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BURKINA FASO

SELECTED ISSUES

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BURKINA FASO

SELECTED ISSUES

December 12, 2018

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BANKING SECTOR SOUNDNESS AND MACRO-FINANCIAL LINKAGES[1]

This paper examines Burkina Faso's banking system and traces its macro-financial linkages. The available data indicates that the banking system remains well-capitalized and profitable. Systemic risks remain broadly contained, and new banks have come into operation, but there is significant scope to improve the banking system's ability to support the real economy and financial inclusion. Deteriorating security conditions could undermine banks' ability to expand into underserved remote areas.

A. Introduction

1. This paper examines Burkina Faso's banking system and traces its macro-financial linkages. The analysis builds upon the macro-financial linkages work conducted in the context of the Article IV consultation with the West African Economic and Monetary Union (WAEMU).[2] Overall, the banking system remains profitable and well-capitalized, but its ability to support the real economy needs to be improved if the authorities are to reach their development goals. Moreover, financial inclusion remains low, and despite recent progress on basic access to the financial system, significant barriers to accessing credit remain; particularly for women, rural inhabitants, and the agricultural sector.

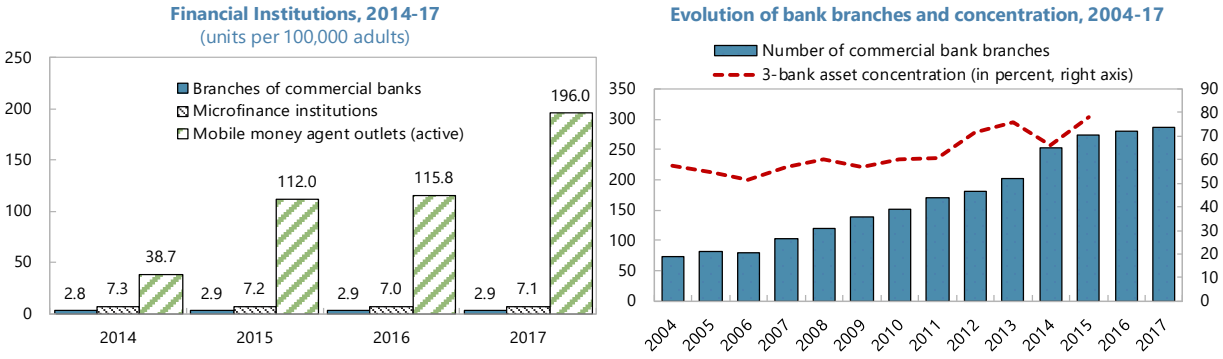
B. Financial Sector Overview

2. The Burkina Faso financial system is dominated by banks and traditional insurance companies, but also possesses vibrant microfinance and mobile money activities that have significant potential to improve financial inclusion. The banking system comprised 14 banks at end-June 2018. It is shallow and highly concentrated, with the top three banks accounting for 78 percent of total assets in 2015 according to the IMF's *Financial Access Survey*. Like in most WAEMU countries, Pan-African bank groups dominate the penetration of foreign ownership and have systemic importance (IMF 2015a). The banking system primarily serves established clients and is a large purchaser of government bonds on the WAEMU regional securities market. It continues to expand, with two new banks licensed in 2018, including a state-owned agricultural bank. Mobile money operations have also been expanding rapidly (Figure 1). The number of mobile money agent outlets increased by five-fold during 2014-2017, opening a new opportunity to bring the unbanked into the financial system.

[1] Prepared by Trevor Lessard and Felix Simione.
[2] https://www.imf.org/~/media/Files/Publications/CR/2018/cr18107.ashx

3. Balance sheet analysis[3] reveals strong exposure of the banking system to nonresidents. A partial balance sheet matrix was derived from IMF's Standardized Reports Forms (SRF) for end-July 2018. It shows that the external sector plays a major role for the banking system as banks have built up large net claims on the central governments of the region. Banks' exposure to non-residents (including mostly regional governments) reached 14.5 percent of GDP. While such exposure entails assets mostly denominated in the regional currency which eliminates the exchange rate risk, it makes banks potentially vulnerable to fiscal shocks in the region. Exposure to the domestic public sector is smaller, with banks' net claims amounting to 3.5 percent of GDP. Banks have net liabilities to the private sector (nonfinancial corporations and households), amounting to 5.5 percent of GDP (Table 1).

Figure 1. Burkina Faso: Selected Financial System Indicators



Sources: IMF Financial Access Survey; and IMF staff estimates.

Table 1. Burkina Faso: Balance Sheet Matrix, end-July 2018
(in percent of 2017 nominal GDP)[1]

	Central bank	Central government	State and local government	Public nonfinancial corporations	Other depository corporations	Other financial corporations	Private sector	Non residents	Total
Central bank		0.8	0.0	0.0	(3.4)	(0.0)	(0.1)	11.8	9.0
Central government	(0.8)		...	...	1.6	...	...	...	0.8
State and local government	0.0	...		...	0.0	...	...	...	0.0
Public nonfinancial corporations	(0.0)	...			1.8	...	...	...	1.8
Other depository corporations	3.4	(1.6)	(0.0)	(1.8)		(0.2)	5.5	(14.5)	(9.2)
Other financial corporations	0.0	...	...	...	0.2		...	...	0.2
Private sector	0.1	...	...	...	(5.5)	...		...	(5.5)
Non residents	(11.8)	...	...	...	14.5	...	...		2.8
Total	(9.0)	(0.8)	(0.0)	(1.8)	9.2	(0.2)	5.5	(2.8)	

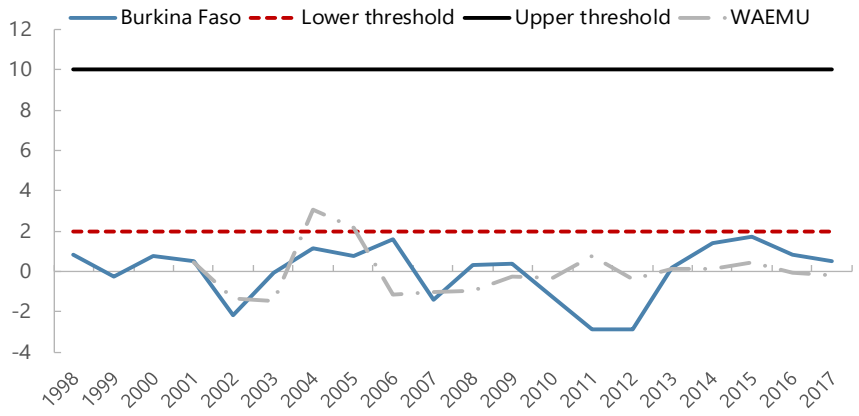
Sources: BCEAO; and IMF staff calculations.
1\ Each cell contains a net claim position (assets minus liabilities). Columns represent the creditor sector and rows the debtor sector.

4. The financial system and financial deepening have been growing steadily. Net domestic assets grew by 13 percent in 2017, with the ratio of private credit to GDP reaching 31.3 percent at

[3] Balance sheet analysis provides a starting point to diagnose risks and potential transmission channels of shocks and sets the stage for deeper analysis (IMF 2015b).

end-2017, up from 30.4 percent at end-2016. Despite a cyclical build up in credit during 2014-15, credit imbalances remain contained. A credit gap analysis (that analyses the difference between the credit-to-GDP ratio and its long-term trend) suggests that credit growth is within levels that do not give rise to a buildup of financial vulnerabilities.[4] The cyclical credit gap has consistently remained lower than the 2 percent of GDP threshold above which financial sector risks are deemed to start rising (Figure 2).

Figure 2. Burkina Faso: Credit-to-GDP Gap, 1998-2017
(in percent of GDP)



Source: Burkinabe authorities; and IMF staff estimates.

5. Lending to the real economy by the banking system in part depends on banks' ability to profitably deploy their liquidity on the regional market. Banks are a large purchaser of government bonds on the WAEMU regional securities market. The steady outflow of capital since the political transition of 2014, and associated increase in economic uncertainty, led to an increase in the net foreign assets (NFA) of domestic banks in 2015-17 as banks increased their holdings of bonds issued by other WAEMU countries. This coincided with a slowdown in private sector credit growth (Figure 3).

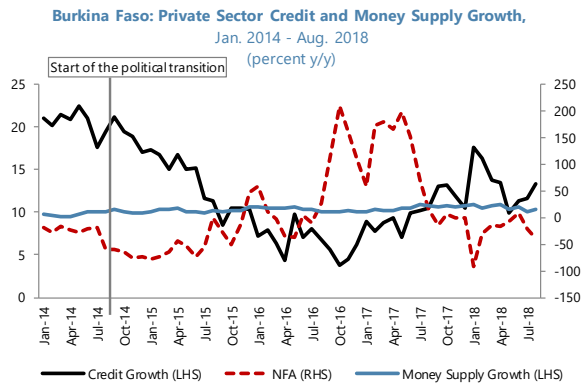
C. Risks and Vulnerabilities

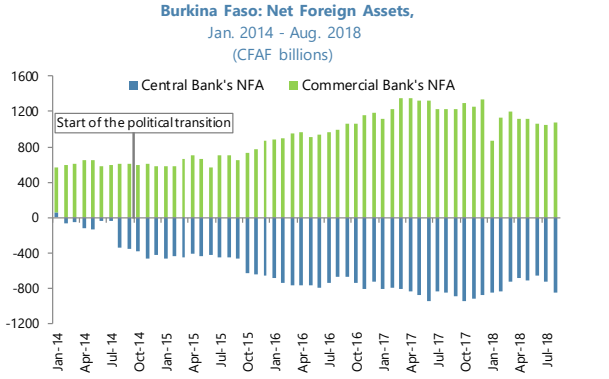
6. Systemic risks are broadly contained as the banking system is characterized as solvent, liquid, and conservative in its lending. Capital ratios remain overall above prudential norms amid BCEAO's new regulatory capital requirements phased in from January 2018. The new requirements raise the minimum risk-weighted capital ratio to 8.6 by end-2018, moving banks closer to Basel II/III standards. The profitability of the sector, based on either ROA or ROE, is sufficient (Table 2).

[4] The credit gap is calculated as the difference between the private sector credit-to-GDP ratio and its long-term trend derived using the Hodrick-Prescott filter. If the credit-to-GDP ratio is significantly above its trend (i.e. there is a large positive gap), this could be an indication that credit may have grown excessively relative to GDP.

Consequently, the banking system appears to be sound and stable with potential to expand into underserved portions of the economy.

Figure 3. Burkina Faso: Private Sector Credit and NFA, 2014-2018





Sources: Burkinabe authorities; BCEAO; and IMF staff estimates.

- Credit risk is broadly contained as NPLs have consistently remained low, including during the political transition of 2014-2015. However, asset concentration is substantial, with the top five borrowers (including the state-owned enterprises SONABHY and SOFITEX) accounting for nearly 10 percent of total credit to the economy.

- Exchange rate (currency mismatch) risk is prevented by the fact that lending in foreign currency is not permissible in the WAEMU. While banks have a large net creditor position to nonresidents (14.5 percent of GDP), the underlying assets consist mostly of regional governments' bonds issued in CFAF thereby limiting the exchange rate risk.

- Liquidity risk is broadly contained. While declining in recent years, the ratio of liquid assets to total assets remained at around 25 percent at end-2017.

- Risks from tighter global financial conditions are limited. On the asset side, banks have limited international exposure outside the regional debt market and are not involved in complex derivatives or other risky financial instruments. On the other hand, the shareholding structure of most banks is dominated by Pan-African bank groups, potentially limiting the banking system's vulnerability to tighter funding conditions in advanced economies.

7. However, security risks have risen. Recent terrorist attacks have somewhat increased banks' operational risk in remote areas, leading a few banks to temporarily close their branches. The deterioration in security conditions, while it has not led to major disruptions in the banking system, could undermine banks' ability to expand into underserved remote areas and hence hamper the authorities' efforts to promote financial inclusion.

D. Financial Inclusion and Deepening

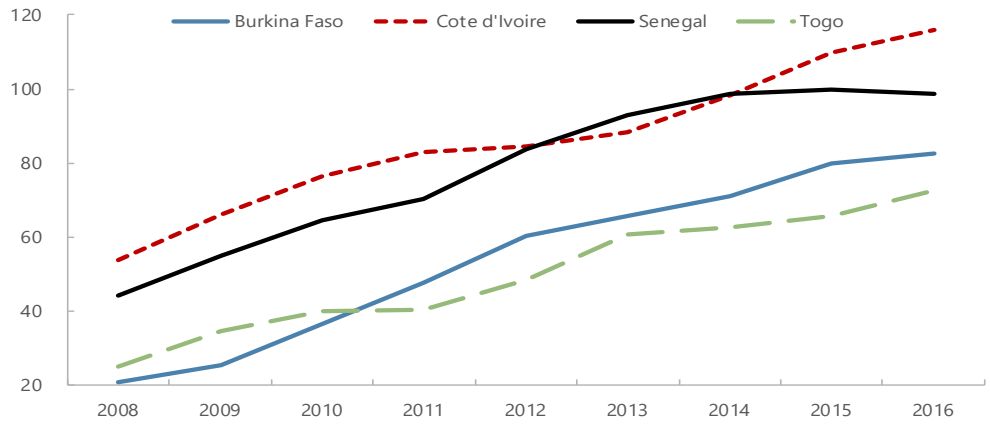
Starting from a low level, Burkina Faso has managed to make significant strides in catching up to its peers in terms of financial access. Some notable successes include the country's ability to close the gap with some of its WAEMU peers in terms of the percentage of the population with a bank account and also the rapid increase in the percentage of the population that has used mobile money services, consistent with growing cell phone utilization rates (Figure 4). These results are encouraging and provide a base to build upon.

Table 2. Burkina Faso: Financial Sector Indicators, 2011-18
(in percent, unless otherwise indicated)

	2011	2012	2013	2014 (end of year)	2015	2016	2017	2018 (end-June)
Solvency Ratios								
Regulatory Capital/ Risk-Weighted Assets	11.7	12.4	10.2	11.4	11.1	13.0	12.2	11.4
Asset Quality								
Provisions/ NPLs	64.4	67.7	62.6	64.9	67.6	70.4	66.4	69.9
Total Loans/ Total Assets	54.9	54.9	57.4	60.3	54.9	49.9	50.6	53.9
Concentration: Credit to the 5 Biggest Borrowers/ Regulatory Capital	103.0	157.9	108.4	158.4	179.6	114.5	79.8	60.8
Earnings and Profitability								
Average Cost of Borrowed Funds	2.9	2.9	2.9	3.5	2.9	3.0	3.1	...
Average Interest Rate on Loans	9.9	9.9	9.6	10.6	8.6	8.3	7.9	...
Average Interest Rate (after taxes on financial operations)	7.0	7.0	6.7	7.1	5.7	5.3	4.9	...
Return on Assets (ROA), After-Tax Return	1.9	2.0	1.7	1.5	1.3	1.4	1.4	1.1
Return on Equity (ROE), After-Tax Return	19.3	22.5	22.5	19.4	17.5	18.2	18.5	9.7
Non-Interest Expenses/ Net Banking Income	54.6	49.5	47.9	48.5	48.4	52.0	49.7	...
Salaries and Wages/ Net Banking Income	24.8	22.1	21.5	21.1	20.3	21.9	21.1	...
Liquidity								
Liquid Assets/ Total Assets	33.9	34.8	34.7	34.8	29.2	23.2	24.7	...
Liquid Assets/ Total Deposits	47.1	48.5	49.7	54.4	45.6	37.4	38.6	...
Total Credit/ Total Deposits	83.4	82.1	87.7	99.8	91.2	86.1	83.9	96.2
Total Deposits/ Total Liabilities	72.1	71.8	69.7	64.0	64.1	61.9	64.1	61.0

Source: BCEAO, Burkinabe authorities; and IMF staff estimates.

Figure 4. Burkina Faso: Mobile Cellular Subscriptions, 2008-2016
(per 1000 people)



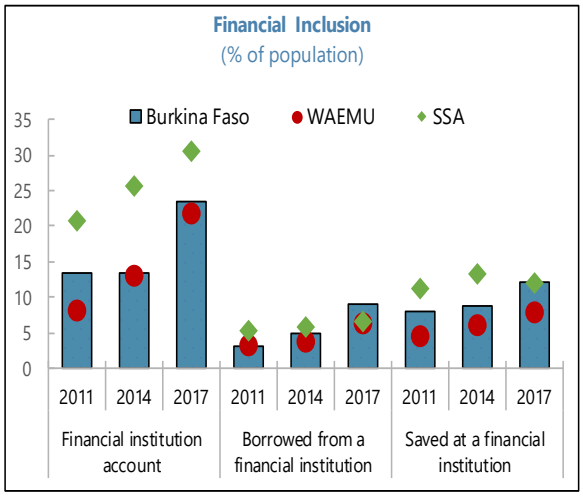
Source: World Development Indicators; and IMF staff estimates.

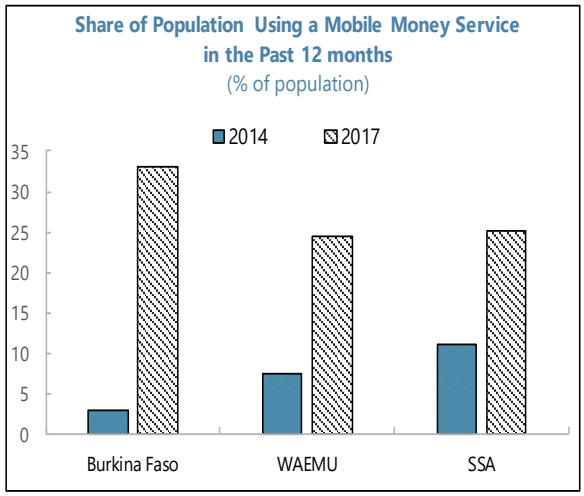
8. Nevertheless, the financial sector could play a stronger role in supporting economic growth (Figure 5). Low financial inclusion is a key challenge that can constrain the development of the private sector. In Burkina Faso, less than 25 percent of the population has an account at a financial institution (FI) and less than 10 percent have been able to borrow from FIs. According to the 2019 World Bank's *Doing Business* report, access to credit in Burkina Faso is broadly comparable to its WAEMU peers. Access to finance is particularly constrained for those in rural areas, women, and lower-income individuals. There also exists significant informational, IT, and collateral barriers to affordable credit for SMEs, which again hamper private sector-led development and poverty reduction. There are many microfinance institutions and developing the sector is a government priority. Nevertheless, microfinance remains relatively underdeveloped due to IT barriers, lack of economies-of-scale, and weaknesses in business operations.

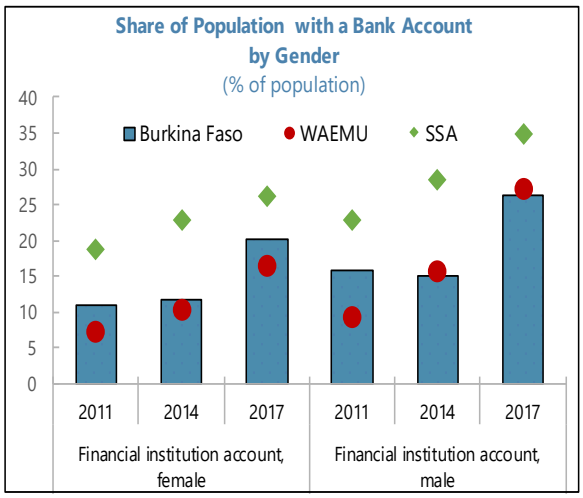
9. The overall level of credit also masks significant variation in the allocation of credit. Banks have strong preference for public enterprises, particularly the state-owned oil import monopoly SONAHBY, at the virtual complete exclusion of the agricultural sector with the exception of cotton. Agriculture, although it employs the vast majority (80 percent) of the population and accounts for around 25 percent of GDP, receives approximately 5 percent of the credit, leading to chronic underinvestment in the sector (Figures 6). By contrast, commerce (12 percent of GDP) and construction (7 percent of GDP) receive around 29 percent and 16 percent of credit, respectively. Uneven credit allocation is also evident with the top 5 creditors accounting for around 10 percent of the total credit to the economy.

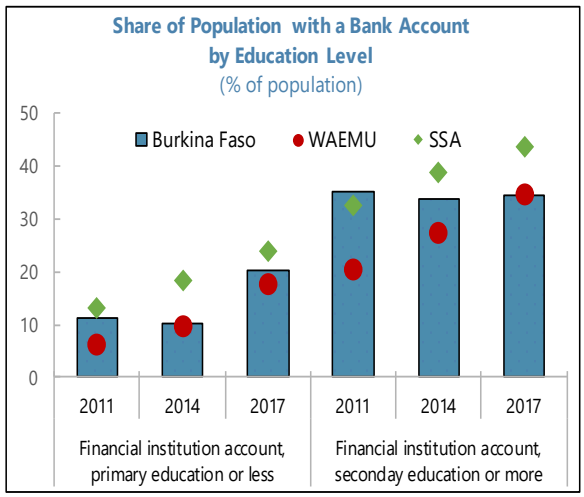
10. Policies to promote further financial inclusion should focus both on supply- and demand-side considerations. The authorities have recently launched their 2018-2022 roadmap for financial inclusion which is in line with the regional financial inclusion strategy adopted by BCEAO. The roadmap builds on an extensive financial inclusion diagnostic exercise (UNCDF and FinMark Trust 2017; and Jefferis and Abdulai, 2017). On the supply side, the financial inclusion strategy hopes to expand microfinance, improve digital and mobile financial services, risk analysis, and promote financial institutions dedicated to the agricultural sector. The envisaged expansion of the microfinance sector could help narrow gender imbalances in financial inclusion, given women's higher reliance on informal micro businesses. On the other hand, the creation of a state-owned agricultural bank in March 2018, while motivated by a legitimate concern to revert the financial exclusion of the agriculture sector, could be a source of contingent liabilities. Further supply-side policy actions could aim at fully operationalizing the existing private credit bureau. Like in some African countries, an effective private credit bureau could contribute to scaling up access to credit by narrowing information gaps between banks and potential borrowers (Triki and Gajigo, 2012). On the demand side, the authorities' roadmap envisages the intensification of financial literacy programs, especially in rural areas. It could also explore reforms to modernize the legal framework on bank collateral to better align it with the specific reality of local households and businesses. Finally, given the cross-cutting nature of financial inclusion, it will be important that policy actions are framed within the broader context of the PNDES.

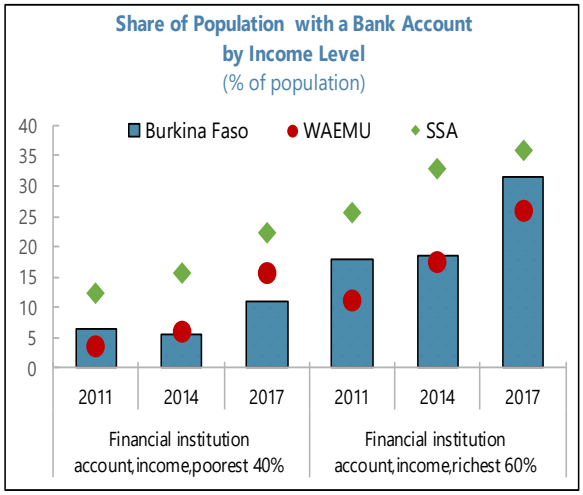
Figure 5. Burkina Faso: Financial Inclusion 2011-2017

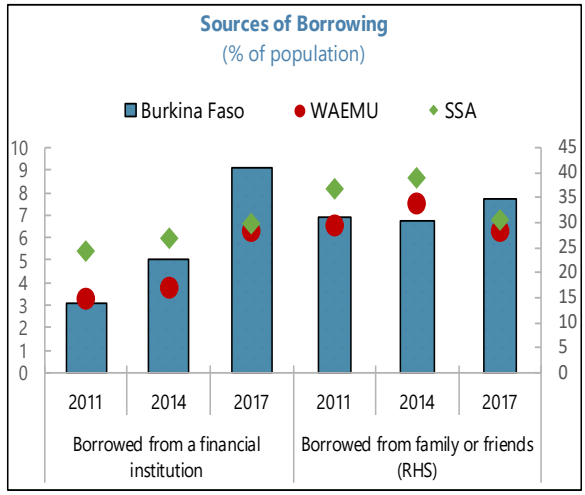






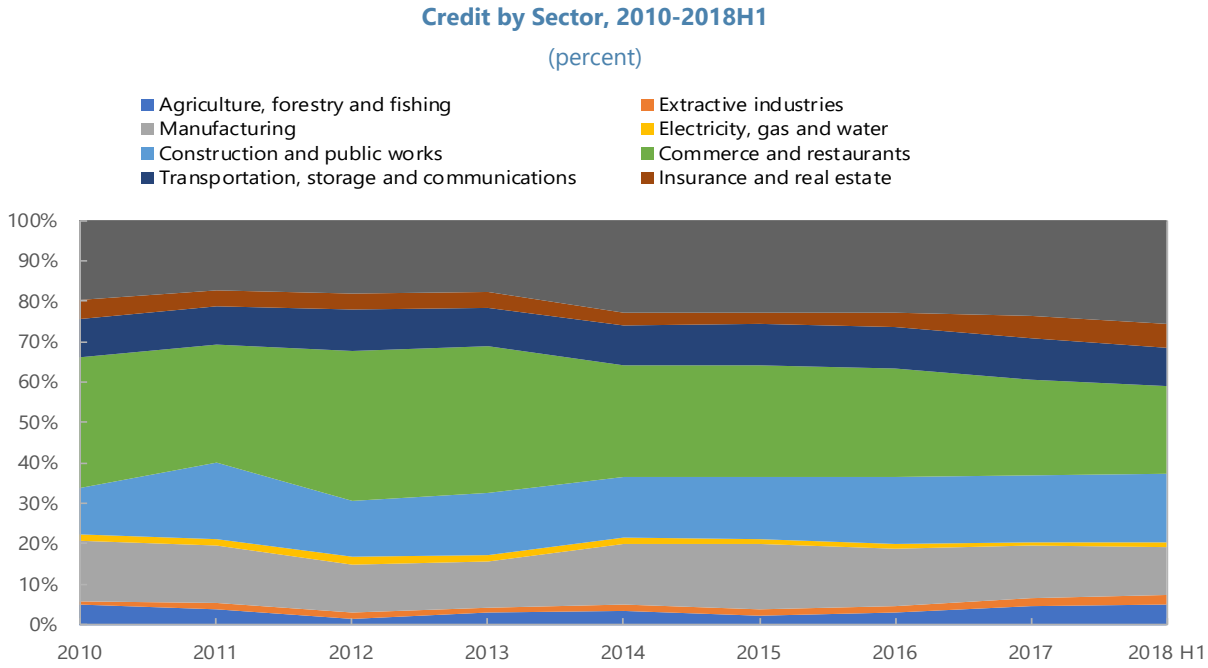


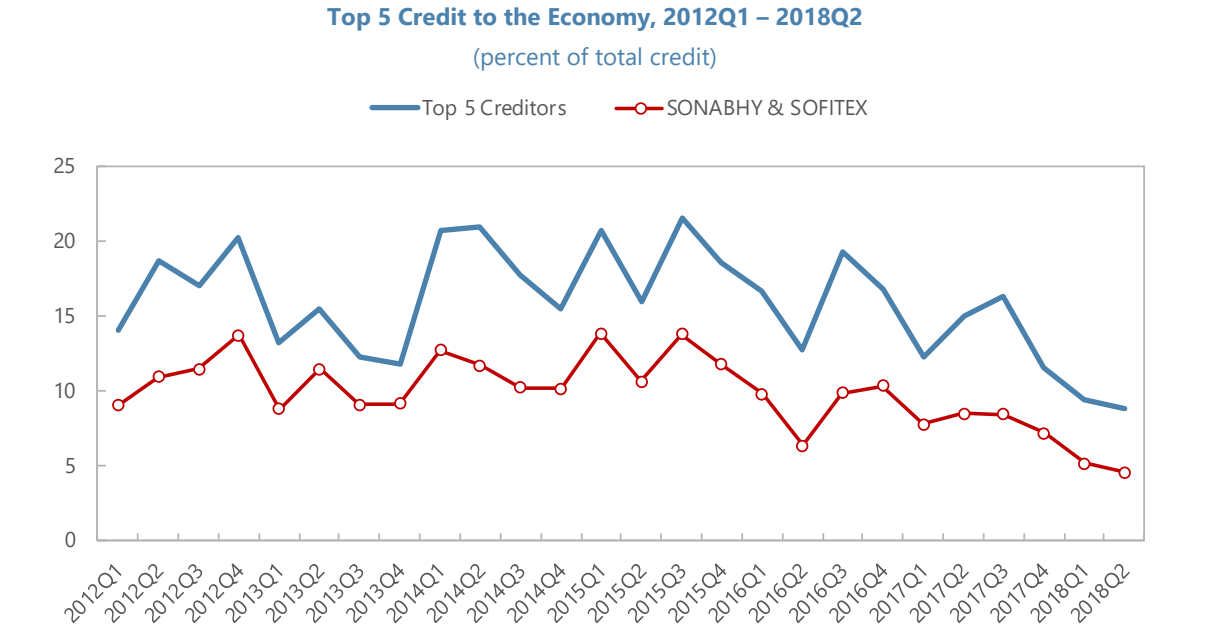




Source: FINDEX; and IMF staff estimates.

Figure 6. Burkina Faso: Credit by Sector and Top Creditors





Sources: Burkinabe authorities; and IMF staff estimates.

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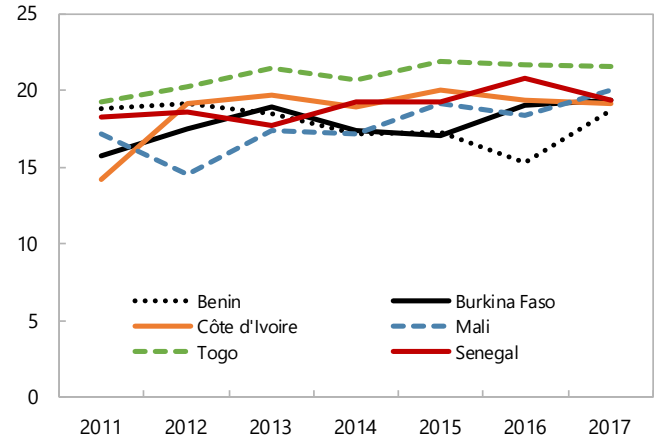
IMPROVING REVENUE MOBILIZATION IN BURKINA FASO: OPTIONS FOR REFORM[1]

Burkina Faso needs to improve domestic revenue mobilization to meet the country's development challenges which have recently intensified due to security shocks. Despite some progress, the tax revenue-to-GDP ratio at an average of 16 percent of GDP over the last five years is well below the WAEMU convergence criterion of 20 percent of GDP, and insufficient to allow a rapid implementation of the national economic and development strategy (PNDES). *Benchmarking Burkina Faso's tax revenue with other sub-Saharan African (SSA) countries indicates that the country could potentially mobilize at least an additional 1.7 percent of GDP in revenue. Raising additional tax revenue will require a multipronged approach involving strengthening revenue administration and new tax policy measures. Tax policy measures include enhancing the autonomy of the tax administration, simplifying small businesses taxation, broadening the VAT tax base, increasing the coverage of the personal income tax to cover all wage components in line with the Income Tax Act, streamlining the excise tax on drinks and increasing the rate on alcoholic beverages and tobacco. Revenue administration measures are also necessary for a sustainable improvement in revenue collection such as further enhancing IT systems; increasing the compliance rate and the collection of arrears; and enhancing the customs administration's capacity.*

A. Background and Recent Developments

1. After a decline during the political transition, revenue mobilization has significantly improved in recent years, reflecting a normalization in tax collection but also a stronger economic growth (Figures 1 and 2). Amid the political transition, total tax revenue declined in 2014-2015 despite positive economic growth. Since then, tax revenue increased by 15.7 percent in 2016, and by 15.1 percent in 2017 while nominal GDP grew by around 8 to 9 percent per year over the two years. By 2017, total tax revenues reached around 17 percent of GDP, the same as in 2013, before the political transition. As a result, revenue collection is now broadly at par with WAEMU peer countries.

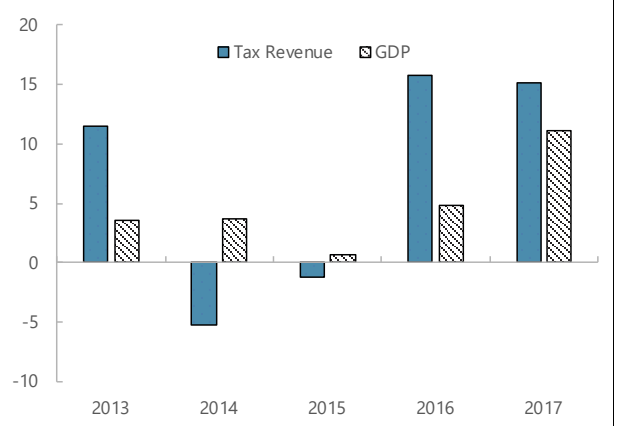
Figure 1. Burkina Faso: Domestic Revenue
(percent of GDP)

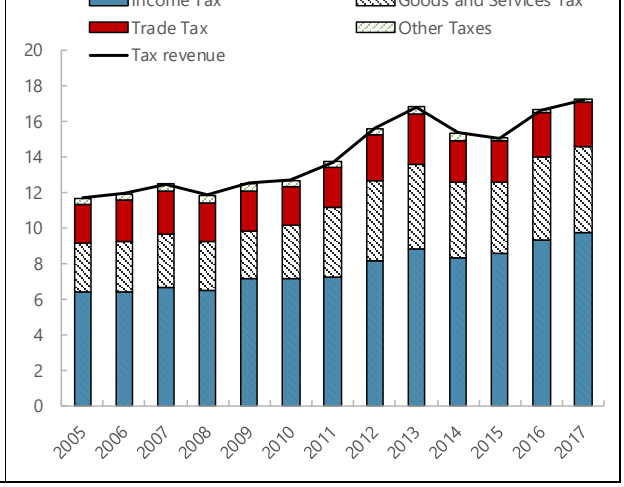


Source: World Economic Outlook; and IMF staff estimates.

[1] Prepared by William Gbohoui (FAD). The policy recommendations draw on earlier notes prepared by Yves Noel De-Santis and Jean-François Wen. We are grateful to Jemma Dridi of the Mali team for sharing the material for the peer analysis.

Figure 2. Burkina Faso: Trend in Tax Revenue to GDP Ratio





Sources: Burkinabé authorities; and IMF staff estimates.

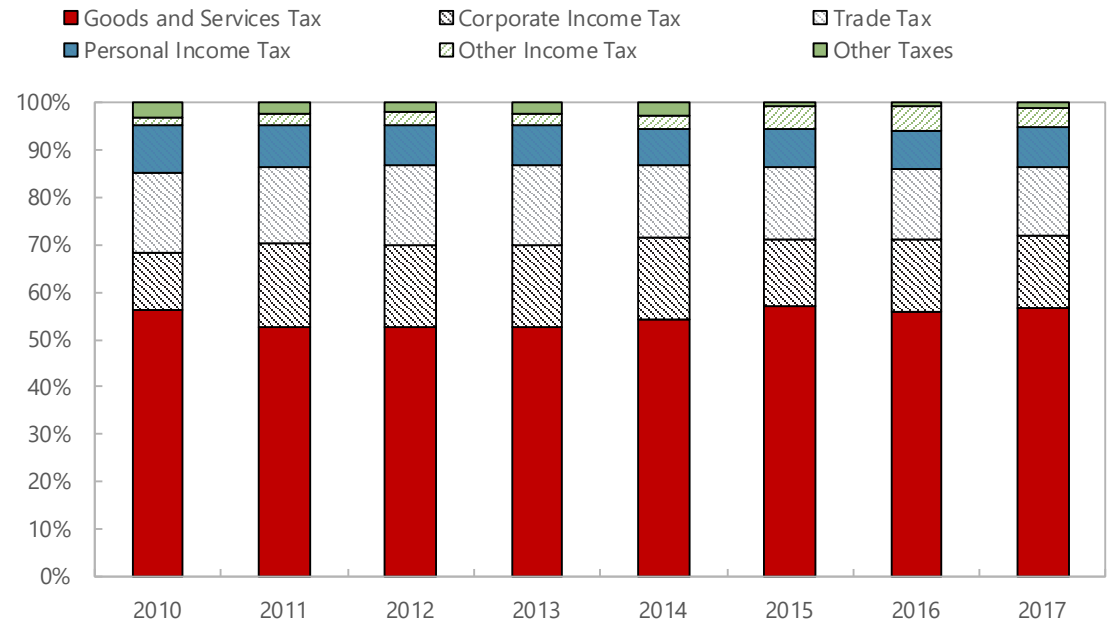
2. Taxes on goods and services are the main source of revenue in Burkina Faso, with VAT accounting for more than one half (Figure 3). Goods and services taxes are the main contributor to tax revenue in Burkina-Faso. In 2017, they amounted to 9.6 percent of GDP with VAT contributing to more than 55 percent (around 5.6 percent of GDP), followed by consumption taxes and custom duties which represent around 20 percent of goods and services tax revenue (around 2 percent of GDP) each (Table 1). The contribution of corporate income tax continuously declined to 15 percent of total tax revenue after a peak at 17.7 percent in 2011. Similarly, the contribution of international trade tax decreased from 17.1 in 2010 to 14.6 percent in 2017. Personal income tax is the smallest contributor with its share declining from 10 to 8.2 percent of total tax revenue despite a steady increase in the wage bill over the period. Part of the weakness in personal income taxes stems from the non-application of the Income Tax Act as the cap on employee tax exemption is not observed, and bonuses are not taxed in the public sector.

Table 1. Burkina Faso: Composition of Goods and Services Taxes, 2017

Type of Tax		In percent of	
		G&S taxes	GDP
VAT (net)		55.6	5.6
Consumption taxes		20.4	2
Of which:	Excise tax on drinks	3.4	0.3
	Excise tax on tabacco	2.6	0.3
	Contribution of the beverage sector	1.4	0.1
Custom duties		21.2	2.1
Other taxes		2.9	0.3
Total goods and services taxes		**100.0**	**10.0**

Sources: Burkinabe authorities; and IMF staff estimates.

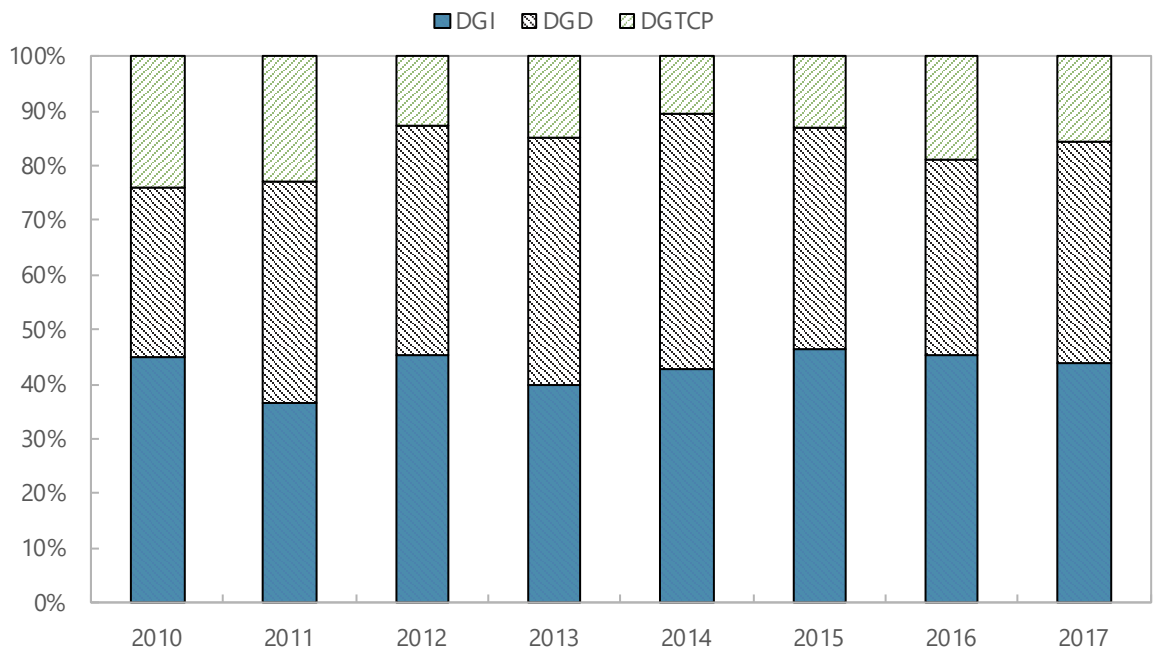
Figure 3. Burkina Faso: Composition of Tax Revenue, 2010-17
(percent of tax revenue)



Sources: Burkinabé authorities; and IMF staff estimates.

3. The collection effort of the revenue agencies has evolved in recent years (Figure 4). There are three revenue agencies in Burkina Faso. The tax administration (D*irection Generale des Impots – DGI*), in charge of the preparation and application of domestic, state, land and cadastral tax legislation, is the main collector of domestic tax revenue. The custom administration (Direction Generale des Douanes - DGD) is responsible for the preparation and application of customs legislation and the collection of duties and taxes. The treasury (Direction Generale du Tresor et de la Comptabilite Publique - DGTCP), in charge of the cash management of the government and the sustainability of the national financial system, should collect non-tax revenue, but in practice oversees the collection of some taxes. Despite the key role of the Treasury, the tax administration and customs remain the main revenue agencies in Burkina Faso in terms of their contribution to revenue mobilization. For instance, the two administrations collected on average more than 85 percent of total revenue over the last 5 years. After a decline to less than 40 percent in 2013, reflecting the difficulty to collect domestic revenues during crisis-periods, the share of revenue collected by the tax administration now stands at around 44 percent. On the contrary, the contribution of the customs administration increased during the political crisis (2014-15) but has now declined to around 41 percent of total revenue.

Figure 4. Burkina Faso: Contribution of Revenue Administrations, 2010–17
(percent of tax revenue)



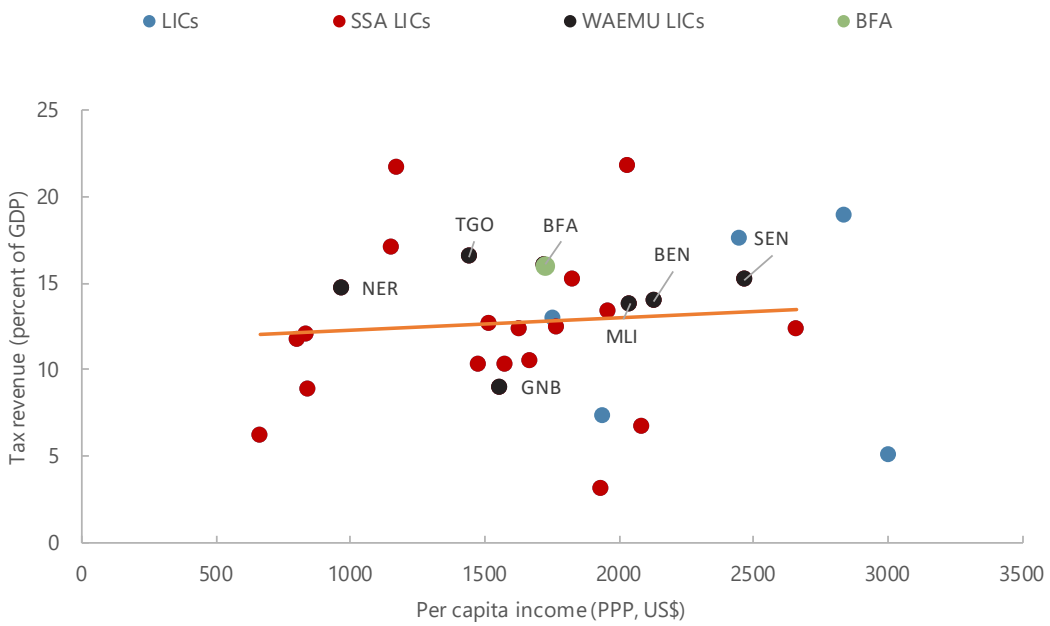
Sources: Burkinabé authorities; and IMF staff estimates.

B. Benchmarking Burkina Faso's Revenue Performance

4. Despite the improvement in recent years, to an average of 16 percent over 2013- 2017, the tax revenue to GDP ratio in Burkina Faso is well below the WAEMU convergence criterion of 20 percent (Figure 5). From around 13 percent of GDP in 2010, the tax revenue-to-GDP ratio in Burkina Faso reached 17 percent of GDP in 2017. The recent performance helped Burkina Faso record a tax-to-GDP ratio above the WAEMU average and most WAEMU peers. However, it remains below the WAEMU convergence criterion of 20 percent, and below that of several sub-Saharan African countries at a similar stage of development.

5. Total income tax revenue in Burkina Faso, as in most WAEMU countries, is low compared to SSA peers (Figure 6). On average, income tax stood at around 4.5 percent of GDP in Burkina Faso, and 4 percent in WAEMU, against 5.5 percent of GDP in SSA peers. The lower income tax collection in Burkina Faso as in other WAEMU countries reflects the weaknesses of developing countries in mobilizing direct taxes in contrast to advanced economies. In developing countries, the large share of the informal sector complicates the collection of direct taxes such as personal and corporate incomes taxes, forcing revenue authorities to focus on mobilizing more revenue from indirect taxes such as the VAT. The non-application of the personal income tax law also partially explains the weak performance in Burkina Faso.

Figure.5. Burkina Faso: Tax Revenue and Income Level in Low-Income Countries, 2013–17 Average



Sources: World Economic Outlook; World Development Indicators; and IMF staff estimates.

6. The low rate of corporate tax partially explains its low contribution (Figure 7). The tax productivity, measured by the revenue collected (in percent of GDP) for each percentage point of the applicable corporate tax rate, is one of the highest in WAEMU and is higher than in other SSA peers. This reflects measures undertaken by the Burkinabé authorities to improve revenue collection. However, the statutory corporate income tax rate at 27.5 percent is one of the lowest in WAEMU and far below the average in other LIC and SSA peers. In addition to the informality that might contribute to lower income tax collection in Burkina Faso, the relatively low tax rate reduces the scope to collect more revenue for a given amount of corporate profits.

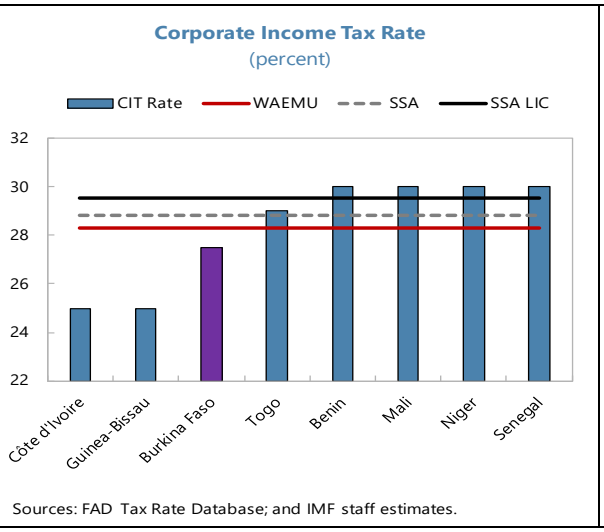
7. Trade tax revenue is low compared to peers, notwithstanding customs duty harmonization in WAEMU. Trade tax revenue represents around 2.5 percent of GDP in Burkina Faso, well below the average of 3.2 percent of GDP in SSA peers, and further below the 4.3 percent of GDP average for WAEMU countries. While low trade taxes can be partially due to full trade liberalization within WAEMU, inefficiencies in customs administration are a potential cause of low revenue collection. For instance, Burkina Faso's imports originating from outside WAEMU transit through other WAEMU and ECOWAS countries which have a port before entering the country as it does not have access to the sea. This situation is likely to provide an opportunity for importers to declare imports from outside WAEMU as within WAEMU imports, avoiding customs duties as WAEMU is deemed to be a free-trade area. The customs administration then needs to have a strong

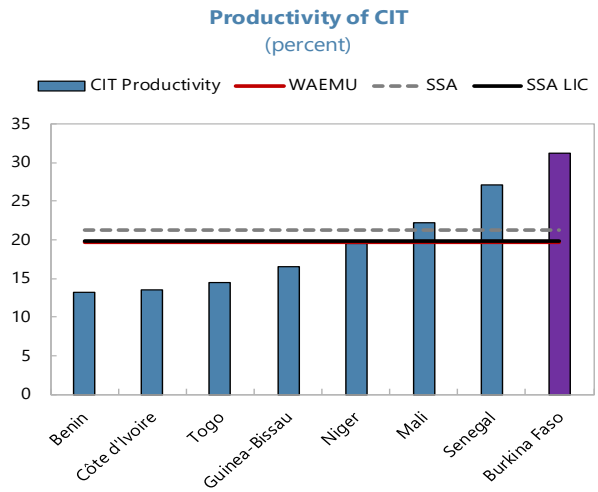
capacity to track imports from their origin to collect the required amount of revenue on all imported goods. Weaknesses in customs administration such as lack of control and enforcement and lack of capacity to verify the declared value of imports, as pointed out by previous customs administration technical assistance missions, suggest that there is a potential to raise more revenue. The ongoing interconnection of customs IT system with neighboring countries is a step in the right direction to safeguard custom revenue collection.

Figure 6. Burkina Faso: Tax Revenue and Composition in the Region, 2013–17 average
(percent of GDP)

Sources: World Economic Outlook; and IMF staff estimates.

Figure 7. Burkina Faso: Rates and Productivity of CIT in the Region, 2015 or Latest Available



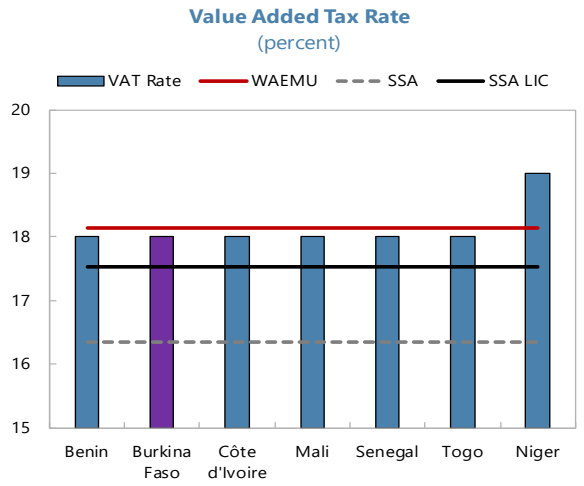


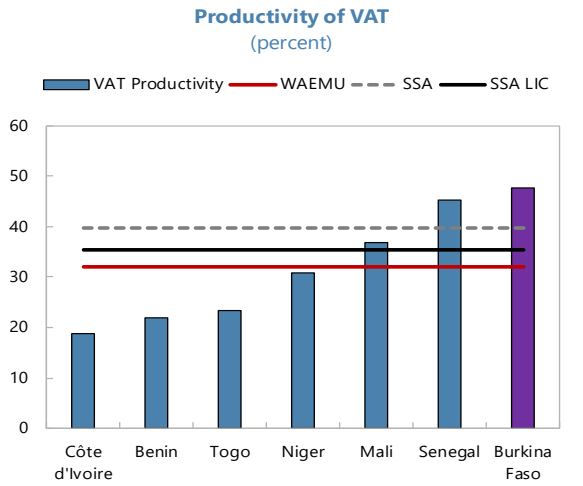
Sources: FAD Tax Rate Database; and IMF staff estimates.

8. Goods and services tax revenue is substantially higher in Burkina Faso than in peers, mostly reflecting VAT performance (Figure 8). At 18 percent, the VAT rate in Burkina Faso is the same as in almost all WAEMU countries and higher than the average in sub-Saharan Africa. However, goods and services tax revenue averaging 8.9 percent of GDP over 2013-17 in Burkina Faso, is one of the highest in WAEMU, well above the average in sub-Saharan African peers. This performance reflects mostly the productivity of VAT collection in Burkina Faso. For each CFAF of the theoretical VAT liability, Burkina Faso collects around 47.7 cents, 7 cents higher than the average in sub-Saharan African peers and far above the 34 cents collected on average in WAEMU countries.

9. The increase in revenue mobilization in recent years is attributable to a series of measures undertaken by the authorities. Measures undertaken to improve revenue collection include higher excise taxes (on tobacco, alcoholic beverages, and gambling), higher property tax rates, standardized VAT invoicing, and several tax and customs administration reforms focused on improving IT capabilities and combatting fraud (for example, by linking tax, customs and public procurement databases). The new General Tax Code of December 20, 2017 implemented the principal recommendations of technical assistance on transfer pricing. The most recent measures include implementing e-filing procedures, developing a database for the mining sector, and setting up a team to collect tax arrears. Applications to dematerialize the issuance of documents for customs clearance, to report verification activities and litigation management are also now operational. Transferring collection responsibility from the Treasury department, automation and digitalization among others are still ongoing and need to be fully achieved.

Figure 8. Burkina Faso: Rates and Productivity of VAT in the Region, 2017 or Latest Available





Sources: FAD Tax Rate Database; and IMF staff estimates.

C. Is There Room to Raise Tax Revenue in Burkina Faso?

10. Assessing Burkina Faso's tax capacity is necessary to assess tax revenue potential. The benchmark analysis offers some perspective to assess Burkina Faso's tax revenue performance relative to peers but does not consider its tax potential, i.e. the maximum tax revenue that could be collected in a country given its economic, social, institutional, and demographic characteristics. Determining the maximum level of tax revenue that Burkina Faso can collect could further guide ongoing discussion on fiscal reforms to improve revenue mobilization. To this end, the analysis is supplemented by an investigation of the factors determining Burkina Faso's tax capacity including its level of development and structural characteristics, to assess the tax gap in Burkina Faso. The tax gap, the difference between the tax potential and the actual revenue, is a measure of the extent to which, by tax laws and administration, a society mobilizes resources for public use. In this paper, larger tax gaps reflect inefficiencies in the design of tax policy via (reduced) tax rates, tax exemptions, among others or weak tax administrations (non-compliance, underreporting and underpayment).[2]

11. This paper relies on a "peer analysis" to estimate Burkina Faso's tax capacity and tax gap. The peer analysis relies on a panel regression and determinants of tax revenue collection

[2] In theory, a low tax effort does not necessarily mean that the country is inefficient in collecting taxes or that it must increase its revenue collection (see Pessino and Fenochietto 2010). For instance, some countries can be efficient and have a lower level of collection and be far from their tax capacity because they simply choose to levy lower taxes and to provide a low level of public goods and services, that is, to have a small government. However, in the case of Burkina Faso where the authorities are striving to mobilize more revenue to improve the supply of public goods like education, health and infrastructure, a low tax effort is a sign of a lack of capacity to raise tax collection towards its potential.

identified in the literature to estimate potential tax revenue. The analysis is based on a sample of 38 Sub-Saharan African countries over 1995-2015. Three reference groups are used in the analysis: WAEMU, all other Sub-Saharan African countries, and Low-Income Sub-Saharan African countries. The model, estimated using the standard fixed effects panel estimator following Hausman test, is specified as follows:

$$T_{i,t} = \alpha + \beta X_{i,t} + \mu_i + \epsilon_{i,t}$$

where $T_{i,t}$ represents tax revenue to GDP ratio for country i, $X_{i,t}$ is the vector of factors determining tax revenue; and α is the constant term, β is the vector of the marginal effects of the predictors, μ_i is the fixed effect for country i, and $\epsilon_{i,t}$ is the usual error term with the usual properties. Based on the results of the panel regression, the predicted tax capacity is estimated for total tax revenue and its subcategories (goods and services tax, income tax, and trade tax) using the observable actual Burkina Faso specific characteristics.

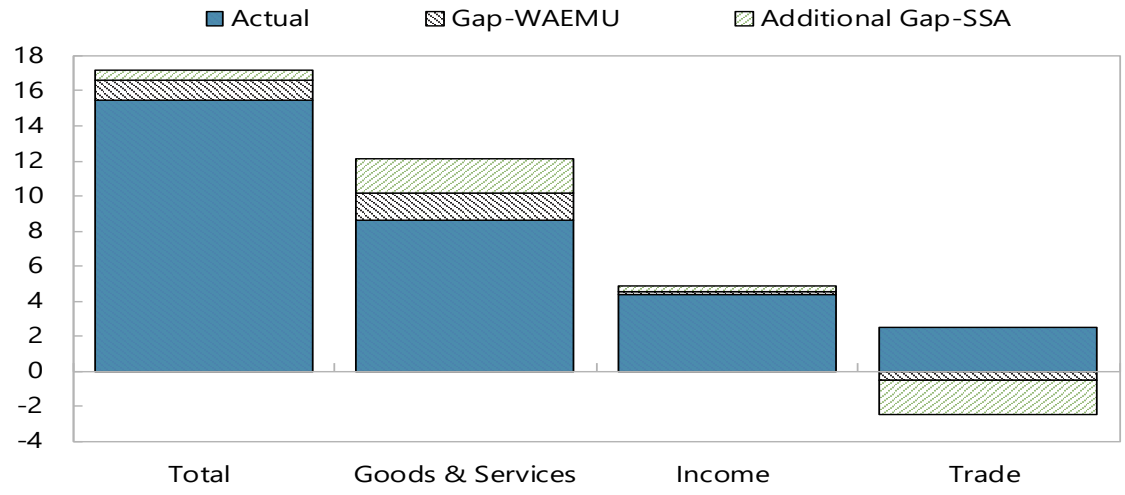
12. The results show that the level of development, the ease of tax collection, the degree of an economy's monetization and investment in capital are the main determinants of tax revenue. Estimated coefficients have the expected signs (Appendix I) and are robust across reference groups.[3] The coefficient of GDP per capita, a proxy for the level of development, is positive and significant, suggesting that higher levels of per capita income are associated with a higher share of tax revenue in national income. The value added of agriculture as a proxy for the ease of tax collection has a negative and significant impact, reflecting the fact that in most countries agriculture is tax-exempted and highly informal. A shift from agricultural to industrial production typically increases the revenue to GDP ratio. Capital investment, measured by the gross fixed capital formation, has a positive effect on tax revenues through the potential expansion of economic activity and tax. Broad money (as a ratio to GDP), as a measure of the degree of the economy's monetization, has a significant positive impact on the tax potential, suggesting that an economy that is highly monetized will realize higher tax revenue than one which is less monetized. Finally, inflation, a proxy for the quality of macroeconomic management, is significant and negative suggesting that higher inflation would reduce the tax-to-GDP ratio as it reduces purchasing power of consumer and investing capacity of investors. As the trade-related taxes are easier to impose because the goods enter and leave the country at specified locations, trade openness is positively associated with the revenue-to- GDP ratio. Other factors including demographic, and natural resource rents were not statistically significant.

13. Given the current characteristics of the tax law in Burkina Faso, the results suggest that Burkina Faso has the potential to raise at least 1.7 percent of GDP in additional revenue considering Sub-Saharan African countries as peers. Exploiting the estimated coefficients in Appendix I and the characteristics of Burkina Faso over the period 2013-2015, the analysis suggests that Burkina Faso could have achieved a tax revenue ratio of 17.2 percent of GDP in this period

[3] For a review of the literature on the determinants of tax revenue, refer to Fenochietto and Pessino (2013), Drummond and al. (2012), Baunsgaard and Keen (2010), Bird and al. (2004), Gupta (2007), Ghura (1998), Tanzi (1987).

compared to the realized performance of 15.5 percent of GDP (Figure 9). These results indicate there is a scope to increase revenue mobilization by 1.7 percent of GDP in Burkina-Faso. This number can be considered as a lower bound of the potential tax revenue for Burkina Faso as it assumes that tax laws and tax administration are improved to the level of SSA peers. Appendix II indicates that the tax capacity has increased from year to year, reflecting the steps being undertaken by both Burkina Faso and peer countries to improve their capacity to raise taxes.

Figure 9. Burkina Faso: Tax Potential and Tax Gap by Category of Taxes, 2013-15
(percent of GDP)



Source: IMF staff estimates.

14. The analysis shows that there is considerable scope to raise revenue collection from taxes on goods and services. The peer analysis indicates that given Burkina Faso's characteristics, there is scope to further mobilize revenue (by an additional 3.6 percent of GDP) through goods and services taxes if Burkina Faso were to raise its goods and services tax effort to the level of the broader sample of sub-Saharan African peers. There is also some, although limited, room to increase income tax revenue.[4] This scope to mobilize additional revenue on goods and services suggests that attainment of the WAEMU's 20 percent of GDP tax revenue criterion is an achievable objective for Burkina Faso. However, reaching this objective will require continued efforts to protect and sustain revenue mobilization from all types of taxes.

D. Options for Increasing Revenue

15. Further raising revenue in Burkina Faso requires a multipronged approach, involving revenue administration and tax policy measures.

[4] The predicted trade tax capacity needs to be taken with caution as the explanatory power of the model is weak when considering trade tax revenue. For instance, the R-square is less than 15 percent compared to R-squares ranging from 25 to 75 percent for the other categories of taxes.

E. Tax Policy

16. Applying the letter of the law on personal income tax (IRPP) and the caps on tax exemptions for public employee benefits should lead to more revenue mobilization. Part of the weaknesses in personal income taxes stems from the non-application of the Income Tax Act. The law states that the tax exemption for employee benefits are limited to 20 percent of gross salary (up to CFAF 50,000 per month) for housing, transportation, and other employee expenses. In practice, these limits are not applied, resulting in a significant tax revenue loss from the employment income tax base. Furthermore, bonuses paid in the public sector are also de facto tax exempt in contradiction with the law.

17. Introducing a VAT rate of 5 percent on currently exempted goods and services and applying the normal VAT tax rate of 18 percent to household consumption of water and electricity should reduce the gap in goods and services tax revenue. The exemption of consumer goods especially rice, water, and electricity introduce some inefficiencies in VAT collections. These exemptions are intended to address inequality, but they disproportionately benefit wealthy individuals. In addition, the exemption of rice from VAT in turn rationalizes the exemption of agricultural equipment and inputs from VAT thereby causing further VAT revenue gaps. The regressive nature of consumption-based taxes such as VAT could be better addressed by collecting the VAT revenue while directly subsidizing the poor through income transfers.

18. There is scope to streamline the excise tax on drinks and increase the rate on alcoholic beverages and tobacco. There are some administratively and economically inefficient overlap in the tax base between the excise tax on drinks (both alcoholic and non-alcoholic) and the Contribution to the Beverage Sector (CBS) intended to indirectly tax informal sector beverage vendors by taxing wholesales of locally-produced drinks. Furthermore, the wholesaler's reporting requirements under the CBS are already embodied in the VAT if properly administered. Raising the excise taxes on beverages by at least 5 percentage points while eliminating the CBS, setting the excise tax rate to 35 percent for beer, to 45 percent for all other alcoholic drinks, and to 15 percent for all non-alcoholic beverages, whether locally-produced or imported, are straightforward ways to mobilize more revenue. Increasing the tax on tobacco to the minimum rate of 50 percent permitted by the WAEMU, applying the 5 percent tax rate on tourism vehicles in conformity with the Tax Code, and raising a 5 percent tax on plastic bags are also straightforward ways to increase revenue. Higher tax rates on alcoholic drinks and tobacco will not only raise revenue but would also help to internalize the health-related externalities generated by alcohol drinks and tobacco consumption.

F. Tax Administration

19. Further reforms and capacity development initiatives could support a further increase in revenue up to the WAEMU convergence criteria of 20 percent of GDP. Previous technical assistance missions highlight that key tax administration weaknesses included: (1) a lack of autonomy, particularly with regard to tax collection, since the responsibility for collecting taxes was still under the Treasury department's purview; (2) the inadequacy of IT systems unable to support

basic tax administration functions; and (3) a relatively weak control over the tax population leading to high noncompliance and a limited number of effective taxpayers. Key recommendations include: (1) implementing follow-up procedures for non-filers; (2) developing issue-oriented audits and ensuring a proper balance with the use of comprehensive audits to increase audit coverage; (3) conducting a comprehensive assessment of tax arrears and developing a strategy to collect non-disputed debt and to write off uncollectible ones; (4) introducing a single self-assessment procedure for small businesses based on the application of a single rate applied to their turnover; and (5) using SINTAX to allow automatic extraction of reliable performance indicators.

20. The refund of VAT credits remains a major tax administration weakness. In 2016 and 2017, the average processing time for VAT refund claims was 251 days. On December 31, 2017, the stock of validated but unpaid refunds amounted to CFAF 46.7 billion, i.e. 27 percent of the amounts validated. Against this background, previous technical assistance recommendations include the elimination of administrative burdens and the introduction of a risk-based approach to improve the refund system. In addition, they encourage the authorities to introduce deferred payment of VAT on imports for selected taxpayers.

G. Custom Administration

21. With respect to customs administration, the immediate challenge is to successfully exit the import verification program that was expected to end in late August 2018. Customs must put in place the necessary means to be able to control the value of imported goods effectively and according to WTO standards (use of the transaction value). A multipronged strategy based on the following actions would increase and sustain revenue mobilization by customs : (1) establishment of a customs unit dedicated to the monitoring of the application of the transaction value and to providing technical support to officers in the field; (2) enhancing the accountability of inspectors and auditors in customs valuation, and managers' effective oversight of execution of assigned tasks; (3) a better use of existing IT tools; and (4) the development of post-clearance audit to act as a safety net to reinforce compliance.

22. Customs control function should also be reinforced through better risk management and improved human resource policies. There is a need to develop risk analysis for control selectivity, to assign and train specialist officers in areas critical for revenue mobilization (including monitoring of duty exemptions and suspensions) and to better supervise staff to reach a satisfactory level of performance and professional ethics. It is also recommended that the strengthening of customs control functions focuses first on the clearance process, then on post-clearance audit and investigations.

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Appendix I. Regression Results

Dependent variable: Total tax revenue to GDP	Low-income	SSA	WAEMU	SSA low-income
GDP per capita	2.965***	1.615*	3.003***	3.067***
	[0.855]	[0.950]	[0.710]	[0.892]
Inflation (CPI)	-0.014***	0.000	-0.047*	-0.014***
	[0.003]	[0.000]	[0.024]	[0.003]
Openess (% of GDP)	0.009	0.014*	0.024	0.009
	[0.007]	[0.008]	[0.017]	[0.007]
Agriculture Value Added (% of GDP)	0.024	-0.017	-0.044*	0.026
	[0.052]	[0.054]	[0.020]	[0.050]
Consumption (% of GDP)	-0.003	-0.003	-0.006	-0.003
	[0.003]	[0.003]	[0.004]	[0.003]
Gross Fixed Capital Formation (% of GDP)	0.027	0.036	0.090***	0.023
	[0.033]	[0.034]	[0.023]	[0.033]
Share of Urban population	-0.113	0.003	-0.115	-0.129
	[0.100]	[0.114]	[0.111]	[0.110]
Natural resources rents (% of GDP)	-0.011	0.040	-0.051	-0.015
	[0.027]	[0.044]	[0.040]	[0.026]
Broad money (% of GDP)	0.146***	0.089**	0.049*	0.159***
	[0.037]	[0.041]	[0.021]	[0.046]
Constant	-8.090*	-1.221	-3.778	-7.879*
	[3.988]	[4.707]	[2.008]	[3.985]
Observations	435	657	165	408
R-squared	0.526	0.241	0.751	0.509
Number of countries	25	38	8	22
R2	0.516	0.230	0.736	0.498

Robust standard errors in brackets
*** p<0.01, ** p<0.05, * p<0.1

Dependent variable: G&S tax revenue to GDP	Low-income	SSA	WAEMU	SSA low-income
GDP per capita	0.151	0.641	1.329*	0.081
	[0.345]	[0.391]	[0.695]	[0.353]
Inflation (CPI)	-0.005***	-0.006***	-0.040**	-0.005***
	[0.001]	[0.002]	[0.013]	[0.001]
Openess (% of GDP)	0.007	0.018**	0.012	0.008**
	[0.004]	[0.008]	[0.009]	[0.004]
Agriculture Value Added (% of GDP)	-0.004	-0.018	-0.054	-0.005
	[0.019]	[0.015]	[0.030]	[0.018]
Government Consumption (% of GDP)	0.006	-0.021	-0.057*	0.006
	[0.035]	[0.039]	[0.030]	[0.036]
Household Consumption (% of GDP)	-0.008	-0.014	-0.025	-0.009
	[0.008]	[0.010]	[0.035]	[0.008]
Gross Fixed Capital Formation (% of GDP)	0.032**	0.028**	0.046*	0.033**
	[0.012]	[0.011]	[0.020]	[0.012]
Share of Urban population	0.070	0.010	-0.032	0.076
	[0.047]	[0.051]	[0.075]	[0.050]
Broad money (% of GDP)	0.048***	0.015	0.003	0.044**
	[0.017]	[0.028]	[0.028]	[0.021]
Constant	0.199	-0.072	0.625	0.695
	[1.863]	[1.827]	[5.681]	[1.899]
Observations	428	645	163	401
R-squared	0.461	0.333	0.520	0.441
Number of countries	25	38	8	22
R2	0.450	0.324	0.492	0.428

Robust standard errors in brackets
*** p<0.01, ** p<0.05, * p<0.1

Dependent variable: Income tax revenue to GDP	Low-income	SSA	WAEMU	SSA low-income
GDP per capita	2.008**	1.219*	1.113*	2.137**
	[0.812]	[0.705]	[0.480]	[0.821]
Inflation (CPI)	-0.002*	-0.000	-0.005	-0.002*
	[0.001]	[0.003]	[0.012]	[0.001]
Agriculture Value Added (% of GDP)	0.043	0.030	0.019	0.044
	[0.034]	[0.043]	[0.015]	[0.033]
Share of Urban population	0.001	0.000	-0.003	0.001
	[0.002]	[0.001]	[0.002]	[0.002]
Natural resources rents (% of GDP)	0.016	0.020	0.029	0.011
	[0.022]	[0.020]	[0.018]	[0.021]
Share of Urban population	-0.101	0.051	-0.018	-0.115
	[0.094]	[0.077]	[0.052]	[0.098]
Natural resources rents (% of GDP)	0.024	0.034	0.000	0.020
	[0.019]	[0.023]	[0.037]	[0.019]
Broad money (% of GDP)	0.025	0.002	0.001	0.033
	[0.018]	[0.021]	[0.023]	[0.023]
Public Wage Bill (% of GDP)	0.366**	0.204	0.123	0.376***
	[0.133]	[0.134]	[0.153]	[0.128]
Constant	-10.404**	-8.564**	-4.793*	-10.722**
	[4.058]	[4.009]	[2.160]	[4.028]
Observations	430	645	164	403
R-squared	0.479	0.247	0.497	0.487
Number of countryname1	25	38	8	22
R2	0.468	0.236	0.467	0.475

Robust standard errors in brackets
*** p<0.01, ** p<0.05, * p<0.1

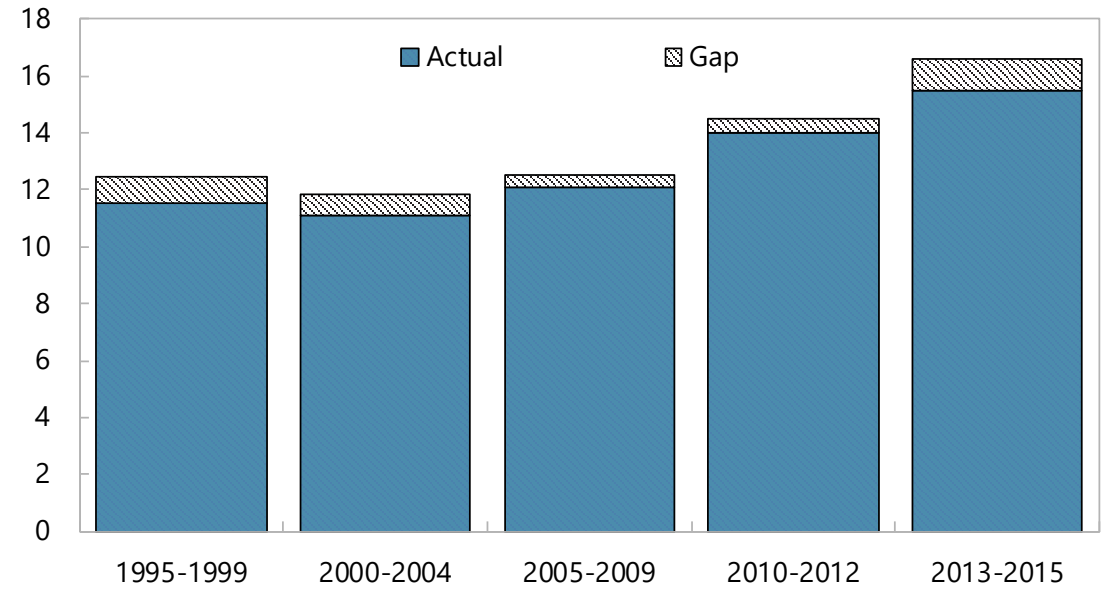
Dependent variable: Trade tax revenue to GDP	Low-income	SSA	WAEMU	SSA low-income
GDP per capita	0.349	-0.136	0.395	0.294
	[0.262]	[0.484]	[0.796]	[0.317]
Inflation (CPI)	-0.000***	-0.004***	-0.011	-0.003**
	[0.000]	[0.001]	[0.014]	[0.001]
Imports (percent of GDP)	0.009	0.010	0.029	0.009
	[0.006]	[0.010]	[0.058]	[0.007]
Exports (percent of GDP)	-0.015	-0.055**	0.005	-0.015
	[0.013]	[0.023]	[0.045]	[0.015]
Agriculture Value Added (% of GDP)	-0.016	-0.008	-0.041**	-0.013
	[0.016]	[0.014]	[0.012]	[0.017]
Consumption (% of GDP)	-0.003*	-0.001	0.000	-0.003**
	[0.001]	[0.001]	[0.002]	[0.001]
Gross Fixed Capital Formation (% of GDP)	-0.020	-0.014	-0.019	-0.021
	[0.013]	[0.016]	[0.039]	[0.014]
Share of Urban population	-0.026	-0.013	-0.075	-0.023
	[0.042]	[0.060]	[0.080]	[0.043]
Natural resources rents (% of GDP)	0.010	0.021	0.035	0.008
	[0.023]	[0.019]	[0.037]	[0.023]
Constant	2.750**	6.354***	4.638	3.061**
	[1.252]	[1.853]	[2.584]	[1.326]
Observations	454	657	164	413
R-squared	0.054	0.108	0.099	0.054
Number of countries	26	38	8	22
R2	0.0352	0.0954	0.0463	0.0333

Robust standard errors in brackets
*** p<0.01, ** p<0.05, * p<0.1

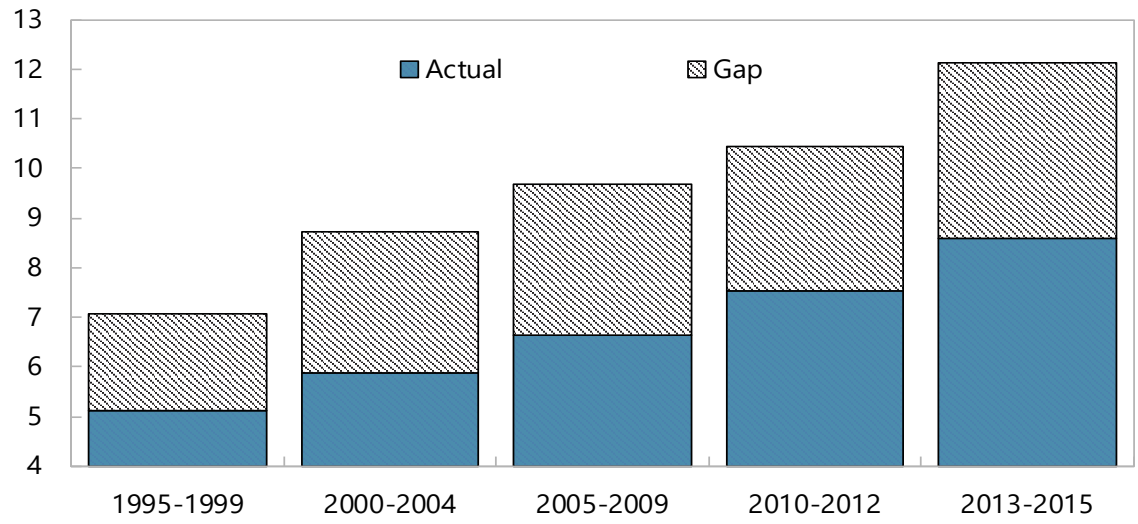
Appendix II. Evolution of Revenue Potential and Gap

Burkina Faso: Evolution of Revenue Potential and Gap, 1995-2015
(percent of GDP)

Total Tax Revenue Potential and Gap to WAEMU Peers



Good and Services Tax Revenue Potential and Gap to SSA Peers



Sources: IMF staff estimates.