of risk when compared to S1 (11.4 percent and 3.7 percent), S2 (10.5 percent and 3.6 percent), S3 (11.1 percent and 3.7 percent) respectively.



### 5.2.3 Interest Rate/Revenue

Similarly, with regards the Cost ratio of Interest Rate to Revenue, S1 figure stood at 4.1 percent, 3.9 percent for S2, 4.0 percent for S3 and 3.0 percent for S4. The associated risk for S4 is estimated at 3.2 percent, while 3.1 percent for S1, S2 and S3 respectively.

➤ Analysis using this debt indicator of Interest rate to revenue shows that S4 is the least costly estimated at 3.0 percent when compared to S1-4.1, 4.9 for S2, and 4.0 for S3. However, S4 appeared to be most riskier with 3.2 percent as against 3.1 percent for S1, S2 and S3 respectively.



### 5.2.4 DMS Assessment

The preferred strategy was not solely based on the Analytical Tool assessment of all four strategies but took into consideration the ability to implement the chosen strategy successfully in the medium-term. Therefore, although the Analytical Tool’s results of costs and risks would suggest that the recommended strategy be S4 these results were just marginally better when compared with Strategy S2. Strategy 2 would be considered as the most feasible of the strategies to implement in the short to medium-term and it would still greatly improve the portfolio’s debt position relative to the base year 2022. DMS S2 followed S4 in terms of least cost and least risk when compared to S1 and S3 in relations to Debt Service to Revenue and Interest Rate to Revenue but marginally costlier than S3 in relations to Debt Stock to Revenue (S2= 87.2, & S3= 87.0).

The Debt Management Strategy, 2022-2026 represents a robust framework for prudent debt management, as it provides a systematic approach to decision making on the appropriate

composition of external and domestic borrowing to finance the 2023 budget. The cost-risk trade-off of alternative borrowing strategies under the DMS has been evaluated within the medium-term context. In comparison to the current debt position, Bauchi State debt portfolio stood at N207.21 billion as at end-2022, which is expected to decrease to N200.98 billion by end of 2026 under the reference Strategy S1. The State N15 Billion Bond issued in 2014 is due to mature by 2026, though other financial instruments may be raised by the State as proposed through the reference strategy S1, but will be clearly based on extant laws and guided by continued DSA to determine the State capacity to repay without distress thereby achieving a sound debt management objectives and debt sustainability.

## **Annexure I: Table of Assumption**

		Projection Methodology	Source
<b>Assumptions:</b>			
<b>Economic activity</b>	State GDP (at current prices)	Bauchi State GDP Figures for the projection period is been provided at the National level by DMO, Abuja.	Debt Management Office, Abuja
<b>Revenue</b>	<b>Revenue</b>		
	1. Gross Statutory Allocation ('gross' means with no deductions; do not include VAT Allocation here)	<p>The estimation for statutory allocation is based on an elasticity forecast taking into consideration the macro-economic framework (National) and the mineral assumptions as contained in the 2023-2025 State MTEF Figures was used for 2024 to 2026 figures; Whereas the figures provided by DMO in the Control page of the DSA Template was adopted for the remaining projection period</p> <p>The estimation for VAT is based on an elasticity forecast as well as the collection trend in the historical period for 2024 to 2026 figures; Whereas the figures provided by DMO in the Control page of the DSA Template was adopted for the remaining projection period</p> <p>The States IGR is anticipated to rise by 20% every year from 2020 to stabilize by 2023. The 5-year moving average without outlier's growth which is consistent with the projected IGR annual growth rate of 10% is used to forecast IGR for 2024 – 2026</p> <p>The internal grants are based on the actual receipts for 2018, 2020 and 2021. External grants are based on signed grant agreements with the development partners.</p> <p>Based on actual privatization receipts from the historical period</p>	Office of the Accountant General and Ministry of Finance
	1.a. of which Net Statutory Allocation ('net' means of deductions)		Office of the Accountant General and Ministry of Finance
	1.b. of which Deductions		Office of the Accountant General and Ministry of Finance
	2. Derivation (if applicable to the State)		
	3. Other FAAC transfers (exchange rate gain, augmentation, others)		Office of the Accountant General and Ministry of Finance
	4. VAT Allocation		Bauchi Internal Revenue Service and Office of the Accountant General
	5. IGR		Bauchi Internal Revenue Service and Office of the Accountant General
	6. Capital Receipts		Office of the Accountant General
	6.a. Grants		Office of the Accountant General and Ministry of Finance
	6.b. Sales of Government Assets and Privatization Proceeds		Ministry of Finance
	6.c. Other Non-Debt Creating Capital Receipts	Office of the Accountant General	
<b>Expenditure</b>	<b>Expenditure</b>		
	1. Personnel costs (Salaries, Pensions, Civil Servant Social Benefits, other)	This cost is anticipated to stabilize from 2019 going forward owing to the fact the State is continually blocking leakages on ghost workers and currently there is an embargo on new employment. Thus, with	Office of the Accountant General and Ministry of Finance

		<p>increase revenue, the clearing of the pension and gratuity areas; the personnel cost will drastically decrease.</p> <p>Overhead has been relatively stable over the last five years. It is anticipated that the status quo will remain. Consequently, a 5-year moving average without outliers is used to forecast overhead for the projected period</p>	Office of the Accountant General and Ministry of Finance
	2. Overhead costs		
	3. Interest Payments (Public Debt Charges, including interests deducted from FAAC Allocation)	is based on the projected principal and interest repayment for flow debts	Office of the Accountant General and Debt Management Agency
	4. Other Recurrent Expenditure (Excluding Personnel Costs, Overhead Costs and Interest Payments)		Office of the Accountant General and Ministry of Finance
	5. Capital Expenditure	This cost is projected to grow to reflect the Gross Statutory figures provided by the DMO, it is a State policy that more of its revenue be used for capital project. Thus; it is expected that as revenue increases, the State will execute more capital project	Office of the Accountant General and Ministry of Finance
<b>Closing Cash and Bank Balance</b>	<b>Closing Cash and Bank Balance</b>		Office of the Accountant General
<b>Debt Amortization and Interest Payments</b>	<b>Debt Outstanding at end-2022</b>		
	External Debt - amortization and interest	This is based on figures provided by the DMO	DMO, Abuja
	Domestic Debt - amortization and interest	This is based on the amortization generated by the Debt Management Agency and in some cases provided by the Bank	Debt Management Agency Bauchi
	<b>New debt issued/contracted from 2023 onwards</b>		
	<b>New External Financing</b>		
	External Financing - Concessional Loans (e.g., World Bank, African Development Bank)	This is based on figures provided by the DMO	DMO, Abuja
	External Financing - Bilateral Loans	This is based on figures provided by the DMO	DMO, Abuja
	Other External Financing	This is based on figures provided by the DMO	DMO, Abuja
	<b>New Domestic Financing</b>		
	Commercial Bank Loans (maturity 1 to 5 years, including Agric Loans, Infrastructure Loans, and MSMEDF)	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
	Commercial Bank Loans (maturity 6 years or longer, including Agric Loans, Infrastructure Loans, and MSMEDF)	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi

	State Bonds (maturity 1 to 5 years)	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
	State Bonds (maturity 6 years or longer)	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
	Other Domestic Financing	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi

**Proceeds from Debt-Creating Borrowings corresponding to Debt Strategy S1**

**Planned Borrowings (new bonds, new loans, etc.) for Debt Strategy S1**

**New Domestic Financing in Million Naira**

Commercial Bank Loans (maturity 1 to 5 years, including Agric Loans, Infrastructure Loans, and MSMEDF)	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
Commercial Bank Loans (maturity 6 years or longer, including Agric Loans, Infrastructure Loans, and MSMEDF)	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
State Bonds (maturity 1 to 5 years)	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
State Bonds (maturity 6 years or longer)	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
Other Domestic Financing	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi



	<b>New External Financing in Million US Dollar</b>		
	External Financing - Concessional Loans (e.g., World Bank, African Development Bank)	The State will Continue to access new external loans through onlending from the Federal Government	DMO, Abuja
	External Financing - Bilateral Loans	The State will Continue to access new external loans through onlending from the Federal Government	DMO, Abuja
	Other External Financing	The State will Continue to access new external loans through onlending from the Federal Government	DMO, Abuja
<b>Proceeds from Debt-Creating Borrowings corresponding to Debt Strategy S2</b>	<b>Planned Borrowings (new bonds, new loans, etc.) for Debt Strategy S2</b>		
	<b>New Domestic Financing in Million Naira</b>		
	Commercial Bank Loans (maturity 1 to 5 years, including Agric Loans, Infrastructure Loans, and MSMEDF)	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
	Commercial Bank Loans (maturity 6 years or longer, including Agric Loans, Infrastructure Loans, and MSMEDF)	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
	State Bonds (maturity 1 to 5 years)	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
	State Bonds (maturity 6 years or longer)	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
	Other Domestic Financing	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
	<b>New External Financing in Million US Dollar</b>		
	External Financing - Concessional Loans (e.g., World Bank, African Development Bank)	The State will Continue to access new external loans through onlending from the Federal Government	DMO, Abuja
	External Financing - Bilateral Loans	The State will Continue to access new external loans through onlending from the Federal Government	DMO, Abuja
Other External Financing	The State will Continue to access new external loans through onlending from the Federal Government	DMO, Abuja	

**Proceeds from Debt-Creating Borrowings corresponding to Debt Strategy S3**

**Planned Borrowings (new bonds, new loans, etc.) for Debt Strategy S3**

**New Domestic Financing in Million Naira**

Commercial Bank Loans (maturity 1 to 5 years, including Agric Loans, Infrastructure Loans, and MSMEDF)

For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c

Debt Management Agency Bauchi

Commercial Bank Loans (maturity 6 years or longer, including Agric Loans, Infrastructure Loans, and MSMEDF)

For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c

Debt Management Agency Bauchi

State Bonds (maturity 1 to 5 years)

For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c

Debt Management Agency Bauchi

State Bonds (maturity 6 years or longer)

For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c

Debt Management Agency Bauchi

Other Domestic Financing

For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c

Debt Management Agency Bauchi

**New External Financing in Million US Dollar**

External Financing -

Concessional Loans (e.g., World Bank, African Development Bank)

The State will Continue to access new external loans through onlending from the Federal Government

DMO, Abuja

External Financing - Bilateral Loans

The State will Continue to access new external loans through onlending from the Federal Government

DMO, Abuja

Other External Financing

The State will Continue to access new external loans through onlending from the Federal Government

DMO, Abuja

**Proceeds from Debt-Creating Borrowings corresponding to Debt Strategy S4**

**Planned Borrowings (new bonds, new loans, etc.) for Debt Strategy S4**

**New Domestic Financing in Million Naira**

Commercial Bank Loans (maturity 1 to 5 years, including Agric Loans, Infrastructure Loans, and MSMEDF)

For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c

Debt Management Agency Bauchi

Commercial Bank Loans (maturity 6 years or longer, including Agric Loans, Infrastructure Loans, and MSMEDF)	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
State Bonds (maturity 1 to 5 years)	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
State Bonds (maturity 6 years or longer)	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
Other Domestic Financing	For any Domestic Financing need, the State conducts a Debt Sustainability Analysis to assess the State's capacity to sustain the repayment of the loan as supported by the DMA LAW 2009, DMA borrowing guidelines, and other extant borrowing regulations like the FRA Act, ISA Act 2007, DMO LAW e.t.c	Debt Management Agency Bauchi
<b>New External Financing in Million US Dollar</b>		
External Financing - Concessional Loans (e.g., World Bank, African Development Bank)	The State will Continue to access new external loans through onlending from the Federal Government	DMO, Abuja
External Financing - Bilateral Loans	The State will Continue to access new external loans through onlending from the Federal Government	DMO, Abuja
Other External Financing	The State will Continue to access new external loans through onlending from the Federal Government	DMO, Abuja

