



REPUBLIC OF CONGO

SELECTED ISSUES

July 2024

This paper on the Republic of Congo was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the Republic of Congo. It is based on the information available at the time it was completed on June 24, 2024.

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>

International Monetary Fund
Washington, D.C.



REPUBLIC OF CONGO

June 24, 2024

SELECTED ISSUES

Approved By
African Department

Prepared By Hasnae El Idrissi, Frank Hespeler, Mahamoud Islam, Roland K. Kpodar, Nicolas Million (all African Department), Barry Maher, Youssouf Kiendrebeogo (both Fiscal Affairs Department), and Irineu E. de Carvalho Filho (Strategy, Policy, and Review Department).

CONTENTS

THE MACROECONOMIC IMPACTS OF GOVERNMENT DOMESTIC ARREARS IN THE REPUBLIC OF CONGO	5
A. Why Are Public Payments Delays a Concern in The Republic of Congo?	5
B. What Has Been Done So Far and Did It Work?	8
C. What Can Be Done Next?	9
References	11
FIGURES	
1. Public Debt	5
2. Congo Total Public Debt Compared to Peers	6
3. Change in the Stock of Domestic Arrears and Drivers	6
4. 12 Month Treasury Bill Rate	7
5. Bond Issuance Composition	7
6. NPL Ratio(Percent)	8
7. Real Non-Oil GDP and Public Demand Impulse(Percent)	8
BOOSTING TAX REVENUE IN THE REPUBLIC OF CONGO	12
A. Context: Improving but Still Highly Volatile Tax Revenue	12
B. Estimating The Tax Gap	15
C. Conclusion and Policy Recommendations	17
References	22
ANNEX	
I. Tax Potential and Tax Effort Estimates using Stochastic	19

FIGURES

1. Tax Revenue In The Republic Of Congo(Percent of GDP) _____	13
2. Composition of tax revenue in Republic of Congo _____	14
3. Deterministic frontier using Data Envelopment Analysis _____	16

TABLES

1. SFA Of Tax Efficiency and Its Determinants Using Net Total Tax Revenue _____	20
2: Congo’s Tax Efficiency Scores Using The SFA _____	21

STOCK-TAKING OF FUEL SUBSIDIES IN CONGO, LESSONS LEARNED FROM THE 2023

REFORM, AND WAY FORWARD _____	23
A. Fuel Market Structure and Size _____	23
B. Fuel Prices in Congo and the Very High Supply Cost _____	25
C. The Challenge of an Excessively High Fuel Supply Cost _____	28
D. Estimating the Size of Fuel Subsidies _____	29
E. Lessons From The 2023 Subsidy Reform _____	33
F. Conclusions and Policy Recommendations _____	35
References _____	39

ANNEX

I. Mitigation measures amid fuel subsidies reform _____	37
---	----

TABLE

1. Mapping the 2023 Fuel Subsidy Reform to Elements of Successful Reform _____	34
--	----

FIGURES

1. Fuel Consumption and its Composition, 2003–23 _____	25
2. Fuel Prices in Sub-Saharan Africa (\$US per liter) _____	26
3. Retail Fuel Price Deviation from Full Pass-Through Price _____	27
4. Fuel Price Structure in CEMAC* _____	27
5. Benchmarking Congo’s Petroleum Import Cost _____	29
6. Cash Flow Accounting of Fuel Subsidies, 2015–23 _____	30
7. Breakdown of Fuel Subsidies by Product and Nature, 2015–23 _____	31
8. Fiscal Gains from Subsidy Reform and illustrative Scenarios, 2020–29 _____	32
9. Consumer and Producer Subsidies, 2015–23 _____	32

A CLOSER LOOK AT THE CONGO’S DIVERSIFICATION STRATEGY¹ _____

A. Introduction: Why the Focus on Diversification in Congo? _____	40
B. Where Does Congo Stand on Diversification? _____	42
C. What are the Main Obstacles to Diversification in the Republic of Congo? _____	42

D. Policy Advice	43
References	45

FIGURES

1. Oil Output (Millions of Barrels Per Year)	40
2. Congo: Progress in Export Diversification	41
3. Logistics Performance	42
4. Sub-Saharan Africa: Public Debt	43
5. Sub-Saharan Africa, Import Tariffs (2022, Percent)	44

FINANCIAL INCLUSION IN CONGO: AN UNFINISHED AGENDA 46

A. Financial inclusion in Congo: Stocktaking	46
B. Unlocking economic potential: the benefits of financial inclusion	51
C. Policy Recommendations	52
References	55

FIGURES

1. Credit to Private Sector	46
2. Account Ownership	47
3. Demographic Patterns of Account Ownership	48
4. Financial Infrastructure Trends	49
5. Mapping Financial Inclusion: Barriers, Practices, And Use Of Account	50
6. Benchmarking SMEs Banking Activity	51
7. Financial Access and GDP Per Capita, 2021	52

CLIMATE CHANGE AND ADAPTATION NEEDS 56

A. Climate Change Related Natural Disasters and Adaptation Investment	56
B. Policy Options for Developing Climate Change Resilience Through Adaptation Investments	58
C. Climate Change Related Natural Disasters, Adaptation Investment, and Inequality	59
References	64

FIGURES

1. Climate Change Related Natural Disasters	56
2: Debt and Welfare Impacts of future Natural Disasters	57
3: Debt and Welfare Impacts of Concurrent Natural Disasters	58
4: Climate Change Induced Productivity Shocks, GDP, Food Supply, and Inequality	61
5: Adaptation Investments, Climate Change and the Impact on GDP and Inequality	62
6 : Funding Sources for Adaptation Investments	63

FLOOD EVENTS OF 2023–2024	65
A. The Republic of Congo Is Vulnerable to Climate Shocks.	65
B. The Recent Seasonal Rainy Season Led to Historic Flood.	66
C. Policy Implications	67
D. Recommendations	67

BOX

1. Malawi Mobilizes Grant Funds Building On Their National DRF Strategy	68
---	----

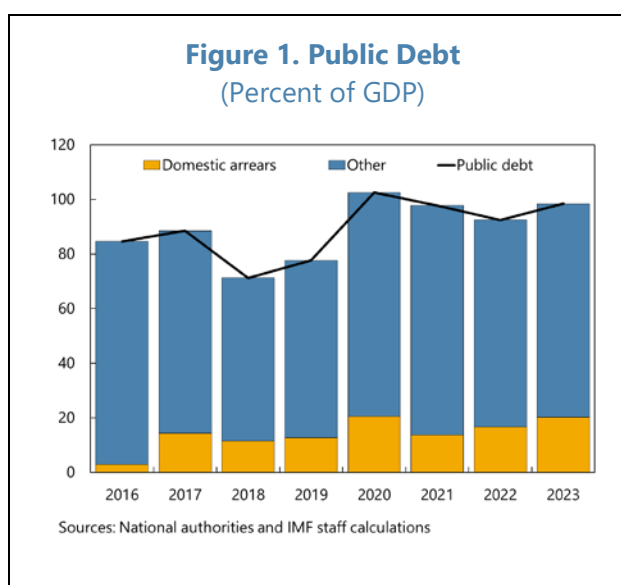
FIGURES

1. Impact of Climate and Health Shocks in Congo	65
2. Population Flood Impact	66

THE MACROECONOMIC IMPACTS OF GOVERNMENT DOMESTIC ARREARS IN THE REPUBLIC OF CONGO¹

Government domestic arrears in Congo are substantial, accounting for a fifth of the country's GDP in 2023. They have wide ranging impacts on the economy, including through higher debt vulnerabilities, reduced access to financing, and lower economic activity. Against this backdrop, authorities have intensified mitigating efforts including improving fiscal space to accelerate repayment, improving debt transparency to allow for rapid recognition of arrears, and launching major reforms (restructuring of the debt management office, e.g.) to improve prevention. Looking ahead, maintaining the pace of reform will be crucial. Priorities include further strengthening of fiscal buffers to ensure timely repayment, enhance debt coverage and transparency reforms to allow a holistic view of public debt, accelerating debt and PFM reforms to allow better management and control.

1. Public domestic arrears in Congo are sizeable, pervasive, and persistent. They account for a fifth of GDP or about one-fifth of the total public debt in 2023, with an average of 15 percent of GDP over the period 2018–22. 2/3 of these arrears are commercial arrears mainly due to unpaid bills to suppliers and 1/3 are social arrears. Considering the size of the government in the economy, arrears of this magnitude have a detrimental effect on the private sector, discourage tax compliance, and undermine efforts to improve governance. This paper aims to investigate the far-reaching impact of these payment delays on the Congolese economy and provide policy recommendations for mitigation. It will be organized in three sections. Why are public payment delays a problem in the Republic of Congo and how did they hurt the economy? What has been done to prevent them? And what can be done to address this issue effectively?



A. Why Are Public Payments Delays a Concern in The Republic of Congo?

2. Public payment arrears arise when the government fails to meet its obligatory payment obligations by the due date. This creates a revenue shortfall for the intended recipients (direct impact), often businesses or individuals, disrupting their cash flow and impacting their ability to meet their own financial commitments to their own creditors (indirect impact). As a major

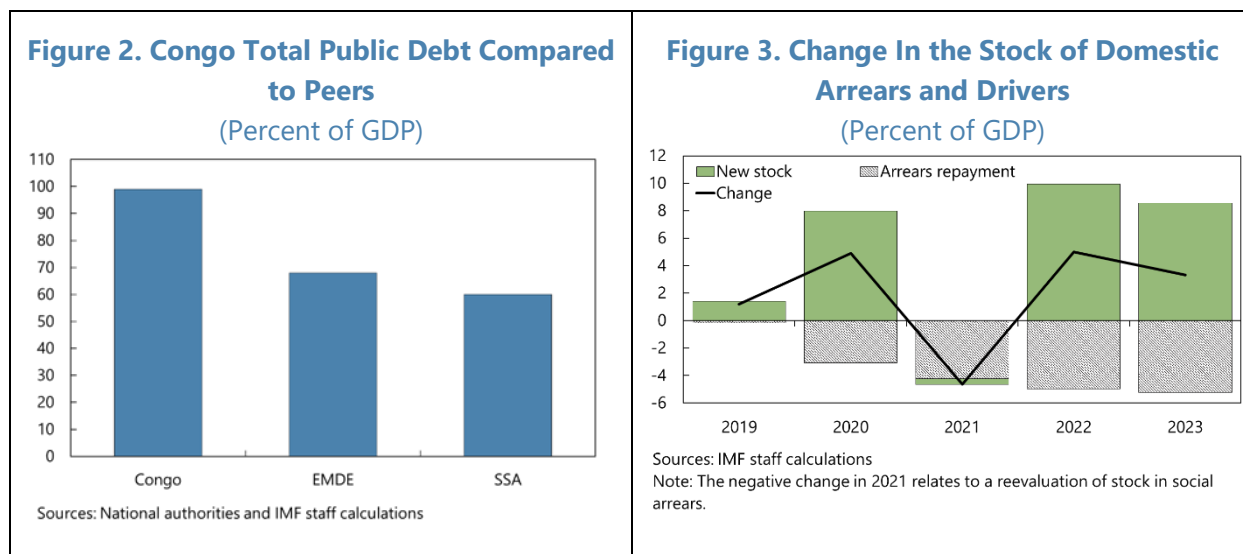
¹ Drafted by Mahamoud Islam (AFR), benefitting from comments from Matthieu Sarda (FAD) and Frank Hespeler (AFR)

economic actor, the government's delayed payments can have significant ripple effects on the broader economy. Potential consequences of public arrears include:

- *Reduced aggregate demand:* When creditors experience revenue shortfalls due to delayed payments, their demand for goods and services can decline, dampening overall economic activity.
- *Deterioration of financial stability:* Public arrears can strain the financial sector if creditors, such as banks or non-financial private sector, are unable to recoup their dues from the government. This can lead to a deterioration in banks' asset quality and potentially trigger financial instability.
- *Erosion of trust:* Repeated instances of public payment delays can erode trust in the government, both domestically and internationally. This can lead to higher borrowing costs due to increased risk perception by lenders and potentially reduced access to external financing. It can also lead to increased cost of transactions as government contractors or suppliers internalize the risk that they will not be paid in time.

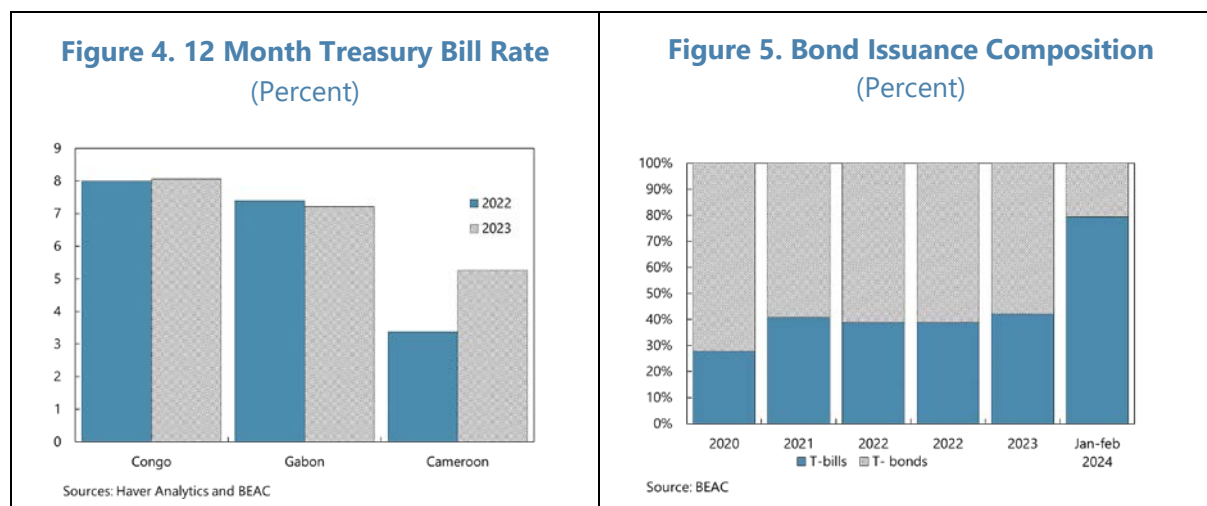
3. Specifically, in the Republic of Congo, the impacts of public domestic arrears include the following:

- **Channel #1: higher government debt burden and liquidity constraint.** Public debt in Congo is high—much higher than peers in emerging and developing economies or in Sub-Saharan Africa (Figure 2)—and a major driver behind this elevated debt level has been the substantial increasing stock of domestic arrears (Figure 1). Liquidity constraints are elevated due to significant debt service obligations, which include considerable arrears repayments in addition to already substantial debt repayment commitments (related to T-bills and bonds). For instance, domestic arrears repayment accounted for about a fifth of revenues in 2023, 4 percentage points above its level in 2022.



This unfavorable situation is compounded by frequent upward revisions to debt figures, undermining debt trajectory predictability. Figure 3 highlights the tremendous efforts made by the authorities but undermined by the recognition of new debt stocks after audits².

- Channel #2: more difficult financing conditions.** A high debt burden typically leads to increased borrowing costs, as financial institutions become apprehensive about the debtor's ability to repay. In the case of arrears, this impact is further intensified. Arrears accumulation reflects poor payment behavior, signaling both a weak debt repayment capacity—often due to liquidity constraints—and a debtor's unwillingness to pay. In Congo, both concerns are prevalent, as the country has struggled to demonstrate discipline in repaying its arrears, even during periods of increasing government revenues (such as during oil price increases). This situation contributes to a negative credit risk perception, leading suppliers to adjust prices higher to account for higher risk of non-payment. It also contributes to the increase of funding costs (Figure 4) and reduced access to financing. Figure 5, for instance, shows that Congo's domestic funding mix has been progressively shifting towards short term funding in the recent years. Unfavorable credit risk perception due to a high level of domestic arrears could heightened this trend.



- Channel #3: impaired balanced sheets.**

Creditors' balance sheets have been affected through a loss of revenues and difficulties to repay their own debts³. This situation has resulted in a deterioration of banks' asset quality (Figure 6), exacerbated by the oil price shock of 2014-16 and the COVID-19 pandemic. However, there has been improvement, particularly since the program began, as authorities have accelerated arrears repayment.

Channel #4: lower economic performance due to constraints on both consumption and investment. Public demand, including consumer spending and government expenditure, plays a major role in driving the Congolese economy (Figure 7). As such payment delays have a detrimental effect on economic activity. Firstly, creditors' demand is impacted due to revenues shortfall. This is

² Debt dynamic in Congo is affected by two factors: the recognition of new arrears after audits that increase stocks and the repayments that decrease it.

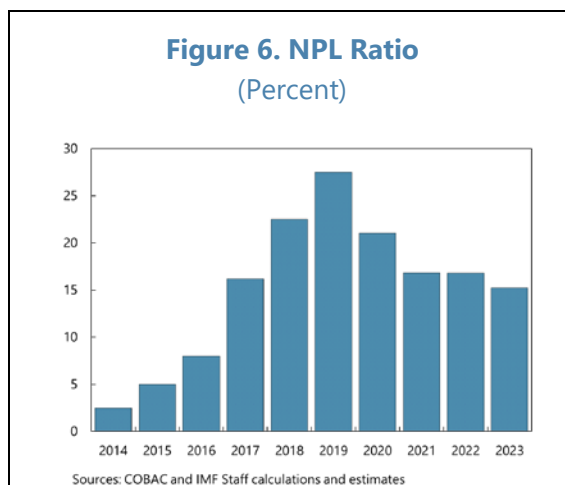
³ This includes liabilities to the government itself such as taxes.

especially true for government suppliers and contractors, which have not been able to collect payment and thus had to restrain their spending. For example, private companies operating and/or providing infrastructures have reported in multiple instances the occurrence of payment arrears. Another channel relates to the foregone investment spending due to due to high debt repayment. For instance, in 2022, domestic arrears repayment alone amounted 5 percent of GDP. This figure is about 1.3 percentage point GDP higher than government domestic investment, at that time, which holds significant transformational potential.

B. What Has Been Done So Far and Did It Work?

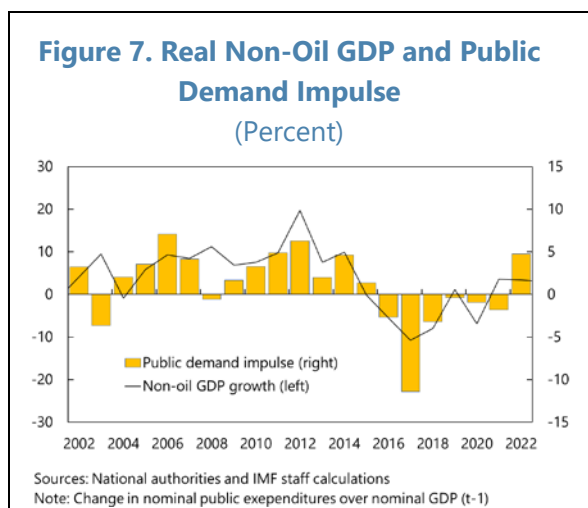
4. Congolese arrears accumulation stem from multiple sources including a fragile fiscal position undermining the country’s ability to pay,

weak fiscal and debt reporting practices creating uncertainty about the size of the debt stock, poor budgeting, weak commitment controls, and poor cash, debt, and financial management. Since inception, the current ECF program has aimed to address these issues. Authorities’ efforts were particularly important in (i) building fiscal buffers, (ii) improving debt reporting with the recognition and verification of longstanding arrears, and (iii) enhancing debt management including through the acceleration of arrears repayment.



5. The fiscal position has improved under the ECF program which has provided space for arrears repayment.

Public debt has decreased from 102.5 percent of GDP from 2020 to 99 percent of GDP in 2023 despite multiple additions to the stock of arrears. The overall balance has improved from -1.1 percent of GDP to 5.8 percent over the same period. Non-hydrocarbon revenues have expanded significantly (from 8.6 percent to 10.2 percent), and current spending has been kept in check.



6. Authorities have made significant progress in recognizing domestic arrears,

with in particular 18 percent of 2023 GDP of domestic arrears identified between 2020 and 2023. The audit of commercial arrears up to 2020 has been completed, and issues regarding litigated arrears have been resolved. Authorities also made good progress on social arrears, but this has been undermined by the materialization of contingent liabilities relating to arrears contracted by public agencies, such as pension funds, initially not included in the arrears under verification.

7. Repayment efforts have accelerated but have failed in reducing arrears stock due to the inclusion of new stock of arrears. Authorities have made substantial arrears repayments—14 percent of 2023 GDP paid between 2020 and 2023—by using securitizations (Club de Brazzaville, e.g.) and allocating large resources in their budget. Yet, the stock of domestic arrears has barely decreased between 2020 and 2023 (only roughly by -0.4 percentage point of GDP⁴) because of the inclusion of new arrears after audits. Authorities have unveiled a repayment strategy extending until the early 2030s, but its credibility and effectiveness are challenged by the non-exhaustivity of the stock of arrears included (timewise as 2021–2023 arrears are not included, and in terms of coverage as it concerns mainly the central government⁵).

8. While these progresses are commendable, they are undermined by a substantial backlog of arrears awaiting audit and contingent liabilities, a lack of effective measures to prevent them and a poor track record in implementing sustainable clearance plans.

Arrears from 2021 to 2023 are still being audited (with a preliminary estimate of 2 percent of GDP). Contingent liabilities are difficult to quantify as there is limited visibility on debts contracted by non-central government public entities. Recent instances, such as the inclusion of CFAF 269 billion CFAF of debt related to the pension fund or CFAF 360 billion of litigated debt, call for caution and immediate action to improving debt coverage and transparency. In addition, measures to prevent arrears effectively, on matters of PFM or debt management for instance, have not been fully implemented yet. Finally, Congo still needs to establish a track record of successfully implementing sustainable arrears clearance plans. The country has previously adopted various strategies for arrears clearance that have not yielded success. In fact, at the outset of the current ECF program, the stock of arrears included those dating as far back as 2003.

C. What Can Be Done Next?

9. Priorities Are as Follows:

- **Public financial management:** PFM reforms must continue especially on matters of budget formulation and execution, controls, TSA's implementation and active cash management, and improvement of the financial management system. In that respect, the implementation of a new Financial Management Information System (SIGFIP) is supposed to act as a game changer by promoting more transparent application of public expenditure commitment and better control of public revenues. It would also be key to accelerate TSA's related reforms as envisioned in the ECF program, enhance the reliability of tools for better anticipating the evolution of cash balance (cash forecasting and plan), build an interface between banking communication tools (Sygma/Systac) and customs, tax applications (as well as SIGFIP) to best reconcile operations (cash reconciliation).
- **Fiscal buffers:** efforts to consolidate the fiscal position should be maintained to create space for arrears repayment and prevent financial difficulties leading to arrears. Part of this fiscal space could then be automatically allocated to the repayment of arrears. For example, under the current baseline,

⁴ Note that the measure is distorted by the change in nominal GDP which acts as a denominator. Using 2023 GDP as a base, the stock of domestic arrears has increased by about 4 percentage points of GDP between 2020 and 2023.

⁵ Arrears contracted by public entities such as hospitals or universities are not included in audit and not reported.

in order to clean the existing stock by early 2030—as envisioned in the current clearance strategy—the authorities should allocate at least 2 percent of GDP of their budget to the repayment of arrears.

- **Fiscal and debt reporting:** the stocktaking of arrears should comprise all arrears of the entire public sector to have full understanding of public sector liabilities. This would address the current uncertainty about the size of arrears and inform a more credible repayment plan. Reporting mechanisms should be enhanced, to provide regular updates and avoid continued uncertainty about the size of arrears. The publication of a comprehensive debt report including arrears comprising the central government and the 10 largest SOEs as recommended under the program is a first step. Other critical actions include the implementation of infra-annual monitoring of arrears at the central government level, before extending it to the overall public sector, to obtain a timely view of the arrears situation. Additionally, raising awareness among the officials of the Ministry of Finance about the urgency of promptly recognizing arrears is essential.
- **Debt management:** the effective implementation of the restructuring of the debt management office and related reforms especially the hiring of staff and their training to improve capacity and the operation of a new procedure manual will be crucial to enhance the effectiveness of the debt management office (Structural benchmark under the ECF arrangement). This reform is supposed to help avoid arrears through improving reporting and ensuring timely repayment. Further coordination for debt management would also be critical. That could include the creation of a committee dedicated to the repayment of domestic arrears involving all relevant departments in the ministry of finance (Budget directorate, Treasury, Debt management office, e.g.) and the representatives of state entities (public companies, government agencies).

References

IMF (2023), "Methods of arrears prevention – Technical assistance report". Washington, D.C.

IMF (2022), "Fourth review under the extended credit facility (CR 24/2)". Washington, D.C.

IMF (2022), "Request for a three-year arrangement under the extended credit facility (CR 22/49)". Washington, D.C.

IMF (2001), "Government Finance Manual 20021". Washington, D.C.

IMF (2014), "Technical Notes and Manuals Prevention and Management of Government Expenditure Arrears". Washington, D.C.

BOOSTING TAX REVENUE IN THE REPUBLIC OF CONGO¹

Non-oil revenue has historically been highly volatile in the Republic of Congo, giving rise to increased fiscal uncertainty. With the projected decline in oil revenue over the medium term, compounded by the global move toward greener energies, maintaining tax revenue on an upward trend is crucial for financing ever-increasing investment needs in physical and human capital while preserving debt sustainability. This Selected Issues Paper (SIP) tries to address two main questions: (i) how much additional tax revenue Congo can plausibly raise under unchanged policies and given its economic and institutional structures? (ii) Are there economic, fiscal, and institutional reforms whose implementation can bring the country closer to the tax collection frontier? The paper finds that tax expenditures remain widespread and costly, with the tax gap estimated at 69 percent.

A. Context: Improving but Still Highly Volatile Tax Revenue

1. The Republic of Congo has recently made some progress in tax revenue collection, but significant gaps remain. With oil production and prices projected to drop over the medium term, mobilizing domestic nonoil revenue has become of critical importance to preserve debt sustainability. Tax effort has improved to keep the tax-to-GDP ratio on an upward trend since the early 2000s, increasing by about 4.4 ppts to 9.2 percent in 2023 (Figure 1). However, the country's tax ratio remains below the average for peer countries in CEMAC (11.3 percent) and SSA (11.0 percent).² Tax revenue is projected to continue improving over the medium term but will remain below the regional averages.

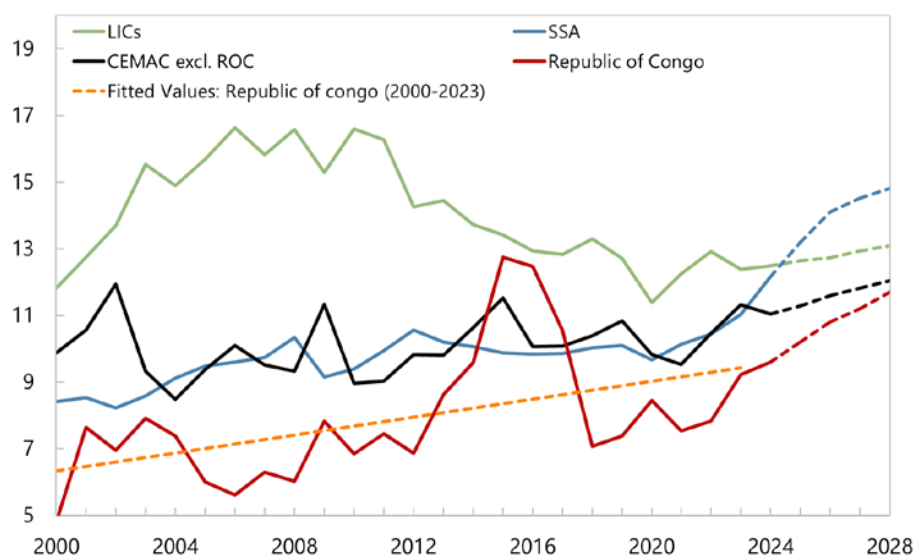
2. Revenue performance has been fragile and vulnerable to shocks such as the 2015 oil price collapse and the pandemic. Since 2000, the tax ratio has been highly volatile with a standard deviation of 2 ppts around its mean over 2000–23. In comparison, the average tax-to-GDP ratio in SSA has been relatively stable over the same period. The 2014–15 oil price collapse was particularly harmful. After reaching a peak of 12.7 percent in 2015, the non-oil tax ratio fell sharply to 7.3 percent in 2019, driven by shortfalls in income tax and VAT collection. Hence, developments in the oil sector can have implications for non-oil activity—notably through public spending, which in turn drives non-oil tax revenue. Further, the pandemic has led to a significant slump in tax revenue, reflecting a slowdown in economic activity and disruptions in tax and customs administration. Income-based taxes were particularly affected during COVID-19, with the government introducing a 2ppts CIT rate

¹ Prepared by Youssouf Kiendrebeogo

² Those tax ratios are all below the tipping point of 13 percent that can significantly boost growth and economic development (Gaspar et al. 2016). CEMAC stands for Central African Economic and Monetary Community (CEMAC), the regional Monetary Union. CEMAC member countries include Cameroon, Chad, the Central African Republic, the Republic of Congo, Equatorial Guinea, and Gabon. SSA stands for Sub-Saharan Africa.

cut to support the private sector’s productive capacity.³ Also, the global energy crisis and the war in Ukraine led to underperformance in tax collection as the government introduced exemptions under the Resilience Plan to mitigate the impact of the cost-of-living crisis on the population.⁴

Figure 1. Tax Revenue in The Republic of Congo
(Percent of GDP, GDP Weighted Averages)



Sources: WEO and author’s calculations.

Note: Tax revenue includes (i) taxes on income, profits & capital gains, (ii) taxes on goods & services, and (iii) taxes on international trade & transactions. Therefore, this is a lower bound estimate of tax revenue as it does not include the social security contributions (very minor in the case of Congo) and the residual “other taxes”. For each country group, the tax to GDP ratio is a GDP-weighted average.

3. Stronger tax capacity is needed to address key development challenges. Oil revenue continues to be a substantial share of government revenue helping the central budget achieve overall fiscal surpluses for years. But oil revenue has been declining and highly volatile, raising concerns about public finances’ resilience to terms of trade shocks. Also, the global green transition agenda serves as a reminder that mobilizing non-oil revenue is key to achieving long-term development goals. Boosting non-oil revenue is particularly crucial for creating the fiscal space to finance large needs to invest in physical and human capital.⁵ The 2022–26 National Development Plan envisages large financing needs to build a strong, diversified, and resilient economy. Building fiscal buffers is also key to strengthening resilience and policy response to future shocks such as

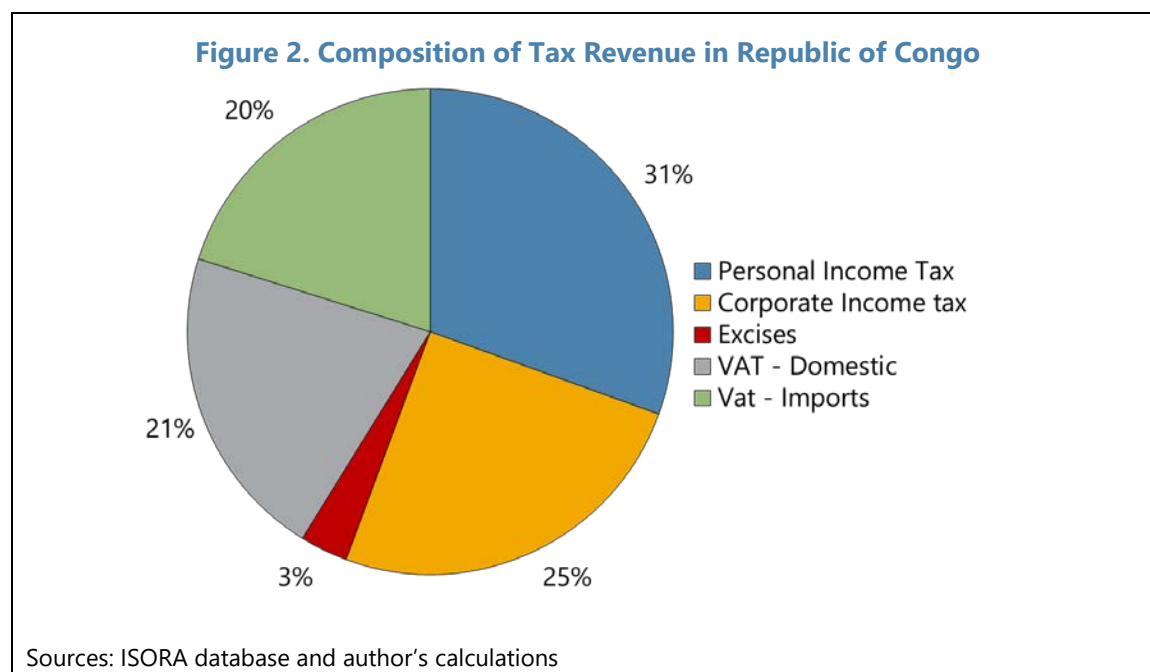
³ However, this tax incentive was neither well targeted nor temporary, as it has not been removed since the end of the pandemic.

⁴ The government has taken a decree to remove customs duty exemptions under the Resilience Plan in early 2023, but its implementation was only effective in the fourth quarter of 2023.

⁵ For instance, Gaspar et al. (2019) and Benedek et al. (2021) show how large are spending needs to achieve the SDGs by 2030.

pandemics, natural disasters, and food insecurity. Moreover, tax capacity and institutional quality reinforce each other. Strengthening tax capacity will contribute to improving the quality of state capacity and market-based institutions (Besley and Persson, 2013). A transparent tax system can help promote institutional and social trust, economic freedom, and governance.

4. Consumption and income-based taxes have recently played a central role in revenue growth but remain subject to widespread tax expenditures. The distribution of tax revenue is skewed toward direct taxes and VAT, with a relatively limited role played by custom duties.⁶ Personal income tax has the largest share (30 percent) in Congo's tax revenue, followed by corporate income tax (25 percent), and value-added tax (21 percent) (Figure 2). Many of the ups and downs of the tax ratio have been driven by income taxes and VAT performance. But consumption and income-based taxes are severely affected by long standing tax expenditures (See Vellutini et al. 2020). VAT and CIT account for the bulk of tax exemptions, with related forgone revenue estimated at 3.8 percent and 2.7 percent of GDP respectively. Forgone revenue associated with customs and fuel-related exemptions are also sizeable but relatively less important.



5. Past reforms to improve tax administration and policy have helped strengthen revenue but failed to streamline tax expenditures. With Technical Assistance from the IMF and other partners, the authorities have introduced structural reforms to improve tax and customs administration, notably since the 2010s. The reforms have primarily focused on modernizing the tax code, broadening the tax base, and improving the efficiency of tax administration (Baldini et al., 2020). Key tax administration measures included (i) an increase in excise rates, (ii) a new tax on car imports, and (iii) taxes on real estate transactions. There has also been a tendency to use tax

⁶ Taxes on international trade transactions are more reliant on CEMAC Directives. In particular, CEMAC has a Common External Tariff (CET) of around 30 percent on all non-CEMAC imports.

incentives to promote domestic investment and attract FDI. For instance, prior to the pandemic, the CIT was reduced by 8 ppts to 30 percent. Other tax incentives included exemptions for special economic zones and agricultural activity, and generous establishment conventions under the investment code. Basic commodities, notably staple foods, energy, and transportation are taxed at reduced rates or exempted. In addition, tax administration has been fragmented between (i) the tax departments at the Ministry of Finance, (ii) the National Commission on Investments (in charge of the investment code), and (iii) a separate agency in charge of the administration of special economic zones.

6. Reform momentum has recently improved. Since 2021, the government has introduced strong reforms to expand the tax base and streamline tax expenditures, including: (i) partial removal of exemptions from customs duties on certain food products under the resilience plan in October 2023; (ii) introduction of excise duties in accordance with CEMAC guidelines; (iii) application of the Unique Identification Number (NIU) to all commercial and financial transactions, which would allow the extension of the tax base to the informal sector, (iii) digitalization of tax procedures, notably through the introduction of the E-TAX (including e-filing, e-payment and e-invoicing) and the interconnection of the tax administration.⁷

7. But exemptions and reduced rates continue to erode revenue performance.

These reforms have improved direct tax administration, with higher-than-planned collections in 2023. However, the implementation of many of customs administration reforms is still slow, leading to shortfalls in customs revenue in 2023. For example, the scaling back of the custom duty exemptions under the Resilience Plan, planned to take place in early 2023, was only possible in the fourth quarter of the year. The removal of all VAT and customs duty exemptions under that plan can generate 3.4 ppts of GDP in additional tax revenue.

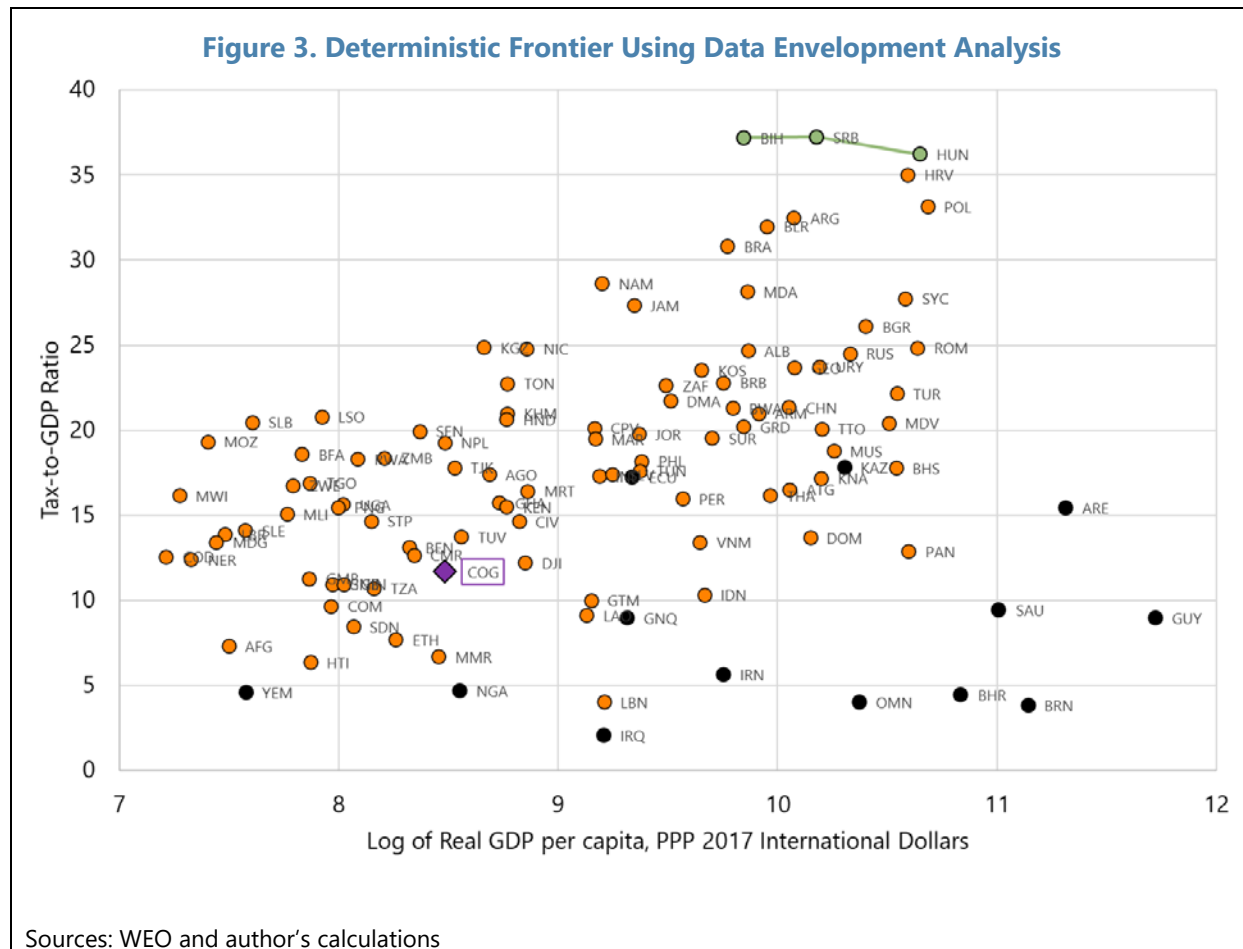
B. Estimating The Tax Gap

8. Congo's tax expenditures have given rise to substantial inefficiencies in tax administration, ultimately leading to widening collections gaps. Congo has one of the largest tax gaps given its level of per capita income. Estimates of efficiency scores for developing countries from a simple Data Envelopment Analysis (DEA) suggest that the country is well below the tax possibility frontier depicted by the green line in Figure 3.⁸ The frontier corresponds to an efficiency score of one and represents the maximum possible tax-to-GDP ratio a country can have given its income per capita level and under the assumption of unchanged policies. As can be seen from the figure, the tax efficiency score varies widely across countries, even within the same region, reflecting differences in tax effort, policy, and compliance. For instance, in the CEMAC region, the efficiency

⁷ While the pandemic took a heavy toll on tax collection it also highlighted the necessity of moving to digital taxation (Amaglobeli et al. 2023).

⁸ DEA is a nonparametric method of constructing an envelope around the observed data using linear combinations of the input-output bundles and assuming convexity of the production set. In this simple case, the input is represented by the log of real GDP per capita, and the output proxied by the tax-to-GDP ratio. The sample excludes advanced economies, most of which are members of the OECD.

score ranges from 0.25 in Equatorial Guinea to 0.40 in Cameroun. The Republic of Congo has an efficiency score of 0.36, suggesting a tax gap of about 67 percent. Such a gap implies that the country has room to raise 4.8 ppts of GDP in additional tax revenue given its economic and institutional structures and under the current policy mix.



9. Estimates from parametric stochastic frontier also confirm that there is substantial scope to improve tax capacity in Congo. As in the case of the deterministic DEA, estimates from a Stochastic Frontier Analysis (SFA) also show that given Congo’s economic and institutional structure and under current policies, additional tax revenue in the range of 3.7-6.1 ppts of GDP can be raised (See Annex for details).⁹ After breaking down tax revenue into subcomponents, we find that efficiency scores tend to be relatively higher for consumption and income-based taxation, especially in low-income countries. For the specific case of Congo, CIT has the highest efficiency score, followed by PIT, domestic VAT, VAT on imports and excises (Table 2).

⁹ The SFA differs from (and performs better than) the DEA mainly for two reasons. First, the DEA is a non-parametric whereas the SFA is a parametric approach. Second, while the DEA is deterministic, the SFA, by definition, allows for random shocks.

10. Better macroeconomic management and stronger structural and institutional reforms can help boost tax revenue further by 5.8-7.2 ppts of GDP. Consistent with Figure 3, the results indicate that countries with higher per capita incomes tend to have higher tax efficiency (Table 1). Efficiency scores increase with economic growth but only significantly when all regressors are included (Column 3). The ratio of primary fiscal balance to GDP is the only macroeconomic variable that is statistically associated with higher tax efficiency. Countries with higher degrees of income inequality typically have lower tax efficiency, underscoring the crucial role of progressivity in improving tax efficiency. The presence of an IMF program, a revenue-based fiscal rule, an MTRS and independent fiscal councils are all associated with higher efficiency scores. Institutional and government quality can also contribute to improving tax efficiency: institutional quality, government effectiveness and the rule of law are positively and statistically correlated with efficiency scores. In particular, Congo can raise 1.7-2.2 ppts of GDP in additional tax revenue, for instance, by bringing its ICRG institutional quality index to the average level of Emerging Markets Economies (EMEs). Similarly, bringing its WGI government effectiveness and Rule of Law scores to the same level as the average EME would boost its tax-to-GDP ratio by 3.1-3.6 ppts of GDP.

C. Conclusion and Policy Recommendations

11. This SIP analyzed the recent evolution of tax revenue in Congo taking stock of the reforms that have been implemented since 2010. We found that while past reforms have helped improve revenue performance, tax expenditures remain widespread and costly to the budget. The tax-to-GDP ratio has been highly volatile and, despite recent progress, is still below the average levels for SSA and CEMAC. The paper then studied the country's tax structure, efficiency and its key determinants using a cross-country application of the SFA. The results indicate that Congo has one of the lowest tax efficiency scores, reflecting both compliance and policy gaps. Empirical estimates pointed out key determinants of tax efficiency score including macroeconomic, fiscal, institutional and governance factors.

Tax Policies to Close The Compliance And Policy Gaps.

12. Given the importance of ad hoc tax exemptions, broadening the tax base would help close the compliance gap. Scaling back all VAT exemptions under the Resilience Plan would be one of the most important steps. Removal of customs duty exemptions under this plan in the fourth quarter of 2023 was expected to boost custom revenue by 1.3 ppts of GDP between 2023–24. Exemptions on imported basic foods and some inputs can be replaced by reduced rates of custom duties and VAT. Furthermore, customs duty exemptions can further be streamlined by applying the CEMAC's CET. Those exemptions are typically regressive in that they tend not to benefit the most vulnerable groups of the population. Many tax exemptions could be replaced with well-targeted transfers to the poor using for example the Unique Social Register (RSU).

13. The results show that excise taxes are among the least efficient tax items in Congo. Tax provisions to comply with the CEMAC directives on excises would be the first-best options to improve collection of excise taxes. At the same time, such reforms will also have positive externalities

on the economy, as they will change consumer behavior in a socially efficient way. This is particularly the case for excises on alcoholic beverages, tobacco products, and other unhealthy foods.

14. While income-based taxes are among the most efficient in Congo, there is room for improving their design in a progressive way. The results show that income inequality is bad for tax efficiency. Hence, more progressive PIT and CIT will not only contribute to improving income distribution but also help close the tax gap. Investment incentives to stimulate domestic investment and attract FDI can be ineffective and costly. The latest firm census (REGEC) by the National Institute for Statistics (INS) shows that the Congolese economy is dominated by small firms (98.2 percent), most of which being untaxed (46.9 percent).¹⁰ In such a context, simplified tax regimes for Small and Medium-Sized Enterprises (SMEs) are key to improving tax compliance and efficiency. Real property taxes could also be improved in a progressive way once appropriate cadaster and property valuation systems are in place.

Structural And Institutional Reforms to Boost Tax Capacity

15. The results also revealed that improving institutional quality and governance can help close the tax gap by boosting efficiency. Further, the empirical results suggest options for closing the tax policy gap, among which the most critical is the adoption of a Medium-Term Revenue Strategy (MTRS).¹¹ The MTRS is a comprehensive statement of the government's revenue mobilization objective, the tax instruments that should be deployed to achieve that objective, and the set of reforms envisaged to meet the medium-term revenue targets. The design and implementation of an MTRS should involve a wide range of actors including the private sector (taxpayers), civil society and technical and development partners.

16. The experience of many AEs and EMs shows that establishing (or operationalizing) well-functioning tax policy units (TPUs) is one of the fundamental steps in closing tax policy gaps. TPUs should have the mandate to conduct evidence-based and data-driven tax policy analysis and act as an immediate advisor to the Minister of Finance. They should produce tax revenue forecasts and set and monitor revenue targets. They should also regularly publish a tax expenditures report that assesses the fiscal costs of tax exemptions and present options to streamline them. The policy gap can also be closed by further modernizing and digitizing tax administration. The introduction of the E-Tax and digital invoicing systems is an unprecedented step in the right direction, but more efforts are needed to ensure effective implementation. Finally, strengthening cooperation and information sharing between tax and customs administrations could help also close the policy gap by reducing tax fraud and evasion.

¹⁰ INS stand for Institut National de la Statistique, and REGEC for Recensement General des Entreprises du Congo.

¹¹ There is widespread adoption of MTRS, having been used in 24 countries, including 8 LIDCs of which one CEMAC country, Cameroon (PCT, 2022).

Annex I. Tax Potential and Tax Effort Estimates using Stochastic Frontier Analysis

1. In this annex, we describe the technical details of estimating tax efficiency scores using SFA. In contrast to the nonparametric DEA, the SFA is a parametric approach that allows for a random error term in the production function (Greene 2005). The efficiency-related error term is assumed to be one-sided in that countries typically deviate from tax potential by underperforming.

Conceptually, we specify the following tax production function:

$$T_i = \alpha + B_i' \beta + \varepsilon_i, i = 1, \dots, N \quad (1)$$

$$\varepsilon_i = v_i - u_i \quad (2)$$

$$v_i \sim N(0, \sigma_v^2) \quad (3)$$

$$u_i \sim N^+(0, \sigma_u^2) \quad (4)$$

is tax revenue collected in country i , the proxy tax base and β the effective tax rate.

2. As described in the data paragraph below, Equation 1 also holds for specific components of T . ε_i is a composite error term capturing the difference between v_i , a normally distributed disturbance, and u_i , a one-sided disturbance representing inefficiency. v_i is a proxy for both measurement and specification errors. u_i is assumed to have a half-normal distribution and can be thought of as the tax gap. Efficiency scores are estimated using the mean (or the mode) of the conditional distribution $f_\varepsilon(u_i|\hat{\varepsilon}_i)$, where $\hat{\varepsilon}_i = T_i - \hat{\alpha} - B_i' \hat{\beta}$. Assuming that v_i and u_i are orthogonal, the probability density function of the composite disturbance, ε_i , is given by $f_\varepsilon(\varepsilon_i) = \int_0^\infty f_u(u_i) f_v(\varepsilon_i + u_i) du_i$.

3. For a sample of n countries, the likelihood function is $L(\theta) = \sum_{i=1}^n \log f_\varepsilon(\varepsilon_i|\theta)$. Once point estimates of u are obtained, using the mean, $E(u|\hat{\varepsilon})$, of the conditional distribution, efficiency scores can be derived as $eff_{score} = \exp(-\hat{u})$, where $\hat{u} = E(u|\hat{\varepsilon})$.

Empirically, we estimate Equation 1 as follows:

$$T_i = \alpha + \beta_1 B_i + \beta_2 B_i^l + \beta_3 T_i^l + v_i - u_i \quad (5)$$

where B_i^l and T_i^l are lagged values of the proxy tax base and of the tax-to-GDP ratio, respectively. B_i^l is included to control for the dynamics in the proxy tax base while T_i^l helps capture any hysteresis effect of tax revenue.

Tax revenue data come from the International Survey on Revenue Administration (ISORA) database.¹

¹ The ISORA database is available at: <https://data.rafit.org/?sk=ba91013d-3261-42f8-a931-a829a78cb1ec&slid=1445908451587>

Table 1. Congo: SFA Of Tax Efficiency and Its Determinants Using Net Total Tax Revenue

	(1)	(2)	(3)
Log of real GDP per capita	0.140** [0.060]	0.064** [0.027]	0.022* [0.012]
Real GDP growth	0.012 [0.014]	0.024 [0.010]	0.020* [0.011]
Share of agricultural value added		-0.106 [0.150]	0.104 [0.159]
Public-spending-to-GDP ratio		0.502 [0.112]	0.106 [0.212]
Social-spending-to-GDP ratio		0.027 [0.034]	0.036 [0.041]
Primary-balance-to-GDP ratio		0.527** [0.229]	0.533** [0.231]
Gross-debt-to-GDP ratio		-0.073 [0.071]	-0.064 [0.073]
Trade openness		0.021 [0.024]	0.015 [0.047]
Financial openness		0.016 [0.022]	0.041 [0.045]
Gini Index		-0.109* [0.062]	-0.108* [0.062]
ODA (% of GDP)		0.704 [0.903]	0.662 [0.791]
IMF program		0.043** [0.019]	0.039** [0.017]
Revenue-based fiscal rule		0.101* [0.058]	0.094* [0.054]
Independent Fiscal Councils		0.154 [0.149]	0.139* [0.080]
MTRS		0.048*** [0.014]	0.037*** [0.011]
ICRG institutional quality			0.410** [0.170]
WGI Government Effectiveness			-0.039*** [0.009]
WGI Control of Corruption			-0.020** [0.008]
WGI Rule of Law			-0.043 [0.099]
Observations	132	132	132
Log likelihood	215.750	299.895	335.754

Notes: Social spending covers public, private and externally financed sources.

4. Net total tax revenue is broken down into the following items: net PIT, net CIT, net excises, domestic VAT, VAT on imports, and VAT refund. In the estimation, each revenue item is taken as ratio to nominal GDP. We use a two-stage estimation approach whereby: (i) the efficiency scores are first estimated using Equation 1, and (ii) the economic, policy and institutional determinant tax efficiency are then identified. In particular, the following factors are used to explained the cross-country variation in efficiency scores: Log of GDP per capita (level of development), real GDP growth (business cycle), share of agricultural value added in GDP (informal sector), public-spending-to-GDP ratio (government size), primary-balance-to-GDP ratio (fiscal space), gross-debt-to-GDP ratio (medium-term sustainability), (X+M)-to-GDP ratio (trade openness), FDI-to-GDP ratio (financial openness), Gini Index (income inequality), Official Development Assistance (access to concessional financing), social-spending-to-GDP ratio (social protection), dummy for the presence of an IMF program (commitment to macroeconomic reform), dummy for the presence of a revenue-based fiscal rule (countercyclicality of tax revenue), dummy for the presence of Independent Fiscal Councils

(fiscal transparency and accountability), dummy for the presence of an MTRS (commitment to tax reform).

5. In addition, we include a wide range of institutional and governance factors: ICRG institutional quality index from the International Country Risk Guide (ICRG), Government Effectiveness, Control of Corruption, and Rule of Law from the World Bank's Worldwide Governance Indicators (WGI). The results are reported in Table 1 where Column 1 only reports controls for the Log real GDP per capita and real GDP growth. Column 2 adds another set of macro and fiscal factors and Columns 3 includes further controls for institutional and government quality. Table 2 shows the SFA-based efficiency scores for the tax-to-GDP ratio, as well as the breakdown into its subcomponents.

Table 2. Congo's Tax Efficiency Scores Using The SFA

	(1)
Total tax revenue (% of GDP)	0.31
Personal Income Tax (% of GDP)	0.36
Corporate Income Tax (% of GDP)	0.39
Excises (% of GDP)	0.21
Domestic VAT (% of GDP)	0.32
VAT on imports ((% of GDP)	0.27

Notes: The breakdown of tax comes from the ISORA database

References

- Baldini, A., Sulemane, J., Thomas, A., Verdugo-Yepes, C., and Swanepoel, J. (2020). "Republic of Congo: Non-oil Revenue Mobilization: Key Challenges and Reforms". Selected Issues Papers. International Monetary Fund, Washington, D.C.
- David Amaglobeli, Ruud de Mooij, Andualem Mengistu, Mariano Moszoro, Manabu Nose, Soheib Nunhuck, Sailendra Pattanayak, Lorena Rivero del Paso, Frankosiligi Solomon, Rebecca Sparkman, Herve Tourpe, and Gerardo Uña (2023). "Transforming Public Finance through GovTech. Staff Discussion Note 2023/004". International Monetary Fund, Washington, D.C.
- Besley, T., and T. Persson (2013). "Taxation and Development". In *Handbook of Public Economics*. Amsterdam: Elsevier, 51–110.
- "Why Do Developing Countries Tax So Little?". *Journal of Economic Perspectives—Volume 28, Number 4—Fall 2014—Pages 99–120*.
- Benedek, D., E. Gemayel, A. Senhadji, and A. Tieman (2021). "A Post-Pandemic Assessment of the Sustainable Development Goals". Staff Discussion Note 2021/003, International Monetary Fund, Washington, D.C.
- Bornhorst, F., Gupta, S., and Thornton, J. (2009). "Natural Resource Endowments and the Domestic Revenue Effort". *European Journal of Political Economy*, No. 25, pp. 439–446.
- Gaspar, V., D. Amaglobeli, M. Garcia-Escribano, D. Prady, and M. Soto (2019). "Fiscal Policy and Development: Human, Social, and Physical Investments for the SDGs". Staff Discussion Note 19/03, International Monetary Fund, Washington, D.C.
- Gaspar, V, L. Jaramillo, and P. Wingender (2016). "Tax Capacity and Growth: Is There a Tipping Point". Working Paper 16/234, International Monetary Fund, Washington, D.C.
- Greene, W. (2005). "Fixed and Random Effects in Stochastic Frontier Models". *Journal of Productivity Analysis* 23: 7–32.
- Platform for Collaboration on Tax (PCT), (2022). "Progress Report 2022". Washington, D.C.
- Thomas, A. and Treviño, J. P. (2013). "Resource Dependence and Fiscal Effort in Sub-Saharan Africa". IMF Working Paper No. WP/13/188. International Monetary Fund, Washington, D.C.
- Vellutini, V., Geourjon, A-M., Caldeira, E. (2020). "République du Congo : Rationaliser les exonérations fiscales". Rapport d'Assistance Technique, September 2020. International Monetary Fund, Washington, D.C.

STOCK-TAKING OF FUEL SUBSIDIES IN CONGO, LESSONS LEARNED FROM THE 2023 REFORM, AND WAY FORWARD ¹

Congo has achieved progress in tackling high, pervasive and untransparent fuel subsidies in the past year, but more needs to be done to address remaining subsidies, prevent them from recurring and bolster the public confidence on the merit of a such reform. This note provides comprehensive estimates of the fiscal cost of the subsidies, unpacking the different layers to show that Congo's fuel subsidies result from a combination of unusually high import and refinery cost, and low fuel pump prices. The note also analyzes key factors of success behind the 2023 fuel subsidy reform, notably the gradualism in the reform, the consultation with stakeholders, the mitigating measures, and the authorities' strong commitment. Illustrative reform scenarios highlight potential major fiscal gains ahead, if implemented, but underscore that concurrent energy SOEs' reform is paramount to avoid shifting the burden of their inefficiency to the final consumers. Adequate mitigating measures to soften the impact of the reform on the most vulnerable, should be implemented and the execution of broader social expenditure should benefit from the reform, along a reduced non-oil primary deficit and lower debt vulnerability. The swift implementation of an automatic pricing mechanism will shield the budget from recurrent fuel subsidy shocks that threaten fiscal sustainability and critical social and development spending.

A. Fuel Market Structure and Size

1. The downstream petroleum sector is highly concentrated and dominated by state-owned enterprises. Three state-owned companies play a major role in the refining, distribution, and marketing of oil products. The *Congolaise de Raffinage* (a 100 percent owned subsidiary of the *Société Nationale des Pétroles du Congo* (SNPC), the state-owned oil company) refines the crude oil supplied by the SNPC operating in the upstream sector.² The SNPC has another subsidiary, SNPC Distribution, involved in the sale of refined fuel products to final consumers. The private sector is confined to the storage, transport, and distribution activities. Further, the SNPC has the monopoly of importing refined fuel products to supply the domestic market, with private oil marketers only allowed to import upon special authorization granted by the Ministry of Finance and the Ministry of Hydrocarbon. As a result, the entire downstream sector is controlled directly or indirectly by the SNPC, which also acts as an intermediary between the CORAF and the distribution sector. This has enabled the government to exert a tight control on fuel pump prices, giving rise to sizeable subsidies that are difficult to track with the SNPC, a commercially run company by status, engaging in quasi-fiscal operations.

2. On average, CORAF supplies ⅔ of the domestic demand in refined fuel products, but frequent supply disruptions have led to extremely volatile fuel imports. To ensure a full control

¹ Prepared by Hasnae El Idrissi and Roland Kangni Kpodar.

² The SNPC is in charge of commercializing the crude oil accruing to the state as part of the production sharing agreements with foreign oil companies. Part of this share is diverted to CORAF for refining.

of the supply chain, and hence the fuel pump prices, CORAF's production has priority on the domestic market, and only if the domestic market is undersupplied the import of refined fuel products is allowed. Because of aging infrastructure and limited investments over the years, CORAF has not been able to maintain a steady supply, leading to frequent shortages and recurrent spikes in fuel imports at a prohibitive cost (see Figure 1 and section II). During these shortages, fuel prices on the black market can be as high as 3 times the regulated prices.

3. Absent major technological change and energy mix, fuel consumption mimicked closely economic activities in the non-oil sector. Figure 1 shows that following the 2014 collapse in oil prices and the ensued recession, fuel consumption declined markedly before starting to recover from 2020. Fuel consumption grew by an average of 11½ percent a year between 2003 and 2013, followed by a sharp contraction that brought fuel consumption in 2020 back to the 2008 level. This coincided with a severe economic downturn triggered by a 32 percent decline in crude oil prices in 2014, with the sharp reduction in government spending being the main transmission channel. Positive growth in fuel consumption resumed from 2020 with the non-oil economic recovery, but fuel consumption as well as real non-oil output remained below their pre-2014 levels.

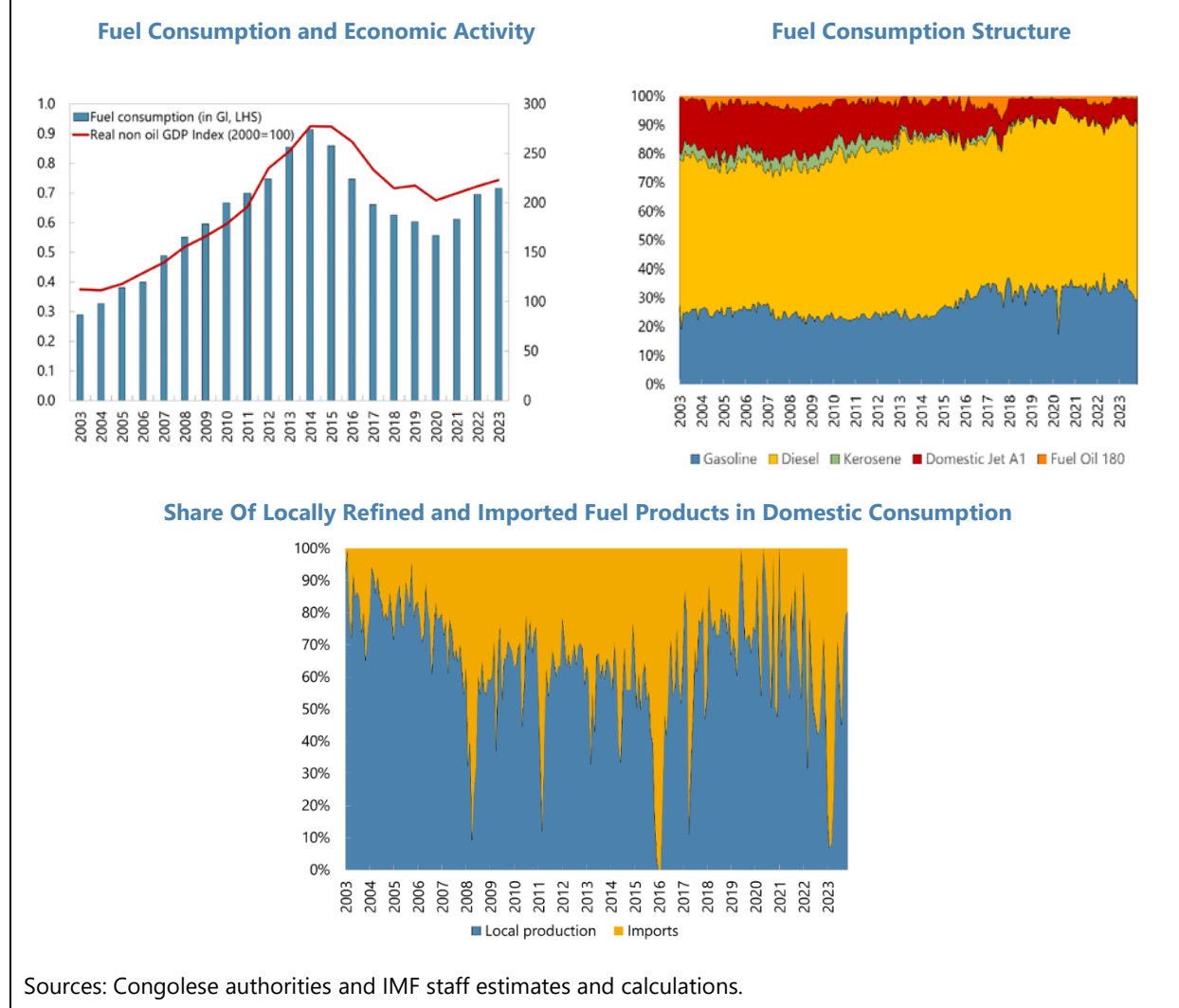
4. Diesel accounts for the bulk of fuel consumption. Its share in fuel consumption reached 60 percent in 2023, up from 50 percent in 2003 while the share of gasoline fluctuated around 30 percent during the same period (Figure 1). Although it is typical to have diesel as the dominant fuel product in a developing country due to its use in electricity production, Congo's energy mix in the electricity sector is dominated by hydro and gas. The high share of diesel is driven by the transport sector, in a sparsely populated country, thus making economic activities and inflation relatively more sensitive to diesel prices.

B. Fuel Prices in Congo and the Very High Supply Cost

The Current (Or Lack Of) Pricing Mechanism

5. The landmark legislation that set fuel prices based on market forces is the 2005 decree (2005-699). The pricing mechanism set out in the decree adheres to international best practices. It adds to the supply cost (the Entry Distribution Price, EDP), different cost elements, margins, and taxes, pertaining to fuel storage, transport, and distribution activities (Annex Table 1). The EDP is calculated as the weighted average of the CIF prices for fuel (actual import costs) and the ex-refinery price (PSR) defined as the import parity prices adjusted for a protection coefficient (economic adjustment factor) to account for the refinery's inefficiency. The economic adjustment factor was initially set at 25 percent in 2008 as part of a performance contract signed with the State. Three subsequent amendments reduced this coefficient to 15 percent, then 10 percent by end-2017 and recently to 8% in 2024. However, this reduction in the economic adjustment factor does not necessarily reflect actual efficiency gains.

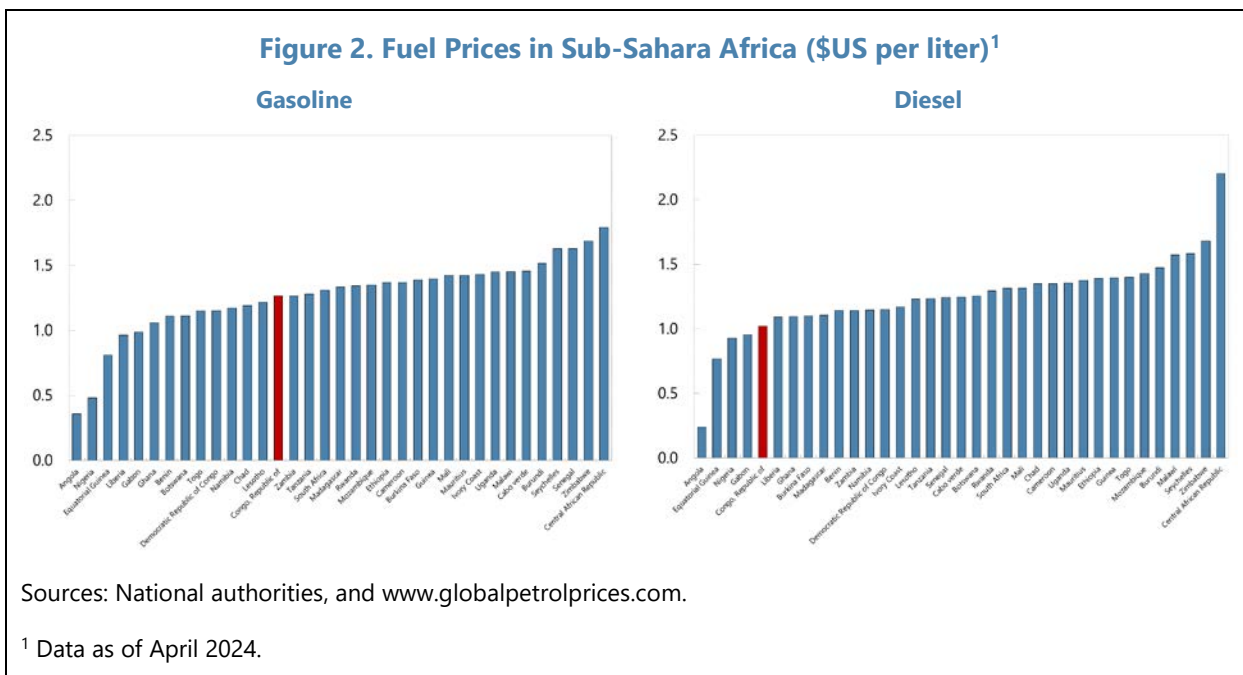
Figure 1. Fuel Consumption and its Composition, 2003–23



6. However, the 2005 decree has never been operationalized. Instead, the government has continued to fix fuel pump prices (see Alfredo Baldini and Alun Thomas, 2020), by setting the EDP below market levels. Further, the EDP has been in practice calculated as a simple average of the CIF prices and the ex-refinery price instead of a weighted average, thereby underestimating the true EDP as the refinery has higher production cost and account for $\frac{2}{3}$ of the domestic consumption. Until 2022, SNPC was exempt of custom duties and VAT on fuel imports, and the EDP was not subject to VAT, leading to sizeable tax expenditures. Many cost elements of the pricing formula have not been changed in the last 6 to 8 years, despite the provisions in the 2005 decree requiring an annual review and a level that ensures cost recovery for market participants. There is also no evidence that the performance contract was enforced, and even so, the available data suggests that CORAF's production cost remains significantly above the ex-refinery price included in the formula.

7. Reflecting the failure to adjust fuel prices, the latter are among the lowest in Sub-Saharan Africa. While current gasoline price is somewhat close to the SSA average, diesel price falls

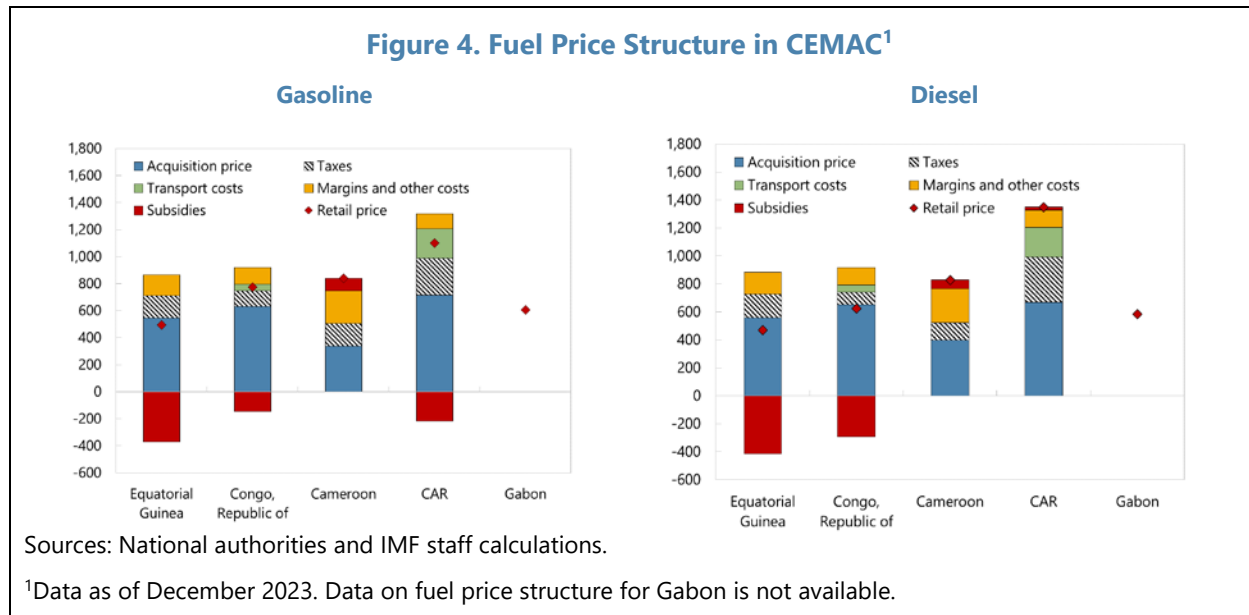
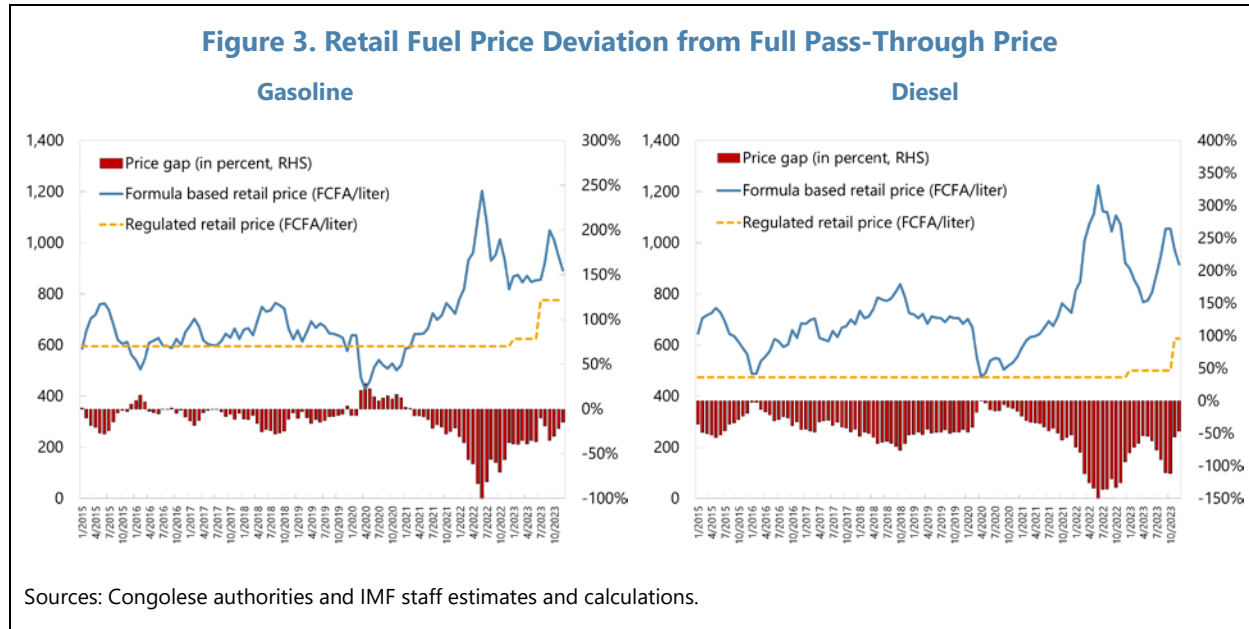
below in the lowest quintile of the fuel price distribution in SSA, notwithstanding the 30 percent hike in gasoline and diesel prices in 2023 (Figure 2). Compared to the neighboring CEMAC countries (Gabon, Cameroon, Central African Republic-CAR) Congo has the second lowest gasoline and diesel prices after Gabon, with price gaps large enough to encourage fuel smuggling (also the diesel price is lower than the one of Congo DRC).



8. Using the actual import cost (CIF) as the benchmark for supply cost, and applying taxes (custom duties and VAT), margins, and fees in line with the 2005 decree, the calculations show that gasoline price was at 15 percent below cost-recovery compared with 47 percent for diesel at end-2023 (Figure 3). Between 2008 and 2022, the gasoline price was frozen at CFAF 595 per liter, well below the formula price, with the price gap reaching -102 percent in June 2022, reflecting skyrocketing crude oil prices as a result of the war in Ukraine. As crude oil price eased and the authorities embarked in a subsidy reform in 2023 with a cumulative 30 percent increase in gasoline and diesel prices, the price gap narrowed substantially to an estimated 15 percent at end-2023. The diesel price followed a similar pattern, but the magnitude of the price gap is much larger. It reached 158 percent in June 2022, before receding to 47 percent at end-2023. Since 2015 at least, diesel price in Congo has never been above the cost-recovery level. The calculations also document sizeable under recovery for kerosene and JET fuel, but the quantities involved are limited.

9. There are notable differences in the fuel price structure of Congo relative to neighboring CEMAC countries (Figure 4). Congo exhibits the highest acquisition price for both gasoline and diesel, except compared with CAR, a landlocked country which faces high fuel transport cost due to its geographical position. This, combined with lower retail fuel prices, has squeezed margins and transport costs beyond levels that make these activities profitable for the private sector if adequate investment in the supply chain is carried out. Fuel taxes in Congo are also

the lowest in the region, while diesel subsidy is the largest after Equatorial Guinea. Using the concept of net fuel taxes (fuel tax-subsidy)—a proxy of the fiscal burden of subsidies, both Cameroon and CAR have net positive fuel taxes, in contrast with Congo and Equatorial Guinea that have net negative fuel taxes.



C. The Challenge of an Excessively High Fuel Supply Cost

10. The fiscal burden of fuel subsidies in Congo reflects a combination of lower fuel pump prices and unusually high import and refinery cost. This suggests that tackling decisively fuel subsidies requires a multi-pronged approach that involves streamlining cost along the supply chain along with automatic pricing mechanism that passes through changes in international oil prices to domestic consumers.

11. A benchmarking against the US Gulf Coast prices for gasoline and diesel indicates that the CIF gasoline and diesel prices for Congo were 57 percent and 33 percent higher in December 2023, respectively, compared to a typical markup of 5 to 15 percent.³ In other words, fuel importers charged 57 percent more than the purchase price of refined gasoline on the international markets to bring the product to Congo's borders, compared to 13 percent for Cameroon (Figure 5). Taking the average over January 2015-December 2023, the markup was 46 percent for gasoline and 42 percent for diesel in Congo, in sharp contrast with 8.6 percent and 6.2 percent, respectively, in Cameroon. Several reasons can be put forward: (i) the unreliable supply from the refinery combined with a limited storage capacity often forces the country to buy refined fuels at spot prices (subject to speculations) to avert fuel shortages; (ii) limited port infrastructure leads to longer unloading time, giving rise to steep demurrage costs; (iii) a higher sovereign risk that translates into elevated insurance and financing cost for the suppliers, although lower exchange rate risk is a mitigating factor. Additionally, the relatively small size of the domestic fuel market could explain a small fraction of the markup gap between the two countries.⁴

12. On the refinery side, several metrics equally point to a very high production cost, essentially due to inefficiencies in the refinery process. The efficiency of a refinery is a function of the size and the complexity. Because petroleum refining is a capital-intensive industry with large fixed-costs, small refineries like CORAF are structurally unprofitable, making unavoidable large producer subsidies. Moreover, the refinery does not operate at full capacity,⁵ further exacerbating its production cost. Using the most recent publicly available audited account for CORAF (2021), the average cost of a liter of refined product stood at FCFA 610,⁶ which is 2 percent and 28 percent above the retail price for gasoline and diesel, respectively. The complexity of a refinery, on the other hand, measures the ability of the refinery to transform a barrel of oil in lighter, and hence, more valuable products. Therefore, with a higher complexity number, a refinery can extract more gasoline, diesel and other light products from crude oil as opposed to heavy oil. The so-called refinery yield

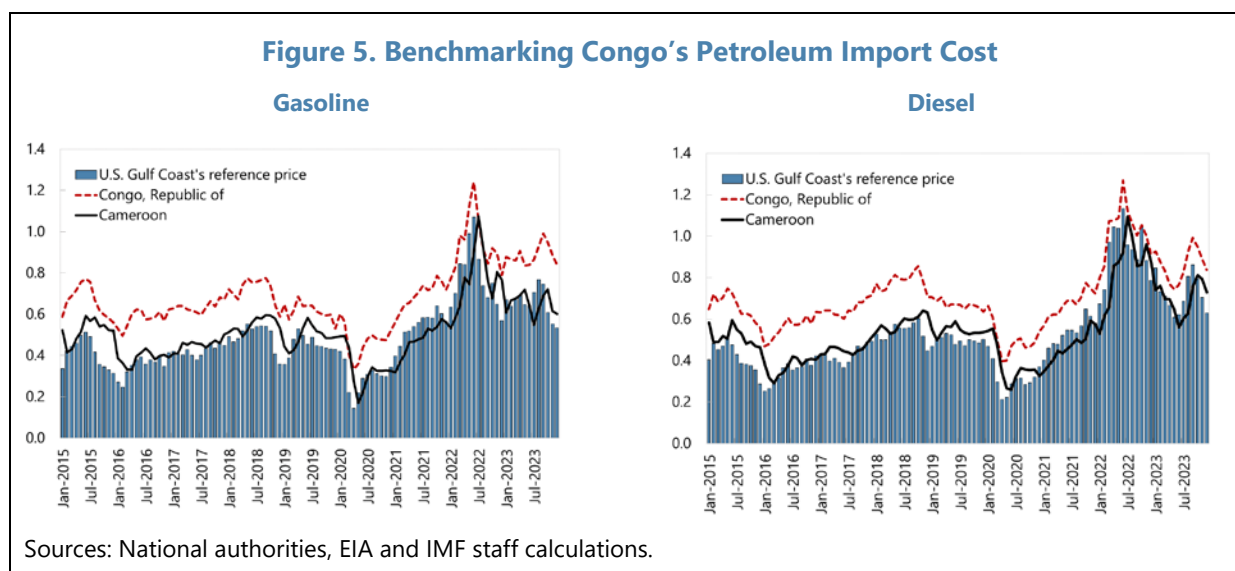
³ The monthly US Gulf Coast prices and the monthly CIF fuel prices for Congo may not be fully comparable, as the timing of the fuel purchase contract is unknown as well as the exchange rate of the transaction. But this should not affect the analysis here as the persistent deviation from the benchmark is observed over a long period, pointing to structural factors.

⁴ Several other African countries with small domestic fuel markets face a similar challenge. In response, they sought to bundle fuel imports with neighboring countries, or offer longer fuel supply contract (for a year or more) to oil importers selected through a competitive bidding process.

⁵ 60 percent on average.

⁶ This is proxied by the ratio of total expenses over total production.

stood at 57 percent in 2011, declining to 46 percent in 2021 for CORAF.⁷ The same ratio is above 90 percent for US refineries, and 80 percent in Europe.⁸



13. The CORAF's low refinery yield represents a significant opportunity cost for the country. The crude oil could have been sold at a higher price on the international market, while the country imports refined fuels at competitive prices. Although cognizant of the high refinery cost of CORAF, the authorities have argued for energy independence to keep it afloat, with a performance contract that has not yielded tangible results so far. They also have plans to modernize the refinery with the view to increase its market share to 85 percent. In the meantime, little progress has been made on the restructuring of the company.

D. Estimating The Size of Fuel Subsidies

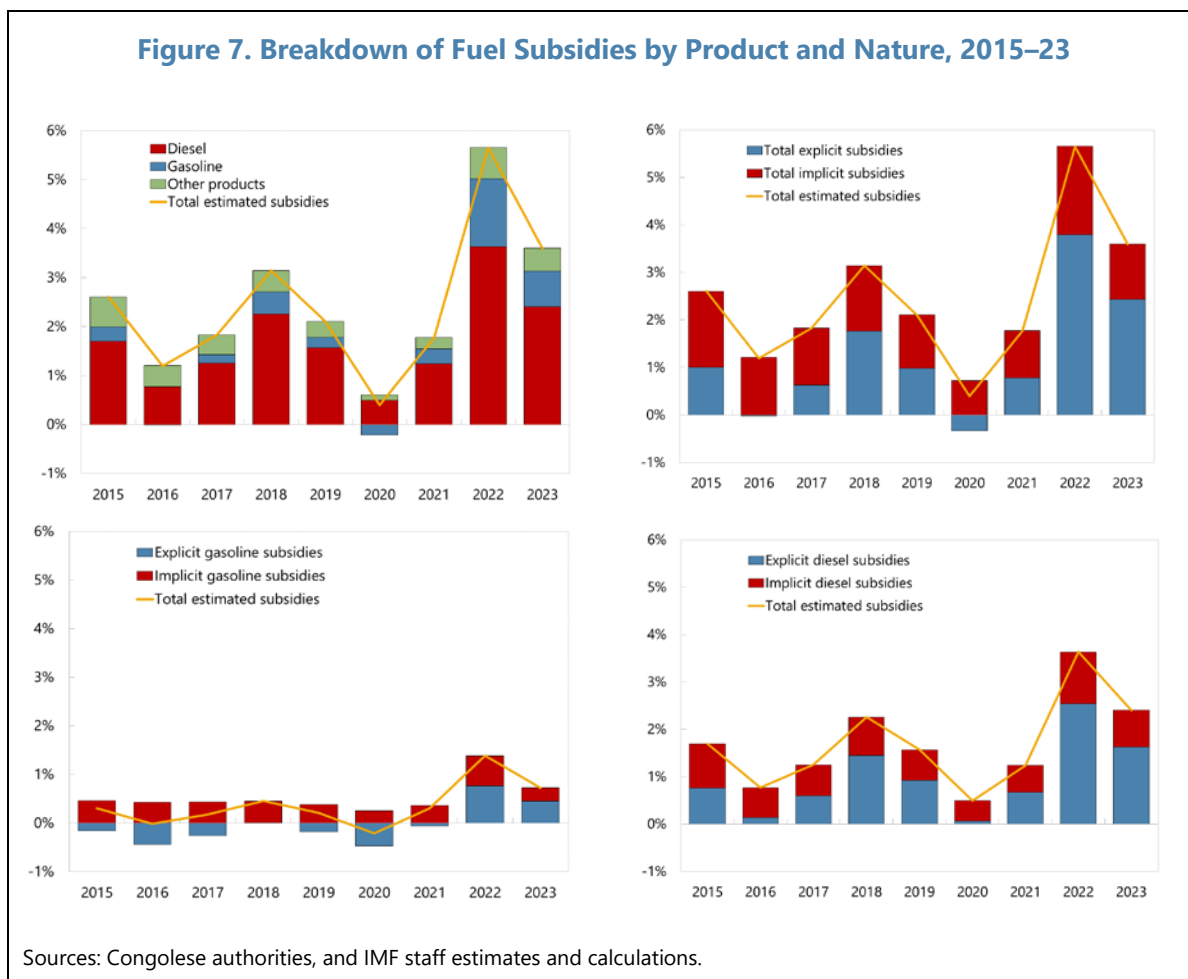
14. Fuel subsidies have been a drain on limited fiscal resources (Figure 6). Using data on budget execution, the direct budgetary transfer to the CORAF was 2 percent of non-oil GDP in 2015, before increasing to 4-5 percent of non-oil GDP in 2018-19 as crude oil prices recovered, and pump prices were unchanged. The slump in crude oil prices during the pandemic provided a breathing space for the budget by containing the budgetary transfers below 1 percent of non-oil GDP. The commodity shock amid the war in Ukraine triggered a resurgence of subsidies in 2022, later contained by the 30 percent increase in retail fuel prices the authorities implemented in 2023 in the context of the IMF-ECF supported program. To fully appreciate the fiscal burden of the CORAF, the unrecovered value of cargos delivered need to be added on top the budget transfers, in

⁷ CORAF, set up in 1982, was designed to process a light crude oil, but as Congo's oil production shifts to a heavy crude oil, this has led to a deterioration in the refinery yield.

⁸ A study by KPMG finds that CORAF's refinery cost in 2005-06 was about \$8 USD per barrel, against \$2.2 USD per barrel for comparable refineries in the world, and \$5 USD per barrel for low performing refineries in the region. According to the same study, if CORAF were to operate at full capacity, its production cost could decline to \$5.1 USD per barrel.

from their current levels.¹² The fiscal gain could reach 2.2 percent of non-oil GDP in 2024 (annualized) and decline gradually to 1.3 percent of non-oil GDP by 2029.¹³ Considering the potential social cost of a such large increase in diesel price and the political economy implications (see Abdelrahmi Bessaha (2008), Guy Jenkinson (2015), Youbi and al. (2023) and the most recent study conducted by the Ministry of Economy and Finance (2024) for an analysis of the distributional impact of fuel subsidies), a gradual phasing out of diesel subsidies over 3 years, could be envisaged as an alternative scenario. The fiscal cost relative to the first scenario is modest, while allowing time for households and firms to adjust to the cost-recovery price for diesel. Commensurate mitigating measures should be put in place to alleviate the impact on the most vulnerable households, and the savings from the reform should be directed to the priority sectors (health, education, and infrastructure).

Figure 7. Breakdown of Fuel Subsidies by Product and Nature, 2015–23



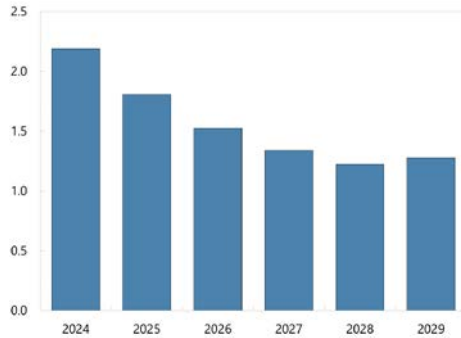
¹² Slightly larger price increases would be needed should storage cost, distribution margins and fees are revised upward. The estimates are subject to changes and can vary substantially depending underlying assumptions and oil price dynamics.

¹³ Should the ex-refinery price built in the fuel price formula remain below the production cost of CORAF, the fiscal gain will be a lot smaller, or even turn to negative.

Figure 8. Fiscal Gains from Subsidy Reform and illustrative Scenarios, 2020–29

Fiscal Gains from Fuel Subsidy Reform

(Percent of non-oil GDP)



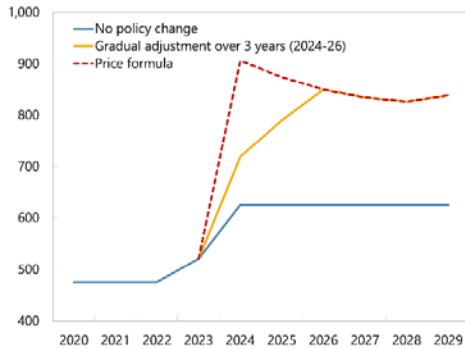
Fuel Subsidies under Different Scenarios

(Percent of non-oil GDP)



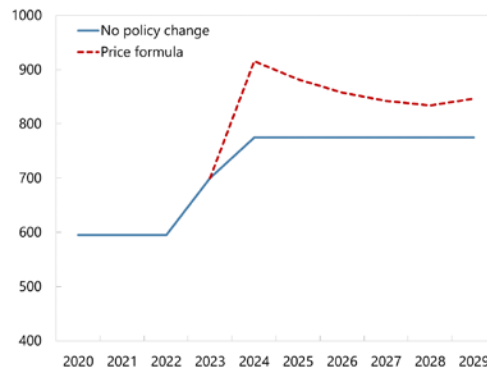
Diesel Price under Different Scenarios

(FCFA per liter)



Gasoline Price under Different Scenarios

(FCFA per liter)

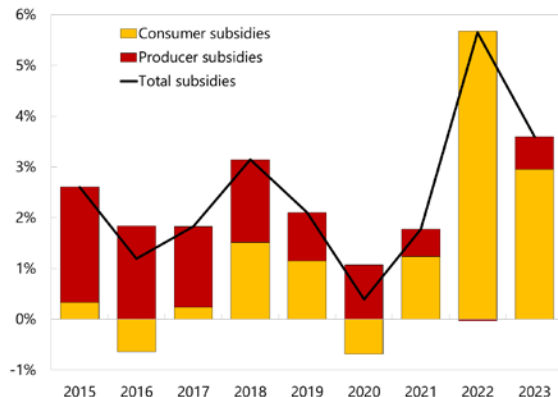


Sources: Congolese authorities, and IMF staff estimates and calculations.

17. A reform plan with a more balanced burden sharing between the supply chain actors and final consumers can be politically appealing. In the previous scenario, the assumption is that consumers bear the burden of the inefficiencies in the supply chain. But assuming that Congo can import fuels as efficiently as possible to contain the CIF price markup at 15 percent, and a restructured CORAF can break even at the ex-refinery price, Figure 9 shows the breakdown between consumer and producer subsidies. Eliminating producer subsidies would imply that gasoline price

Figure 9. Consumer and Producer Subsidies, 2015–23

Sources: Congolese authorities, and IMF staff estimates and calculations.



would have been 9 percent below full cost-recovery at end-2023 and diesel price at 31 percent below full cost-recovery.

E. Lessons From The 2023 Subsidy Reform

18. To achieve needed fiscal consolidation with the view to safeguard debt sustainability, the authorities started to implement an ambitious fuel subsidy reform, with a cumulative 30 percent increase in gasoline and diesel prices in 2023.¹⁴ A key commitment under the IMF-ECF supported program, this measure complemented with governance reforms to increase transparency in the oil sector, aimed to bolster fiscal space for critical social spending, while reining in large non-oil primary deficit. The authorities committed to further price increases to fully eliminate subsidies, after which an automatic pricing mechanism will be set up to ensure that retail fuel prices reflect international oil price movements.

19. The phased approach, mitigating measures, consultations with stakeholders and the authorities' strong commitment were instrumental to the success of the reform. Drawing on 22 country case studies, Clement et al. (2013) identifies six key ingredients for successful subsidy reform, many of which are apparent in the 2023 subsidy reform in Congo (Text Table 1). The impact of the reform was assessed to provide insights to the design of the mitigating measures. Wide consultations, with ownership at the top level of the government, helped ensure buy-in from key stakeholders. Further, fuel prices were increased gradually, with gasoline, mostly consumed by higher income households, being first in line. The authorities' strong commitment to the IMF-ECF supported program also played a central role in the success of the reform.

¹⁴ Fuel prices were unchanged since September 2018.

Table 1. Congo: Mapping the 2023 Fuel Subsidy Reform to Elements of Successful Reform

Elements Of Successful Subsidy Reforms (Clement et al., 2013)	Congo's 2023 Fuel Subsidy Reform
(i) A comprehensive reform plans <ul style="list-style-type: none"> • clear long-term objectives • assessment of the impact of reforms • consultation with stakeholders 	The key goals were to reduce fiscal vulnerabilities, safeguard debt sustainability and boost pro-poor public spending. The authorities stressed the importance of a clear diagnostic on the distributional impact and the macroeconomic effects before proceeding with the reform and commissioned two studies in this regard. They have also conducted a study on the willingness to pay to determine a price range that households and firms can afford for fuels. Wide consultations with stakeholders led by the Prime Minister were held, although a few CSOs felt not sufficiently consulted and the reform being rushed.
(ii) A far-reaching communications strategy <ul style="list-style-type: none"> • inform the public of the size of subsidies and benefits of reform • strengthen transparency in reporting subsidies 	A public communication campaign was organized, with the consultations with the stakeholders widely covered in the media. The government tasked a commission to come up with proposals for mitigating measuring for households and production sectors, particularly public transportation. The 24 percent increase in gasoline price in July 2023 was delayed by two weeks to allow time for further consultation with stakeholders. Public information on the size of the subsidies and the benefits of the reform were available, but reporting of subsidies has gaps, notably on the unrecovered amounts from the refinery.
(iii) Appropriately phased and sequenced price increases <ul style="list-style-type: none"> • permit households and enterprises time to adjust and governments to build social safety nets • sequenced increases differently across products 	A key strength of the reform was the careful sequencing and phasing of the reform: (i) a 5 percent increase in gasoline and diesel price was implemented in January 2023, (ii) Then, gasoline price was increased by 24 percent in July 2023, (iii) the 25 percent increase in diesel price was postponed to November 2023 given the concerns on the poor and the knock-on effect on public transport fares, and (iv) subsidy on kerosene and cooking gas are maintained.
(iv) Improvements in the efficiency of state-owned enterprises (SOEs) to reduce their fiscal burden <ul style="list-style-type: none"> • improve information on their costs, set performance targets and incentives, and introduce competition where appropriate. • improve collection of energy bills 	Although the authorities have strengthened the transparency of SOEs in the past years (e.g., the SNPC and CORAF publish audited accounts yearly; the EITI report for 2021 was published end-December 2023), little progress has been achieved in improving the efficiencies of SOEs, particularly in the energy sector. Some reforms are underway in the electricity sector, but poor collection of electricity bills and transmission losses are pervasive. As a result, subsidies to the electricity sector persist at high levels exceeding initial budgeted amounts.
(v) Targeted mitigating measures to protect the poor <ul style="list-style-type: none"> • targeted cash transfers are preferred, and when not feasible, other programs can be expanded as administrative capacity is developed. • SOE restructuring may also require targeted measures (e.g., job training) 	The authorities unveiled a series of mitigating measures, which include among others the abolition of road tolls and partial business tax relief for transporters, urban road development, and Universal Medical Insurance Fund operationalization (see Annex. Republic of Congo: Mitigation measures amid fuel subsidies reform). These are in addition to tax exemptions to address the rising living costs. Nevertheless, these efforts have been clouded by persistent under-execution of social spending and a missed structural benchmark on increasing resources for the main cash transfer program.
(vi) Depoliticize price setting and implement automatic price mechanism (with price smoothing) <ul style="list-style-type: none"> • establish an autonomous body to oversee price setting 	Work is ongoing to set up an automatic pricing mechanism with the support of IMF TA.

20. In addition, growth recovery and fuel subsidy reform in neighboring countries provided an impetus. Continuous improvement in non-oil economic activities, after a period of economic downturn, likely facilitated the reform as firms and households might be able to better adjust to the higher fuel prices than in a recession period. Moreover, the regional context marked by fuel price increases in neighboring countries—including oil producing ones—reinforced the opinion among policy makers and the public that the reform is imperative. Anecdotal evidence reported intensified fuel smuggling to neighboring countries as Congo delayed fuel price increases.

21. But there were also headwinds. Inflationary pressures stemming from high food and commodity prices associated with the war in Ukraine did not provide a conducive environment for the reform. There were also deep concerns about elevated risks of social protests, with some stakeholders calling for a pause in the reform.

F. Conclusions and Policy Recommendations

22. Congo has made inroads to address high, pervasive and untransparent fuel subsidies, but challenges remain ahead. Notwithstanding the successful 2023 fuel subsidy reform, fuel prices in Congo remain among the lowest in Sub-Saharan Africa. Consequently, fuel subsidies remain high, in part reflecting a very high import cost and an inefficient refinery.

23. The reform momentum needs to be sustained and deepened further to keep Congo on the path of a strong, inclusive, and green recovery. This involves a comprehensive strategy, combining gradual retail fuel price increases with energy SOEs reforms. Specifically:

- Strengthen governance, transparency, and efficiency of the CORAF, notably through an audit of the operating and administrative costs of the refinery and a clear action plan to bring them in line with the performance contract; strictly enforce the payments of government-supplied crude oil to the budget, and set up a multi-year repayment plan for the past obligations;¹⁵ subject any new investment or expansion plan of CORAF to a rigorous cost-benefit analysis to ensure the best return for public finances; eliminate cross obligations between the SNPC and CORAF, and allow CORAF to sell fuel products directly to the distribution companies.
- Establish a cost-effective procurement process of imported fuels by better planning fuel imports, ensuring it is subject to a transparent and competitive process, and expanding storage capacities to comply with regulatory requirements.
- Increase gasoline and diesel prices to fully eliminate at least the explicit and implicit consumer subsidies, coupled with adequate mitigating measures to soften the impact of the most vulnerable; prioritize social expenditure to ensure adequate execution of allocated budget envelopes; report transparently the size of the subsidies and bolster public communication on the merit of the reform are key.

¹⁵ At the same time, the budget should reflect the full explicit transfers to CORAF.

- Introduce an automatic pricing mechanism, possibly with smoothing, to avoid the reemergence of subsidies, thus shielding the budget from recurrent fuel subsidy shocks that threaten fiscal sustainability and critical social and development spending; revisit the parameters of the pricing formula regularly to reflect actual storage and distribution costs; set up appropriate institutional arrangements to depoliticize fuel pricing; deregulate the downstream fuel sector in the medium to long-run, with the role of the state confined to ensuring competitive practices in the sector.

Annex I. Republic of Congo: Mitigation Measures Amid Fuel Subsidies Reform

1. In response to the initial fuel prices hikes, the government announced measures primarily targeting public transportation, including:

- Keeping public transport fares for goods and passengers unchanged.
- Full government coverage of the road tolls.
- 50% government payment of the business taxes.
- Reduced toll crossing fees.

2. By the time of the second diesel price increase, the government expanded the mitigating measures to include infrastructure, health, education, and social protection, with a fiscal cost of CFAF 22 billion or 0.3 percent of non-oil GDP. These measures include:

- Eliminate parent contributions and support for community education volunteers.
- Provide school textbooks to all primary students.
- Expedite processing and regular payment of student scholarships.
- Establish public urban transport companies in Brazzaville and Pointe-Noire, in partnership with private companies.
- Regulate bus routes to protect the urban private transport sector.
- Permanently abolish the road tolls.
- Extend the announced measures for transporters to include river transportation.
- Remove parking fees imposed by certain cities.
- Ensure free movement of people and goods at borders, in accordance with CEMAC regulations.
- Reduce port processing time for container handling.
- Operationalize the Universal Medical Insurance Fund to support treatment for serious diseases.
- Increase the coverage of programs providing income-generating transfers.
- Implement the national social safety net program.
- Increase financial resources available to cash transfer programs.

Table 1. Congo: Fuel Products Price Structure, November 2023
(CFAF per Liter)

	Gasoline	Diesel	Kerosene	Jet (Aviation)	Fuel Oil
Entry Distribution Price, excluding VAT (regulated)	488	360	184	205	203
VAT on EDP	92.17	68.09	0.00	0.00	0.00
Storage fees and margins	13.00	13.00	13.00	13.00	13.00
VAT on storage fees and margins	2.46	2.46	2.46	2.46	2.46
Transport costs	40.00	40.00	40.00	40.00	40.00
VAT on transport costs	7.56	7.56	7.56	7.56	7.56
Transport losses	2.70	2.07	0.45	0.50	0.00
Distribution margins and fees	38.00	38.00	38.00	38.00	38.00
VAT on distribution margins and fees	7.18	7.18	7.18	7.18	7.18
Financial charges on security stocks	4.73	3.49	0.65	0.75	0.60
Financing of the regulation authority	1.95	1.44	0.25	0.70	0.25
Retailer margin	12.00	10.00	10.00	10.00	10.00
VAT on retailer margin	2.27	1.89	1.89	1.89	1.89
Terminal transport costs	11.00	11.00	11.00	11.00	13.50
VAT on terminal transport costs	2.08	2.08	2.08	2.08	2.55
Environment risk financing	0.98	0.72	0.14	0.16	0.14
Technical committee financing	0.24	0.18	0.04	0.04	0.03
Contribution to stabilization	49.02	55.55	1.00	10.00	10.00
Regulated retail price	775	625	320	350	350

Sources: Congolese authorities, Ministerial order no. 14335 issued on November 11, 2023.

References

Abdelrahmi Bessaha, (2008). "Fiscal Costs and Distributional Impact of Oil Subsidies, Republic of Congo", Selected Paper Issues, Country Report No. 09/72. International Monetary Fund.

Alfredo Baldini and Alun Thomas, (2020). "Fuel price subsidies in the Republic of Congo". Republic of Congo, Selected Paper Issues, Country Report No. 20/27, International Monetary Fund.

Clements, B, D. Coady, S. Gupta, A. Trevor, and C. Sdravovich, (2013). "Energy Subsidy Reform: Lessons and Implications". International Monetary Fund, Washington, D.C.

Guy Jenkinson, (2015). "Fuel price subsidies in the Republic of Congo: Evolution and options for reform". Republic of Congo, Selected Paper Issues, Country Report No. 15/264. International Monetary Fund, Washington, D.C.

KPMG, (2007). "Diagnostic Operational". mimeo.

Ministry of Economy and Finance of the Republic of Congo, (2024). "L'impact de la réduction des subventions des produits pétroliers sur l'économie Congolaise".

Youbi, M., F. Mafoboue, V. Tsoungui Belinga, J. Monteiro Da Mota, K. Karafli, D. Ossouna, E. Mamadaliev, M. Viboudoulou Vilpoux, L. Beyene, S. Matta, D. Pajank, A. Bokina, (2023). "Republic of Congo Economic Update: Reforming Fossil Fuel Subsidies". Tenth Edition (English), World Bank Group, Washington, D.C.

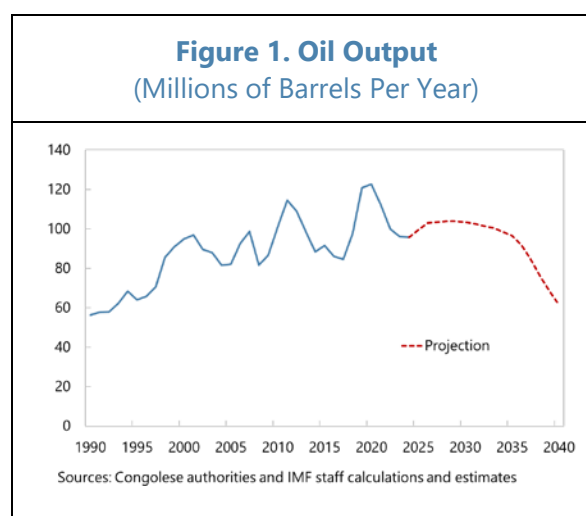
A CLOSER LOOK AT THE CONGO'S DIVERSIFICATION STRATEGY¹

A. Introduction: Why the Focus on Diversification in Congo?

1. Growth in the Republic of Congo has been anemic, its economy is highly dependent on hydrocarbons exports and remains vulnerable to external shocks, including to the energy transition. Over the last 30 years, real GDP economic growth has averaged 1.8 percent per year, implying a per capita GDP growth of about -1 percent per year. At the same time, the economy has remained extremely dependent on the hydrocarbon sector, which has provided about 60 percent of fiscal revenues and over 80 percent of export revenues. The high dependence on a single sector whose prices are subjected to high levels of volatility exposes the country to external shocks beyond its control and requires an additional costly effort to safeguard fiscal space.

2. Oil production has peaked in 2018–19, and it is expected to decline gradually over the next few decades.

The projected decline reflects a combination of the maturing of Congo's oil fields and low investment in new exploration. This decline is only partly offset by the new development of LNG exports. The weak outlook for production is also marred by the energy transition, and global efforts to (1) limit further investments in hydrocarbons and (2) lessen fossil fuel demand. From a long-term perspective, the development of green energy technologies and the treatment of the emissions from fossil fuels as a negative externality are likely to reduce the demand for hydrocarbons and raise the cost of financing new investment in oil fields and related infrastructure.



3. As a small economy, export diversification is key for economic diversification and enhancing macroeconomic performance. With a population of about 6 million, Congo is a relatively small economy with limited domestic markets and as such, foreign demand is crucial for sustaining diversification efforts. Increased diversification is associated with lower output volatility and greater macroeconomic stability. There is both a growth payoff and a stability payoff to diversification, underscoring the case for paying close attention to policies that facilitate diversification and structural transformation (IMF, 2014). The energy transition further increases the benefits from economic diversification.

¹ Prepared by Irineu de Carvalho Filho

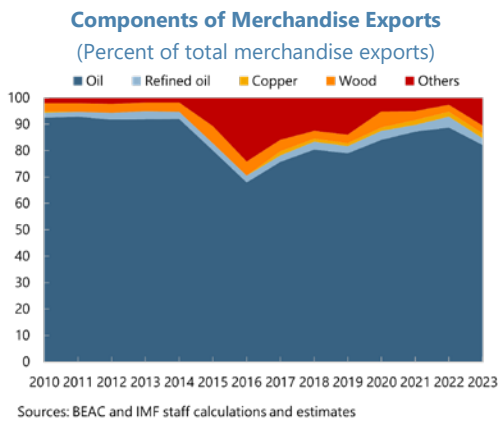
B. Where Does Congo Stand on Diversification?

4. Congo has pursued a strategy of economic diversification with focus on agriculture and energy sectors. The government’s National Development Plan (PND) aimed to modernize family farming and promote agribusiness, strengthen the value chain in the food and lumber industries, providing stable and high-quality electricity supply, improve the regulatory framework of the energy sector, and simplifying procedures for all businesses, including through computerization (IMF, 2019).

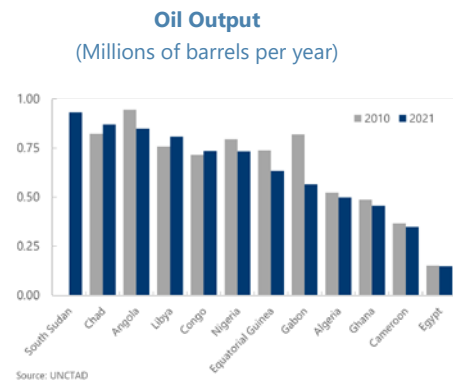
5. But significant results are yet to materialize. Data from the balance of payment statistics indicate little or no progress in diversifying exports, albeit this finding must be taken with caution considering the existence of data gaps in the balance of payments data and possibly some inconsistency in the classification of exports by categories of goods.

Figure 2. Progress in Export Diversification

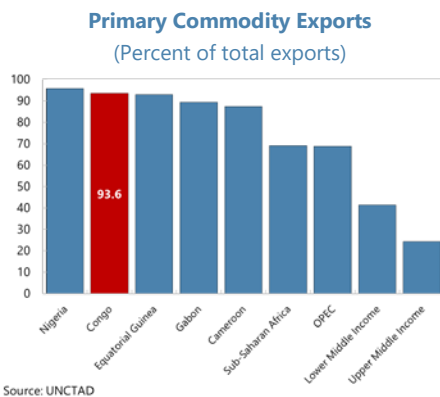
Congo’s exports have remained concentrated in oil products, despite efforts to increase diversification.



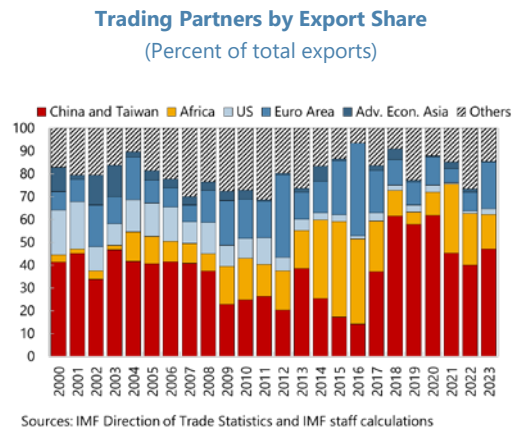
Product export concentration has remained among the highest for African oil exporters.



Despite this progress, Congo’s exports remain dependent on primary, low value-added, commodities compared to other countries.



Congo’s trade is dependent on a small number of partners, and trade with African partners is still low.



C. What are the Main Obstacles to Diversification in the Republic of Congo?

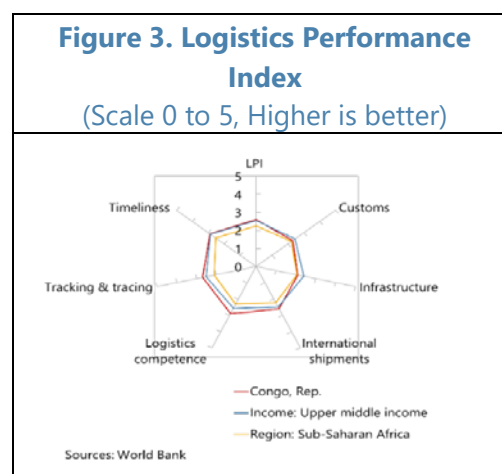
6. The economic literature has studied the challenges that countries rich in natural resources face when attempting to diversify their economies. The evidence shows that oil-exporting countries have generally been unable to diversify their economies (Ross, 2017) and the goal of diversification is more difficult for countries where diversification is low to begin with (Djimeu et al., 2019). The economic literature finds that:

- A strong resource extraction sector tends to draw labor and capital from the non-resource intensive sectors of the economy, a phenomenon dubbed Dutch Disease. In resource-rich African economies, the public sector may exacerbate this problem as it spent its resource revenues in inefficient and distortionary ways (Cust et al., 2022).
- Structural and institutional factors play a central role in the diversification process (Karanfil et al., 2023). Countries with higher quality infrastructure, human capital and research and development efforts are more likely to converge toward high diversification.
- Among former colonies, countries where oil production started the later relative to their independence date have more diverse exports (Ongba, 2014). This finding may be explained by the role of institutions arising from the pre-independence period.
- Countries tend to become more diversified at earlier stages of development, as their incomes rise (Clark et al., 2016). Congo's current income levels are above the range in which gains of diversification are easy.

7. Congo's diversification objective requires fixing some bottlenecks that hinder the establishment and growth of new businesses and sectors.

- **Business environment.** On infrastructure, the World Bank's Logistic Performance Index show that Congo performs better than the average Sub-Saharan African country and matches well with its upper middle-income peers in some areas, but worse in others. Congo's logistic and international shipments competence performance outmatches upper-middle income peers. However, the World Bank survey indicates significant shortcomings in hard infrastructure (such as roads, ports, highways, telecommunications) and customs performance.

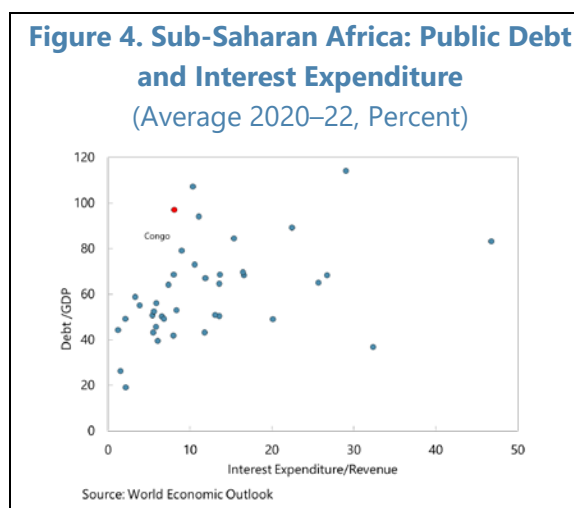
- **Access to digital technologies.** The government has committed to the advancement of digital transformation and launched the "Vision Congo Digital 2025", which includes measures to reinforce the digital infrastructure, strengthen the legal and regulatory environment and improve coverage and



affordability of hardware. However, bottlenecks remain with respect of human capital, digital literacy, and ICT infrastructure in primary and secondary schools.

- **Access to electricity.** Access to electricity is relatively low in Congo. That is in great part due to the low population density which raises the cost of expanding the electricity network. Firms face high costs to obtain an electricity connection and the supply of electricity is unreliable, leading many firms to rely on self-generation via diesel generators.

- **Macroeconomic risks.** High public debt, small but recurring external debt arrears and uncertainty about the resolution of domestic debt arrears, including arrears related to social expenditure (social arrears) raise borrowing costs and likely deter foreign direct investment in non-traditional sectors in the Republic of Congo. In terms of monetary and exchange rate policy, membership of CEMAC has delivered exchange rate stability and relatively low and stable inflation. However, the monetary union has not yet accumulated large reserve buffers given procyclical spending during periods of high commodity prices and challenges with enforcing a full repatriation of export receipts.



- **Trade barriers.** Congo's simple average of most favored nation (MFN) tariffs is high compared to other SSA countries (Figure 5). There are also problems with the effectiveness of border procedures linked to trade (OECD's Trade Facilitation Indicators). As a member of CEMAC, Congo has signed the Economic Partnership Agreement with the EU but has not yet ratified it. The signing in 2018 of the African Continental Free Trade Area (AfCFTA) is welcome news, as it envisages the reduction of tariffs and nontariff measures between participating countries.

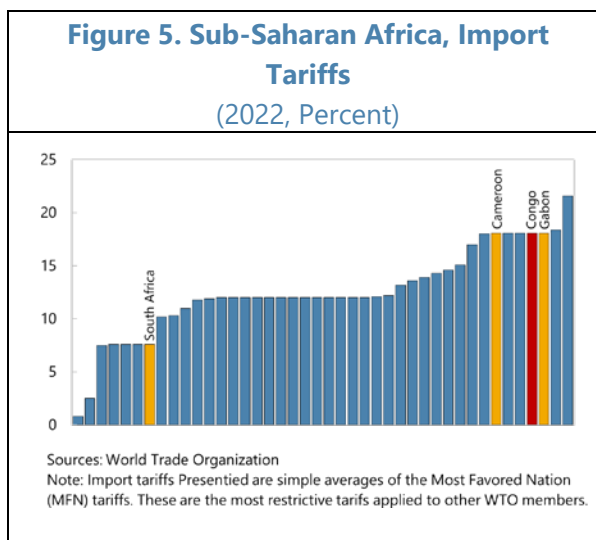
D. Policy Advice

8. A successful economic diversification strategy has the potential to deliver economic growth and stability gains for a small undiversified economy as Congo.

9. To be successful, an economic diversification strategy ought to address broad policy failures and sector-specific market failures (IMF, 2022). Policy failures often include a burdensome regulatory framework, high tariffs on critical inputs, inadequate infrastructure (physical, digital, and electric), or an insufficiently skilled workforce (Salinas 2021). Moreover, the development of specific sectors may be hindered by sector-specific market failures.

10. IMF (2022) provides guidance on the principles for industrial policy which could be harnessed for an economic diversification strategy.

It proposes that interventions should tackle policy or market failures; they should be subjected to cost and benefit analysis; particular attention should be given to how government failures, either stemming from weak governance or low administrative capacity, could undermine those efforts; and tackle the risks due to weak governance. Corruption hampers economic diversification because resources that could be invested in new economic activities are often allocated to less productive, generally rent-seeking activities that benefit only a few. It is therefore crucial that Congo's diversification strategy include not only measures that deal with policy or market failures, but also measures that improve governance and reduce corruption.



11. The agenda of reforms for economic diversification in Congo complements the policy efforts supporting macroeconomic stability. Drawing from the experience from peer countries, academic and policy studies and best practice, the following policies could tackle some of the inefficiencies that hinder a greater economic diversification:

- In the area of governance, the 2018 governance diagnostic called for upgrading the anti-corruption architecture, enhancing transparency in natural resource management, and strengthening public procurement procedures and PFM oversight mechanisms. Since then, Congo improved its governance with a series of measures (among which the operationalization of the anti-corruption agency (HALC) and the development of the anticorruption national strategy, the creation of a consolidated land registration desk in 2022 and the redesign of the corporate registry) which support reduction in corruption and improvement in governance. More effective implementation of anticorruption reforms, coupled with increased transparency and accountability, is also critical to ensuring sustained progress.
- In the area of trade facilitation, where Congo is far behind best practice, significant gains could be achieved with simplification of bureaucratic procedures, development of automated risk management procedures at Customs, and reduction in average clearance times.
- In the area of trade policy, Congo could enhance its participation in global value chains and reduce the cost of investment by reducing tariffs and removing other trade barriers. For the latter, a significant first step would be to document the existing non-tariff measures.
- In the area of digital transformation, Congo could enhance the availability of affordable broadband access by strengthen competition and favoring infrastructure sharing; implementing an education sector ICT policy; strengthen trust and confidence in digital payments and financial services by developing new regulations protecting its users (World Bank, 2023).

References

Cherif, R. and F. Hasanov, (2013). "Oil exporters' dilemma: how much to save and how much to invest". *World Development* 52:120-131.

Cherif, R. and F. Hasanov, (2019). "The return of the policy that shall not be named: Principles of industrial policy". *IMF Working Papers* 19/74.

Cherif, R. and F. Hasanov, (2024). "When Tolstoy meets Leontief: luck, policies, and learning from miracles. *Structural Change and Economic Dynamics*" 68: 86-97.

Clark, D., L.R. Lima and W. C. Sawyer, (2016). "Stages of diversification in Africa, *Economics Letters*" 144: 68-70.

Cust, J., S. Devarajan and P. Mandon, (2022). "Dutch disease and the public sector: How natural resources can undermine competitiveness in Africa, *Journal of African Economies*" 31, AERC Supplement 1, i10-i32.

Djimeu, E. and L.D. Omgba, (2019). "Oil windfalls and export diversification in oil-producing countries: Evidence from oil booms", *Energy Economics* 78:494-507.

International Monetary Fund, (2014). "Sustaining long-run growth and macroeconomic stability in low-income countries: The role of structural transformation and diversification". *IMF Policy Paper* March/2014.

International Monetary Fund, (2019). *IMF Country Report No. 19/244*.

International Monetary Fund, (2022). "Industrial policy for growth and diversification: a conceptual framework", *IMF African Department and Institute for Capacity Development DP/2022/017*.

Lashitew, A. M. Ross and E. Werker, (2020). "What drives successful economic diversification in resource-rich countries?", *The World Bank Research Observer* 36:164-196.

Omgba, L.D., (2014). "Institutional foundations of export diversification patterns in oil-producing countries, *Journal of Comparative Economics* 42: 1052-1064.

Karanfil, F. and L.D. Omgba, (2023). "The energy transition and export diversification in oil-dependent countries: The role of structural factors", *Ecological Economics* 204 (2023) 107681.

Ross, M., (2017). "What do we know about economic diversification in oil-producing countries?", mimeo.

Salinas, G., (2021). "Proximity and Horizontal Policies": *IMF Working Paper* 21/64.

World Bank, (2023). "Republic of Congo's Road to Prosperity: Building foundations for economic diversification". *Republic of Congo Country Economic Memorandum*, March 2023.

FINANCIAL INCLUSION IN CONGO: AN UNFINISHED AGENDA¹

Despite recent progress, the journey towards achieving comprehensive financial inclusion in the Republic of Congo has been marked by significant hurdles, with significant segments of the population still being excluded from the formal financial system. Financial inclusion, which entails the broad access to useful, affordable, and appropriate financial services, is not merely an economic imperative but also a fundamental driver of social development and poverty reduction. To address the lingering disparities and unlock full potential of financial inclusion, strategic policy interventions are crucial. This contribution explores the current landscape of financial inclusion in Congo, underscores its potentials, and offers recommendations to accelerate progress towards a more inclusive financial system.

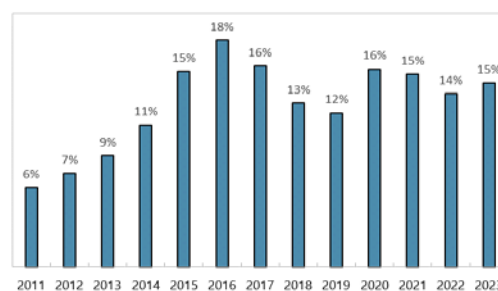
A. Financial Inclusion in Congo: Stocktaking

1. Congo's financial sector depth is shallow, with a notable concentration on banks.

In 2021, banks, predominantly subsidiaries owned by foreign institutions, accounted for 84 percent of the financial sector's balance sheet. As of end-2023, the banking sector consisted of 10 banks,² including two state-owned banks.³ The three largest banks hold around 49 percent of total assets in the banking system. Credit to private sector as a share of GDP has increased from 6 percent of GDP in 2011 to 15 percent in 2023 but remained well below the average in Sub-Saharan Africa (SSA). This increase in credit to private sector has not translated into broader accessibility to financial services for all segments of society.

Figure 1. Credit to Private Sector
(Percent of GDP)

Although experiencing an overall upward trajectory, credit to private sector persists at relatively low levels



Sources: Congolese authorities and IMF estimates and calculations.

2. Congo is lagging its peers when it comes to access to traditional financing services.

In 2021, only 18 percent of adult population have access to a formal account at a bank or another type of financial institution, placing Congo well behind CEMAC and SSA average (Figure 2). This low proportion, both in absolute terms as well as relatively to peers, has declined by 5 percentage points since 2017.⁴

¹ Prepared by Hasnae El Idrissi.

² It's worth noting that the Société Générale Group decided to divest its Congo-based subsidiary in June 2023. By December 2023, its sale to the Congolese government was finalized, with the government appointing BGFIBank-Congo to take over the bank's activities. This would further increase the concentration of the banking system.

³ Banque Congolaise de l'Habitat and Banque Postale Congo.

⁴ This could indicate a shift towards digital financing over traditional banking services. Alternatively, it could suggest that banks are increasingly embracing technology for service delivery rather than relying solely on physical branches.

3. The gap is increasingly filled by digital financing, mainly via mobile money. The proportion of financially excluded adult population has significantly decreased in a relatively short time, owing mainly to the spread of mobile money which has helped to fill the gap and boost account ownership in Congo. The proportion of adults with an account has more than doubled between 2014 and 2021. Over the same period, the proportion of adults with mobile money account increased from 2 percent to 37 percent while the share of adults with a traditional bank account remained almost unchanged. Therefore, the improvement in financial inclusion is entirely due to the expansion of mobile money accounts.

4. Access to finance appears to be

disproportionally skewed towards the privileged few. Income, wealth, education, financial literacy, and digital technology awareness are the primary factors driving financial exclusion. The 2021 World Bank Global Findex Database shows that the better-off population benefits from greater access to financial services, including both traditional banking and mobile money, compared to the less privileged, potentially widening income inequalities. Similarly, individuals with secondary education or higher are more likely to have access to financial services compared to those with primary education. While older individuals typically have greater access to traditional financial services, the opposite holds true for mobile money, underscoring the critical role of digital technology awareness in fully leveraging digital financing. Additionally, financial exclusion affects a particularly high proportion of women, with men exhibiting higher rates of account ownership, especially regarding mobile money. This wider gender gap is presumably due to Congolese women's limited familiarity with digital technologies. Financial exclusion in rural areas may be attributed to inadequate infrastructure, lower income level, and limited financial awareness.

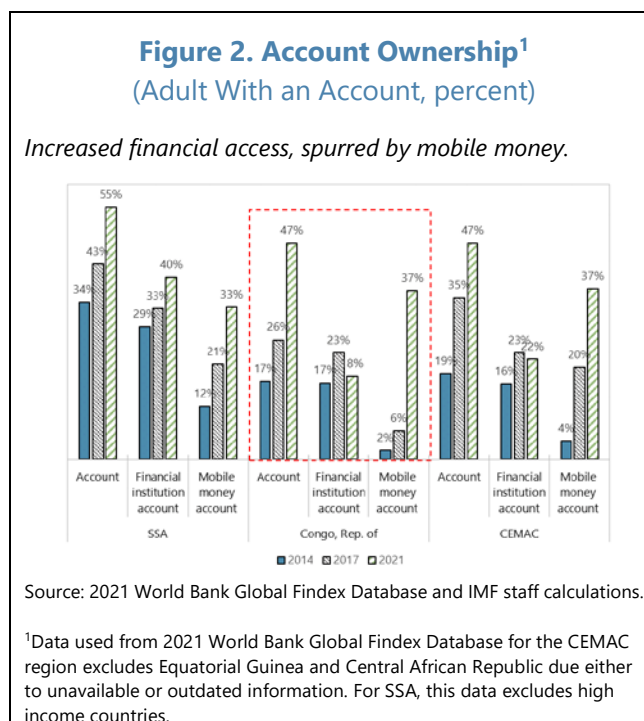
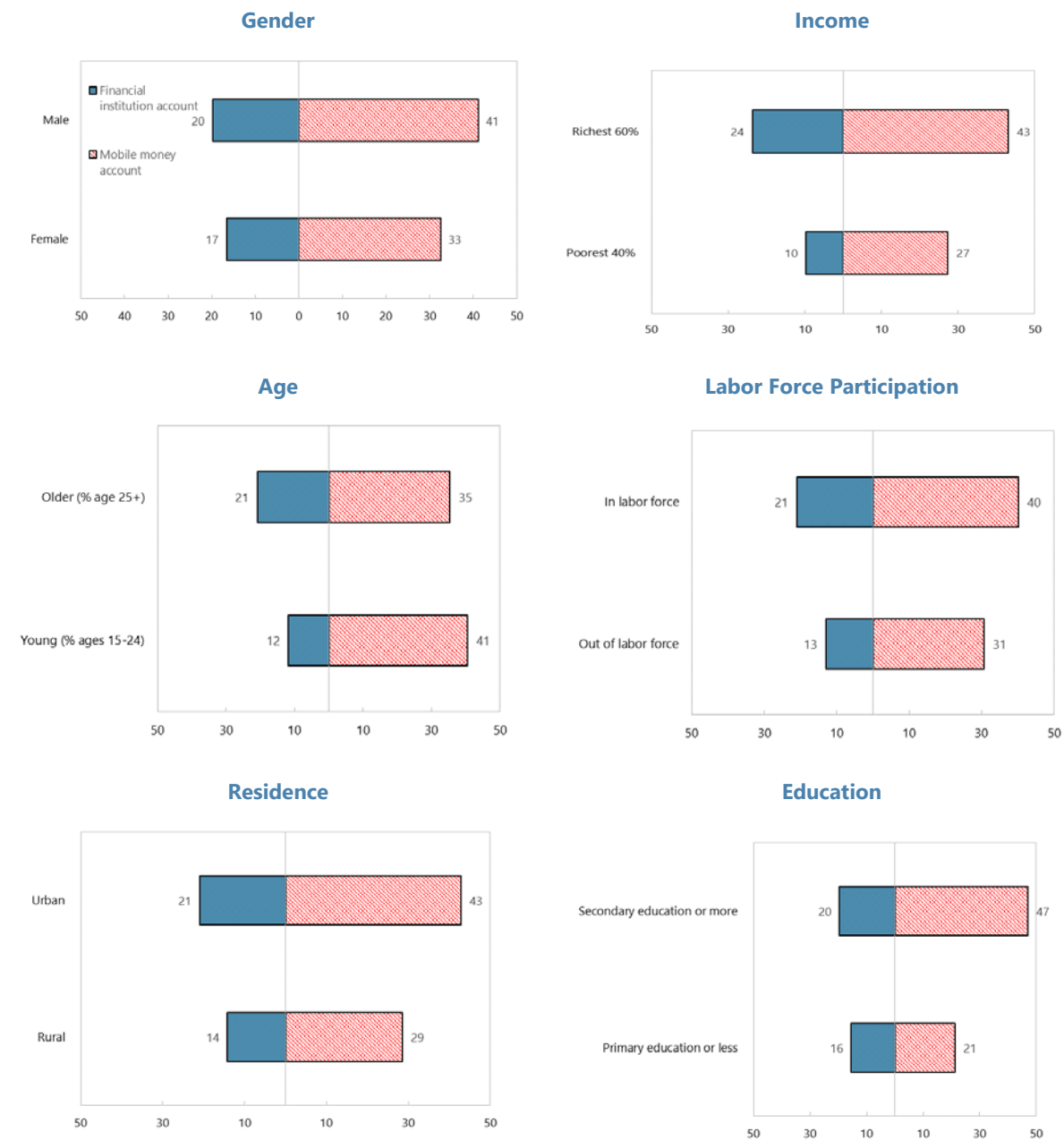


Figure 3. Demographic Patterns of Account Ownership
(Percent)

Access to financial services benefits the more affluent.



Source: 2021 World Bank Global Findex Database.

5. Financial exclusion in Congo appears to result from a combination of demand and supply factors, with the possibility of these factors exhibiting reverse causality. Supply-side barriers predominantly involve inadequate infrastructure and the lack of necessary documentation.

On the other hand, factors such as self-exclusion (lack of demand for financial services), low income, financial illiteracy, technological ineptitude, and high costs serve as notable impediments to financial inclusion.

6. The lack of financing and expensive financial services are among the top barriers.

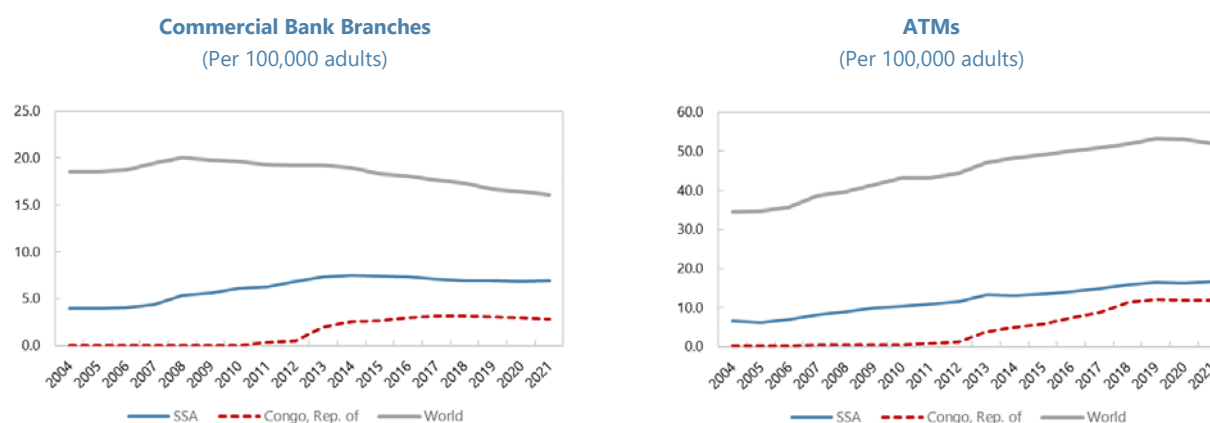
According to the 2021 World Bank Global Findex Database, the top barrier cited by unbanked adults to having a financial institution account in Congo is the lack of money. This constraint is cited by greater number of adults than the averages observed in CEMAC and SSA countries (Figure 5). Relatedly, challenges in providing documents required by financial institutions and the costly financial services⁵ are the second most cited reasons for not having a bank account.

7. The lack of infrastructure may elucidate the rapid expansion in the use of mobile financial services.

Despite the improvement in the access to financial institutions over the last decade (measured by the number of banks branches and ATMs per adult), their levels remain very low compared to the global average and that in SSA countries.

Figure 4. Financial Infrastructure Trends

The financial structure has been on the rise but still lags significantly behind that of SSA and the global average.



Source: IMF Financial Access Survey.

8. Ample opportunities for furthering the adoption of digital financing remain untapped.

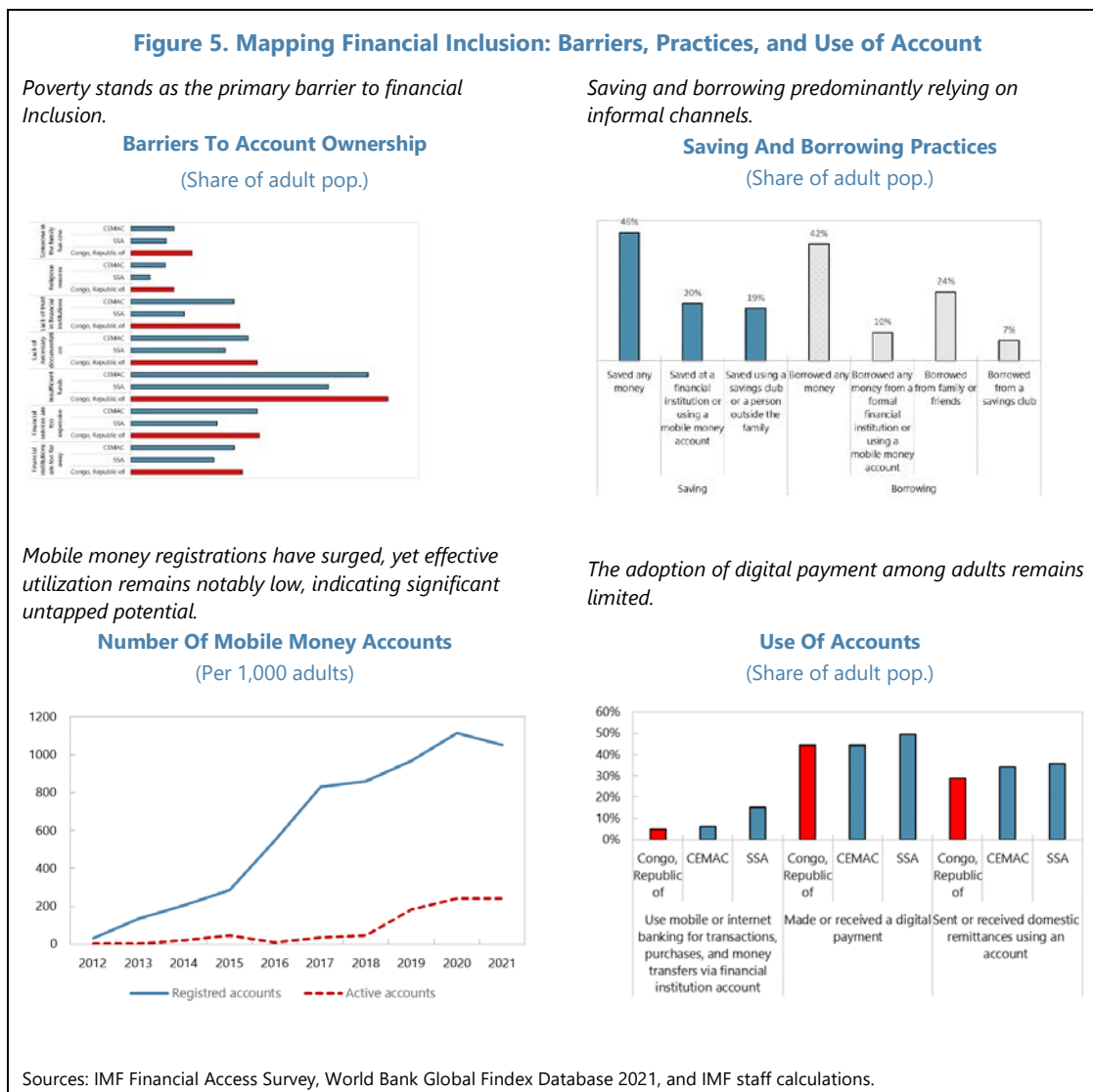
According to the IMF Financial Access survey data, despite the notable rise in registered mobile money accounts, only 1 in 4 accounts are actively used. Additionally, the utilization of digital payment among adult population remains limited. The share of adults that saved or borrowed using an account remains modest, aligning closely with the typical figures observed on average across SSA countries.

9. Informal finance remains prevalent in borrowing practices, with saving also influenced at a lesser extent.

A notable 24 percent of adults rely on friends and family, contrasting with the

⁵ This is presumably related to the high overhead costs, "Sustaining more inclusive growth in the Republic of Congo, 2014, Adrian Alter and al."

mere 10 percent who borrow from formal financial institutions or use mobile money accounts. Similarly, 19 percent of adults resort to informal savings methods, slightly trailing the 20 percent who save through formal financial institutions or mobile money accounts. These patterns stem from a variety of factors, including limited access to formal services, lack of trust in formal finance, financial illiteracy, and cultural norms emphasizing solidarity and mutual support.

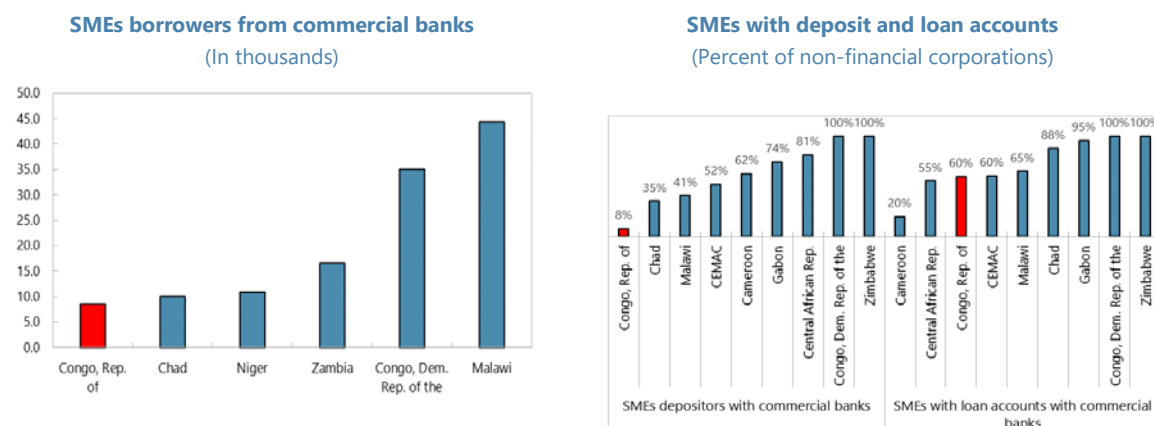


10. Inadequate access to financial services remains a substantial hurdle for businesses in Congo, especially for small and medium-sized enterprises (SMEs). There are limited data available on the financial inclusion of firms in Congo. Data from the IMF Financial Access Survey underscores the limited presence of SMEs borrowers in Congo’s commercial banking sector compared to peers. This observation aligns with findings from the World Bank’s survey.⁶

⁶ The most recent data available for the Republic of Congo from the World Bank Survey of Enterprises date to 2009.

Figure 6. Benchmarking SMEs Banking Activity¹

In the Republic of Congo, SMEs face higher obstacles to access financial services than in many other SSA countries.



Source: IMF Financial Access Survey.

¹ Data sourced from the IMF Financial Access Survey uses the most recent data available for each country included within the sample. Specifically, for the Republic of Congo, the data is as of 2021.

B. Unlocking economic potential: the benefits of financial inclusion

11. The importance of financial inclusion in fostering economic growth is widely acknowledged. By expanding access to adequate financial services for underserved population, the potential for increased business opportunities, job creation, heightened productivity, expanded investment, and ultimately enhanced economic growth is substantial. Adedokun and Ağa (2021) conducted a comprehensive study across multiple SSA countries, revealing the positive impact of financial inclusion on economic growth. Controlling for potential endogeneity issues, Khera and al. (2021) identified a robust positive correlation between digital financial inclusion and long-run growth across 52 emerging markets and developing economies. Additionally, considering a sample of African countries, Andrianaivo and Kpodar (2011) emphasized the critical role of information and communication technology (ICT) in enhancing financial inclusion, thus contributing significantly to economic growth.

12. Finance plays a crucial role in improving income distribution and reducing poverty, primarily through its positive impact on economic growth and resulting higher income levels. In low-income countries, finance can serve as a shock absorber, helping to mitigate the effects of term of trade shocks, as highlighted by Kpodar and al. (2019). According to Md Abdullah Omar and Kazuo Inaba (2020), robust evidence suggests that financial inclusion significantly reduces poverty rates and income inequality in developing countries. In addition, Beck, Demirgüç-Kunt, and Levine's cross-country study (2004), while controlling for potential reverse causality, demonstrated that financial development is associated with lower income inequality.

13. Financial inclusion has been associated with improved welfare outcomes and enhanced social cohesion. Access to formal financial services can improve overall welfare through many

channels. Access to formal financial services can improve overall welfare through many channels. It enables individuals to better meet their basic needs (such as healthcare, food, etc.), thereby contributing to overall well-being. Additionally, it expands education opportunities by facilitating investment in educational resources. Furthermore, financial inclusion empowers individuals and contributes to gender equality by providing women access to economic opportunities. Ultimately, by fostering economic participation, financial inclusion promotes social cohesion.

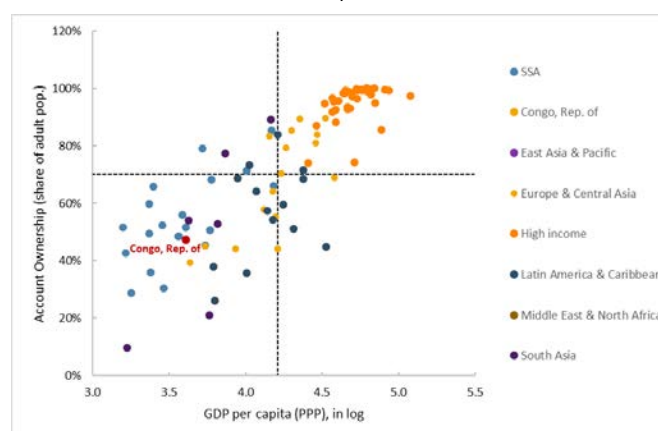
14. Greater financial inclusion is generally associated with increased tax revenue.

As individuals become more integrated into the financial system and experience income growth over time, their tax contributions to the government may rise as well. Additionally, the impact of financial inclusion on tax revenues can be indirect, as it helps reduce the size of the shadow economy, thereby fostering economic growth and development indicators. Nyanzi et al. (2018) suggest that policies aimed at promoting the depth and accessibility of financial institutions and markets in East Africa coupled with targeted anti-corruption programs and democratic governance are likely to yield better fiscal outcomes in terms of domestic tax revenues. Chebochok and al. (2023) provide empirical evidence supporting the significant positive association between financial inclusion and tax

revenue collection in WAEMU countries. Furthermore, Maherli (2017) underscores the role of mobile phone technology in enhancing financial inclusion, potentially leading to increased digital transactions that can be officially tracked and taxed.

Figure 7. Financial Access and GDP Per Capita, 2021¹

The Republic of Congo and the majority of SSA countries remain in the bottom quadrant.



Source: World Bank and IMF staff calculations.

¹Data by region excludes high income countries.

C. Policy Recommendations

15. As in many countries, enhancing financial inclusion has become one of the policy priorities in CEMAC countries. A roadmap for the implementation of the 2022–27 sub-regional financial inclusion strategy has indeed been developed and is intended to serve as a frame of reference for national strategies. This strategy aims to enhance financial inclusion access and usage for vulnerable populations, particularly youth, women, rural populations, and MSMEs in the CEMAC region, with the goal of increasing financial inclusion from 32 percent in 2021 to 60 percent by 2027 and 75 percent by 2030. It encompasses six strategic axes: consumer education and protection, innovation and interoperability promotion, regulatory framework enhancement, access to affordable financial services, access to reliable data on financial inclusion and stakeholder capacity-building.

- 16. Currently, the Republic of Congo lacks a comprehensive strategy for financial inclusion.** This prompts collaborative efforts between the government and the UNDP to address this gap, aiming to develop a national strategy for financial inclusion in Congo as part of the Microfinance and Financial Inclusion Capacity Building Project initiated in 2022. Concurrently, legislative advancements include the enactment of two laws—one on factoring and another on leasing—to improve SMEs' access to financing. Furthermore, ongoing regulatory measures aim to significantly strengthen the legal framework for businesses.
- 17. With poverty representing the primary impediment to achieving financial inclusion, authorities must sustain efforts on fostering an inclusive economic environment.** This entails a sustained commitment to ongoing structural reforms. Key measures include advancing governance reforms, enhancing fiscal discipline and fiscal management, directing funds towards critical social sectors, strengthening social safety nets, and empowering marginalized groups and small-scale enterprises.
- 18. Additionally, authorities must prioritize improving infrastructure,** particularly focusing on improving access to electricity and internet connectivity services. By addressing these fundamental services, authorities can help bridge the digital divide and create an enabling environment for individuals and businesses, particularly for those in rural and marginalized regions, to access financial services and participate more actively in the formal economic activities. Furthermore, availability of electricity and internet services is crucial not only for accessing financial services but also for expanding reach to online educational resources, which play an increasingly significant role in promoting financial literacy.
- 19. Enforcing robust regulatory frameworks is key to laying the foundation for broad financial inclusion.** One essential aspect of these regulations involves promoting competition within the financial sector and strengthening regulatory frameworks to safeguard financial stability. Moreover, enhancing consumer protection, including for digital financial services, is crucial. This not only addresses financial exclusion stemming from mistrust in financial services but also mitigates the risks associated with fast-paced technological innovations. Additional measures include streamlining account opening procedures at banks to reduce barriers for the unbanked and ensuring transparent disclosure of requirements associated with financial products and services, along with establishing dispute resolution mechanisms.
- 20. Expanding support for microfinance institutions represents a fundamental strategy for enhancing financial inclusion.** These institutions specialize in offering financial services tailored to the specific needs of low-income individuals and small businesses, addressing the exclusion often faced in traditional banking system.
- 21. Strengthening property rights plays a crucial role in enhancing financial inclusion.** Well-defined and protected property rights can empower individuals by increasing their confidence to invest in tangible assets that can serve as collateral for loans. This collateralization, in turn, will facilitates access to credit and financial services, particularly for underserved populations. Additionally, robust property rights frameworks instill confidence in the financial system, attracting

both domestic and foreign investment. This can unlock economic potential, foster entrepreneurship, and ultimately reduce poverty and enhance financial inclusion.

22. Promoting financial literacy and raising awareness among consumers is essential.

Alongside enhancing access to online educational resources, as previously mentioned, implementing financial education programs can empower individuals with the knowledge and skills necessary to make informed financial decisions, thereby increasing their confidence in utilizing financial services.

23. Targeted efforts to improve women's access to financial services are essential.

This involves initiatives to promote financial literacy, including in digital finance, and the provision of tailored financial products and services that meet their needs. Additionally, implementing broader reforms aiming at promoting women's participation in the workforce and decision making can contribute to reducing gender gap in financial inclusion.

References

- Adrian Alter, Dalia Hakura, Matteo Ghilardi, Rodolfo Maino, Cameron McLoughlin, and Maximilien Queyranne, (2014). "Sustaining more inclusive growth in the Republic of Congo". International Monetary Fund, Washington, D.C.
- Comité National Economique et Financier (Republic of Congo), (2021). "Annual Report".
- John Bosco Nnyanzi, John Mayanja Bbale and Richard Sendi, (2018). "Financial Development and Tax Revenue: How Catalytic Are Political Development and Corruption?". International Journal of Economics and Finance, Vol. 10, No. 8, pp. 92-104.
- Kangni Kpodar, Maëlan Le Goff and Raju Jan Singh, (2019). "Financial Deepening, Terms of Trade Shocks, and Growth Volatility in Low-Income Countries", International Monetary Fund, Washington, D.C.
- Maherali, Alim., (2017). "Financial Inclusion, Digital Payments, and Their Impact on Income and Tax Revenue Around the World". Master's thesis, Harvard Extension School.
- Md Abdullah Omar and Kazuo Inaba, (2020). "Does financial inclusion reduce poverty and income inequality in developing countries? A panel data analysis". Journal of Economic Structures, Springer, Heidelberg, Vol. 9, Issue 37, pp. 1-25.
- Mehmet Ağa and Muri Wole Adedokun, (2021). "Financial inclusion: A pathway to economic growth in Sub-Saharan African economies". International Journal of Finance & Economics, Volume 28, Issue 3, pp. 2712-2728.
- Mihasonirina Andrianaivo and Kangni Kpodar, (2011). "ICT, Financial Inclusion, and Growth: Evidence from African Countries". International Monetary Fund, Washington, D.C.
- Milly Chepkorir Chebochok and Nimonka Bayale, (2023). "Effects of financial inclusion on tax revenue mobilization: Evidence from WAEMU countries". African Development Review.
- Purva Khera, Stephanie Ng, Sumiko Ogawa and Ratna Sahay, (2021). "Is Digital Financial Inclusion Unlocking Growth?". International Monetary Fund, Washington, D.C.
- Thorsten Beck, Asli Demirguc-Kunt and Ross Levine, (2004). "Finance, Inequality, and Poverty: Cross-Country Evidence". World Bank, Washington, D.C.

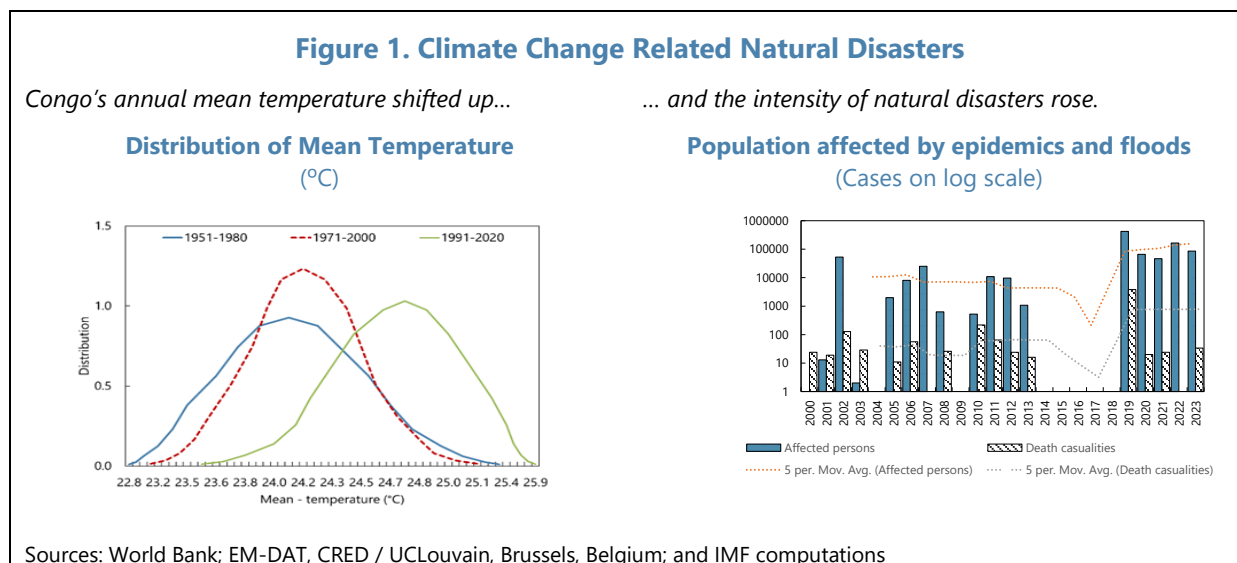
CLIMATE CHANGE AND ADAPTATION NEEDS¹

In face of increasingly severe natural disasters, Congo’s economy faces rising costs in terms of potentially forgone economic activity, lost consumption, increasing debt levels due to the need to replace lost capital, and rising inequality, which may add to food insecurity. Early adaptation by investing in climate change resilient infrastructure can mitigate such adverse effects. Suitable investment areas for adaptation investment include food security, sanitation, health, and basic infrastructures, but also sustainable forestry, renewable energy production, and climate-smart agriculture. Continued fiscal consolidation and the need to reduce public debt levels, however, limit the government’s capacity to contribute to additional adaptation investments over the medium term, if reform progress in public financial management would not be able to free up substantial resources. Alternatively, adaptation investments could be funded through grants or private funding sources, including entirely privately managed and owned investments.

A. Climate Change Related Natural Disasters and Adaptation Investment

1. Over the last two decades Congo faced natural disasters of increasing intensity (Fig. 1).

To assess the impact of natural disasters and mitigating policies on growth, capital stocks, and welfare, the IMF’s DIGNAD model is calibrated to the country’s characteristics.² Adverse climate shocks are simulated to produce a loss in real growth of two percent of GDP, roughly equivalent to

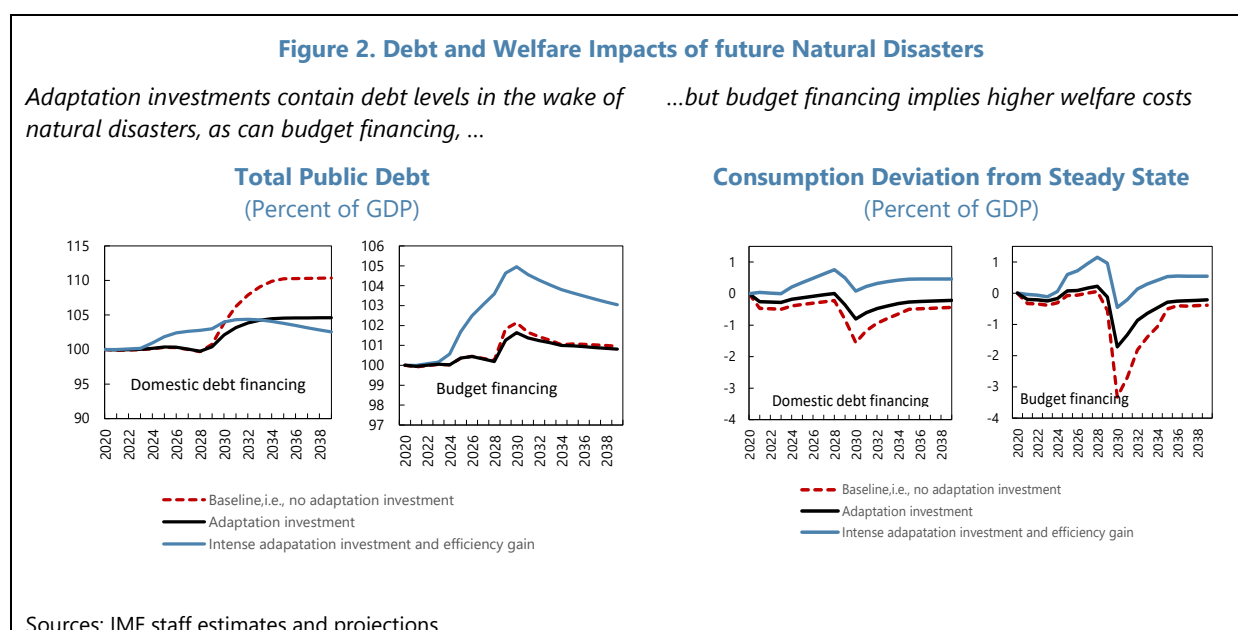


¹ Prepared by Frank Hespeler (AFR), with contributions by Alejandro Badel (SPR), using IMF DIGNAD and MIMMI models.

² The Debt-Investment-Growth and Natural Disasters (DIGNAD) is a computable dynamic general equilibrium model for a small open economy featuring a total factor productivity dependent on the stock of public infrastructure including standard infrastructure and resilient infrastructure, with the latter accumulated via adaptation investments.

an annual GDP loss of 2.4 percent associated with one of the worst natural disasters experienced since 2000, i.e., the floods and measles outbreaks in 2019 and 2020.³

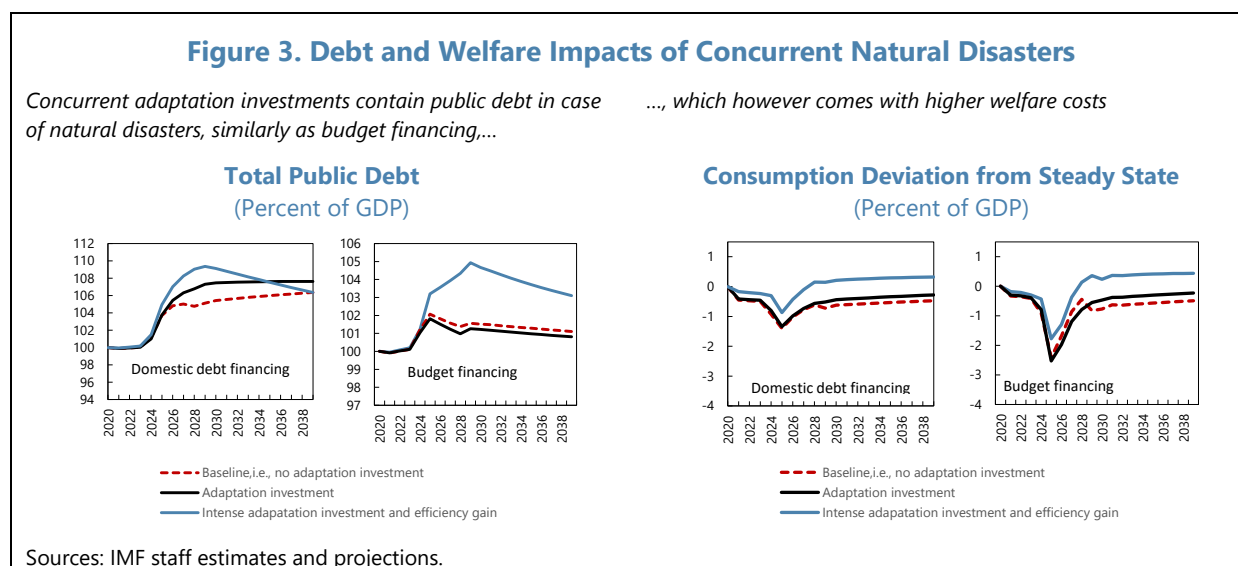
2. Natural disasters can worsen public debt levels, especially if adaptation strategies are inadequate. Investments in adaptation infrastructure help to contain public debt levels in case natural disasters materialize. Facing a natural disaster in 2029, five prior years of consecutive investments of 2 percent of GDP in public adaptation infrastructure can, if debt-financed, reduce 2039 total public debt by up to 8 percent of GDP compared to a scenario where half the investment volume goes instead into non-resilient public infrastructure (Fig. 2). Alternatively, investments needed to rebuild the infrastructure post-crisis could be financed through budget adjustments, for example through higher taxes on consumption, labor, and capital, or through reduced transfers to households. Such budget financing allows to contain fiscal deficits and to limit increases in debt levels. It implies, however, higher net tax burden and, for the case of Congo, would more than double respective costs in terms of foregone private consumption growth, depressing thereby welfare levels. Finally, if adaptation infrastructure investments come with investment efficiency gains, as a more resilient infrastructure would promote higher total factor productivity, they tend to intensify the advantages of the more resilient infrastructure on the margin, allowing even for some medium-term gains in private consumption.⁴



³ The model is calibrated to a trend output growth rate per capita of 4 percent, significantly higher than the negative per capita growth rates observed over the last decade. Real interest rates are pinned down to 3 percent for domestic public and to 4 percent for external public debt. The initial total public debt level is fixed to 100 percent of GDP, equally split between domestic and external debt, with half of the latter being concessional debt. Natural resource revenues are set to 20 percent of GDP, the ratio of imports to GDP to 0.45, and the value added in the non-tradables sector to 42 percent. Tax rates are fixed to 11 percent for VAT and 10 percent for labor income, commensurate with Congo's effective tax rates.

⁴ Higher efficiency of investments increases the long-run capital stock and spurs investment, growth, and consumption. The model used a 40 percent increase in efficiency relative to the baseline. In this particular scenario the higher factor productivity associated with investments into adaptation infrastructure effectively lowers the marginal cost of aggregate production allowing for higher production, consumption and welfare.

3. Concurrent investments in adaptation infrastructure soften welfare costs of concurrent natural disasters, even if less than preventive adaptation investments (Fig. 3). In case of a natural disaster occurring in 2024, public investments in adaptation infrastructure starting in the same year help to restore the capital stock quicker, also by intensifying private investment, thereby providing the base for higher GDP, and consumption, and limiting the increase in debt levels. Directly reacting fiscal instruments, i.e., endogenously adjusting consumption and labor income taxation securing a balanced budget, can again help to contain public debt levels as well, but come with significantly higher consumption losses. Debt financed policy reactions, i.e., the funding of respective investments through domestic, or alternatively through a mix of domestic and external debt issuance, imply permanently higher debt levels.



B. Policy Options for Developing Climate Change Resilience Through Adaptation Investments

4. Moderately sized, budget-financed adaptation investments provide an appropriate first policy response to Congo’s climate change exposure. Congo’s current strategy of fiscal consolidation and public debt reduction requires preserving investments related to climate change adaptation to strengthen resilience. Moderate investment into adaptation infrastructure could help avoiding massive welfare costs and an unsustainable hike in public debt. With epidemic diseases in the past being one of the more frequent and severe risk vectors of natural disasters, investments related to sanitation, the health sector, and access to basic infrastructures appear to promise high potential for adaptation successes. Respective investments would match the current Extended Credit Facility (ECF) arrangement’s prioritization of expenditures aimed at social purposes. Examples implying relatively low costs include enhanced disease surveillance, improved emergency planning and response warranting quick access to health services, and education aimed at promoting adaptation to climate change as well as respective crisis preparedness.⁵

⁵ For details see World Bank Group (2023) Annex 9.

5. Sustainable forestry provides opportunities for adaptation investments also promoting diversification. Congo's follows a diversification strategy emphasizing the development of agriculture, forestry, mining, and local manufacturing as well as the digitalization of the economy (SIP 4). This strategy implies major infrastructure investment needs and provides Congo with the chance to exploit synergies with the adaptation to climate change by investing in resilient infrastructure compatible with diversification needs. Congo's share in the rain forests and peatlands of the Congo Basin highlights opportunities to combine sustainable forestry and adjacent manufacturing sectors with the marketing of carbon sequestration (CR 24/2 Annex 2). Respective reform measures would include the establishment of (i) digitalized and transparent forest documentation and management systems, (ii) climate resilient transportation, communication, sanitation, water, and health infrastructures, and (iii) administrative procedures adequate to attract investors and the local workforce to the sector.

6. Policies promoting renewable energy production and climate-smart agriculture could complement Congo's climate change adaptation strategy. Renewable energy is an important source for electricity generation in Congo: close to 30 percent of Congo's electricity is generated by hydroelectric power stations,⁶ while solar power appears particularly attractive in remote areas. Additional hydroelectric and solar power plants could contribute to satisfying a growing demand for electricity.⁷ Similarly, modest investments into efficient irrigation technology and monitoring and training of farmers could boost yields in the agricultural sector and contribute to reductions in greenhouse gas emissions.⁸ Resilient flooding risk management, including adequate early warning and response systems, would support resilience against climate-induced more frequent floodings and may help to reduce crisis management costs, including those of emergency food aid.⁹

C. Climate Change Related Natural Disasters, Adaptation Investment, and Inequality

7. If neither mitigated nor hedged adequately by adaptation, climate risks can, beyond reducing GDP, severely intensify preexisting inequalities. The IMF's Multisector Macro-Inequality Incomplete-Markets Macro Inequality (MIMMI) general-equilibrium rational-expectations model is employed to evaluate the long run macro-inequality impact of climate change. Simulations demonstrate that climate-change related losses in agricultural and labor productivity could exacerbate preexistent inequality issues sharply (Fig 4.1-4).¹⁰ In addition, in face of already elevated dependency on food imports, further increases in food imports may aggravate the detrimental

⁶ Data taken from Bloomberg.

⁷ Congolese industry representatives highlighted insufficient electric capacity as one of the obstacles to Congo's diversification strategy. For the benefits of renewables see also World Bank Group (2023), Annex 7.

⁸ World Bank Group (2023), Annex 3.

⁹ Some 60 percent of the CFAF 16 billion emergency plan in reaction to the 2024 floods were allocated to food security.

¹⁰ The calibration is consistent with that employed for the DIGNAD model, with imports however set to 45 percent of GDP and household-level income inequality and sectoral output and consumption shares mimicking the representative consumption basket of the country. The permanent shocks to agriculture and labor productivity that embody climate change have been set so as to yield a 2 permanent percent GDP loss.

effects of spill-over channels of food inflation to Congo and intensify existing fragilities due to elevated food insecurity (Fig 4.5-6).¹¹

8. Inequality's sensitivity to climate shocks calls for adequate attenuation policies.

Targeted social policies can act as powerful mitigators, thereby highlighting the need to address issues around the execution of budget positions related to social expenditures, as already pointed out in the fourth review for Congo's ECF arrangement (CR 24/2). When speeding up respective expenditure execution, however, the strong sensitivity of already elevated inequality metrics to climate shocks suggests the prioritization of social mitigation measures particularly benefitting the most vulnerable groups, such as the rural population, women, and the poorest part of the population. At the same time efficiency considerations would favor spending items targeted at vulnerable groups that help to scale up social, human, or physical capital, emphasizing the investment side of social spending. With the population affected on the rise,¹² food insecurity is another key concern, calling for climate resistant agricultural development targeted at essential food items as well as well-targeted transfers to deprived population groups.

9. Investments into the adaptation of Congo's infrastructure to climate change can mitigate the impact of climate induced productivity shocks, both on GDP and inequality.

Suitable investments in adaptation infrastructure of moderate size can offset, if sufficiently persistent, real GDP losses caused by climate change via lower productivity: for Congo a perpetual annual additional investment of 0.322 percent of GDP can neutralize the combined damage of a 15 percent loss of total factor productivity in agriculture and a 19 percent loss of labor productivity due to climate change (Fig. 5). Compensating for deteriorating inequality due to climate reduced productivity losses is more costly. Congo would need to perpetually invest around 3.8 percent of GDP per year to approximately mitigate the rise in the poverty rate due the climate induced productivity shock described above.

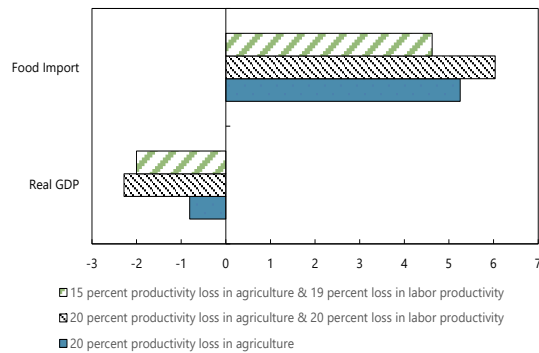
¹¹ Congo displayed in recent years an elevated share of the population affected by severe food insecurity, both compared to other Sub-Saharan countries as well as compared across time. <https://microdata.worldbank.org/index.php/catalog/6103>

¹² According to FAO the severely affected population rose from 43 percent in 2016 to 59 percent to 2022 (averages over the previous three years).

Figure 4. Climate Change Induced Productivity Shocks, GDP, Food Supply, and Inequality

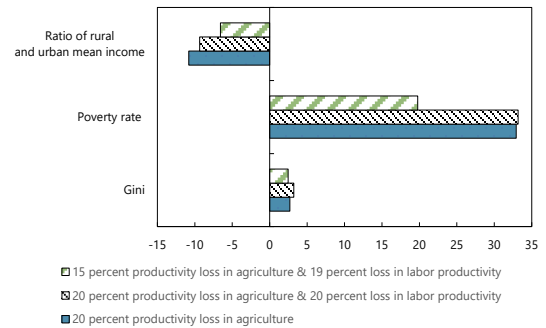
Productivity shocks to agriculture and labor due to climate change reduce real GDP and increase food imports...

Long-run impact of productivity reduced by climate change
(Percent)



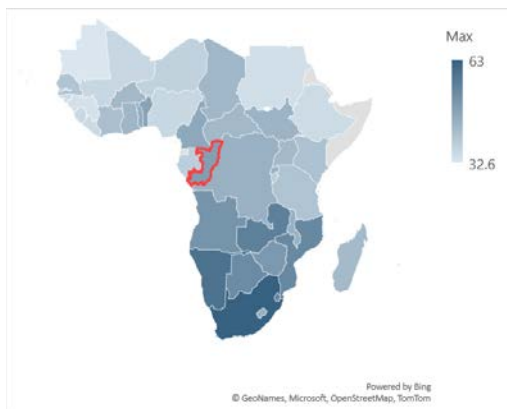
... with poverty rates and inequality increasing, in particular also between the rural and the urban population.

Long-run impact of productivity reduced by climate change
(Percent)

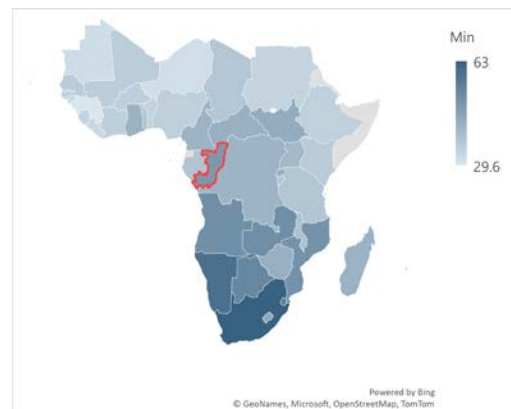


Congo displays an elevated level of inequality within Sub-Saharan Africa.

Inequality in Sub-Saharan Africa
(Gini Index, Higher is less equal, max values since 2011)

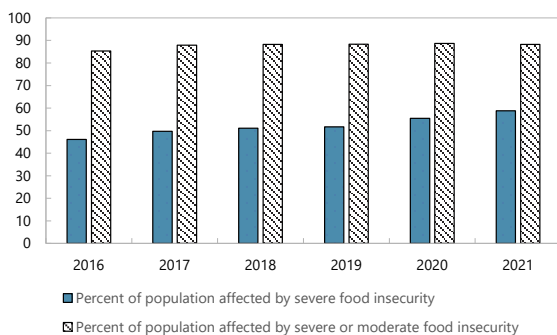


Inequality in Sub-Saharan Africa
(Gini Index, Higher is less equal, min values since 2011)



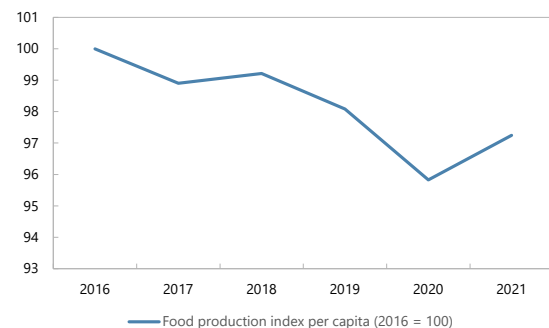
Food insecurity increased in recent years...

Population Affected by Food Insecurity
(Percent)

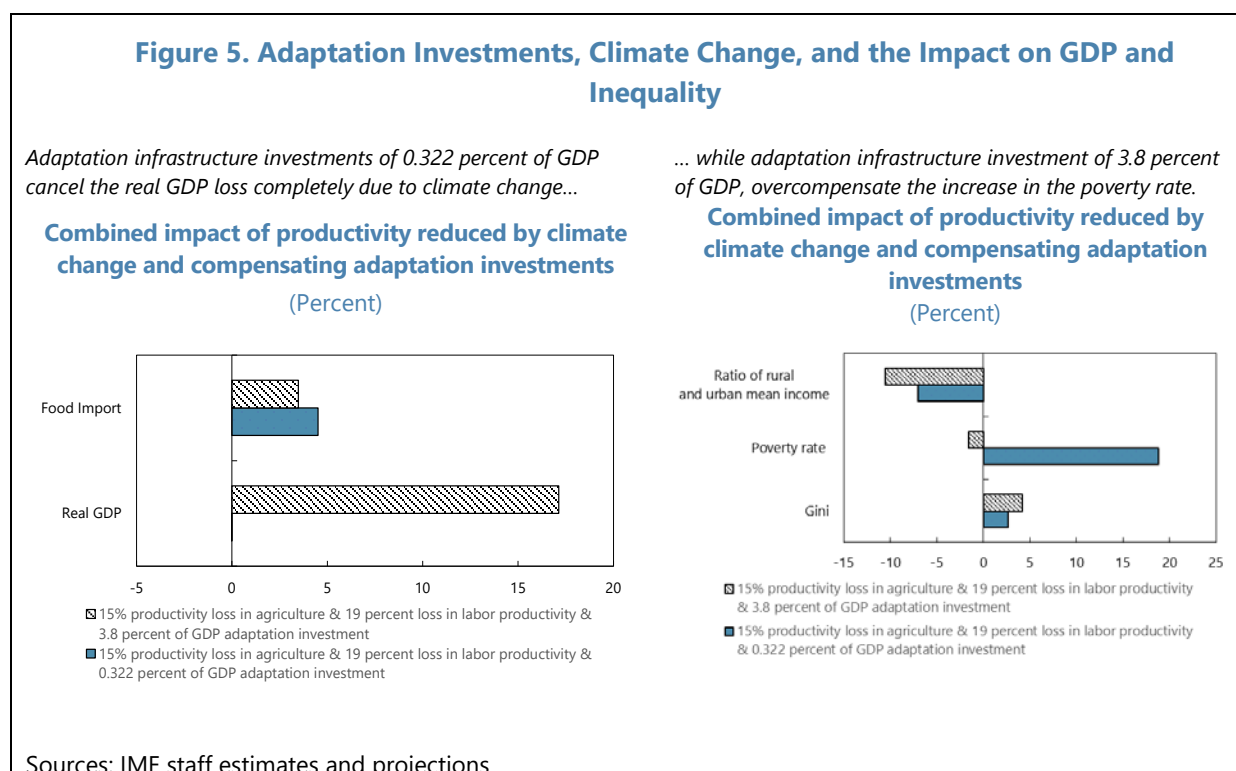


...as domestic food production per capita declined.

Domestic Food Production
(Volume index per capita)



Sources: Bing, GeoNames, Microsoft, OpenStreetMap, TomTom, World Bank, IMF staff estimates and projections.



10. Reaping the benefits offered by moderate adaptation investments, however, requires identifying adequate funding sources, especially given Congo’s fiscal consolidation strategy.

With debt service needs foreseen to almost completely consume over the next 4 years any fiscal space provided by the country’s hydrocarbon revenues, funding needed for any adaptation investment scenario would have to be obtained either through additional grants and/or concessional external debt (Fig. 6), and further efficient gains in public spending.¹³ Persistent uncertainties around Congo’s total public debt level (SIP 1) highlight the need for finding concessional funding sources, as access to non-concessional external funding is expected to remain scarce in foreseeable future, and domestic funding remains costly.¹⁴ Significant adaptation investments are hence expected to generate prospective balance of payments and/or fiscal funding needs, which might motivate seeking access to the IMF’s RSF facility. Potentially faster-than-expected declining hydrocarbon revenues due to shrinking oil exports in an accelerated or uneven transition scenario to a greener global economy would further intensify respective pressures.

¹³ This assumes that the current ECF arrangement will be followed up by a successor arrangement with similar conditionality that would be accompanied by a RSF arrangement.

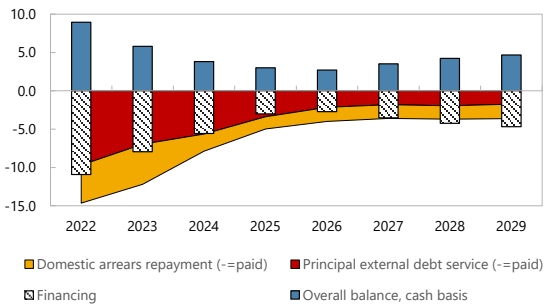
¹⁴ The expected real yield on Congolese 3-year treasuries stands higher than 6 percent.

Figure 6. Funding Sources for Adaptation Investments

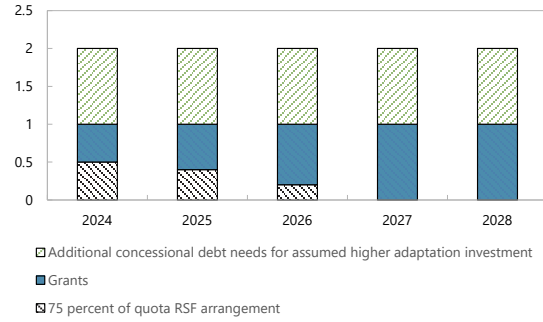
In the medium run Congo's budget provides little additional space for potential funding of adaptation investment...

... suggesting the need to turn to additional exceptional funding sources.

Selected Debt Service Components and Budget Headlines
(Percent of GDP, stacked)



Funding Sources Assumed For 5 Years of Successive One or Two Percent Of GDP Investment Into Adaptation To Climate Change
(Percent of GDP, stacked)



Sources: IMF staff estimates and projections.

References

Aligishiev, Z., Ruane, C., and Sultanov, A. (2023). "User Manual for the DIGNAD Toolkit." IMF Technical Notes and Manuals 2023/03 (TNM/2023/03)". International Monetary Fund, Washington, D.C.

Alter, Ad., Ghilardi, M. F., and Kaura, D. S. (2015). "Public Investment in a Developing Country Facing Resource Depletion". IMF Working Paper WP/15/236, International Monetary Fund, Washington, D.C.

Badel, Aljandro (2022). "MIMMI App V1.0: User's Manual". mimeo.

Badel, Aljandro, and Lyngass, Rachel F. (2023). "Mining Revenue and Inclusive Development in Guinea". IMF Working Paper WP/23/90, International Monetary Fund, Washington, D.C.

IMF (2021). "Republic of Congo Selected Issues" (CR 21/226). International Monetary Fund, Washington, D.C.

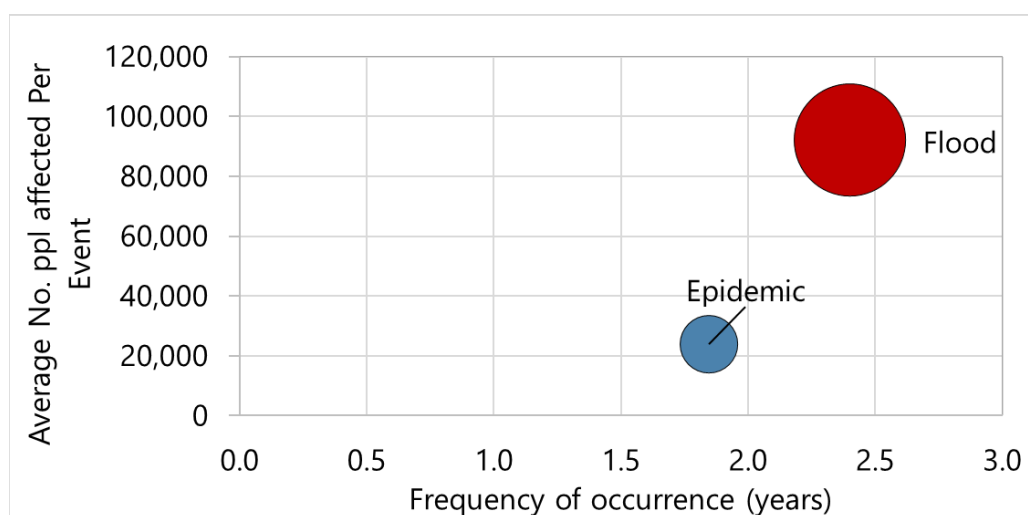
World Bank Group (2023). "Republic of Congo: Country Climate and Development Report (CCDR)". World Bank, Washington, D.C.

FLOOD EVENTS OF 2023–2024¹

A. The Republic of Congo Is Vulnerable to Climate Shocks.

- 1. The Republic of Congo is increasingly exposed to climate change, with severe flooding events becoming more frequent.** In the recent past, the country has experienced increasingly recurrent major flooding, particularly affecting vulnerable regions such as the river corridor and the most concentrated urban centers of Brazzaville and Pointe-Noire (see Fig. 1 in SIP 6). Both the Congo River and the Oubangui River have reached record water levels in the 2023–2024 rainy season due to historic heavy rainfall. These floods are attributed to persistent rains, overflowing rivers, and the condition of soils prone to runoff. Inadequate stormwater drainage systems and sanitation infrastructure, along with insufficient adherence to construction regulations, exacerbate the flood's adverse impact.
- 2. Flooding and pandemics occur on a frequent basis in the Congo basin, both of which have detrimental impacts on the economy and population.** Based on EM-DAT data from 2000, Congo experiences a flooding event approximately once every two and a half years, and a pandemic once every other year (see Fig. 1). The high frequency of these shocks undermines the development objectives of the authorities (such as the National Development Plan and the SDGs) given their impacts of household welfare, as well as fiscal consolidation efforts due to the need to fund relief, recovery, and reconstruction efforts. Floods are by a significant margin the most impactful events, affecting on average approx. 92,000 people (including the recent 2023 floods), dwarfing epidemics which impact on average 24,000 people.

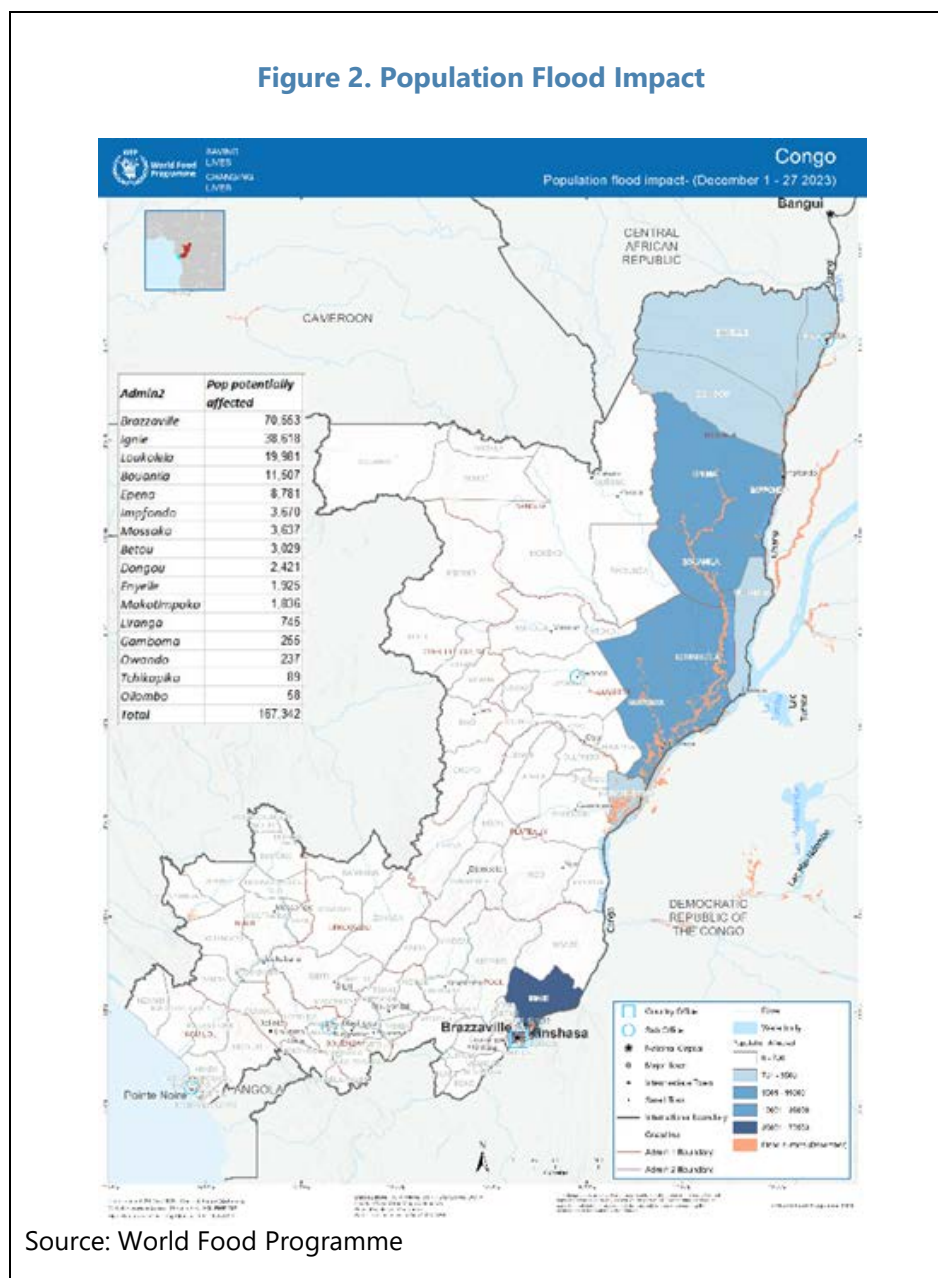
Figure 1. Impact of Climate and Health Shocks in Congo



Source: Authors based on data from EM-DAT.

¹ Prepared by Barry Maher and Nicolas Million

B. The Recent Seasonal Rainy Season Led to Historic Flood.



3. In December 2023, heavy rains led to floods in nine departments, primarily in the northern regions bordering the Congo River, with significant humanitarian impact. Based on initial government estimates as of January 2024, 336,560 individuals were affected, with 23 reported deaths. The floods submerged more than a hundred villages along the river coast, leaving homes, schools, and health centers inaccessible. Water points and sanitation facilities were rendered non-functional, heightening the risk of waterborne illnesses. Agricultural and fishing activities were halted, impacting thousands of households.

4. The Government of Congo developed a comprehensive response plan to provide relief to affected areas, however its implementation was delayed due to the lack of fiscal buffers and challenges with budget execution. The Government declared a state of humanitarian emergency on December 29, 2023. This marked the commencement of the response plan, developed in collaboration with development and humanitarian partners. The plan, with a budget totaling approx. 15.8 bn CFA francs, focuses on seven critical areas including: i) Food Security, Shelter and Non-Food Items; ii) Water, Hygiene and Sanitation; iii) Health; iv) Nutrition; v) Education; vi) Protection, Security, and Logistics, and vii) Coordination. With the objective of assisting 500,000 people, the plan aims to mitigate immediate impacts and prevent disease outbreaks. The majority of the response cost is targeted towards alleviating food insecurity (60% of total) with the second most costly item being the provision of shelter and essential household items (13% of total). The initial implementation of the response plan was delayed until February 2024, three months after the occurrence of heavy rains, primarily due to low budget execution capacity combined with insufficient fiscal space to finance it².

C. Policy Implications

5. The fiscal implications of the floods are substantial, reflecting the gravity and scale of the humanitarian crisis. In the immediate aftermath of the flooding event, the authorities have rightly prioritized the protection of lives and livelihoods of those affected. This would require mobilizing budgetary resources amounting to 15.8bn CFA francs (0.22% percent of non-oil GDP) for an effective response. However, the impact of the floods is expected to extend beyond immediate relief costs. The severe disruption to fisheries and agriculture, which constitute significant sectors of non-oil economic growth and approx. 70% of employment in Congo, will have lasting effects via the destruction of assets (e.g., farm equipment, fishing boats) and income (e.g., crops). Furthermore, the extent of the damage to public and private assets is yet to be quantified. Studies show that for significant flood and storm events, government expenditures increase due to reconstruction and clean-up efforts in the years following the event³, which in the case of Congo could undermine fiscal consolidation efforts moving forward. The negative knock-on effects and economic impact of the floods will materialize over time, affecting food security and economic stability.

D. Recommendations

6. Strengthen fiscal buffers for shock response. Given the increasing exposure to climatic and other shocks in Congo, the authorities would benefit from strengthening fiscal buffers for shock response. As the authorities currently have very limited fiscal space and are enacting fiscal consolidation efforts, they could gradually build fiscal buffers over time, enabling more rapid implementation of response plans for future shock events. The gradual build-up would place less strain on fiscal space in the initial years, whilst creating needed fiscal buffers for future shock events.

² On Feb. 23rd, 2024, the government deployed a humanitarian convoy by boat to assist the flood victims in the northern part of Congo, which consisted of several tons of food and other items.

³ Fiscal Impacts of Climate Disasters in Emerging Markets and Developing Economies, IMF 2023

Fiscal buffers to develop/strengthen include the expansion of the existing contingency reserve in an objective and transparent manner; right sizing the allocation of resources to the Ministry of Social Affairs, Humanitarian Action, and Solidarity; and establishing contingent lines of credit and/or insurance.

7. Draft and adopt a National Disaster Risk Finance Strategy, based on sound diagnostics.

A National Disaster Risk Finance Strategy sets out the strategic priorities of a government regarding disaster response financing. Given the tight fiscal situation in the RoC, the strategy would support the authorities allocate and disburse scarce fiscal resources when responding to future disasters in alignment with these strategic priorities. The authorities could seek to mobilize development partner support to conduct a disaster risk finance diagnostic, and formulate the strategy based on the diagnostic's recommendations. International experience has demonstrated that governments that draft and adopt a national disaster risk financing strategy signal their ownership and commitment for the financing and implementation disaster response. Many governments have then used their DRF strategies as a platform to engage with development partners to mobilize concessional finance to support the strategy. The example of Malawi's success in this regard is discussed below (Box 1).

Box 1. Malawi Mobilizes Grant Funds Building on Their National DRF Strategy

Malawi's National Disaster Risk Financing (DRF) Strategy, implemented in 2019, has been instrumental in enabling the government to effectively mobilize grant funds for disaster resilience. The strategy focuses on leveraging external support to enhance financial resilience against climate shocks, particularly drought events, which disproportionately affect the country's rural population, of whom 70 percent live below the poverty line.

One notable success stemming from this strategy is the mobilization of a US \$21 million grant from the Global Risk Financing Facility (GRiF). This grant has been allocated to bolster Malawi's Social Cash Transfer Program (SCTP) and develop two new disaster risk financing instruments. Specifically, the funds are utilized to cover premiums for a risk transfer product tied to drought triggers and to provide contingency finance for flexible scale-ups in case of product failure or unavailability.

Through collaborative efforts, the DRF strategy facilitated the successful mobilization of grant resources to implement a risk financing mechanism within the SCTP framework, enabling the program to extend support to additional beneficiaries during climate shocks, such as droughts. During the 2021–22 agricultural season, this mechanism was triggered for the first time, resulting in USD 6.3 million in additional cash transfers reaching approximately 320,000 individuals.

Source: IMF staff, based on Global Risk Financing Facility – Annual Report 2022.

8. Implement the C-PIMA recommendations. The relevant recommendations from the C- PIMA produced by the IMF in April 2023 include: i) ensuring that climate change considerations are better taken into account in public investment planning; ii) strengthening institutional coordination mechanisms, namely operationalize the National Committee on Climate Change to establish a technical coordination mechanism responsible for promoting the integration of climate aspects into public investments; iii) integrating climate considerations into the project evaluation and selection process; iv) integrating climate change issues into budgeting and project portfolio

management, and; v) identification of additional ex-ante financing instruments (in alignment with the first recommendation).

9. Improve coordination within the government and with the development partners (cf. CCDR recommendations). Actions to strengthen intra-governmental coordination, in addition to coordination with development partners will be important to improve the integration of disaster risk management into public planning and response capacities. Such integration is critical in lowering the fiscal exposure to disasters in Congo. Key actions include: establish the National Committee on Climate Change to act at the NDC coordination and operationalization mechanism (C-PIMA); formulation of frameworks for fostering inclusive governance and stakeholder engagement as per recommendations from the Climate Change Institutional Assessment (budget screening, coordination, consultation, regulations, planning, and data disclosure); engage in effective communication and awareness campaigns to build public and donor support and raise awareness about the importance of integrating DRM into public planning and response.