



TOGO

SELECTED ISSUES

May 2017

This Selected Issues paper on Togo was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on April 27, 2017

Copies of this report are available to the public from

International Monetary Fund • Publication Services

PO Box 92780 • Washington, D.C. 20090

Telephone: (202) 623-7430 • Fax: (202) 623-7201

E-mail: publications@imf.org Web: <http://www.imf.org>

Price: \$18.00 per printed copy

International Monetary Fund
Washington, D.C.



TOGO

SELECTED ISSUES

April 27, 2017

Prepared by

Jon Jellema (CEQ), Lennart Erickson (IMF), and Tim Willems (IMF).

CONTENTS

FISCAL INCIDENCE, INEQUALITY AND POVERTY IN TOGO	3
A. Introduction	3
B. Social Spending and Taxation in Togo	3
C. Methodological Summary and Household Survey Data	5
D. Results	7
E. Policy Implications and Conclusion	12
FIGURES	
1. CEQ Income Concepts and Their Components	6
2. Gini Coefficient at Pre- and Post-Fiscal Income Concepts	7
3. Poverty Headcount at Pre- and Post-Fiscal Income Concepts	7
4. Concentration Shares: Shares of Total VAT Paid and Electricity Subsidies Received	8
5. Incidence: VAT Paid and Electricity Subsidy Received	8
6. Frequency of Enrollment (Out of the General Population) by Schooling Level	9
7. Lorenz Curve (Disposable Income and Concentration Curves for Education by Level)	10
8. Frequency of Illness and Healthcare System Utilization	11
9. Lorenz Curve and Concentration Curves for Health by Type	11
10. Incidence: VAT Paid: Electricity Subsidy Received: Education and Spending Received	12
TABLES	
1. Government Expenditures Included in the Analysis, 2015	4
2. Government Revenue Included in the Analysis, 2015	5
References	14

THE SOVEREIGN-BANK NEXUS IN TOGO	15
A. Introduction	15
B. Background	16
C. Sovereign Risk in the Togolese Banking Sector	18
D. Policy options	21
FIGURES	
1. BCEAO Borrowings and Holdings of Government Securities, 2002–16	18
2. BCEAO Borrowings and Bank Holdings of Government Securities, June 2016	19
3. WAEMU: 1 Year bill vs BCEAO Minimum Bid Rate	19
4. Togo and Other WAEMU: Crowding Out of Private Sector Credit, 1991–2015 (3 year avgs)	21
TABLES	
1. Composition of Sovereign Bond Holdings of Togolese Banks	18
2. WAEMU: Sovereign Debt Ratings and T-Bill Rates	20
References	23

FISCAL INCIDENCE, INEQUALITY AND POVERTY IN TOGO¹

This paper provides an assessment of the redistributive impact of fiscal policies in Togo by estimating the impact of taxation and spending on household-level income inequality and poverty rates.² While the combination of direct taxes and subsidies is found to reduce inequality, it increases poverty rates, as the value of taxes paid by lower-income households outweighs the value of transfers they receive, increasing the share of the population living below the poverty line. These findings highlight the importance of targeting spending to lower-income households as the authorities progressively shift public spending from infrastructure to social expenditures.

A. Introduction

1. Togo performs reasonably well on measures of social development relative to countries in the region, although challenges remain. Togo's score on the UN's Human Development Index (HDI) rose from 0.436 in 2005 to 0.487 in 2015, still below the average for sub-Saharan Africa but above the average of its WAEMU neighbors. The increase was driven by improvements in life expectancy and education, even though growth in real per capita GNI stalled during this period. The head-count poverty rate fell from 61.7 percent in 2006 to 55.1 percent in 2015, while the incidence of poverty remained significantly higher in rural areas than urban ones. However, over the same period, income inequality, as measured by the Gini coefficient worsened slightly from 0.36 to 0.38.³

B. Social Spending and Taxation in Togo

2. Evaluating the redistributive impact of fiscal policies requires a comparison of incomes and expenditures after taxes and transfers with those that would exist without them. The analysis incorporates most of the social spending portfolio (e.g., social protection, education, and healthcare) in Togo, except for spending on defense, security, and infrastructure.

¹ Prepared by Jon Jellema (CEQ) and Lennart Erickson (IMF). This analysis was undertaken as part of a joint project between Commitment to Equity (CEQ) and IMF staff, as well as with the Organization for Economic Cooperation and Development (OECD) in the context of the EU Social Protection Systems Programme which is co-funded by the European Union, the OECD and the government of Finland. However, the contents can in no way be taken to reflect the views of the European Union or the government of Finland.

² The paper seeks to assess only the redistributive impact of fiscal policies at a point in time and remains silent on the dynamic effects of these policies on income inequality.

³ QUIBB 2015, 2016. The methodologies underlying the Gini coefficients differ from those reported in Section D.

(continued)

Social spending can be divided into three categories: in-kind transfers, direct transfers, and indirect subsidies (Table 1).⁴

	CFAF (billions)	Percent of GDP
Total ¹	2,893	4.80
Social spending	2,793	4.60
Social protection	344	0.60
Social assistance	84	0.14
Cash transfers	84	0.14
Social insurance	260	0.40
Education	1,480	2.40
Primary	750	1.20
Secondary	528	0.90
Tertiary	202	0.30
Health	969	1.60
Subsidies	100	0.21
Water	91	0.00
Rural electrification	9	0.00

Sources: Togolese authorities and CEQ.

¹Expenditures included in Togo's CEQ Assessment may not be fully allocated within the QUIBB for various reasons. See Section C for more detail on the allocative methods and assumptions.

3. On the revenue side, personal income taxes, VAT, excise taxes, and grants are included in the analysis whereas corporate income tax, corporate withholding tax, customs duties, and nontax revenue are excluded (Table 2).

⁴ The definition of social spending in this paper differs from the one used for the indicative target under the 2017 ECF-supported program.

Table 2. Togo: Government Revenue Included in the Analysis, 2015

	CFAF (billions)	Percent of GDP
Total Revenue and Grants ¹	5,952	8.20
Tax Revenue	5,016	11.60
Direct taxes	1,197	3.90
Personal Income Tax	1,197	1.90
Indirect Taxes	3,819	7.60
VAT	2,353	3.80
Excise Taxes	1,466	2.40
Grants	936	1.50

Sources: Togolese authorities and CEQ.

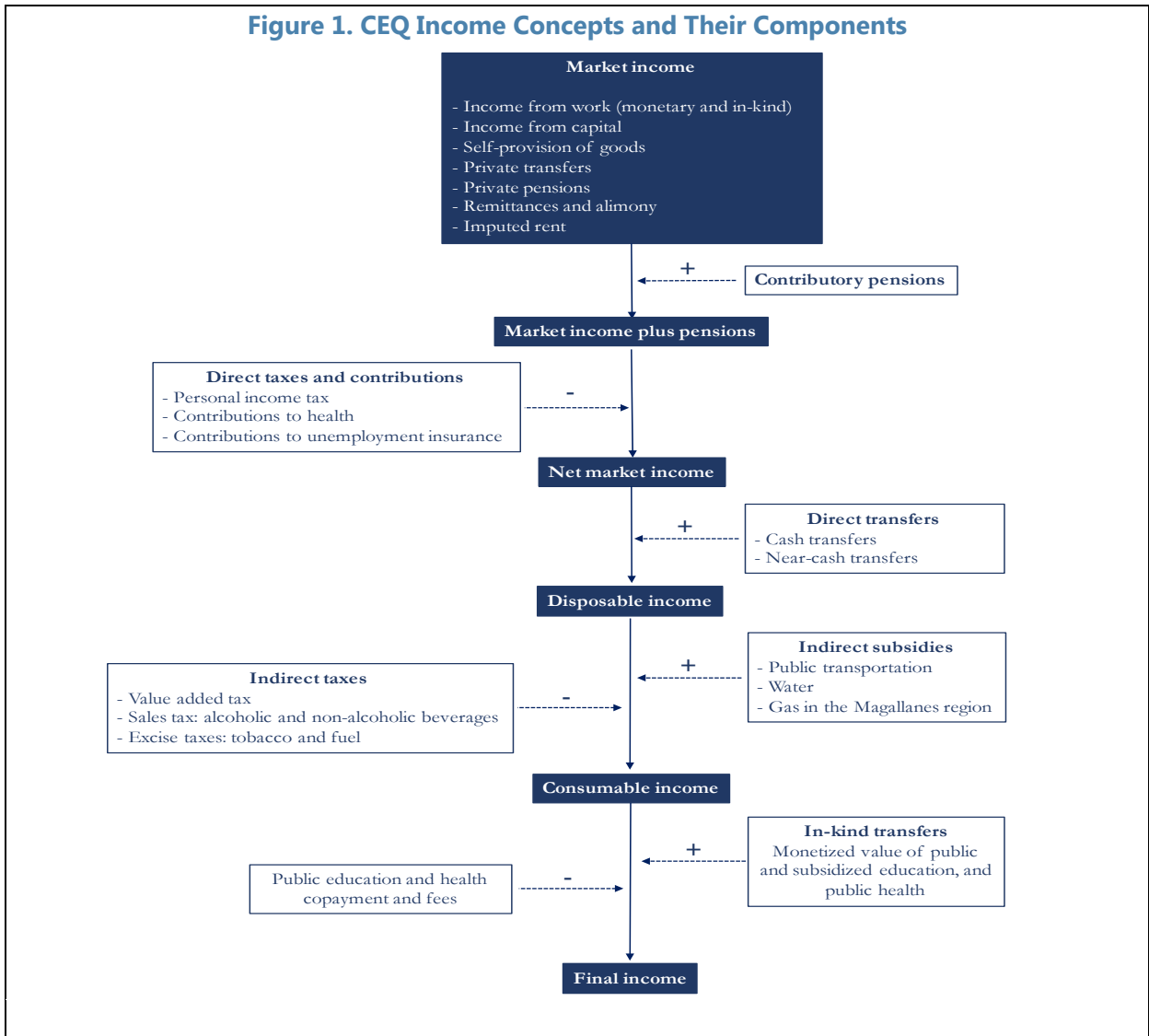
¹Revenues included in Togo's CEQ Assessment may not be fully allocated within the QUIBB for various reasons. See Section C for more detail on the allocative methods and assumptions.

C. Methodological Summary and Household Survey Data

4. A CEQ Assessment was carried out to assess the redistributive impact of fiscal policies in Togo. Typically, a CEQ Assessment considers specific fiscal policy elements, (i.e., programs, expenditures, or revenue collections) and allocates them to individuals and households from a micro-level socio-economic survey. Once the allocations are made, CEQ calculates different measures of poverty and impoverishment, inequality and progressiveness, as well as the extent of income redistribution. The effect of redistributive fiscal policy on incomes is based on the comparison of two so-called "income concepts" excluding (i.e., pre-fiscal) and including (i.e., post-fiscal) fiscal policy measures. The construction of these income concepts is presented in Figure 1.⁵

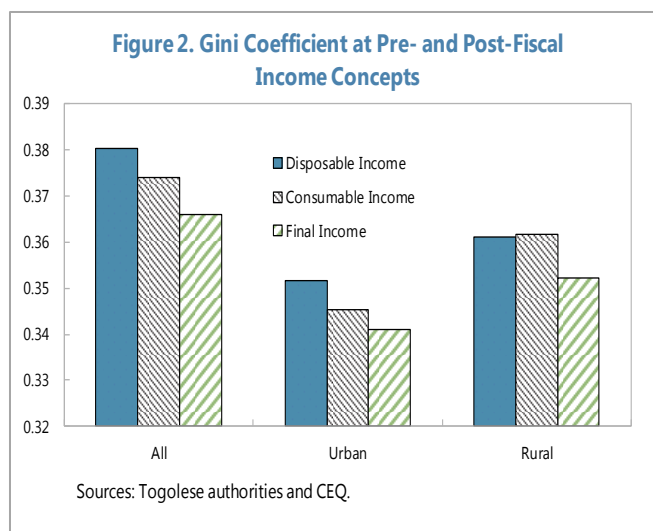
⁵ Figure 1 is adapted from the *Commitment to Equity Handbook: Estimating the Redistributive Impact of Fiscal Policy*, Nora Lustig, ed.; the Brookings Institution and CEQ Institute/Tulane University, in progress.

Figure 1. CEQ Income Concepts and Their Components

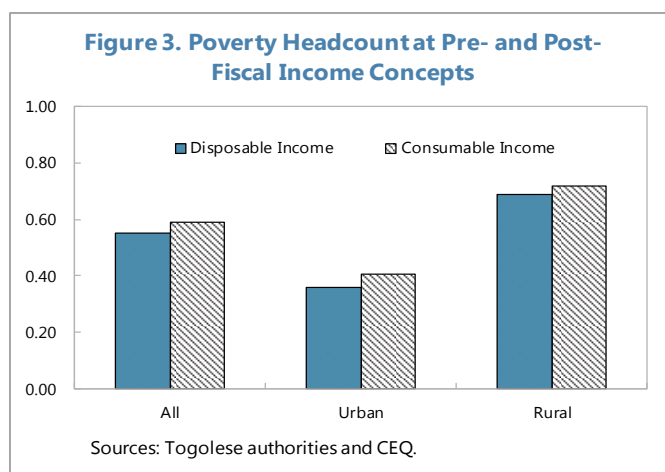


D. Results

5. Fiscal policy has had a redistributive effect in Togo. Our findings suggest that fiscal policy has overall reduced income inequality. Inequality would be slightly higher in the absence of fiscal policy elements listed in Tables 1 and 2. The Gini coefficient for disposable incomes, i.e., incomes minus indirect taxes, subsidies, and in-kind benefits, is 0.38, one percentage point higher than the coefficient for final or market incomes (Figure 2).⁶ While inequality is marginally lower in urban areas compared to rural ones, fiscal policy is equally effective in lowering inequality by one Gini percentage point in both types of areas (Figure 2).



6. The combination of indirect taxes and subsidies tends to increase poverty rates. Poverty rates increase when a combination of indirect taxes and subsidies are considered. Adding the subsidies received by households (e.g., through electricity purchases) and subtracting the indirect taxes that households paid (e.g., through general consumption expenditure) from their disposable incomes increases the share of the population living under the poverty line from 55 percent to 59 percent. While poverty in rural areas is higher to begin with, standing at nearly 70 percent of the rural population, the adverse effect from tax and spending tools combined is more muted in these areas (Figure 3).



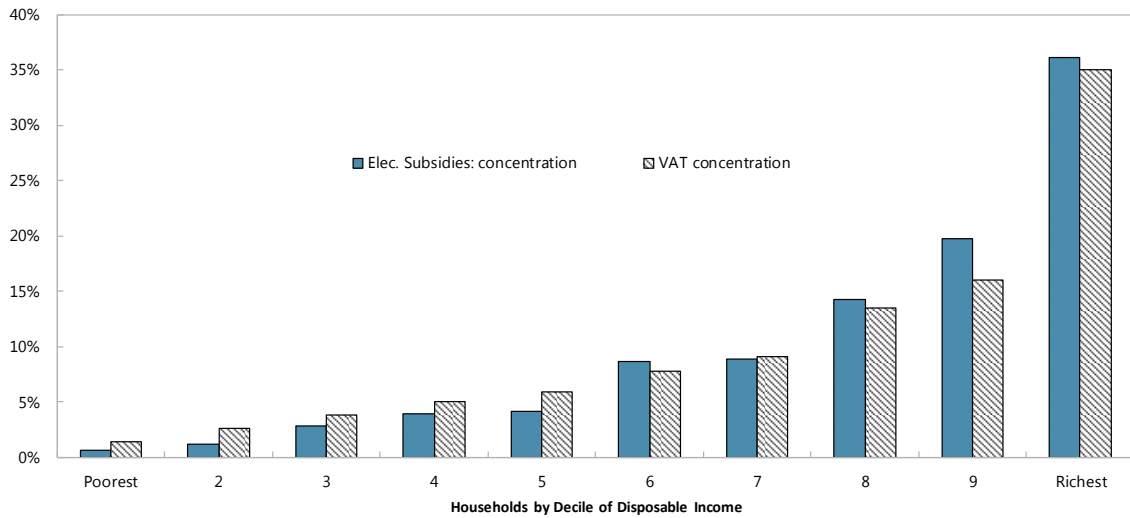
Electricity

7. Electricity subsidies are regressive. Households with higher electricity consumption receive a larger share of the total electricity subsidies available. Electricity subsidies hence tend to be regressive, that is, the share of electricity subsidies received increases with disposable income (Figure 4). However, the electricity subsidies received by households tend to be very low relative to households' own income. Subsidies account for less than 0.5 percent of the pre-subsidy

⁶ Pre-fiscal income ("market income" in a CEQ assessment) requires estimation of pension receipts, pension contributions, direct taxes and direct transfers; these estimates are not yet available in Togo. The total impact of fiscal policy on inequality could be higher or lower than one Gini point depending on whether the pensions and direct taxes are equalizing.

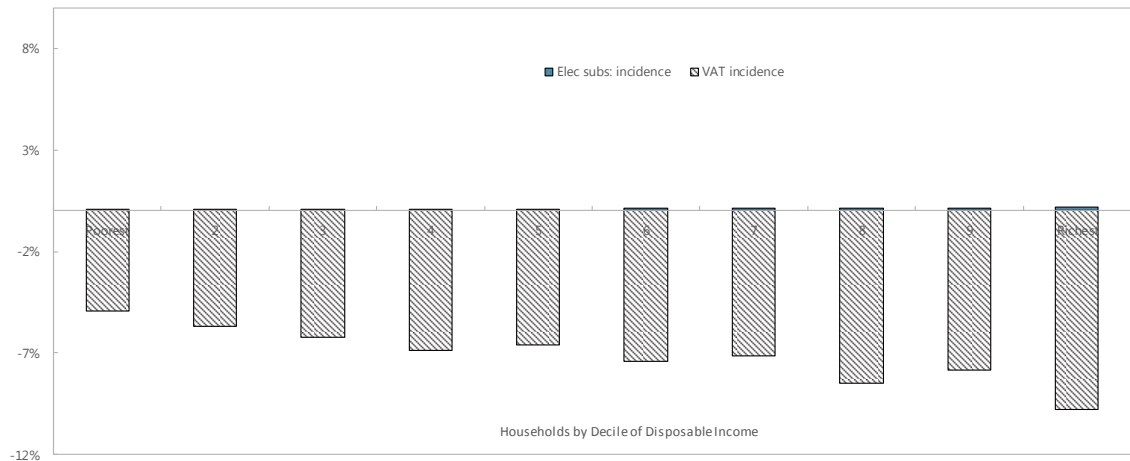
income, even in the case of upper-income households (Figure 5). Since subsidies account for even a smaller share of the poorest households’ pre-subsidy income—many of which have no electricity consumption and are therefore not covered by the subsidy system—electricity subsidies are regressive from this perspective as well.

Figure 4. Concentration Shares: Shares of Total VAT Paid and Electricity Subsidies Received



Sources: Togolese authorities and CEQ.

Figure 5. Incidence: VAT Paid and Electricity Subsidy Received (Percent of Pre-Fiscal Income)



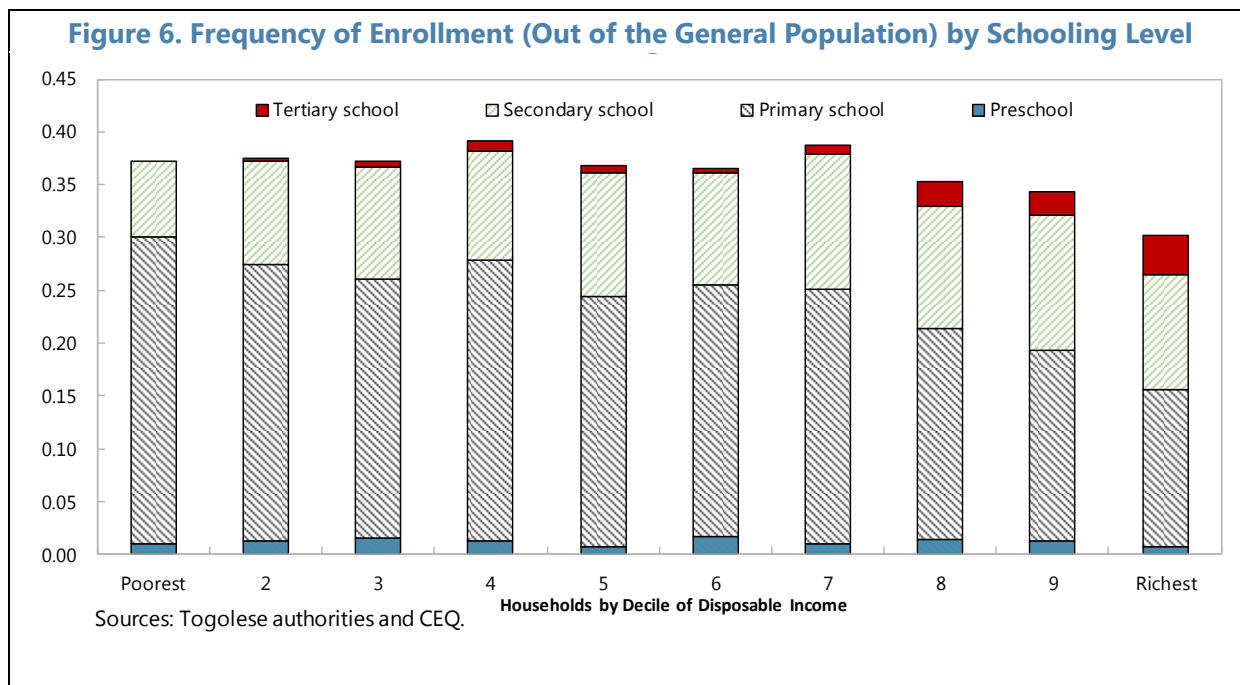
Sources: Togolese authorities and CEQ.

VAT

8. Upper-income households pay larger shares of total VAT collections in Togo. The VAT is equalizing as the VAT paid, measured as a share of pre-VAT income, rises with income. However, all taxes represent a reduction in households' purchasing power of all goods and services available. The reduction in the purchasing power from the VAT leads to an increase in the poverty rate of poor or near-poor households in Togo.

Social spending

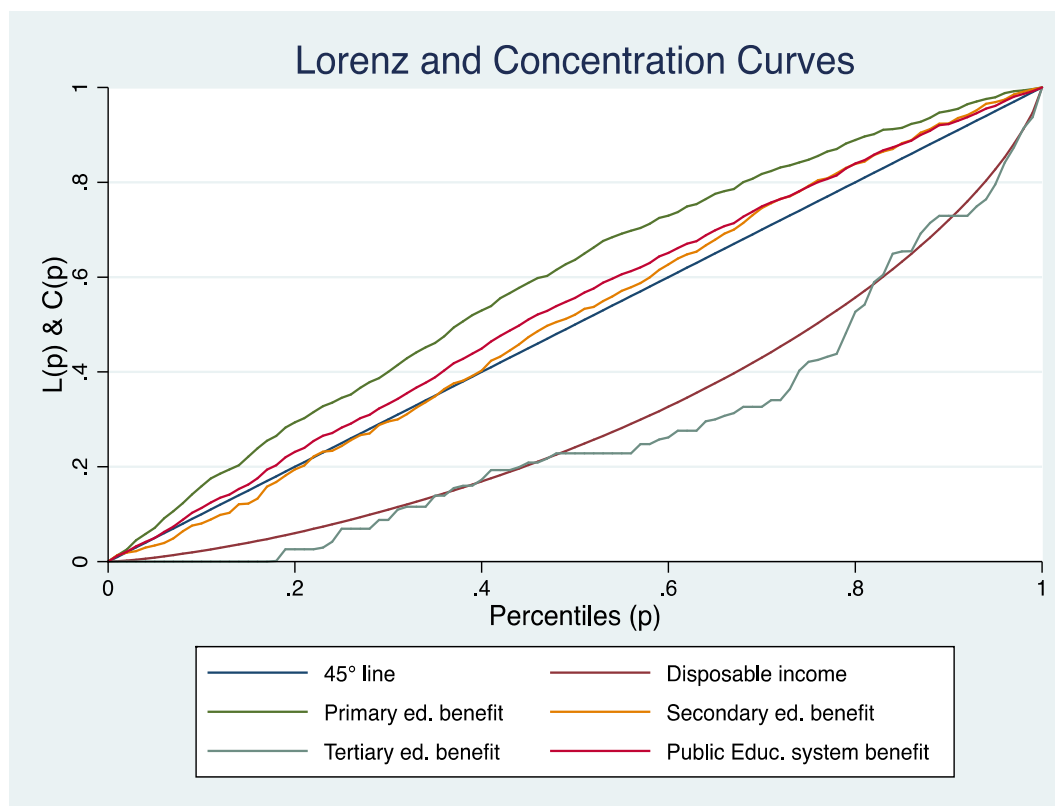
9. Education spending, which accounts for about half of all the social spending in Togo, is progressive (Table 2). The access to and use of the public education system is overall progressively distributed. Nearly 4 in 10 individuals in the lower 70 percent of the population are participating in the public education system (Figure 6). On the other hand, 3 in 10 individuals in the upper 10 percent are covered by the public-school system.



10. The progressivity of overall education is driven by primary education while tertiary education is regressive. The shares of all secondary or tertiary public school enrollees increase with their income. As higher levels of education are typically more expensive for the government to provide, even while public enrolment overall may be falling at higher income levels, if shares of the higher-valued types of education are rising, total education benefits may not be progressively distributed. If we assume that the pre-primary, per-student public education benefit is 75 percent of the primary public education benefit and that the per-student secondary education benefit is 200 percent of the primary public education benefit, we conclude that public education spending overall has a progressive effect. The progressiveness of all education

benefits together is driven by primary school spending, with most public-school students benefiting from it. By contrast, tertiary education, which accounts for only a small share of publicly-enrolled students, is regressive (Figure 7).

Figure 7. Lorenz Curve (Disposable Income and Concentration Curves for Education by Level)



Sources: Togolese authorities and CEQ

11. Public healthcare spending tends to have a proportionate effect on incomes.

Healthcare accounts for about 13 percent of all social spending in Togo. As with education, households receive benefits from the public health system upon utilization. The (self-reported) frequency of illness remains approximately constant across deciles, which implies that the expected utilization rates should also be constant (Figure 8). However, the use of total (public plus private) healthcare benefit system is noticeably higher for upper-income households. As far as the public options are concerned, upper-income households tend to choose public hospital care more frequently than lower-income households, whereas lower-income households make use of public clinic care more frequently than upper-income households. Assuming that a visit to the public hospital in Togo is twice as expensive, in terms of public spending, than a visit to the public clinic, then the total public healthcare spending seems distributed approximately neutrally, that is to say, proportionally to incomes (Figure 9).

Figure 8. Frequency of Illness and Healthcare System Utilization

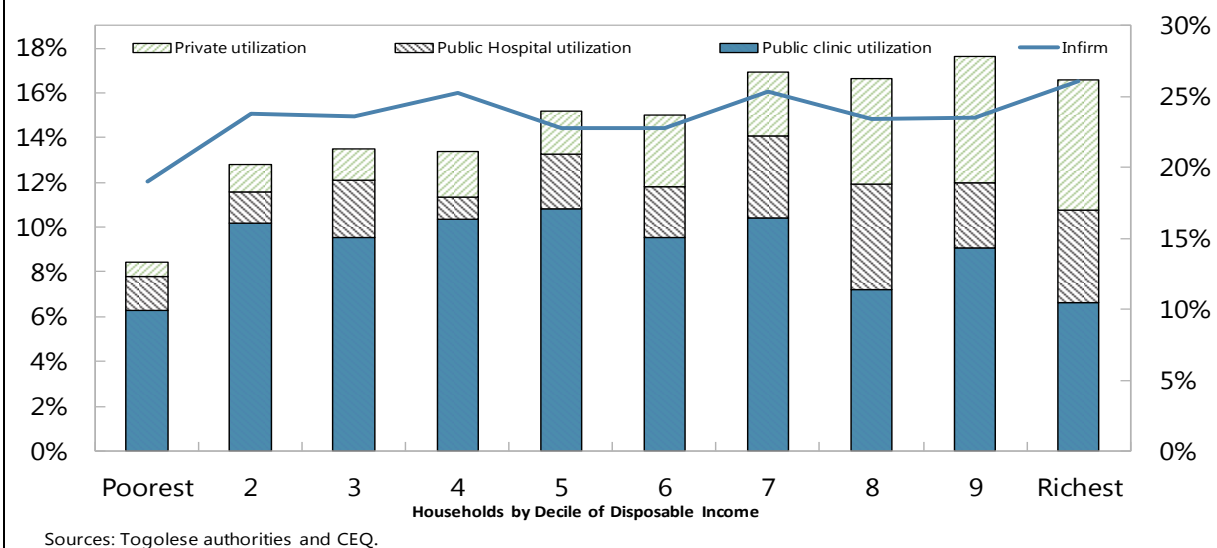
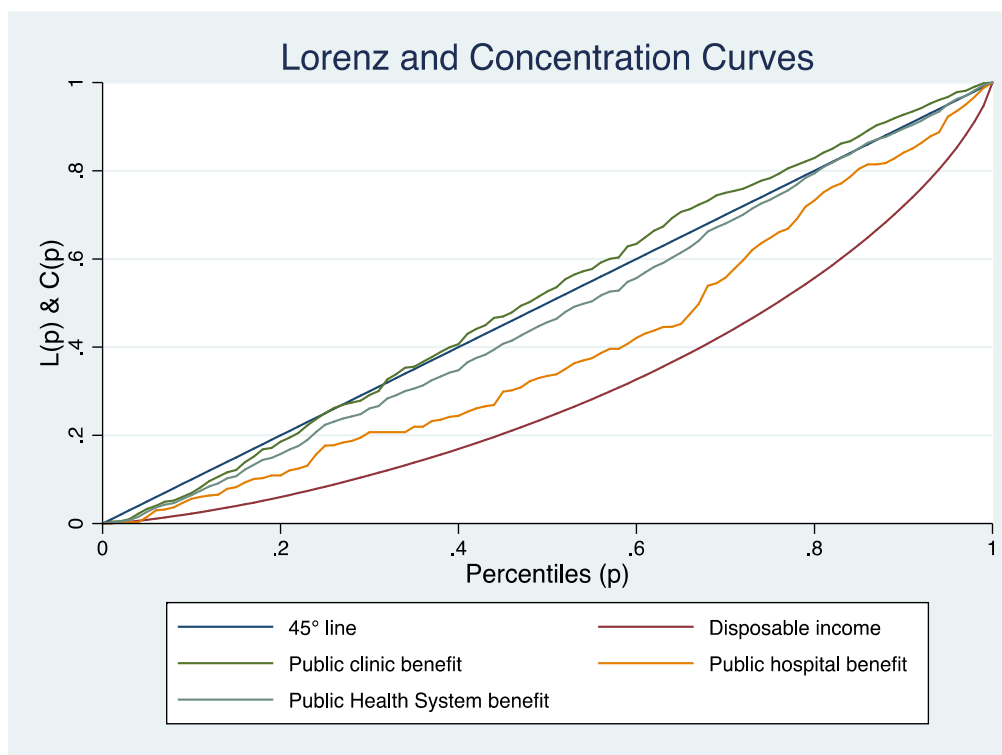


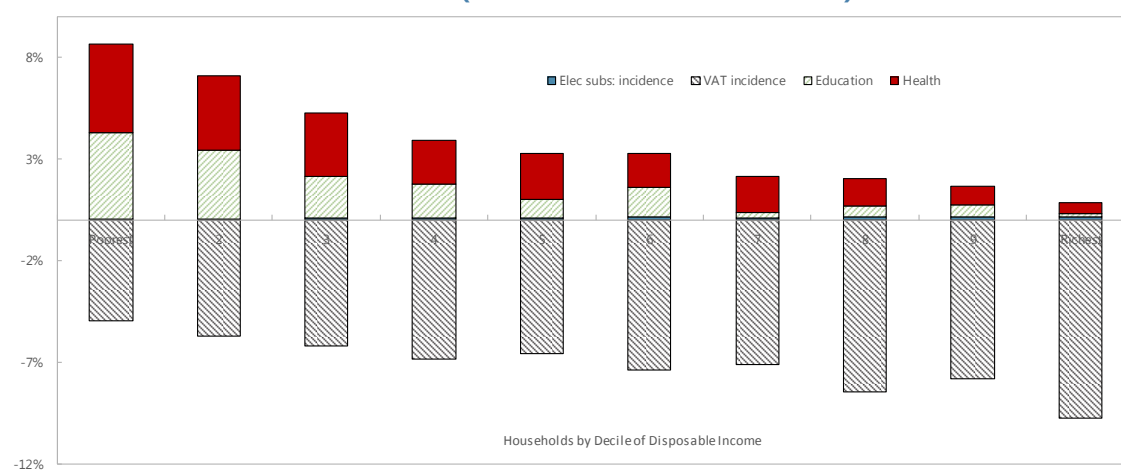
Figure 9. Lorenz Curve and Concentration Curves for Health by Type



Sources: Togolese authorities and CEQ.

12. Public education and healthcare spending have a larger redistributive effect on lower-income households than subsidies. Social spending benefits (i.e., public education and healthcare) account for a larger share of poorer households' incomes than electricity subsidies. For instance, electricity subsidies contribute less than 0.1 percent of pre-subsidy income to households in the lower decile, compared to approximately 4 percent of individual income in the case of healthcare and education benefits. When all households are considered, the total VAT bill is higher than any of the education, healthcare, or electricity subsidy benefits taken separately. However, for the households in the 3rd through the 10th deciles of the income distribution, the VAT bill is typically larger than the education, health, and electricity subsidy benefits combined (Figure 10).

Figure 10. Incidence: VAT Paid, Electricity Subsidy Received, and Education and Spending Received (Percent of Pre-Fiscal Income)



Sources: Togolese authorities and CEQ.

E. Policy Implications and Conclusion

13. While fiscal policy in Togo has reduced inequality and been progressive, the combination of indirect taxes and subsidies increases poverty rates. Inequality in household income is lower after considering taxes and expenditures. The burden of VAT collections falls more heavily on wealthier households, both in terms of total payments and as shares of income. Education and health expenditures are also tilted toward lower-income households. However, taken together, fiscal policies increase poverty, in the sense that more households are pushed below the poverty line as the taxes they pay outweigh the value of transfers they receive. Moreover, electricity subsidies—though small in magnitude—are regressive.

14. These findings highlight the importance of targeting public spending to addressing the needs of lower-income households. Such considerations should be the forefront as the authorities develop their medium-term strategies for poverty reduction and development. Attention should also be paid to avoiding regressive spending policies such as current electricity

subsidies. The finding that VAT imposes an economic burden on lower-income households, despite its overall progressivity, also suggests the need to effectively target social spending. Our results do not imply that the current VAT system does not fulfil its purpose, nor that more goods should be exempted. The VAT is an important tool to raise the much-needed fiscal resources, which in turn finance the desired social spending programs geared toward poor households and the provision of other, broad-based, critical public goods.

References

Bollinger, Christopher R. and Barry T. Hirsch, "Is Earnings Nonresponse Ignorable?" *Review of Economics and Statistics*, May 2013, 95(2): 407–416.

Bollinger, Christopher R. and Barry T. Hirsch. "Match Bias from Earnings Imputation in the Current Population Survey: The Case of Imperfect Matching," *Journal of Labor Economics*, July 2006, 24, 483-519.

Nora Lustig, ed., Commitment to Equity Handbook: Estimating the Redistributive Impact of Fiscal Policy, The Brookings Institution and CEQ Institute/Tulane University, in progress.

Human Development Report 2016, UNDP, 2016.

Questionnaire des Indicateurs de Base du Bien-être (QUIBB) 2015, INSEED, April, 2016.

THE SOVEREIGN-BANK NEXUS IN TOGO¹

Recent fiscal deficits in Togo have largely been financed by the domestic banking sector, which has in turn relied on refinancing provided by the central bank. Herewith, Togo is echoing a trend that is observed in other WAEMU countries and beyond. This exposes Togo's economy to risks, including increased inflation, a deterioration in liquidity in the banking sector, crowding-out of private borrowing, and a negative feedback loop between the (perceived) creditworthiness of the sovereign and the banks. The authorities' policies under the Fund-supported program—to reduce the fiscal deficit and to resolve the existing financial sector weaknesses—are expected to mitigate these risks.

A. Introduction

1. In recent years, fiscal deficits have widened in Togo. While the overall fiscal deficit averaged 2.4 percent over 2005-10, it increased by more than 4 percentage points to an average of 7.0 percent over 2011-15, mainly to finance infrastructure spending. Togo's public debt thus increased to 80.8 percent of GDP in 2016 from 49.3 percent in 2011. This echoes a wider trend. Budget deficits in the WAEMU deteriorated, on average, by 2.2 percentage points to 3.4 percent during the same period. Sub-Saharan Africa went from an average budget balance over 2005-10, to an average deficit of 2.7 percent over 2011-15.

2. Budget deficits in Togo have largely been financed by domestic commercial banks. In financing these growing deficits, the banking sector has in turn been aided by the availability of cheap refinancing provided by the BCEAO and a regulatory framework that gives preferential treatment to sovereign debt. These factors have made the banking sector vulnerable to sovereign and liquidity risk, may subject the economy to excessive inflation, while it could also crowd out private investment.

3. The interlinkages between the banking and government sector, known as “the sovereign-bank nexus”, have recently come under increased scrutiny as it has caused problems elsewhere – most notably in the Eurozone. The core lesson from the associated literature is that a deterioration in the creditworthiness of the banking sector can lead to spillover effects on the sovereign, and vice versa. Problems in the Eurozone were initially triggered by deteriorations in the quality of private sector assets that banks had invested in with a knock-on effect on public finances.

4. The remainder of this note analyzes the sovereign-bank nexus for Togo and puts it in a WAEMU perspective. While the sovereign-bank nexus has emerged in other countries as well (both in- and outside the WAEMU), it is of non-negligible concern for Togo as the

¹ Prepared by Tim Willems.

(continued)

government had difficulties servicing pre-financed debt in 2015—a form of de facto government debt which was not reflected in official government debt statistics, amounting to 7 percent of GDP at end-2016.²

B. Background

5. The Togolese banking sector (comprised of 13 main banks) is currently facing some challenges.

- Undercapitalization.** The two public banks, accounting for about 20 percent of Togo’s banking sector assets, have breached the 8-percent solvency ratio requirement, as has one other (private) bank. Three banks have a negative solvency ratio. With an aggregate solvency ratio of only 3.8 percent, the banking system as a whole is undercapitalized as well. This compares unfavorably with the WAEMU area, where the aggregate solvency ratio stands at about 11 percent. However, excluding the two state banks from the calculation improves Togo’s solvency ratio to 11 percent. Togo’s Tier-1 leverage ratio, defined as Tier-1 capital divided by total assets, stands at an unusually low value of 1.4 percent, compared with a WAEMU average of 6 percent (and a Basel III minimum requirement of 3 percent). Excluding the state-owned banks brings Togo back in line with the WAEMU average. This illustrates that the core of the problem lies with these two public banks.
- Underdiversification.** The Togolese banking sector has heavy exposure to a limited number of sectors. Credit to the retail sector makes up 35 percent of total loans, while credit related to public works amounts to 22 percent, which is particularly high relative to a WAEMU average of around 8 percent. In addition, there is concentration risk with respect to borrowers: credit to five largest borrowers stands at 140 percent of capital in Togo, compared to 94 percent in the WAEMU.
- Non-performing loans.** A high proportion of total loans (approximately 20 percent) is classified as non-performing. Herewith, Togo performs worse than the WAEMU average, which stands at an already-elevated level of about 15 percent.
- Large exposure to sovereign risk.** Part of Togo’s fiscal deficits have been financed by domestic banks. As a result, Togolese government securities now make up about 15 percent of commercial banks’ balance sheets, while this number stood well below 5 percent in 2000—a trend that is arguably even stronger in other WAEMU countries (IMF, 2015).³ This has increased the banking sector’s exposure to sovereign risk. Interestingly, non-state banks

² The practice of prefinancing ended in late 2016.

³ At the WAEMU level, holdings of government securities account for more than 20 percent of commercial bank assets. It should however be noted that the exposure of Togolese banks to domestic sovereign risk might be larger than the reported statistics suggest since they do not include prefinanced loans, more on which in paragraph 10 below.

hold the largest claims on the government and are thereby also most-exposed to sovereign risk.

6. The 2008 financial crisis led to heightened attention to the interlinkages between the banking and the government sectors. In particular, the literature has identified the existence of a negative “doom loop”: since many governments are expected to bail out banks during financial crises, a deterioration in (perceived) creditworthiness of either party can set off a negative dynamic that worsens the credibility of both the government and the financial sector. A fall in the perceived creditworthiness of the sovereign makes a bank-bailout less attainable and may thereby reduce the perceived creditworthiness of the banking sector. In turn, this increases the chances of intervention becoming necessary, which puts further strain on the rating of the sovereign. Along similar lines, a fall in the perceived creditworthiness of the banking sector may endanger the perceived creditworthiness of the sovereign (since a contingent liability is now more likely to materialize), which can feed-back to the banking sector (especially when the latter has claims on the government).⁴ This “doom loop” is of particular concern in monetary unions (De Grauwe, 2012). Their member countries issue debt in a currency over which they do not have direct control, as a result of which they cannot guarantee bondholders nominal repayment. This could lead to a self-fulfilling debt crisis (Obstfeld, 2012).

7. Due to the preferential treatment of sovereign debt in many regulatory frameworks, banks are typically among the most important investors in government debt. Even though sovereign debt is not risk-free, many regulators treat it as such:

- In the Basel-framework, sovereign debt with a credit-rating of AA- or higher, carries a zero-risk weight under the Standardized Approach. This implies that banks do not need to hold any capital against holdings of such securities. WAEMU-regulation, by contrast, applies a zero-risk weight to *all* government securities, irrespective of their rating. WAEMU-debt typically has a rating around the “highly speculative” B category, to which the Standardized Approach in the Basel Framework assigns a risk weight of 100 percent.⁵
- In addition, the current regulatory framework exempts sovereign debt from exposure requirements.⁶ Normally, these prevent banks from disbursing too much credit to a single entity, but current WAEMU-regulation only applies them to non-sovereign debt (at 25 percent of the bank’s Tier 1 capital).

⁴ See e.g. Fahri and Tirole (2015) and Brunnermeier et al. (2016).

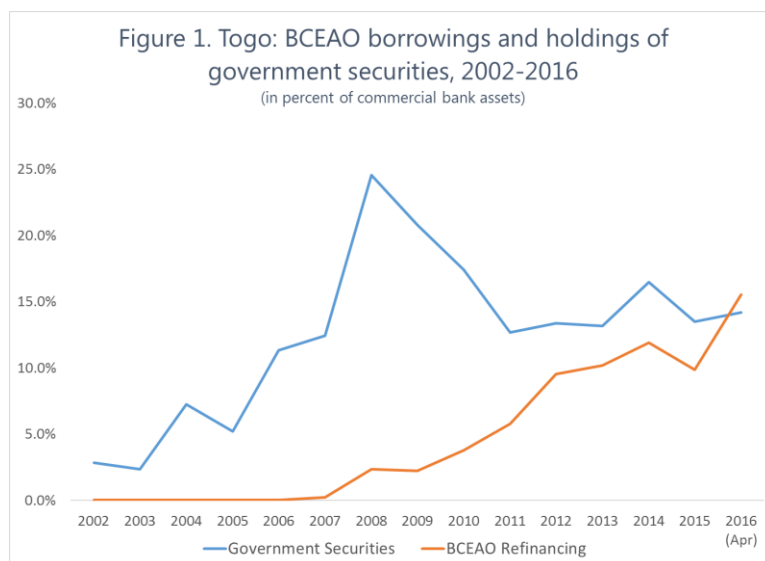
⁵ Note that a risk weight of 100 percent in the Basel-framework means that banks are required to hold the full 8 percent of capital against this underlying asset; a risk weight of 200 percent would imply that banks are required to hold 16 percent of capital, and so forth.

⁶ In this regard, the new regulation effective January 1, 2018 will enable the BCEAO to specify a ceiling.

C. Sovereign Risk in the Togolese Banking Sector

8. Togo's widening fiscal deficits have partly been financed by the Togolese banking sector until the government committed to abandon the practice of prefinancing in late 2016 (Figure 1). Commercial banks

increased their holdings of government securities from about 5 percent of total assets in 2005 to nearly 15 percent of total assets in 2016. This amounts to 12 times the value of bank capital which implies that an 8 percent haircut on these claims would wipe out all capital that is currently present in the Togolese banking system. This leaves the Togolese banking sector with increased exposure to domestic sovereign risk. As public debt approaches unsustainable levels, the banking sector not only suffers from a deterioration in its asset portfolio, but



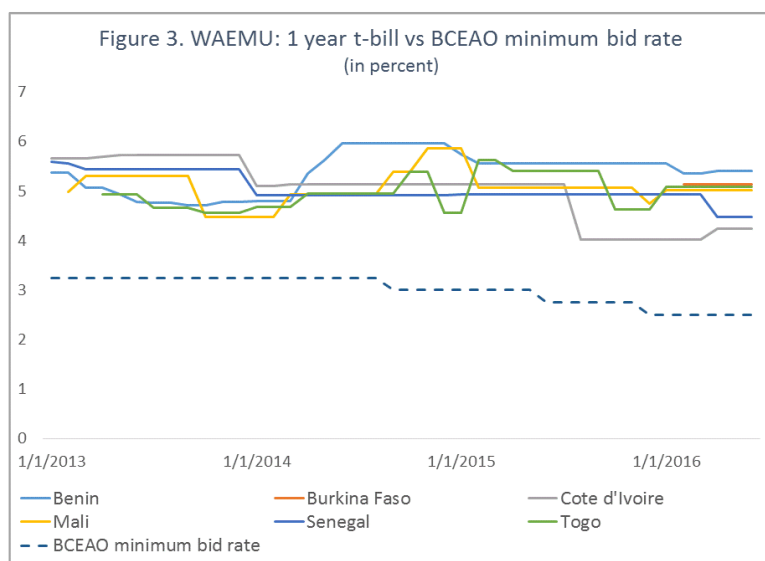
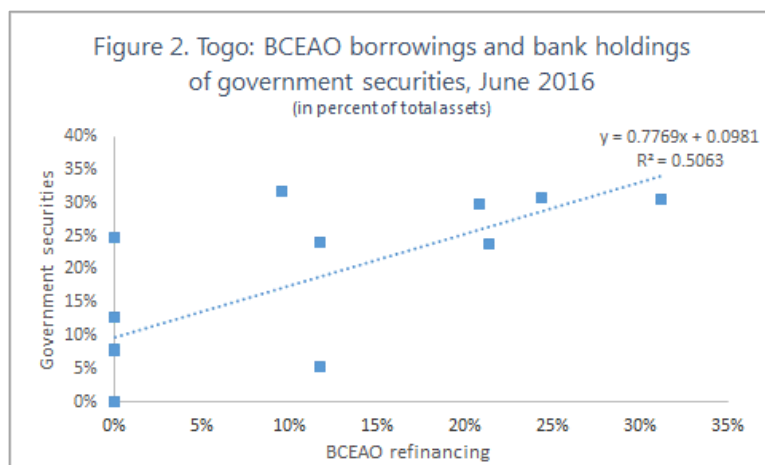
also from the fact that a government rescue package becomes less feasible. This puts pressure on the funding costs for the banking sector, which in turn increases the odds of a bailout becoming necessary – putting further strain on public finances. The current regulatory framework does not account for this risk.

9. Most of the banking sector's government securities (96.5 percent) are claims on WAEMU-countries (Table 1). Within this group, Togolese banks show a significant home bias as they mainly hold claims on the Togolese government (i.e, nearly 40 percent). This leaves the Togolese banking sector exposed to Togolese sovereign risk, thereby deepening the sovereign-bank nexus. Other significant claims are held vis-à-vis the governments of Côte d'Ivoire, Benin, and Senegal. Non-WAEMU sovereign bond holdings account for a minor portfolio weight of 3.5 percent. Increasing this weight would be welcome from a risk-diversification perspective.

	Weight in portfolio
Benin	12.6%
Burkina Faso	5.2%
Côte d'Ivoire	23.4%
Guinea-Bissau	0.0%
Mali	2.6%
Non-WAEMU	3.5%
Niger	3.0%
Senegal	10.8%
Togo	38.9%

10. In addition, the Togolese banking sector has been exposed to domestic sovereign risk through the practice of prefinancing. This implies that a private company that is hired to execute public works is paid upfront through a loan from one or more domestic commercial banks. This loan is simultaneously taken over by the Togolese Finance Ministry, which is then responsible for paying off both principle and interest. Despite the fact that the entire liability of the loan lies with the central government, prefinanced loans have until recently not been included in public debt statistics and do not feature in the data underlying Figures 1 and 2 (end-2016, the stock of prefinanced debt amounted to 7 percent of GDP).

11. To finance their larger holdings of government debt, Togolese banks have increased their reliance on refinancing provided by the BCEAO. This is apparent from both aggregate as well as bank-level data. The aggregate data (Figure 1) show that the usage of BCEAO refinancing and holdings of government securities have risen together; bank-level data from June 2016 (Figure 2) show that banks with higher holdings of government securities also tend to rely more heavily on BCEAO refinancing. Hereby, commercial banks are now engaged in a practice of borrowing money from one government entity (the central bank), to lend it to another government entity (the treasury) – while benefiting from the interest rate spread (Figure 3). This practice is observed at the WAEMU level as well (IMF, 2015).



12. Investors do not seem to distinguish between debt claims on various WAEMU countries (Figure 3).⁷

Even though individual countries' fiscal positions differ (Table 2), T-bill rates typically do not reflect these differences and lie close to one-another (rates typically stand within 100 basis points and do not correlate much with debt

⁷ By borrowing money from the BCEAO at the minimum bid rate and lending it to the government (paying a higher rate; cf. Figure 3), banks profit from the positive interest-rate differential for all countries.

(continued)

ratings).⁸ Correlating the debt-to-GDP ratio or debt-service-to-GDP ratio with one-year T-bill rates gives correlation coefficients of only 0.09 and 0.17, respectively. Such convergence of T-bill rates also occurred in the euro area during the late 1990s—possibly some would claim on the expectation that troubled member states would be rescued (Obstfeld, 2012). But when this premise was challenged during the euro area sovereign debt crisis, the market value of peripheral debt fell rapidly while spreads went up – activating the “doom loop”.

Table 2. WAEMU: sovereign debt ratings and t-bill rates						
	DSA-rating 1/	debt/gdp 2/	Fitch	Moody's	S&P	t-bill rate 3/
Benin	Low	37.5%			B	5.4%
Burkina Faso	Moderate	31.0%			B-	5.1%
Cote d'Ivoire	Moderate	34.6%	B+	Ba3		4.2%
Guinea-Bissau	Moderate	57.7%				
Mali	Moderate					5.0%
Niger	Moderate	43.5%				
Senegal	Low	56.8%		B1	B+	4.5%
Togo	Moderate	61.9%				5.1%

1/ Indicates “risk of external debt distress”
2/ For the year 2015
3/ Twelve month auction average on June 30, 2016

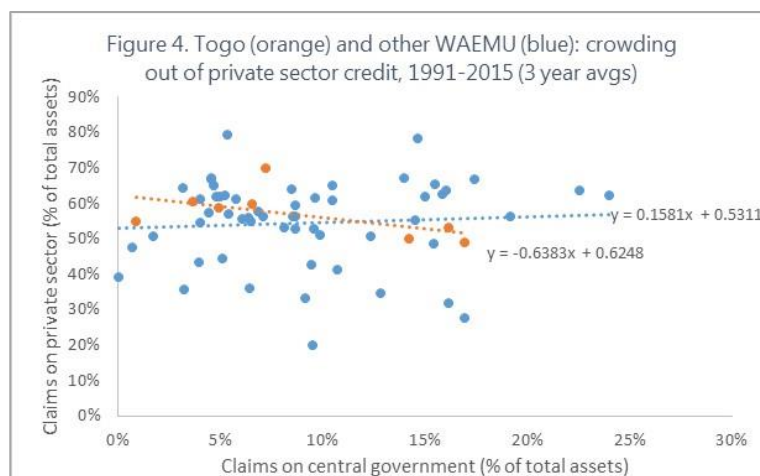
13. A situation in which government deficits are indirectly financed by central bank lending, brings about several risks.

- First, it loads sovereign debt on bank balance sheets – thereby exposing both the sovereign and the banking sector to the aforementioned “doom loop” between fiscal and banking stability.
- Second, given the similarity of this practice to *direct* monetization of deficits, it may yield inflationary pressures if left unchecked.⁹
- Third, a situation in which government borrowing is indirectly financed by short-term BCEAO credit exposes both the government and banks to liquidity risk (IMF, 2015). In particular, a monetary policy tightening could leave the government with a financing gap, while such a tightening could also leave banks with difficulties to finance their holdings of longer-term government securities.
- Fourth, heavy reliance of the government on the banking sector may crowd out private lending.

⁸ Togo is not rated by any of the rating agencies, but it has the highest debt-to-GDP ratio in the WAEMU. The DSA indicates that it is at moderate risk of external debt distress, with heightened overall risk of debt distress.

⁹ Here, it should be noted that this risk seems fairly limited in case of Togo: a significant share of public spending has been directed towards infrastructure investment, which raises potential output (thereby reducing the risk of inflation occurring).

14. Togolese raw data are consistent with the crowding-out hypothesis (Figure 4). Although there is no negative association between claims on the central government and credit to the private sector in other WAEMU countries, such a relationship is present in Togo.¹⁰ While a more thorough analysis is needed to establish whether lending to the government is indeed crowding out private sector borrowing, preliminary evidence suggests that this is something to be wary of.



D. Policy options

15. In recent years, Togo has increased its reliance on the domestic banking sector in financing its widening budget deficits. This exposes the Togolese economy to risks, including inflation, a deterioration in liquidity, crowding-out of private borrowing, and a negative feedback loop between the (perceived) creditworthiness of the sovereign and the banks.

16. The following policy options could mitigate these risks:

- *Reduce fiscal deficits.* Since the current situation is ultimately fueled by elevated government deficits, fiscal consolidation should be considered, particularly given the fact that the Togolese government debt-to-GDP ratio stood at 80.8 percent in 2016, the highest ratio in the WAEMU-area.
- *Increase attention to possible “doom loops”.* Their occurrence and/or impact can, for example, be mitigated by raising banks’ capital requirements or by imposing limits on their holdings of domestic sovereign debt (Brunnermeier et al., 2016).¹¹ One option that captures both elements in a single measure, is to cap holdings of domestic sovereign debt relative to bank capital. In addition, authorities may want to re-evaluate the risk-weighting procedure applied to sovereign debt. Current regulation assigns a zero-risk weight to government securities irrespective of their rating, which might lead to a lack of market discipline and an

¹⁰ The same finding arises if we limit the analysis to the post-2005 sample (which excludes the preceding crisis period): in that case, the regression line for Togo is given by $y = -0.7941x + 0.6293$.

¹¹ Here, “domestic” should be interpreted as all countries that would be providing financial support to a possible bank-bailout. The “doom loop” after all originates from the fact that a looming bailout has a negative impact on bond valuations of all countries that would be burdened with the bailout.

(continued)

overaccumulation of these assets on bank-balance sheets.¹² To limit commercial bank exposure to a single sovereign, authorities may also want to consider broadening the applicability of exposure limits.

17. Given that the actions suggested under the second bullet are primarily the domain of the BCEAO, fiscal consolidation is the main mitigation strategy for Togo in the short run. In this light, the authorities' policies under the Fund-supported program are expected to mitigate these risks. The authorities are committed to reduce the overall fiscal deficit substantially and resolve the existing financial sector weaknesses, especially in the two public banks.

¹² The Standardized Approach of the Basel Framework assigns a risk weight of 100 percent to sovereign debt that carries a B-rating; S&P Global Ratings Risk Weights for Government Exposures assigns a risk weight of 146 percent to such debt (S&P, 2016). For debt rated AA- or above (which currently carries a zero-risk weight under the Standardized Approach of the Basel Framework), S&P suggests a weight of 3 percent.

References

- Brunnermeier, Markus K., Luis Garicano, Lane Philip R., Marco Pagano, Ricardo Reis, Tanos Santos, Stijn Van Nieuwerburgh, and Dimitri Vayanos (2016), "The Sovereign-Bank Diabolic Loop and ESBies", *American Economic Review*, forthcoming.
- De Grauwe, Paul (2012), "The Governance of a Fragile Eurozone", *Australian Economic Review*, 45, pp. 255-268.
- Fahri, Emmanuel and Jean Tirole (2015), "Deadly Embrace: Sovereign and Financial Balance Sheets Doom Loops", Mimeo, Harvard University.
- IMF (2015), "Developments in Central Bank Liquidity Provision: A Harbinger of Wider Macrofinancial Risks in the WAEMU?", IMF Country Report No. 15/101, pp. 15-21.
- Obstfeld, Maurice (2012), "Finance at Center Stage: Some Lessons of the Euro Crisis", European Commission Economic Papers No. 493.
- S&P (2016), "Undoing The Doom Loop: A Look at The Links Between European Banks And Sovereign Debt".