INTERNATIONAL MONETARY FUND

IMF Country Report No. 15/281

DEMOCRATIC REPUBLIC OF THE CONGO

SELECTED ISSUES

October 2015

This Selected Issues paper on the Democratic Republic of the Congo was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the Democratic Republic of the Congo. It is based on the information available at the time it was completed on August 20, 2015.

Copies of this report are available to the public from

International Monetary Fund • Publication Services
PO Box 92780 • Washington, D.C. 20090
Telephone: (202) 623-7430 • Fax: (202) 623-7201
E-mail: publications@imf.org Web: http://www.imf.org
Price: $18.00 per printed copy

International Monetary Fund
Washington, D.C.

INTERNATIONAL MONETARY FUND

DEMOCRATIC REPUBLIC OF THE CONGO

SELECTED ISSUES

August 20, 2015

Approved By
African Department

Prepared by Messrs. Toé, Maino, Koulet-Vickot, Hellwig, Melhado (all AFR), Petit (FAD), and Mvogo (Economist at the Resident Representative's office in Kinshasa).

CONTENTS

TABLES

FINANCIAL INCLUSION IN THE DEMOCRATIC REPUBLIC OF THE CONGO: PERFORMANCE AND CHALLENGES 44

FIGURES

APPENDIX TABLES

TAKING STOCK OF POVERTY IN THE DEMOCRATIC REPUBLIC OF THE CONGO[1]

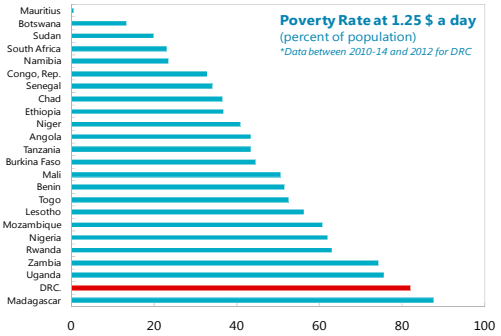
Poverty has receded in the Democratic Republic of the Congo (DRC) over the last decade on the back of gradual stabilization in the security and political situation, strong economic growth, and sharp decline in inflationary pressures. Most social indicators also improved during the period. However, poverty remains pervasive with a level still among the highest in sub-Saharan Africa (SSA), and DRC will likely not achieve any of the Millennium Developments Goals (MDGs) by 2015. Progress in poverty reduction has been uneven across regions and inequality has risen. Policy actions should focus on fostering the development of labor-intensive sector, increasing social spending, and redirecting public resources to the poorest regions of the country.

A. Recent Progress in Poverty Reduction

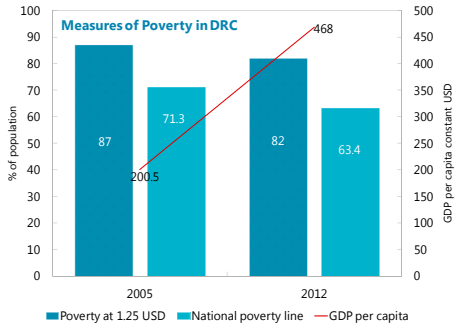
1. **Indicators of poverty have improved in recent years, but poverty remains pervasive and geographically concentrated.** Poverty incidence, measured by the share of the population living below the national poverty line,[2] fell from 71.4 percent in 2005 to 63.4 percent in 2012. Based on the standard measure of $1.25 a day, it also decreased, but only marginally (5 percentage points). Despite the relatively steep decline in rural poverty, poverty is more pronounced in rural areas (65.2 percent) than in urban ones (areas?) (60.4 percent), and affected more men (56 percent) than women (49 percent). The DRC accounted for 5 percent of the number of extremely poor people in the world in 2011 and the second in SSA, behind Madagascar (Figure 1). The country is significantly off-track regarding the MDG of halving, to less than 40 percent, the share of the population living below the national poverty line by end-2015.

Figure 1. Democratic Republic of the Congo: Indicators of Poverty

Poverty incidence, measured by the standard $1.25 a day, is among the highest…



…even though progress was made on both measures of poverty between 2005 and 2012.



Sources: World Development Indicators; Congolese authorities; and IMF staff estimates.

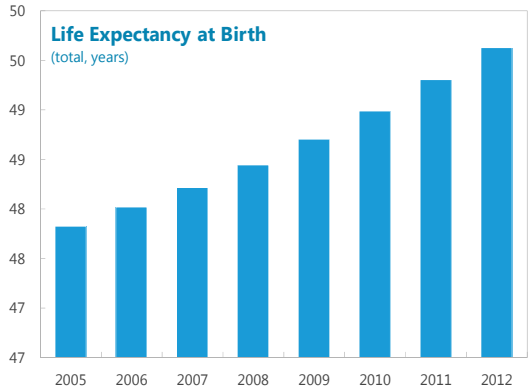
[1] Prepared by Jean-Paul Mvogo and Mesmin Koulet-Vickot.

[2] In 2012, the national poverty line was at CDF 869.210 ($.945) in urban areas and CDF 579.248 ($.630) in rural areas.

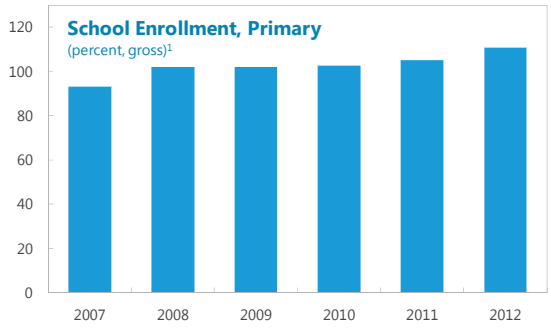
2. **Other social indicators improved as well**. Life expectancy increased to 51.7 years in 2013 from 47.8 years in 2005, while the rate of child mortality decreased by 30 percent, between 2007 and 2012, to 104 deaths for 1000 births (see Table 1). Education is considered as the MDG in which DRC made the most significant improvements. Indicators of access, coverage, and academic achievements doubled between 2002 and 2012, exceeding the average of comparators in SSA. For example, seven out of ten children finished the last year of primary school in 2012, against three out of ten in 2002, and access to primary school is quasi universal with children attending school two years longer than their parents did.

Figure 2. Democratic Republic of the Congo: Selected Social Indicators, 2005–12

Life expectancy at birth steadily improved since 2005…



…while access to primary school became quasi universal.



[1] Total enrollment in primary education, regardless of age, expressed as a percentage of the population of official primary education age. GER can exceed 100% due to the over-aged and under-aged students because of early or late school entrance and grade repetition.

Source: World Development Indicators, World Bank.

B. Drivers of Progress

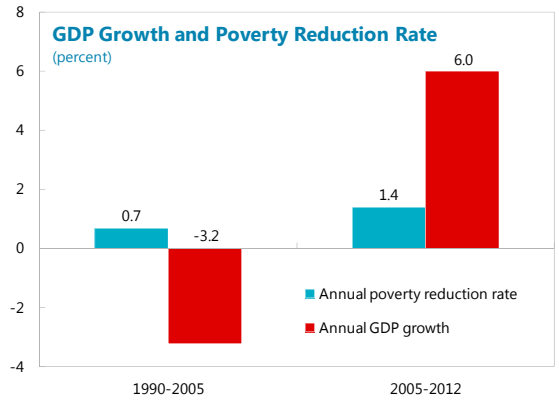
3. **Stabilization of the political and security situation was the foremost driver of progress.** This stabilization followed the signature of political agreement between some of the warring parties in 2002 in South Africa (Sun City) and the election of a legitimate government in 2006. This political dynamics translated into improvement in the security situation, which allowed the return of millions of internal displaced and refugees to their homes, and the revival of commercial and agricultural activities. It also facilitated the deployment of the central administration to the provinces, and the resumption of provision of basic public services destroyed or severely degraded by a decade of conflicts. Finally, it created the enabling environment for the private sector to invest.

4. **Strong economic growth and sustained disinflation also contributed.** The cumulative growth rate from 2007 to 2012 exceeded 33 percent, translating into an increase of real income per capita of about 15.5 percent. The mining sector was the main engine of this strong economic performance, above the SSA average. The agriculture sector also contributed, albeit to a lesser extent, with the gradual return of displaced and refugees to their villages. This may explain the

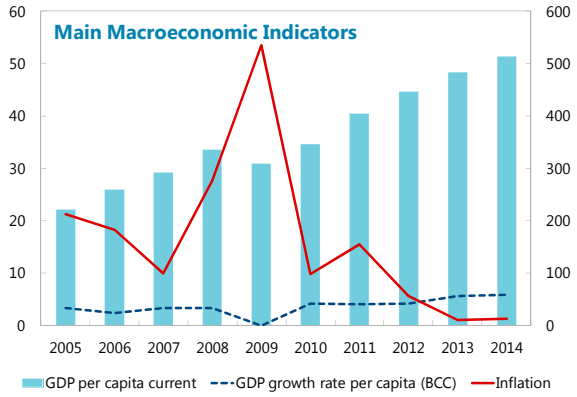
stronger reduction in poverty in rural areas (-14.0 percent) than in urban areas (-2.3 percent). Over this period, the DRC has also experienced a sharp decline in inflationary pressures (from 46.2 percent in 2009 to 5.7 percent in 2012),[3] as the result of the implementation of a fiscal anchor adopted in 2009 in the context of Fund-supported program.

Figure 3. Democratic Republic of the Congo: Macroeconomic Performance and Poverty

Solid economic growth is associated with poverty reduction.



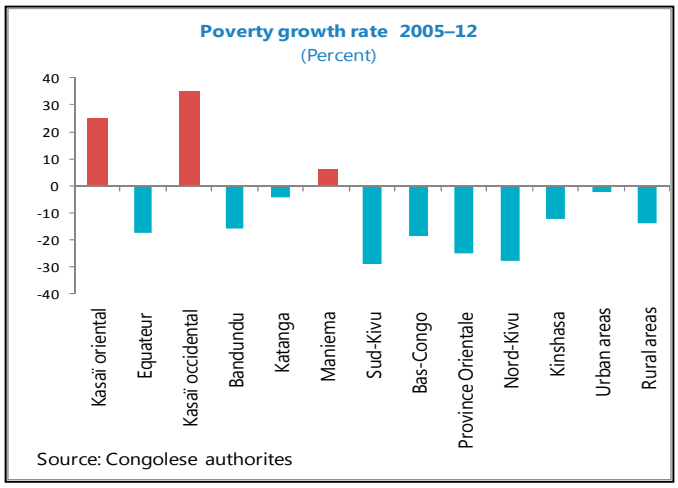
Lower inflation helps the poor.



Sources: Congolese authorities and IMF staff calculations.

C. Main Challenges Going Forward

5. **Progress in poverty reduction was uneven across regions.** From 2005 to 2012, poverty increased in the two Kasai provinces (+35.2 percent in Kasai Occidental and +25.4 percent in Kasai Oriental), while declining in the conflict-torn provinces of North and South Kivu that benefited from significant dividends of stabilization. In the mineral-rich Katanga province, despite an intensification of mineral activities, poverty receded by only 4.2 percent. Overall, poverty rates range from 36.8 percent of the population in the province of Kinshasa to above 70 percent in four provinces (Kasai Occidental, Kasai Oriental, Equateur, and Bandundu).



Source: Congolese authorites

[3] Inflation was 21.3 percent in 2005.

6. **Inequality is rising.** From 2005 to 2012, the Gini index increased by three points, highlighting a rise in inequality in the DRC. The index of economic well-being computed in context of the Demographic and Health Survey[4] revealed that 85 percent of people living in urban areas are in the two highest quintiles of well-being while more than half of the rural respondents were ranked in the two lowest quintiles. Comparison with SSA countries shows that inequality in DRC, as measured by the consumption-based Gini index, is slightly above the SSA average with 0.45 in 2012, far from the South Africa and Namibia with respectively 0.65 and 0.61.

Text Table 1. GINI Coefficient for Selected SSA Countries

	Most recent data (0–1 range)
South Africa	0.65
Namibia	0.61
Botswana	0.60
Zambia	0.57
Rwanda	0.51
Congo, Dem. Rep.	0.45
Uganda	0.45
Tanzania	0.38

Source: World Development Indicators.

7. **Under nutrition is also prevalent**. For instance, the 2014 Finscope survey revealed that only 22 percent of people surveyed never skip a meal and 26 percent unable to send their children to school. Despite improvements, child malnutrition and its consequences are widespread, with 43 percent of children under age five stunted or short in comparison to average height. The 2013 Human Development Index of the United Nations Development Program ranked DR Congo 186th out of 187 countries and territories listed.

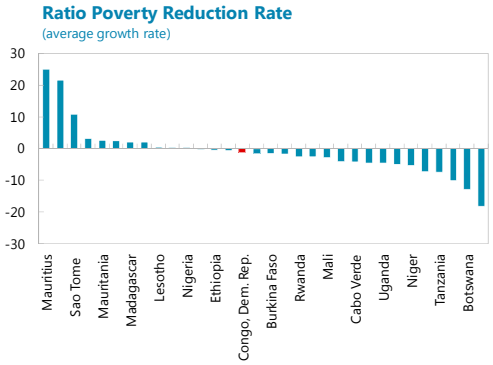
D. Policy Recommendations

8. **Fostering the development of labor-intensive sectors is critical.** In the 1-2-3 Survey in 2012, 65.6 percent of surveyed Congolese considered the lack of employment as the main source for poverty. In urban areas, this figure rose to 77.2 percent. The growth elasticity of poverty was quite low over 2007–12, as the main engine for growth was the mining sector, which is capital intensive. In DRC, 1 percent of GDP growth led to 1.1 percent of reduction of the poverty rate, against 18.1 percent in South Africa, 7.3 percent in the Republic of Congo, or 4.6 percent in Uganda. Investing to increase productivity in labor-intensive sector such as agriculture and strengthening small and medium enterprises in urban areas are a promising strategy to curb poverty. This requires better transportation networks to improve farmers' access to markets and investment in power generation. Better access to finance would allow farmers and entrepreneurs to invest in more inputs and equipment.

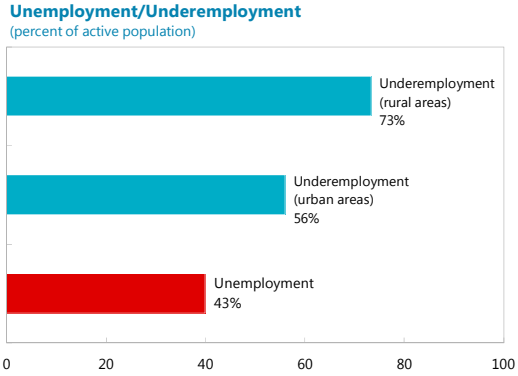
[4] The index is based on the ownership or use of durable goods and on access to electricity and to drinkable water, type of fuel used, and toilets and number of rooms available.

Figure 4. Democratic Republic of the Congo: Poverty Reduction, Unemployment, Underemployment

Poverty reduction efforts are showing some success, albeit marginal….



…but unemployment in both formal and informal sectors is high.

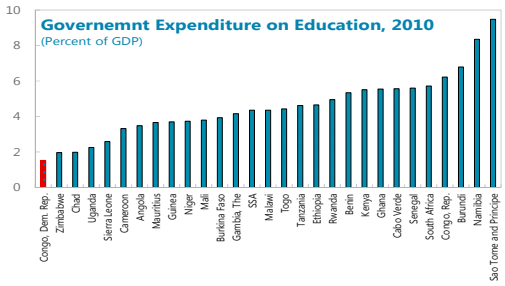


Sources: Congolese authorities, World Development Indicators, and IMF staff calculations.

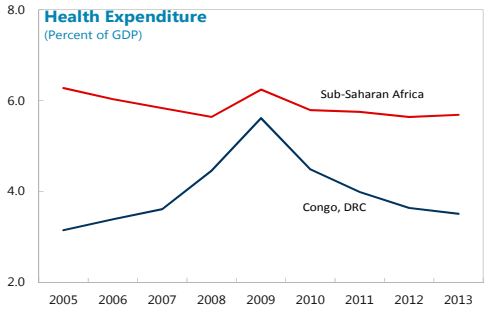
9. **Increasing public spending on priority social sectors could accelerate poverty reduction**. Despite recent progress, per capita annual public expenditures on health and education are lower than the SSA average. Evidence shows that access to and use of basic social services is associated to lower poverty rates. A recent survey underscored that the likelihood of being poor decreases with the level of education (with a ratio of nearly 2:1 between persons who graduated from university and those who have never attended school). Raising pro-poor spending will require more domestic revenue mobilization and a reprioritization of expenditures.

Figure 5. Democratic Republic of the Congo: Government Expenditures on Education and Health

DRC needs to scale up investments to improve human capital…



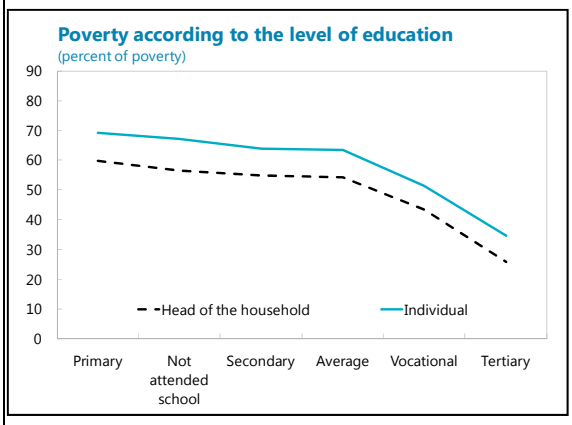
…to catch up with other SSA countries both in education and health expenditure.



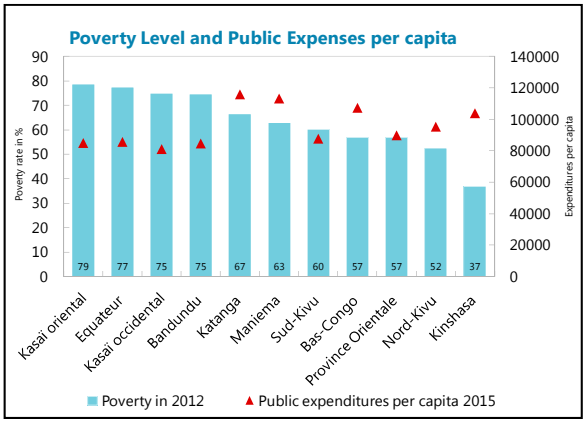
Source: World Development Indicators.

Figure 6. Democratic Republic of the Congo: Poverty and Education

Poverty is linked to the level of education…



… reflecting limited public spending across the provinces.



Sources: Congolese authorities; World Development Indicators; and IMF staff calculations.

10. **There is a need to redirect public spending towards the poorest regions**. In the DRC, the poorest provinces are not the prime recipient of public resources. For instance, in 2013, the government spent $4 per capita in education in Kasai Oriental, the poorest province in the DRC, against $57 for Kinshasa, the province with the lowest number of poor. Targeting could be a means to maximize the impact of limited public resources on poverty.

Table 1. Democratic Republic of the Congo: Millennium Development Goals, 1990–2014

	1990	1995	2000	2005	2010	2012	2013	2014
Goal 1: Eradicate extreme poverty and hunger								
Employment to population ratio, 15+, total (%) (modeled ILO estimate)	..	66.2	66.3	66.1	66.0	66.0	66.2	..
Employment to population ratio, ages 15-24, total (%) (modeled ILO estimate)	..	39.4	39.1	39.2	38.7	38.6	38.8	..
GDP per person employed (constant 1990 PPP $)	1,455.0	830.0	605.0	642.0	717.0	766.0	..	..
Income share held by lowest 20%	..	..	..	5.5	..	…	…	…
Malnutrition prevalence, weight for age (% of children under 5)	..	30.7	..	..	24.2	…	23.4	..
Poverty gap at $1.25 a day (PPP) (%)	..	..	..	52.8	..	…	..	..
Poverty headcount ratio at $1.25 a day (PPP) (% of population)	..	..	..	87.7	..	…	..	..
Vulnerable employment, total (% of total employment)	..	..	..	..	..	…	..	..
Goal 2: Achieve universal primary education								
Literacy rate, youth female (% of females ages 15-24)	..	..	..	..	..	…	..	..
Literacy rate, youth male (% of males ages 15-24)	..	..	..	..	..	…	..	..
Persistence to last grade of primary, total (% of cohort)	..	..	..	..	54.5	55.4	..	..
Primary completion rate, total (% of relevant age group)	..	..	..	..	64.0	72.8	..	..
Adjusted net enrollment rate, primary (% of primary school age children)	..	66.8	..	..	..	…	..	..
Goal 3: Promote gender equality and empower women								
Proportion of seats held by women in national parliaments (%)	5.4	..	..	12.0	8.4	8.9	8.9	10.6
Ratio of female to male primary enrollment (%)	70.8	68.8	..	..	86.6	87.6	..	..
Ratio of female to male secondary enrollment (%)	..	60.9	..	..	57.6	59.0	..	..
Ratio of female to male tertiary enrollment (%)	..	..	..	..	..	55.1	..	..
Share of women in wage employment in the nonagricultural sector (% of total nonagricult	25.9	..	..	..	..	…	..	..
Goal 4: Reduce child mortality								
Immunization, measles (% of children ages 12-23 months)	38.0	27.0	46.0	61.0	74.0	73.0	73.0	..
Mortality rate, infant (per 1,000 live births)	114.7	114.7	114.6	104.9	92.4	88.1	86.1	..
Mortality rate, under-5 (per 1,000 live births)	176.0	176.0	175.9	156.0	130.7	122.3	118.5	..
Goal 5: Improve maternal health								
Adolescent fertility rate (births per 1,000 women ages 15-19)	136.9	133.6	130.9	131.2	134.0	135.3	134.3	..
Births attended by skilled health staff (% of total)	..	..	..	..	80.4	…	..	80.1
Contraceptive prevalence (% of women ages 15-49)	..	..	..	..	17.3	…	..	20.4
Maternal mortality ratio (modeled estimate, per 100,000 live births)	1,000.0	1,100.0	1,100.0	930.0	810.0	…	730.0	..
Pregnant women receiving prenatal care (%)	..	..	..	..	88.8	…	..	88.4
Unmet need for contraception (% of married women ages 15-49)	..	..	..	..	24.2	…	..	27.7
Goal 6: Combat HIV/AIDS, malaria, and other diseases								
Children with fever receiving antimalarial drugs (% of children under age 5 with fever)	..	..	..	..	39.1	…	..	29.2
Condom use, population ages 15-24, female (% of females ages 15-24)	..	..	..	..	..	…	..	..
Condom use, population ages 15-24, male (% of males ages 15-24)	..	..	..	..	..	…	..	..
Incidence of tuberculosis (per 100,000 people)	328.0	326.0	327.0	327.0	327.0	327.0	326.0	..
Prevalence of HIV, female (% ages 15-24)	0.7	0.8	0.8	0.7	0.5	0.5	0.5	..
Prevalence of HIV, male (% ages 15-24)	0.4	0.4	0.4	0.4	0.3	0.3	0.3	..
Prevalence of HIV, total (% of population ages 15-49)	1.3	1.5	1.5	1.4	1.2	1.1	1.1	..
Tuberculosis case detection rate (%, all forms)	18.0	31.0	40.0	55.0	56.0	51.0	51.0	..
Goal 7: Ensure environmental sustainability								
CO2 emissions (kg per PPP $ of GDP)	0.1	0.1	0.1	0.1	0.1	…	..	..
CO2 emissions (metric tons per capita)	0.1	0.1	0.0	0.0	0.0	…	..	..
Forest area (% of land area)	70.7	70.0	69.4	68.7	68.0	67.7	..	..
Improved sanitation facilities (% of population with access)	17.0	18.7	22.6	26.4	30.0	31.4	..	..
Improved water source (% of population with access)	43.2	43.4	44.0	44.9	46.0	46.5	..	..
Marine protected areas (% of territorial waters)	3.8	4.4	4.4	4.4	4.4	4.4	..	..
Goal 8: Develop a global partnership for development								
Net ODA received per capita (current US$)	25.7	4.6	3.8	34.8	56.1	43.5	38.1	..
Debt service (PPG and IMF only, % of exports of goods, services and primary income)	..	..	..	15.4	2.0	1.8	2.4	..
Internet users (per 100 people)	0.0	..	0.0	0.2	0.7	1.7	2.2	..
Mobile cellular subscriptions (per 100 people)	0.0	0.0	0.0	5.1	19.0	30.6	41.8	..
Fixed telephone subscriptions (per 100 people)	0.1	0.1	0.0	0.0	0.1	0.1	0.0	..
Other								
Fertility rate, total (births per woman)	7.1	7.3	7.1	6.7	6.3	6.0	5.9	..
GNI per capita, Atlas method (current US$)	240	140	140	210	320	370	430	..
GNI, Atlas method (current US$) (billions)	8.4	6.0	6.4	11.2	20.1	…	29.1	..
Gross capital formation (% of GDP)	9.1	9.4	14.4	11.8	20.7	20.0	20.6	..
Life expectancy at birth, total (years)	47.4	46.4	46.4	47.8	49.0	49.6	49.9	..
Literacy rate, adult total (% of people ages 15 and above)	..	..	..	..	..	…	..	..
Population, total (billions)	34.9	42.0	46.9	54.0	62.2	65.7	67.5	..
Trade (% of GDP)	58.7	52.2	27.0	44.0	90.7	73.5	74.7	

Source: World Bank, *World Development Indicators*

References

United Nations Development Program, 2014, "Progress Evaluation Achieved by the Republic of the Congo towards the Millennium Developments Goals in 2012."

Ministry of Planning, 2014, "*Résultats de l'enquête sur l'emploi, le secteur informel et sur la consommation des ménages in 2012*."

Ministry of Planning and Ministry of Health, 2014, "*Deuxième enquête démographique et de santé (EDS-DRC II 2013-2014)*."

Ministry of Primary and Secondary Education, UNICEF and UNESCO, 2014, "*Rapport d'état du système éducatif*."

THE QUEST TOWARDS DIVERSIFICATION[1]

While natural resources have delivered strong economic growth over recent years, the Democratic Republic of the Congo (DRC) faces daunting challenges regarding export diversification and domestic production. Based on cross-country experiences, this note evaluates the type of structural reforms and economic diversification that could contribute to boost and sustain growth in DRC, underscoring the need for improving infrastructure and trade networks, reducing barriers to entry for new products, deepening financial markets, and investing in human capital.

A. The Structure of the Congolese Economy

1. **Since the 2000, economic activity in the DRC recovered, exhibiting vigorous growth**. From 2002–08, real GDP growth averaged 5.8, but slowed significantly in 2009 with the global financial falling to 2.9 percent. However, after 2010, economic activity recovered and growth remained strong. Over the last four years, real GDP growth averaged 7.8 percent, driven essentially by the mining sector. Inflation fell from 15.5 percent in 2011 to 1 percent in 2014 as the authorities adhered to a fiscal anchor.[2] Higher mining exports and sustained foreign direct investment contributed to an overall balance of payment surplus, despite decreasing official transfers.[3] International reserves started falling in 2014, further declining in 2015.

2. **Notwithstanding recent success, sustaining high economic growth is becoming increasingly challenging.** On the one hand, economic growth is projected at 9.2 percent for 2015 and 7.5 percent on average in 2016–19 on the back of continued expansion of mining production with new mines coming on stream. On the other hand, inflation is expected to remain low. Nonetheless, with the current trend decline in copper and oil prices, the current account position is projected to deteriorate over the medium term, economic growth would slow down, and international reserve coverage to fall below four weeks by 2019. Risks to the outlook include: (i) a sharper decline in commodity prices; (ii) continued delays in structural reforms; (iii) escalation of residual insecurity into conflicts.

3. **Diversification slowly progresses led by the service sector.** Since 2006, exports of minerals have been steadily declining—as a percentage of GDP (Figure 1)—albeit the recent record production of 1 million tons of copper in 2014. While manufacturing—mainly, mining activities—is significant for the development of the country, the value added of services has been essential to the

[1] Prepared by Rodolfo Maino. Dafina Glaser provided valuable research assistance. The assessment of diversification should be interpreted cautiously due to data limitation.

[2] The fiscal anchor was adopted in the context of the 2009 Enhanced Credit Facility Program with the Fund, prohibiting financing from the central bank.

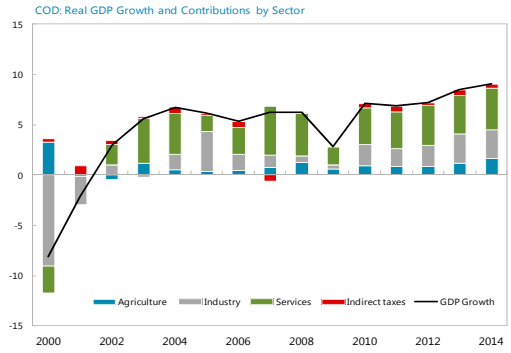
[3] In 2014, copper production reached 1.065 million tons in 2014 and new projects should further expand production in the coming years. Last year alone, copper exports grew by 16.3 percent, making the country the world's 6th largest copper exporter. The production of gold has more than doubled since 2013.

higher growth especially during the last few years. The leading component of the service sector is trade, communications, and commerce, which are indirectly linked to the mining activities mainly in the copper and zinc industry. In terms of sectoral share to GDP, services and manufacturing have maintained a steady but somewhat increasing pattern, while agriculture has maintained a somewhat constant but small contribution since 2010 (Figure 1).

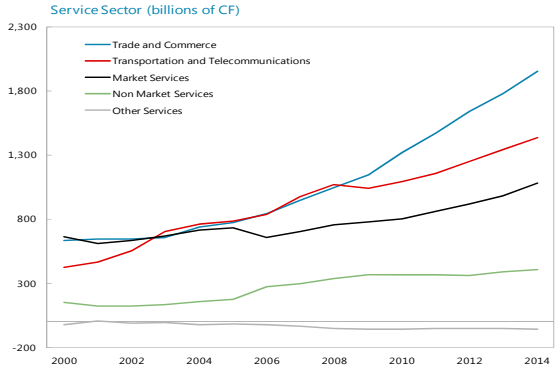
4. **DRC has exhibited a remarkable growth behavior vis-à-vis SSA countries in recent years.** Since 2009, DRC has shown growth rates (Figure 2) well above the average for sub-Saharan Africa (SSA). At the same time, the share of the industry—as a percentage of GDP—is higher than the average for SSA. Nevertheless, agriculture shows a much faster decline since 2009 *vis-à-vis* other SSA countries. On the other hand, the services sector has recently shown an upward trend, though with relative volatility. (Figure 2).

Figure 1. Democratic Republic of the Congo: Real GDP Growth and GDP by Sector

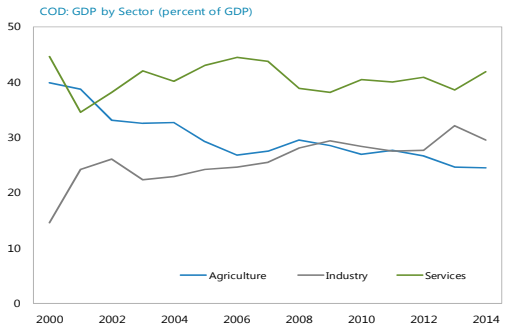
GDP has expanded since the 2009 crisis…



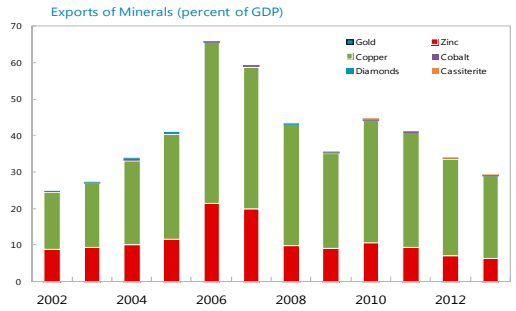
…with trade and commerce leading the expansion.



Nevertheless, services have improved as a share of total GDP…



…with mineral exports slowly decreasing on total GDP.

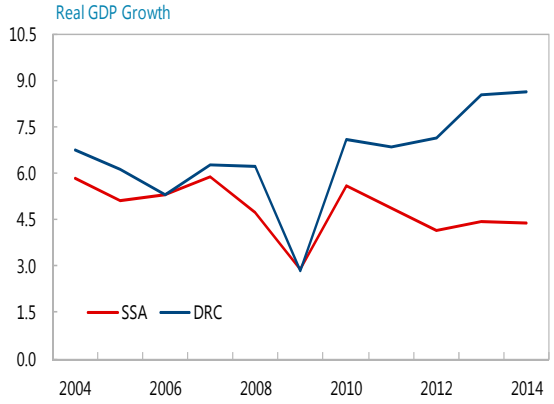


Source: IMF staff estimates based on authorities data.

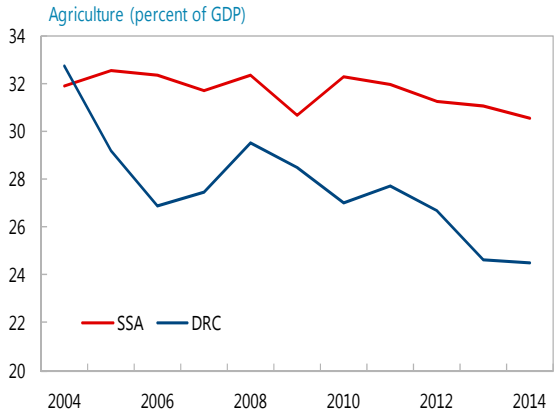
5. **There have been major structural shifts from agriculture to industry in recent years in the formal sector**. The decline in the share of agriculture in total output is very distinct for DRC when compared to the average for SSA. Agriculture for SSA remains high, decreasing incrementally since 2010. During recent years, the gap has been filled by low-productivity services and non-tradable activities while the share of industry has slightly increased. The average for the share of industry in SSA remained flat at 16 percent of GDP during the last decade; whereas industry in DRC stays consistently above the SSA average. The share of services in DRC remained volatile and low until around 2013, when it picked up.

Figure 2. Democratic Republic of the Congo: GDP Contributions by Sector Compared to SSA Countries

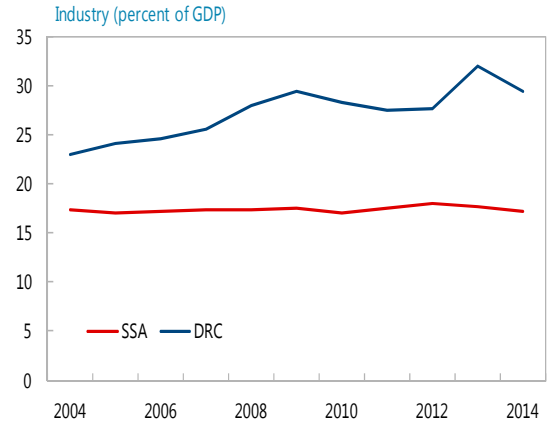
Real GDP growth has been recently higher than SSA average in DRC…



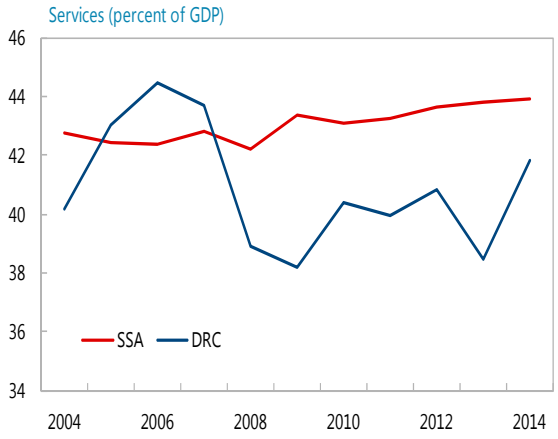
…along with a decrease in the participation of agriculture.



The industry in DRC has slightly decreased recently after a jump in 2012…



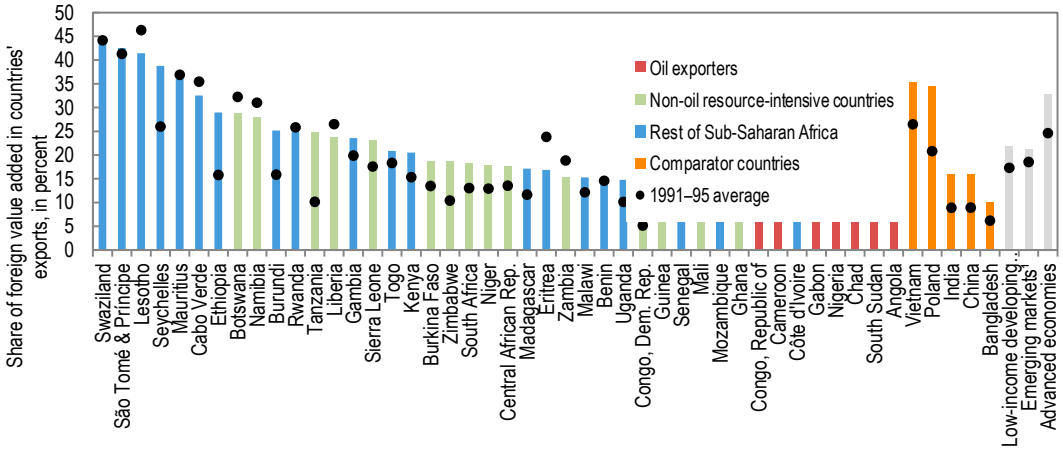
…while services are catching up with the rest of SSA.



Source: IMF staff estimates based on authorities data.

6. **DRC has exhibited good performance regarding integration into value chains recently.** The 2015 AFR Regional Economic Outlook (REO) shows that integration into global value chains has indeed been accompanied by a pickup in income levels. To measure the depth of this integration, the REO relied on the extent of foreign value added in a country's exports—traditionally referred to as backward integration. By this measure, rising depth of integration has been associated with rising income over time for developing and emerging market economies higher share of its exports enter as inputs for other countries' exports, reflecting the still-predominant role of commodities in many countries' exports in the region. By this metric, DRC is above the average against comparators—non-oil resource intensive countries—(Figure 3).

Figure 3. Democratic Republic of the Congo: Sub-Saharan Africa and Comparator Countries: Depth of Integration in Global Value Chains, Average 2008–12



Sources: REO (2015), Eora database; and IMF staff calculations.

[1] Excluding sub-Saharan African countries.

Note: See Annex 3.2 Country Groups for a list of countries in each group.

7. **Against this backdrop, structural change and economic diversification become critical aspects of economic development for the DRC.** Export diversification is not only associated with lower output volatility but also with higher economic growth rates.[4] At the same time, output diversification—including employment diversification—is associated with higher income per capita.[5] Also, the type and quality of export products could increase *pari passu* with the diversification of production.[6] This note examines growth potential and benefits from diversification for the DRC.

[4] Henn, Papageorgiou, and Spatafora (2013).

[5] Imbs, Montenegro, and Wacziarg (2012).

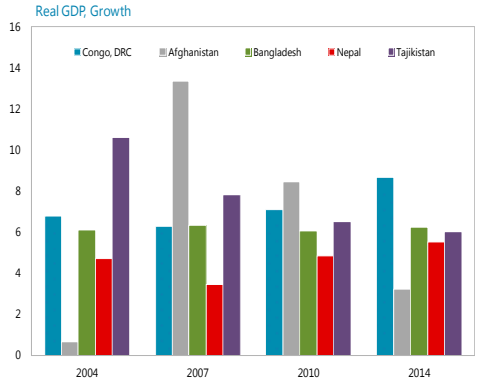
[6] Henn, Papageorgiou, and Spatafora (2013).

B. Growth and Factor Inputs

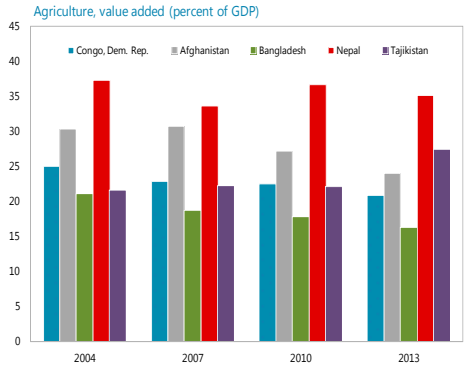
8. **Recent structural changes in DRC have yet to catch up with Asian comparators.** Figure 4 compares the structural changes in the DRC with those in Afghanistan, Bangladesh, Nepal, and Tajikistan, countries that have been experiencing similar structural changes recently. The value added in agricultural and services sectors in DRC compares poorly against comparators. The compound growth in agriculture as value added to GDP from 2004 to 2013 for the DRC is -2, compared to -2.6, -2.8, -0.6, and 2.7 for the other four countries respectively. The growth of industry, on the other hand, is 3.7 for DRC, compared to -2.5, 0.4, -1.4, and -5.3 for the other countries in that order. The structural change from agriculture to industry is the most evident for the DRC. Other countries seem to have experienced drops in both sectors, with the exception of Tajikistan, which unlike the other countries, witnessed an increase in agriculture and a decrease in industry.

Figure 4. Democratic Republic of the Congo: GDP Contributions by Sector

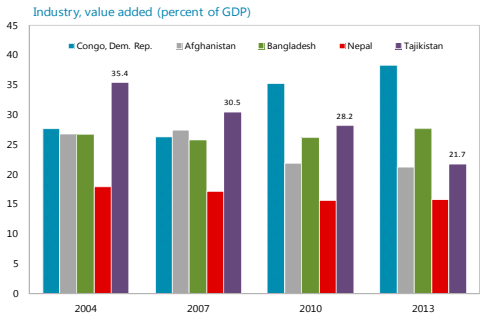
Growth of real GDP compares with those marks in Southeast Asia…



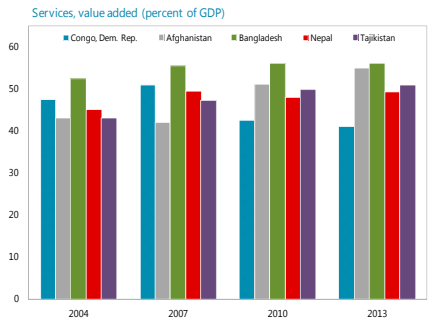
…with a relatively higher value added from agriculture.



Also, the value added of industry is high compared to peers in Southeast Asia…



…with a comparatively positive development of services.



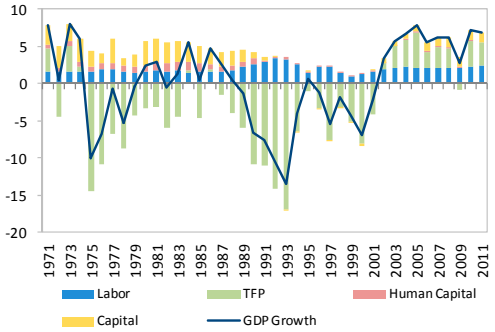
Source: IMF staff estimates based on Congolese authorities data.

9. **Factor productivity could be enhanced to achieve higher growth rates.** Growth decomposition shows that the contributions of capital and labor have not been significant in the DRC (Figure 5). On the other hand, human capital has shown a negligible contribution to economic growth while total factor productivity (TFP) has been stable, including some instances of even

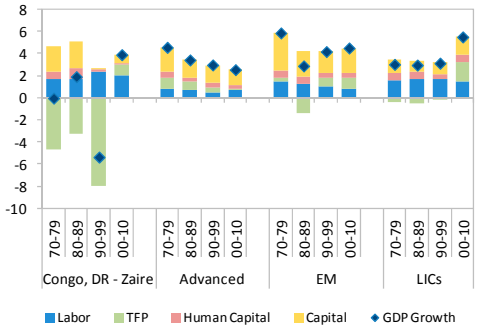
negative effect (2009). The decomposition of labor productivity shows no contributions from capital deepening or human capital.

Figure 5. Democratic Republic of the Congo: Productivity

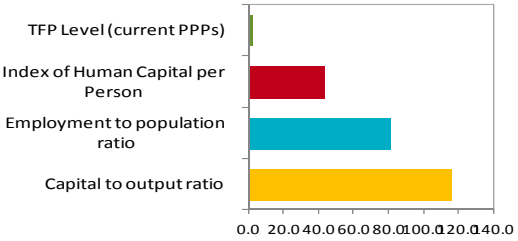
The contributions of capital has been weak while labor and TFP were stable (after 200....



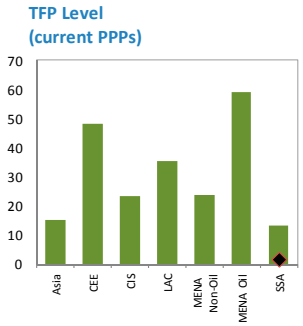
...and the country shows positive profile in recent years compared to previous years ....



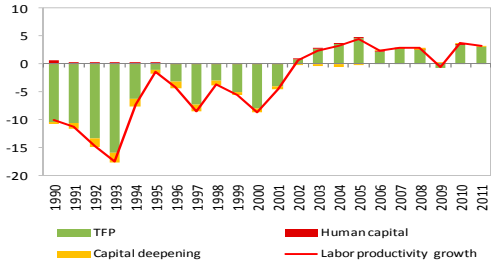
Factor inputs were all positive in 2011....



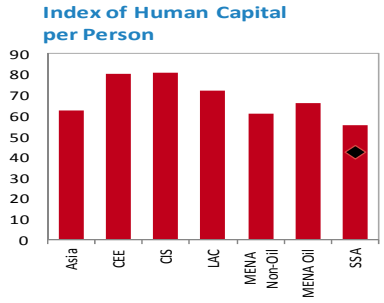
...but comparatively TFP levels are still low.



The decomposition of labor productivity shows no contribution by human capital...



...leaving room for greater contribution by improvement in human capital.



Source: IMF staff estimates based on data from the Congolese authorities.

10. **Developing human capital could have a significant effect on economic diversification and growth rates in DRC.** Future investment in health, education and training could benefit from increases in productivity. In particular, emphasis should be put in expanding years of schooling, human resource management and audits and control on costs and spending.

11. **DRC's competitiveness is impaired by structural bottlenecks and a challenging business climate.** The 2015 Doing Business report ranks DRC 184th (out of 189 countries). Electricity shortages are among the key concerns among the business community.[7] The 2015 Doing Business report ranks DRC 184th (out of 189 countries), worse than most peer countries in the region. Growth has been accompanied by a low level of job creation with widespread underemployment affecting especially women and the youth in urban areas. However, the participation of women in services has shown an improvement in the last decade (Figure 6).

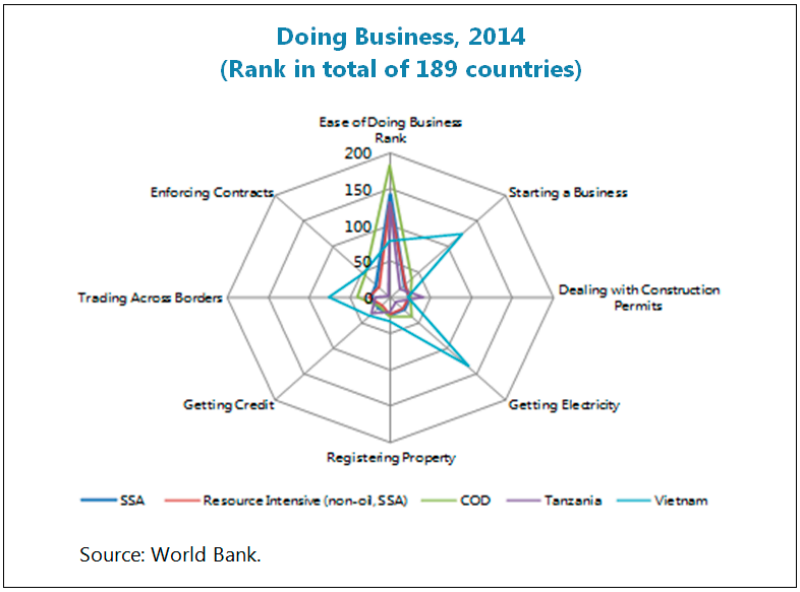
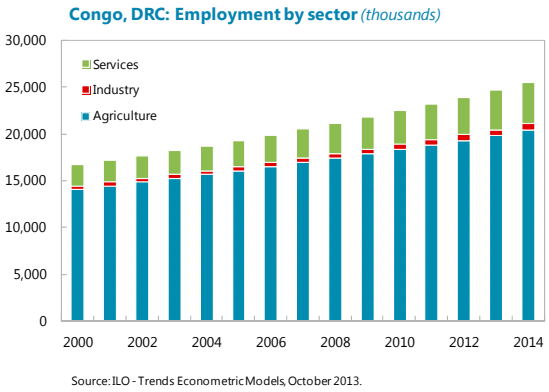
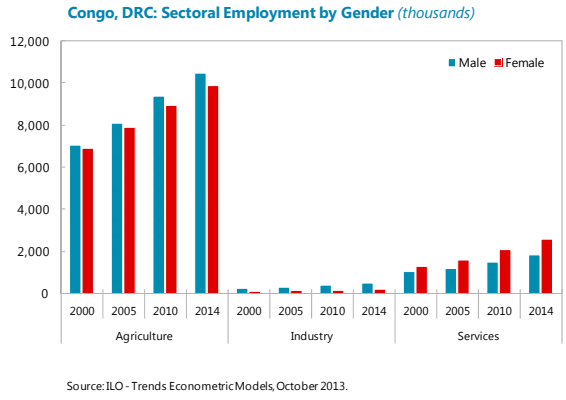


Figure 6. Democratic Republic of the Congo: Employment by Sector and Gender

The shares in employment by sector have been steady....



...with an increase in female participation in services.



Source: IMF staff estimates based on data from the Congolese authorities.

[7] As pointed out in an independent evaluation of the Doing Business survey (see www.worldbank.org/ieg/doingbusiness), care should be exercised when interpreting these indicators given subjective interpretation, limited coverage of business constraints, and a small number of informants, which tend to overstate the indicators' coverage and explanatory power.

C. Export Diversification

12. **DRC's exports have concentrated on minerals** (Figure 7). Overall export diversification and product exports moved slightly upwards, based on exports of new minerals in the last decade. Yet, diversification is still lower vis-à-vis comparators like SSA, Tanzania, Vietnam, and resource intensive (non-oil) countries in SSA.

13. **Product diversification could yield growth gains** (Figure 8, last chart). Further increasing product variety similar to diversification could yield further growth gains. Based on the estimates in IMF (2014a), a one standard deviation increase in LIC's export diversification raises the growth rate by about 0.8 percentage points (Box 1).[8] For DRC, this translates into estimated growth gains of 0.2 percentage point if export diversification was raised to levels observed in comparators like Vietnam.

Box 1. Democratic Republic of the Congo: Measuring Export Diversification

Following Henn et al. (2013), export product diversification is measured by the Theil index, which could be decomposed into "between" and "within" sub-indices:

$$Theil\ Index = \frac{1}{N}\sum_{i}^{N}\frac{Export\ Value_i}{Average\ Exp.Value}\ln\frac{Export\ Value_i}{Average\ Exp.Value} =$$

$$Theil\ Index = Theil_{between} + Theil_{within}$$

where *i* represents the product index and *N* the total number of products. The "between" Theil index captures the *extensive margin* of diversification, i.e. the number of products, while the "within" Theil index captures the intensive margin (product shares).

Export partner diversification. The Theil index is also available across export partners. In this case, *i* and *N* in the above relationship represent the export partner index and number of export partners, respectively.

Export quality is measured by the export's unit value adjusted for differences in production costs, relative

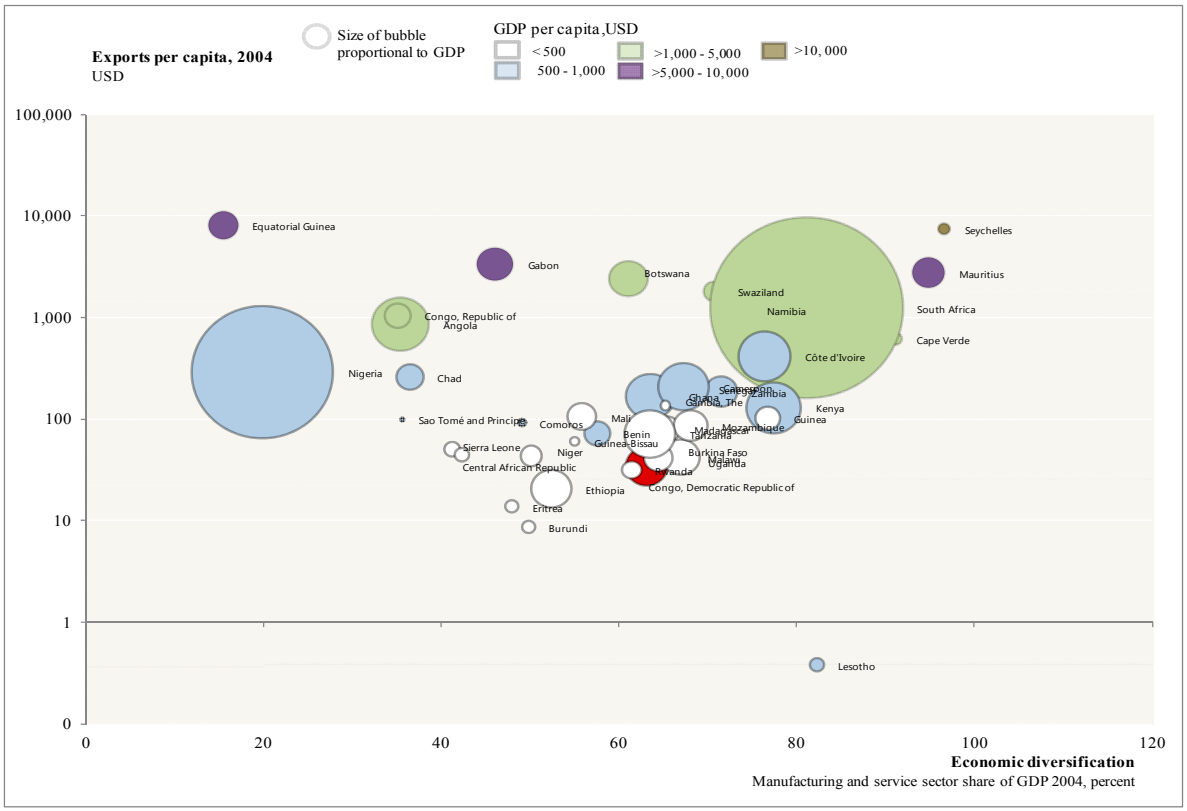
distance to the trade partner, and the development of a country through the following relationship:

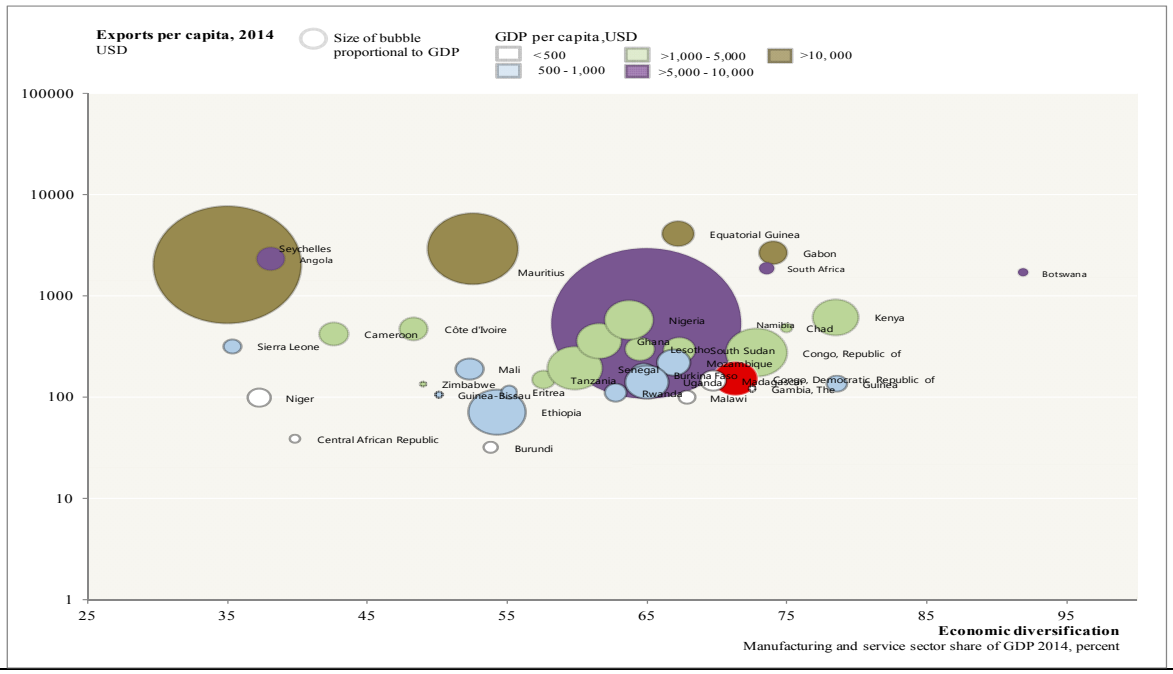
$$Trade\ PRICE_{mxt} = \alpha_0 + \alpha_1 \ln\ unobservable\ quality_{mxt} + \alpha_2 \ln\ p\ c\ income_{mxt} + \alpha_3 \ln\ DISTANCE_{mxt} + error_{mxt}$$

where the sub-scripts *m, x*, and *t* denote importer, exporter and time period respectively.

[8] IMF (2014a) finds that output diversification has a decisive impact on growth for LICs. The standard deviation of output diversification in low income countries is 0.078, resulting in a predicted increase in the growth rate of LICs by 100*(-0.078)*(-0.176)=1.373 percentage points.

Figure 7. Democratic Republic of the Congo: Economic Diversification: DRC vs. SSA Countries





14. **Following IMF 2014a, the following specification for the growth volatility estimations is used**:

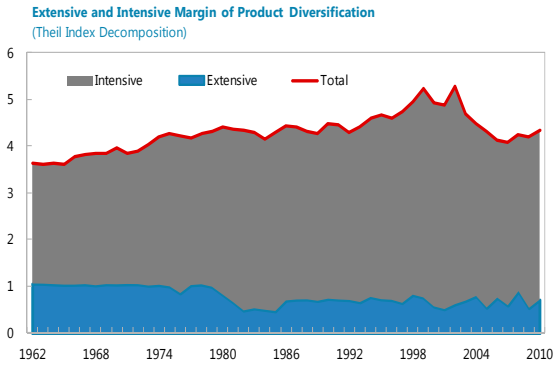
$$Vol_{i,t} = \alpha Vol_{i,t-1} + \beta Div_{i,t} + \delta x_{i,t} + e_{i,t}$$

The data cover the time period from 1992–2015. $Vol_{i,t}$ denotes growth volatility in country i at time t, which is calculated as the standard deviation of GDP growth using a five-year window. $Div_{i,t}$ denotes the diversification index. The first two indices, Total Theil and the Herfindahl index, capture the effect a country's overall level of diversification has on volatility. The second two indices, the extensive and intensive margins, can be obtained from a decomposition of the overall Theil index. Extensive diversification occurs when a country exports new product lines, while intensive diversification occurs when a country exports a more balanced mix of existing products. Lower values for all four indices indicate a higher level of diversification. Also, $open_{i,t}$ denotes the trade openness level defined as total exports and imports as a share of GDP. Several regressions include interaction terms between the diversification index and a measure of trade openness x_{it} denotes the interaction term); $tot_{i,t}$ denotes other control variables such as terms of trade volatility, inflation volatility, and exchange rate volatility while $e_{i,t}$ is residual error. The data are five-year averages for each variable in order to exclude extreme values and business cycles; thus, t denotes each five-year period. The regressions are estimated using the two-step Generalize Method of Moments (GMM) model because of the dynamic nature of the regression equation. Since there is a lagged dependent variable in the estimation, fixed effects model estimates are biased.

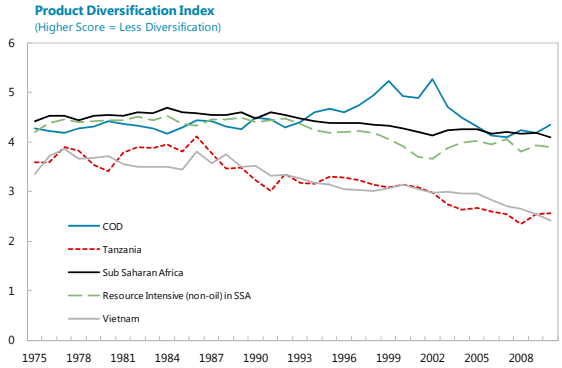
15. **Export diversification could help reducing growth volatility** (Table 1). Following the methodology in IMF (2014a), Table 1 presents the results of a two-step GMM regression to quantify the effect of diversification on the volatility of growth in a dynamic panel, focusing on DRC and extending the regressions to include the effects of the extensive margin of product diversification. Results show that decreases in volatility are more likely to be achieved through increasing the intensive margin of product diversification. *Ceteris paribus*, the estimates imply that increasing product diversification to levels in Vietnam or Tanzania could decrease volatility by about one fifth and a third, respectively.

Figure 8. Democratic Republic of the Congo: Export Diversification

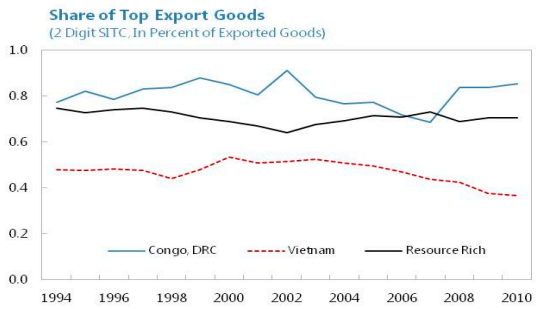
Product diversification improves on the back of better intensive margins….



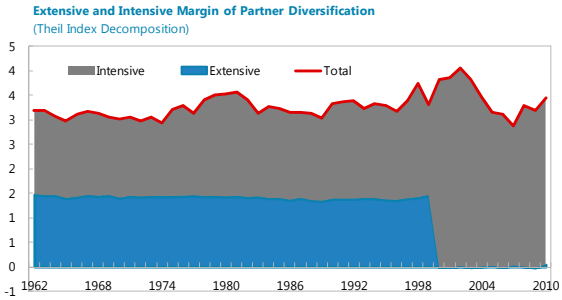
…along with benchmarks detected in comparators.



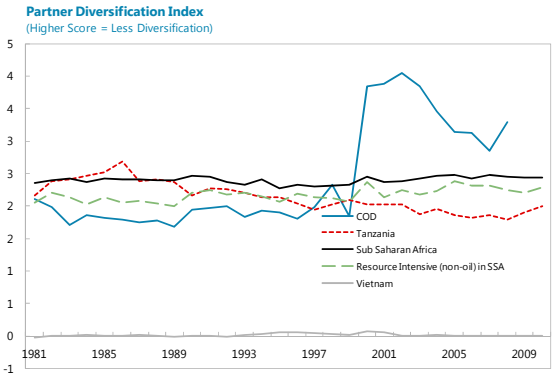
Minerals as main export categories remain stable….



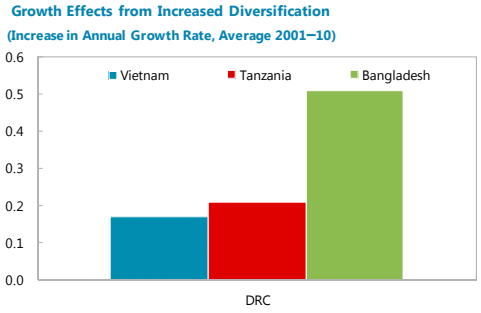
…while the number of export partners has been increasing, enhancing export partner diversification….



…and comparing favorably with comparators.



Positive growth effects could be substantial.



Source: IMF staff estimates.

Source: IMF staff estimates based on data from the Congolese authorities.

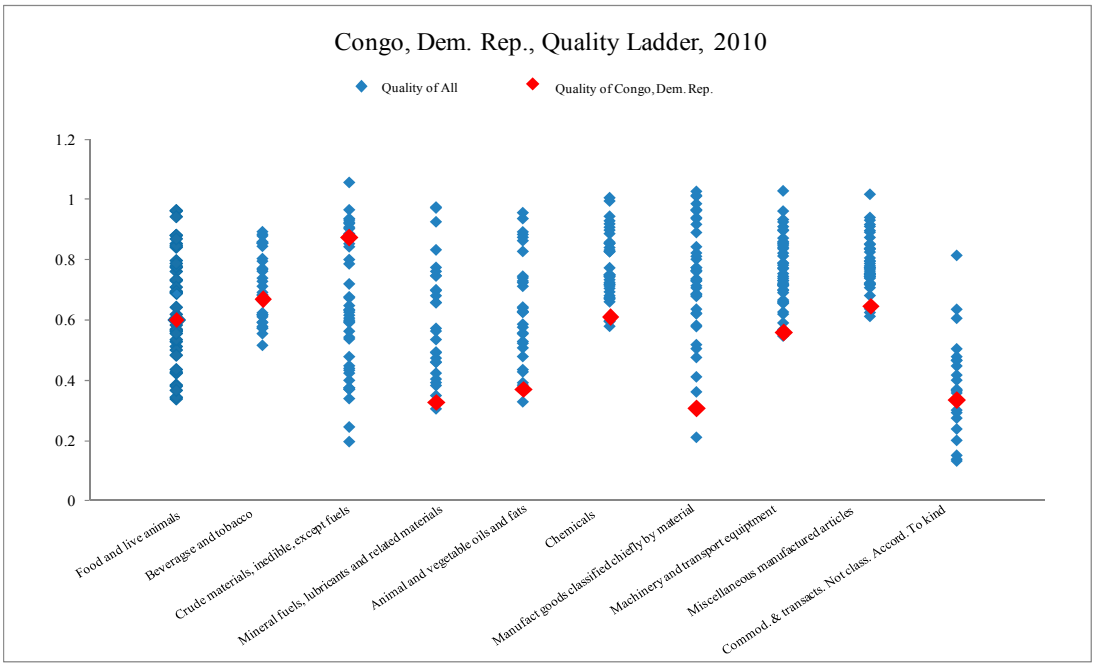
Table 1. Democratic Republic of the Congo: Output Volatility and Product Diversification
(Higher Theil Index = Less Diversification)

	Export Diversification		Export Diversification and Openness		Export Diversification and Control Variables		Export Diversification, Control and Trade Interaction	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Variables								
Lagged growth volatility	0.962	1.418	0.561	0.685	0.719	0.577	2.449	1.981
	(0.407)	(0.822)	(0.397)	(0.477)	(0.594)	(0.240)	(7.057)	(13.186)
Theil Index within export	0.609		0.4355		0.781		-0.128	
	(0.863)		(0.803)		(2.845)		(2.021)	
Theil Index between export		0.382		0.245		0.112		0.273
		(0.733)		(0.331)		(0.360)		(9.973)
Trade Openness			0.022	0.034	0.022	0.002	0.233	0.073
			(0.003)	(0.003)	(0.002)	(0.004)	(0.519)	(0.278)
Interaction of within index and Openness							0.054	
							(0.1381)	
Interaction of between export and Openness								0.016
								(0.045)
Terms of Trade volatility					0.002	0.001	0.033	D0.031
					(0.016)	(0.005)	(0.141)	(0.278)
Exchange rate volatility					0.002	0.003	0.051	0.051
					(0.0028)	(0.010)	(0.232)	(0.565)
Inflation volatility					0.009	0.010	0.023(0.397)	0.034
					(0.052)	(0.051)		(0.802)
Constant	-2.652	-2.333	-0.587	0.615	-2.329	1.111		2.482
	(3.586)	(4.292)	(4.566)	(2.232)	(12.698)	(0.809)		(12.300)
Observations	26	26	26	26	26	26	26	26

Source: IMF staff calculations.

16. **The quality of exports in DRC remains poor with scope for upgrading.** The export diversification index produced by the IMF (2014a) covers 187 countries including most low-income countries and provides information on export product diversification and quality from 2000–10. Since higher values of the index indicate higher quality levels, we observe that the product quality for DRC exports have remained relatively poor overtime. Consequently, quality upgrading products seems to be a feasible way to start diversification in the DRC. Producing higher quality of already existing products may lead to exploit the current comparative advantages in the DRC, which can improve export-revenue potential. The limited potential to develop economies of scale in DRC, may suggest that improving the quality of existing products is a potential and promissory alternative for diversification.

Figure 9. Democratic Republic of the Congo: Export Diversification and Quality Index



Source: IMF staff estimates based on data from the Congolese authorities.

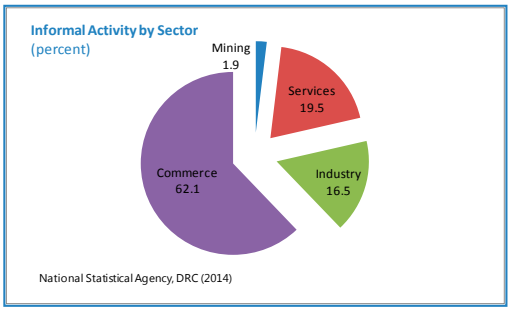
D. The Congolese Informal Economy: a Digression[9]

17. **A dominant but precarious informal sector is boosted by commercial activities.** Half of informal jobs are held by women and capital financing is dominated by individual savings. Trade is, by far, the flagship branch of the informal sector in the DRC. Other salient points from the recent survey,

- 82.3 percent of informal activities are reduced to one person and the average size informal production units (UPI) is 1.3 persons;
- the average age of each UPI is 7.7 years;
- over 96 percent of employees have no written contracts;
- less than 6.9 percent are employees;
- almost 37 percent of employees work over 60 hours per week;
- the average monthly salary, calculated over all the informal sector assets, is approximately CDF 62,740.9 (CDF 262,539 in extractive activities) and the hourly salary is CDF 547;

[9] As reported in a survey of the informal economy by the Institute of National Statistics (2014).

- more than half of informal jobs (55 percent) are occupied by women, especially, in the trade sector (64.2 percent);
- the average amount of capital is low at CDF 152,728 (by UPI), but much UPI (22.7 percent) has no capital to undertake their activities;



- at 88.4 percent of individual savings represents the main form of capital funding for informal production units; and
- commercial UPI represents 62.1 percent of total UPI, generating 80.4 percent of revenues in the sector.

18. **Access to capital and lack of human capital represent significant constraints to economic activity in the informal sector.** Personal saving emerges as the main source of financing in DRC's informal sector, thereby limiting the development of commercial activities and investment. The informal economy employs 24.5 million, representing 88.6 percent of total employment in the formal sector (27.7 million) while the informal economy represents 55.3 percent of total GDP. The work force in the informal agricultural sector had average 4.2 years of schooling and 6.9 years in the (informal) non agricultural sector. In 2012, the national average of schooling reached 5.8 years. The survey shows that education in the formal sector is higher in most cases above the primary level with school attendance representing 12.2 and 12.0 years for employees of the private and public sector, respectively.

E. Conclusion

19. **DRC's competitiveness is impaired by structural bottlenecks, a challenging business climate, low productivity, and weak human capital**. Further progress on improving the business climate and addressing electricity shortages in particular could render significant benefits. At the same time, developing human capital could ease production constraints and improve the investment cycle. Indeed, policy changes aiming at education and productivity could carry positive impacts on the informal economy, which is half the size of total GDP. Furthermore, although overall export diversification and product exports moved slightly upwards in recent years, production diversification could yield higher growth rates.

References

Dabla-Norris, Era, Giang Ho, Kalpana Kochhar, Annette Kyobe, and Robert Tchaidze, 2013," Anchoring Growth: The Importance of Productivity-Enhancing Reforms in Emerging Market and Developing Economies" IMF SDN/13/08.

Dabla-Norris, Era, Jim Brumby, Annette Kyobe, Zac Mills, and Chris Papageorgiou, 2011, "Investing in Public investment Efficiency" IMF Working Paper 11/97.

Henn, Christian, Chris Papageorgiou, and Nikola Spatafora, 2013," Export Quality in Developing Countries," IMF Working Paper 13/108.

Imbs, Jean, Claudio Montenegro, and Romain Wacziarg, 2012, "Economic Integration and Structural Change," The World Bank. April.

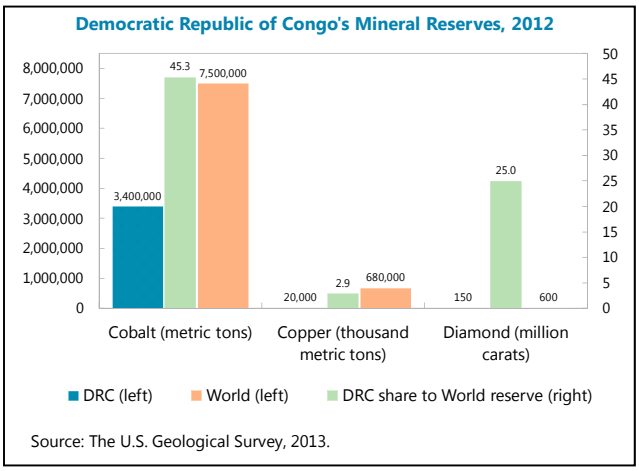
IMF, 2014a, "Sustaining Long-Run Growth and Macroeconomic Stability in Low-Income Countries—The Role of Structural Transformation and Diversification." IMF Policy Paper, March.

Institut National de la Statistique, 2014, "*Résultats de l'enquête sur l'Emploi, le Secteur Informel et sur la Consommation des Ménages en 2012*," Septembre.

THE CONTRIBUTION OF THE MINING SECTOR TO THE CONGOLESE ECONOMY[1]

A. Background

1. **The Democratic Republic of the Congo (DRC) is endowed with some of the richest and diversified deposits in the world.** The 2.3 million square kilometers of the national territory contains about 1,100 mineral substances located notably in four provinces (Katanga, Kasai Occidental, Kasai Oriental, Northeast Congo, and Kivu-Maniema). The DRC has about 3 percent of the global copper reserves, 45 percent of global cobalt, and 25 percent of the global diamonds reserves according to the U.S. geological survey. Other important mineral reserves include precious minerals such as gold and tantalum, but also zinc, uranium or tin.



Source: The U.S. Geological Survey, 2013.

2. **Mining activities are dominated by the production of copper and cobalt**. Copper has been the DRC's largest export with production steadily increasing from 98.5 thousand tons in [2006] to 1.06 million tons in 2014, equivalent to about 3 percent of world production. Cobalt is the DRC's second largest earning export, with a production of 75,600 tons in 2014, which represented more than 50 percent of global cobalt. Production is largely in the hand of private corporations operating solely or in the joint venture with GECAMINES, the largest state-owned enterprise (SOE) in the mining sector engaged in the exploration, research, exploitation and production of mineral deposits.

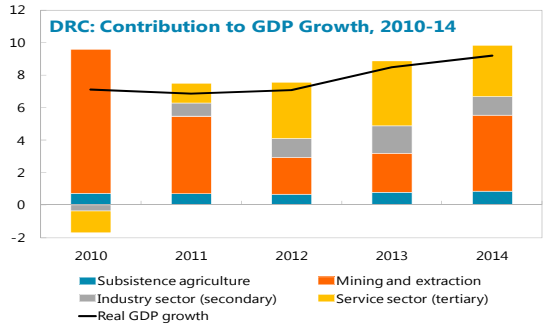
B. The Mining Sector: The Engine of Economic Growth

3. **The mining sector has been the driving force behind the DRC's strong economic recovery over the last decade.** Over 2002–14, the mining sector experienced a strong growth, contributing to about a third on average to the overall 9.2 percent GDP growth in 2014. As a result, its share in the GDP has reached 19 percent in 2014, up from 6 percent in 2002. The DRC now ranks among the top five African countries benefiting from the largest mineral rent as a percentage of their GDP. However, these figures underestimate the true contribution of the mining sector to the economy, as they do not factor in its catalyst role for the development of other economic activities (for instance, construction in the secondary sector, services and commerce in the tertiary sector). Given these multiplier effects, the total contribution (direct and indirect) of the mining sector to GDP was larger than indicated above.

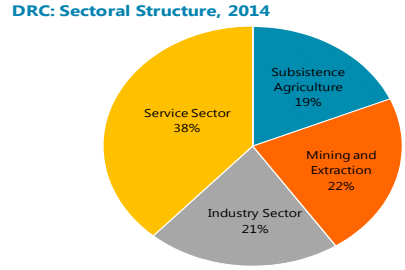
[1] Prepared by Jean-Paul Mvogo and Mesmin Koulet-Vickot.

Figure 1. Democratic Republic of the Congo: Contribution to Growth and Structure of GDP

The mining sector has spurred GDP growth….

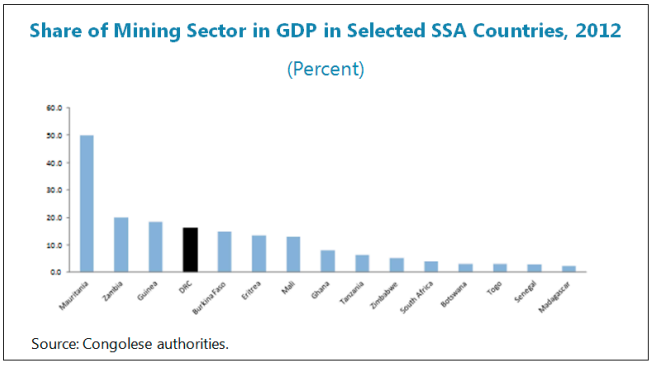


Expanding its share of the economy in recent years.



Sources: Central Bank of Congo and IMF staff estimates.

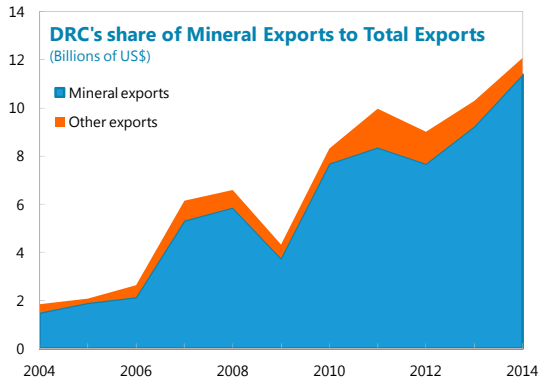
4. **The mining sector has been the key driver of external sector developments.** Mining sector (including oil) is estimated to have generated USD 11 billion in export earnings compared to USD 1.4 billion a decade earlier. It accounted for more than 94 percent of total merchandise exports in 2014, up from 80 percent in 2004. Over the same period, it has been the main driver of the large current account deficits on the back of increase in investment-related imports. It is estimated to have been the primary beneficiary of the surge in foreign direct investment (FDI) inflows (cumulative amount of more than $13 billion over 2002–14), which largely covered the large external current account deficits and contributed to the overall balance of payments surpluses recorded.



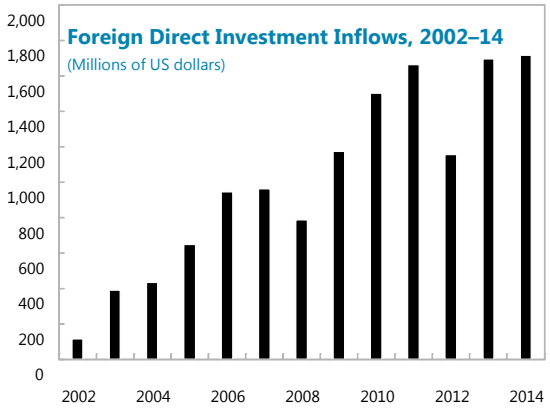
Source: Congolese authorities.

Figure 2. Democratic Republic of the Congo: Mineral Exports and FDI

The share of mineral exports in total exports increased…



…as the mining sector benefited from FDI inflows.

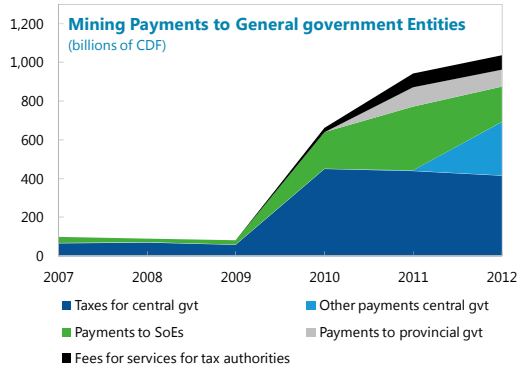


Sources: Central Bank of Congo and IMF staff estimates.

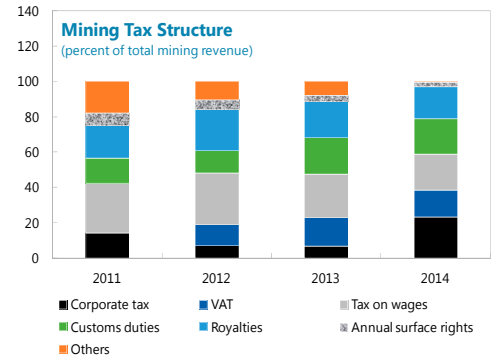
5. **While generating increased revenues, the mining sector has not contributed its fair share through 2014.** This is primarily because the fiscal regime under the 2002 Mining Code is more generous compared to peer countries (see Table 1). In 2014, mining revenues for the central government amounted to $829 million, equivalent to 16 percent of government total revenues or 2.3 percent of GDP. However, according to the Extractive Industries Transparency Initiative (EITI) reports, revenues collected by the general government (central government, provincial governments and SOEs) were multiplied by more than ten from $98.1 million in 2007 to $1.03 billion in 2014, with the bulk of these revenues going to the central government (62 percent). Mining revenues essentially came from three mains sources: tax on wages, customs duties, and royalties (see Figure 3). The structure has been shifting towards corporate income tax as large projects that started the early 2000's are now facing an end to their tax holidays and accelerated amortization. For instance, in 2014, corporate income tax (CIT) accounted for 23 percent of mining tax revenues compared to 20 percent for both tax on wages and import duties, and 18 percent for royalties. In 2015, CIT would reach one third of total mining tax revenues.

Figure 3. Democratic Republic of the Congo: Mining Payments to Government and Tax Structure

Mining revenues soared starting in 2009...



...driven largely by tax on wages, royalty payments, and customs duties.



Source: Congolese authorities.

6. **The mining sector's contribution to job creation is also limited due to its capital-intensive nature.** In 2014, the extractive sector accounted for 5.3 percent of total formal employment in public and private corporations.[2] Comprehensive data on the employment generated by the mining sector in the DRC is not available. However, according to the 2012 EITI report, the mining and hydrocarbon sector formally employed about 85,814 workers in 2012. The mining industry Chamber estimated the overall payroll of its members at less than 100,000 workers. Finally, the National Employment office estimated in 2013 that 68,714 people were employed in the mining sector. In the artisanal sector, the number of workers ranged from 500,000 to 2 million people.

7. **The mining sector has played a catalyst role for the provision of basic public services.** Mining companies have financed projects in the electricity and transport sectors, which benefited to local communities. Examples of such projects include: (i) the development of power station by Randgold in Kibali (oriental Province), (ii) the construction of roads and bridges by Banro in Twangiza (South Kivu), (iii) the construction of four hydroelectric plants, and (iv) a transmission line by Tenke Fungurume Mining in the Katanga province. Mining companies have also provided basic public services such as healthcare, agriculture extension services, water supply, and education for host communities.

[2] Total formal employment in private and public corporations was estimated by the National Employment Office (ONEM) at 1.7 million.

C. Factors Behind the Recent Mining Sector Growth

8. **The stabilization of the political and security situation.** The appeasement in the socio-political and security environment following the Sun City Agreement of 2002 and the launch of open political process helped establish progressively government control over areas of the country that were under warlords' rule. These positive developments were critical in attracting large amounts of foreign investments in the mining sector.

9. **The Mining Code of 2002.** This code allows the private sector to access mineral rights, without being required as in the past (under the Mining Code of 1981) to have a partnership or special mining agreement with the State. The liberalization of the sector, together with the competitive tax regime, provided the needed impetus for a renewed private sector interest in exploration and exploitation operations.

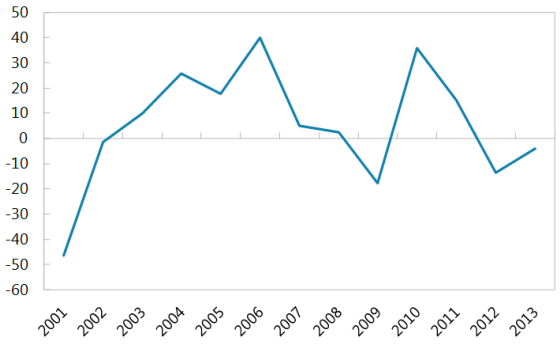
Table 1. Democratic Republic of the Congo: Mining Fiscal Regimes—DRC and Peer Comparators

Country	Royalty rate applying to copper	Royalty base	Corporate Income Tax	Depreciation rule	Import duties	Export Tax	Loss carry forward	Additional Profit Tax
Australia - Northern Territory	20%	Net value [gross less opex, capex, and other approved items]	30%	100% exploration; prime cost (straight line) or declining balance methods	Concessions apply	None	Indefinite	None
Australia - Western Australia	5% [copper concentrate]; 2.5% [copper in metallic form]	Gross invoice value of the mineral less any allowable deductions for the mineral such as transport and packaging	30%	100% exploration; prime cost (straight line) or declining balance methods	Concessions apply if values > $10 million	None	Indefinite	None
Australia - South Australia	4%	Market value less transportation, insurance, packaging, storage.	30%	100% exploration; prime cost (straight line) or declining balance methods	Concessions apply	None	Indefinite	None
Canada - British Columbia	15%	2% on net current proceeds; 13% on net revenue	15% federal + 10% provincial	100% exploration cost; 30% development cost; 25% replacement [federal]	0%-8%	None	Indefinite for capital loss or 20 years for noncapital losses	None
Canada - Ontario	10%	Net profits	15% federal + 10% provincial; 10% federal + 5% provincial tax credit	100% exploration cost; 30% development cost [federal]	0%-8%	None	Indefinite for capital loss or 20 years for noncapital losses	None
Chile	0%-14% based on production level and operating margin	CIT base with some adjustments	20%; 42% if the company opted for the tax invariability regime	100% exploration; 100% intagible development; 11.11% tangible development and replacement	6%	None	Indefinite	None
China	CNY 0.5-20/kg [precious non-ferrous ores] CNY 0.4-30/ton [non-ferrous metal ores]	Volume	25%	100% on exploration; 10% SL on deveopment; 25% SL on replacement [assumed]	Exempt	Exempt	5 years	None
Congo, Dem. Rep.	2%	Gross revenue less transport and selling cost	30%	60% first year, declining balance depreciation in subsequent years.	Exempt	Exempt	5 years	None
Indonesia	4%	Net sales	25%	100% exploration; 6.25% tangibles; 25% replacement [assumed]	Exempt	Exempt	5 years	None
Mexico	N/A	N/A	30%	Fixed asset can be deducted immediately, including up to 87% for machinery and equipment	Exempt [assumed] due to free trade agreements	Exempt	10 years	7.5% additional tax on CIT base
Peru	1%-12%	Operating profit	30%; 8% employee profit sharing	100% exploration; 100% or SL 20% development	Exempt	Exempt	4 years or indefinite if offset against on 50% of income	2%-8.4% special mining tax; 4%-13.12% special mining duty (stability regime only)
United States - Arizona	2.5%	50% of the difference between the gross value of production and the production costs	41.5% in 2014 to be reduced by 0.5 percentage points a year until 2017	70% in first year on exploration and development cost, balance on SL over 5 years; other methods possible	0%-4.5% for machinery	None	20 years	None
United States - Nevada	Based on ratio of net proceeds to gross yield; max 5%	Net Proceeds	35%	70% in first year on exploration and development cost, balance on SL over 5 years; other methods possible	0%-4.5% for machinery	None	20 years	None
Zambia, 2014 regime	6%	Norm Value (volume x LME prices)	30% plus variable income tax	100% on prospecting CAPEX; 25% on other CAPEX	Exempt for capital imports	10% for unprocessed	10 years	Variable Income Tax
Zambia, 2015 original regime	8% for underground; 20% for open-cast	Norm Value (volume x LME prices)	0%; 30% from tolling and processing	25% on prospecting and other CAPEX	Exempt for capital imports	10% for unprocessed	10 years	None
Zambia, 2015 revised regime	9%	Norm Value (volume x LME prices)	30% from mining operations plus variable income tax; 35% CIT from processing operations	100% on prospecting CAPEX; 25% on other CAPEX	Exempt for capital imports	10% for unprocessed	Limited to 50% of taxable profits	Variable Income Tax

Source: FAD Fiscal Analysis of Resource Industries (FARI) database.

10. **High international commodity prices.** The renewed interest in the mining sector in DRC was also driven by improved profitability brought about by sharp increases in international commodity prices, particularly of DRC's main mineral exports. Strong demands from emerging markets (China, India) fueled the commodity boom in the DRC during 2002–07.

Democratic Republic of the Congo: Price Index of Mineral Export
(Percent changes)



Sources: Central Bank of Congo and IMF staff estimates.

D. The Current Landscape

11. **The new mining code under discussions would further increase the mining sector's contribution to fiscal revenues (see Table 2).** The new code would also enhance transparency and accountability in the sector. Key proposed changes to the mining fiscal regime include: (i) increase in the royalty rate; (ii) alignment of CIT (30 percent) to the general regime (35 percent); (iii) introduction of super profit tax; and (iv) provisions to secure corporate tax basis. The draft mining code includes provisions on real ownership and sanctions against the lack of transparency, principles for corporate social responsibility and environmental protection and provisions on local content and subcontracting. It contains stability clauses favorable to actual operators. Mining corporations operating under the convention regime would not be subject to the application of the new mining code.[3] However, mining corporations regulated by the 2002 code will have their tax regime preserved, provided they agree to pay the new royalty rate as of the date of implementation of the new code. Consultations are underway with all the stakeholders to build a consensus around the new code. The IMF has provided technical assistance for the use of FARI model[4] to simulate the impact of various fiscal regimes in order to inform discussions with all various stakeholders.

[3] Corporations under that regime represented a fifth of copper production in 2014.

[4] The Fiscal Analysis of Resource Industries (FARI) model is a tool developed in the IMF's Fiscal Affairs Department to compare fiscal regimes within a single country or across commodity producing countries.

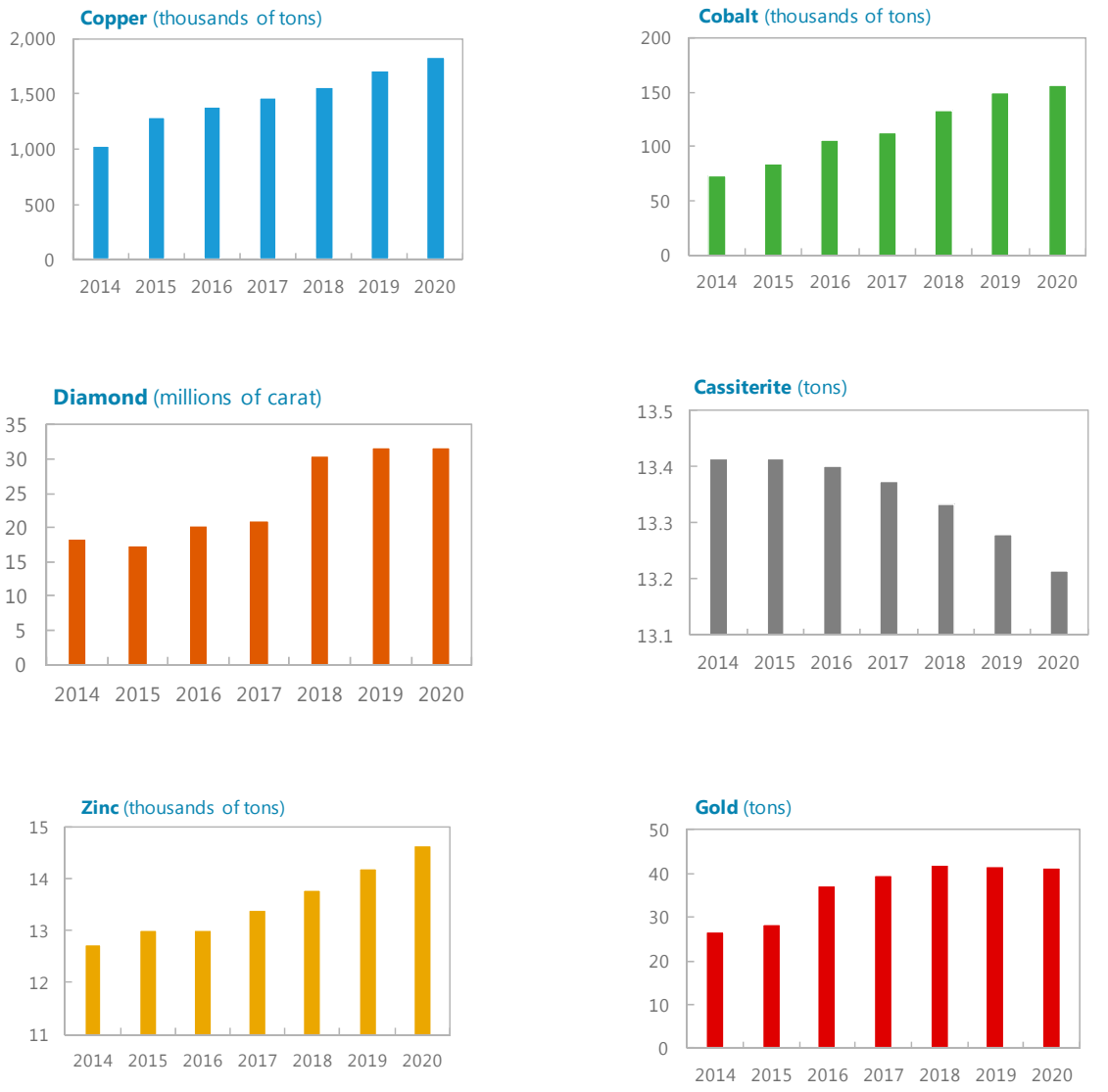
Table 2. Democratic Republic of the Congo: Comparative Fiscal Regimes Under Current and Draft Mining Codes

TAX AND RATES	Current mining code (2002)	Common law	Draft mining code (March 2015)
Corporate tax (basis: imposable income)	30%	35%	35%
Special tax on expatriates wage (basis: income paid)	10%	25%	Half the common law rate for 10 first years then common law rate afterwards
Dividends and other indirect incomes	10 % for dividends, 0% on interest charges abroad , common law for other types	20%	10 % for dividends, 0% on interest charges abroad provided interest rates are set using arm's length, common law for other types
Share of the state in mining project	5%		10%
Withholding tax on foreign services	14%		14% (rate mentioned in the draft)
Superprofit tax (windfall tax when market prices are 25 % superior to feasibility study prices)	No		50 % of superprofit (difference between profit in feasibility study and current level of profit)
Royalties			
Ferrous metals	0.50%		1%
Non ferrous metals	2%		3.50%
Precious metals	2.50%		3.50%
Precious stones	4%		6%
Industrial minerals	1%		1%
Customs duties (basis: CIF value)			
Equipment during exploration and development	2%	5%	2%
Equipment during production phase	5%	5%	5%
Inputs	3%		10%
Oil products	3%		5%
VAT	16%	16%	16%
Social projects (provisions)			1.0 % of revenues
Other taxes, which includes taxes on land and built properties, vehicles (except mining vehicles), excises…: common law			
ACCOUNTING MECHANISMS			
Scope	All mining subcontractors are beneficiaries of provisions		Subcontractors endorsed by the Ministry of Mines
Depreciation	Special scheme: 60% first year, declining balance depreciation in subsequent years.		Common law
Loss carry-forward	5 years		5 years (modalities of implementation defined by common law)
Capitalization rules			Interests payd abroad to shareholders cannot exceed 50 % of capital paid
Deductible professional costs			Mineral transport costs are not eligible. Conditions for payment of intra group services: no local provider, reality of service provided, fair valuation of service and beneficiary of payment shall not be based in a tax haven
Transfer of shares	--		Pricing under the arm's length principle. Gains accounted following common law if the seller is a Congolese entity. If share's owner is not resident in DRC, gains are withheld at the source by the mining title holder
Transfer of mining titles	--		Pricing under the arm's length principle. Gains accounted following common law
Stability clause	10 years		For exploitation licences granted before the new mining code (or exploration permits transformed two years after the new mining code) : 10 year stabiliy clause provided corporations pay the new royalty rate. For exploration project starting after the new code: : 5 years stability clause
Royalty basis	Gross revenue less transport and selling cost		Value at the exit of the mine (+Gross commercial value)

Source: Congolese authorities.

12. **Despite projected low international mineral prices, the contribution of the mining sector to the economy would continue to expand.** In particular, copper and cobalt production are projected to increase as new projects enter into the production phase, notably Sicomines with a medium term forecast of 250 000 tons of copper (see Figure 4). Prospects will depend on progress in fostering an enabling environment, notably by addressing electricity bottlenecks and some governance issues. Government revenues generated by the mining sector are also expected to increase with notably the coming into maturity phase of exploitation of several copper and cobalt mines and the new fiscal regime under discussion.

Figure 4. Democratic Republic of Congo: Mineral Production, 2014–20[1]



Sources: Central Bank of Congo and IMF staff estimates.

[1] 2015–20 are projections.

References

Extractive Industries Transparency Initiative, 2014, Democratic Republic of the Congo: Reports 2007 to 2013.

Mupepele Monti L., 2012, "*L'industrie minérale congolaise: chiffres et défis (L'Harmattan}*."

World Bank, 2008, "Growth with Governance in the Mining Sector.

World Bank , 2012, *"Résilience d'un géant African: Accélérer la Croissance et Promouvoir l'Emploi en République Démocratique du Congo*," under the supervision of Herderschee J., Mukoko Samba D., Thimenga Tshibangu M., Mediaspaul.

.

STRENGTHENING BUDGET CREDIBILITY[1]

Budget credibility in the Democratic Republic of the Congo (DRC) has been undermined by unrealistic resource projections. This situation has complicated budget execution and limited Parliament's oversight role. This note analyses resource and expenditure forecasts to budget execution over the past five years in order to identify the main causes of low implementation, and proposes measures that would enhance the credibility of the budget.

A. Actual and Forecasted Resources

1. **Differences between budgeted resources and outturns in the DRC have been large.** As illustrated in Figure 1a and 1b, over the past five years, the execution rates of total budgeted resources have fluctuated between 48.6 and 71.9 percent, driven mostly by developments in external resources. Tax and non-tax revenues, albeit more predictable with execution rates ranging from 75 to 85 percent, also contributed to the fluctuations. While both the budgeted resources and outturns have increased at an average of about 25 percent per annum in nominal terms, revenue projections in the budget process seem to not take into consideration the outturns of the previous year and appear to be based on the previous year's forecasts. This has led to resources projections always higher on average by 55 percent than the previous year's outturns.

2. **Several administrative weaknesses explain these discrepancies**. For external financing, it mainly reflects flaws in the process of gathering data from donors, as well in the administrative capacity to mobilize aid. Concerning tax and non-tax revenue, the differences[2] come from natural resource and telecommunication revenues (royalties and other one-off revenues), and reflect both limited technical capacity of the administration to forecast mining and telecommunication revenues, as well insufficient information-sharing between line ministries and revenue administration. They also come from VAT, and indicate difficulties by the tax administration to control the VAT base. For instance, poor VAT performance has accounted for up to 50 percent of the budget/execution gap in 2013 and over 25 percent in 2012.

[1] Prepared by Patrick Petit.

[2] Before 2011, by far the most important cause for the gap in tax and non-tax revenues was difficulties in forecasting revenues from the provinces. Since the adoption in 2011 of the Law on Public Finance Management, revenues from provinces are excluded from the central government's budget.

Figure 1a. Democratic Republic of the Congo: Forecasted and Executed Resources
(CDF billion)

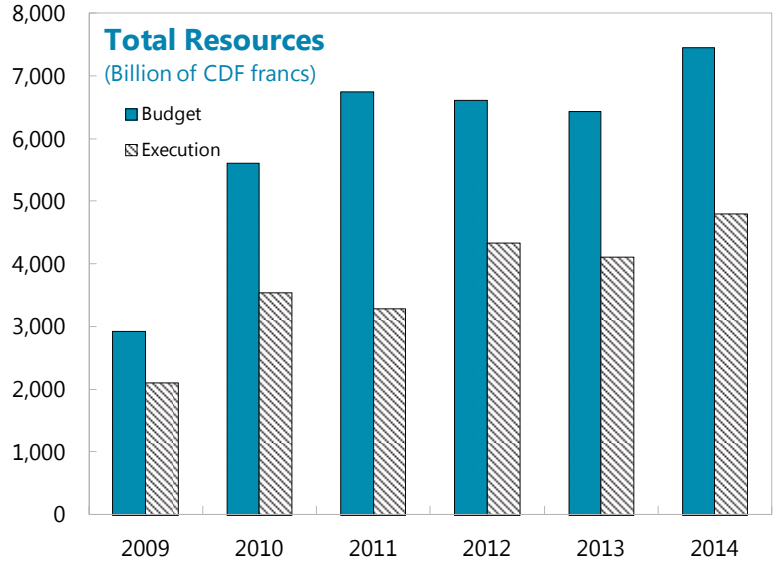
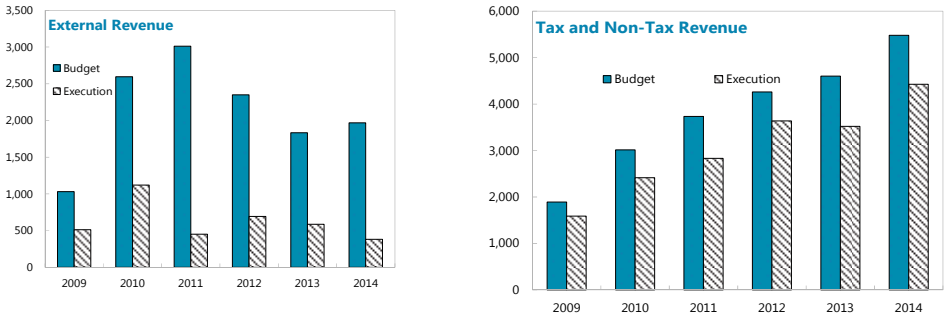


Figure 1b. Democratic Republic of the Congo: Forecasted and Executed External Resources, Tax and Non-Tax Revenue
(CDF billion)



Sources: Congolese authorities and IMF staff calculations.

[1] Execution rates are indicated in the graphs.

Table 1. Democratic Republic of the Congo: Breakdown of the Budget/Execution Revenue Gap (Domestic Revenue)

(All figures are percentages of the total Budget/Execution gap)

	2009	2010	2011	2012	2013	2014
DGDA	9.6	29.1	9.5	27.9	-7.4	45.9
Goods and services	1.7	11.2	3.8	-5.8	-16.3	24.1
Excises	10.8	8.4	4.1	21.3	12.6	14.7
Domestic	13.1	5.4	2.3	14.4	9.2	10.5
Imports	-2.3	3.0	1.8	6.9	3.5	4.3
Customs duties	-5.5	4.9	-0.7	-4.2	-5.7	6.4
export taxes	0.9	0.1	0.0	1.0	0.8	0.5
Fines and penalties	1.7	4.4	2.4	15.6	1.1	-0.1
DGI	1.7	2.2	17.4	32.8	56.2	44.3
Personal income tax	-3.3	-5.2	-0.7	15.0	1.5	9.5
Business income tax	7.7	-0.5	12.8	14.2	2.7	0.5
capital goods	-0.3	-1.3	0.2	0.3	-0.6	0.3
Goods and services	-1.8	8.0	3.8	25.6	50.8	32.6
Licenses and authorizations	0.0	0.5	0.1	0.5	0.2	0.1
Sales	0.0	0.3	0.1	0.3	0.1	0.1
Fines and penalties	-0.6	0.3	1.0	-23.0	1.5	1.1
DGRAD	-8.5	42.9	40.9	39.3	51.2	9.8
Oil producers	2.7	5.0	0.8	9.2	3.0	3.9
Mines	...	-6.8	12.9	17.2	4.4	11.6
Posts and telecoms	...	-10.2	-3.3	7.5	21.2	0.3
Regulation of Posts and telecoms	...	-3.1	-0.8	1.6	-0.6	0.9
Mining and oil bonuses	-15.6	48.7	15.6	-30.1	8.8	1.8
Environment (forest)	...	1.6	1.9	5.9	3.8	3.1
Others	...	7.8	13.8	28.0	10.6	-11.6
Revenue of the provinces	97.2	25.7	32.2	...	...	...
Total	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Congolese authorities and IMF staff calculations.

B. Actual and Budget Allocations

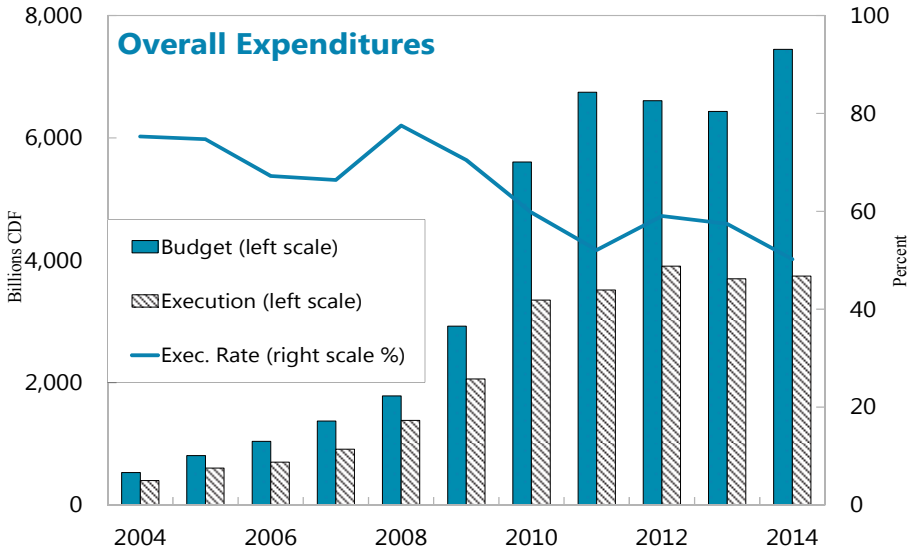
3. **Differences between outturns and forecasted expenditures have mirrored those of resources, in line with the implementation of the fiscal anchor.** In recent years, they have hovered between 50 and 60 percent (Figure 2a). Budget execution for investment, both foreign and domestically-financed was lower than that of current spending (Figure 2b). For instance, in 2012, the execution rate of foreign-financed investment was only 35.3 percent. The situation deteriorated in 2013, although the low level of foreign-financed investments in that year appears to be exceptional. Looking at domestically-financed spending[3] only, the most important execution gap comes from transfer-based provincial investments (between a third and half of the gap), the rest being scattered across various ministries (see Table 2). Given the small share of domestically-financed and centrally-

[3] Which here includes the 0 to 10 percent of non-investment foreign-financed expenditures.

executed investments in the budget (5 to 10 percent of all investments for every year from 2009 to 2015),[4] this means that even domestically-financed investments are poorly executed.

Figure 2a. Democratic Republic of the Congo: Forecasted and Executed Expenditures

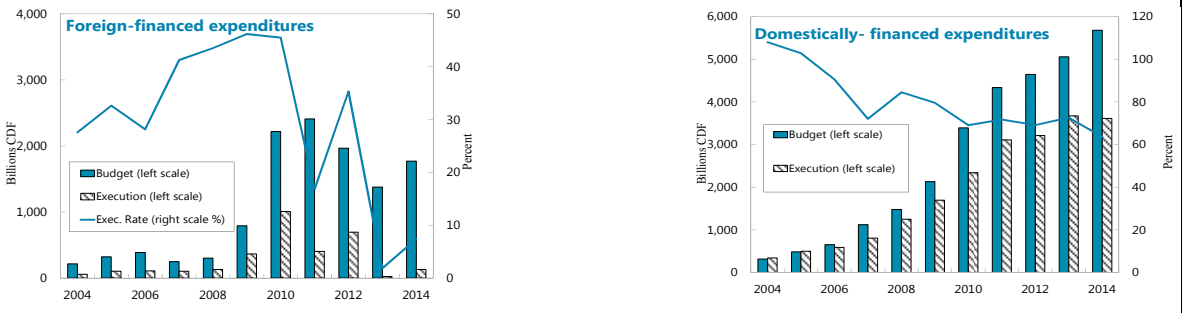
(CDF billion)



Sources: Congolese authorities and IMF staff calculations.

Figure 2b. Democratic of the Republic of the Congo: Forecasted and Executed Foreign/Domestically-Financed Expenditures

(CDF billion)



Sources: Congolese authorities and IMF staff calculations.

[1] Execution rates are indicated in the graphs.

[4] This corresponds to the line « Domestically-financed investments in Table 1.

Table 2. Democratic Republic of the Congo: Breakdown of the Budget / Execution Expenditure Gap (Domestically-Financed)[1]

(Breakdown by "Budget Items" - All figures are percentages of the total Budget / Execution gap)

	2009	2010	2011	2012	2013	2014
Scolarships	1.8	1.2	0.2	0.2	0.2	0.0
Common expenses	-6.5	2.7	4.3	5.9	4.2	2.1
Govt's share of foreign-financed projects	0.0	1.9	0.0	6.0	4.4	1.2
Domestically-financed exceptional expenditures	-10.7	12.8	-4.9	5.9	11.5	14.6
Provincial spending	67.2	26.0	36.6	...	...	...
Public debt	29.3	8.4	6.0	6.6	17.1	4.6
Reforms	0.0	0.0	0.0	0.8	-2.3	0.6
Operations (Institutions)	-5.7	-8.4	-10.4	1.6	-4.8	6.0
Operations (Ministries)	-28.9	-4.5	1.3	5.1	6.4	11.4
Interests and financial charges	22.1	17.6	16.9	6.4	0.1	1.9
Economic, social, cultural and scientific interventions	2.7	8.9	0.6	-0.5	1.8	1.9
Domestically-financed investments	-1.0	-0.7	-0.5	6.3	8.8	2.8
Transfer-based provincial investments	27.8	34.7	36.3	41.1	47.2	15.6
Financing of international reserves	0.0	0.0	6.8	0.0	0.0	0.0
Salaries	10.2	0.6	0.6	5.3	-0.2	27.7
Payments to revenue agencies	-2.7	-1.0	2.8	3.8	4.4	4.3
Subsidies to subsidiary org.	1.5	0.7	0.1	1.7	-0.4	0.9
Sunbsidies to deconcentrated org.	0.5	0.4	0.1	0.3	0.2	0.1
Subsidies to ex-BPO services	0.8	0.3	-0.1	0.5	0.4	0.5
Subsidies to Central Bank	-13.7	-6.1	0.0	0.0	0.0	0.0
Transfer-based provincial operations	5.2	4.5	3.1	2.9	0.9	3.7
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Congolese authorities and IMF staff calculations.

[1] Based on the "Budget Items". Includes a very small share of non-investments foreign-financed expenditures.

4. **Execution rates for domestically-funded non-investment expenditures have differed and fluctuated over time between ministries and within ministry.** As illustrated in Table 2, the Presidency and Defense have over-executed almost systematically (but with more or less regular execution rates, except for the Presidency), while sovereign institutions had normal execution rates. In addition, line ministries had much lower and irregular execution rates. Table 4 shows this erratic movement in a more visible manner.

Table 3. Democratic Republic of the Congo: Execution Rates for Domestically-Funded Non-Investment Budget Items[1]

(Breakdown by "Administration")

	2009	2010	2011	2012	2013	2014
Presidency	157.9	252.3	308.2	97.1	252.5	156.0
Other Institutions	102.3	96.1	91.8	98.9	91.5	88.7
Defense	119.3	119.3	105.6	110.6	80.8	73.7
Ministry of Finance	78.6	71.8	67.7	71.5	84.7	65.7
Of which : Amortization of debt	40.7	53.9	71.7	68.2	48.4	47.5
Of which : Payments to revenue agencies	115.3	109.1	80.0	75.1	74.7	61.3
Of which : Other budget items	105.4	69.0	60.4	72.1	170.3	73.2
Public health	103.9	82.7	87.6	78.1	93.1	88.4
Education and research	86.4	90.2	100.9	78.5	91.4	87.0
Electoral Commission (CENI)	29.1	45.8	151.6	18.7	20.6	29.6
Other ministries	111.6	65.6	66.5	86.6	75.3	64.4
Transfers to provinces (operations)		75.2	81.9	80.3	94.3	67.0
Total	98.3	83.5	89.2	81.7	85.8	73.5

Sources: Congolese authorities and IMF staff calculations.

[1]Excludes foreign- and domestically-funded investments and foreign-financed exceptional expenditures. Small foreign-funded salaries and operations expenditures ("Other institutions" and "Other ministries" may subsist but do not significantly affect results).

Table 4. Democratic Republic of the Congo: Execution for Domestically Funded Non-Investment Budget Items [1]

(Breakdown by budget Items)

	2009	2010	2011	2012	2013	2014
Scolarships	13.1	0.0	0.0	0.0	0.5	0.0
Common expenses	184.1	64.6	48.4	40.7	50.9	25.8
Domestically-financed exceptional expenditures	166.1	40.6	132.6	66.7	7.5	43.2
Public debt	40.7	53.9	71.7	68.2	48.4	47.5
Reforms	...	...	...	35.7	204.4	98.1
Operations (Institutions)	135.9	152.0	166.2	92.8	121.5	90.7
Operations (Ministries)	236.3	120.8	95.6	86.2	85.3	55.0
Interests and financial charges	37.4	23.2	45.6	62.6	99.3	105.8
Economic, social, cultural and scientific interventions	60.0	26.3	80.0	120.9	64.9	114.1
Salaries	92.4	99.1	99.3	94.1	100.2	99.8
Payments to revenue agencies	115.3	109.1	80.0	75.1	74.7	61.3
Subsidies to subsidiary organizations	18.7	25.2	91.4	33.3	114.3	35.8
Sunbsidies to deconcentrated organizations	60.3	0.0	31.8	35.7	59.8	50.0
Subsidies to ex-BPO services	76.3	78.1	110.1	72.6	80.9	62.8
Subsidies to Central Bank	398.2	266.1	...	...	...	...
Transfer-based provincial operations	85.5	75.2	81.9	80.3	94.3	67.0
Total	98.3	83.5	89.2	81.7	85.8	73.5

Sources: Congolese authorities and IMF staff calculations.

[1] Excludes foreign- and domestically-funded investments and foreign-financed exceptional expenditures. Small foreign-funded salaries and operations expenditures ("Other institutions" and "Other ministries" may subsist but do not significantly affect results).

C. The Road to Enhance Budget Credibility

5. **Large gap between actual and forecasted revenue and expenditures undermines budget credibility and the oversight role of Parliament.** Shortfalls in the revenue collection in the DRC's context inevitably lead re-prioritization and re-allocation of resources, thus depriving Parliament of its authority and rightful role in the budget management process. Inasmuch as expenditure cuts heavily fall on investments, this could inhibit private sector development because of the ensuing lack of enabling environment.

6. **Ensuring the realism of resource projections is paramount to budget credibility**. In this regard, it is necessary to use past realizations as a basis for projections. Tax measures attached to the draft budget should be adopted simultaneously with the budget law or otherwise the related resources deducted from the draft budget. The capacity of revenue administration to forecast natural resource revenues needs to be strengthened. In this regard, the FARI[5] model provided by the IMF to the authorities through a technical assistance could be used to forecast natural resource revenues. Better information sharing between line ministries and the Ministry of Budget in one hand, and the authorities and donors on the other hand could help reduce discrepancy between revenue projections and outcomes.

7. **The increased use of supplementary budget is a means to restore the credibility of the budget and the oversight of the parliament.** It would allow to factor into the budget (revenue and expenditure) the impact of unanticipated developments since the adoption of the budget, preserving then the oversight role of parliament. Frequent budget overruns in some lines would then be avoided.

[5] The Fiscal Analysis of Resources Industries (FARI) model is a tool developed in the IMF's Fiscal Affairs Department.

FINANCIAL INCLUSION IN THE DEMOCRATIC REPUBLIC OF THE CONGO: PERFORMANCE AND CHALLENGES[1]

The Democratic Republic of the Congo (DRC) has made some headway toward financial inclusion over the past decade. A benchmarking analysis reveals that DRC's financial inclusion performance is broadly in line with its fundamentals. However, direct comparison with countries of the Southern African Development Community (SADC) shows that the DRC is lagging behind, suggesting that there is scope for further improvements. This calls for increased public efforts to address market failures that impair the use of financial services.

A. Recent Trends

1. **Both supply-side and usage indicators point to progress in financial inclusion over the past decade.** Indicators of access, such as bank branch and ATM density, as well the number of bank branches and ATMs per 100,000 adults, suggest that financial inclusion has increased over the past ten years in the DRC. A similar pattern is observed for indicators of usage such as the number of depositors and borrowers per 1,000 adults. These trends are illustrated in Figure 1.

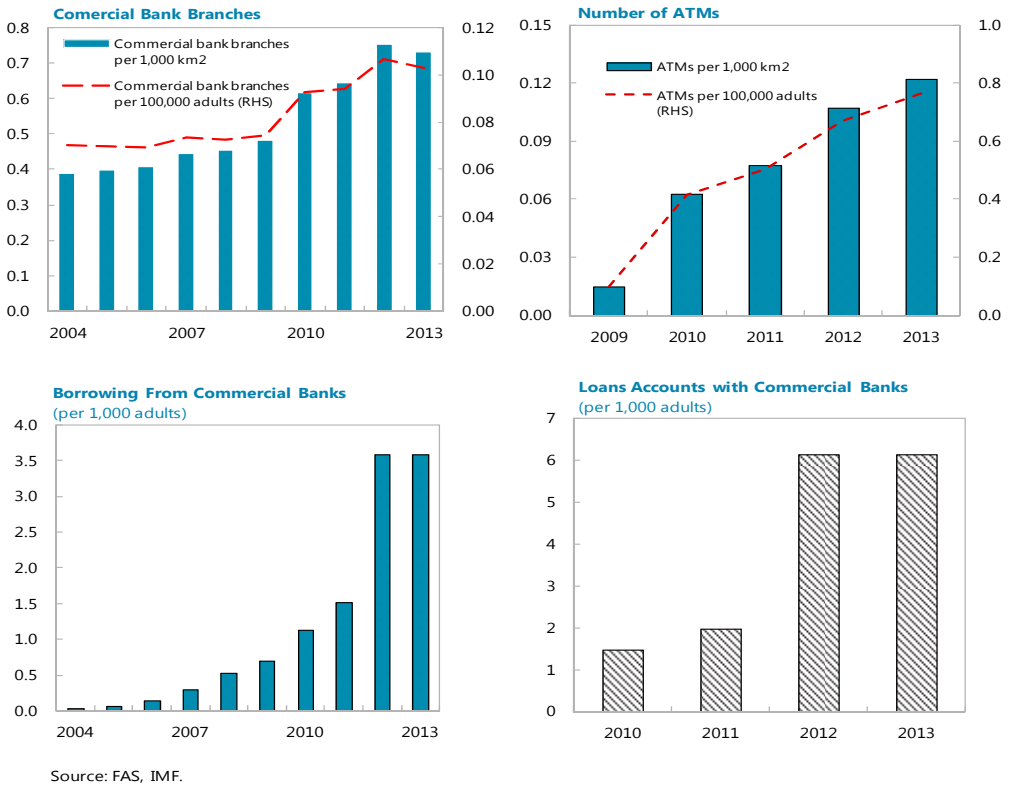
2. **Better macroeconomic and political environments are the driving forces behind this progress.** Indeed, DRC's economic recovery after a decade-long macroeconomic and political instability, real GDP grew on average by over 6 percent 2004–13, translating into an increase of per capita income of about 32 percent. Inflation fell to less than 1 percent by 2014 from about 21 percent in 2005, benefiting from a prudent fiscal policy stance. Volatility of the exchange rate was significantly reduced. This strong macroeconomic performance together with improvement in the political and security situation provided incentives for banks to expand, and customers to deposit and borrow. Another important contributing factor to this progress in financial inclusion is the "*bancarisation*" policy implemented from 2011 whereby civil servants' wages and salaries are paid through bank accounts.

B. Benchmarking DRC

3. **The DRC's financial inclusion performance is benchmarked against its potential.** To this end, we first ran a cross-country regression for sub-Saharan Africa (SSA). The regression coefficients are then used to generate predicted levels of financial inclusion for each SSA country. The actual level of financial inclusion in DRC is then compared to the predicted value derived from the regression.

[1] Prepared by Mesmin Koulet-Vickot and Klaus Peter Hellwig

Figure 1. Democratic Republic of the Congo: Access to and Use of Financial Services



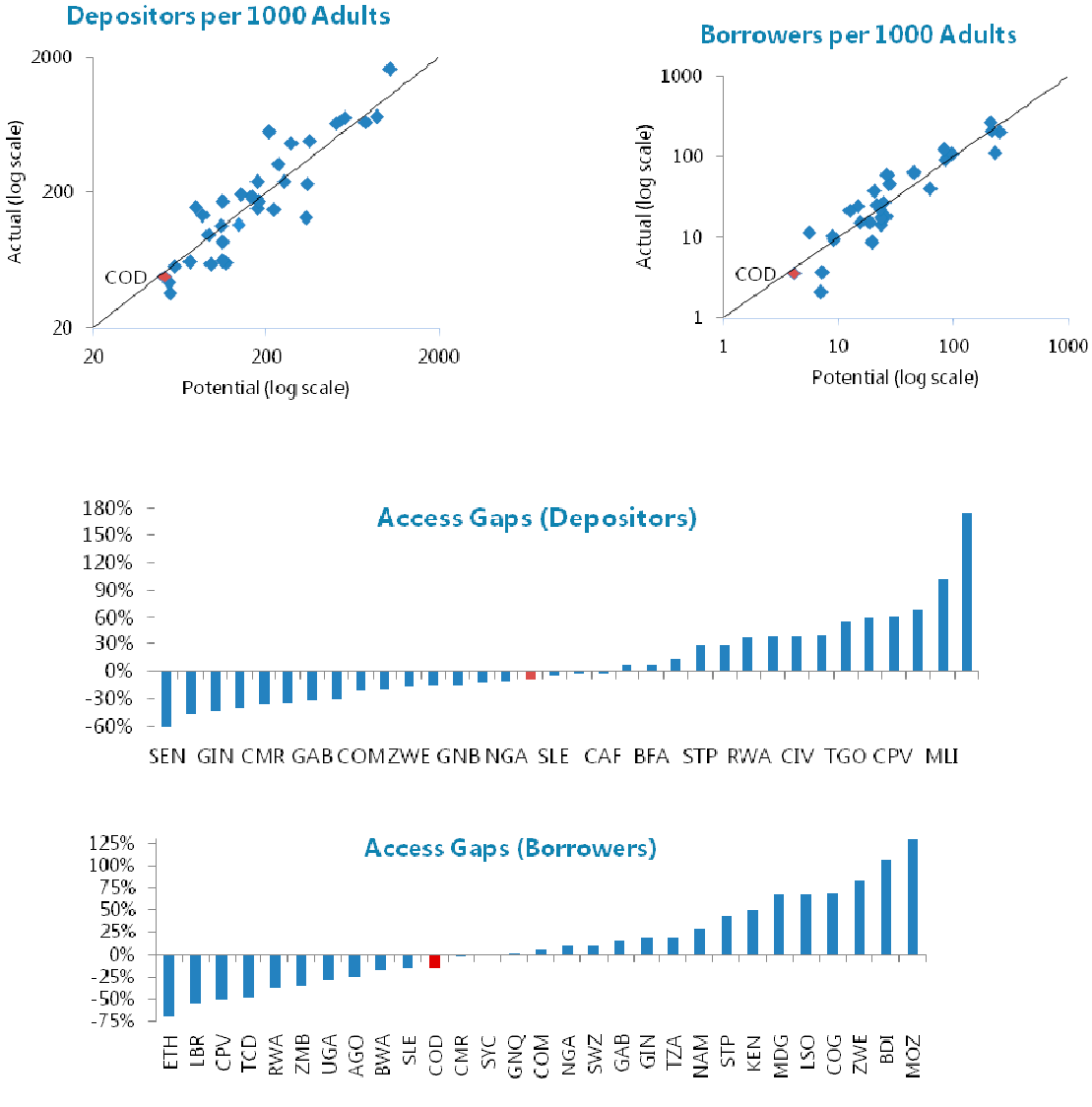
Source: FAS, IMF.

4. **Variables of the model.** We used two financial inclusion measures: the number of depositors with commercial banks per 1,000 adults and the number of borrowers with commercial banks per 1,000 adults. These variables come from the IMF's Financial Access Survey (FAS) and only cover the year 2013. We assumed that financial inclusion is affected by three types of factors: structural characteristic, economic development, and policy environment. The list of variables as well the sources are presented in Table 1.

5. **The benchmarking regression suggests that there is no financial inclusion gap in 2013**. Put it differently, DRC is about where it should be based on its fundamentals. However, it is worth noting that the predicted level of financial inclusion derived from this regression is not the optimal one, but rather the level based on a set of SSA countries' fundamentals (Appendix).

Figure 2. Democratic Republic of the Congo: Financial Inclusion Gaps in DRC and SSA

DRC's performance is broadly in line with its potential.



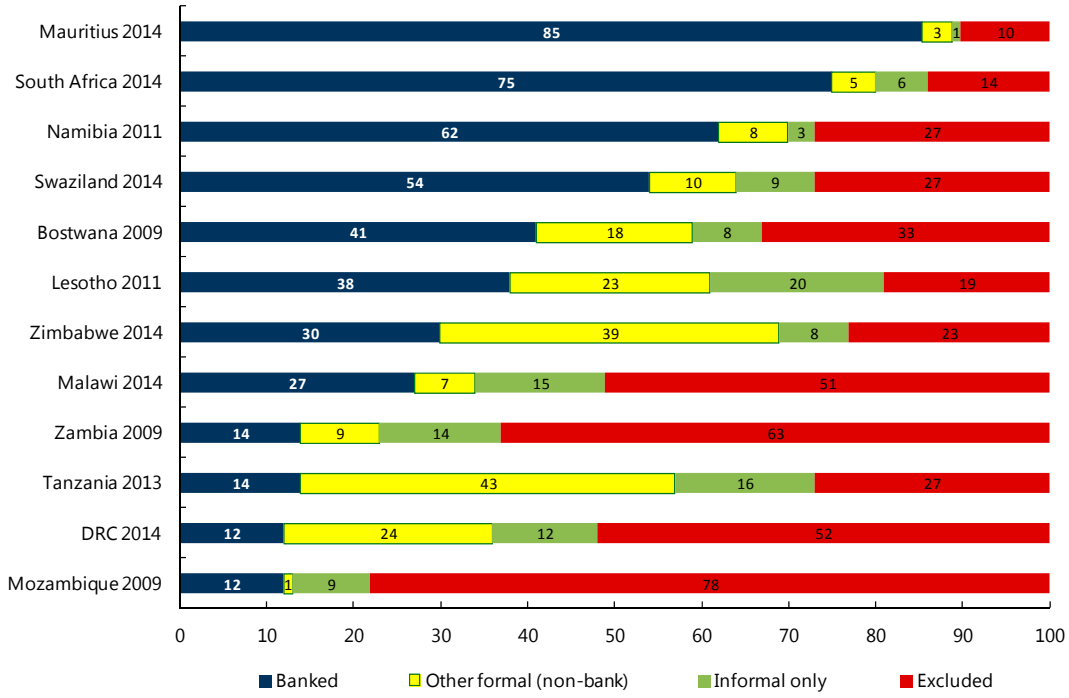
Sources: World Development Indicators, 2013, The World Bank; and IMF staff estimates.

C. Barriers to Access

Challenges

6. **Despite this recent progress, financial inclusion in DRC remains low compared to other SADC countries.** According to the 2014 FinScope Survey (demand-side survey conducted by FinMark Trust), DRC has among the lowest inclusion financial levels in the SADC region (Figure 3). Only 48 percent of adults in DRC are financially included compared to 73 percent in Tanzania, 77 percent in Zimbabwe or 86 percent in South Africa. Similarly, DRC is lagging behind in terms of bank penetration as only 12 percent of adults use financial services provided by banks as compared to 75 percent in South Africa and 30 percent in Tanzania.

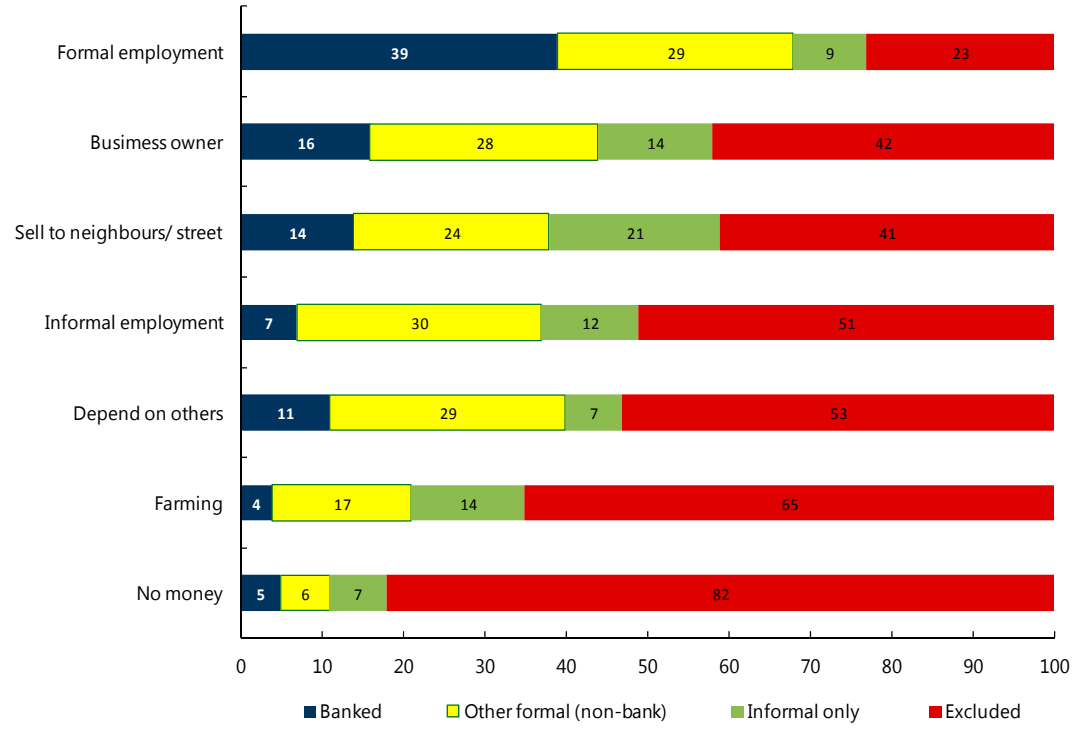
Figure 3. Democratic Republic of the Congo: Access Strand Across the Region
(Percent)



Sources: World Development Indicators, 2013, The World Bank; and IMF staff estimates.

7. **Financial inclusion is more limited among the most vulnerable segments of the population.** Individuals at the bottom of the income distribution are the most financially excluded (see Figure 4), in particular people making a living in farming activities. There is also a small gender gap: 56 percent of women are excluded compared to 48 percent of men.

Figure 4. Democratic Republic of the Congo: Access Strands 2014 by Income Categories
(Percent)



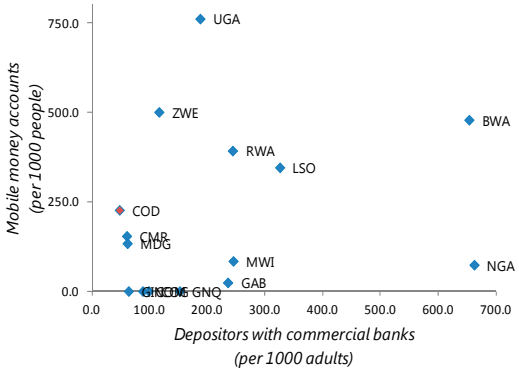
Sources: World Development Indicators, 2013, The World Bank and IMF staff estimates.

8. **Financial awareness and income levels are reported as being the two key barriers to financial inclusion in the 2014 FinScope Survey.** Awareness is cited as the first reason for not using financial services. The next most commonly reason for not using formal financial services is limited income. Besides awareness and income levels, the survey also reveals that financial illiteracy and lack of trust, particularly in non-bank financial institutions are important barriers to financial inclusion.

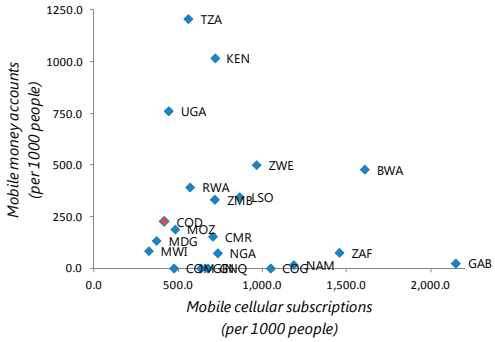
9. **Mobile money accounts have become a convenient alternative to traditional bank accounts.** Mobile banking services have helped overcome some of the logistical challenges associated with a large and inaccessible territory. By 2013, more Congolese had a mobile money account than a traditional bank account (Figure 5). However, the use of mobile money is still less common than in other Great Lakes Region countries and, given the low awareness and knowledge, there is substantial scope for improvement: only 35 percent of surveyed adults in DRC know about mobile money. Moreover, DRC has one of the lowest mobile cellular subscription rates in SSA. A more rapid expansion of the cellular network could be particularly beneficial for financial inclusion.

Figure 5. Democratic Republic of the Congo: Mobile Money Accounts in DRC and SSA

DRC has more mobile money accounts than traditional bank accounts…



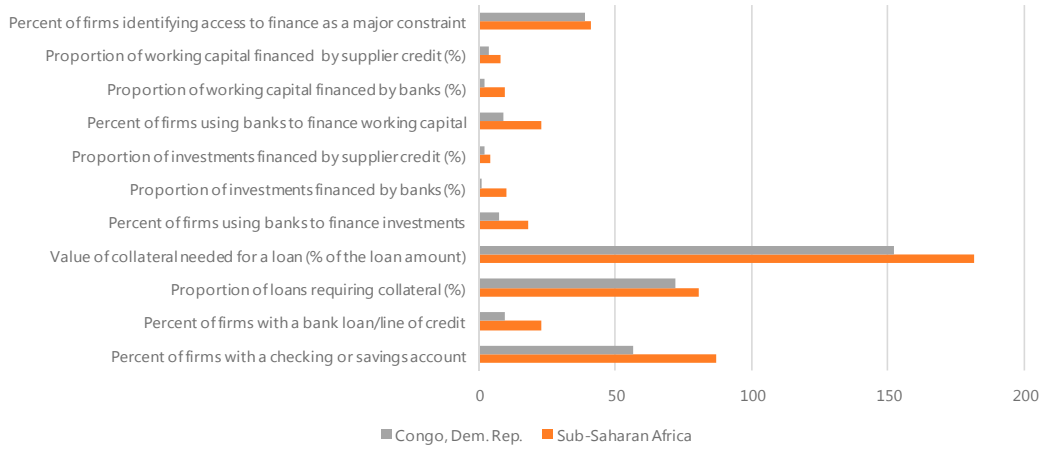
…but the low penetration rate of the cellular network creates a bottleneck to more widespread use.



Source: World Development Indicators, 2013, The World Bank.

10. **Firms' access to finance is more limited in DRC than in other SSA countries.** According to the World Bank Enterprise Survey**,** about 57 percent of enterprises in DRC reported having a checking or savings account in 2013 as compared to 87 percent in SSA; only 9.4 percent of enterprises have a loan or line of credit against an average of 23.1 percent for SSA. While the percentage of firms identifying access to finance as a major constraint is broadly similar (about 40 percent), the proportion of investments and working capital financed by banks are lower in DRC than in SSA.

Figure 6. Democratic Republic of Congo: Enterprise Survey Indicators, 2013



Source: Enterprise Survey, The World Bank.

D. Policy Recommendations

Enhancing financial inclusion will carry substantial benefits for the DRC's economy in terms of resilience to shocks, resource allocation, diversification, and management of risks. In addition, by strengthening policy transmission, further financial inclusion will improve the effectiveness of monetary and fiscal policies. Therefore, fostering access and financial inclusion should be a top priority for the DRC's authorities. In line with the 2014 Financial Sector Assessment Program (FSAP), priority actions are the following:

11. **Filling the information environment gap.** The BCC's credit registry is limited to banks' data, and a very small share of the population has proper documentation to engage in financial transactions. According to the 2014 Finscope, only 8 percent of the surveyed population has proof of residence, 6 percent has proof of income, and less than 4 percent has ID equivalent (passport, driver's license or others). Actions are underway to modernize the credit registry and set up a credit bureau. For these reforms to be successful in terms of reducing moral hazard and therefore facilitating access to credit, all stakeholders will have actively participate and a connection between the two systems established. Efforts to provide documentation to the population will help enhance access to financial services.

12. **Providing conducive regulatory frameworks.** Several regulatory frameworks that govern the activities of the technology-based financial services, such as mobile financial services and payment systems, are missing or need to be updated to harness the potential of technological innovations (mobile banking, mobile payments, internet banking, and biometric identification). Recent evidences show the importance of flexible regulatory environment in encouraging the development of technology-based financial services (the M-PESA in Kenya). Research also underscores the role of flexible regulatory environment in the development of new financial products taking into account specific consumer needs. For instance, there is a need to adopt a specific regulatory framework for leasing to facilitate access to credit by SMEs, as recommended by the 2014 FSAP.

13. **Restructuring and strengthening the oversight of the microfinance institutions (MFIs)**. As pointed out by the 2014 FSAP, the microfinance sector in the DRC has great potential to support financial inclusion, but the financial position of most of the MFIs is precarious. The impaired financial position of MFIs is mainly due to governance and internal audit deficiencies. Some steps have been taken to clean up the sector with the liquidation of 37 inactive MFIs and the withdrawal of 63 licenses. However, much remains to be done to put the sector on a sound footing. Priority actions include enforcing the minimum capital requirement and strengthening the supervision.

14. **Promoting contractual savings**. The impaired financial situation of the sole non-life insurance company (*Société nationale d'assurances*—Sonas) and the social security system prevent them for providing a significant contribution to the development of medium-and long-term savings. The authorities have recently taken steps to increase competition with the enactment of a new law liberalizing the insurance industry. In addition, a new Insurance Code aimed at strengthening

governance and the powers of the supervisor has been adopted. Further actions are needed to strengthen the contractual savings sector. In particular, there is a need to raise the minimum capital requirement in the insurance industry and to restructure Sonas. With regards to pensions funds system, the authorities should initiate a reform process to ensure an actuarial balance and explore the possibility of extending the coverage of pensions plan. In addition, they should ensure that institutions responsible for pension management have an adequate organizational structure, tools and resources in place (see 2014 FSAP).

15. **Strengthening insolvency and credit rights.** Shortcomings in the legal framework and weaknesses in the functioning of the judicial system constitute a major obstacle to financial inclusion. As recommended by the 2014 FSAP, the authorities should strengthen compliance with the Organization for the Harmonization of Business Law in Africa (OHADA) framework, financial and human resources for commercial tribunals and modernize critical professions for the application of the laws.

16. **Other specific policies to boost financial inclusion include:**

- Making use of the formal financial sector to make government payments and collect taxes. In this regard, the policy in place since 2011 to pay all civil servants via bank accounts is a good step, and should be pursued and extended;
- Fostering financial literacy. The lack of awareness/knowledge calls for financial literacy program targeted to unschooled and financially illiterate households to show them how technology-based financial services work and the risks involved ;
- Improving access of the population to information and communication technologies. Indeed, low levels of access to internet and mobile phone are impairing the widespread use of technology-based financial services.

References

Allen, Franklin, Elena Carletti, Robert Cull, Jun Quian, Lemma Senbet and Patricio Balenzuela, 2013, ''The African Financial Development and Financial Inclusion Gap," Wharton Financial Institutions Center Working Paper 13–09, University of Pennsylvania.

IMF, 2014, "Financial Sector Stability Report, Democratic Republic of the Congo," IMF country report no.14/315.

FinMark Trust, 2014, "FinScope Consumer Survey, DRC 2014," FinMark Trust, Johannesburg.

Global Financial Development Report, 2014, Financial Inclusion, Washington, DC: World Bank.

Appendix Table 1. Variables Description

Variable	Description and Unit	Source
Depositors with commercial banks	Per 1,000 adults	IMF Financial Access Survey database
Borrowers from commercial banks	Per 1,000 adults	IMF Financial Access Survey database
Mobile cellular subscriptions	Per hundred	World Development Indicators, World Bank))
Internet per hundred	People with access to the worldwide network (Per hundred)	World Development Indicators, World Bank)
Population	Total population / 1,000,000	World Development Indicators, World Bank
Population Density	People per square km of land area / 1,000	World Development Indicators, World Bank
Urban population	Percentage of total population	World Development Indicators, World Bank
Rural population	Percentage of total population	World Development Indicators, World Bank
Oil-rich countries	Dummy variable that takes the value 1 if the country is an oil-rich country and 0 otherwise.	IMF
GDP Per Capita	In US$	World Economic Outlook, IMF
Growth GDP Per Capita	GDP per capita growth (annual %)	World Development Indicators, World Bank
Inflation	Inflation, consumer prices (annual %)	World Economic Outlook, IMF
Political stability	It captures perceptions of the likelihood that the government will be overthrown by unconstitutional or violent means, including politically motivated violence and terrorism. Estimate gives the country's score on the aggregate indicator, in unit of a standard normal distribution, i.e. ranging from -2.5 to 2.5.	World Development Indicators, World Bank
Credit coverage	Public credit registry, in percent of the adult population	World Development Indicators, World Bank
Rule of law	It captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. The country's score ranges from -2.5 to 2.5.	Worldwide Governance Indicators, World Bank

Appendix Table 2. Regression Results

	Dependent variable:	
	log(Depositors per 1000)	log(Borrowers per 1000)
log(GDP per capita)	0.286	-0.317
Oil-rich	**-0.937**	-0.022
Rule of law	0.260	0.349
Political stability	**0.453**	**0.693**
Population density	0.000	-0.002
Rural	-0.012	-0.001
Inflation	**0.055**	0.015
Internet per hundred	**0.031**	**0.059**
Mobile cellular subscriptions	**0.000**	0.000
Public credit bureau coverage		0.033
Private credit bureau coverage		0.020
Constant	3.763	**5.231**
Number of observations	34	29
Adjusted R-squared	0.77	0.75

Note: bold-typed coefficients indicate statistical significance at the 5-percent level