INTERNATIONAL MONETARY FUND

TOGO

SELECTED ISSUES

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Approved By
African Department

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CONTENTS

UNDERSTANDING TOGO'S GROWTH

This paper analyzes Togo's growth over the past two decades to provide a better understanding of the past and of the medium-term growth outlook. First, we describe historical growth using a narrative approach, identifying five distinct periods based on key growth drivers and growth outcomes. Second, we use growth accounting to identify the historical drivers of growth from a production function perspective. Third, we estimate the path of historical (unobserved) potential GDP using various statistical tools. All these analyses suggest that in a context of limited fiscal space, reaching growth of 5-6 percent per year over the medium term is possible but will require determined implementation of reforms to spur productivity and private investment.

A. Introduction

1.   Understanding growth and its past and likely future drivers is a fundamental element of macroeconomic analysis. This paper aims to help the understanding of Togo's growth performance over the past two decades and derive lessons for the growth outlook, using a range of approaches.

2.   The paper is structured as follows. Section B analyzes historical growth using a narrative approach, section C provides a growth decomposition using a production function approach, and section D estimates the path of historical potential GDP. Section E concludes and provide policy recommendations.

B. Narrative Analysis of Growth Over the Past Two Decades

3.   Togo's growth over the past two decades can be structured into five phases, based on the drivers of growth and growth and social outcomes (Figure 1): (i) the period 2002-05, when growth averaged only 1.2 percent due to a "domestic crisis" and a high debt burden; (ii) the period 2006-11, with growth averaging 4.2 percent thanks in part to debt relief; (iii) the period 2012-16, with strong growth of 5.8 percent, which was however achieved through unsustainable fiscal expansion; (iv) the period 2017-19, which saw a still respectable growth of 4.6 percent despite fiscal consolidation under an ECF-arrangement; and (v) the period 2020-23, during which growth averaged 4.8 percent despite the COVID-19 global pandemic and other shocks, thanks in part again to fiscal expansion.

Figure 1. Real GDP Growth, 2002−23
(Percent)

Sources: IMF staff calculations.
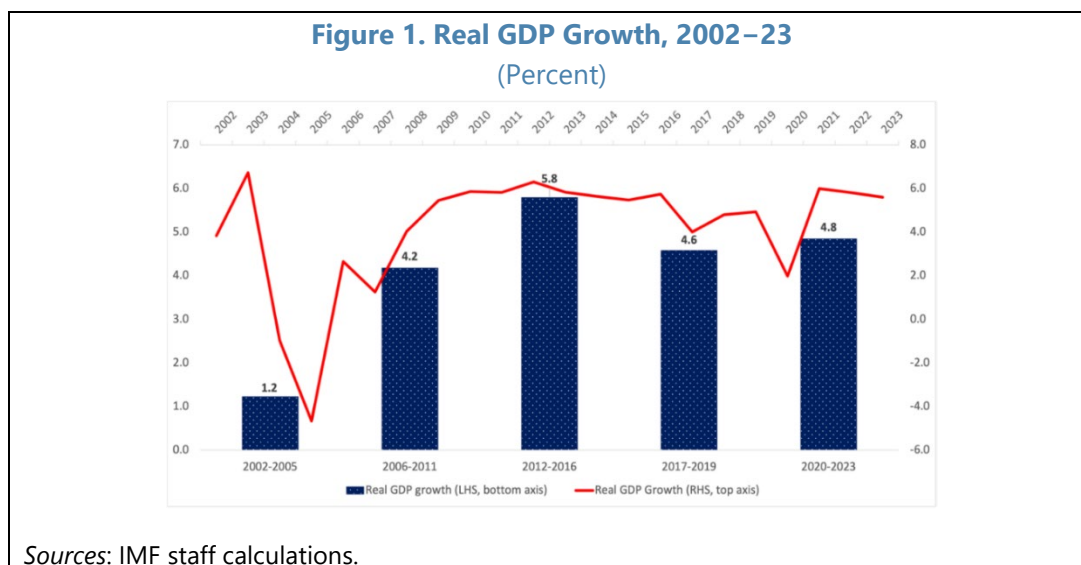
4.   The period 2002-05 concludes Togo's "domestic crisis", which has been assessed to have started in 1990. Growth averaged only 1.2 percent per year over 2002-05 and fell over most of this period, to -4.7 percent in 2005 (Figures 1). This weak performance has been previously ascribed to political tensions and governance challenges, exacerbated by difficulties in Togo's key export sectors and a heavy debt burden (IMF, 2003).

- **Exogenous factors:**

  - o **Political tensions and governance challenges.** After President Gnassingbé Eyadéma's death in 2005, his son Faure Gnassingbé became President in a process that elicited military, diplomatic, and economic sanctions from the Economic Community of West African States (ECOWAS), France, and Nigeria. The sanctions were lifted only after the president's resignation. Mr. Faure Gnassingbé's subsequent election in April 2005 encountered opposition and elicited violence. These events resulted in donors' withdrawal, affecting public institutions and infrastructure. Additionally, governance and banking sector challenges inhibited private investment and the delivery of public services (IMF, 2017a and African Development Fund (ADF), 2006). During this period, Togo's governance perception indicators were substantially below WAEMU and SSA averages (Annex I, Figure 5).[1]

  - o **Crisis in the key cotton and phosphate sectors (accounting for more than 80 percent of exports) due to a confluence of factors.** Cotton sector output volumes fell by a drastic 61 percent over 2001-05. This development was attributed to several factors, including a steep drop in cotton prices between the mid-1990s and early 2000s (Annex I, Figure 2), climatic

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[1] The Worldwide Governance Indicators (Daniel Kaufmann and Aart Kraay, 2023) are a compilation of data capturing household, business, and citizen perceptions of the quality of governance. The indicators analyzed here are the *Government Effectiveness*, the *Regulatory Quality*, the *Rule of Law*, and the *Control of Corruption*. These are indexes from 0 to 100, with a higher score indicating a stronger governance.

events such as irregular rainfall and severe droughts, and new pests.[2] Similar challenges were observed in neighboring countries such as Benin, Burkina Faso, and Mali (IMF, 2005). Phosphate production also shrank, which has been attributed to factors such as inadequate maintenance of production tools and a deteriorating financial situation at the Togo Phosphates Authority (ADF, 2006). The broader terms of trade deteriorated slightly (by 1 percent per year).

- **Policies: Excessive debt accumulation and resulting debt distress.** By the end of 2005, Togo was assessed as facing debt distress (IMF 2007). Its public debt amounted to 63.1 percent of GDP, four fifths of which was external.

- **Growth outcomes: Slow growth in all main sectors of the economy.** The primary sector experienced average growth of only 1.0 percent per year due to the aforementioned challenges in cotton production. The secondary sector rose by 1.9 percent per year, and the tertiary sector by 1.3 percent per year, pulled mainly by transport services.

- **Social outcomes: progress on human development slowed.** After continuous improvement since the 1990s, the Human Development Index (HDI) increased more slowly over 2002-05 (to only 0.46 in 2005, from 0.45 in 2001), and 61 percent of the population was left living in extreme poverty in 2006.[3] Only 24 percent of the population had access to electricity (above the WAEMU average but below SSA average), and 50 percent had access to basic drinking water services (above SSA average but below WAEMU average, Annex I, Figure 4).

5.   **The period 2006-11 saw a recovery in growth to an average 4.2 percent per year in part thanks to HIPC and MDRI debt relief provided in the context of a PRGT-supported program (Figure 1):**

- **Exogenous factors: Debt relief initiatives and improved cotton prices.** Togo reached the HIPC Initiative Decision Point in 2008 and the Completion Point in 2011, when it also received MDRI relief (IMF, 2011). As a result, while Togo benefited from interim relief on debt service since 2008, Togo's public debt stock declined to 33.8 percent of GDP in 2011 (from 63.1 percent in 2005). Togo also benefited from a substantial increase in cotton prices (the world cotton index presented in Annex I, Figure 2, shows an increase of 21.6 percent per year on average) and an associated increase in cotton output volumes (by 12 percent per year on average over the period). The broader terms of trade improved slightly (by 1 percent per year on average, Annex I, Figure 2).

- **Policies: Early structural reforms.** Debt relief restored confidence and enabled higher public investment, even if its contribution to growth remained small (Figure 2) given the small initial size

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[2] See Bureau National du Togo (2012).

[3] World Bank data. Extreme poverty is defined as a per-capita income below US$ 2.15 per day in 2017 purchasing power parity terms.

of public investment.[4] In addition, the authorities conducted structural reforms to strengthen the business environment and the management of state-owned enterprises. In line with this, Togo's Country Policy and Institutional Assessment (CPIA) score increased to 3 in 2011 (from 2 in 2006). However, administrative capacity limitations and weak legislative frameworks continued to weigh on the business environment (IMF, 2011), and Togo's governance perception indicators remained substantially below the WAEMU and SSA averages (Annex I, Figure 5).

- **Growth outcomes: Higher growth across multiple sectors.** Agriculture saw rapid growth, including in the cotton sector. Manufacturing also contributed to growth, with the cement sector helping to offset a decline in extractive industries that reflected in part continued challenges in the phosphate sector (Garrido and Lundstrom, 2010). In the services sector, commerce, communications, and transport thrived, including notably at the Port of Lomé (Garrido and Lundstrom, 2010). The global financial crisis of 2008-09 affected Togo mainly through lower remittances due to higher unemployment in Europe and the U.S., similar to many other LICs given their low degree of integration into global financial markets (Berg et al. 2011).

- **Social outcomes: Improvements in social indicators accelerated.** The HDI increased (to 0.49 in 2011, from 0.46 in 2006), while the share of the population living in extreme poverty fell to 58.9 percent in 2011. Access to electricity increased to 32 percent (above the WAEMU average but below the SSA average), and access to drinking water improved to 56 percent (above the SSA average but below the WAEMU average, Annex I, Figure 4).

6.   The period 2012-16 saw a further acceleration of growth to an average of 5.8 percent per year, fueled however by unsustainable fiscal policies (Figure 1).

- **Exogenous factors: A small improvement in the terms of trade and favorable weather conditions.** The terms of trade improved marginally, by 0.5 percent per year on average over 2012-16 (Annex I, Figure 2). However, favorable weather conditions contributed to a rapid rise in the production of cotton (and other agricultural outputs), with an increase of 64 percent of production in 2016 compared to 2011, despite a drop in cotton prices (Annex I, Figure 2).

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[4] In this paper, contributions of GDP components to average annual GDP growth over multi-year periods are calculated as averages of annual contributions to growth. This calculation yields a contribution of public investment to growth of 0.1 percentage points over 2006-11. A different approach would be to calculate the contribution of public investment as the average share of public investment in GDP times the average growth rate of public investment over the period. This calculation would yield a contribution of public investment to growth of 0.7 percentage points over the period 2006-11.

Figure 2. Growth Decomposition for the Five Identified Periods
(Demand Perspective, Contributions to Annual Growth in Percent of GDP)

Sources: IMF staff calculations and INSEED-TOGO.
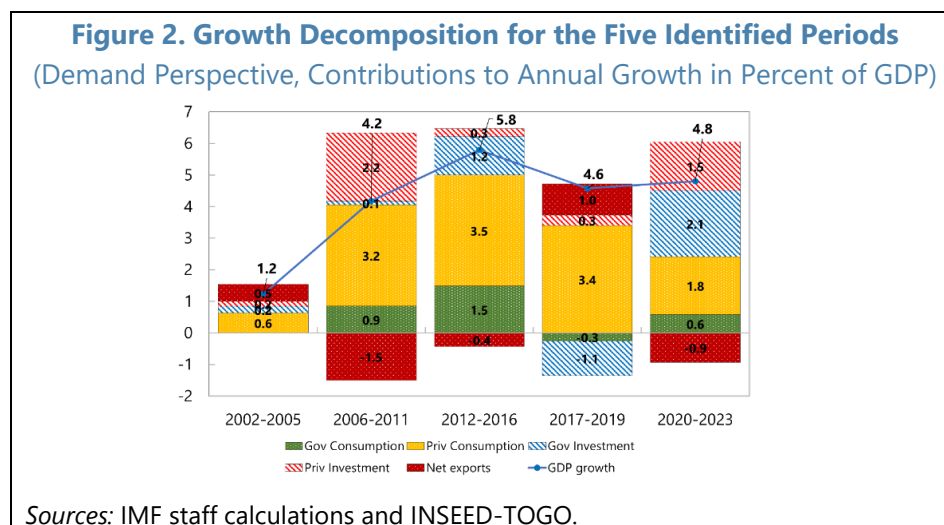
- **Policies: Strong fiscal expansion.** The authorities engaged in "prefinancing arrangements" starting in 2013, primarily to fund road construction. As a result, total public debt rose to 59.8 percent of GDP in 2016 (from 33.8 percent of GDP in 2011), of which 28 percent was external. During this period, Togo's governance perception indicators showed some improvement but still remained substantially below WAEMU and SSA averages (Annex I, Figure 5).

- **Growth outcomes: Strong and broad-based growth.** In addition to dynamism in the agricultural sector that saw an average growth of 5.9 percent per year, the secondary sector grew by 3.8 percent per year (with manufacturing growing at 6.8 percent per year), while the tertiary sector grew by 5.8 percent per year.

- **Social outcomes: Social indicators improved.** The HDI increased (to 0.52 in 2016, from 0.49 in 2012), while the share of the population living in extreme poverty fell further to 54.7 percent in 2015. Access to electricity increased to 43 percent (above the WAEMU and SSA averages), and access to drinking water services to 62 percent (above the SSA average but still slightly below the WAEMU average, Annex I, Figure 4).

7.   The period 2017-19 saw robust growth of 4.6 percent on average despite fiscal consolidation in the context of an ECF-arrangement with the IMF (Figure 1).

- **Exogenous factors: Strong improvement in the terms of trade and positive performance in the cotton, cocoa, and phosphate sectors.** The terms of trade improved by an average of 8.1 percent per year over the period 2017-19 (Annex I, Figure 2). In this context, global cotton prices increased somewhat (Annex I, Figure 2), helping the cotton sector grow by 11.4 percent on average.

- **Policies: Fiscal consolidation while protecting social spending.** The government ended prefinancing arrangements for public investment in 2016 and committed to medium-term fiscal consolidation while protecting social spending. As a result, public debt decreased to 54.1 percent of GDP in 2019 (from 59.8 percent in 2016), of which 35 percent was external. The authorities also set up the Adétikopé special economic zone in 2017 to attract foreign direct investment into

manufacturing. In addition, Togo's governance perception indicators improved further but still remained substantially below the WAEMU and SSA averages (Annex I, Figure 5).

- **Growth outcomes: Slower but still robust growth.** The primary sector grew by 5.7 percent per year on average, followed by the tertiary sector that experienced an average growth of 4.5 percent. The secondary sector expanded by only 2.7 percent, below the 3.8 percent growth during 2012-16, in line with reduced public sector investment spending.

- **Social outcomes: A sustained improvement.** Social outcomes continued to improve, with the HDI rising to 0.54 in 2019 (from 0.52 in 2016), and the share of the population living in extreme poverty dropping sharply to 28.4 percent in 2018. Access to electricity increased to 50 percent (above the WAEMU and SSA averages), and access to drinking water services to 67 percent (above the SSA and WAEMU averages, Annex I, Figure 4).

8.   The period 2020-23 was characterized by the impacts of the global COVID-19 pandemic and a spike in global food and fuel prices, with an initial decline of growth followed by a quick recovery (Figure 1). Growth fell sharply in 2020 but remained positive and recovered in 2021 to reach an average 4.8 percent per year over 2020-23, thanks in part to substantial fiscal support to counteract the shock impacts.

- **Exogenous factors: Strong negative demand and supply shocks driving the global economy down as borders closed and activity slowed.** Togo's terms of trade registered moderate gains of 4 percent per year over the period despite higher global food and fuel prices (Annex I, Figure 2).

- **Policies: A strong fiscal accommodation coupled with continued structural reforms.** The government provided a large fiscal impulse, including by expanding fuel subsidies and making cash transfers to the poor. The overall fiscal balance widened to -6.7 percent of GDP on average over 2020-23 (from 1.7 percent in 2019). As a result, public debt increased to 67.2 percent of GDP in 2023, (up from 54.1 percent in 2019), of which 39 percent was external. In addition, the authorities continued their industrial policies and reforms to the business environment, including by improving processes at the port of Lomé. Further, Togo's governance perception indicators improved substantially to reach the average of SSA countries, while remaining below the WAEMU average (Annex I, Figure 5).

- **Growth outcomes: A transitory decline in growth mainly due to developments in the services sector.** The tertiary sector grew by only 1 percent in 2020 in line with pandemic related restrictions but rebounded quickly in 2021-2022. The secondary sector resisted the consequences of the pandemic and continued growing at 4.0 percent in 2020, accelerating to about 6.5 percent in 2021-22. Last, the primary sector was also only moderately hit by the pandemic and grew by an average 4.3 percent per year (Annex I, Figure 1).

- **Social outcomes: Overall improvements continued but at a much slower pace, and food insecurity increased substantially.** On the one hand, the share of the population in extreme

poverty continued to drop, albeit at a slower pace, to 26.6 percent of the population in 2022.[5] Access to electricity increased to 56 percent in 2022 (above the WAEMU and SSA averages), and access to drinking water services increased to 70 percent in 2022 (above the SSA and WAEMU averages, Annex I, Figure 4). On the other hand, there was a substantial increase in food insecurity.[6]

9.   Togo's growth history can also be analyzed through a shock decomposition (Box 1). The economy has been alternatively his by positive and negative shocks and appears to be currently benefitting from both positive demand and supply shocks. Going forward, this suggests that growth may decrease in the future in the appearance of negative shocks, such as a fiscal consolidation.[7]

Box 1. A Shock Decomposition Analysis

Economies are continuously hit by positive or negative shocks that can be classified as demand or supply shocks. Demand shocks relate to changes in aggregate economic demand as can arise for example from changes in the stances of fiscal and monetary policies. Supply shocks relate to changes in productivity or the supply of factors of production. Identifying shocks can help understand the drivers of growth and make growth forecasts. For forecasting, the assumption is typically made that existing demand shocks will evolve in line with anticipated changes in relevant economic policies and that supply shocks will fade away.

Using statistical techniques,[1] we estimate these supply and demand shocks that have affected Togo (Box Figures 1 and 2). Applying the lens of the five periods identified in the narrative analysis, we find the following:

- During the period 2002-05, there were large negative demand shocks and substantial negative supply shocks. The adverse supply shocks may reflect the difficult political conditions, and the adverse demand shocks the high debt burden and reduced donor funding.

- During the period 2006-11, there were positive demand shocks driven by private consumption and private investment, as confidence was restored thanks to the HIPC and MDRI debt relief in the context of a PRGT-supported program. There was also a small positive supply shock, possibly reflecting such factors as the agricultural sector benefitting from an increase in world cotton prices.

- The period 2011-16 saw large positive demand shocks associated with the strong fiscal expansion, as reflected in a leap in government consumption and investment, and positive supply shocks, again possibly due to the impact of favorable weather on output in the primary sector.

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[5] Extreme poverty is nowcasted at 25.8 percent nationally in 2023 according to the World Bank's April 2024 Sub-Saharan Africa Macro Poverty Outlook.

[6] 27 percent of the population is facing it to at least some degree of food insecurity in 2024 (IPC Acute Food Insecurity).

[7] A fiscal consolidation is a negative demand shock.

Box 1. A Shock Decomposition Analysis (continued)

- The period 2017-19 saw a negative demand shock driven by fiscal consolidation despite still robust private consumption. However, the adverse demand shock was more than offset by positive supply shocks, which may again have resulted from strengthened cotton prices and associated impacts on agricultural output. There may also have been confidence effects thanks to the successful implementation of a Fund-supported program.

- Finally, the period 2020-23 saw large negative demand and supply shocks as a result of the COVID-19 outbreak and associated declines in mobility and economic activity, similar to developments in other countries, followed by a sizeable positive demand shock associated with the substantial fiscal expansion as well as a positive supply shock that may have resulted from an easing of COVID-related restrictions.

Box1. Figure 1. Real GDP Growth, Shock Decomposition, 2002–23
(Contributions to Annual Growth in Percent of GDP)
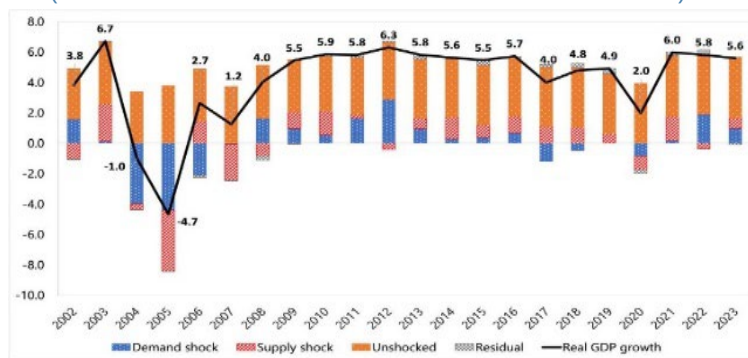
Sources: IMF staff calculations.

Box 1. Figure 2. Real GDP Growth, Shock Decomposition for the Five Identified Periods
(Average Contributions to Annual Growth in Percent of GDP)
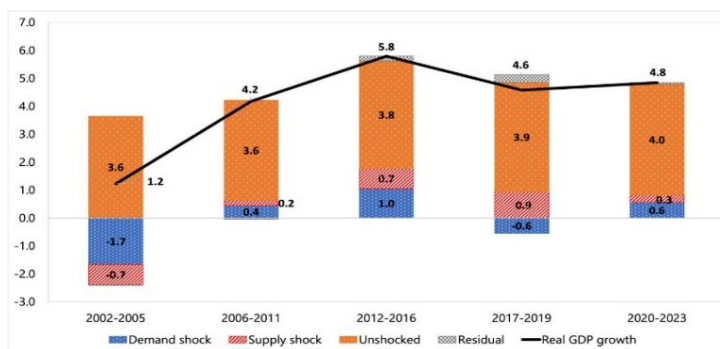
Sources: IMF staff calculations.

[1] Applying the methodology of Bergholt et al. (2023), we use a structural vector autoregression of real GDP and inflation in which demand and supply shocks are identified using sign-restrictions, and compute the historical decomposition of real GDP growth.

C. Quantitative Analysis Using Growth Accounting

Methodology

10.   We conduct a growth accounting exercise to identify the contributions of supply factors to Togo's growth: namely labor, physical capital, and total factor productivity. The analysis covers the period 2002-23.

11.   We assume a constant-return-to-scale Cobb-Douglas production function with public and private capital, such that:

$$Y_t = A_t\, K_{G,t}^{\alpha} K_{P,t}^{\beta} L_t^{1-\alpha-\beta} \quad (1)$$

$$\text{Or } \ln Y_t = \ln A_t + \alpha \ln K_{G,t} + \beta \ln K_{P,t} + (1-\alpha-\beta)\ln L_t \quad (2)$$

Here, Y_t is real GDP, A_t is Total Factor Productivity (TFP), $K_{G,t}$ is the aggregate public capital stock, $K_{P,t}$ is the aggregate private capital stock, L_t is labor (public and private), and α and β are constants in the interval [0,1] so that $\alpha + \beta < 1$. They respectively represent the elasticity of output to public and private capitals.

To compute the stock of public and private capital, $K_{G,t}$ and $K_{P,t}$ at each point in time, we use the perpetual inventory equations:

$$K_{G,t} = K_{G,t-1}(1 - \delta_G) + I_{G,t} \quad (4)$$

$$K_{P,t} = K_{P,t-1}(1 - \delta_P) + I_{P,t} \quad (5)$$

Where $I_{G,t}$ and $I_{P,t}$ are public and private investment at time t, and δ_G, δ_P their respective depreciation rates. The initial capital stocks, investments and the depreciation rates are necessary and sufficient to determine the capital stocks at each point in time.

12.   We make several assumptions in implementing this approach. The total initial capital stock is set equal to 0.7 times real GDP denominated in national currency, as in Penn World Table (10.1).[8] We assume an equal split in public and private capital at the initial point. The depreciation rates are set to 5 percent per year both for public and private capital, in line with the literature on low-income countries that posits depreciation rates between 3 percent and 5 percent per year.[9] National account variables such as real GDP, investment, and real GDP growth are based on data provided by the Togo statistical authority.[10] Public and Private investment are shown on Annex I,

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[8] Data are available [here](#).

[9] For instance, a depreciation rate of 5 percent per year was applied to Benin (IMF, 2022), and Madagascar (IMF, 2023a), while Djibouti (IMF 2019a) employs a depreciation rate set at 3 percent per year.

[10] Togo statistical authority has benefited from IMF technical assistance to prepare the national accounts through 2021.

Figure 3. Labor force data, taken from the World Bank,[11] is used as a proxy for labor, employment data being unavailable in Togo. In line with the literature on low-income countries, we assume that the elasticity of public capital to output, α, is 0.15, while the elasticity of private capital to output, β, is 0.25.[12]

Findings

13.   We find that growth has been mainly driven by capital accumulation, while the contribution of productivity has been small or even negative (Figures 3 and 4).[13]

- Specifically, total capital accumulation contributed to growth to the tune of 2.9 percent on average over 2002-23, with a higher contribution of private capital (1.9 percent) than of public capital (1.0 percent).

- TFP growth contributed a negative 0.5 percentage points to growth on average over 2002-23, with small positive contributions seen only during the previously discussed periods 2012-16 and 2017-19, and large negative impacts seen in crisis periods 2002-05 and during the pandemic outbreak of 2020.[14]

- Labor's contribution to growth changed little over time, accounting for about 40 percent of growth over the whole period. However, this result should be used with caution, given the proxying of labor with Togo's labor force due to data constraints. Also, the production function model used does not allow for changes in the quality of labor, which may bias results.

14.   These patterns are consistent with observations in Low-Income Developing Countries (LIDCs), as indicated in IMF (2019) and World Bank (2022) and exemplified in case studies, e.g., Madagascar (IMF, 2023a) and Benin (IMF, 2022). In particular, slow productivity growth has been widespread among LIDCs and SSA countries from 1980 to the present (Adegoke et al., 2023) and IMF (2019).

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[11] Data are available here.

[12] A typical investment multiplier in a LIC country is expected to be low, around 0.4 (see IMF, 2017b), while the elasticity of output to public capital stock is usually estimated to be around 0.15 (see IMF, 2018).

[13] Our findings regarding the drivers of growth remain robust under varying assumptions about the depreciation rate and changes in the elasticities of capital. We varied the depreciation rate between 3 and 5 percent and the capital share between 0.3 and 0.5, in line with ranges used in the literature, as stated above. We also varied the initial amount of capital stock and the split between public and private capital. These do not impact the results much. Nonetheless, the contributions of the factors to growth estimated here remain model dependent and still rely on some parameters) whose values are calibrated and not specifically estimated for Togo.

[14] The reader should note, however, that TFP is estimated as the residual in equation (2). This estimate encompasses both: (i) productivity, which can be influenced by, for instance, digitalization, automation, the business environment; and (ii) any shocks that hit the economy and do not result in changes in capital and labor of the same magnitude. Thus, temporary large negative contributions from TFP can also reflect shocks rather than underlying developments in productivity.

Figure 3. Growth Decomposition, 2002−23
(Production Function Perspective, Contributions to Annual Growth in Percent of GDP)

Sources: IMF staff calculations.

Figure 4. Growth Decomposition for the Five Identified Periods
(Production Function Perspective, Average Contributions to Annual Growth in Percent of GDP)

Sources: IMF staff calculations.
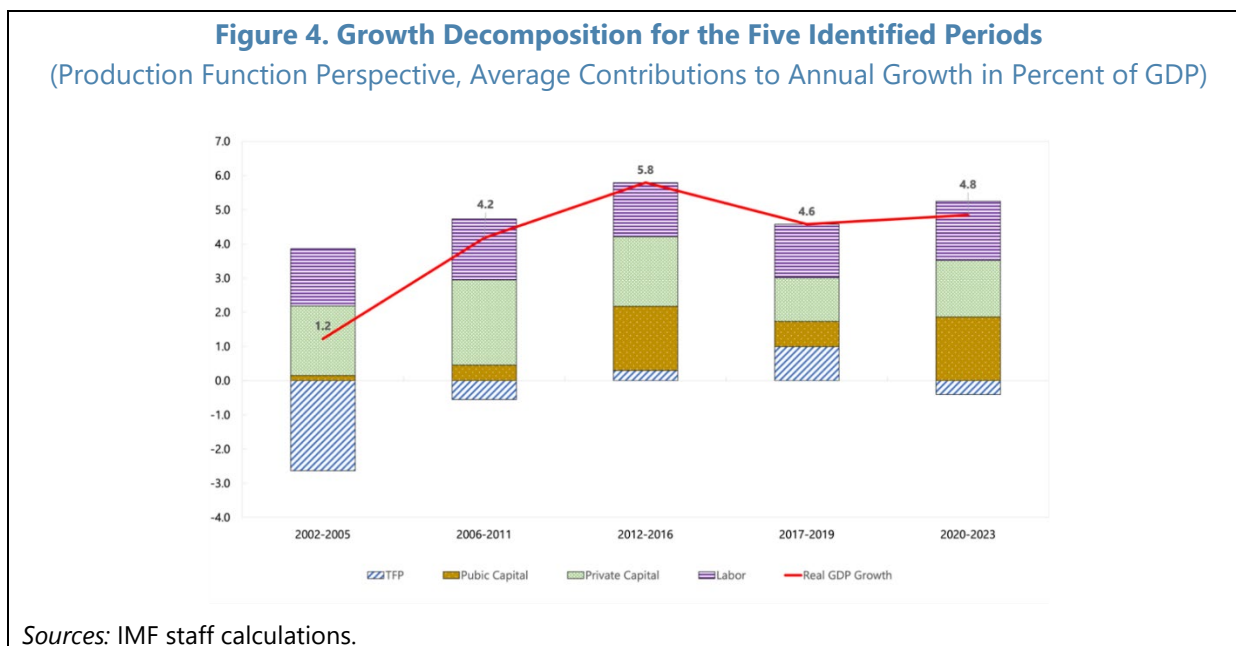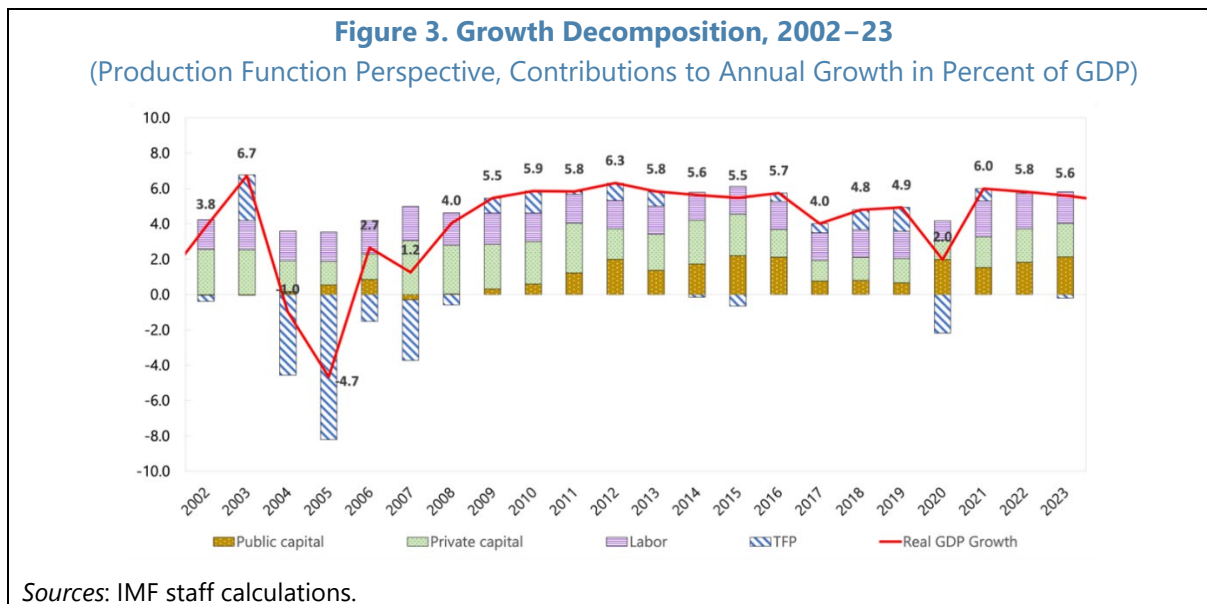
D. Quantitative Analysis Using Estimations of Potential Output

Methodology

15. **Macroeconomic theory posits that output revolves around an unobserved potential level. In line with this, the growth of potential output can be a good predictor of growth of (actual) output over the medium-term** as the impacts of shocks fades away and output growth converges to its trend.

16.   Estimating potential output is difficult, especially for LICs. With the "true" level of potential output unknown, one can only provide estimates that indicate possible values consistent with a given theoretical framework. Doing so is particularly difficult for LICs given these countries' susceptibility to shocks. Nonetheless, if taken with appropriate caution, estimations can provide useful orientation. This is often done using statistical "filters,"[15] or semi-structural models.[16]

17.   The seminal paper by Laubach and Williams (2003) proposes a semi-structural model to estimate potential output and its growth rate, together with the "natural interest rate". To that aim, the model uses observed variables of interest: output, the real interest rate (i.e., the nominal interest rate minus expected inflation), and the inflation rate. The model can be specified in a state-space form with two measurement equations and four state equations.

18.   Blagrave et al. (2015) provide another useful semi-structural model. The model allows robust estimation of potential output, the growth of potential output, and structural unemployment, using various observed variables.

19.   Simpler statistical filters offer yet another possibility of determining potential output. The filters posit that the growth of potential GDP corresponds to the trend of GDP. Different filters determine this trend in different ways, all with their respective advantages and drawbacks. It is therefore useful to use several of these filters to provide a range of estimates.[17] A confidence interval consisting of the minimum and maximum obtained values is produced to ease the reading on Figure 5.

Findings

20.   Applying the above approaches to Togo yields results consistent with the historical narrative and growth decomposition presented in sections A and B (Figures 5 and 6). Growth of potential GDP has fluctuated around its potential level as driven by shocks. It is estimated that potential growth ranged between -0.8 percent and 6.2 percent per year over 2002-23, with an average of 4.1 percent.

21.   The growth of potential GDP is estimated to have been between 4.5 and 5.3 percent in 2023, and thus somewhat below estimated GDP growth rate of 5.6 percent in the same year. The lower and upper bounds of the indicated range are produced by the statistical filters, while the estimates from the semi-structural models reach 4.7 percent (Blagrave et al., 2015) and 5.3 percent (Laubach and Williams, 2003).

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[15] See for instance, Article IV Staff Report for Benin (IMF, 2022).

[16] See for instance, Selected Issues Paper for the Kingdom of Lesotho (IMF, 2023b).

[17] We use the HP-filter (one or two-sided), the Christiano-Fitzgerald filter, the Baxter-King filter, and the Bayesian filter, as frequently used by economists.

Figure 5. Potential Growth Estimates from Statistical Filters, 2002-23
(Percent)

Sources: IMF Staff Calculation.

Figure 6. Potential Growth Estimates Comparison, 2002-23
(Percent)

Sources: IMF Staff Calculation.
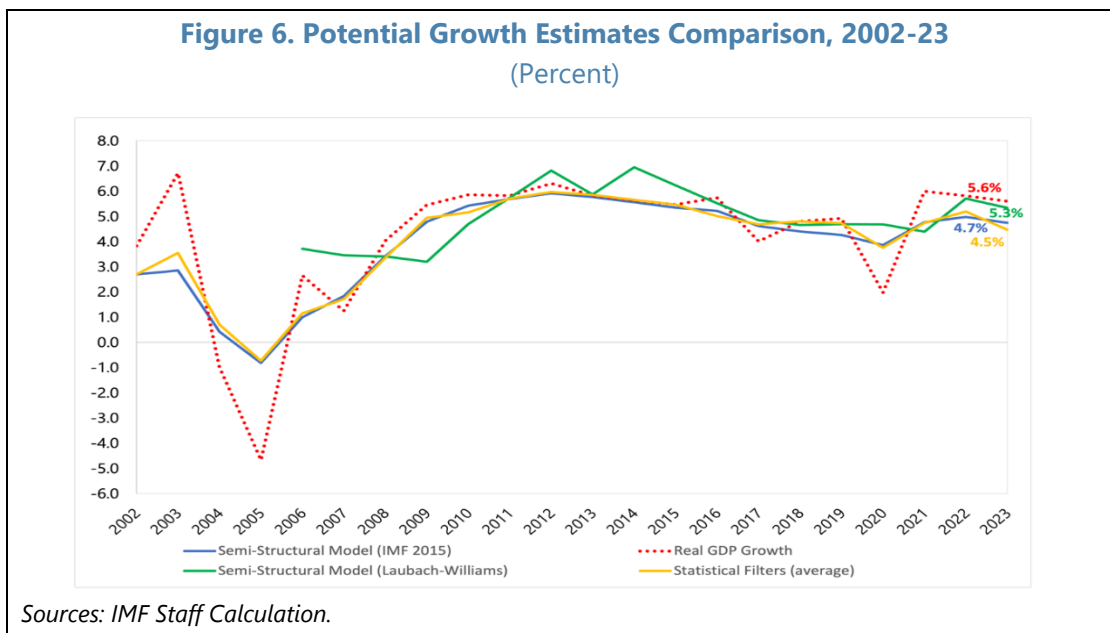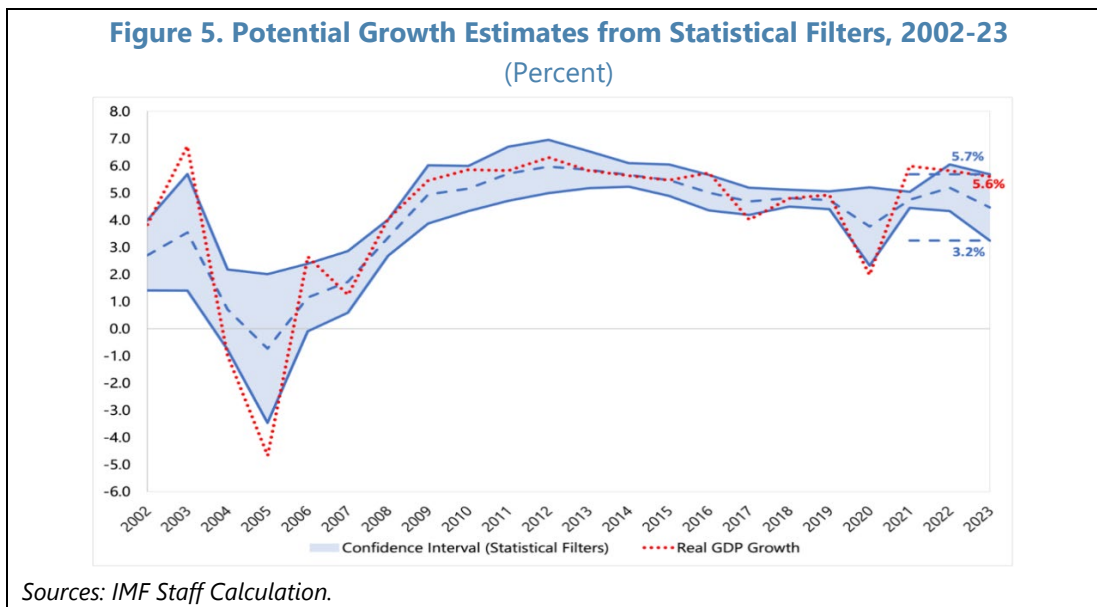
E. Conclusions

22.   The analyses presented hold several lessons about growth in Togo, including the following:

- Perhaps unsurprisingly, growth is vulnerable to concurrences of adverse conditions, such as the over-indebtedness, sectoral challenges, and political tensions seen during 2002-05.

- The authorities have been able to stimulate growth through fiscal expansions during the periods 2012-16 and 2020-23, but this came at the cost of a quickly rising debt burden that require

subsequent periods of consolidation with attendant lower growth. In the consolidation period of 2017-19, growth would likely have been lower had Togo not benefitted from a positive supply shock.

- So far, growth has been driven mainly by capital accumulation and less by productivity gains.

23.   The analyses also inform about the growth outlook. In particular, they allow projecting growth according to different scenarios of productivity and private investment. Given fiscal constraints, room for public investment will be tightly constrained over the medium term. With labor likely to continue following its trend growth over recent years, the two factors of production that can propel future growth are productivity and private investment. Iterating equation (2) forward with these assumptions about public investment and labor, one obtains the path of future GDP as a function of productivity and private investment.

24.   We conduct two forecasting exercises based on a range of scenarios regarding the possible evolution of productivity and private investment, ranging from very pessimistic to very optimistic:

- The first analysis (Figure 7) varies assumptions on future productivity growth from a very pessimistic to a very optimistic scenario, keeping private investment at the level projected in line with the macroeconomic framework underlying the ECF arrangement.

- The second analysis (Figure 8) varies assumptions on future private investment from very pessimistic to very optimistic, making conservative assumptions about productivity growth. (Figure 8).

25.   Scenario analysis suggests that the growth path projected in the context of the recently approved ECF request is attainable but will require faster productivity gains and/or increased private investment, given that in both analyses, the projected growth path lies in the upper half of the resulting growth distributions. The analysis of shocks presented in Box 1 also suggests that future growth is likely to be lower than current growth unless propelled by reforms, as current growth appears to benefit from positive demand and supply shocks that are expected to no longer be present in the medium term.

26.   These findings highlight the importance of reforms that can boost productivity and private investment. Among these reforms, strengthening governance and the business climate would likely be among the most cost-effective ways to enable more investment. Higher foreign direct investment would in turn likely help boost productivity, thereby improving the second key determinant of future growth.

Figure 7. Real GDP Growth Scenarios for Different Productivity Paths
(Percent)
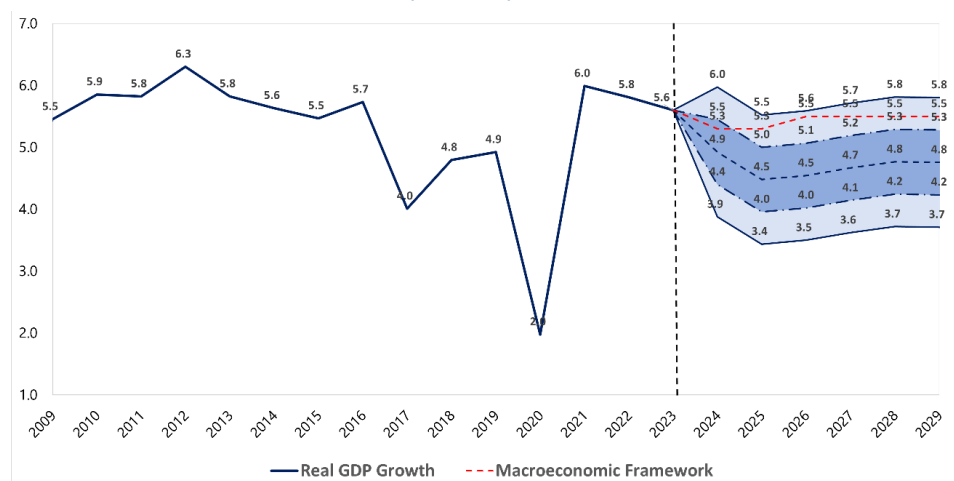
Sources: IMF staff calculations.

Note: The figure shows real GDP growth in five scenarios, assuming a two percent per year productivity decline (very pessimistic); a one percent per year productivity decline (pessimistic); zero productivity gains (conservative); a one percent productivity gain (optimistic); and a two-percent productivity gain (very optimistic).

Figure 8. Real GDP Growth Scenarios for Different Private Investment Paths
(Percent)
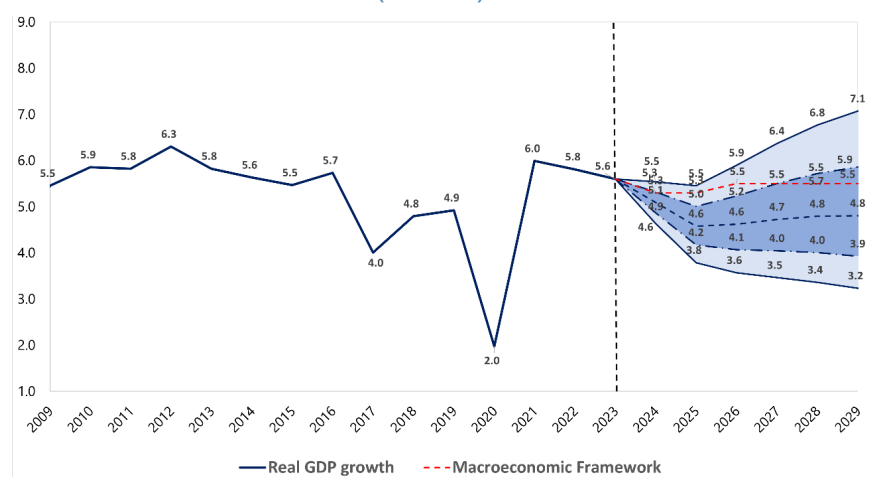
Sources: IMF staff calculations.

Note: The figure shows real GDP growth in five scenarios, assuming a 15 percent per year decline of the private investment-GDP ratio (very pessimistic); a 7.5 percent per year decline (pessimistic); a constant ratio (conservative); a 7.5 percent per year increase (optimistic); and a 15 percent per year increase (very optimistic).

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Annex I. Economic Indicators

Figure 1. Cotton, Coffee, and Cocoa Production Volumes
(Thousands of Tons)
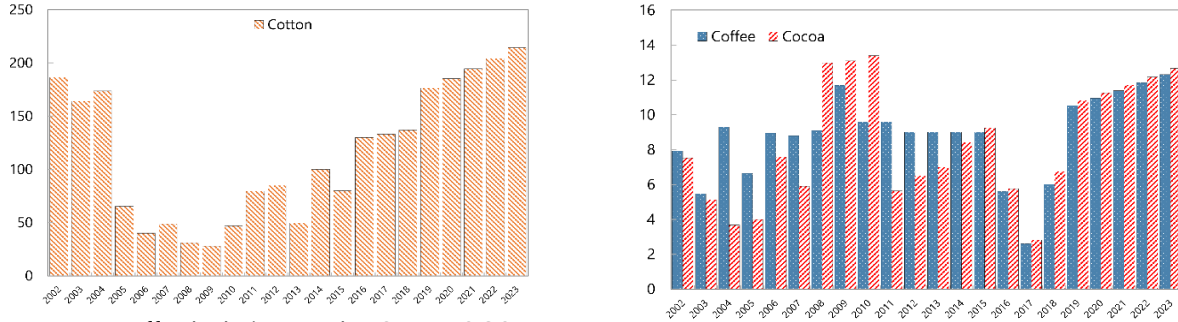
Sources: IMF staff calculations and INSEED-TOGO.

Figure 2. World Cotton Index and Terms of Trade
(Percentage change and index)
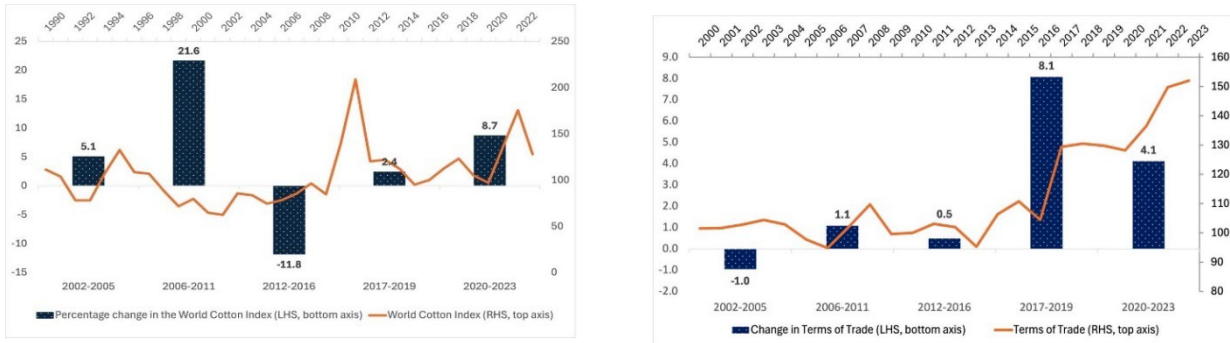
Sources: IMF staff calculations.

Figure 3. Public and Private Investment
(Percent of GDP)
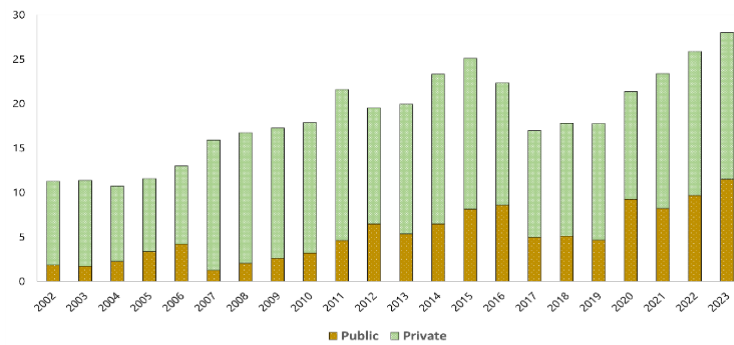
Sources: IMF staff calculations.

Figure 4. Access to Electricity and Water

(Percent of the population)

People using at least basic drinking water services

Access to electricity
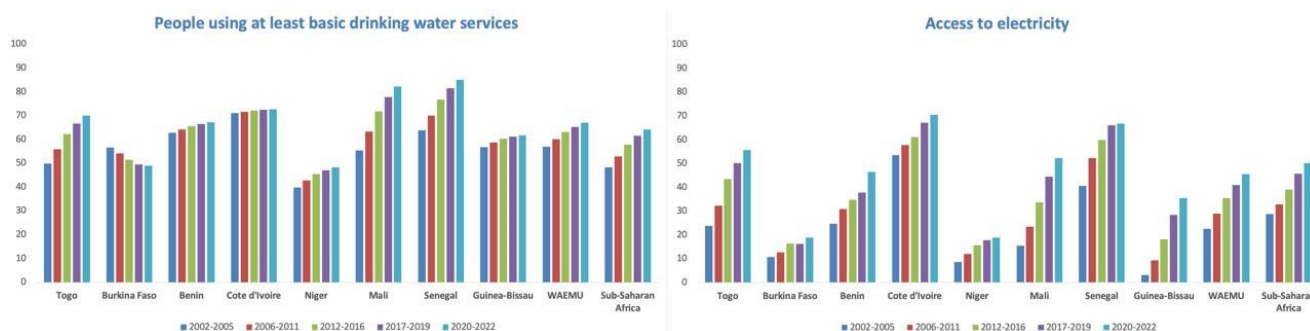
Sources: World Bank

Figure 5. Governance Indicators

(Score)

Government Effectiveness

Regulatory Quality

Rule of Law

Control of Corruption
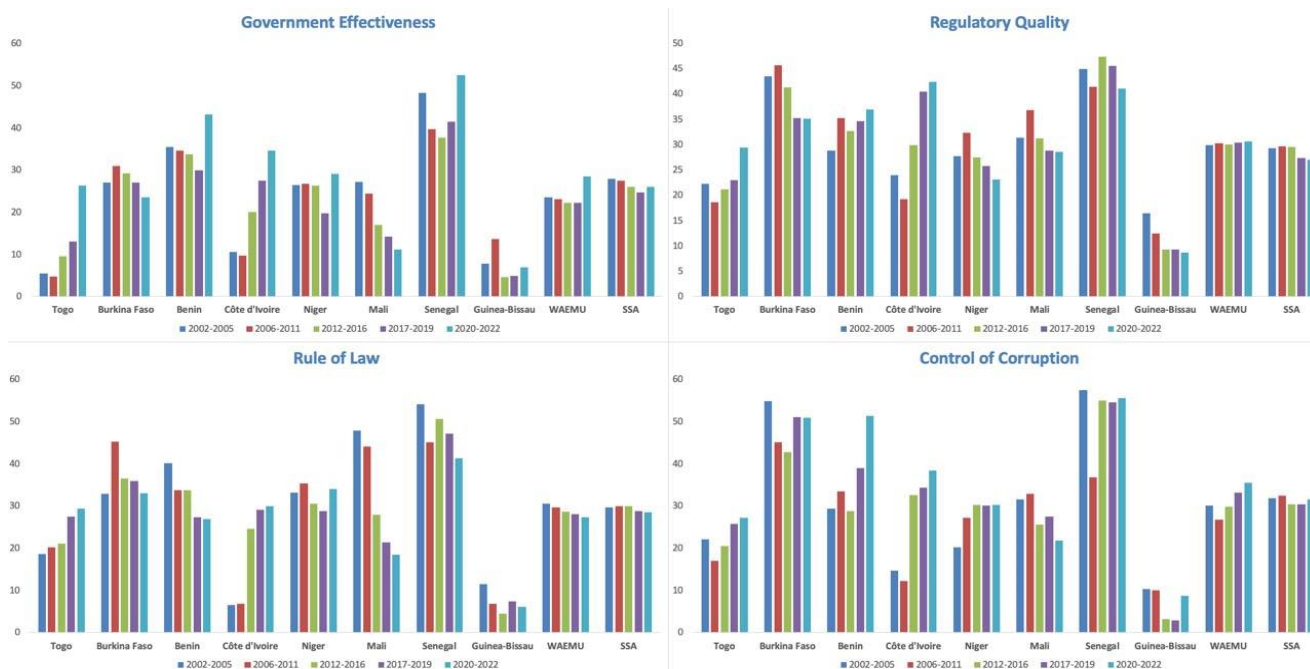
Sources: Worldwide Governance Indicators

Annex II. Models Used For Estimating Potential Output and Its Growth

1. The Laubach and Williams (2003) model can be specified in a state-space form with two measurement equations and four state equations.

Measurement equations:

$$\begin{cases} \tilde{y}_t = a_1^y \tilde{y}_{t-1} + a_2^y \tilde{y}_{t-2} + \dfrac{1}{2} a_r (\tilde{r}_{t-1} + \tilde{r}_{t-2}) + \varepsilon_t^{\tilde{y}} \quad (1) \\ \pi_t = b_\pi \pi_{t-1} + (1 - b_\pi) \pi_{t-2,4} + b_y \tilde{y}_{t-1} + \varepsilon_t^\pi \quad (2) \end{cases}$$

Equation (1) is the intertemporal Investment-Saving (IS) equation, in which the output gap $\tilde{y}_t$, is a function of past output gap and past interest rate gap $\tilde{r}_t = r_t - r_t^*$, where the interest rate gap is the difference between the real rate and the natural rate. The natural rate of interest is the real interest rate that equates investment and savings, bringing output to its potential. [1]

Equation (2) is a Phillips curve type of equation, or Aggregate Supply (AS), in which inflation π_t is a function of past inflation and past output gap.

State equations:

$$\begin{cases} r_t^* = 4g_t + z_t \quad (3) \\ y_t^* = y_{t-1}^* + g_{t-1} + \varepsilon_t^{y^*} \quad (4) \\ g_t = g_{t-1} + \varepsilon_t^g \quad (5) \\ z_t = z_{t-1} + \varepsilon_t^z \quad (6) \end{cases}$$

The state equations give the laws of motion of unobserved variables to be estimated. Equation (3) describes the natural rate as a function of potential output growth and an unobserved factor z_t, which encompasses trends in preferences, technology, demography, and policies. Potential output y_t^*, potential growth g_t, and the factor z_t are described in equations (4), (5), and (6).

Coefficients are estimated via Maximum-Likelihood (ML) through the Kalman Filter. Known to be particularly challenging, estimations of Laubach-Williams type of models often require a multi-step ML estimation. To avoid such cumbersome process and anchor the shape of our latent variables, we initialize the parameters and the filter with results obtained from OLS regressions based on detrended values of the series used as proxy for potential variables.[2] The sample studied is 2006-2023 due to data limitation on interest rates.

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[1] Wicksell (1898).

[2] This method is used in a similar type of model in Dufrénot and al. (2022).

2. **The Blagrave et al. (2015) model is also represented in a state-space form with two blocks of equations.**

Measurement equations:

$$\begin{cases} \tilde{u}_t = \delta\tilde{u}_{t-1} + \gamma\tilde{y}_t + \varepsilon_t^{\tilde{u}} & (1) \\ \pi_t = b_\pi\pi_{t+1} + (1 - b_\pi)\pi_{t-1} + b_y\tilde{y}_t + \varepsilon_t^\pi & (2) \end{cases}$$

Equation (1) is Okun's law, which relates the gap in unemployment (the difference between employment and structural unemployment), $\tilde{u}_t = u_t^* - u_t$, with the output gap, $\tilde{y}_t = y_t - y_t^*$.

Equation (2) is a Phillips curve type of equation, or Aggregate Supply (AS), in which inflation π_t is a function of past inflation and the contemporaneous output gap.

State equations:

$$\begin{cases} \tilde{y}_t = \varphi\tilde{y}_{t-1} + \varepsilon_t^{\tilde{y}} & (3) \\ y_t^* = y_{t-1}^* + g_t^{y^*} + \varepsilon_t^{y^*} & (4) \\ g_t^{y^*} = \theta g^{ss,y^*} + (1 - \theta)g_t^{y^*} + \varepsilon_t^{g^{y^*}} & (5) \\ u_t^* = \tau u^{ss} + (1 - \tau)u_{t-1}^* + g_t^{u^*} + \varepsilon_t^{u^*} & (6) \\ g_t^{u^*} = (1 - \omega)g_{t-1}^{u^*} + \varepsilon_t^{g^{u^*}} & (7) \end{cases}$$

The state equations give the laws of motion of the output gap $\tilde{y}_t$ (3), potential output y_t^* (4), potential growth $g_t^{y^*}$ (5), structural unemployment u_t^* (6), and the growth rate of structural unemployment $g_t^{u^*}$ (7).

Coefficients are estimated via Bayesian methods in conjunction with the Kalman Filter.

IMPACT OF CLIMATE CHANGE[1]

Climate change has the potential to cause large economic costs in Togo in the future. In the fastest-warming scenario considered for this analysis, with slow adaptation, GDP per capita is projected to decline by 8 percent by 2100 with respect to a baseline scenario. Without adaptation, macro-economic impacts would be roughly twice as large, while faster adaptation can reduce impacts considerably. Estimating investment needs for adaptation is difficult, and the range of estimates is large. It is however possible to build a roadmap by including adaptation into macrofiscal planning following general principles. The government can start by prioritizing adaptation policies with positive externalities by removing the market imperfections and policies that hinder efficient private adaptation and by ensuring a just transition.

A. Climate Trends and Projections

1.   During the past four decades, annual mean temperature has increased by approximately 1 °C in Togo with respect to its pre-industrial level, while annual precipitation has remained stable. Average annual mean temperature was equal to 27.1 °C in the period 1985-2014, the standard reference point for climate projections, approximately 0.4 higher than in pre-industrial times. Temperature has kept rising and is estimated to have reached 27.7 °C in 2020.[2] This trend is similar to those observed in other Sub-Saharan countries (Figure 1). There has been no significant change in total annual precipitations (Figure 2).

Figure 1. Temperature Anomalies Relative to 1901-30 (ºC)

FADCP Climate Dataset (v1)

Notes: Annual mean temperature anomalies relative to 1901-1930 average temperature, which can be a proxy for temperature in pre-industrial times.
Sources: FADCP Climate Dataset (Massetti and Tagklis, 2023), using CRU data (Harris et al., 2020).

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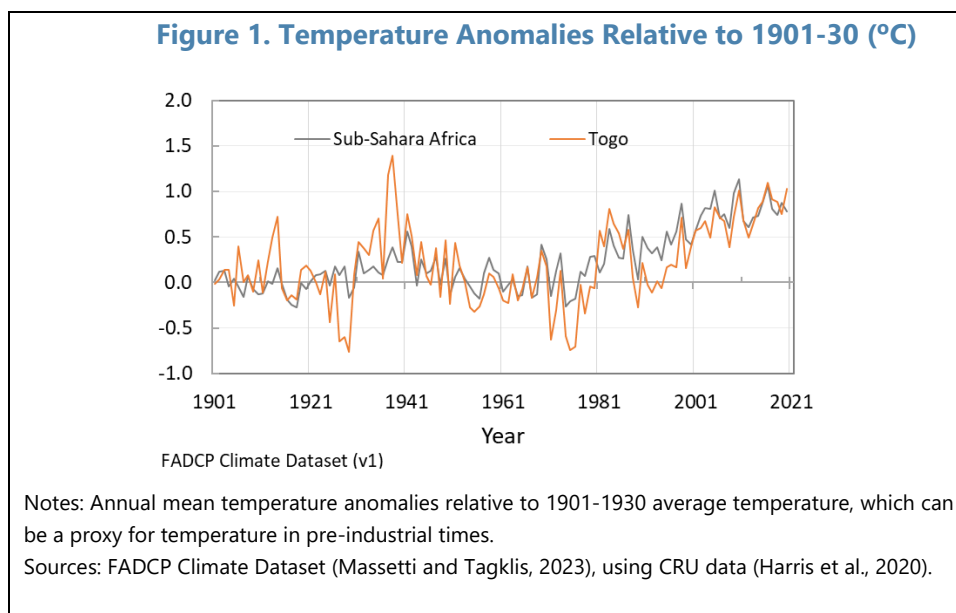
[1] Prepared by Emanuele Massetti and Filippos Tagklis with inputs from Laura Gores.

[2] Average annual mean temperature in 2020 is estimated assuming a linear temperature trend in the previous 30 years. Observed temperature in 2020 could be higher/lower due to random weather fluctuations.

Figure 2. Historical Average Annual Precipitations (mm/year)
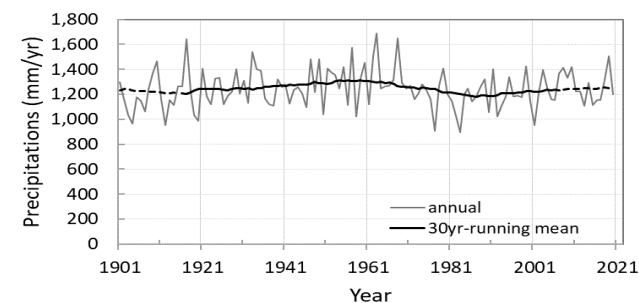
FADCP Climate Dataset (v1)

Notes: The solid gray line displays annual mean temperature. The solid black line displays the 30-year average centered around each 30-year period. Edge effects near the beginning and end of the time series may affect the accuracy of the mean in those regions (dashed).
Sources: FADCP Climate Dataset (Massetti and Tagklis, 2023), using CRU data (Harris et al., 2020)

2.   Regarding the extreme weather events and natural disasters associated with climate change, extreme temperature and intense precipitation events have become more frequent, while the incidence of droughts appears little changed. The number of days with maximum daily temperature above 35 °C – a standard threshold used to identify "hot" days – has increased in the past two decades. This trend is relatively recent but is in line with climate models projections, can be attributed to the underlying temperature trend with confidence, and is expected to continue. The positive and significant trend in intense precipitations (annual maximum amount of rain recorded in one single day or over five days) is also expected to continue. While there is no evidence in historical data that intense precipitations cause significant macroeconomic losses, increased prevalence of droughts and extreme heat already lowers economic growth, and the observed trends can aggravate economic losses. Reassuringly, there is no statistically significant trend in the number of consecutive dry days (days with less than 1 mm of precipitation, Figure 3). Further analysis using additional indicators of droughts from Akyapi, Bellon, and Massetti (2024) confirms the absence of trends in droughts. All this said, changes in seasonal patterns and divergent trends at the sub-national level cannot be detected using annual data and are left for future investigation.

3.   Looking forward, climate models project with high confidence that mean temperatures in Togo will continue to rise, while changes in average annual precipitation are less certain. Median projections of warming across all climate model simulations indicate that temperature will increase between 1.2 and 1.6 °C by 2050 and between 1.2 and 2.9 °C by 2085 with respect to the 1985-2014 period, depending on the emission scenario (Figure 4).[3] More warming cannot be

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[3] We refer to the median projection among all models as the "consensus" estimate. We consider three emission scenarios. The SSP1-2.6 scenario is in line with the Paris goal to keep global mean temperature increase below 2 °C with respect to pre-industrial times. SSP2-4.5 represents continuation of present trends. SSP3-7.0 is a high emission scenario. The 90th percentile of the SSP3-7.0 ensemble is used to provide a high-emission, fast-warming, pessimistic case and is named SSP3-7. 90th p. For a discussion of IPCC scenarios, see Bellon and Massetti (2022a) and Massetti and Tagklis (2024).

excluded. In a high-emission, fast-warming scenario (90th percentile across models using the SSP3-7.0 emission scenario), temperature will rise by 4.2 °C in 2085 (Massetti and Tagklis, 2024; Harris et al. 2020; Copernicus Climate Change Service, Climate Data Store, 2021). The median projection across all model simulations indicates that precipitations will increase modestly, but there is large uncertainty, and a reduction cannot be excluded (Figure 4). Warming is expected to be uniform across the country (Figure 5), which implies that the North may reach average annual temperature above 30 °C with the high emission scenario (SSP3-7.0) at the end of the century, a level experienced only by the hottest countries in the world today. The increase in precipitation is projected mostly in the North, which is dryer than other parts of the country Mostly stable or modestly declining average annual precipitation is projected in other parts of the country.

Figure 3. Historical Time Series of Selected Indicators of Extreme Weather
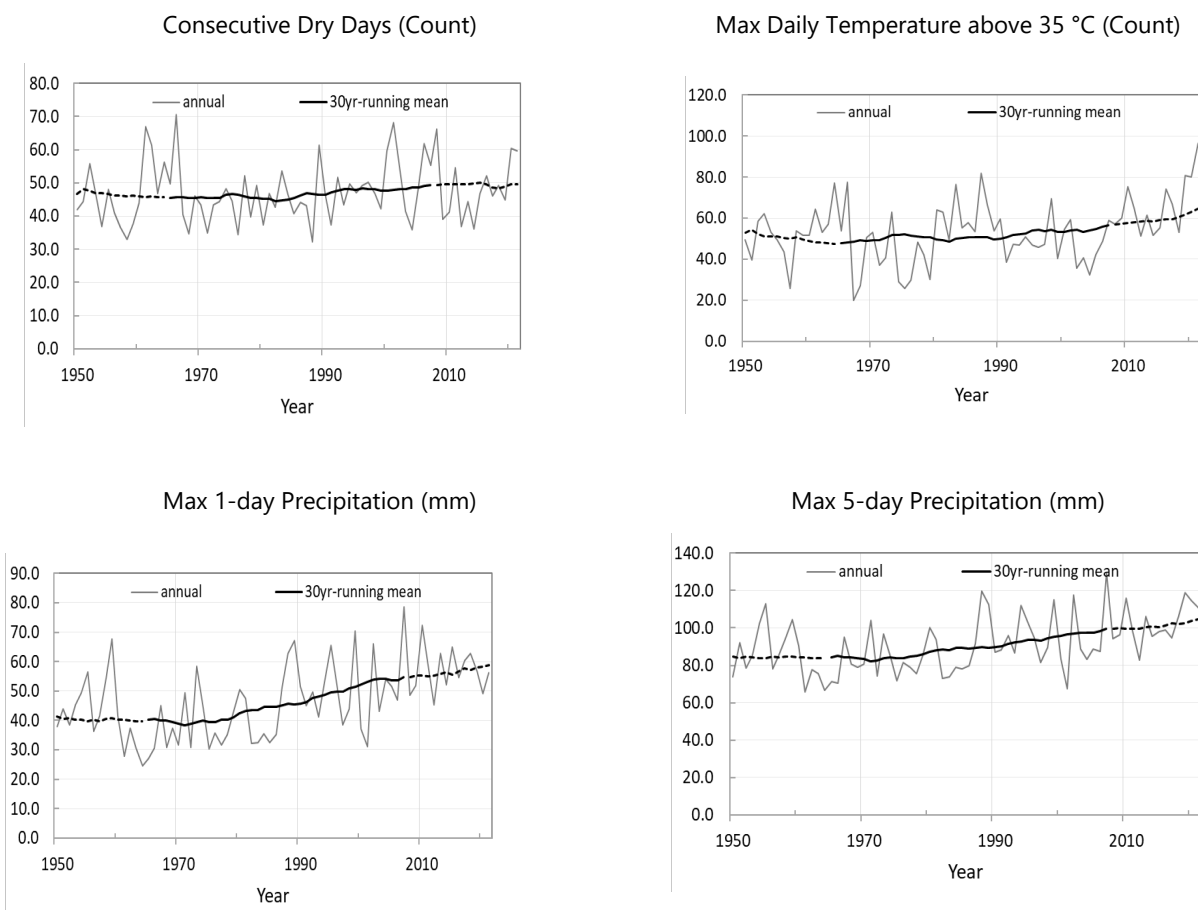
Notes: The solid line displays the 30-year average centered around each 30-year period. Edge effects near the beginning and end of the time series may affect the accuracy of the mean in those regions (dashed).

Sources: FADCP Climate Dataset (Massetti and Tagklis, 2023), using ERA5 data [ref].

Figure 4. Historical and Simulated Annual Average Temperature and Precipitation in Togo
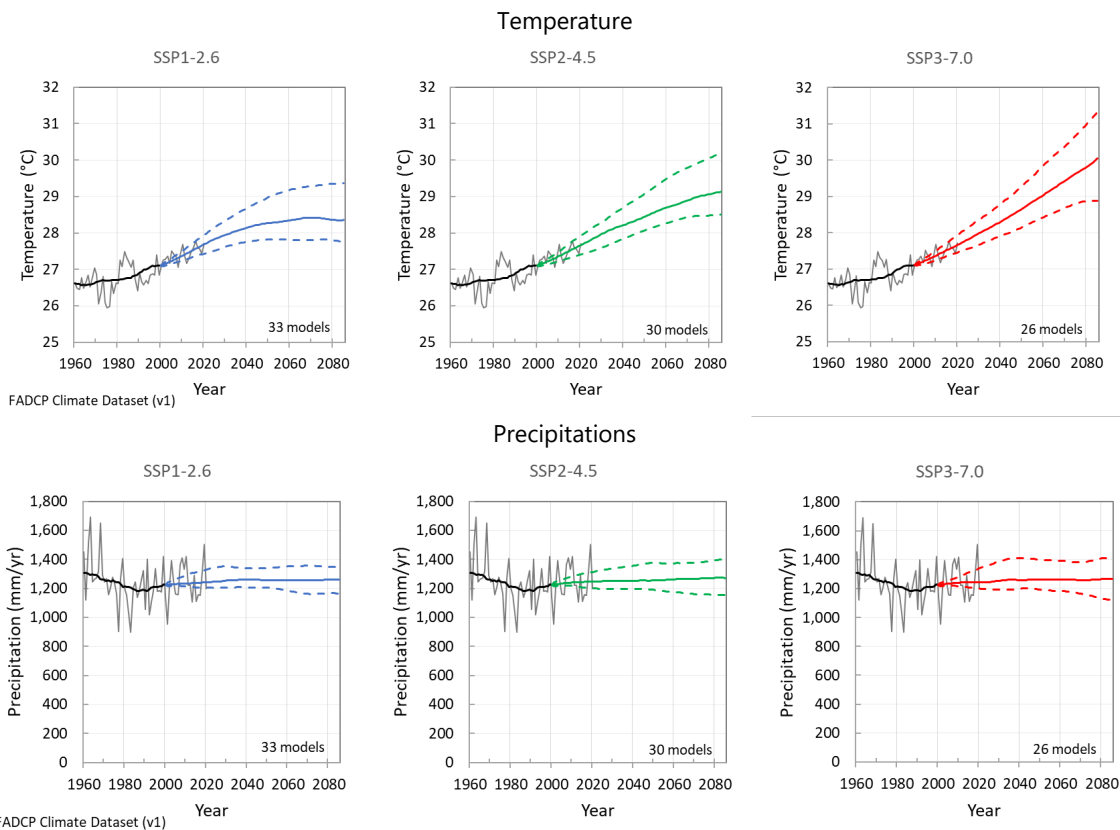
Temperature

Precipitations

Sources: FADCP Climate Dataset (Massetti and Tagklis, 2024), using CRU data (Harris et al., 2020), and CMIP6 data (Copernicus Climate Change Service, Climate Data Store, 2021: CMIP6 climate projections).

Notes: The gray line describes historical average annual temperature and total annual precipitation based on observations (CRU). The black line describes the 30-year moving average of historical data centered around each 30-year period. Colored lines represent the median and the 80 percent range of CMIP6 ensemble temperature anomalies (10th and 90th percentiles) added to the CRU value (thick black line in the year 2000). SSP1-2.6 scenario is in line with the Paris goal to keep global mean temperature increase below 2ºC with respect to pre-industrial times. SSP2-4.5 represents continuation of present trends. SSP3-7.0 is a high emission scenario.

Figure 5. Maps of Historical Observations and Simulated Changes for Average Annual Temperature and Precipitation in Togo
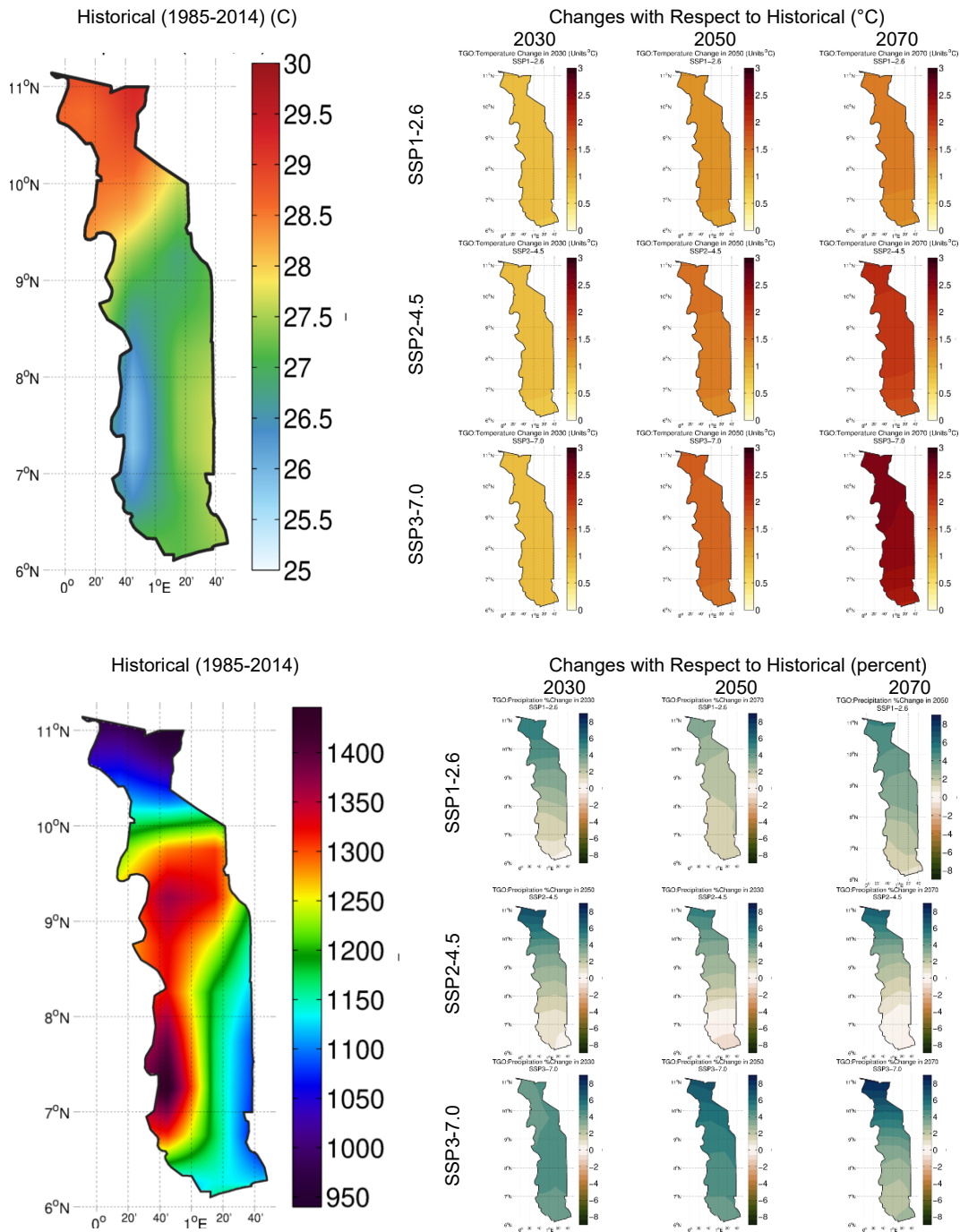
Sources: FADCP Climate Dataset (Massetti and Tagklis, 2024), using CRU data (Harris et al., 2020), and CMIP6 data (Copernicus Climate Change Service, Climate Data Store, 2021: CMIP6 climate projections).

Notes: Average annual temperature anomaly in °C and average annual total precipitation anomaly in percentage, between 30-year time periods centered around 2030, 2050, and 2070, relative to 1986-2014. Median anomaly across all models. For a description of the emission scenario see note to Figure 4.

4.   Sea-levels are rising, and models predict that they will continue to do so for centuries.
Median projections for Togo using a moderate emission scenario (RCP 4.5) indicate that by the end of the century, the sea-level will increase by 0.71 m with respect to its level in 2000 (Table 1) and Figure 6. With an emissions scenario in line with the Paris goal of keeping global mean temperature increase below 2 °C (RCP 2.6), the sea-level is projected to increase by 0.60 m (Table 1). With a very high emission scenario (RCP 8.5), the sea-level is projected to increase by 0.90 m (Table 1 and Figure 6). Due to local factors, including erosion and land subsidence, the sea-level in Togo would rise even without global warming (baseline scenario in Table 1). This trend and other factors explain why the sea-level is projected to increase faster than the global mean in Togo (Table 1 and Figure 6).

Table 1. Togo: Sea-Level Rise Projections Relative to 2000 Level (Meters)				
	2030	2050	2070	2100
Global Mean				
Paris (RCP2.6)	0.14 [0.10 , 0.18]	0.25 [0.18 , 0.33]	0.35 [0.23 , 0.51]	0.50 [0.30 , 0.82]
Moderate (RCP4.5)	0.14 [0.10 , 0.18]	0.26 [0.18 , 0.35]	0.39 [0.26 , 0.56]	0.60 [0.35 , 0.94]
Extreme (RCP8.5)	0.14 [0.11 , 0.18]	0.29 [0.21 , 0.38]	0.47 [0.33 , 0.66]	0.77 [0.51 , 1.19]
Togo				
Baseline	0.03 [-0.01 , 0.06]	0.04 [-0.02 , 0.11]	0.06 [-0.03 , 0.15]	0.08 [-0.05 , 0.21]
Paris (RCP2.6)	0.17 [0.11 , 0.24]	0.31 [0.20 , 0.42]	0.43 [0.26 , 0.64]	0.60 [0.34 , 0.98]
Moderate (RCP4.5)	0.17 [0.11 , 0.23]	0.32 [0.21 , 0.44]	0.47 [0.29 , 0.68]	0.71 [0.39 , 1.11]
Extreme (RCP8.5)	0.18 [0.12 , 0.24]	0.35 [0.23 , 0.48]	0.56 [0.36 , 0.80]	0.90 [0.56 , 1.37]

Sources: Sea-level rise projections from Kopp et al. (2014) derived from the CIAM model database (Diaz, 2016).

Notes: Global and Local Sea-Level Rise (SLR) probabilistic projections until 2100 under three emission scenarios (Paris - RCP 2.6; Moderate - RCP 4.5; Extreme - RCP 8.5). The range in brackets represents the 5th and 95th percentiles of the distribution of SLR for each emission scenario. Local SLR projections include information on local climate change induced SLR rates and a baseline projections of local vertical land movement (subsidence or uplifting) not caused by climate change

Figure 6. Sea-Level Rise Projections Relative to the Level in the Year 2000 (Meters)
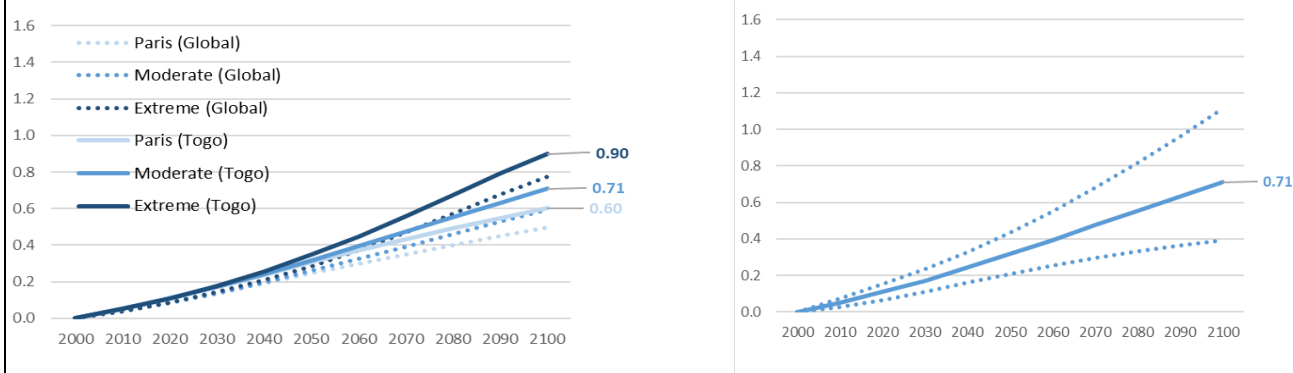
Notes: (left) Local (solid) and Global (dotted) Sea-Level Rise (SLR) probabilistic projections until 2100 under three emission scenarios (Paris - RCP 2.6; Moderate - RCP 4.5; Extreme - RCP 8.5). Median SLR for each emission scenario. (right) local SLR probabilistic projections using the Moderate (RCP 4.5) emission scenario. Solid lines depict median SLR, dotted lines depict the 5th and 95th percentiles of the distribution to account for uncertainty in the speed of sea-level rise and tipping points in Greenland and Antarctica Ice Sheets melting.

Box 1. Sea-Level Rise: Drivers and Projections

The primary sources of global mean sea-level rise (SLR) are thermal expansion directly caused by global warming and melting of land-based ice mass, most of which is in Greenland and Antarctica (Kopp et al., 2014). A slow but persistent response of ice masses to higher temperature will cause sea-level to increase for decades, and possibly centuries, after global mean temperature stabilizes. As a result, there is no doubt that sea-level will continue to increase during this century, but uncertainty remains on its extent. Thermal expansion and melting of the Greenland Ice sheet are projected to be the main sources of SLR this century with high confidence. The contribution to SLR of Antarctic Ice Sheet melting is instead very uncertain, going from slightly negative (due to increased snow accumulation) to very large (due to fast melting of Western Antarctica) (Kopp et al., 2014). Projections of global mean-sea level are useful to monitor global trends but are not accurate to predict local impacts and support adaptation decisions (Kopp et al., 2014; Diaz, 2016). Local SLR can differ from global mean SLR due to multiple factors, including local vertical land movement (for example, due to tectonics) (Kopp et al., 2014). The analysis of the cost of sea-level rise in this Annex relies on probabilistic local SLR projections, which account for regional SLR, local vertical land movements, and uncertainty in the range of SLR (Kopp et al., 2014; Diaz, 2016).

More recent projections of SLR (Fox-Kemper et al., 2021) are slightly lower than those in Kopp et al. (2014) in Togo, except for a new low-confidence extreme emissions and extremely fast Antarctica Ice Sheet melting projection (data at latitude 6° north and longitude 2°, from Garner et al., 2021). In Fox-Kemper et al. (2021), the SSP2-4.5 scenario is comparable to the RCP4.5 scenario in Kopp et al. (2014) and projects 0.60 m of SLR in 2100 in Togo, instead of 0.71 m. The SSP5-8.5 scenario is comparable to the RCP 8.5 scenario and projects 0.83 m of SLR in 2100, while Kopp et al. (2014) project 0.90 m. The 95th percentiles of the SSP2-4.5 and SSP5-8.5 scenarios are within few centimeters from those in Kopp et al. (2014). The new projections also consider a low confidence (limited empirical evidence) scenario of extremely fast SLR in the possible but poorly understood quick deterioration of Antarctica.

5.   The analysis of climate trends and projections in this section does not cover all possible sources of risk. To gain a full understanding of the impact of climate change on Togo's economy, additional analysis is needed to uncover sub-national and infra-annual changes in climate. Further, a preliminary analysis of changes in flood risks did not reveal significant broad changes but more data is needed for a conclusive answer.

6.   There is however no doubt that rising mean temperatures, more frequent extreme heat, and sea-level rise will pose increasing threats to a mostly agricultural, poor country. The rest of this paper provides estimates of economic impacts from these climate hazards.

B.   Macroeconomic Risks

7.   Slow-moving mean temperatures increases, related more frequent extreme weather events and natural disasters, and sea-level rise can cause large costs even if adaptation measures are taken, but there is large uncertainty on the magnitude of these losses. It is difficult to predict the magnitude of impacts because substantial uncertainty remains about how the climate will evolve and how the economy will react to a protracted departure from normal climatic conditions. Very large negative impacts from abrupt climatic, environmental, and climate change-induced societal changes cannot be excluded but are impossible to quantify because they have never been observed. The estimates presented in this section rely on empirical evidence obtained using methods and data at the frontier of research but should be interpreted only as a starting point for a more comprehensive assessment.

Slow-Moving Warming and Extreme Weather

8.   The predicted trend increase in mean temperatures can cause sizeable reductions in GDP per capita, even without accounting for extreme weather events and sea-level rise, especially with slow or no adaptation. In the fastest warming scenario considered for this analysis (SSP3-7.0 90th percentile: +4.2 °C compared to the year 2000), and assuming slow adaptation, GDP per capita is projected to decline by 8 percent by 2100 with respect to what it would be if the present warming trend continues (Figure 7). A scenario without adaptation causes damages that are approximately twice as large (Mohaddes and Raissi, 2024; not shown in Figure 7), while fast adaptation can reduce losses to 3 percent of GDP per capita for the same temperature change. These costs are relative to a world in which temperature increases along observed trends and the economy is therefore already below its full potential. These estimates are thus necessarily lower than those from studies that calculate losses with respect to a scenario without additional warming (see Box 2 for a detailed explanation). For this reason, a reduction in the speed of the observed warming trend can accelerate growth. This is the benefit of global mitigation. These estimates do not cover all potential impacts. For example, they do not include the effect of extreme weather and sea-level rise, the determination of which requires specialized models. They also do not include the cost of adaptation, resulting in underestimated total costs of climate change, particularly in scenarios with fast adaptation.

Figure 7. Reduction of GDP per Capita With Respect to Continuation of Present Temperature Trends
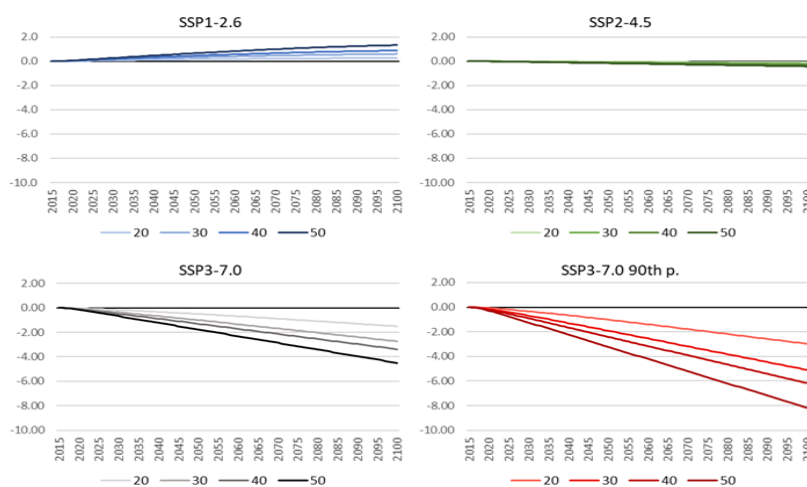
Sources: IMF Staff estimates using Kahn et al. (2021), and CMIP6 data (Copernicus Climate Change Service, Climate Data Store, 2021) processed by Massetti and Tagklis (2024).
Notes: The impact of the warming trend for each scenario is estimated using Kahn et al. (2021) under the assumption that adaptation can offset the impact of the warming trend after 20, 30, 40, or 50 years. Impacts are measured as percentage deviations of real GDP per capita relative to a reference scenario in which the warming trend follows the historical pattern. Country specific warming trends are calculated for each scenario using the bias-adjusted ensemble median projections of temperature anomalies with respect to 1985-2014 over 30-year time periods centered around each year using CMIP6 data. The SSP1-2.6 scenario is in line with the Paris goal to keep global mean temperature increase below 2 °C with respect to pre-industrial times. SSP2-4.5 represents continuation of present trends. SSP3-7.0 is a high emission scenario. SSP3-7. 90th p. uses the 90th percentile of the SSP3-7.0 ensemble instead of the median to provide a high-emission, fast-warming, pessimistic case.

Box 2. Impact of Slow-Moving Warming

IMF staff used estimates of the impact of warming on GDP growth from Kahn et al. (2021) to estimate the long-term effect of gradual warming in Togo and other countries such as Morocco and Rwanda. The theoretical model developed by Kahn et al. (2021) connects "deviations" of temperature and precipitation (that is, weather) from their long-term moving-average historical norms (that is, climate) to growth in real GDP per capita. This model is then estimated by using data from 174 countries over 1960–2014.

The model postulates that per-capita real output growth is affected by temperature trends and temperature volatility. The historical warming trend is already a drag on growth. An acceleration of the warming trend relative to historical values, has a negative impact on GDP growth while a deceleration of the trend has a positive impact. Abiding by the Paris Agreement goals (SSP1-2.6), which would slow the warming trend with respect to historical values, raises projected GDP growth above the baseline scenario. The SSP2-4.5 scenario is close to continuation of present trends and has generally small negative or positive impacts. The SSP3-7.0 scenario represents an acceleration of the present trend and generates negative impacts. The 90th percentile of the SSP3-7.0 scenario provides an almost worst-case outcome and generates the largest negative impacts.

Adaptation is implicitly included in the Kahn et al. (2021) model, without accounting for its cost. After m years, countries are assumed to have fully adapted to the new temperature level. This analysis considers m = 20, 30, 40, and 50. m = 50 implies that it takes 50 years to adapt to the future level of temperature, while m = 20 implies that the economy fully adapts in 20 years. If adaptation costs are large and/or it is impossible to offset the impact of warming, adaption will tend to be slow and/or incomplete and impacts on growth will be underestimated using this model.

While the future continuation of the historical temperature trend does not reduce the growth rate of the economy in the Kahn et al. (2021) model, there is a loss of GDP per capita with respect to a hypothetical no-warming baseline scenario that would see higher growth. For example, if the long-run growth rate of the economy in year 2000 was equal to 3 percent per year and the observed temperature trend reduces growth by 0.2 percentage points per year, GDP per capita in 2024 would be 5 percent below its potential. Losses grow to 9 percent in 2040, and 18 percent in 2100.

Sharp non-linearities in the response of the economy to temperature levels – which would imply a reduction of growth even with a constant trend – would add to the impacts that Togo could expect to see, but there is no empirical evidence for the existence of such non-linearities. For example, there is no evidence of non-linear responses to temperature shocks in the analysis of Kahn et al. (2021). This may be because such linearities do not exist or because the data do not allow identifying them due to a lack of large enough departures of temperature from normal values that incorporate trend warming. Using a quadratic specification of temperature levels to account for potential non-linearities raises numerous empirical problems as discussed in Kahn et al. (2021) and Massetti and Mendelsohn (2018).

GDP losses predicted by Kahn et al. (2021) can be thought of as errors in forecasts based on the assumption on continuation of observed warming trends. If growth rates already reflect observed temperature trends and nothing else changes, macroeconomic forecasts will be accurate, on average. But if the temperature trend accelerates (decelerates), forecasts based on historical data will be upward (downward) biased. This feature addresses the need of policy makers to adjust current projections to reflect projected changes in temperature trends.

9.   Severe droughts and extreme heat events are already affecting Togo's economy negatively, and a growing incidence of extreme heat events can reduce future growth, adding to impacts from rising mean temperatures discussed in the preceding paragraph. Figure 8

displays estimates of impacts of key weather events identified with the help of machine learning methods on annual growth of real GDP per capita (Akyapi, Bellon, and Massetti, 2024). The figure shows coefficients estimated using a global panel of countries and homogenous sub-groups, all of which include Togo.[4] In Sub-Saharan African countries, a one standard deviation increase in the prevalence of severe droughts or the duration of extremely hot spells reduces GDP growth by 0.3 percentage points. The very severe drought that affected Togo and other African countries in 1983 (three standard deviations above normal conditions, see Figure 9 is thus estimated to have reduced growth by almost one percentage point.

10.   **To help interpret the estimated impact from extreme heat spells, it is useful to know that the standard deviation of the distribution of such spells in Togo is 9 days.** Thus, a year in which extreme heat lasts two weeks longer than normal would see growth by 0.5 percentage points below normal, everything else equal. Repeating this exercise with year-by-year weather observations provides a first attempt at quantifying the effect of observed weather shocks on past growth. From 1980 to 2019, the impact on growth of droughts and extreme heat episodes (and the return to normal weather in subsequent years) was between -0.5 to +0.5 percentage points in most years (Figure 10).[5] In 1983, the combined effect of the aforementioned drought and extreme heat is estimated to have reduced growth by more than 1.5 percentage points. Looking forward, if the observed trend in extreme temperatures were to follow SSP3-7.0 90th p. projections, growth would be 0.08 percentage points below its normal level each year.[6] Over 100 years, this implies a reduction of real GDP per capita of 8 percent (assuming a 3 percent annual growth rate of per capita GDP).

11.   **The above estimates on the impacts of increasing mean temperatures as well as more frequent extreme weather events provide a useful benchmark but are subject to a number of limitations:**

- The estimates rely on the strong assumption that future responses to temperature and other weather shocks can be predicted using data from the past. Large non-linearities in the response of the economy and society to levels of warming that cannot be detected using past data may lead to much larger damages than those projected here. These non-linearities may entail sharp changes in both climate and socio-economic systems.

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[4] Days with mean temperature between 9 and 12 °C have a positive impact on growth but are not observed in Togo.

[5] Weather shocks are defined as year-to-year differences. For example, in a year with fewer (more) extreme heat days than the previous year growth will be higher (lower) than the previous year – keeping anything else constant.

[6] Without trends, the average weather shock is equal to zero and average growth is not affected by weather. But with a positive trend – e.g., in extreme heat events – negative economic shocks tend to be larger than positive ones and this causes a persistent reduction of growth below normal. If the trend is already observed in the past, historical growth rates are already affected by the climate trend. As in Kahn et al. (2021), only an acceleration (deceleration) of the trend persistently changes expected growth. To project the impact of extreme heat on growth, we assume 180 additional hot days with respect to the historical average and no historical trend because the trend has been very small. This corresponds to additional 2.25 hot days each year. As the negative impact of one standard deviation of hot days on growth is estimated to be equal to 0.3 percentage points we have: 2.25/9 x 0.3 = 0.076 percentage points lost each year from an acceleration of the trend. We do not repeat the same exercise with droughts because there is no statistically significant trend in historical observations and projections do not indicate significant changes.

- The advantage of macroeconomic studies is the ability to study the net effect of multiple climate shocks across all sectors with parsimonious models, but sectoral analysis is needed to explore transmission channels and provide the basis for tailored policy advice. The agricultural sector deserves special attention because it depends almost entirely on rainfall, and with already high current temperatures it may be strongly influenced by climate change (Tchinguilou et al. 2013).

- Macro-economic impacts are useful for macro-fiscal planning purposes but do not provide information on distributional effects of climate change, which are expected to be relatively more harmful for the poorest part of the population. Micro-level analysis may reveal additional needs to boost social safety nets and other support programs that can have macro-fiscal implications.

Figure 8. The Impact of Weather Shocks on GDP per Capita Growth

Sources: Akyapi, Bellon, and Massetti (2024).

Notes: The figure illustrates the estimated impact of each weather variable using the baseline specification of Akyapi, Bellon, and Massetti (2024) and for different sub-groups (Figure 5). The vertical lines show the 95 percent confidence intervals using standard errors clustered by country. Climate variables are standardized. Harsh Drought Prevalence: Share of grid-months during which the Palmer Drought Severity Index (PDSI) is < -4. Max T °C above 35: Share of grid-days with maximum daily temperature greater than 35°C. Mean T °C in [9; 12]: Share of grid-days with mean temperature in the interval [a,b]. (W) indicates population-weighted variables. The figure shows results for only groups that include Togo.

Hot (N=3,315): 1979-2019 average temperature > 22.8 °C. Cold (N=3,338): 1979-2019 average temperature ≤ 22.8 °C. Agricultural (N=3,130): share of "Agriculture, forestry, and fishing, value added (% of GDP)" in 2002 is above median across countries. Agricultural Hot (N=1,785): agricultural and hot. Poor: "Low Income" and "Lower Middle Income" in WDI (N=2,727). SSA (N=1,629): Sub-Saharan Africa. High Democracy (N=3,895): countries with average value of the V-Dem Project Electoral Democracy Index from the Varieties of Democracies (V-Dem) project Coppedge et al. (2023) above the median in our sample. High Democracy and Poor (N=950). 1981-1999 (N=2,762) and 2000-2019 (N=3,891).

Figure 9. First Differences of Selected Climate Variables in Togo (Standardized Variables)

Harsh Drought Prevalence (W)

Max T °C above 35 (W)
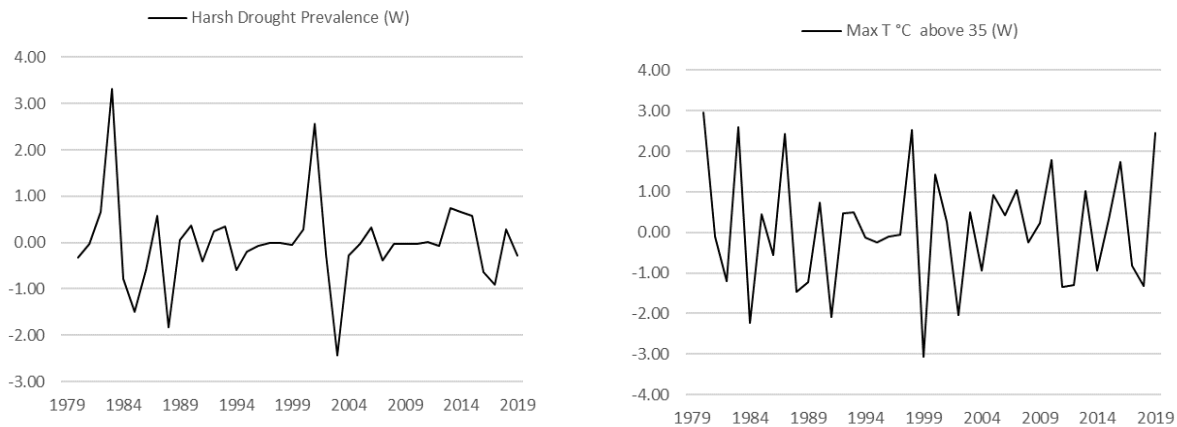
Sources: Akyapi, Bellon, and Massetti (2024).

Notes: The figures illustrates first differences in Togo of variables selected in by Akyapi, Bellon, and Massetti (2024). For a description of the variables, see note to Figure 8.

Figure 10. Impact of Selected Climate Variables on Growth in Togo (Percentage Points)

■ Harsh Drought Prevalence (W) ■ Max T °C above 35 (W) ■ Mean T °C in [9; 12] ◆ Total
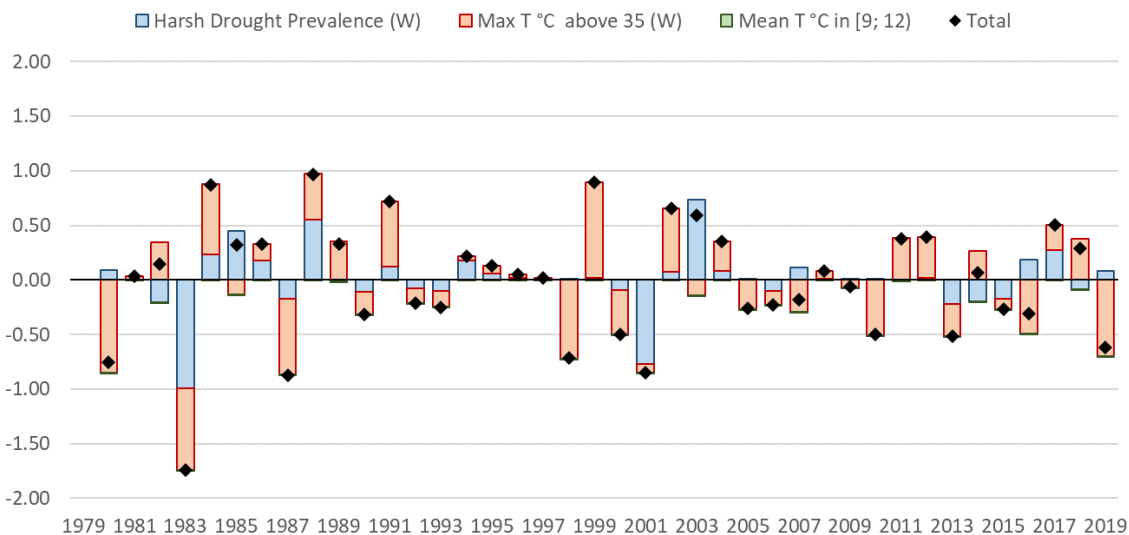
Sources: Akyapi, Bellon, and Massetti (2024).

Notes: Impacts estimated using estimates for countries in Sub-Saharan Africa. Black diamonds indicate the net impact of all variables. For a description of climate variables see notes to Figure 8

Sea-Level Rise Impacts and Adaptation

12.   Togo cannot control the global sea-level rise (SLR), but it can manage how it affects the country by adapting. Global mitigation efforts is key to limiting the speed of SLR during this century and the overall extent of SLR in future centuries, but adaptation plays a crucial role for limiting the impacts of unavoidable SLR.

13.   In a preliminary analysis using the CIAM model (Box 3), staff estimates that the annual average cost of SLR is about 0.3 percent of GDP over 2020 to 2099 in a moderate emission scenario, some or all of which may arise to the government as fiscal costs (Figure 11). Costs range between 0.1 and 0.32 percent of GDP annually with the best and worst sea-level rise projections using the lowest projection for the lowest emission scenario and the largest projection for the highest emission scenario. In the worst-case scenario, the cumulative cost is equal to 170 percent of 2020 GDP. Most of the cost is attributed to loss of life and capital during storm surges in the densely populated coastal areas of Togo. These costs measure welfare losses and are the appropriate metric to estimate the full economic impact of SLR. The literature uses general equilibrium models to translate loss of capital and land into long-term macroeconomic impacts (e.g., Bosello et al., 2012). Alternatively, it is possible to derive first-order approximations of the fiscal costs of SLR by assuming how much of the social cost of SLR is either directly borne by the public sector or compensated with public finances. Direct losses may derive from reconstruction costs of public assets and purchase of new land for public use. Losses of private capital and private land may have an impact on public finances if they affect tax revenues, or if the government compensates private losses. Increased spending on social programs aimed at easing disutility costs of relocation from inundated area can lead to higher expenses. If the government assumes full responsibility for all losses, including the adverse effects of relocation, the costs presented in can be interpreted as an upper bound to government financing needs.

14.   Coastal protection efforts can be very effective at reducing the cost of SLR in Togo (Figure 11). The CIAM model used by staff (Diaz, 2016) calculates the cost of SLR and the cost of protection considering many factors, including coastal topography and distribution of population and capital. An investment of approximately 0.03 percent of GDP annually throughout the century reduces the cost of SLR by approximately 75 percent, in line with results in other countries and other studies. Investment in protection is front-loaded and equal to 0.13 percent of GDP in the first decade. For comparison, the Togo Authorities have estimated that protection of the coastline would cost US$ 200 million between 2015 and 2030, or approximately 0.2 percent of 2020 GDP, slightly larger than CIAM's estimate but of similar magnitude. The model provides a comprehensive assessment of costs and benefits. Protection of the coastline disrupts the natural exchange of waters between wetlands and open seas, leading to potential biodiversity losses, a loss estimated to total 0.04 percent of GDP annually.

Figure 11. Annual Average Cost of Sea-Level Rise, 2020–99 (Percent of GDP)
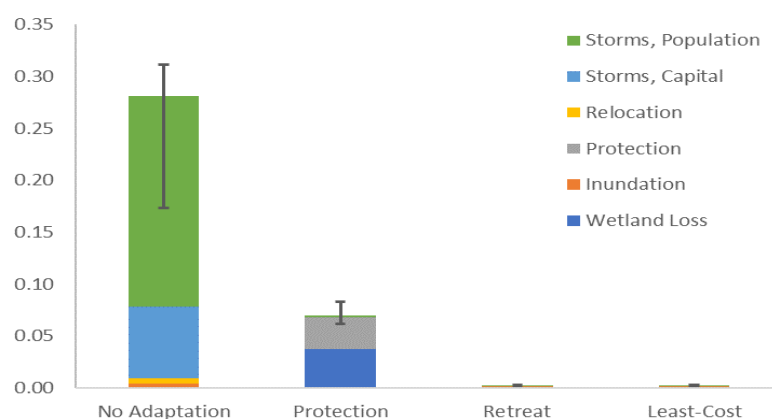
Sources: IMF Staff using the CIAM model (Diaz, 2016).

Notes: Average annual cost. Whiskers on top of each bar indicate the range of total cost using the 5th and 95th percentile of the probabilistic distribution of sea-level rise. Due to the highly non-linear nature of coastal impacts, adaptation costs, and effectiveness of adaptation measures, ranges are not always symmetric around total costs

15.   Planned retreat from the coastline can further lower the cost of SLR, but it needs careful planning, and its distributional consequences need to be estimated and assessed. Planned retreat relies on a pro-active move of the population and implementation of a long-term strategy that let assets exposed to permanent inundation depreciate over time to zero [?]. In this gradual process, capital losses are minimal and in value terms, only bare land is lost to the sea. The opportunity cost of this land is low and equal to the value of agricultural or marginal land in the country, as established by Yohe (1990). The population affected does not need to move long distance to avoid sea-level rise predicted for this century. Relocation to different neighborhoods within the same coastal city may be sufficient.

16.   Analysis using more granular data could determine costs of SLR and adaptation to it with greater precision in a highly dynamic coastal environment such as exists in Togo, but the above preliminary analysis establishes a useful roadmap. The coastline of the country is divided in four separate segments in CIAM that vary in length from 0.7 Km to 24.9 Km, but the model does not capture coastal characteristics at very high resolution. While the model captures baseline erosion and vertical land movement, it does not capture the interaction of sea-level rise with the ongoing coastal erosion processes. The model also does not capture the cost of infiltration of saline water into coastal aquifers. However, the model includes non-market costs such as loss of life due to storm floods, wetland loss, and disutility from relocation. While a more detailed analysis is warranted, CIAM's results are in line with the seminal study of Hinkel et al. (2018). Considering multiple SLR, economic development, and adaptation scenarios, and using different discounting rates, Hinkel et al. (2018) find that the cost of SLR can range between 0.002 percent and 0.3 percent of GDP annually in Togo, a result similar to CIAM's estimate.[7]

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[7] More precisely, the cost is estimated as the discounted sum of costs dividend by the discounted sum of GDP.

17.   Cost-benefit analysis can be challenging, but even preliminary and incomplete assessments of costs and benefits help identify the most attractive options for adapting to SLR (Bellon and Massetti, 2022a). Best practices can be drawn from coastal protection analysis and policies in other countries, for instance the Netherlands, where there is a long-standing tradition of using cost-benefit analysis for flood risk management and water governance. This tradition started in 1954 with the pioneering contribution by Tinbergen (1954) and continues to this day (Bos and Zwaneveld, 2017).

Box 3. Estimating the Cost of Sea-Level Rise and Adaptation

The analysis of sea-level rise impacts, and adaptation options is done using complex models that rely on necessary simplifications but provide important insights. While there is uncertainty on the exact extent and cost of damages from SLR and on the cost of protection measures, there is consensus in this literature that long-term planning of adaptation can be highly effective at containing physical impacts and costs of SLR. For example, the large EU-funded research project PESETA IV finds that coastal protection can reduce SLR damages in the EU by approximately 90 percent (Vousdoukas et al. 2020, Table 6). Model simulations fully agree that adaptation can be highly effective but may differ on the optimal mix of adaptation measures – e.g., hard protection, nature-based solutions, planned retreat – because they use different data, use different climate scenarios, or work under different normative criteria. There is also consensus that the transformations needed to adapt to SLR, while technologically feasible and economically sound, are complex and require strong governance (Hinkel et al., 2018).

IMF staff uses the state-of-the-art Coastal Impact and Adaptation Model (CIAM) to estimate the cost of sea-level rise under alternative adaptation strategies. CIAM is a global model used to estimate the economic cost and benefits of adaptation to sea-level rise (Diaz, 2016). The global coastline is divided into more than 12,000 segments of different length grouped by country. Togo's coastline is modeled using four separate segments in CIAM that vary in length from 0.7 Km to 24.9 Km . Each segment is further divided into areas of different elevation. For each segment, the model has data on capital, population, and wetland coverage at different elevations. By using projections of local sea-level rise from Kopp et al. (2014), it is possible to estimate the areas that will be inundated and the amount of capital and population at risk. Storms cause periodic inundations on top of sea-level rise. The model does not consider increased risks from river floods.

The model calculates the cost of SLR—protection costs plus residual losses—under alternative adaptation options:

The **_no-adaptation_** scenario assumes that population does not move until the sea inundates the area where they live and then relocates to areas with higher elevation. Society keeps building and maintaining capital until inundation causes irreversible losses and capital is abandoned. The cost of sea-level rise is calculated as the sum of the residual value of capital that is abandoned, demolition costs, and the value of land that is inundated. The model uses the rental value of agricultural land in proximity of the coastline, following Yohe et al. (1990), because as SLR progresses, coastal proximity rents will shift from land that is inundated to adjacent land. Population density and development opportunity costs are assumed to be capitalized in agricultural land values. The disutility cost of reactive migration is monetized.

At the opposite, a **_protection_** scenario assumes that society invests in cost-effective seawalls and other barriers along the entire coastline to avoid inundation from sea-level rise, but storms can still periodically inundate protected areas if protection is not sufficiently high. Capital and land are not lost, the population does not move, but storms periodically cause capital and human losses. The cost of SLR is equal to the cost of protection plus the expected value of the cost of storms.

Another adaptation option relies on **_planned retreat_** from areas that will be subject to inundation. The goal of retreat is to keep using coastal areas without building new capital and by letting the existing capital depreciate. For example, a coastal road is used until it needs major retrofitting investment. Then, a new coastal road is built in-land on higher grounds. This strategy accepts that land and some residual value of capital will be lost, but it avoids coastal protection costs. The population gradually moves to higher grounds before areas are inundated. This usually does not require migration to distant places, but rather relocation within the same coastal area.

> **Box 3. Estimating the Cost of Sea-Level Rise and Adaptation** (concluded)
>
> The cost of SLR is equal to the sum of the residual cost of capital, the value of inundated land, and the disutility cost of relocation.
>
> The model considers variants of protection and retreat scenarios to deal with risks from storm surge floods. For example, the model calculates the height of the coastal protections to contain SLR and increasingly large storm surges (1/10, 1/100, 1/1,000 and 1/10,000 year events). In the base scenario (Retreat 1), the retreat perimeter is calculated to only deal with permanent inundation of land, but the retreat perimeter can be pushed to also avoid storm surges (from 1/10 to 1/10,000 year events).
>
> For each coastal segment, the model calculates the net present value of SLR costs for each adaptation strategy. Loss of life is monetized using the Value of Statistical Life and loss of wetland due to either SLR or protection of barriers that impede the normal circulation of tidal waters is monetized using estimates of willingness to pay for biodiversity preservation.
>
> The cost of building and maintaining seawalls and other key parameters are from the literature. Storm surge costs are incremental with respect to a baseline scenario in which storms occur without SLR.
>
> By comparing SLR costs across all scenarios it is possible to find the ***least-cost adaptation strategy*** for each coastal segment and to calculate the lowest possible cost of SLR for the country. Coastal protection is usually the least-cost strategy in areas with large existing capital and high population density. Planned retreat is usually the least-cost strategy in areas with low capital and population density. The optimal height of coastal protection infrastructure and the optimal retreat perimeter vary on many factors, including projected incremental costs of protection, the opportunity cost of not using land that would normally not be flooded, capital and population at risk, and sea-level rise scenarios.
>
> **Despite many uncertainties and some necessary simplifying assumptions, CIAM provides a useful framework to systematically study costs and benefits of alternative adaptation strategies to SLR.** More granular coastal modeling and more accurate mapping of assets can provide a more precise assessment of costs and benefits, but the key insights developed with a baseline version provide a useful starting point to deal with a complex, multidecadal challenge.

C. Adaptation Policies and Financing Needs

18.   While climate change is expected to weigh on public finances, estimates of spending needs for adaptation vary substantially due to differences in methods, definitions, and future scenarios.

- IMF staff estimates using World Bank data indicate that reinforcing all new infrastructure exposed to floods would cost 0.1 percent of GDP annually. Retrofitting all infrastructure already built would cost an additional 0.7 percent of GDP and most likely is not cost-effective (Aligishiev, Bellon, and Massetti, 2022).

- Estimates by the authorities and development partners place the cost the investment needs for climate change adaptation and mitigation in Togo on a wide scale, from 1.5 to 8.4 percent of GDP per year (Table 2).

- These large differences cannot be easily reconciled because studies use different definitions, reference scenarios, and projections. Many of the investments included in the largest investment

needs estimates typically have large development benefits that would make them necessary even without climate change.[8]

19.   While estimating with precision what should be done, and at what cost is extremely difficult, it is possible to build a roadmap for including adaptation into macro-fiscal planning based on general principles. IMF staff has developed guidance to help countries adapt by integrating climate change in macro-fiscal planning (Gonguet et al. 2021; Bellon and Massetti, 2022a,b; Aligishiev, Bellon, and Massetti, 2022; Sakrak et al. 2022). These principles frame adaptation in terms familiar to economists and in the broader context of sustainable development, with the intent of guiding public investment and enabling efficient private adaptation.

20.   Adaptation is most effective when it is an integral part of development planning. In the Paris Agreement (Article 7), adaptation is established as "the global goal of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development." Investments in climate change adaptation are similar to other investments in development because their common goal is to maximize future welfare given the available resources (Bellon and Massetti, 2022a).

21.   With many competing needs, the government must carefully allocate resources across all possible uses, including adaptation to climate change, while considering the distributional implications. This requires: (i) concentrating government efforts and resources in key areas; and (ii) collecting information on how effective spending is across alternative programs and how spending affects distinct groups in society (Bellon and Massetti, 2022a).

Table 2. Togo: Estimates of Annual Investment Needs for Climate Change Adaptation and Mitigation in Togo, in 2020−2030

Source	Adaptation investment	Mitigation investment	Total	Total, percent of GDP	Financing Gap, in million USD
	Cost per year, in million USD				
AfDB Economic Outlook	-	-	703	8.4	560
Nationally Determined Contribution	278	276	554	6.6	383
WB Public Expenditure Review/Green Climate Fund-Togo	350	-	350	4.2	336
Togolese National Adaptation Plan	125*	-	125*	1.5	-

NB: * Figure from a 2023 stakeholder stocktake, not covering the entire 2020-2030 period.

Sources: Togolese Republic, 2021, Nationally Determined Contribution; Togolese Republic, 2023, National Adaptation Plan (First communication on climate change adaptation) ; African Development Bank, 2023, Perspectives économiques en Afrique ; World Bank, 2024, Public Expenditure Review. Contributed by Laura Gores.

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[8] When estimating investment needs in adaptation to climate change, it is useful to focus on costs that can be attributed to climate change but there is no agreement on the reference scenario. For example, the cost of making agriculture more productive should not be generally counted as an adaptation need because higher productivity would be needed even without climate change. Only additional irrigation needs, or the cost of developing new heat tolerant seed varieties should be counted as an adaptation need. This satisfies the "additionality principle" and greatly reduces estimates of adaptation needs (Bellon and Massetti, 2022a).

Box 4. Policies to Facilitate Adaptation

In imperfectly competitive markets, adaptation is inefficient, and governments should intervene mirroring standard prescriptions for public policy from economic theory.

- Some market imperfections pertain to the nature of the adaptation goods themselves. For example, markets invest sub-optimally in adaptations with large positive externalities and public goods, such as information about climate change, emergency preparedness plans, seawalls, basic research in new materials, and technologies to cope with higher temperature.

- In many instances, resilience depends on networks, such as a system of dikes, a water network, or a transportation network. As adaptation in each part of a network has impacts on the rest of the network that may not be captured, private adaptation will tend to be underprovided. Government coordination may be needed to internalize all the benefits for society.

- The extent of needed cooperation for adaptation projects depends on the extent of the externality that is addressed by the project. Building a more resilient storm water drainage system may only require cooperation at the city level. If risks from sea-level rise are localized, each locality may invest in its own system of protection. The central government can provide adaptations with local effects, but that would be equivalent to a transfer of wealth between regions when projects are financed from national resources. As risks grow in scope and complexity, cooperation might be needed at the national or even the international level, for example to manage floods in transnational rivers. In general, the optimal distribution of responsibilities across levels of government also depends on the existing allocation of responsibilities.

- Other market imperfections affect the broad functioning of the economy and make adaptation to climate change inefficient. For example, a poor business environment and inefficient credit markets hamper opportunities for farmers to invest in new capital to grow crops that are more suitable to the new climate.

- Moral hazard may cause insufficient investment in adaptation if consumers, firms, and local government expect central governments to provide relief. To avoid moral hazard, governments can implement regulations that minimize risk taking. Examples include zoning that prohibits construction in flood zones, building codes, mandatory evacuations, and mandatory insurance.

- The government may also consider correcting market distortions resulting from their own policies (policy failure). For example, subsidies to inputs can lead to inefficient use. Of particular concern is subsidized water use, which may worsen water scarcity problems due to climate change. Barriers to international trade also prevent efficient climate-change-induced reallocation of capital, land use, and other resources to maximize their productivity. The government may consider removing these distortions as part of a comprehensive plan to improve the efficiency of the economy, while taking into consideration the distributional implications of these measures.

Sources: Massetti and Bellon (2022a)

22.   The government can prioritize adaptation policies with positive externalities by removing the market imperfections and policies that hinder efficient private adaptation, and by ensuring a just transition (Box 4). Individuals and firms have strong incentives to adapt because many adaptation benefits tend to be local and private. Even poor farmers have the incentive to adapt. However, there is a clear role for government intervention when adaptation has large externalities, as in the case of coastal protection or strengthening of public infrastructure. As market inefficiencies and policy failures may limit private adaptation or create distortions, another key role for the government is to continue promoting reforms that ease the efficient use of all resources and ensure competitive access to markets (Bellon and Massetti, 2022a). For example, access to credit markets allows farmers to invest in adaptation and efficient water pricing creates incentives to conserve water.

23.   Despite limitations, cost-benefit analysis (CBA) can play an important role in helping decision makers to consistently collect, aggregate, and compare information on public adaptation projects. As exemplified by the analysis of sea-level rise, adaptation investment and policy will typically have trade-offs that would be better assessed by comparing social costs and benefits using a systematic approach. What to do, when, how, and at what cost ultimately relies on ethical choices that should reflect the preferences of each society. However, CBA, complemented by analysis and correction of distributional impacts, can help decision makers maximize overall social welfare by avoiding wasting scarce resources. To achieve this goal, it is essential that CBA is applied to adaptation as well as to all other development programs in a consistent manner (Bellon and Massetti, 2022a).

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TAX REVENUE MOBILIZATION[1]

Over the coming years, the Togolese authorities will need to make substantial progress on domestic revenue mobilization to help create fiscal space for priority spending and strengthen debt sustainability through a growth-friendly fiscal consolidation. Following a stocktaking of Togo's progress in revenue mobilization in recent years and comparison with peers, this paper assesses Togo's tax potential and identifies additional measures the authorities could take to lift tax revenue higher. Reaching the authorities' goal of raising revenue by 0.5 percent of GDP per year over the medium term will likely demand efforts in both tax policy and revenue administration. To ensure public support of tax policy reforms that may increase the cost of living, the authorities should explain the need for the measures to the population, protect the most vulnerable through targeted support, and continue efforts to strengthen governance to reassure the population that revenue will be put to good use.

A. Introduction

1.   The Togolese authorities will need to make substantial progress on domestic revenue mobilization to create room for priority spending and contribute to the growth-friendly fiscal consolidation needed to enhance debt sustainability. With tax revenue having risen to 14.8 percent of GDP in 2023 and an estimated tax revenue potential of 16-21 percent of GDP, there is room for further progress. Realizing the government's goal of raising revenue by 0.5 percent of GDP per year will require implementing a comprehensive and well-considered strategy.

2.   This paper reviews Togo's tax revenue performance in recent years, assesses the revenue potential, and provides recommendations on how to lift revenue towards the potential. Section II reviews the level and structure of Togo' s tax revenue and compares it with peers; section III presents an estimation of Togo's tax potential; and section IV provides policy recommendations.

B. Taking Stock of Togo's Tax Revenue

Tax Revenue Performance

3.   The authorities have made substantial efforts to raise fiscal revenue over the past decade and a half. For example, in 2022 and 2023, they extended the VAT to services provided by electronic platforms and strengthened tax administration by introducing VAT collection through withholding agents. Annex 1 provides an overview of the main tax reforms undertaken over 2020-23 and identifies the measures provided for in the 2024 budget.

4.   As a result, the tax take (the ratio of tax revenue to GDP) has risen to close to the SSA average and now exceeds the level commonly associated with faster growth[2] and the WAEMU

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[1] Prepared by Grace Li, with inputs from Maximilien Kaffo.

[2] Gaspar et al. (2016) found that growth tends to accelerate in developing countries once fiscal revenue exceeds 12¾ percent of GDP.

average. Tax revenue has risen to 14.8 percent of GDP in 2023 (from less than 10 percent of GDP in 2010, Figures 1 and 2). In this context, it is worth noting that Togo's tax revenue rebounded more quickly from the impacts of the COVID-pandemic than in the average SSA and WAEMU country (Figure 3), demonstrating the success of the authorities' most recent efforts.

Figure 1. Tax Revenue in Togo and Comparators, 2010-23 (Percent of GDP)

Figure 2. Composition of Tax Revenue, 2015-23 (Percent of GDP)

Sources: World Economic Outlook; IMF Staff Calculation. Aspirational peers report the average of Morocco, Ghana, and Rwanda.

Figure 3. Recovery from COVID-19 (Change in Tax Revenue over 2019-22, Percent of GDP)

Figure 4. Income per Capita and Tax-to-GDP Ratio in 2022

Sources: World Economic Outlook database; IMF Staff Calculation.

5.   Further, Togo's tax revenue is now in line with that of other countries at the same level of income (Figure 4). Overall, low-income countries tend to show lower tax takes than middle- and high-income ones, reflecting structural features such as narrower tax bases, with fewer households living above subsistence level, fewer profitable firms, a bigger share of small-scale agricultural activities, less urbanization, and more informality. In Togo, the informal economy is thought to account for close to 30 percent of GDP, 85 percent of economic units and 92 percent of jobs.[3]

6.   Nevertheless, revenue remains below the levels seen in aspirational peers (Morocco, Ghana, and Rwanda, Figure 1), indicating room for the further progress that is needed to create room for priority spending and support fiscal consolidation.

Tax Revenue Structure

7.   Togo's tax revenue consists mainly of indirect taxes (delivering revenue of 11 percent of GDP in 2023), with direct taxes yielding a much smaller share (3.9 percent of GDP).

- Indirect taxes are defined as taxes levied on goods and services. Togo has the following main indirect taxes: VAT, excise taxes, and customs duties. VAT is a tax on domestic consumption. Some of it is levied in the interior of the country, and some at the point of import. VAT is the single most important tax in Togo, accounting for 42 percent of tax revenue in recent years.

- Direct taxes are defined as taxes levied directly on individuals or businesses and are paid directly by the taxpayers, although in some cases there can be withholding at the source. Togo's direct taxes include the personal income tax (PIT), corporate income tax (CIT), and property taxes. The CIT is the most important direct tax, providing 64 percent of total direct tax revenue.[4]

8.   Togo's revenue from indirect taxes is somewhat stronger than in peers (Figure 5). Specifically, revenue from taxes on domestic goods and services (comprising VAT and excise taxes levied in the interior of the country) are comparable to levels seen in peers, while revenue from taxes on international trade (comprising notably customs duties and VAT levied at the point of import) are higher than in peers, notwithstanding a decline in the share of trade-related taxes in overall tax revenue since the 1990s in line with regional trade liberalization.[5]

- While the VAT is helpfully applied at a single standard rate (18 percent), the revenue it generates is being reduced by numerous exemptions. The exemptions aim to protect poor households but are not well suited to this task as parts of the benefits accrue to non-poor households. Further, as in other countries, it is possible that not all VAT exemptions are being passed on to the
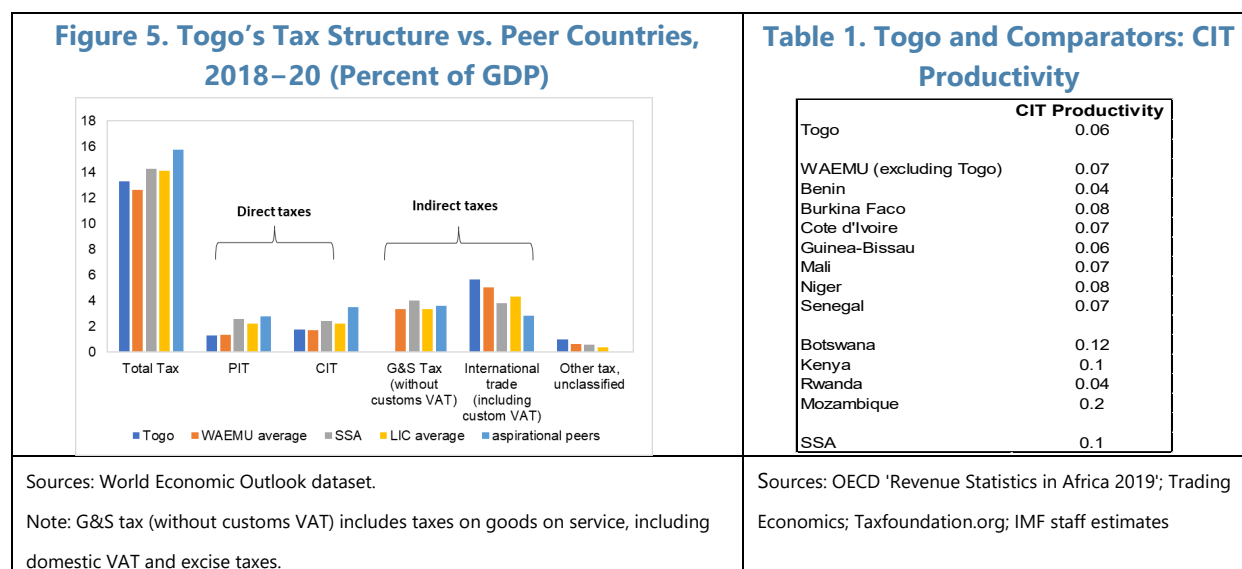
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[3] Elgin et al. (2021).

[4] CITs are concentrated in a few companies: in 2022, the top two taxpayers represented more than 30 percent of total corporate tax revenue and the top 10 corresponding to more than 57 percent of corporate tax revenue.

[5] Goretti and Weisfeld (2008).

consumer, resulting instead in unintended additional profits for suppliers. The exemptions also make the VAT more difficult to administer.

- Excise tax revenue is above the WAEMU average, and some excise tax rates have recently been increased (on tobacco and alcohol), suggesting that excise revenue may rise further. Togo's excise taxes generally come as ad valorem taxes, with the only exception being excise taxes on petroleum products.

9.   Togo's revenue from direct taxes is slightly above the WAEMU average but substantially lower than in the average SSA country (by 2 percentage points of GDP) and in aspirational peers (by 3.3 percentage points of GDP), mainly due to numerous PIT and CIT exemptions (Figure 5). The PIT does not apply to important income categories, including apparently up to half of the civil service wage bill.[6] Numerous tax deductions and exemptions for richer households make PIT less progressive than it could be. Further, as a result of numerous CIT exemptions, welfare losses generated by the CIT are higher than in peers, as indicated by CIT efficiency indicators that are lower than in peers (Table 1).[7] Finally, revenue from property taxes remains very limited. Property tax revenue is less than 0.1 percent of GDP at end-2023, below the average of 0.5 percent of GDP seen in Sub-Saharan African countries.

Figure 5. Togo's Tax Structure vs. Peer Countries, 2018–20 (Percent of GDP)	Table 1. Togo and Comparators: CIT Productivity

Table 1. Togo and Comparators: CIT Productivity

	CIT Productivity
Togo	0.06
WAEMU (excluding Togo)	0.07
Benin	0.04
Burkina Faco	0.08
Cote d'Ivoire	0.07
Guinea-Bissau	0.06
Mali	0.07
Niger	0.08
Senegal	0.07
Botswana	0.12
Kenya	0.1
Rwanda	0.04
Mozambique	0.2
SSA	0.1

Sources: World Economic Outlook dataset.

Note: G&S tax (without customs VAT) includes taxes on goods on service, including domestic VAT and excise taxes.

Sources: OECD 'Revenue Statistics in Africa 2019'; Trading Economics; Taxfoundation.org; IMF staff estimates

C. Estimating Togo's Tax Potential

10.   Countries' tax revenue potential depends on various structural features, including notably their stage of economic development and administrative capacity, which have often

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[6] The PIT is also complex in part because of its incomplete transition from a global system (which taxes all types of income in the same way) to a schedular system (which taxes labor income differently than other types of income).

[7] CIT productivity is a concept that relates CIT revenue to statutory tax rate(s). CIT productivity is defined as CIT revenue / statutory tax rate * GDP. For given tax rates and a given strength of revenue administration, narrow tax bases will result in lower CIT productivity.

been proxied using variables such as per capita income, the share of agricultural value added in GDP, and governance indicators.

11.   Based on observed tax revenue in a large panel of countries, we estimate the tax revenue that Togo could achieve quickly if it had the best tax policies and tax administration observed in countries with similar characteristics. Within this framework, deviations from the "tax frontier," "tax potential," or "tax capacity" determined in this way can be interpreted as reflecting challenges in tax policy and tax administration.

12.   Togo's tax potential is estimated to lie between 16 and 21 percent of GDP (Figure 6), depending on model specification (Annex II). Accordingly, Togo could raise revenue by 1 – 6 percentage points of GDP from the level observed in 2023. Further increases will become possible as Togo's relevant underlying structural features gradually improve over the coming years in line with the country's continued development.

Figure 6. Togo's Tax Potential and Observed Tax Revenue, 2013–22
(Percent of GDP)

Note: The blue curve shows the evolution of annual tax revenue collected. The dotted green curve presents the evolution of the average tax potential with the green zone delimiting the estimated minimum and maximum values of the tax potenti; > P per capita and its square, trade openness, rents from natural resources and corruption.

D. Policy Recommendations

Tax Policy Measures

14.   In the near term, strengthening indirect taxes can likely deliver the highest yields, estimated at 0.4 percent of GDP not including some measures whose yields could not be quantified (Table 2).[8] Among other things, the authorities may wish to consider removing regressive VAT exemptions after explaining the need for this measure to the population and putting into place cash transfers or other targeted measures protecting the most vulnerable. Further, they should ensure proper valuation of imported goods by removing customs value reductions for certain items; and expand the scope of items subject to excise tax. There are also actions the authorities may wish to take on direct taxes, including capping various deductions to the payroll tax (part of the PIT),

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[8] The recommendations provided reflect recent FAD work.

although it should be noted that this may result in upward pressure on the before-tax civil service wage bill.

15.   In the medium term, the authorities should consider further measures (Table 3), notwithstanding the fact that the yields of these measures could not be quantified due to insufficient information.

- On indirect taxes, the authorities may wish to consider removing progressive VAT exemptions as well, particularly those that have an only limited progressive impact. Again, the authorities should explain the need for this measure and protect the most vulnerable through cash transfers or other targeted measures.

Table 2. Togo: Selected Tax Policy Measures to Take in the Near Term	
Recommendations	**Estimated Yield**
Indirect taxation	
Remove regressive VAT exemptions after starting compensatory transfers to the poor and explaining the need for the measure to the public.	CFAF 13.78 billion
Remove reduced valuation of imports of vehicles and for materials and machinery for buildings and public work for customs duties.	CFAF 7.3 billion and CFAF 174 million
Raise excise duties on used vehicles.	CFAF 1.89 - 3.77 billion
Introduce excise duties on soft drinks and energy drinks.	CFAF 130 million
Reduce or eliminate the financial transaction tax on mobile money transactions.	n.a. (insufficient data)
Direct taxation	
Establish a single-rate tax on gross rental income.	CFAF 0.44 billion (if imposing 6%) CFAF 0.88 billion (if imposing 7%)
Cap various deductions (e.g., on interest on property loans, supplementary pensions, and life insurance contracts) for the payroll tax.	n.a. (insufficient data)
To limit administrative challenges, reconsider the practice of admitting new companies to the free zone regimes outside the geographically and physically delimited free zones, and consider obliging companies with free zone status to relocate into the free zones.	n.a. (insufficient data)
Sum	**CFAF 23.7-26.1 billion (0.4-0.44 percent of GDP)**

- Further, the authorities may wish to consider changing the design of excise taxes to a hybrid form,[9] and streamline registration fees to ensure they facilitate commercial transactions and only recover the administrative costs they give rise to.

- Reforms to direct taxes should include (i) completing the transition of the PIT to a schedular regime by introducing a clearer distinction between a progressive tax rate schedule for labor income and low flat tax rates on other types of income such as capital income, which would facilitate tax administration; and (ii) scaling back the granting of new CIT preferences to reduce the revenue loss from such exemptions over time, and providing any new such preferences as tax credits rather than tax exemptions.

Table 3. Togo: Tax Policy Measures to Take Over the Medium Term
Indirect taxation
Consider removing progressive VAT exemptions after conducting an impact analysis, starting compensatory transfers to the poor, and explaining the need for the measure to the public.
Introduce a hybrid ad valorem/specific form of excise taxes.
Streamline registration fees.
Direct taxation
Adopt a quasi-dual structure for PIT.
In granting new CIT breaks, if any, use tax credits rather than tax exemptions, and provide the credits only in return for companies having met their investment obligations.
Remove the CIT's disincentive to business incorporation.
Extend the capital gains tax to indirect transfers of real estate titles, including mining titles.

Revenue Administration Measures

16.   In addition to implementing tax policy measures, reaching the authorities' revenue mobilization goals will require further progress in revenue administration. The authorities may need some time to implement the tax revenue measures outlined above; and the yields of these measures that staff has been able to estimate so far are limited. The need to combine tax policy and revenue administration measures has been seen in other countries as well. Akitoby et al. (2018) find

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[9] Hybrid excise taxes are a combination of an *ad valorem* tax and a fixed tax. Hybrid excise taxes enable efficient revenue collection by (i) mitigating the uncertainty of revenue associated with an *ad valorem* tax, while (ii) ensuring some automatic adjustment in the tax revenue with changes in prices.

that successful efforts to raise tax revenue in developing countries typically comprise both tax policy and revenue administration efforts.

17.   Concretely, the authorities should aim at

- Enhancing compliance with tax laws by strengthening controls:

  - Audit all cases with significant evidence of fraud (understatement of turnover, concealment of taxable activities) from cross-matching of data from various sources (customs, budget, large companies).

  - Increase audit of VAT credits and VAT nil declarations.

  - Engage taxation of high-net-wealth individuals by listing shareholders of large companies, promoters of large and medium-sized companies, public entities, etc., and implementing a strategy for their effective taxation.

  - Engage taxation of the informal sector by setting up a system of investigations.

  - Address suspected fraud cases in customs, including gross undervaluation, abuse of exemption, and duty suspension.

  - Address potential misapplication of the common external tariff, including mandating the annual issuance of a report on this topic.

  - Improve the monitoring of shipping manifests by mandating documented periodic reviews of the process.

- Ensuring improved taxpayer services (IMF 2018) as well as effective collection of tax arrears.

18.   The authorities are rightly emphasizing the opportunities that further digitalization can bring for revenue mobilization. Cross-country experience suggests that digitalization can help broaden the tax base and enhance compliance with tax obligations (IMF, 2018b).

Planning and Communicating Revenue Mobilization Efforts

19.   As concerns the process of planning and communicating the tax policy and revenue administration efforts, the authorities should start preparing a comprehensive Medium-Term Revenue Mobilization Strategy (MTRS). This would help clarify the overall vision for future tax policies and revenue administration, coordinate all government actors in implementing the needed reforms, and strengthen public support through improved information and consultation. Historical experience suggests that public support plays a key role in ensuring the success of revenue mobilization efforts (Akitoby, 2018). Nearby countries such as Senegal and Benin have prepared MTRSs with IMF support in recent years.

20.   Going one step further, the authorities may also wish to integrate the revenue mobilization strategy with a spending strategy that aims at both enhancing the economy's growth potential and improving the lives of the most vulnerable. A strongly progressive structure of spending can ensure that fiscal policy as a whole is sufficiently progressive to benefit the

vulnerable even if the tax system is not progressive. With this, ensuring a strongly progressive structure of spending opens up room for making tax policy changes that enable gains in efficiency.

21.   The authorities should also intensify their efforts to strengthen fiscal transparency and governance more generally to reassure the public that revenue will be put to good use. In this context, stronger PFM systems to enhance transparency and accountability would help. The Fund stands ready to provide a governance diagnostic assessment and would encourage the authorities to request it and publish its results.

E. Conclusion

22.   To achieve sustainable economic growth and enhance debt sustainability, Togo must prioritize domestic revenue mobilization. The progress made in recent years, including the strong increase in tax revenue to 14.8 percent of GDP in 2023, demonstrates the effectiveness of the current efforts. However, with an estimated tax revenue potential of 16 - 21 percent of GDP, there remains significant room for improvement. The implementation of a well-considered revenue mobilization strategy comprising both tax policy and revenue administration efforts will be critical, and ideally this strategy should be integrated into a larger fiscal strategy that also comprises spending policies. In any case, to enhance chances of success, the revenue mobilization strategy should be well communicated to the public, supported by targeted spending to protect the most vulnerable against increases in the cost of living, and complemented by efforts to enhance transparency and governance.

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Annex I. Main Tax Reforms Undertaken Since 2020 and Main Measures of the 2024 Budget[1]

2022 Budget

- **Marginal changes:** The fiscal policy measures included in the draft budget are marginal and unlikely to significantly change domestic revenue mobilization compared to the previous year.
- **No major base-broadening measures:** There are no policy measures that broaden the tax base - with the exception of a new taxpayer census that is mentioned in the annex document.
- **Tax base reduction measures:** The measures proposed in the Finance Law rather reduce the tax base. These measures include:

  o **Extension of the customs duty exemption for imports of new cars and reduction of customs duties for cars less than 5 years old:** This exemption is regressive, creates additional distortions in the application of the customs code, and should not be extended.

  o **Special regime for companies in difficulty:** The budget proposes to extend the special regime benefiting companies in difficulty until 2022. Under the special regime, the Minister of Finance can grant exemptions from various taxes (corporate income tax, minimum tax, property tax, slaughter tax, tax on financial transactions, etc.) for a period of up to 5 years if the company is in difficulty (restructuring, bankruptcy, etc.). Such a regime is unusual and carries potential governance risks due to the discretionary power to grant exemptions to specific companies - even if certain conditions are met. In addition, there is no upper limit to its budgetary cost, which could be quite significant.

  o **VAT collection through withholding agents:** The measure proposes to collect VAT through withholding agents yet to be determined. The measure favors the collection of gross VAT by a smaller number of agents rather than compliance throughout the VAT chain. It is likely to lead to higher collection in the short term, but depending on the financing and operation of the refund mechanism, it could lead to higher refund claims in the future. This also carries a risk for suppliers if the VAT refund mechanism does not function effectively. Suppliers of withholding agents find themselves with input VAT receivables paid without corresponding VAT to deduct - they now have to rely on the refund mechanism.

  o **Covid-19 related exemptions:** While an extension of the exemption from taxes and duties on medical equipment used to combat the pandemic may be justified, it is unclear why the exemption should be extended to general agricultural equipment.

  o **Treatment of exceptional income:** This provision is unusual from a tax policy point of view and probably difficult to implement from an administrative point of view. The justification given is to avoid progressiveness in the case of exceptional income. Smoothing exceptional income raises equity issues as the same level of income in a given year would be treated

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[1] Prepared by Max Kaffo based on analysis provided by Thomas Benninger (FAD).

differently depending on whether the income is considered exceptional. In addition, exceptional income is not clearly defined. The article only provides one example of possible exceptional income (capital gain on an investment fund) but does not limit it. Again, this rule seems to leave a lot of room for discretion, and potentially for significant revenue loss.

o **Treatment of IT platforms:** The new rule establishes the tax residence of companies operating IT platforms where the IT platform is located in Togo. However, the term "located" is ambiguous. Is the intention to establish tax residence based on where the IT platform is hosted (server)? For example, if Netflix is offered in Togo but the platform is hosted on servers in another country, the new clause would probably not apply. Or is the intention to target platforms operated and hosted in Togo?

o **Increase in the limit for costs related to technical assistance and the share of head office costs to 25 percent of taxable income:** The deduction threshold for costs is increased from 10 percent to 25 percent. The reasons for this increase are not explained. The term technical assistance is not limited to related parties, which could justify some limit. While caps on administrative overhead costs of the head office (generally expressed as a percentage of turnover) and interest expenses are common, caps on technical assistance costs - especially from unaffiliated third parties - are less common. This could lead to the rejection of justified costs.

o **New exemption from VAT on imports of IT equipment:** This new exemption further reduces the efficiency and fairness of VAT. The exemption is also incompatible with the UEMOA VAT Directive. The justification for exempting this particular item from VAT is unclear.

o **African Union levy and national solidarity levy:** These are earmarked levies on imports from outside AU/ECOWAS based on an international agreement. The proceeds are used to finance the operational budgets of the AU/ECOWAS. We wondered why these levies were financed by ongoing budget resolutions instead of being fully integrated into the domestic customs code.

2023 Budget

- The suspension of the motor vehicle circulation tax for commercial goods and passenger transport vehicles and the exemption or reduction of customs duties on certain construction materials lead to additional fiscal expenditures and revenue losses.

- The application of VAT to services provided by electronic platforms will generate additional revenue.

Measures Extended from the 2022 Budget:

- Collection of the African Union levy, laissez-passer fees, and solidarity levy

- Exemption from customs duties and taxes for imports of new commercial and passenger transport vehicles and reduction of customs duties for commercial and passenger vehicles under 5 years old

- Special regime for companies in difficulty

- Recovery of VAT by withholding agents

- Covid-related exemptions

New Fiscal Policy Measures:

- **Suspension of motor vehicle tax for commercial goods and passenger transport vehicles:** This measure further narrows the motor vehicle tax base and adds to the long list of exempt vehicles in Article 157 of the General Tax Code. The measure potentially benefits wealthier individuals who own and operate transport businesses. It also appears to be a measure to counter the internalization of externalities created by commercial goods and passenger transport.

- **Exemption or reduction of customs duties on certain construction materials and equipment:** This measure narrows the customs base, benefits a specific sector of the economy without any justification, and thus generates economic distortions.

- **Article 16:** Allows the deduction of actual costs from property tax instead of the flat deduction of 50 percent of the revenue. This is a sound measure to more accurately measure the tax base.

- **Article 74:** Modifies the IR thresholds and rates. A new rate of 20 percent is introduced, and the maximum rate of 35 percent now applies to incomes above 20 million CFA francs (approximately $32,000). According to the budget documents, this measure was taken to align the thresholds with inflation and the rising cost of living. This change is likely to lead to a decrease in IR revenue due to the increase in income thresholds and the new lowest rate of 5 percent. Further analysis would be needed to understand if the new thresholds and rates are appropriate and how they affect the progressivity of the income tax.

- **Article 105:** Introduces a threshold ($800,000) below which transfer pricing documentation requirements are less stringent. This measure is in line with the latest OECD recommendation.

- **Article 173:** Subjects services provided in Togo by electronic platforms to VAT. This measure is in line with international best practices and is expected to generate additional revenue.

Overall, the fiscal policy changes in the 2023 budget are relatively minor and are not expected to have a significant impact on overall revenue. The suspension of the motor vehicle tax and the exemption or reduction of customs duties on certain construction materials are likely to have a negative impact on revenue, while the application of VAT to services provided by electronic platforms is likely to have a positive impact on revenue. The changes to the individual income tax are likely to have a mixed impact, with some taxpayers seeing an increase in their tax liability and others seeing a decrease.

2024 Budget

The tax policy measures included in the draft budget bring marginal improvements in terms of neutrality and efficiency of the tax system and are likely to increase domestic revenue compared to the previous year. The removal of the reduced VAT rate, the reversal of exemptions introduced during the covid pandemic and the broadening and increase in excise duties are particularly welcome. The suspension of the Motor Vehicle Tax, the special regime for companies in difficulties and the exemption or reduction of construction materials for public works which were carried forward from 2023 should be reversed in the next budget law.

The following measures are extended from the 2023 budget (See assessment in review of 2023 tax policy measures):

- Collection of African Union Levy, Laissez-Passer fee and Solidarity Levy

- Exemption from customs duties and levies for imports of new goods and passenger vehicles and reduction of customs duties for goods and passenger vehicles that are less than 5 years old

- Special regime for companies in difficulties

- VAT collection through withholding agents

- Exemption of imports of agricultural materials from customs duties and VAT

- Suspension of Motor Vehicle Tax for goods and passenger vehicles for commercial purposes

- Customs duty exemption or reduction for selected construction materials and equipment used in public works.

New tax policy measures are:

- Art 120: Alternative minimum tax is increased from 1 percent to 2 percent of turnover for companies importing used cars. This is measure is likely to result in a small increase in revenues.

- Art 180: Removal of exemptions of goods imported and produced to tackle the covid pandemic. The measure is welcome at it broadens the tax base and removes an exemption which is no longer necessary.

- Art. 195: Removal of reduced VAT rate of 10 percent which was applied for the hospitality sector (hotels, restaurants, tourism). This change implements a recommendation made in the 2017 tax policy diagnostic. It strengthens the integrity and neutrality of the VAT and is expected to result in higher revenues.

- Art 215: Financial transaction tax extended to Mobile Money and other financial transaction providers where financial services were not main activity.

- Art 233: Increase of tax on gambling activities from 5 percent to 7 percent.

- Art 243: Revision of excise tax base and rates

  o Increase of rate for carbonized drinks and energy drinks from 5 percent to 10 percent

  o Increase of rate for alcoholic drinks from 18/50 percent to 20/60 percent (beers/other alcoholic drinks)

  o New excise tax on bouillon at a rate of 15 percent

  o New excise tax on plastic bags at a rate of 5 percent. This implements a recommendation made in the 2017 tax policy diagnostic report.

- Art 331: Potentially extents contracts record fees (droits d'enregistrement) potentially to a wide range of transactions. The interpretation is not entirely clear but the private sector representative we met were indicating that this tax now seems to apply to many transactions between two private sector actors whereas in the past it was only applied to public procurement. If this is indeed the case, the tax would take the character of a sales tax which will then be integrated into the cost of services and cascaded through the value chain. This will generate additional revenue but is highly distortive and creates incentive to take transaction from the formal into the informal economy.

Annex II. Estimating the Tax Revenue Frontier

We estimate tax frontiers in a large panel of countries over the past three decades, following the methodology described in IMF (2018a). The empirical model uses a set of independent variables commonly found to be associated with the level of tax revenue, such as including GDP per capita and the share of agriculture in GDP.

The first step estimates the tax frontier from a cross country panel data set:

$$y_{i,t} = \alpha_i + \beta X_{i,t} + \vartheta_{i,t} - \mu_{it}$$

Where:

- $y_{i,t}$ is the log of tax revenue to GDP ratio for country i and year t
- $X_{i,t}$ is a vector of independent variables that affect $y_{i,t}$
- μ_{it} captures efficiency in tax revenue generation, which is assumed to be correlated with $X_{i,t}$, but independent from $\vartheta_{i,t}$
- $\vartheta_{i,t}$ is a normally distributed residual.

The second step is to determine the tax effort. The tax effort (*TE*) is a measure to evaluate the performance of a country's tax system. It compares the actual tax revenues collected with what it would potentially collect given its economic, demographic, and institutional characteristics.

$$TE_{i,t} = \frac{\exp(y_{i,t})}{\exp(y_{i,t|\mu_{it}=0})} = \frac{\exp(\alpha_i + \beta X_{i,t} + \vartheta_{i,t} - \mu_{it})}{\exp(\alpha_i + \beta X_{i,t} + \vartheta_{i,t})} = exp(-\mu_{it})$$

The third step is to determine the tax frontier and tax potential. The tax frontier (*TF*) refers to the theoretical maximum level of tax revenue a country can generate considering its own economic and social structure, including the size of the economy, the income per capita, the distribution of income, and the composition of its economic structure. The tax potential (*TP*) is an estimate of the attainable tax revenue if the country were to optimize its tax system and administration.

$$TP_{i,t} = TF_{i,t} - y_{i,t} = \frac{y_{i,t}}{TE_{i,t}} - y_{i,t}$$

Data and country and time coverage. Data used for the analysis was taken from the IMF's World Economic Outlook (WEO), and the World Bank's World Development Indicators (WDI). The panel covers more than 30 years (1990-2022) with 157 countries, including almost all SSA countries (34 countries).

Regression Specification:

- The dependent variable is tax revenue excluding social security contributions, given that these are not readily available for most LIDCs and their use as insurance schemes varies across countries.

- The main explanatory variables are GDP per capita in constant USD, GDP per capita squared, the size of the agriculture sector in percent of GDP, trade openness (imports plus exports in percent

of GDP), government effectiveness, and the score of the perception of corruption in the public sector, all in natural logarithmic form.

- The inefficiency term is modeled as a random positive variable, following Martinez-Vazquez and others (2012) and Kumbhakar and others (2014). In the econometric specification.

Empirical Results. Based on alternative regression settings used in the literature (Martinez-Vazquez and others (2012) and Kumbhakar and others (2014),[2] Togo's tax capacity is estimated to lie in the range of 16—21 percent of GDP in 2022. Table A2.1 shows estimated coefficients for the explanatory variables. The results are consistent with the literature. GDP per capita is positively correlated with tax revenue, suggesting a higher ability to tax an economy that produces higher incomes. GDP per capita squared accounts for a nonlinear relation between tax revenue and GDP per capita, with the estimated negative coefficient capturing a diminishing increase in tax revenue collection as income grows. Agriculture as a share of GDP is a proxy for hard-to-tax sectors comprised of small producers and the informal sector. The estimated negative coefficients are in line with earlier findings. Moreover, a higher share of tradable goods is thought to be associated with more vibrant economies, leading to positive correlation with tax revenues. Finally, corruption is negatively related with tax revenue given its detrimental effectual on taxpayer compliance and the share of revenue collected that is sent to the government budget.

Table 1. Togo: Regression Results

Variables	(1)	(2)
ln_GDP per capita	1.917***	2.455***
	(3.6100)	(18.1900)
ln_GDP per capita squared	-0.0972***	-0.127***
	(-3.42)	(-16.70)
ln_agriculture	-0.0596	-0.0728***
	(-1.88)	(-4.74)
ln_trade_gdp	0.097	0.120***
	(1.7500)	(7.27000)
ln_public sector corruption	-0.0722***	-0.0571***
	(-3.85)	(-4.00)
Constant	-11.46***	-14.11***
	(-4.84)	(-23.30)
Usigma	-1.066***	-3.574***
	(-7.84)	(-99.67)
Vsigma	-4.354***	-3.635***
	(-4.15)	(-39.07)
Number of observations	3,279	3,907
Number of countries	153	153

Source: Authors' calculations.

Note: t statistics in parentheses. Fitted using Stata's sfpanel command with the True Random Effect option. Usigma is the mean of u_{it} and Vsigma is the mean ors in parentheses. ***p <0.01, **p <0.05, *p <0.1. Column (1) shows the result following Martinez-Vazquez, Moreno-Dodson, and Vulovic 2012); Column (2) shows the results following Kumbhakar et al. (2014).

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[2] The presented two methodologies have the same explanatory variables but estimate the inefficiency differently. Martinez-Vazquez and others (2012) estimate one tax inefficiency, while Kumbhakar and others (2014) estimate two inefficiency terms concerning the short-term and the long-term separately. There are no strong reasons to prefer one specification over the other.

STRENGTHENING BANK CREDIT TO THE PRIVATE SECTOR WHILE LIMITING RISKS TO FINANCIAL SECTOR STABILITY[1]

Bank credit to the private sector can be an important driver of economic growth. In Togo, however, bank credit to the private sector has plateaued as a share of GDP since 2015, limiting the sector's contribution to growth. This paper examines the constraints to the provision of bank credit and proposes a multi-pronged approach to address these constraints while limiting risks to financial sector stability. The approach includes (i) furthering financial inclusion and facilitating access to financial information, (ii) improving access to collateralizable assets and strengthening debt enforcement procedures; (iii) addressing challenges in banking sector oversight and ensuring the recapitalization of undercapitalized banks; and (iv) lessening interconnectedness between the sovereign and the banking system (the "sovereign-bank nexus").

A.   Introduction

1.   Bank credit to the private sector can be an important driver of economic growth. As argued for example by Levine (1997) and Beck et al. (2001), well-developed financial systems, particularly those with efficient banks that provide credit to businesses, can significantly contribute to economic growth and thus a nation's prosperity. Access to bank credit allows businesses to invest and create jobs, fostering economic activity and diversification. By acting as intermediaries and diversifying risks, banks facilitate the flow of funds from savers to productive investments, ultimately leading to a stronger and more vibrant economy.

2.   However, bank credit to the private sector has plateaued as a share of GDP in Togo since 2015, and thus the volume of credit provision does not appear to have been a substantial driver of GDP growth in recent years.

3.   The literature has identified several possible constraints to the growth of bank credit to the private sector in low-income countries (LICs) such as Togo:

- Limited **access to financial services:** In LICs, often substantial shares of the population lack access to services from formal financial institutions, particularly banks (Demirguc-Kunt et al., 2018). Among other things, this can reflect a high degree of informality or geographical isolation of populations in rural areas that drives up banking costs per client.[2]

- **Insufficient or asymmetric information for lenders:** Lenders in LICs often struggle to assess borrowers' creditworthiness, e.g., due to a limited credit history as may arise from limited access to financial services or underdeveloped credit bureaus (Beck et al., 2008).

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[1] Prepared by Maximilien Kaffo with inputs from Etienne Vaccaro-Grange.

[2] The dispersed populations in many LICs make it challenging to provide financial services in a cost-effective manner in rural areas where large parts of populations still live.

- **Challenges in contracting:** Lack of suitable collateral may make it difficult for would-be borrowers to provide the collateral needed for borrowing, while weak debt enforcement procedures due to deficiencies in the judicial system may lead banks to demand additional collateral or refuse credit provision outright (Honohan, 2007).

- **Challenges in banking system oversight:** Such challenges can create uncertainty about banking system health, discouraging the public from making deposits in banks, thereby limiting loanable funds. Further, weak oversight can entice banks to engage in risky practices, which can erode banks' capital, eventually limiting banks' ability to continue lending, resulting in a (gradual or sudden) credit crunch (Honohan, 2007, and IMF, 2019).

- **High volumes of lending to the government due to strong credit demand by the government and zero risk-weighting of lending to it:** This can create a situation where banks make easy profits by lending to the government even if the government is *de facto* a risky borrower (Calvo-Gonzalez and Singh, 2016). Such lending can at times come at the expense of credit to the private sector, particularly when banks have limited liquidity.

- **Undiversified economic structures inhibiting credit provision:** LICs' typically undiversified economic structures make it difficult for banks to reduce the riskiness of their portfolio of claims by lending to clients whose risks profiles are negatively correlated.

4.   **This paper discusses qualitatively which of the above constraints may be hindering the Togo banking system's provision of credit to the private sector and what the government could do to address the issue while also limiting financial sector related risks.** We find that the first three factors and parts of the fourth factor are likely at play at this time in Togo in restricting the volume of lending. As regards the fifth factor (large lending to governments), given that Togolese banks are not presently suffering from liquidity strains, it appears that they could expand lending to the private sector while maintaining lending to governments at the current level. However, a large expansion of lending to the private sector would require cutting back on lending to governments. Finally, the last and sixth factor (undiversified economic structures) is likely relevant but we cannot observe it given data constraints. The Togolese government has several options to address the first three factors. It can likely influence banking system oversight through the regional regulator to tackle the fourth factor. Fiscal consolidation and debt management practices can help reduce the government's credit demand, partially addressing the fifth factor. However, diversifying the economy (the sixth factor) will be a slow process, even with favorable government policies.

5.   **While the paper focuses on credit volume, it also briefly discusses risks related to the funding and quality of credit provided by two large, undercapitalized banks, one of which is public.** Large public sector deposits have allowed these banks to extend a significant amount of credit, increasing their market share since 2019. However, despite this growth, they continue to show weak profitability, raising concerns that the loans might not be going to the most creditworthy borrowers. To address this issue, the authorities should strengthen the management of the undercapitalized public bank and support the Banking Commission's (CBU) efforts to restructure the
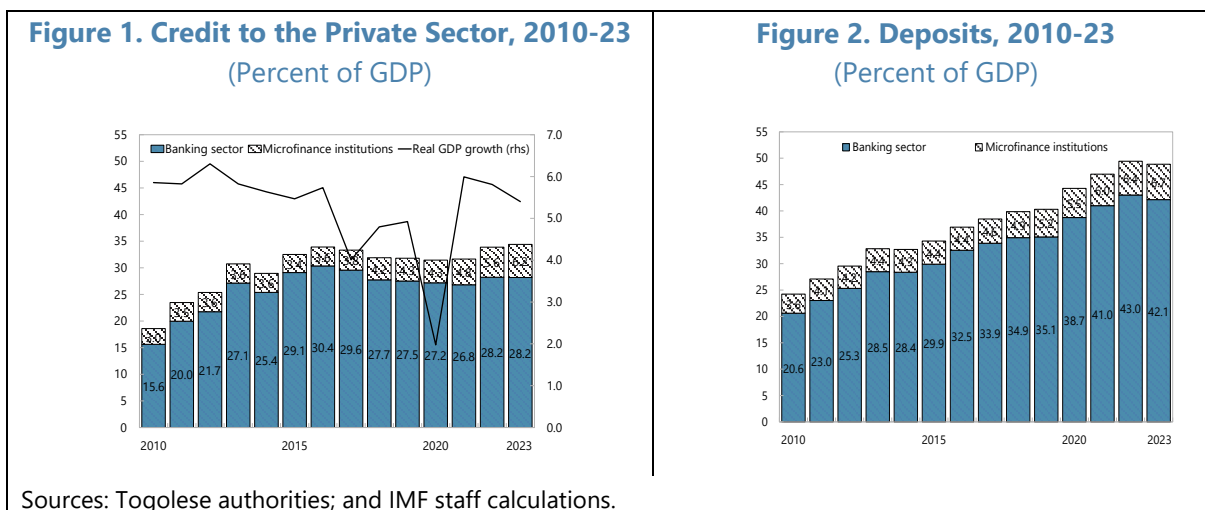
other undercapitalized bank. Additionally, the public bank's management should be encouraged to diversify its funding sources beyond public sector deposits. This would insulate the bank from macroeconomic shocks that might otherwise force the government to increase its reliance on public bank deposits.

6.   **The paper is structured as follows.** To begin, we will assess the recent performance of Togo's bank-dominated financial sector in providing credit to the private sector. We will then go through the above candidate reasons that may constrain credit provision in Togo and discuss to which extent each of them seems to apply. In each case, we will provide recommendations for government actions to address these factors.

B. Provision of Bank Credit to the Private Sector

7.   **The Togolese financial sector comprises 14 banks and 74 microfinance institutions.** The 14 banks had assets of 58.7 percent of GDP at end-2023. Deposits grew by 6.2 percent (to 42.2 percent of GDP) and their credit portfolio by 3.8 percent (to 30 percent of GDP) in 2023. The microfinance sector had total deposits and credits of 6.2 percent of GDP and 6.7 percent of GDP at end-2023, respectively, also showing a positive trend relative to 2022. This paper focuses mostly on the banking sector.
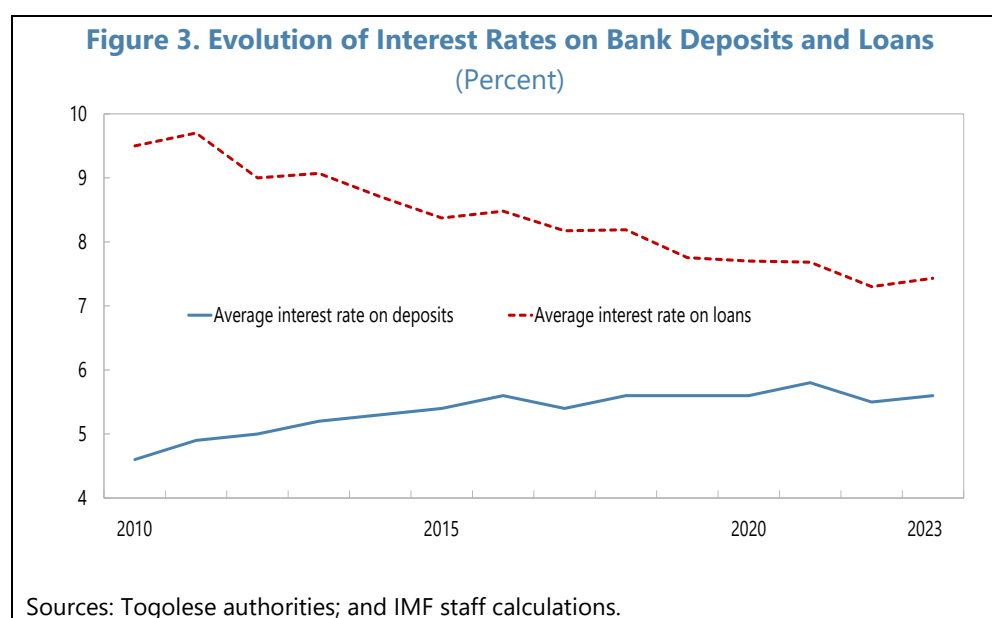

Figure 1. Credit to the Private Sector, 2010-23
(Percent of GDP)

Figure 2. Deposits, 2010-23
(Percent of GDP)

Sources: Togolese authorities; and IMF staff calculations.

8.   **Credit to the private sector as a share of GDP has stagnated over 2015-23 on account of sluggish credit provision by banks (Figures 1 and 2).** An approximate doubling of credit provided by microfinance institutions was not sufficient to bring about growth of overall credit as a share of GDP on account of shrinking credit provision by banks.

9.   **Banks provide credit mainly to the mostly non-tradable traditional services sector, suggesting that bank credit is so far not supporting diversification into manufacturing or modern services.** Within the service sector, the hotel, restaurant, and trade category take the largest share, capturing 25.7 percent of newly issued credit in 2023. The household and construction sectors follow closely behind, receiving 20.8 percent and 19.4 percent of new credits.

The manufacturing sector, which represents about 12 percent of GDP, ranks seventh and receives only 7.8 percent of new credits. Finally, the agriculture sector, which employs a significant share of the population and is still characterized mainly by subsistence farming, receives only about 1 percent of new credits. This places it just ahead of the mining sector, which accounts for 0.6 percent of new credits.

10.   More favorably, the banking system's efficiency appears to have improved over the past decade, with potential beneficial impacts on growth that work through the price rather than the volume of credit. The difference between the average interest rates banks charge on loans and the average rates they pay on deposits has declined substantially, thanks mainly to a pronounced decline in interest rates charged (Figure 3).

Figure 3. Evolution of Interest Rates on Bank Deposits and Loans
(Percent)

Sources: Togolese authorities; and IMF staff calculations.

C.   Factors Limiting Credit to the Private Sector and How to Address Them

Factor 1. Limited access to financial services ("financial inclusion"), due in part to the difficulties for banks to operate in small economies, appears to be hindering credit provision. Information asymmetries, due in turn to limited financial inclusion, weak bookkeeping practices, and weak credit reporting also hamper credit.

11.   Financial inclusion in Togo has increased but remains limited. The share of adults accessing banking services rose to 29.8 percent in 2022 (from 25.1 percent in 2019), leaving room for progress. Moreover, although Togo boasts higher traditional access metrics compared to the WAEMU average (5.4 vs. 3.9 commercial bank branches and 6.4 vs. 5.2 ATMs per 100,000 adults), these numbers still lag the SSA average (6.6 commercial bank branches and 14.8 ATMs per 100,000 adults). Access to digital financial services also remains low compared to the SSA average, and the number of deposit and loan accounts per person remains modest (at 186 and 33 per 1,000 adults, respectively) and exhibits a significant gender gap (Box 1)

Box 1. Financial Inclusion in Togo

Financial inclusion is crucial for both economic development and individual empowerment (Mishra, Deepak, et al., 2024).
Financial inclusion encompasses various dimensions. *Traditional* inclusion focuses on physical access to financial services, such as the number bank branches or ATMs (Box Figure 1). In contrast, *digital* inclusion emphasizes access to digital financial services, measured by indicators such as the number of debit cards per capita (Box Figure 2). Financial inclusion can also be assessed through the lens of financial service *usage*, using metrics such as the number of mobile and internet transactions (Box Figure 2), as well as the percentage of adults with a deposit account or a loan from commercial banks (Box Figures 3 and 4).

Despite leading other WAEMU countries in financial inclusion, Togo lags the SSA average. Compared to its regional peers, Togo performs well in terms of *traditional* financial inclusion. It boasts an average of 5.4 commercial bank branches and 6.4 ATMs per 100,000 adults, whereas the WAEMU average is at 3.9 bank branches and 5.2 ATMs per 100,000 adults. However, its performance falls short compared to the average SSA country[1,] which has a slightly higher average for bank branches (6.6 per 100,000 adults) and significantly higher ATM penetration rate (14.8 per 100,000 adults). Similarly, Togo's position in *digital* financial inclusion is above the WEAMU average (129 debit cards per 1,000 adults in Togo *vs.* a WAEMU average of 85) but falls considerably short of the SSA average (250).

Financial service *usage* in Togo is no higher than in other WAEMU countries or the SSA average. Compared to the WEAMU average of 140 transactions per year per 1,000 adults, Togo has a relatively low volume with only 69 transactions. Moreover, although the percentage of adults with deposit accounts in commercial banks is on par with the average of its neighbors, that percentage and the percentage of adults with loans from commercial banks significantly fall short of the SSA average. Finally, a significant gender gap exists in access to deposit accounts and loans, highlighting the substantial gender inequalities in financial inclusion observed in Togo and neighboring countries. Addressing these inequalities with targeted measures promoting financial inclusion for women could boost growth by empowering women to develop businesses and participate more fully in the formal economy. The ongoing development of a national financial inclusion strategy specifically targeting women is a positive step.

**Box 1. Figure 1. Number of Commercial Banks Branches (Bars) and ATMs (Bars)** (Per 100,000 adults)
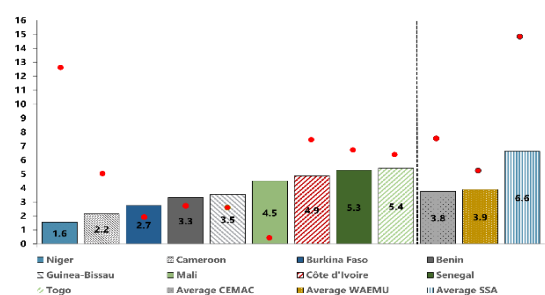
Sources: World Bank Global Findex Database

Box 1. Figure 2. Number of Mobile Transactions, Internet Transactions (Bars, LHS), and Debit Cards (Dots, RHS) (Per 1,000 adults)
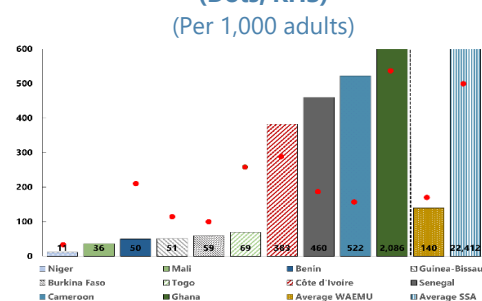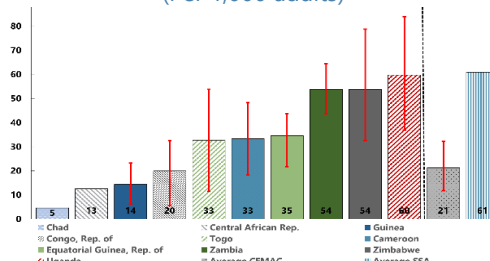
Sources: World Bank Global Findex Database

Box 1. Figure 3. Number of Household Sector Depositors (Bars), with Gender Gap (Lines) (Per 1,000 adults)
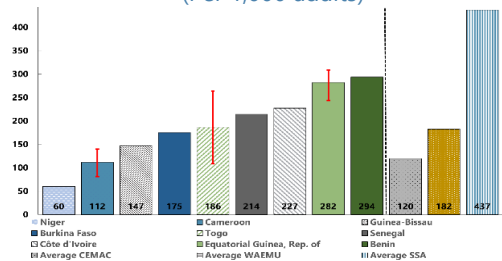
Sources: World Bank Global Findex Database

Box 1. Figure 4. Number of Household Hector Borrowers (Bars), with Gender Gap (Lines) (Per 1,000 adults)

Sources: World Bank Global Findex Database

[1/] The average is calculated from the SSA countries for which data is available only.

12.   As in many LICs, Togo's challenges with financial inclusion likely stem, in part, from the inherent difficulties of operating in a small economy. High operating costs can be a significant barrier. Due to a limited customer base, banks have fewer opportunities to spread their fixed costs across clients, making it more expensive to serve each individual. This translates to higher fees and minimum balance requirements, which disproportionately affect low-income earners.

13.   Furthermore, a lack of competition and an uneven playing field between private and public banks can also hinder financial inclusion. The 2024 IMF WAEMU report highlights the emergence of regional banking groups (34 out of 132 banks) as key players, holding nearly 85 percent of banking sector assets. The 2022 FSAP also noted that some public banks persistently experience compliance issues with prudential regulations, including capital adequacy.

14.   Limited bookkeeping practices in many Togolese companies, particularly small and medium-sized companies as well as single-person companies, contribute to information asymmetries. The challenges are particularly acute for companies operating in the informal sector.

15.   There are several things the government can do to strengthen financial inclusion and alleviate challenges regarding the information banks need to provide credit:

- **Strengthening payments systems and other efforts:** This can be achieved by strengthening financial infrastructure through investments in efficient, accessible, and interoperable payment systems. Additionally, adopting regulatory frameworks that encourage microfinance and the development of low-cost, innovative financial products tailored to the needs of underserved populations is crucial.

- **Further leveraging government payment channels:** Although a significant portion of government payments are already digital, further leveraging these channels could promote account ownership and financial activity. This could be achieved by shifting the remaining payments to electronic channels and linking all payments to basic transaction accounts to promote account ownership.

- **Reversing the recent extension of the financial activities tax to mobile money transactions.** This tax is likely to push consumers away from bank-intermediated transfers towards cash transactions.

- **Developing secure digital identity systems:** This would further streamline access to financial services. The authorities should fast track the ongoing implementation of the national biometric ID system.

- **Implementing clear rules for consumer protection and launching financial literacy programs:** This would safeguard users and help them to better understand the benefits attached to having access to financial services.

- **Expanding the scope and quality of credit bureau information, and more broadly access to financial information.** In 2019, credit bureau coverage reached 13.6 percent of the adult

population. While this surpasses the averages for other WAEMU countries (5.6 percent) and SSA (11 percent), it falls short of the average achieved by Togo's aspirational peers[3] (25.9 percent).[4] Improvements in risk assessment practices and credit scoring mechanisms can play a crucial role in identifying creditworthy borrowers in the private sector. The effective implementation of the centralized repository for financial statements should also empower banks to gain a more accurate picture of potential customers' financial health. This repository became effective in early 2023 for large companies and was extended to SMEs this year.

- **Promoting competition in the financial sector** is also important for expanding financial access, as laid out in the 2022 WAEMU FSAP. By implementing measures that create a level playing field for both private and public banks, the region and Togo in particular can foster a more vibrant financial landscape. Social security institutions, which manage close to 5 percent of regional GDP, could play a more active role in developing the capital market as institutional investors. Their increased participation would lead to a larger pool of loanable funds within the entire financial system.

- **Continuing efforts to reduce informality and provide help to companies in strengthening bookkeeping practices.** The authorities should also continue to help potential borrowers from the informal sector start bookkeeping, even if only on a simplified basis.

16.   The authorities have taken several positive steps to support financial inclusion in recent years, particularly for small and medium-sized enterprises (SMEs). These include the adoption of a national financial inclusion strategy in 2021, the establishment of a dedicated SMEs charter in the same year, and the ongoing operationalization of a national SMEs development agency. The charter actively supports SMEs through a range of financial and non-financial measures. These include strengthening loan guarantees, promoting leasing options, and establishing a dedicated SME observatory. Additionally, the charter aims to facilitate access to land and justice, offer attractive tax breaks, and outlines programs for human resource training. The share of new banking sector credit allocated to SMEs has seen a notable increase since the adoption of the charter, rising from 28 percent to 39 percent in 2023. To limit resource misallocation, the authorities should continuously assess the impact of these initiatives.

Factor 2. Challenges in contracting due to limited access to collateralizable assets and weak debt enforcement procedures are additional constraints to credit provision.

17.   Limited access to financial tools and instruments, such as a lack of collateralizable assets, significantly hinders credit growth in Togo. Many potential borrowers, particularly in rural areas, lack formal land titles due to a poorly functioning land registry system. Furthermore, weaknesses in the judicial system can make it difficult for banks to recover assets in case of defaults. For instance, the average time to obtain a court decision in a land dispute can take between two and

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[3] The list of aspirational peers includes Ghana, Morocco and Rwanda.

[4] As of end-2023, the number of contracts on the platform in Togo has increased by 15 percent to 2.1 million and the number of listed clients has increased by 7 percent to 1.4 million (17.3 percent of the population).

three years due to a heavy caseload, with land disputes reaching up to 70 percent of all court cases. This duration places Togo among the weakest performers within the WAEMU region and exceeds the average of its aspirational peers.[5]

18.   To address these challenges and improve access to credit, the authorities are actively implementing land reforms. These include the nearing approval of a draft decree on electronic land registers and records, along with 15 additional draft decrees under review. Additionally, land parcel approval work is progressing to expedite the issuance of land titles. The recently completed and successfully tested digital land title issuance application is also slated for deployment. These initiatives, aiming to facilitate implementation of the Land and Property Code and secure rural land tenure, are expected to improve access to credit from the banking sector in the medium term.

19.   The authorities should also continue efforts to strengthen the judicial system. They have launched a judicial reform initiative in 2019 which culminated in 2021 with the creation of a commercial court to facilitate commercial litigation. On civil litigation, the authorities have updated the civil procedure code in 2021 to ensure the accessibility, quality and speed of civil justice. The dematerialization of procedures and a reorganization of the different courts to address the heavy caseload should help to reduce costs and delays for users.

Factor 3: Challenges to the effectiveness of the supervisory framework may weaken the public's confidence in the stability of the banking system and allow an erosion of bank capital, which could limit the system's ability to provide credit in the longer run.

20.   Despite the commendable progress in strengthening the WAEMU financial oversight framework since 2008, challenges remain. Regulatory reforms have clarified the roles of the Central Bank (BCEAO) and the CBU, bringing them closer to international best practices. These reforms have laid a strong foundation for financial stability. However, the 2022 WAEMU FSAP recommended further important steps:

• **Strengthening the CBU's independence from member states.** Its governing documents currently lack explicit guarantees of independence, and some commissioners hold voting rights due to their government affiliation.

• **Enhancing enforcement of supervisory actions.** The CBU has at its disposal various sanctions tools but has not applied them consistently, including as concerns cases of repeated violations of minimum capital requirements. Increased use of published sanctions and a move away from repeated stays of proceedings could enhance deterrence.

21.   These challenges have facilitated sustained breaches of key prudential requirements by two large and one small bank in Togo. Provisional data suggests that all but three banks complied with prudential standards at end-2023. However, on the whole, the sector was undercapitalized at end-2023, with three banks violating capital adequacy norms. These

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[5] Ghana, Morocco, and Rwanda.

undercapitalized banks, particularly the remaining state-owned bank and a recently privatized one,[6] account for a significant portion of the Togolese banking sector (33.6 percent of total credits, and 33.1 percent of total deposits as of January 2024 (Figure 4)).[7] These banks also display negative capital positions.

22.   These persistent breaches of regulations could have a ripple effect, ultimately hindering the banking system' ability to provide credit in the longer run. Breaches can erode confidence in the system, leading to a decline in private sector deposits. Additionally, repeated violations can gradually eat away at banks' capital buffers, which are crucial for absorbing losses and supporting future lending. This combination of weakened deposits and depleted capital could force banks to tighten credit availability, potentially restricting economic growth.

23.   So far, these effects have not been observed, which may in part reflect the impact of large public sector deposits in the problem banks. Public sector deposits in these two banks account for more than half of total deposits (Figure 4) and these deposits have supported an increase in market share of these two banks in terms of credit provision since 2019.

24.   However, the large public sector deposits for the two banks in question come with drawbacks:
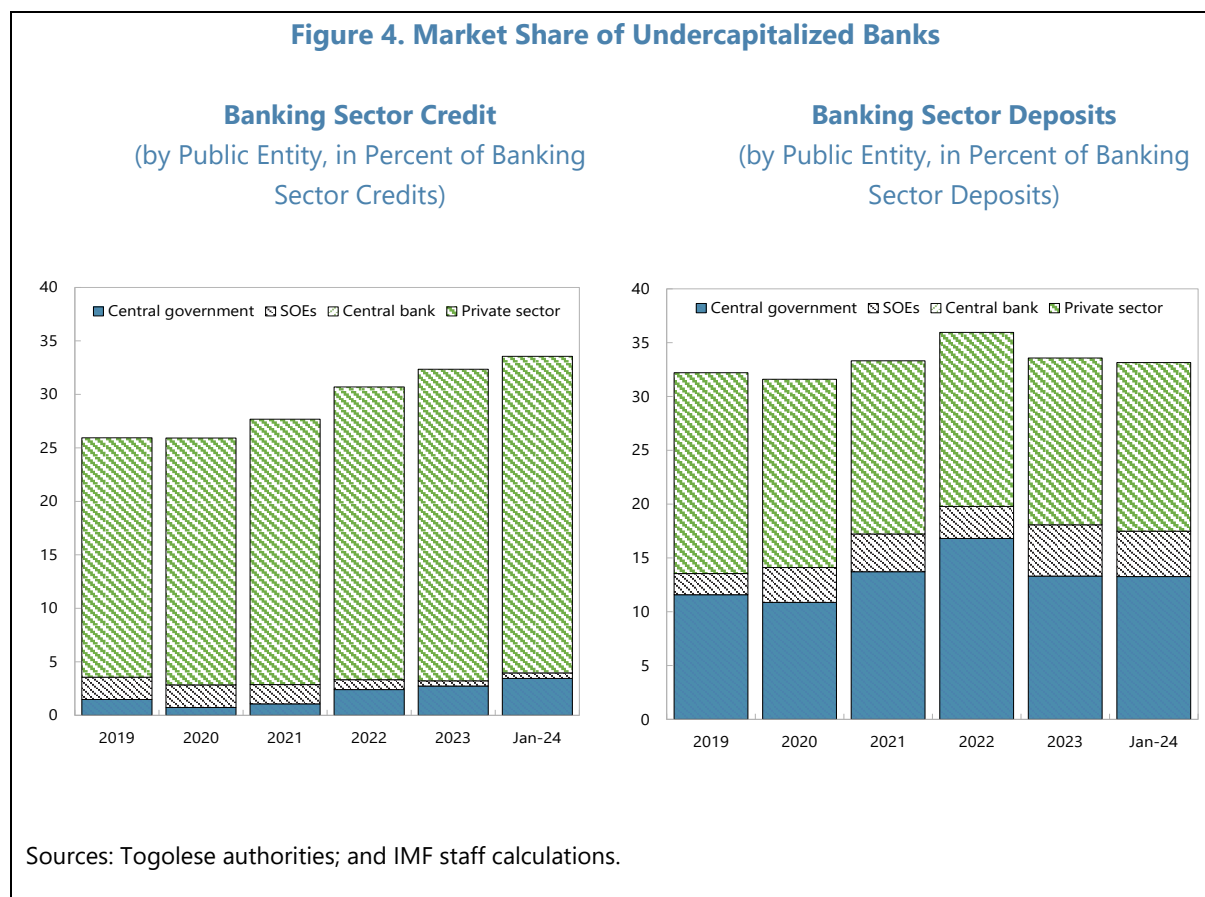
- **Credit misallocation:** Thanks to the public sector deposits, the banks have been able to provide substantial credit and have seen their share in overall banking sector credit increase since 2019. However, the two banks have shown weak profitably in recent years, suggesting that credit is potentially not being provided to the most worthy clients. Indeed, these two banks have had to make large provisions against debtor defaults and to write off large shares of their loan portfolio.

- **Risks to the stability bank funding:** The banks' heavy reliance on public sector deposits raises risks from a potential need by the public sector to withdraw funding following a macroeconomic shock.

25.   To address the above challenges, the authorities should collaborate with the authorities of the other WAEMU member countries to strengthen the CBU's enforcement of regulatory norms. Specifically, regulatory forbearance should be reduced, particularly in cases of protracted violations of prudential norms. The CBU should insist that undercapitalized banks be either recapitalized by their owners or resolved. To facilitate this, the banking sector safety net needs further strengthening. Currently, the reserves in the Deposit Guarantee and Resolution Fund are insufficient to contribute to resolution funding without jeopardizing its core function of guaranteeing deposits during bank liquidations.

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[6] These two banks were considered systemic until 2022. This designation was removed for the former bank due to recent progress in profitability and decline in market share.

[7] We only have aggregated data for the two banks.

26.   Further, the authorities should continue their efforts to reform the remaining state-owned bank to ensure that it will comply with all regulatory norms going forward. The authorities have recently completed its recapitalization to zero and intend to further strengthen the bank's capital and operations.
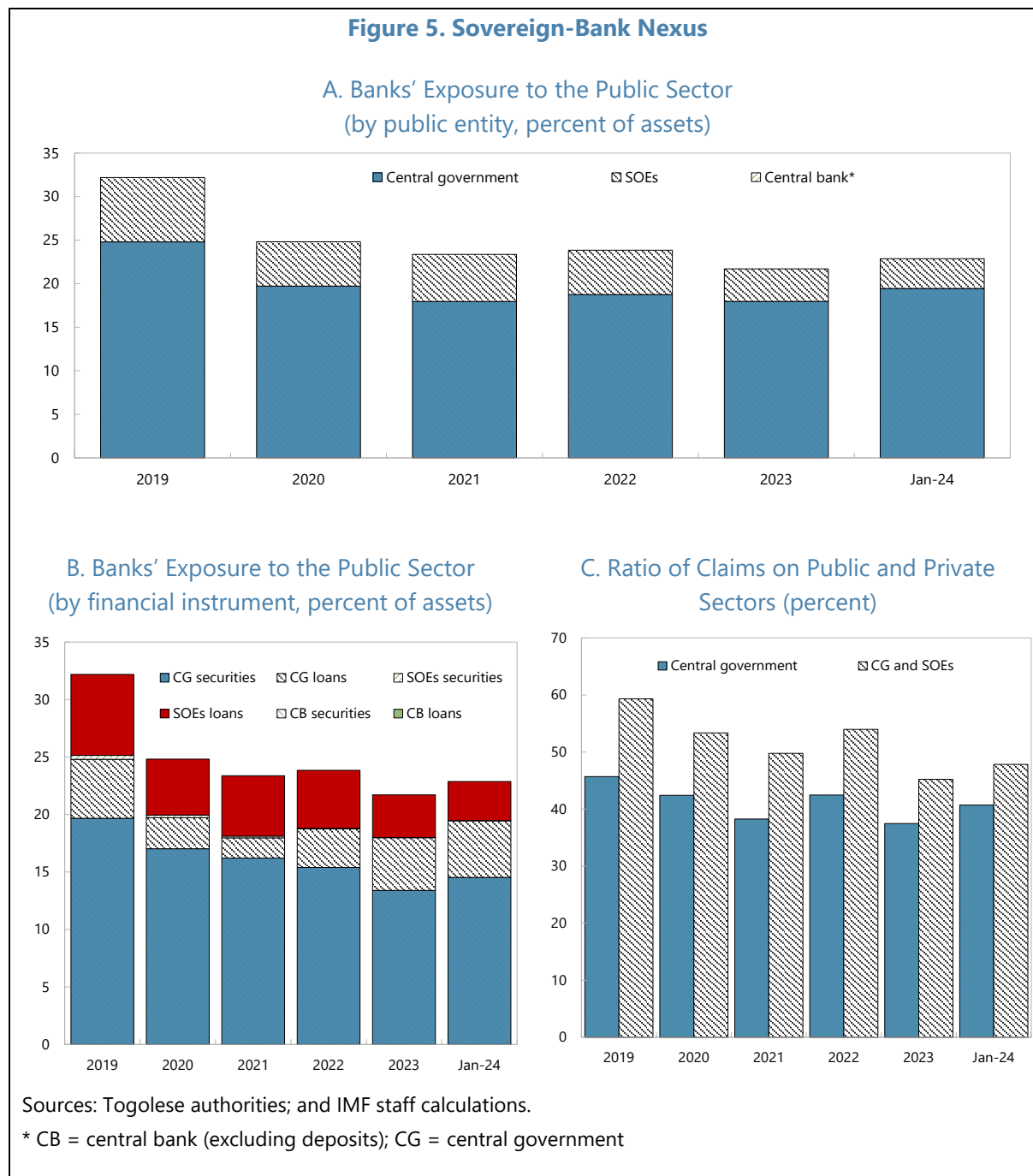
Figure 4. Market Share of Undercapitalized Banks

Banking Sector Credit
(by Public Entity, in Percent of Banking Sector Credits)

Banking Sector Deposits
(by Public Entity, in Percent of Banking Sector Deposits)

Sources: Togolese authorities; and IMF staff calculations.

Factor 4: A large sovereign-bank exposure does not appear to be inhibiting credit provision to the private sector at this time but could well do so in the future. It is therefore possible that reducing the exposure could become a precondition for greater credit provision. The exposure also creates a risk of adverse feedback loops between the sovereign and the banking sector's finances. Reducing the exposure would also help lessen the risk of adverse feedback loops.

27.   Banks' exposure to the Togolese public sector is decreasing but remains substantial (Figure 5). Exposure to the central government and SOEs declined to 22.9 percent of total banking sector assets in January 2024 (from 32.2 percent in 2019), but still above the WAEMU, LIC, and SSA averages of 20.2, 18, and 22.7 percent, respectively.[8] This coincided with a decline of the public-to-private sector claims ratio to 47.8 percent in January 2024 (from 59.3 percent in 2019). This decline

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[8] Data for WAEMU countries are as of 2023Q1.

was mostly driven by a reduction in the share of government securities and SOEs loans in total banking sector assets.

Figure 5. Sovereign-Bank Nexus

A. Banks' Exposure to the Public Sector
(by public entity, percent of assets)

B. Banks' Exposure to the Public Sector
(by financial instrument, percent of assets)

C. Ratio of Claims on Public and Private
Sectors (percent)

Sources: Togolese authorities; and IMF staff calculations.

* CB = central bank (excluding deposits); CG = central government

Figure 5. Sovereign-Bank Nexus (Concluded)[1]

D. Banks' Exposure to the Public Sector (by Public Entity, Percent of Assets)
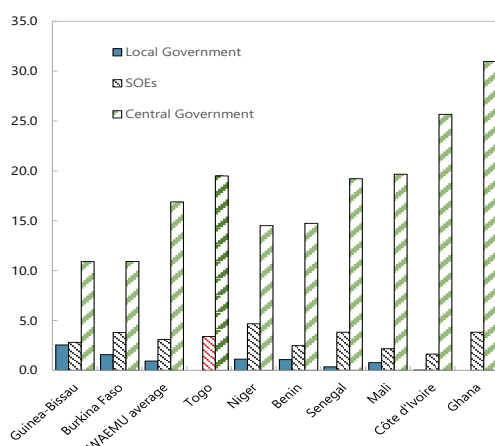
E. Ratio of Claims on the Public Sector to Claims on the Private Sector (Percent)
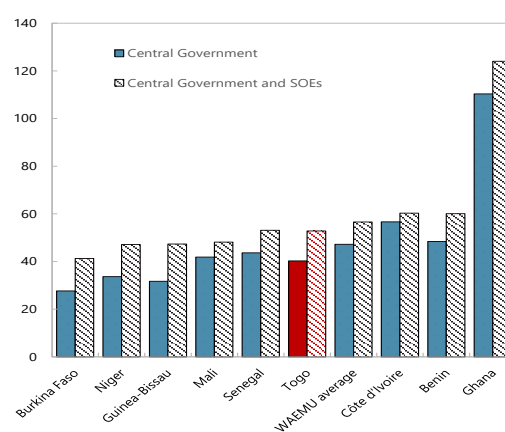
Sources: Togolese authorities; and IMF staff calculations.

[1] Data are as of 2023Q1 for WAEMU countries and as of 2022Q4 for Ghana.

28.   In addition, Togolese banks have provided substantial credits to other WAEMU sovereigns. Banks' exposure would increase to 38 percent of total assets and the public-to-private sector claims ratio would rise to 79.3 percent at end-2023 if we consider exposure to other WAEMU countries. This trend reflects a banking system that increasingly lends to WAEMU governments, perceived as less risky than traditional private sector loans while delivering interesting returns. To unlock private sector credit growth, particularly in underserved sectors like agriculture, a reduction in this sovereign-bank nexus is likely a necessary condition.

29.   While Togo's significant sovereign-bank nexus raises potential concerns, recent improvements in bank liquidity seems to have prevented any constraints on credit to the private sector. This is evidenced by the declining reliance on the Central Bank's refinancing window over the past years. However, this situation might not persist if provision of credit to the private sector were to grow quickly. Therefore, managing government borrowing to reduce banks' exposure may become necessary in the future to ensure continued support for private sector growth.

30.   This large exposure also contributes to risks of adverse feedbacks between WAEMU government finances and bank finances. Liquidity and solvency risks in the banking system could materialize due to the pressure of the global and regional funding squeeze, combined with the high rollover needs of governments. In Togo's case, the regional market debt service is projected to rise from 4.6 percent of GDP in 2024 to 6.6 percent of GDP in 2025, before peaking at 6.9 percent of GDP in 2026.

31.   Implementing fiscal consolidation over the coming years alongside the use of macroprudential tools can help weaken the sovereign-bank nexus.

- A strong fiscal position allows the government to rely less on borrowing for budget needs. Furthermore, fiscal consolidation sends a positive signal to external lenders, which may expand Togo's access to development and market finance on reasonable terms. This, in turn, frees up domestic resources that banks can then lend to the private sector. However, for this strategy to truly benefit private sector lending, fiscal consolidation should be accompanied by the complementary structural reforms discussed above to increase banks' appetite for lending to private borrowers while effectively managing financial risks.

- Finally, as recommended in the 2022 WAEMU FSAP, the use of macroprudential policy tools, such as targeted Pillar 2 capital surcharges, should help to address risks related to the high concentration of banks' portfolios on sovereign exposures. These surcharges would incentivize banks to diversify their lending by seeking out creditworthy private sector borrowers.

Factor 5: Togo's undiversified economic structure is likely also inhibiting credit provision

32.   Like many other LICs, Togo's economic structure lacks diversification, concentrating on the non-tradable traditional services sector. This likely restricts banks' ability to mitigate risk through diversification of their loan portfolios. Data limitations make it difficult to definitively observe, but the lack of economic diversification likely hinders banks' efforts to spread risk across clients with uncorrelated risk profiles, thereby limiting overall credit provision.

33.   Despite the authorities' recent progress, alleviating this constraint by diversifying the economy will be a slow process. The authorities have made significant strides in recent years thanks to the Adetikopé Industrial Platform, their flagship Special Economic Zone (SEZ). Since its inception in 2021, the number of companies operating there has grown rapidly to 16. These companies are engaged in high value-added industrial chains across several agro-industrial sectors, marking the beginning of economic diversification. To further this progress, the authorities are undertaking a study to identify potential future directions for industrial policies that capitalize on Togo's comparative advantages. Additionally, with the support of the International Finance Corporation (IFC), they are drafting a new SEZs law that will encompass a wider range of activities beyond just industry and trade. Combined with continued business climate improvements, these reforms are expected to propel Togo's economic diversification.

34.   The authorities should adopt a caution approach to industrial policies given their generally mixed track record. Effective industrial policies require careful planning and execution. First, they must address a clear market failure, like a lack of skilled workers or access to technology. Second, well-designed policies should choose the most appropriate tools and be accompanied by complementary reforms, such as improving governance. Third, a thorough cost-benefit analysis is crucial to assess potential downsides like resource misallocation or administrative burdens. Finally,

successful implementation hinges on a country's existing capabilities and WTO commitments, while minimizing opportunities for rent-seeking and prioritizing competition and openness.

D. Conclusion

35.   This paper examines the constraints to the provision of bank credit and proposes a multi-pronged approach to address these constraints while also limiting risks to financial sector stability. The approach includes (i) furthering financial inclusion and facilitating access to financial information, (ii) improving access to collateralizable assets and strengthening debt enforcement procedures; (iii) addressing challenges in banking sector oversight and ensuring the recapitalization of undercapitalized banks; and (iv) lessening sovereign-bank nexus. Over time, diversification of the economy will likely also help lessen constraints on credit provision.

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STRENGTHENING INFRASTRUCTURE INVESTMENT AND PUBLIC ENTERPRISE SERVICE PROVISION[1]

Togo's large development needs call for substantial investment in public infrastructure and improved service delivery from public utilities such as electricity and water providers. However, public financing for investment will be tightly constrained in the coming years. The authorities may wish to implement reforms to (i) better align public investment plans with available resources, (ii) strengthen investment project preparation and implementation, and (iii) attract more private financing while managing the fiscal risks associated with Public Private Partnerships (PPPs). They should also strengthen the management and oversight of public utility companies.

A. Togo's Infrastructure: Significant Investment Needs

1.   As in many low-income countries, access to infrastructure remains low in Togo, resulting in large investment needs (Figure 1):

- **Access to electricity is higher than in the average WAEMU country but lower than in aspirational peers.** While the share of households with electricity access has increased from around 30 percent of the population in 2010 to 68 percent in 2023, this still leaves many households without access, creating a major bottleneck for development. This compares well to an average of 44 percent for other WAEMU countries but less so to 77 percent for Togo's aspirational peers.[2] It also remains below the target of 75 percent by 2025 the Togolese government set in their 2020-25 Government Roadmap.

Figure 1. Infrastructure Access in Togo and Peers

Sources: World Development Indicators
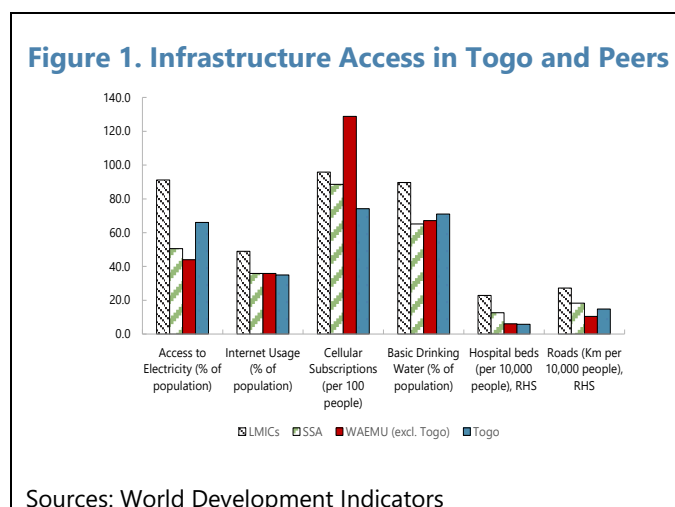
- **Similarly, access to basic drinking water services is above the WAEMU average but lower than in aspirational peers.** In 2020, 69 percent of the population had access, compared to 65 percent and 79 percent on average in other WAEMU countries and aspirational peers, respectively. Urban access to piped water is particularly concerning, at only 42 percent, lagging behind both other WAEMU countries and aspirational peers, whose averages are 72 percent and 70 percent, respectively. The infrastructure network is particularly weak in the Grand Lomé area, and water quality is problematic in general, with a high rate of water contamination.

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[1] Prepared by Arthur Sode and Maximilien Kaffo.

[2] The list of aspirational peers includes Ghana, Morocco and Rwanda.

- **Health infrastructure measured by hospital beds per capita is below comparators.** In 2016, almost 30 percent of the population did not have access to a health facility within 5 kilometers. The number of hospital beds per inhabitant has in fact declined from 9.5 per 10,000 persons in the early 2000s to 5.8 in 2019, below the averages of 6.1 percent for other WAEMU countries and 7.2 percent for Togo's aspirational peers. [3]

- **Access to transport infrastructure, as measured by kilometers of roads per capita is also below comparators,** with 14 kilometers of road per 10,000 habitants, compared to 18 kilometers in the rest of SSA and 27 kilometers on average in LIDCs. The port of Lomé and the international airport are major infrastructure assets that have the potential to position Togo as a regional leader in trade logistics and transit services. Developing the Togolese parts of the two key road corridors, Abidjan-Lagos and Lomé-Ouagadougou-Niamey, as well as the secondary road network, could unlock significant economic benefits if it can be done while protecting debt sustainability.

- **Digital infrastructure also leaves room for improvement.** While mobile subscriptions reached 74 percent of the population in 2022 (above other WAEMU countries and aspirational peers' averages of 52 and 67 percent, respectively), internet access remained particularly low at 35 percent of the population in 2021 (compared to 36 and 62 percent on average in other WAEMU countries and aspirational peers, respectively). According to the World Bank[4], regulatory barriers to entry have impeded investment in this sector, resulting in high costs and poor service quality.

2.   **Going forward, rapid population growth and climate change will create additional infrastructure needs.** With a fertility rate of 4.2 births and population growth of 2.4 percent per year, Togo's population is expected to increase from 8.1 million in 2023 to 9.6 million in 2030. Together with ongoing urbanization, this will create additional demand for public infrastructures, particularly in cities. Further, climate may damage existing infrastructure and make additional investments necessary.

B.   A Short History of Infrastructure Investment: A Boom and Bust in the 2010s, Followed by Another Boom

3.   **After many years of subdued investment and growth, public investment increased significantly over 2009 – 16 (Figure 2).** During most of the 1990s and 2000s, public investment remained at very low levels, well below the SSA or regional averages. Starting in 2009, public investment picked up significantly and matched regional averages of around 6.7 percent of GDP over 2011-16, facilitated in part by debt forgiveness in the context of the HIPC and the MDRI Initiatives.

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[3] World Health Organization, most recent data.

[4] World Bank, 2017, Country Partnership Framework for Republic of Togo for the Period FY17-FY20

4.   This public investment boom of may have crowded in private investment (Box 1). Nevertheless, public investment made during this period was likely not efficient (Figure 3). Togo undertook large extra-budgetary "prefinancing" operations, under which Togolese commercial banks financed public investment projects and were later reimbursed by the government through the central bank. In this context, projects were awarded without rigorous project preparation and selection, procurement procedures, or ex-post controls, thereby likely continuing a history of low investment efficiency. According to an estimation of the efficiency frontier of public investment in physical Infrastructure based on data from 1990-2015, Togo's efficiency was lower than in the average SSA country or the average LIC during that time (Figure 3).[5]

5.   The public investment boom was also not sustainable (Figure 4), forcing Togo into eventual fiscal consolidation. The prefinancing arrangements created (initially hidden) public debt, contributing to a quickly rising debt burden. This, in combination with a tightening of financing conditions in the regional market in 2015, forced Togo into a large front-loaded fiscal consolidation.

Figure 2. Evolution of Public Investment, 1990–2023
(Percent of GDP)
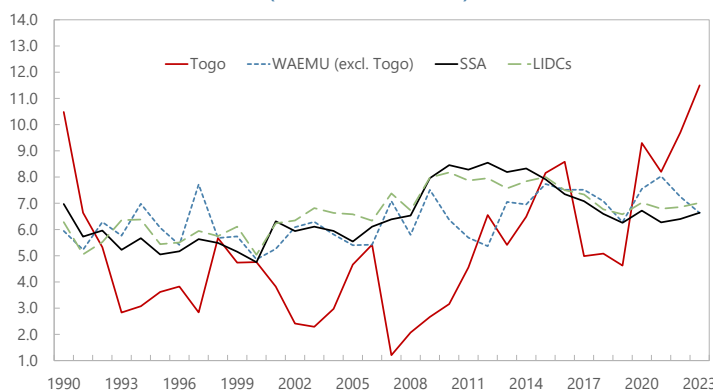
Sources: World Economic Outlook; and IMF staff calculations.


Figure 3. Physical Infrastructure Efficiency Score, 2015 and 2022
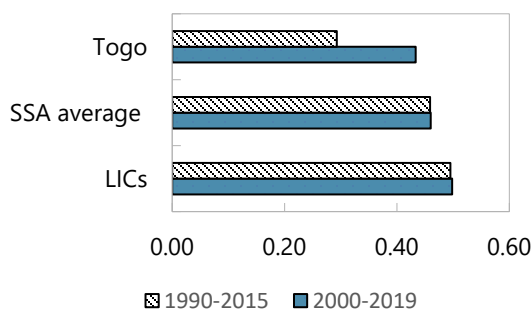
Sources: Expenditure policy database and IMF African Department paper, 2018, "Public Investment Efficiency in Sub-Saharan African Countries What Lies Ahead?".

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[5] Efficiency scores estimate the relationship between the public capital stock and indicators of access to infrastructure assets. Countries with the highest levels of infrastructure coverage (output) for given levels of public capital stock (inputs) form the basis of an efficiency frontier and are given a score of 1. See IMF departmental paper, 2018, "Public Investment Efficiency in Sub-Saharan African Countries, What Lies Ahead?".

Figure 4. Public Debt and Deficit in Togo 2005−23
(Percent of GDP)
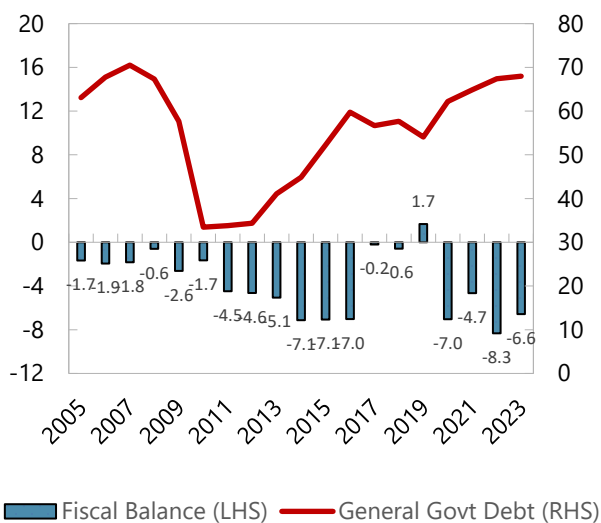
Sources: WEO

Figure 5. Externally vs. Domestically-Financed Public Investment, 2011–23
(Percent of GDP)
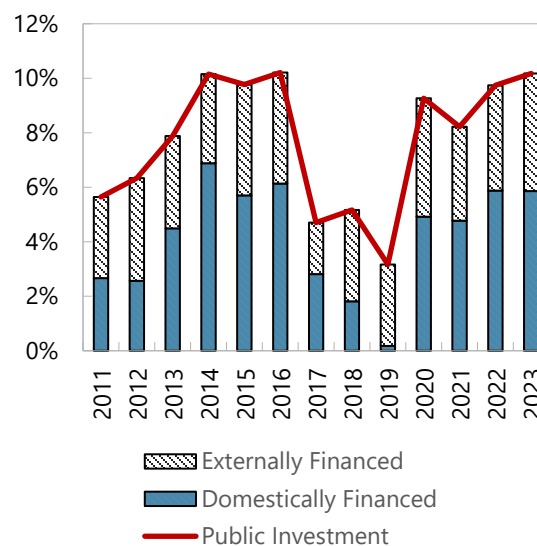
Sources: WEO

6.   Starting in 2020, the authorities raised public investment back to the highs recorded during the boom of the 2010s to support the economy amidst the COVID-19 and other shocks (Figure 5). Capital expenditure rose from 3.1 percent of GDP in 2019 to 9.0 percent in 2020 and averaged 9.3 percent of GDP over 2020-23, exceeding the 8.8 percent average recorded during 2013-16. Fortunately, spending efficiency had improved in the meantime, with Togo's efficiency closing the gap with the SSA and LICs averages (Figure 3).

7.   This increase in capital spending, combined with a rise in current spending to help the population shoulder rising living costs due to higher global food and fuel prices, led to another sharp increase in public debt. In 2022, the overall fiscal deficit peaked at 8.3 percent of GDP and public debt reached 67.4 percent of GDP, more than reversing the debt reduction achieved during the 2017-20 ECF arrangement. Recognizing the unsustainability of this trajectory, the authorities have decided to reduce the fiscal deficit to 3 percent of GDP by 2025.

Box 1. Is Public Investment Crowding In or Crowding Out Private Investment in Togo?

Theory suggests that public investment can have two opposite effects on private investment. Since public investment needs to be financed, either through borrowing or through taxes, public investment can crowd out private investment. This happens more readily in countries with narrow financial markets where public and private actors compete for a limited pool of domestic financing. It also tends to happen where tax financing of public investment is highly distortionary, reducing the return of private investment. At the same time, public investment can crowd in private investment if it creates favorable conditions for private sector investment. The availability and quality of public transport and energy infrastructures can for instance improve the productivity private investment.

The empirical literature has highlighted the conditions under which one of the above effect prevails over the other. For instance, Erden and Holcombe (2005) find that public and private investment are complementary in developing economies while public investment crowds out private investment in advanced economies. This result is confirmed to some extent by Izquierdo and al (2019), who find that growth multipliers associated with public investment are higher in LICs than in advanced economies, a sign that crowding-in effect dominates. Bahal, Raissi and Tulin (2015) found that public investment crowded out private investment in India over 1950–80 but crowded in private investment after 1980, interpreting the change of regime as reflecting the liberalization reforms undertaken in the 1970's. Linking the impact of public investment to the position of the economy in the cycle, Rachel and Summers (2019) highlighted that when the economy is characterized by low growth and excess savings, the crowding-in effect of public investment is stronger.

In the case of Togo, historical data indicate that public investment tends to crowd in private investment in the short term (Box 1. Figure 1.). Private and public investment were both relatively low in the 2000's, while the public investment surge of the 2010's was accompanied by a surge in private investment. In particular, both private and public investment were close to their peak in 2015–16, suggesting a positive correlation between public and private investment. This crowding-in may in part reflect the fact that during the period analyzed, Togo was able to tap the regional market to finance its public investment program, leaving credit space in the domestic financial sector for private investment.

Box 1. Figure 1. Public vs. Private Investment in Togo, 2000-23 (Percent of GDP)
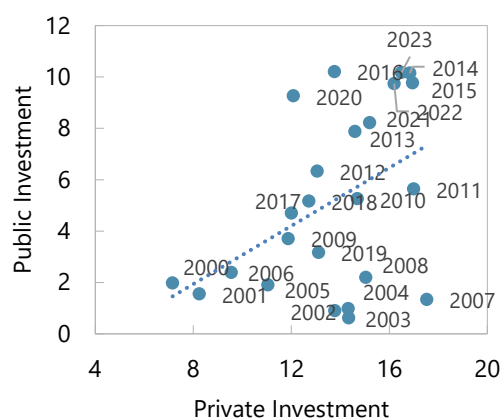
Sources: WEO

C. Reforms to Enhance the Efficiency of Public Infrastructure Investment

8.   Recognizing that reforms to investment processes can help improve development outcomes (International Monetary Fund, 2020a), the authorities have made efforts to strengthen investment management. Since 2017, they have ended the prefinancing practices, prepared a manual on cost-benefit analysis of public investment projects, and set up an inter-ministerial public investment committee. Also, in 2021, the authorities reviewed the Public Investment Program (PIP) projects pipeline and committed to a stricter selection of projects going forward. Further, they have extended the coverage of capital spending shown in budget documents to the entire central administration and the coverage of capital spending shown in the medium-term budget framework to the entire public sector.

Better Aligning Investment Plans with Available Resources and Strengthening Investment Processes

9.   The authorities could enhance public investment efficiency further by implementing the following reforms:

- **Base investment plans on realistic medium-term budget envelopes.** Historically, execution rates of budgeted capital expenditure have been low at under 80 percent in most years. This undermines the credibility of the budget and signals challenges in public investment planning. The authorities should ensure more realistic budget projections and remove projects for which financing is not available or that are not ready for implementation from the PIP.

- **Integrate future maintenance costs into investment decisions to better inform project selection and consider whether available resources are better spent on new investment or on maintaining existing assets.** Better consideration of maintenance needs is particularly relevant for the electricity, road and water sectors where existing networks need to be constantly maintained. Without sufficient investment in maintenance, utilities services can rapidly deteriorate (energy loss, water leaks, road degradation) at the cost-of-service quality and economic growth (International Monetary Fund, 2020b).

- **Strengthen project preparation expertise in line ministries.** Challenges in project preparation are a key impediment to strong public investment management in Togo. Reinforcing the technical capacity of staff of line ministries for project preparation is essential.

- **Clarify and strengthen the role of the Ministry of Economy and Finance.** The Ministry should play a strategic and leading role in the preparation, budgeting, and implementation of the PIP. This notably means increasing dedicated resources at the Directorate for the Budget to ensure that its staff can evaluate, select, and properly budget for public investment.

- **Strengthen the capacity and role of the inter-ministerial investment committee.** The committee should be able to filter projects and prepare a pipeline of well-prepared and ready-

to-execute projects. The committee should make full use of technical support from experts financed by development partners (with up to CFAF 5 billion per year).

- **Extend the scope of the PIP to investment by SOEs, extra-budgetary units and PPPs** to provide a more comprehensive picture of public investment.

- **Align the decision-making structures related to PPPs with those of conventionally funded projects.** At present, the PPP Unit attached to the Presidency takes the lead in selecting, negotiating, and implementing PPPs. While the MoF is likely involved throughout the process, a clearer division of responsibilities, particularly regarding fiscal risk management, would be beneficial.

- **Given Togo's vulnerability to climate change, and its related adaptation and mitigation goals, integrate climate considerations into public investment decisions.** Key steps such as planning, appraisal, selection, public procurement and risk management need to integrate climate change and its consequences on Togo's public investment decisions. A first step would be for the government to spell out more clearly the investment needs arising from its climate change adaptation and mitigation goals in its national and sectoral development strategies. Togo will soon receive IMF technical assistance through a "Climate-PIMA" of the IMF.

Attracting Private Financing

10.   **In Togo, as in other LICs, infrastructure is mostly financed by the public sector, but private sector financing can play a complementary role (International Monetary Fund, 2021a)**. Due to high investment risk, private sector participation in infrastructure is particularly low in SSA. However, even in a low-income country such as Togo, targeted policies can attract more privately financed investment into infrastructure. The private sector could notably play a greater role in the financing of infrastructures in sectors such as power generation, telecommunication, and transport. The authorities initially aimed to finance more than half of the cost of the 2020-25 Government Roadmap (estimated at 47-58 percent of GDP) through private sector resources. Due to insufficient data, it is unclear whether this goal is on track.

11.   **While Togo has already created several PPPs that have led to substantial investment (Table 2), such partnerships can also entail substantial fiscal and operational risks.[6]** Two of the most important PPPs relate to the port of Lomé and its container terminal, with a total investment volume totaling USD 500 million over 2005-12. The energy sector is the second recipient of PPP investments with the regional west African gas pipeline project, the thermal power plant of Lomé, and more recently a solar power plant (Togo joined the "IFC scaling solar initiative" in 2019). While presenting some advantages over standard publicly financed investment projects, PPPs need to be

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[6] PPPs are defined in this paper as contractual agreements through which the public and private sectors collaborate towards a common purpose. Contracts can be structured differently based on many elements: duration, compensation, public service prerogatives, taxation, etc.

carefully programmed and monitored as they can carry high operational risks as well as risks to the government budget if poorly executed (see International Monetary Fund, 2021b).

Table 1. Togo: Key Private-Public Partnerships in Togo				
Project name	Sector	Financial closure	Investment (USD million)	Status
West African Gas Pipeline Company Ltd	Natural Gas	2005	590.00	Active
Lomé Container Terminal	Ports	2012	442.00	Active
Centrale thermique de Lomé	Electricity	2008	196.00	Active
Port of Lomé	Ports	2005	76.90	Active
Centrale thermique de Kékéli	Electricity	2021	65.00	Active
Awandjelo Solar Power Plant	Electricity	2022	39.73	Active
Sheikh Mohammed Bin Zayed Solar Power Plant	Electricity	2020	36.35	Active
Sheikh Mohammed Bin Zayed Solar Power Plant Expansion & BESS	Electricity	2022	25.00	Active
BBOXX's Togo Solar Power Plant Portfolio	Electricity	2022	11.39	Active

Sources: World Bank

12.   The following measures could stimulate private investment into infrastructure:

- **Mitigate risks facing investors by further improving the business climate and governance.** The business climate has improved in recent years, thanks in part to the Investment Code adopted in 2019 and a streamlining of barriers to entrepreneurship. However, there is room for further strengthening the legal operating framework of businesses by limiting the role of the state in commercial sectors (see below), reinforcing judicial efficiency, strengthening governance and reducing risks of corruption, and enhancing land title management, among other things.

- **Use existing multilateral initiatives that support project preparation and financing.** The international community has taken several initiatives to help developing countries prepare projects for private investors, including through the AfDB grant-based NEPAD Infrastructure Project Preparation Facility (NEPAD-IPPF).[7] There are also project information platforms such as the Global Infrastructure Hub launched by the G20 or the NEPAD/AUDA program for infrastructure development in Africa.

13.   The authorities should also strengthen the management of PPPs to ensure greater transparency and control over risks they entail. Until recently, Togo did not have a strong PPP framework with a well-defined legislation, an agency to prepare and manage projects, or an overall

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[7] According to Eyraud and al (2021), 20 project preparation facilities exist today.

strategy. The authorities have in part remedied this challenge by adopting a new PPP law.[8] Going forward, it will be important to integrate PPPs in the budget process, as required by the organic budget law, and to improve the fiscal reporting of PPPs. The authorities should also give a strong role to the Ministry of Finance to enable it to monitor PPPs and manage the associated fiscal risks. Further, the authorities should clarify the roles of TogoInvest and of the Togolese Agency for Major Projects (ATGP).

14.   **Further, the authorities should strive to mitigate adverse social consequences of private financing of infrastructure investment.** Private infrastructure financing often implies that users are charged. This can harm the poorest households and deprive them of basic services. To remedy this challenge, authorities should seek to support vulnerable populations through preferential tariffs or improved safety nets.

D.   Strengthening Service Provision by State-Owned Enterprises

15.   **Togo has started to reform its approach to the role and management of State-Owned Enterprises (SOEs) through a combination of privatization and enhanced oversight.**[9] Until the mid-2000s, Togo's development strategy appears to have been largely state-led, with SOEs historically playing a major role in many areas of the economy. To date, SOEs remain the main, and sometimes only, players in key sectors such energy, water, or transport (see table below).[10] Nevertheless, Togo has privatized three SOEs in the cotton, telecommunication, and banking sectors in recent years, and is considering additional privatizations. Further, the government has had five major SOEs undergo comprehensive strategic, organizational, accounting, and financial audits, revised the legal framework for SOEs, and adopted a code of conduct for government representatives on boards. While SOEs reform has a broader scope than its impact on public investment (Box 2), improving the performance of SOEs in key sectors such as electricity, water, telecommunication, and transport will be important for strengthening public infrastructure and utility services (a goal of the authorities' development plan).

16.   **The following reforms would help further strengthen SOEs' service provision:**

- **Setting strategic objectives and assessing SOEs based on performance relative to these objectives.** At present, the government concludes performance contracts with SOEs to set their social and economic objectives. But the government has few tools to monitor implementation of the contracts and enforce them. In particular, the Ministry of Finance's division charged with this task faces staffing and capacity constraints.

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[8] Law no 2021-034 of 31 December 2021.

[9] World Bank (2017) has found that SOEs accounted for 31 percent of infrastructure project investment in 2017 for SSA.

[10] According the World Bank, the state was present in the following sectors in 2017: phosphates, cotton, telecommunications, banking, hotels, transport, bakeries, pharmacies, printing, accounting, distribution of butane gas, livestock slaughter, cement, and distribution of certain agricultural inputs.

Table 2. Togo: Largest State-Owned Enterprises			
Name	Sector	2023 Capitalization (FCFA million)	2023 State ownership (percent)
State as unique shareholder (=100 percent)			
SNPT	Phosphate	15,000	100
S.I.N. SA	ICT	14,232	100
HOTEL SARAKAWA	Hotel	10,976	100
TOGO INVEST	Investment holding	10,500	100
SPT	Postal services	10,000	100
UTB	Bank	10,000	100
SP-EAU	Water	8,000	100
LONATO	Gambling	5,000	100
PAL	Port	3,500	100
HOTEL KARA	Hotel	2,429	100
ODEF	Forestry	1,828	100
TdE	Water	1,450	100
EDITOGO	Press	742	100
CEET	Electricity	630	100
COMPEL	Oil	600	100
HOTEL DAPAONG	Hotel	387	100
SRT	Financial services	250	100
LNBTP	Public construction	200	100
ROC HOTEL	Hotel	25	100
State as majority shareholder (>50 percent)			
CYBER DEFENSE AFRICA	Cybersecurity	1,965	68
T-OIL COMPANY	Oil	685	79.7
SALT	Airport	500	60
NOSOPHAT	Food Industry	340	60
STSL	Oil	300	70
Pineapple factory Adetikope	Food Industry	186	60
SOTRAL	Urban transport	65	96.2
Sources: Authorities' data			

- **Ensuring financial data collection and publication, including on investment projects and maintenance of existing SOE infrastructure.** SOEs provide financial reporting to the Ministry of Finance, but there may be room for improvement in how the Ministry collects and uses these reports for effective SOE oversight. Regarding collection, the Ministry may wish to develop a single form for requesting SOEs financial information and to establish a one stop shop to collect all the financial information on SOEs and dispatch it in the MoF. Regarding use of the data, closer follow-up of financial variables and investment projects would help. An annual report with detailed information and analysis of the performance of SOEs sector at the

aggregate, sectoral, and company levels is under preparation and will help monitor and manage SOEs.

- **Professionalizing SOE management and boards.** Reforming the corporate culture of SOEs by bringing managers that possess the requisite experience and skills could enable significant productivity gains, including as concerns investment decisions.

- **Integrating SOEs' investment plans in the public investment plan (PIP).** SOEs' investment plans deserve additional scrutiny given their fiscal implications and impacts on growth. It is crucial that these plans be assessed against technical and economic criteria and that fiscal costs and social returns are compared directly with other uses of public funds.

- **Ensuring cost-recovery pricing of SOE services and transparency of subsidies provided to them.** Public utilities should in most cases set prices at cost recovery (including to cover investment expenditure), while any subsidies should be provided through the government budget with clear public-interest justifications. At present, several SOEs including the energy and water providers operate with tariffs below cost, limiting their ability to provide services and maintain, and let alone, expand their networks.

E.   Conclusion

17.   Togo's large development needs call for substantial investment in public infrastructure and improved service delivery from public utilities. However, public financing for investment will be tightly constrained in the coming years.

18.   A strategic approach towards enhancing infrastructure investment efficiency, attracting private investment, and reforming SOEs is therefore needed, and will offer a blueprint for sustainable development:

- Public investment requires not only rigorous prioritization based on cost-benefit analysis under integration of maintenance considerations but also better aligning investment plans with available resources and strengthening investment processes.

- The government should foster private investment while ensuring that the benefits of infrastructure provision are shared equitably among all segments of society, including the most vulnerable.

- Reforms to strengthen service provision by SOEs are also important. By setting objectives, ensuring financial transparency, and professionalizing SOE management, Togo can improve the performance and accountability of SOEs. This is crucial for enhancing the value for money SOEs provide and leveraging these enterprises as catalysts for sustainable development.

19.   Togo's commitment to further enhance infrastructure investment and public enterprise service provision is most welcome and should continue. By maintaining a focus on efficiency, transparency, and inclusivity, Togo can lay the foundation for a prosperous future.

Box 2. What Role for SOEs in LICs' Development Strategies?

There are numerous examples where SOEs have played a significant role in the development process of countries that have developed successfully. From the state-owned enterprises of Western countries that developed key public infrastructures in the nineteenth century to more recent examples of Asian SOEs in Singapore, Taiwan, South Korea, or China that are now global technological leaders, SOEs have been an integral part of the development process of numerous countries. Due to the high prevalence of market failures and unexploited positive externalities in LICs (OECD, 2015), SOEs can play a catalytic role in the early development phase, including notably through the delivery of basic infrastructures (energy, water, transport). Even at later stages of development, some SOEs have been better able than private sector firms to develop manufacturing industries and foster R&D and innovation (International Monetary Fund, 2020c and Szarzec et al., 2021).

Further, provision of certain goods through SOEs can be an appropriate response to market failures in developed and developing countries alike. Where market failures exist and unregulated private provision would thus be inefficient, such as in the case of natural monopolies that can arise from situations where building more than one distribution network would be prohibitively costly, e.g., in electricity distribution, there is a need to ensure service provision by the government or through a regulated private provider. Ensuring suitable regulation can be challenging. It should thus be expected that in these areas, SOEs will continue to play an important role in many countries.

However, SOEs are often poorly managed. Recent studies have found that SOEs are on average less efficient than private sector firms; are more prone to corruption, rent-seeking and clientelism; and can create significant fiscal risks (International Monetary Fund, 2020c and Szarzec et al., 2021). When a country's overall governance quality is weak, SOEs are more vulnerable to political influence and can be conduits for corruption. SOE bailouts have been frequent and sometimes cost as much as the equivalent of 10 to 15 percent of GDP in fiscal resources. For instance, in South Africa, over the last two decades, the power company has received a government bailout of 2.5 percent of GDP every three years (International Monetary Fund, 2020c).

Reforming SOEs can bring large benefits. Reforms should set clear objectives for SOEs (including possibly through performance contracts), confer SOE management to well-qualified professionals and establish appropriate incentives for them (including possibly through incentive schemes), and ensure robust supervision (including by requiring regular financial and other reporting). This requires a competent bureaucracy that exercises government ownership effectively (see OECD, 2015). The state should also empower successful SOEs while restructuring non-performing ones. A key reform of Chinese SOEs in the 1990s, coined "grasp the large, let go the small", led to the closing or privatization of small and low-productivity SOEs, while better-performing and large SOEs were consolidated and submitted to increased performance scrutiny (Hsieh and al., 2015)). More broadly, exposing SOEs to market competition and international trade, where possible, has been a key ingredient for success in Asian countries' development strategies.[1]

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[1] China established SASAC, the state agency which centralized SOE's monitoring, in 2003 to focus the management of SOEs on performance of these larger enterprises.

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ENHANCING SOCIAL INCLUSION[1]

Togo has made progress towards achieving the Sustainable Development Goals (SDGs). Nevertheless, a substantial share of the population continues to live in poverty, and the distance to reaching the SDGs remains large. Further, the government has made progress on building a social protection system, but coverage and spending volumes remain low in comparison to peers. To accelerate progress towards the SDGs, the country would benefit from (i) raising spending on health and education in the context of a sustainable fiscal policy to help the quickly growing ranks of the young build the human capital they need to succeed in the modern workplace; and (ii) expand cash transfers to the poor. Such transfers have an excellent track record globally in helping lower poverty and they likely also help accelerate growth and make it more sustainable, including by assisting the poor absorb shocks.

A. Overview

1.   **Togo has made continued progress towards the SDGs over the past two decades, but the distance to reaching these goals remains large (Figure 1.A).** Togo scores 56.3 out of 100 on achieving the SDGs, ranking 136th out of 166 countries assessed, slightly better than the WAEMU average despite the country's slightly below-average per capita GDP (Sachs et al., 2023; Figure 2.A). In particular:

- **Poverty has fallen but remains high.** The share of the poor in the population, measured using the national poverty line, dropped to 43.8 percent in 2021/22,[2] and the share of the extremely poor, defined as those living on incomes of less than USD 2.15 per day in 2017 purchasing power terms, fell to 28.4 percent in 2018 (Figure 2.B) and is estimated to have eased further to 25.8 percent in 2023 (World Bank 2024). With this, extreme poverty is lower than in the average low-income and SSA country but remains above the WAEMU average (Figure 2.B). Poverty is substantially higher in rural areas than in urban centers (Figure 2.C).

- **Indicators for access to infrastructure, clean energy, and water and sanitation have improved but remain particularly low when measured against the SDGs (Figure 1.B).** Large service provision gaps remain, particularly in rural areas (Figure 2D on electricity and water).[3]

- **Indicators of health outcomes, reduced inequality, and zero hunger remain low as well (Fig. 1.B).**

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[1] Prepared by Meryem Rhouzlane and Markus Specht.

[2] Based on population-weighted subgroup estimates from household surveys. For Togo, the ratio is computed using the 2021/22 Harmonized Living Standards Measurement Study (*Enquête harmonisée sur les Conditions de Vie des Ménages*—EHCVM). Note that other elements of this analysis rely on the previous 2018/19 EHCVM, which recorded a poverty headcount of 45.5 percent.

[3] The SIP "Strengthening Infrastructure Investment and Public Enterprise Service Provision" provides additional discussion of access to infrastructure.
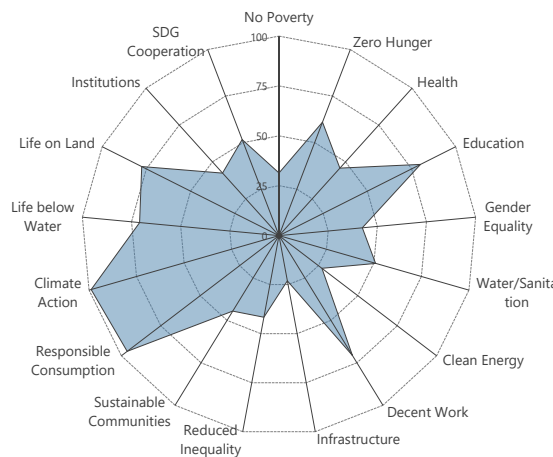
Figure 1. Progress Towards the Sustainable Development Goals

While Togo has made progress towards the SDGs, substantial gaps remain.

A. Togo and Peers: Overall SDG Score, 2000−22
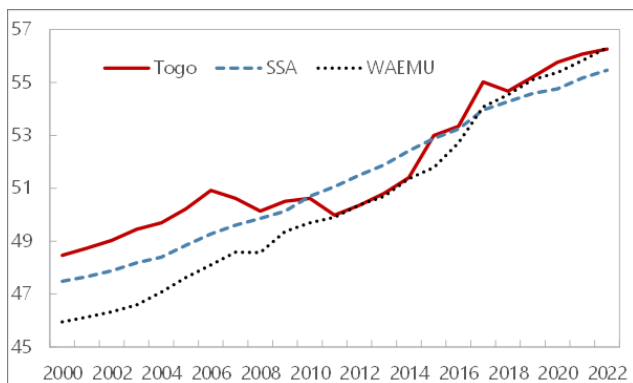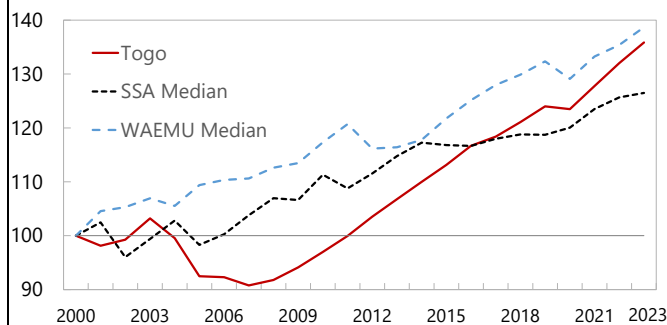

B. Togo: SDG Scores by Goal, 2022

Sources: Sustainable Development Report 2023

Figure 2. Income and Poverty

Per-capita income has risen since 2008, and extreme poverty as well as the depth of poverty have fallen substantially in recent years. Nevertheless, extreme poverty remains elevated.
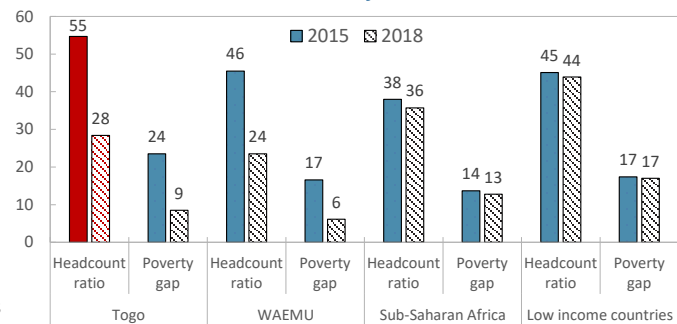
A. Per-capita GDP, 2000−2023
(2017 PPP International Dollars; Base 2000)

B. Poverty Headcount Ratio and Poverty Gap at $2.15/Day[1] (Percent of Population; Percent Shortfall of Poverty Line)

Figure 2. Income and Poverty (concluded)

Poverty is concentrated in rural areas, and service delivery gaps persist.

C. Poverty Incidence, National Poverty Line (Percent)
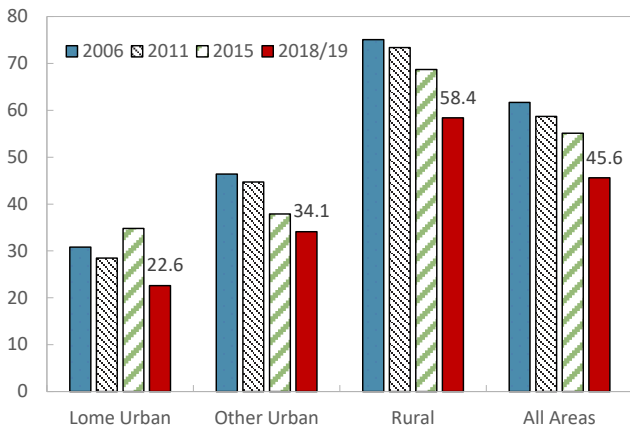
D. Togo and Peers[2]: Access to Electricity and Basic Water Services (Percent of Population)
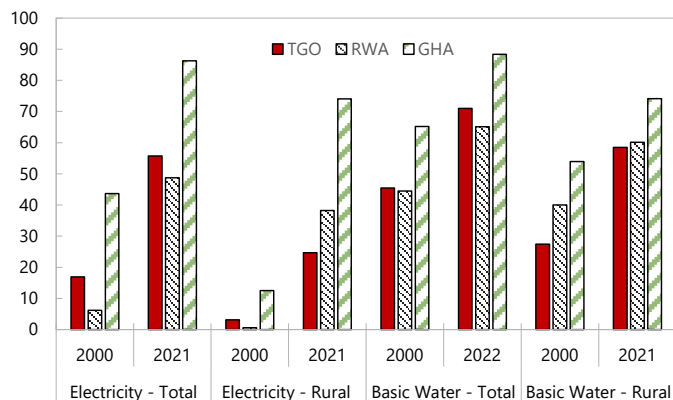
Sources: World Economic Outlook (A); World Bank (B); INSEED and EHCVM 2018/19 (C); World Development Indicators (D).

1/ In 2017 PPP. The poverty gap is the ratio by which the mean income of the poor falls below the poverty line.

2/ Togo's "aspirational peers" are Ghana and Rwanda (following World Bank methodology).

B. Social Protection Spending

2.   The Government has made progress on building a social protection system, but coverage and spending volumes remain low in comparison to peers.[4] With a coverage of about three percent of the population (compared to the LIDC and SSA medians of 21 percent) and spending (not including health and education spending) of less than 0.2 percent of GDP (Figure 3.A), Togo's social protection measures do not reach sufficient segments of society, especially given the still elevated share of the population living in poverty. The government has at times also provided large fuel subsidies, reaching [x] percent of GDP in 2022, but such subsidies are not the best tool for protecting the poor given their weak targeting, as the authorities have recognized.

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[4] Social protection is defined by the International Labor Organization (ILO) as spending on programs to reduce poverty and vulnerability, not including health and education spending.
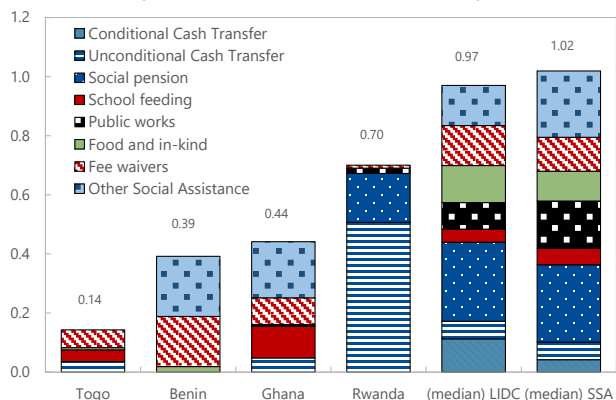
Figure 3. Social Protection Spending

Social protection spending is low compared to peers, and cash transfers are not extensively used.

A. Total Social Protection Spending[1]

(Medians in Percent of GDP)
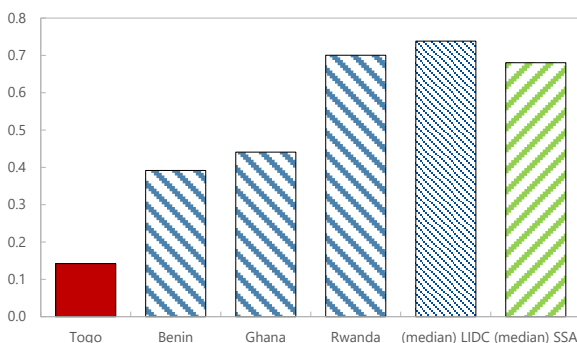
B. Social Protection Spending by Source[1]

(Medians in Percent of GDP)

1/ Latest data available.

Note: The median Total Social Assistance (panel A) will not mathematically match the sum of the medians of sub-components for country grouping medians (panel B) due to the methodology of the World Bank ASPIRE Expenditure indicator documentation.

Sources: World Bank ASPIRE; and IMF staff calculations.

C. Education Spending and Outcomes

3.   Government education expenditure per student is comparatively low, especially in secondary and tertiary education (Figure 5.C). Primary education spending is on par with peers and enrollment rates are high, but improving the quality of learning remains a priority: the recent Early Grade Reading Assessment survey found that more than 75 percent of second graders are unable to read properly, while nearly a third are unable to read letters altogether (World Bank). Further, spending on secondary and tertiary education is substantially below peers. For example, education expenditure for tertiary students is less than half of the WAEMU average, highlighting a key area for improvement of education outcomes (Figure 5.C).

4.   In line with the above, Togo's education outcomes are slightly better than peers' but not commensurate with the population's needs. Togo scores an average of 6 learning-adjusted school years of education (LAYS) compared to the SSA median of 5 LAYS of education, similar to its higher-income regional peer Ghana (IMF 2024). However, despite improvements, literacy remains limited, particularly among women (Figure 5.B), indicating that Togo's educational outcomes remain far from equipping the young with the skills needed to succeed in the modern workplace. Relatedly, Togo's Human Capital Index of 0.43 (reflecting both education and health; Figure 5.A) signifies that a child born in Togo today will on average reach only 43 percent of her potential when she reaches adulthood.
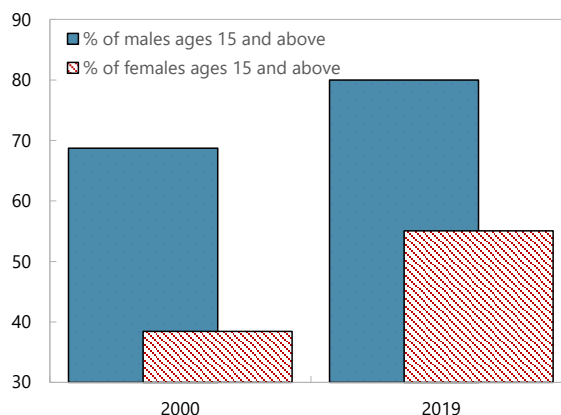
Figure 4. Selected Education Sector Metrics

Togo's Human Capital Index increased despite the COVID-19 pandemic, but gender equality with regard to education points to significant room for improvement.
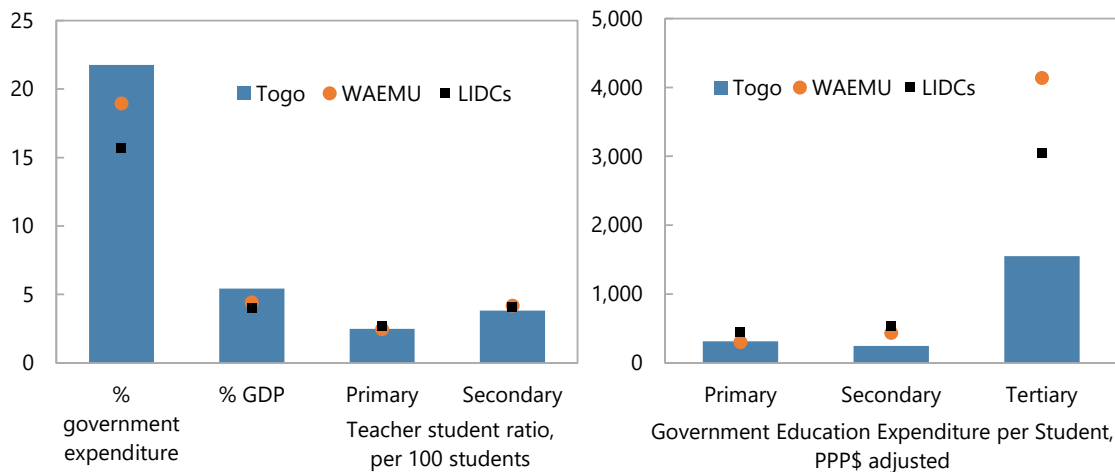
A. Human Capital Index, 2017–2020
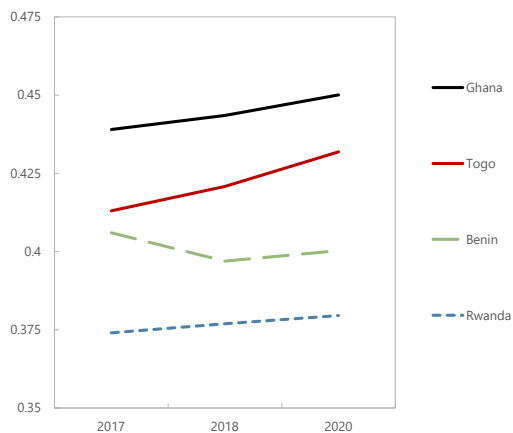
B. Literacy Rates, 2000–2019

C. Education Spending

Overall government spending on education spending is comparable to that of peers, but spending on the secondary and tertiary sectors is lower than in peers.

Sources: World Development Indicators (A, B); IMF Expenditure Assessment Tool (C); and IMF staff calculations.

D. Health Spending and Outcomes

5.   Public spending on health and its efficiency are comparable to peers (Figures 7.B and 7.C), and Togo's health outcomes have improved substantially in recent decades, in line with developments in peers. While malaria remains a considerable burden, under-five mortality is lower and life expectancy is higher in Togo than on average in West Africa, and the country also compares well to other African peers (Figures 8.A-B; see Atake and Amendah 2018). This said, there are large regional disparities, with key maternal and newborn health indicators significantly worse in the northern regions: while skilled health personnel attend 94 percent of births in the Lomé agglomeration, this share is only 36 percent in the *Savanes* region (UNICEF 2018).

6.   However, the equipment of the public health care system with human and physical resources lags behind peers. For example, there are less than half the number of physicians, nurses, midwifes, and hospital per person in Togo than in the average low-income developing country (Figure 7.A).

7.   The authorities are planning to extend mandatory health insurance to achieve universal coverage.

- Until end-2023, health insurance coverage was very limited, with contributory health insurance only available to civil servants and their dependents, thus serving about 470,000 individuals (about 6 percent of the population). In addition, the *School Assur* program provided health insurance for more than 3 million students at the primary and secondary levels between 2017 and 2022 (Atake and Amendah 2018). There was no publicly organized insurance for workers in the formal or informal private sectors, and private health insurance penetration was below 2 percent of the population (Djahini-Afawoubo and Aguey 2022). Further, effecting both the limited reach of insurance as well as the fact that even many insured face high medical costs that are not covered by insurance, the share of out-of-pocket expenditures in total health expenditure is substantially higher in Togo than in peers (Figure 7.B) and much higher than recommended by the OECD (Atake and Amendah 2018).

- Since January 2024, public and formal private sector employees have been covered by the new mandatory universal health insurance (*Assurance Maladie Universelle* (AMU)), with the cost of coverage borne jointly by employer and employees. Independent workers and informal private sector employees can also opt to enroll. As of the first half of 2024, the AMU has enrolled over 800,000 individuals, and this number is expected to continue rising. The authorities intend to provide access to health insurance also for the most vulnerable and other individuals on public assistance. However, the financing of this insurance (tax-financed or contributory or a mix of both) remains to be determined.
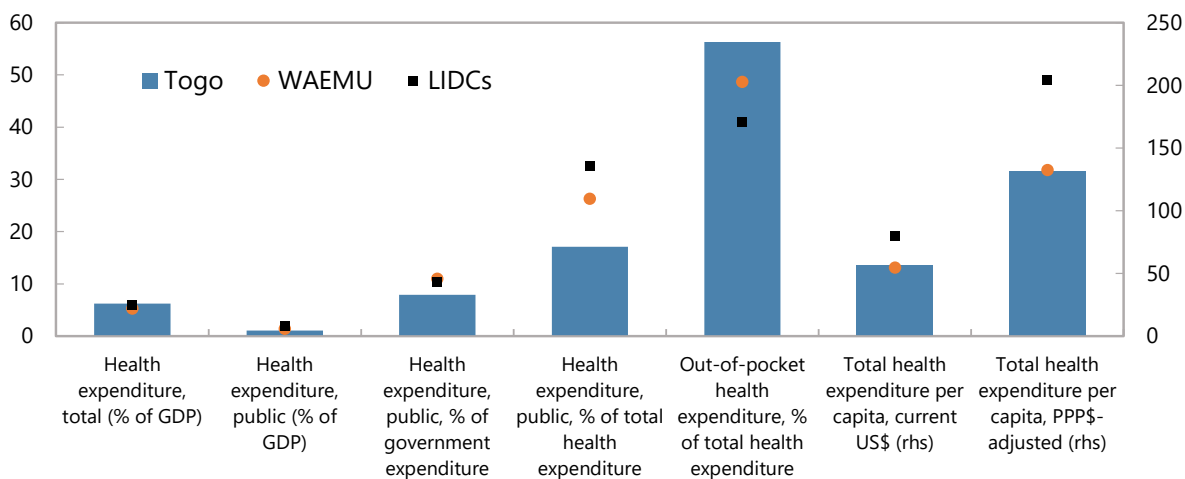
Figure 5. Selected Health Sector Metrics

A. Health Care System Indicators

Several key health care system indicators are not on par with income group averages.
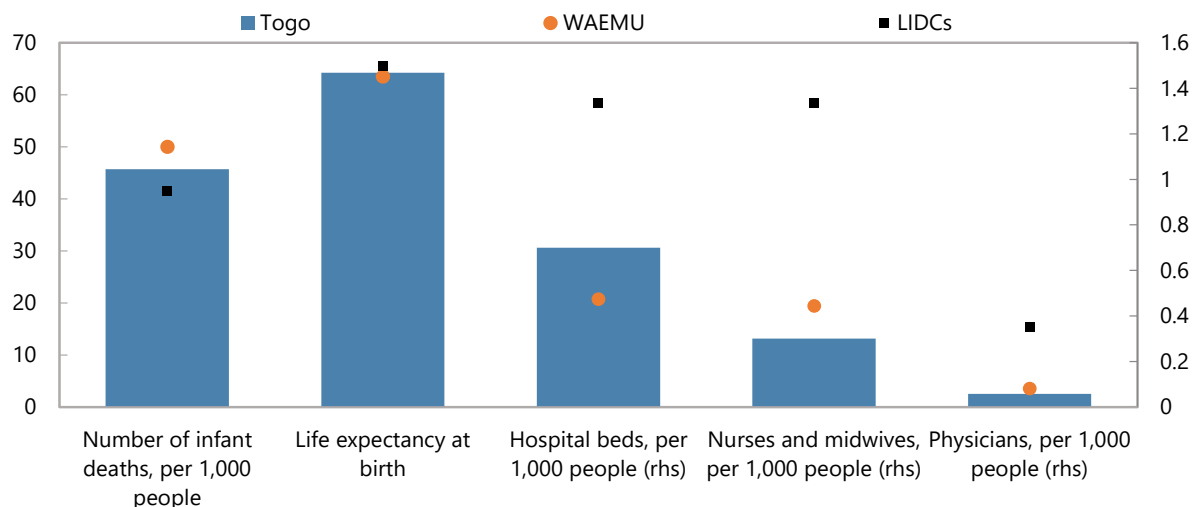
B. Health Expenditure Metrics

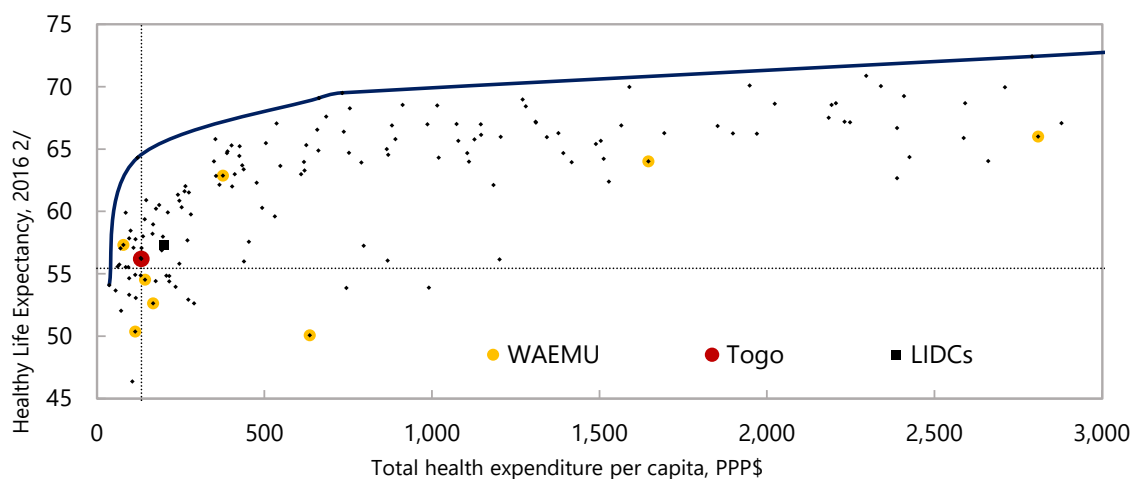*Out-of-pocket health expenditures are higher in Togo than in peers.*

Source: IMF Expenditure Assessment Tool; and IMF staff calculations.

Figure 5. Selected Health Sector Metrics (concluded)

C. Health Expenditure Efficiency Frontier[1] (0 - 3,000 PPP$)

The efficiency of Togo's public health expenditure is about average, and spending remains low.

1/ Dashed lines are WAEMU averages.

2/ Healthy life expectancy (HALE) is a measure of health expectancy that applies disability weights to health states to compute the equivalent number of years of life expected to be lived in full health.

Source: IMF Expenditure Assessment Tool; and IMF staff calculations.
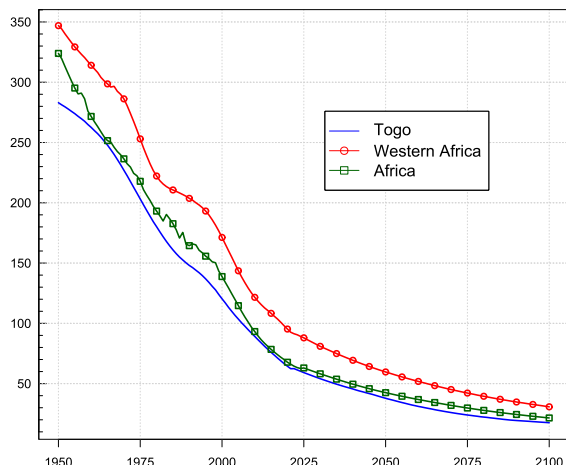
E. Demographic Trends

8.   Togo's demographic trends could give rise to a "demographic dividend" over the coming decades if the authorities implement suitable policies. With a declining but still high fertility rate of 4.2, Togo is expected to see its population grow quickly (to about 15 million by 2050, Figure 8.C) while concurrently experiencing a drop in the dependency ratio (Figure 8.D). While the fast population growth creates some challenges, the falling dependency ratio may allow the country to reap a "demographic dividend" in the form of accelerated growth. However, this will require that the government help the young build the human capital needed to meet the increasing skill requirements of the modern workplace, particularly in tradable services.

Figure 6. Demographic Indicators

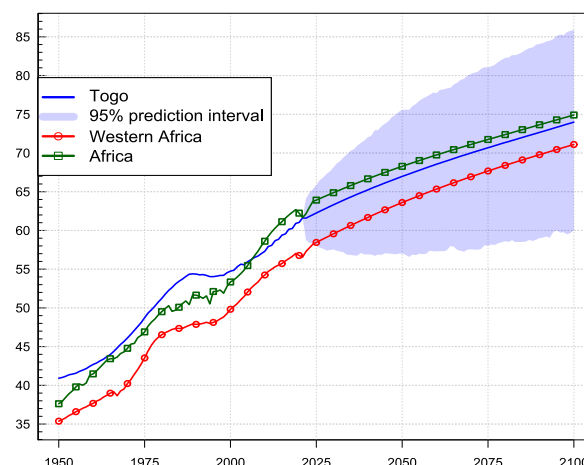*Key health indicators have improved on par with peers …*

A. Mortality Under Age 5
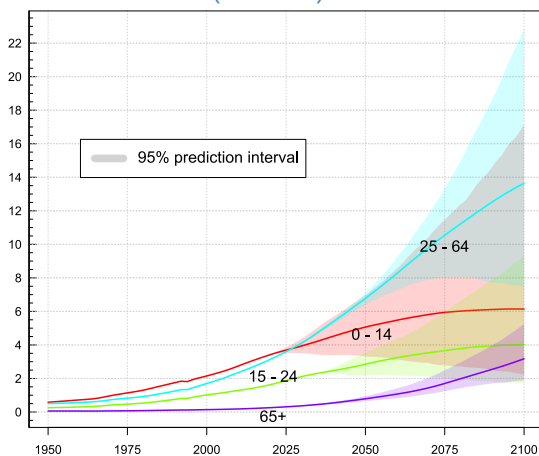(Per 1,000 live births)

B. Life Expectancy at Birth
(Years)

… which may enable Togo to take advantage of the demographic dividend as the working age population rises and the dependency ratio continues to drop.
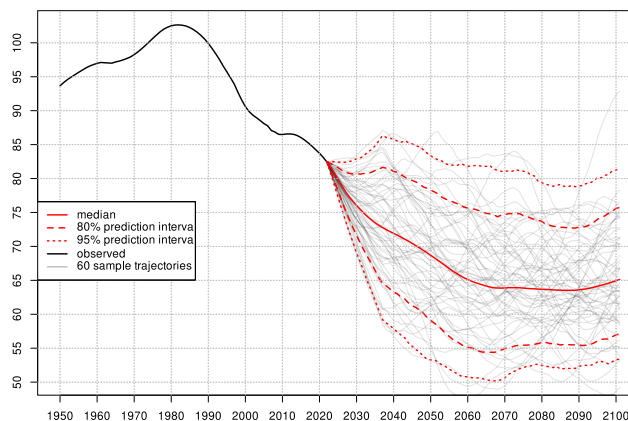
C. Population by Age Groups
(Millions)

D. Dependency Ratio
(Dependents per 100 persons aged 15-59)

Source: United Nations *World Population Prospects 2022*.

F. Conclusions and Policy Recommendations

9.   To accelerate progress towards the SDGs, Togo would benefit from expanding social spending in the context of a sustainable fiscal policy. Higher social spending will need to be balanced against other spending that helps achieve the SDGs, such as public infrastructure investment. Fiscal space for higher social spending will need to come from revenue mobilization and more efficient use of available fiscal resources.

10.   In particular, the authorities may wish to raise spending on education and health to help the quickly growing ranks of the young build the human capital they need to meet the skill requirements of the modern workplace.

11.   As regards education, the authorities should strive to build on the high enrollment rates in primary education by expanding second and tertiary education and enhance learning outcomes. The government might benefit from seeking the advice of experienced partners and donors such as the World Bank.

12.   As regards health care services, concurrently with efforts to enhance health insurance coverage, the government may need to accelerate efforts to expand health care services provision. In so doing, the government should privilege provision of cost-effective services.

13.   The authorities may also wish to expand cash transfers to the poor. This would help not only lower poverty but likely also accelerate growth and make it more sustainable, including by helping the poor better absorb shocks. Cross-country evidence suggests that social safety nets can contribute to a reduction of up to 36 percent of the extreme poverty headcount (Ivashenko et al. 2018). The effectiveness of unconditional and conditional cash transfers specifically have been extensively studied. Findings include increases in total and food expenditure, reduction in poverty, and improved capacity of beneficiaries to contribute to the economy through increased savings, investment, and production. There is little evidence of dependency effects whereby beneficiaries would reduce their efforts to find employment. In fact, among studies reporting a significant effect of cash tranfers on adults of working age, the majority find an increase in work participation and intensity (Bastagli et al. 2016). Further, expanding cash transfers would allow the social saefty net to respond quickly and in a highly targeted manner to shocks. Togo's use of cash transfers has been limited so far (Figure 5.B), even though the government demonstrated its ability to do so during the COVID-19 crisis with the *NOVISSI* program. The government's ongoing efforts to provide biometric identification to all citizens and compile a Unified Social Registry will further enhance this ability.

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