Public Disclosure Authorized
Public Disclosure Authorized
Public Disclosure Authorized
Public Disclosure Authorized

91568

REPUBLIC OF CONGO

ECONOMIC UPDATE

First edition | September 2014

The Road to Economic Development

Investing Efficiently in Congo's Infrastructure

BANQUE MONDIALE

Table of Contents

Abbreviations and Acronyms iv
Acknowledgment vi
Foreword vii
Executive Summary viii

I. State of the Economy: Recent Developments and Outlook 1
1.1. Recent economic developments 2
1.1.1. Congo's current growth trend may hamper its development goal 2
1.1.2. Effective monetary policy is leading to low inflation 4
1.1.3. A new fiscal rule in order to “immunize” oil revenues from volatility in a context of difficult budget execution in line ministries 6
1.1.4. Helped by high oil prices, the external account has performed strongly 8
1.2. Congo’s economic outlook 10
1.2.1. Driven by the non-extractive sectors, Congo’s economy is expected to grow strongly in the next three years 10
1.2.2. Congolese economy remains vulnerable to internal as well as external shocks 11
1.3. Toward better investment in infrastructure 13

II. Leveraging Economic Infrastructure for Sustained Growth 14
2.1. Poor state of economic infrastructure leading to exceptionally high input costs 15
2.1.1. Coverage and access to infrastructure services in Congo 15
2.1.2. Infrastructure bottleneck leading to exceptionally high input costs 16
2.2. Planned and ongoing government investments in infrastructure 17
2.2.1. Encouraging improvement in transport infrastructure 18
2.2.2. A major increase in water and electricity production 19
2.2.3. Substantial upgrade of telecommunications infrastructure 20
2.2.4. Major infrastructure projects are planned for the coming years 20
2.3. Potential impact of ongoing and planned infrastructure projects on economic diversification and growth 21
2.4. Impact of improved efficiency of public investment on economic diversification and growth . 24
2.5. A policy agenda to improve the efficiency of government spending 26

References 28

Appendix 30

Table 1Republic of Congo: Real GDP growth rates – 2010-2016 31
Table 2 Republic of Congo: Sectoral contribution to nominal output – 2010-2016 (percent of GDP) 32
Table 3 Republic of Congo: Supply and use at current prices – 2010-2016 (percent of GDP) 33
Table 4 Republic of Congo: Central Government Operations – 2010-2016 (percent of GDP) 34
Table 5 Republic of Congo: Central Government Operations – 2010-2016 (percent of non-oil GDP) 35
Table 6 . Republic of Congo: Executed budget – 2008-2013 (percent of the total budget) 36
Table 7 Republic of Congo: Oil forecasts and realizations – 2005-2018 (millions of barrels) 37
Table 8 Republic of Congo: Selected macroeconomic indicators – 2010-2016 38
Table 9 Chinese financing of infrastructure in the Republic of Congo 39

List of Figures

Figure 1: Congo's neighbors: GDP annual growth rate 2
Figure 2: Average annual GDP growth rate, 2001-2013 2
Figure 3: West and Central African countries oil production in 2013 (mln barrels) 2
Figure 4: Annual growth of non-oil sectors 3
Figure 5: GDP share of key non-oil sectors 3
Figure 6: Annual growth rate of GDP components 4
Figure 7: GDP shares of key components 4
Figure 8: CPI, inflation, 2003-2013 4
Figure 9: Selected countries, average annual inflation, 2002-2013 5
Figure 10: Inflation by group of products 5
Figure 11: Selected SSA countries – Private sector credit to GDP ratio 5
Figure 12: BRICS – Private sector credit to GDP ratio 5
Figure 13: Annual change in government revenues, 2003-2013 6
Figure 14: Share of total government revenue, 2011-2013 7
Figure 15: Share of total government budget by sector, 2011-2013 7
Figure 16: Total expenditure execution rate, 2009-2012 7
Figure 17: Current and capital expenditures execution rates, 2009-2012 7
Figure 18: Fiscal surplus to GDP ratio, 2003-2013 8
Figure 19: West, Eastern and Central African oil production – External debt to GDP ratio 8
Figure 20: Price index of Congo's exports, 2005=100 8
Figure 21: Sector shares of exports, 2007-2013 9
Figure 22: Nominal annual change in exports, 2011-2013 9
Figure 23: Nominal annual change in imports, 2007-2010 9
Figure 24: GDP annual change 10
Figure 25: Oil, mining and non-extractive GDP shares, 2011-2013 10
Figure 26: Annual change in government revenues, 2011-2016 11
Figure 27: Volatility of oil and mining (annual growth rates), 2000-2013 11
Figure 28: Infrastructure sources of funding 12
Figure 29: Selected countries – Infrastructure development index, 2010 15
Figure 30: Selected countries — Electricity Index (Kwh per capita), 2010 15
Figure 31: Selected countries— Total Paved Roads (Km per 10,000 inhabitants), 2010 16
Figure 32: Transportation in the Republic of Congo 21
Figure 33: Cost of production infrastructures 22
Figure 34: Impact of infrastructure on average GDP growth, 2010-2025 22
Figure 35: Impact of infrastructure on average sectorial growth, 2010-2025 23
Figure 36: Public Investment Management index (PIMI) 24
Figure 37: Public investment in 100 million of US$ 24
Figure 38: Impact of infrastructure on average growth, 2010-2025 25
Figure 39 : Selected countries-Governance indicators 26

Abbreviations and Acronyms

AIDI	The Africa Infrastructure Development Index
BEAC	Banque des Etats d'Afrique Centrale / Central Bank of Central African States
BRICS	Brazil-Russia-India-China-South-Africa
CAR	Central African Republic
CEMAC	Communauté Economique et Monétaire de l'Afrique Centrale/ Central African Economic and Monetary Community
CFCO	Chemin de Fer Congo Océan / Congo-Ocean Railway
COBAC	Commission Bancaire de l'Afrique Centrale / Central African Banking Commission
CPI	Consumer Price Index
CSCE	Congo China State Construction Engineering
DRC	Democratic Republic of Congo
DSA	Debt sustainability analysis
EESIC	Enquête sur l'Emploi et le Secteur Informel au Congo/ Employment and Informal Sector Survey
ENI	Ente Nazionale Idrocarburi / National Hydrocarbons Authority of Italy
EU	European Union
XAF	Franc CFA / CFA franc
GDP	Gross domestic product
GEM	Global Economic Monitor
HIPC	Heavily Indebted Poor Countries
IFC	International Financial Corporation
ICT	Information and communication technologies
IMF	International Monetary Fund
IRR	Investment return rate
ITU	International Telecommunication Union
kWh	kilowatt hour
LMICs	Low-middle income countries
MAMS	Maquette for MDG Simulation
MDG	Millennium Development Goals
MF	Ministère du Finance / Ministry of Finance
MW	megawatt
MWh	megawatt hour
NDP	National Development Plan
NEPAD	New Partnership for Africa's Development
PAPN	Port Autonome de Pointe Noire / Autonomous Port of Pointe-Noire
PDCT-AC	Plan Directeur Consensuel des Transports en Afrique Centrale / Central African Consensual Transport Master Plan
PEEDU	Projet Eau, Electricité et Développement Urbain / Water, Electricity and Urban Development Project
PIMI	Public Investment Management Index
pp	Percentage points
REER	Real effective exchange rate

Abbreviations and Acronyms (suite)

RMSM	Revised Minimum Standard Model
RN1	Route Nationale No. 1/ State Highway No. 1
RN2	Route Nationale No. 2/ State Highway No. 2
SME	Small and medium enterprises
SNDE	Société Nationale de Distribution d'Eau
SNE	Société Nationale d'Énergie
SSA	Sub-Saharan Africa
TAH3	Tripoli-Windhoek-Cape Town Trans-African Highway
TEU	Twenty-foot equivalent units (container shipping)
US$	United States dollar
WACS	West Africa Cable System
WDI	World Development Indicators
WEO	World Economic Outlook

Acknowledgment

This first edition of the Republic of Congo Economic Update was prepared by a team including Fulbert Tchana Tchana (task team leader), Emmanuel Pinto Moreira, Mahine Diop, Etaki Wa Dzon, and Ephraim Kebede.

The report benefited from the insights of several peer reviewers, including Jacques Morisset, Cecilia M. Briceno -Garmendia, and Hannah S. Nielsen, as well as from comments shared by Jean-Pascal Nganou, Anand Rajaram, Coulibaly Souleymane, Franck Adoho and Dalia S. Hakura (IMF). The team received guidance from Emmanuel Pinto Moreira, Albert G. Zeufack, Sylvie Dossou, Yisgedullish, Made, and Eustache Ouayorou. Lillian Foo, Clementine Maoungou, and Tessa Mayouya provided editorial support, while Josiane Maloueki Louzoulo and Karima Laouali Ladjo provided invaluable assistance during its preparation.

Foreword

The office of the World Bank in the Republic of Congo is pleased to launch this publication “the Republic of Congo Economic Update”, which reviews the main recent economic developments. It will be an annual publication and a very important aspect of the program of the World Bank in the Republic of Congo, a country with substantial monetary reserves from nearly a decade of oil revenue boom, engaged in an ambitious program of rehabilitation and construction of economic infrastructure, but where social indicators is slowed to improve. This publication aims to stimulate a constructive dialogue on public policy with the country's authorities, academics, the private sector and civil society.

This first edition covers the year 2013 and the first half of 2014. Beyond the review of recent economic developments, the report highlights the main results of some analytical work of the World Bank in the Republic of Congo, with the aim to establish the consistency of economic policies in the medium and long-term.

This edition covers a variety of macroeconomic topics, from policies and economic indicators of the real sector to fiscal, monetary, and external sectors. It shows that Congo's economy is growing at a weaker pace than a pace likely to enable a faster medium-term economic and social development. However, the government could significantly reverse this trend by investing efficiently in its existing infrastructure and future projects.

While welcoming the efforts of the Congolese authorities for investment in infrastructure, we hope that this edition will provide a useful contribution to the debate on economic policies in support of the transformation of the Republic of Congo from a low-middle income country to a high-middle income country in a medium-term horizon.

Eustache Ouayoro
Country Director of the World Bank
For the Republic of Congo

Executive Summary

Congo's economy is growing but not fast enough to speed up its race toward development

1. **Congo's current growth trend is lower than the projected rate of growth in the 2012-2016 National Development Plan (NDP).** In the past decade, the average annual economic growth rate of Congo was lower than that of lower middle income countries (LMICs). From 2011 to 2013, Congo's annual growth rate has averaged 3.5 percent, which is lower than 8.5 percent target set in the recent National Development Plan over the period 2012-2016 to achieve the country's ambitions over that timeframe.

2. **Congo's unsatisfactory GDP growth is largely due to the poor performance of the extractive sectors.** During the last three years, the oil sector declined by an average annual rate of 8.2 percent essentially due to interruptions of oil production in some offshore wells. Likewise, mining exports, which were expected to begin in 2012, have been delayed due to infrastructural and regulatory constraints.

3. **However, the relatively strong performance of non-oil sectors has counterbalanced the disappointing results of the oil and mining sectors**. In fact, although oil remained the country's major source of revenue, the contribution of the non-oil sector to growth has been steadily. In the past three years, Congo's non-oil sectors grew by an average annual rate of about 8 percent.

4. **The strong performance of non-oil sectors is mainly due to the investment boom in public infrastructure.** During the past three years, public investments have increased threefold as a share of GDP. Public investments appear to have created favorable conditions and positive externalities for private investment, which grew steadily from 15.7 percent of GDP during 2000-2004 to 25.4 percent of GDP during 2005-2013. This is indicative of the role that the Brazzaville-Beijing strategic partnership has played in reshaping the GDP breakdown.

5. **The Congolese economy is projected to grow at an annual rate of about 7.6 percent over the next three years**. This projection is based on a set of assumptions. Firstly, non-extractive sectors are anticipated to grow at a strong pace as the government has secured new funding from China that will keep infrastructure investments growing and, at the same time, the government is expected to continue strengthening its economic diversification policies. Secondly, Congo's oil production is expected to gradually stabilize in the coming years, mainly due to the discovery of the new fields. Thirdly, the country is likely to witness the beginning of mining production.

6. There are some endogenous and exogenous factors that could affect the country's projected growth path. For example, Congo relies heavily on China to finance its main infrastructure projects. Internal pressures on rent seeking and an unbalanced allocation of resources between infrastructure and social sectors could expose the economy to fiscal and financial risks. Difficulties in budget execution and weak absorption capacity in regard to the high volume of public investment have the potential to affect the efficiency of government spending. The weak payment and disbursement systems could lead to a domestic debt buildup, which could weigh heavily on the prospect of non-extractive sectors. Finally, the organization of the 2015 All-African Games in Brazzaville could lead to a non-sustainable fiscal position. Oil price as well as production volatility constitutes major exogenous factors .

7. Congo should continue investing intensively but more efficiently in infrastructure, an urgent need. Ample evidence shows that investment efficiency in infrastructure is critical for economic development. Given the importance of this issue for the future growth trajectory of the country, the second part of the update focuses on efficient investment in infrastructure.

Investing efficiently in economic infrastructure will help the Congolese economy to catch up in its race toward development.

8. **Access to and cost of infrastructure are the major constraints to private sector development in Congo.** The poor state of the country's infrastructure leads to exceptionally high input costs. For example, more than 70 percent of private firms in the World Bank's 2009 Enterprise Indicator Survey consider the lack of electricity as the main obstacle for private sector development in Congo. Also, the poor state of transportation infrastructure as well as transport services remains a major bottleneck to investment and trade.

9. **The ongoing and planned government infrastructure investments have the potential to enhance economic diversification by significantly reducing input costs for the country's productive sectors.** Simulation results from our macro model show that the ongoing and planned investment in energy could add as much as 1.6 percentage points (pp) to the average growth rate of the manufacturing sector in 2014-2025. Since the lack of affordable energy is one of the main factors hampering the development of the manufacturing sector in Congo, greater electricity supply capacity and affordability could aid the country's diversification agenda. Also, improving the quality of roads across

---

1 Projection from World Bank staff

2 Hulten (1996) shows that those low and middle income countries that use infrastructure inefficiently pay a growth penalty in the form of a much smaller benefit from infrastructure investments.

Executive Summary

10. **Managing public investments efficiently is critical to maximize the opportunities afforded by depleting Congo's resource wealth, and to increase investment outcomes.** Ongoing infrastructure investments alone will surely have a positive immediate impact on national economic growth. However, in the absence of effective planning, design and management, these investments could strain the country's limited absorptive capacity and lead to small or negative productivity gains. By investing more efficiently, the government can ensure that it gets a better "bang for the buck" from these investments.

11. By focusing on improving government efficiency, the Republic of Congo would be well positioned to achieve sustained and diversified growth, rather than continuing on the current path that is largely driven by higher levels of public investment. The Congolese government can achieve better public investment outcomes by implementing sound public financial management policies in these areas. These include better preparation and planning of investment projects, introduction of systems-based commitment of reform in the procurement and disbursement system to speed up the processes and make them more transparent.

Congo Power Plant - Pointe-Noire

PART ONE:
State of the Economy:
Recent Developments and Outlook

Main Points

- *Congo needs faster economic growth than the current growth trend, which is lower than the growth rate projected in the 2012-2016 National Development Plan (NDP). This unsatisfactory GDP growth is largely due to the poor performance of the extractive sector. However, the public investment boom appears to have contributed to the relatively strong performance of the non-oil sectors, which has counterbalanced the disappointing performance of the extractive sector.*

- *The Congolese economy is projected to grow at the annual rate of about 7.6 percent over the next three years in a context of low inflation, but the potential adverse impact of oil price and production volatility cannot be ignored. Moreover, the projected rate of growth is still shy of meeting the 8.5 percent average growth rate targeted by the National Development Plan.*

- *In 2013, the government improved the sustainability of its fiscal policy by adopting a fiscal rule. In addition, the government improved non-oil tax revenues by broadening the tax base and improving tax administration. Overall, the country enjoyed a sustained budget surplus.*

- *Government policies directed at advancing production transformation have boosted manufacturing exports in the last three years. However, its share of total exports remains low.*

- *The financial sector in Congo remains significantly undeveloped. In addition, banks have abundant liquidity as demonstrated by their large excessive reserves held in the central bank--about 25 percent of total deposits in end-2012, but they are having difficulties to provide credit to the private sector.*

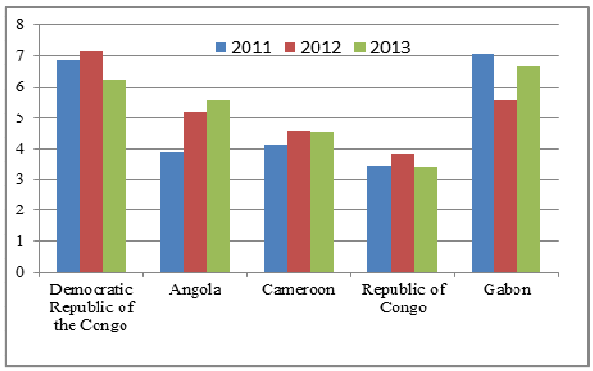
1.1 Recent economic developments

12. **Macroeconomic performance of the Republic of Congo has been fairly good, with a high fiscal surplus, a low-inflation environment, and a favorable trade balance.** However, the economy is not growing fast enough to meet the country's development goals. At the same time, the social indicators remain low.

1.1.1 Congo's current growth trend may hamper its development goal

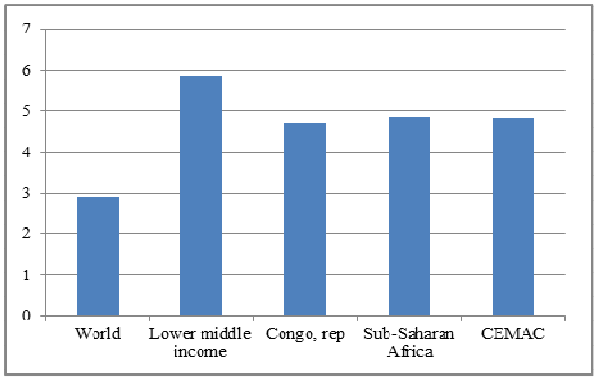
13. **Congo's performance over the last three years has been far behind the growth rate needed to achieve its development goal by 2025.** In fact, in the past three years, the country's economic growth has averaged about 3.5 percent, while the average growth rate required (to reach the country's development goal) is 8.5 percent over 2012-2016, according to the NDP (Book 3, Page 21). In addition, over the same period the average growth rate of real GDP per capita was 2.2 percent, while GDP per capita must grow by an estimated 4.5 percent and 6.5 percent over this period to achieve the goals.[3] This weak growth is largely due to poor performance of the oil sector.

Figure 1: Congo's neighbors: GDP annual growth rate



Source: World Development Indicators, 2013

Figure 2: Average annual GDP growth rate, 2001-2013

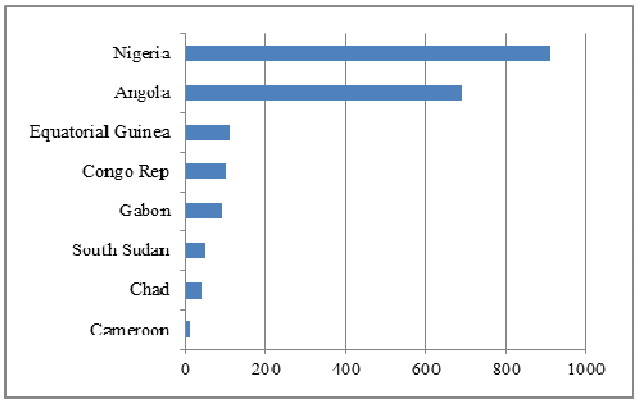


Source: World Development Indicators, 2013

Slowdown in oil production in a context of a possible takeoff of the non-oil sector

14. **Despite a sharp production decline, the oil sector still dominates Congo's economy. The oil sector has declined at an average rate of (-8.2) percent during the last three years.** This was mainly due to accidental disturbances in offshore oil production. Nonetheless, in nominal terms, the share of the oil sector in GDP has remained above 60 percent over the last five years. The lowest was recorded in 2009, at 62 percent of GDP, while the highest was in 2011 (mainly due to price increases) in which the sector accounted for 70 percent of GDP. Since then, as the oil price has stabilized, its size has slightly declined and it is estimated at 63 percent of GDP in 2013.[4] Finally, Congo is still one of the major oil producing countries in Sub-Saharan Africa, with an annual oil production higher than that of Gabon, South Sudan, Chad and Cameroon.

Figure 3: West and Central African countries oil production in 2013 (mln barrels)



Source: International Monetary Fund

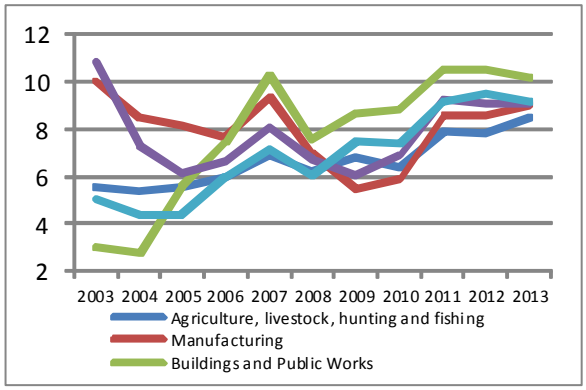
15. The Congolese economy is highly exposed to the fluctuations in production and the price of oil. The oil dependency and the volatility of oil production and prices in international markets can lead to significant fiscal planning issues and to a reduction in the quality of public spending. Supply shortage or oil production can result from an unexpected refinery outage, pipeline damage or any other mechanical failure. The Congolese government needs to bear in mind that the lack of economic diversification to date makes the country's economy is too sensitive to fluctuations of production and international oil prices.

[3] See the 2012-2016 National Development Plan projection.

[4] In real terms, nonetheless, the story is a little bit different. The share of the oil sector in GDP has been falling since 2000, with an annual average growth of (-2.2) percent, dropping from 43.6 percent in 2000 to 23 percent in 2013.

16. In recent years, however, GDP growth has been increasingly driven by the non-oil sector, which experienced nearly double-digit average growth or more during the last three years. During 2010-13, the non-oil sector grew at an average rate of 9 percent, a sharp increase from 5.4 percent in 2005-2009.

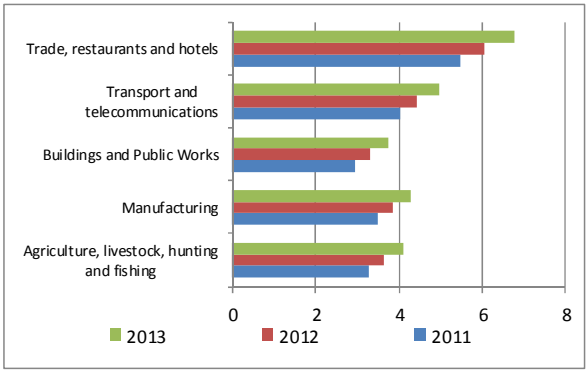
Figure 4: Annual growth of non-oil sectors



Sources: World Bank, IMF and Congolese authorities

17. **In recent years, all non-oil sectors experienced positive rate of growth.** From 2011 to 2013, the slowest growing non-oil sector, forestry and logging, grew at an average growth rate of 2.2 percent, while the highest growth sector, manufacturing, buildings and public works, grew by an average of 9.4 percent. In 2013, the most booming sectors were electricity, gas and water; buildings and public works; and agriculture and livestock, each of which enjoyed nearly double-digit growth or more. In 2011 and 2012, agriculture and livestock, manufacturing, and buildings and public works were the top performers, with almost double-digit growth rates.

Figure 5: GDP share of key non-oil sectors



Sources: World Bank, IMF and Congolese authorities

18. The five sectors that are more likely to help Congo achieve a diversified economy have performed strongly. Five sectors have demonstrated high potential to contribute to economic diversification: agriculture and livestock; manufacturing; buildings and public works; transport and telecommunications; and trade, restaurants and hotels. These sectors are already grounded in the economy, employ a fair share of the labor force, and are in a good position to benefit from public investments in infrastructure. Over the last three years, each of these sectors grew at an average rate of at least 8.5 percent. Also, the share of these sectors increased from 19.4 percent in 2010 to 23.6 percent in 2013.

19. The impressive growth in the non-oil sector can be attributed to the diversification policies in the sectors such as agriculture and manufacturing and the positive externalities emanating from public investments in infrastructure. Since 1999, the government has implemented policies or programs aimed at boosting agricultural production. As part of these programs, the government has been working with national and international experts to increase food and cash crop production. The government adopted a new law that focuses on developing the forestry industry. Furthermore, massive government investments in infrastructure have boosted the construction sector and are resulting in lower production costs for manufacturing. Going forward, the prospect of building more and more well targeted economic infrastructure is likely to maintain the growth of the non-oil sector at a higher pace than otherwise.

Boom in investments as well as in imports

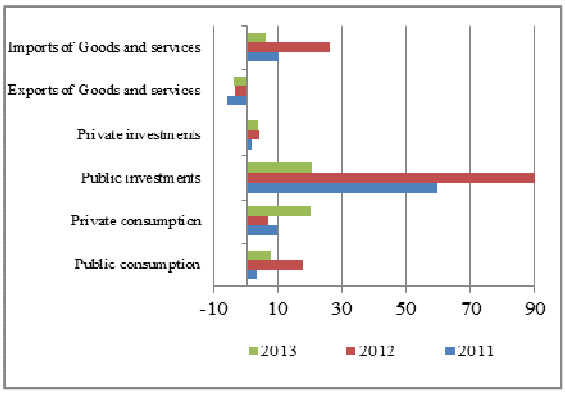
Ponds at Dzoumouna station

20. **Public investment has skyrocketed in the last three years, a threefold increase as a share of GDP.** From 2011 to 2013, public investment grew at an average rate of 34.8 percent. However, this growth has been decelerating. In the same period, the slowdown in public investment is mainly due to implementation impediments within the government functional activities, such as procurement and disbursement processes. The country's weak absorptive capacity to sustain massive public investment is also another factor that contributes to the slowdown of public investment.

21. **The strength of public investments had some positive externalities on private investments, which grew steadily during the same period and increased its share significantly from 2005-2009 to 2010-2013.** Private investment grew at an average growth rate of 6.4 percent between 2011 and 2013. This growth has been driven by massive investments in the non-oil sector. In contrast, investments in the oil sector have been modest, confirming once more the positive externality effect of public investments in infrastructure.

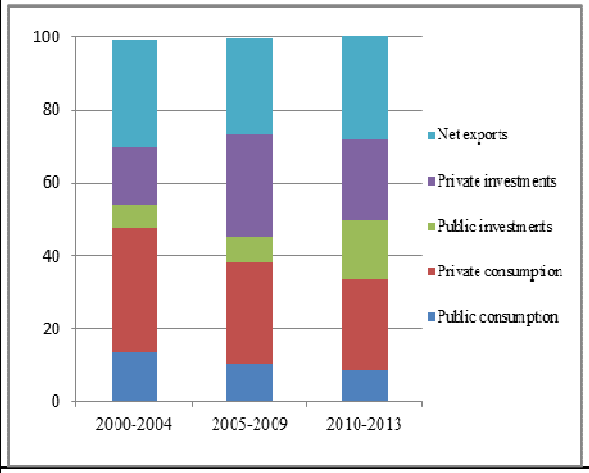
22. During the last three years, imports of goods and services grew at a higher pace than exports. Congo's imports increased with an annual average growth rate of 14.3 percent. This growth was fueled by imports of transportation and construction materials in order to build new infrastructure. In contrast, exports decreased by an average of (-4.5) percent over the period. This poor performance of exports is due to difficulties in the oil sector. During the same period, exports of goods from other sectors grew at an annual rate of 5.9 percent, highlighting the increasing strength of the non-oil sector in the Congolese economy over the period.

Figure 6: Annual growth rate of GDP components



Sources: World Bank, IMF and Congolese authorities

Figure 7: GDP shares of key components



Sources: World Bank, IMF and Congolese authorities

23. **The Brazzaville-Beijing strategic partnership has reshaped the GDP breakdown, with a sharp increase in public investment share of GDP.** This sharp increase is the result of the public investment program that was launched by the government in 2002 with the creation of an entity (La Délégation Générale des Grands Travaux) and intended to fill the country's economic infrastructure gap. This investment program has picked up steam since 2006 with the implementation of the Brazzaville-Beijing strategic partnership.

Fruits of the strategic partnership Brazzaville/Beijing

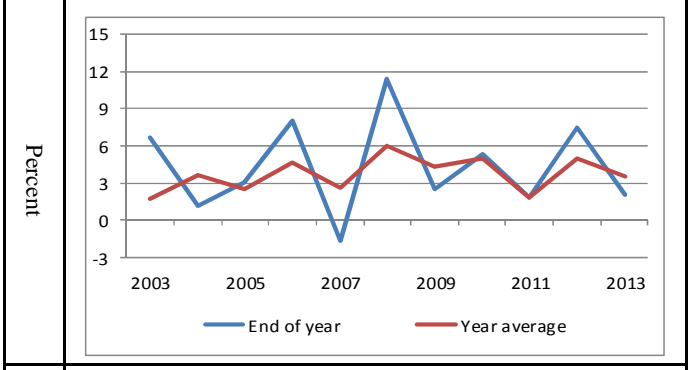
Maya-Maya Airport - Brazzaville

Big University's Library of Brazzaville

1.1.2 Effective monetary policy is leading to low inflation

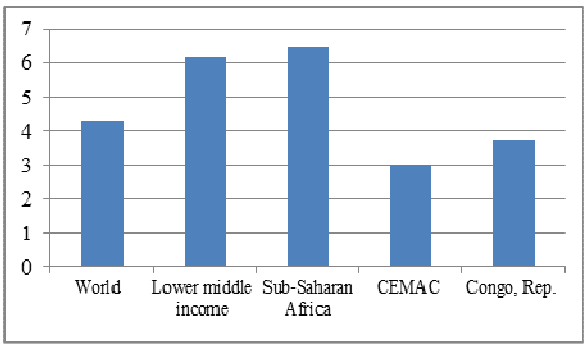
24. The central bank interest rate applied to financial institutions is historically very stable, but has declined by 50 basis points in 2013. The CFA franc of the region is pegged to the euro. In order to keep stability of the official exchange rate, the central bank (BEAC) sets external reserves in line with the guidelines of the French Treasury. It follows monetary policy that creates a stable inflation in the region. In 2013, the central bank declined its interest rate by 50 basis points. The main objective of this change was to boost credit availability in the economy, whereby commercial banks failed to finance small and medium size enterprises.

Figure 8: CPI, inflation, 2003-2013



Sources: World Bank, IMF and Congolese authorities

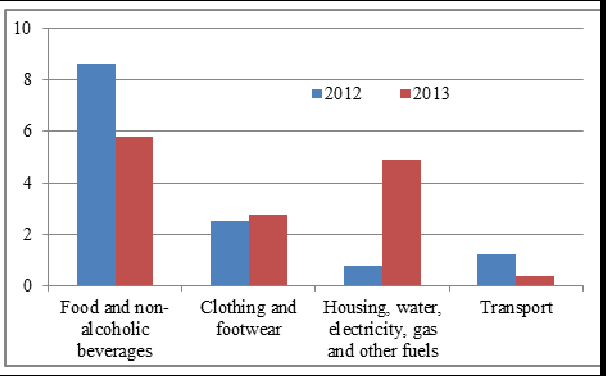
Figure 9: Selected countries, average annual inflation, 2002-2013



Source: World Development Indicators

25. Historically, inflation in Congo hasn't been a great challenge. In fact, since 2000, inflation has been below 12 percent, whether we consider the annual average or year-end inflation. The annual average rate of CPI inflation, which is the most smooth inflation indicator, shows that over the last decade consumers have experienced a steady 4 percent annual increase in the price of their basket of good. Therefore, CPI inflation in Congo has been very low by developing country standards. This is also true for the entire CEMAC region. Inflation in Congo and in the entire CEMAC region is lower than the world average.

Figure 10: Inflation by group of products

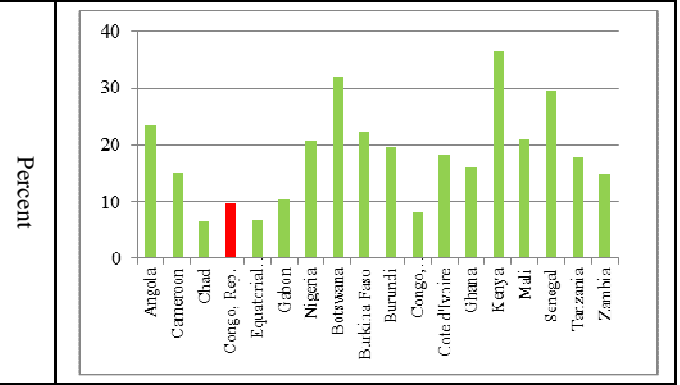


Source: Congolese authorities

26. In 2013, inflationary pressures slowed down after a peak in 2012 mainly due to the massive government spending following Mpila's events. Inflation stood at 2.1 percent in 2013, down from 7.5 percent in 2012. The end of massive spending by the government has removed demand pressures, thereby cooling down the price increase of goods. In 2012, inflation was driven by sharp increases in food prices (12.3 percent on average) as well as in beverages and tobacco (13.3 percent). The slowdown in 2013 was also driven by improvement of local supply in food products and lower transportation costs. In addition, in 2013 international food prices dropped significantly from an index level of 207 in December 2012 to 199 in June 2013, which is a decrease of 7.6 percent on an annual basis. This decline is more pronounced in the last 12 months recorded.

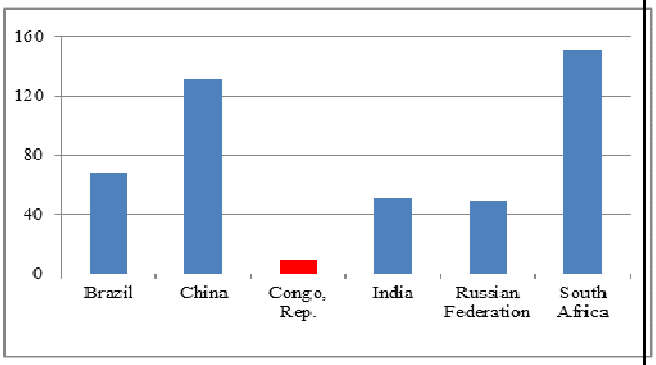
The financial sector faces difficulties in granting credits to the private sector.

Figure 11: Selected SSA countries – Private sector credit to GDP ratio



Source: The World Development Indicators, 2013

Figure 12: BRICS – Private sector credit to GDP ratio



Source: The World Development Indicators, 2013

27. **Despite the recent favorable trends, the financial sector in Congo remains significantly undeveloped.** Between 2003 and 2012, credit to the private sector increased almost nine fold in nominal terms with annual growth rates exceeding 40 percent in each of the last three years. During the same period, deposits of firms and households rose by a factor of twelve, bringing the ratio of deposits to GDP up to 24.0 percent at end-2012 (compared to 6.8 percent in 2003). However, standard indicators of financial depth and breadth suggest that the country lags behind its neighbors and the BRICS. Cross-country comparisons of some commonly used measures, such as private credit to GDP ratio, number of bank branches, depositors and borrowers (scaled by population) reveal that the respective values for Congo are well below the median for a group of countries with broadly comparable per capita GDP.

28. In addition, banks have abundant liquidity as demonstrated by their large excessive reserves held in the central bank – about 25 percent of total deposits in end-2012. A number of factors explain this situation. According to the IMF (2013), very high reserves result from serious limitations in the array of investment instruments available to banks due to the capital controls, while the near non-existence of the domestic securities market does not make it easy for banks to effectively deploy resources. In addition, the lack of understanding of the risk associated

with small and medium enterprises (SME) in Congo partially explains why banks are not lending to SMEs. Private sector actors, for their part, complain about this rigid position of the banking sector with abundance of liquidity and enterprises, which cannot secure loans to carry their business.

1.1.3. A new fiscal rule in order to "immunize" oil revenues from volatility in a context of difficult budget execution in line ministries

Government has improved the sustainability of its fiscal policy

29. **On January 2013, the government adopted a new fiscal rule in order to protect public finance from oil revenue volatility and to prevent fiscal policy procyclicality.** The rule calls for the allocation of XAF 500 billion of oil revenues to current expenditures and XAF 1000 billion to capital expenditures each year, and to save the remaining oil revenues in the government deposits (see IMF, 2013). In the coming years, this new rule would secure gradual gains in fiscal consolidation, and facilitate investment in key infrastructure areas as planned by the National Development Plan. Specifically, from 2014 to 2020, about 47 percent of projected total oil revenues would be spent to scale up basic infrastructure, and about 30 percent saved. However, if oil revenue falls temporarily below 1,500 billion XAF, the authorities can draw on the saved funds to keep planned infrastructure projects in motion.

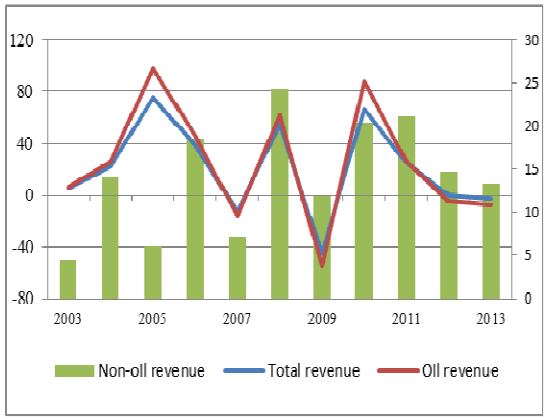
Box 1. Fiscal rule: Definition, functioning and outcomes

The Congolese fiscal rule is an institutional mechanism, which aims at supporting fiscal credibility and discipline. It is defined as a permanent constraint on fiscal policy through simple numerical limits on budgetary aggregates (Kopits and Symansky, 1998).

In accordance to its commitment to improve the fiscal policy management, the Congolese government adopted a fiscal rule based on oil revenues in 2013, with implementation starting in 2014. Starting from the 2014 budget, each year only XAF 1,500 billion (nearly US$ 3 billion) of mobilized oil revenues will be used and allocated: one third to current expenditure and two-thirds to capital expenditures.

This initiative will consolidate the large amount of savings (US$ 1.6 billion on average over 2008-2012) accumulated by the Congolese government in the Stabilization Fund, located at the central bank (BEAC). This is due to the government decision to set a reduced projected oil price in the budget law on which the budget calculations are based. Any budget surplus and additional windfall are saved. The new fiscal rule will increase official national reserves and the amount of fiscal deposits will provide a buffer against the negative impact of oil price and production shocks on fiscal revenues. The fiscal rule will also lead to a good control of investment expenditures with regard to low absorption capacities in the country.

Figure 13: Annual change in government revenues, 2003-2013



Sources: World Bank, IMF and Congolese authorities

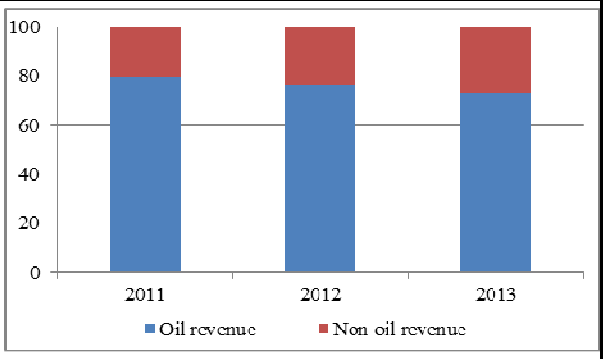
30. The government is introducing some essential reforms to strengthen non-oil revenue collection. The list of taxpayers is being updated, and the exchange of taxpayer data between the Tax and Treasury departments and Customs has been stepped up. A withholding tax on government contracts has been introduced; a one-stop window for customs clearance has been put into service.

Fiscal performance: Strong tax collection, but a decline in oil revenues

31. **Government revenues growth slowed down recently.** In 2013, government revenues increased by 6.7 percent and by 1.4 percent in 2012. This came as a result of the sharp decline in oil revenues to a drop in oil production, which was not compensated fully by the increase in non-oil revenues. In fact, oil revenues still account for three-quarters of total revenues. A setback in oil production and stable international oil prices led to substantially reduced oil revenues in each of the last two years.

32. **Government revenues from taxes have increased steadily in the last three years, driven by growth in the non-oil sector and improvement in tax collection.** There has been a significant increase in non-oil revenues in 2013. In 2011 and 2012, non-oil revenues, which consist mainly of tax revenues, increased by 17.9 percent. The tax ratio has averaged 21.7 percent over the same period, reflecting improved performance of tax administration, following the implementation of reforms in tax policy. In 2013, the tax administration is estimated to have collected about 96 percent of the forecasted non-oil revenue, which is a good rate for that administration. During this period, tax collection experienced a slight increase, thanks to measures to expand the tax base and the fight against fraud and tax evasion. Significant progress has been made in the management accounting system for revenues by improving the information system.

Figure 14: Share of total government revenue, 2011-2013

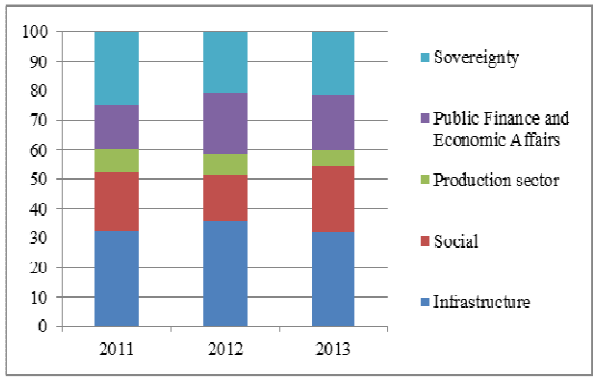


Sources: World Bank, IMF and Congolese authorities

Strong expenditure growth

33. **From 2011 to 2013 government spending has been steadily increasing.** Total expenditures increased at an annual average rate of 30.0 percent from 2011 to 2013, consisting mainly of capital expenditure (56.0 percent on average). On average, these expenditures represented 35.3 percent of GDP. Current expenditure increased on average by 14.0 percent, due in part to the management of expenses related to claims of Mpila events. Capital expenditures grew at a higher pace, 47.1 percent on average, reflecting the government's commitment to provide relevant infrastructure in support of economic activities.

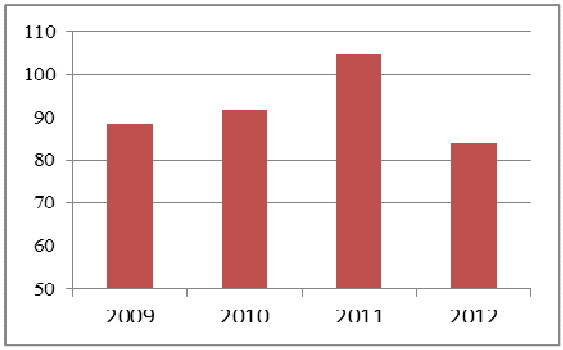
Figure 15: Share of total government budget by sector,



Sources: World Bank and Congolese authorities

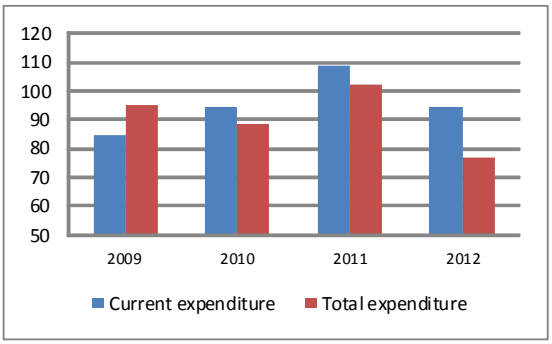
34. The general trend of contributory shares in productive and social sectors has recently risen . The share of social sectors has risen from 20.0 percent in 2011 to 22.5 percent in 2013 mainly because 2013 was the national *Année de l'éducation* (Year of Education). The infrastructure sector remained stable, with 39 percent of the total budget during this period. Also, the share of public finance and economic affairs increased from 15.1 in 2011 percent to 18.7 percent in 2013, mainly driven by the sharp increase of the budget of the Ministry of Finance. The other sectors saw a decrease of their share: sovereignty from 24.8 percent in 2011 to 21.6 percent in 2013 and the production sector from 7.6 percent to 5.1 percent in 2013.

Figure 16: Total expenditure execution rate, 2009-2012



Sources: World Bank, IMF and Congolese authorities

Figure 17: Current and capital expenditures execution rates, 2009-2012



Sources: World Bank, IMF and Congolese authorities

35. This growth in spending may mask the low rate of execution of Congo's budget in line ministries. From 2009 to 2012, the execution rate averaged 93.4 percent, with a low of 83.9 percent in 2012[5]; and a higher than the approved current spending in the 2011 budget, mainly driven by the ministry of defense, which doubled its spending in goods and services. Moreover, in 2009, 2010 and 2012, the execution rate was lower than 92.0 percent, i.e., since the adoption of the new procurement code. The execution rate has been lower for investment spending (90.6 percent) than for current spending (95.4 percent). This somewhat higher overall execution rate masks the very low execution rate in some line ministries.

36. The low execution rate of the budget is explained by difficulties in procurement and disbursement, which is building up internal debt. Public procurement in Congo is not currently operating efficiently. Since, factors limiting adoption of the new code of public procurement include: lack of procurement specialists, resistance of some stakeholders involved in the procurement process and the adoption of a lengthy procedure to move from conceiving to submitting a tender for public contracts. On top of that, the centralization of the process by the cabinet of the minister in charge of finance has resulted in escalating delays in granting public contracts. On average, it takes more than nine months to complete such a process for a standard contract done by a typical line ministry. The disbursement system is

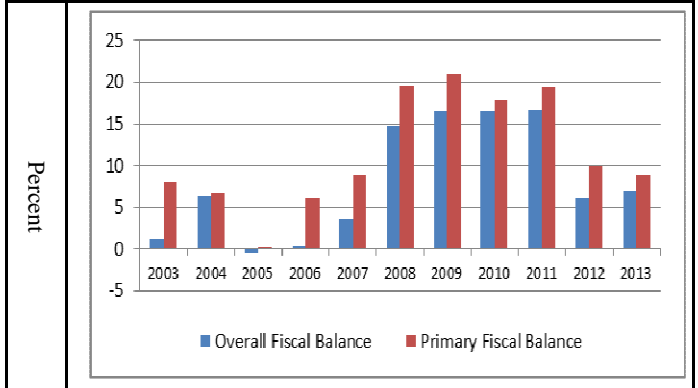
[5] A peak of 102.0 percent in 2011 was driven by a higher than approved investments spending in the Ministry of Energy and Water, the Ministry of Infrastructure and Public Works, and in the Ministry of Interior and Decentralization.

weak and lengthy, with many bottlenecks. This system is not transparent enough and does not deter staff of the treasury department from missing deadlines and picking who to pay. Therefore, even in an environment with sufficiently abundant funds, the government is accumulating domestic arrears.

Sustained budget surplus in a context of low external and domestic debts

37. **Driven by higher oil prices and by prudent spending, Congo's government has posted large budget surpluses in the last decade.** In 2013, fiscal surplus exceeded 7 percent of GDP. This was the fourth time in the last six years that the government achieved a fiscal surplus. In fact, over the last decade, Congo has posted positive primary fiscal balance each year. This has been the result of the boom in the oil sector and good policies of public spending, with the objective to build a budget buffer against downward oil price shocks. Therefore, the government has enough resources to invest in the construction of infrastructure such as roads, schools, hospital, water and sanitation, and electricity.

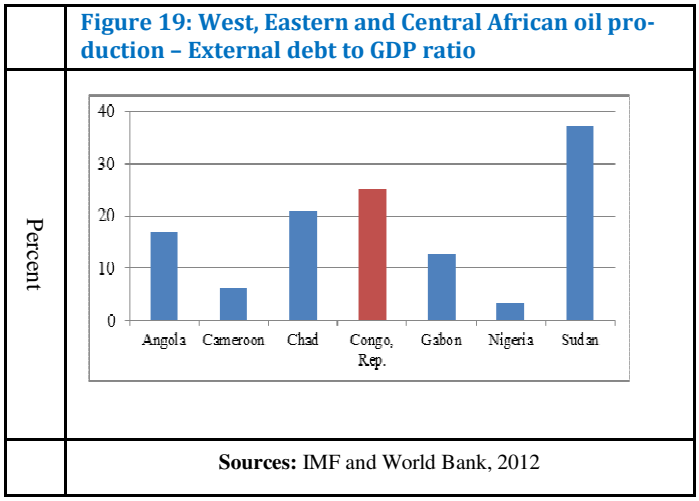
Figure 18: Fiscal surplus to GDP ratio, 2003-2013



Sources: World Bank, IMF and Congolese authorities

38. **Congolese debt indicators are below the relevant country-specific debt burden thresholds.** In 2013, the World Bank and the International Monetary Fund performed a debt sustainability analysis (DSA) and classified Congo as a "weak" performer. This is reflected in lower debt sustainability thresholds compared to countries operating in a strong policy environment. Nevertheless, given the low level of external debt and strengthening indicators of repayment capacity, the debt stock and debt service ratios remain comfortably within the sustainable debt domain throughout the projections period under the baseline. In addition, Congo's domestic public and publicly guaranteed debt is low.

Figure 19: West, Eastern and Central African oil production – External debt to GDP ratio

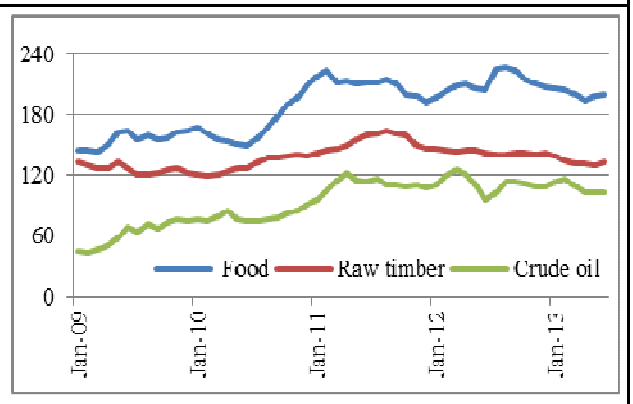


Sources: IMF and World Bank, 2012

1.1.4 Helped by high oil prices, the external account has performed strongly

39. **Congo's external balance is dominated by developments in the oil sector.** Over the last decade, current and financial accounts have been fairly volatile, reflecting swings in international oil prices, production cycles in existing oil fields, and investment spurts to improve extractive capacity. Oil receipts have been generally strong, allowing the country to finance large and persistent non-oil trade deficits, while generating significant profit repatriation outflows. Non-oil exports as a share of total exports has risen somewhat from their very low levels, but the increase has been lower than that of sub-Saharan African peers owing in part to a very poor business environment in Congo.

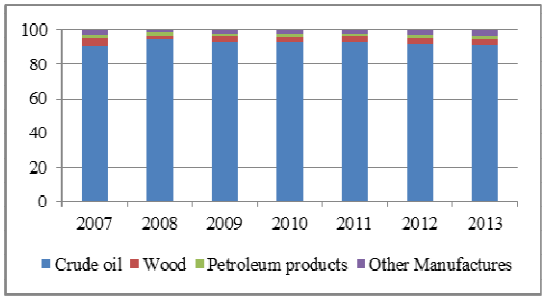
Figure 20: Price index of Congo's exports, 2005=100



Source: GEM, 2013

40. Government policies directed at advancing production transformation have boosted the export of manufactured goods in the last three years. From 2011 to 2013, the exports of these product groups grew in nominal terms at an annual average rate of 13.4 percent for petroleum and 14.6 percent for manufactures. In contrast, raw products saw exports decline sharply. In real terms, the decline in raw materials production outweighed the increasing price trend during this period. However, non-oil sector exports are still weak because of a number of structural factors. These constraints include the lack of infrastructure, a poor business environment, weak human capital, limited access and poor quality of technological services, and a weak financial sector. According to the 2014 Doing Business Report, Congo ranks 185th out of 189 countries in the category of 'trading across borders'. In addition, Congo is among the bottom ten in the World Bank's Logistics Performance Indicator in 2014, 157th out of 160 with a score of

Figure 21: Sector shares of exports, 2007-2013



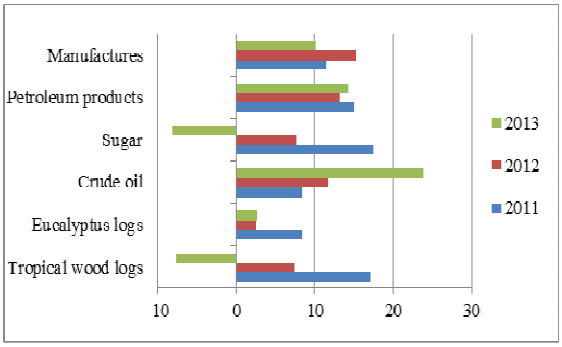
Sources: Congolese authorities and WDI, 2013

2.08 over 5. In the category of customs, Congo ranks last (160th out of 160 countries), with a score of just 1.50.

41. Congo's exports market has changed significantly over the last decade with China moving from a junior exporter to one of the main trading partners, displacing trade with the European Union (EU). During the last decade, the share of exports to the EU declined dramatically, from about 39 percent to only about 9 percent recently. Over the same decade, the United States improved its share by growing from 27 percent to 38 percent. The EU has been replaced by China as a major exports destination. China increased its imports from the Congo six fold during the same period and now accounts for almost one-third of all exports from this country. Finally, given that Congo mainly exports crude oil and raw timber, it is not surprising that only about 3 percent of its exports stay in Sub-Saharan Africa.

42. Congo's imports are dominated by manufactured goods and have grown strongly in recent years. In fact, the share of manufactured goods in total imports is very stable, fluctuating between 85 and 90 percent in the last

Figure 22: Nominal annual change in exports, 2011-2013

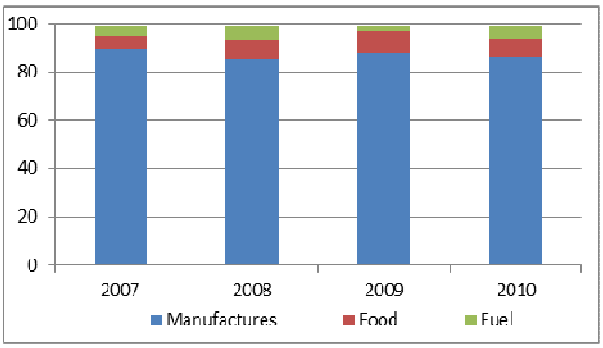


Sources: Congolese authorities and WDI, 2013

decade. Other imported products in recent years are basically non-transformed food (roughly 7 percent) and fuel (about 4 percent). In nominal terms, imports of goods and services grew at a rate of 4.1 percent in 2011, 37.2 percent in 2012 and 8.4 percent in 2013. This growth has been volatile mainly as a result of imports destined to build economic infrastructure; the timing of construction projects is therefore the main determinant of this dynamic. For example in 2012, the increase of imports of construction and transportation materials was substantial.

43. Congo's major import partners remained the same in the past two decades, although China has become one of the top major import partners. The larger share of the Congo's imports (44 percent) comes from the EU, followed by China (12 percent). However, in the past decade, the share of EU exports to the Republic of Congo dropped from 62 percent to 44 percent. Imports from the United States accounts for 7 percent in the 2000s, a slight drop from 8 percent in 1990s. Similar to the story for exports, import partnerships are shifting considerably from advanced economies to emerging and developing countries. While imports from advanced economies have dropped from 76 to 58 percent of imports, the share of imports from emerging and developing countries has increased threefold (from 14 to 41 percent). The share of SSA imports to Congo over the 2000s is 6 percent, largely composed of foodstuffs.

Figure 23: Nominal annual change in imports, 2007-2010



Sources: Congolese authorities and WDI, 2013

1.2. Congo's economic outlook, 2014-2016

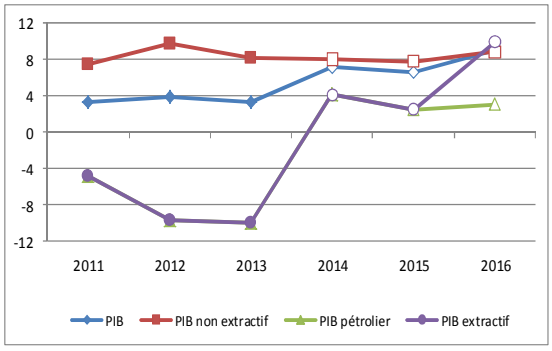
44. The Congolese economy is expected to expand at an annual rate of approximately 7.6 percent over the next three years. This growth will be driven by non-extractives sectors in a context of low inflation. However, the Congolese economy remains vulnerable to exogenous shocks such as volatile oil prices, drops in oil production and delays in mining production, as well as internal risks embedded in strategic choices of its economic authorities.

1.2.1. Driven by the non-extractive sectors, Congo's economy is expected to grow strongly in the next three years

45. Non-extractive sectors will continue to build on the strength of public investments and on diversification policies to keep growing at a strong pace.[6] This sector will grow by 8.6 percent in 2014, 7.2 percent in 2015 and 7.9 percent in 2016. The main drivers of this growth will be: i) services, at 8.4 percent average growth during the period, ii) agriculture (7.7 percent average), and iii) manufacturing (7.7 percent). This strong growth in the non-extractive sector will expand the share of non-extractive sector in the Congolese's economy.

46. In fact, the government secured a new funding channel with China that will keep infrastructure investments growing at a stronger pace. The new funding will provide enough room for the government to plan and execute its main infrastructure investments. It is assumed that public investments will increase on average at an annual rate of 4.8 percent from 2014 to 2016. This will lead to an average increase of 6.8 percent in the sector of electricity, gas and water and of 12.0 percent in construction and public works.

Figure 24: GDP annual change

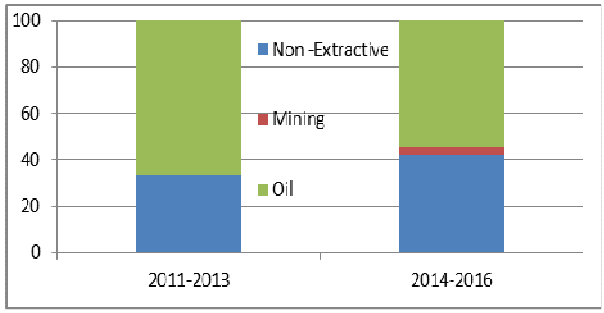


Source: World Bank staff forecast, August 2014

47. Congo's oil production will gradually stabilize in the upcoming years, in part because of new wells discovery. Congo's oil production has declined continuously during the last three years, however according to data on the first six month of 2014, the trend has reversed. The production could grow by 4.1 percent this year. Also, the oil production would slightly grow at a 2.5 percent annual rate in 2015. In 2016, the new offshore oil wells discovered (in 2013 by ENI, an Italian company) will gradually enter into production and will increase Congo's total oil production, forecast to grow by 3.1 percent in that year.

48. The prospect of iron ore production coming online could strengthen growth prospects. The country is endowed with large mineral reserves. Iron ore reserves are estimated to exceed 10 billion tons (always metric tons in this report), while potassium reserves are assessed at about 1 billion tons and phosphate reserves at about 500 million tons. Until recently, mining activities were confined to artisanal diamond and gold production, but mining activities have experienced a new dynamism in recent years following the adoption of a more attractive mining code. Some projects are expected to advance to the production phase starting in 2015. This could lead the extractive sector (oil and mining) to grow at 9.9 percent in 2016.

Figure 25: Oil, mining and non-extractive GDP shares, 2011-2013



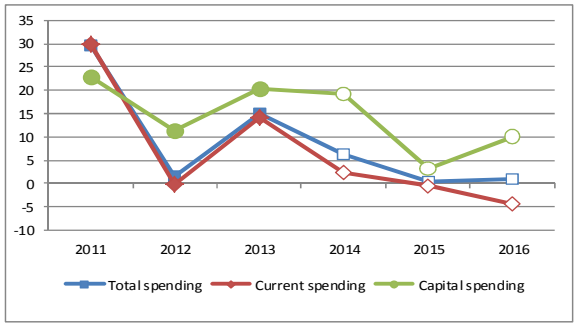
Source: World Bank staff forecast, August 2014

6 All figures in this section are computed by World Bank Staff using Mac-Congo Model and based on data provided by Congolese authorities, international databases on commodities prices as well as IMF data.

Fiscal prospects

49. Lower oil prices and stabilization of oil revenues would effectively reduce funds available for spending over this timeframe. In the meantime, the newly adopted gradual salary increase of civil servants will keep current spending growing at a strong pace. In addition, the securitization of external funding from China will stabilize a higher level of investment despite the fiscal rule.

Figure 26: Annual change in government revenues, 2011-2016



Source: World Bank staff forecast, August 2014

50. Oil production stabilization, the launch of mining production, and expanded non-oil production would contribute to a slight grow of government revenues. Government revenues will increase on average by 2.6 percent each year over the period 2014-2016. In fact, oil revenues would decrease at an annual growth rate of (-0.9) percent during the period, while non-oil revenues would grow by 19.2 percent in 2014, 3.2 percent in 2015, and 10.5 percent in 2016.

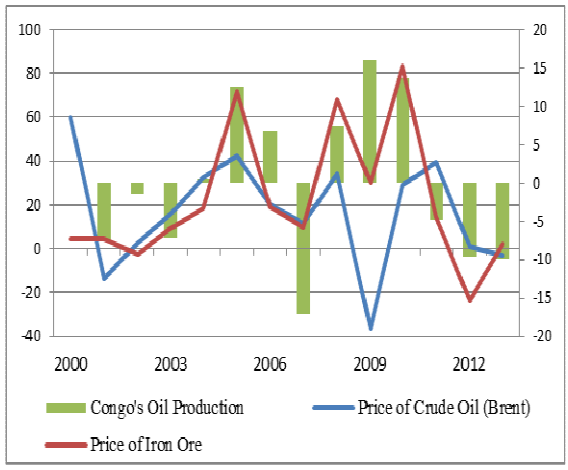
51. The Congolese government may slow down the growth pace of public spending in order to follow its new fiscal rule. Public spending may increase at an annual growth rate of 7.2 percent over the period 2014-2016, compared to an average of 33.5 percent over the period 2011-2013. The slowdown will be significant in public investment with an average annual growth rate of 4.8 percent during the period, compared to 52.5 percent from 2011 to 2013. In contrast, the slowdown will be less important for current expenditures, which will increase on average by 11.4 percent over the period, in part to meet the progressive salary increases recently obtained by civil servants. These trends will rebalance public spending with the share of current spending, moving from 35.5 percent in 2013 to 43.1 percent in 2016.

1.2.2. Congolese economy remains vulnerable to internal as well as external shocks

52. Congolese economy remains vulnerable to exogenous shocks such as volatile oil prices, drops in oil production and delays in mining production. Its vulnerability to oil price volatility is the most likely risk given historical trends. Although no substantial reduction in oil price is expected, an important slowdown in China and other BRICS countries could plausibly contribute to a sharp fall in oil prices. Also, the predictability of oil production has been in question in recent years. In 2013, oil production dropped by (-10.2) percent instead of the forecasted (-2.5) percent expected at the beginning of the year. Besides, in 2007 the production dropped by (-17.2) percent, due to an accident in offshore oil wells. Finally, according to the National Development Plan, mining production was supposed to start in 2012. But this has not been the case. The present framework assumes the beginning of production in 2015, but there is a risk that this may not be the case or that mining production could be lower than expected.

53. **Congo's macroeconomic framework is also vulnerable to endogenous risks embedded in strategic choices of its economic authorities**. This include: i) excessive use of Chinese financing for investment projects; ii) internal pressures on rent seeking and unbalanced allocation of resources between infrastructure and social sectors; iii) issues in the disbursement system; iv) low budget execution rates in line ministries; and v) overspending related to hosting the 11th All-Africa Games.

Figure 27: Volatility of oil and mining (annual growth rates), 2000-2013

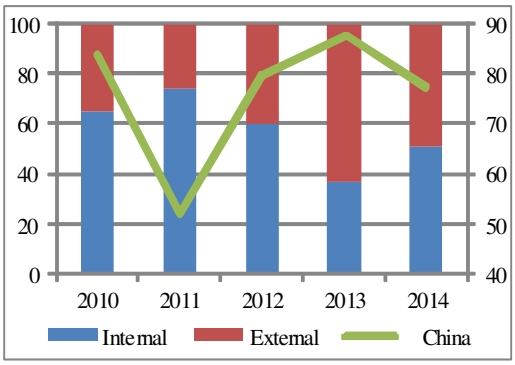


Sources: Congolese authorities and WEO

54. Congo relies heavily on China to finance its main infrastructure projects. In recent years, China became the principal source of funding for Congolese infrastructure. Chinese funding has accounted for more than 50 percent of external funding each year since 2010. On average, it accounted for 75.8 percent from 2010 to 2013. During the same period the share of external funding in infrastructure has increased sharply, from 35 percent in 2010 to 64 percent in 2013. In fact, Chinese financing funded almost all major infrastructure constructed over 2003-2013. In the medium term, China is predicted to do the same by funding infrastructure that could amount to XAF 1,500 billion thanks to an extension of the Brazzaville-Beijing Strategic partnership signed in 2013. These infrastructure investments so far have kept non-oil GDP booming at an impressive growth rate close to double-digit annual growth. Any disruption in the flow of this fund, regardless of the cause, would significantly reduce growth prospects in non-oil sector and therefore total GDP growth.

55. **Internal pressures on rent seeking and unbalanced allocation of resources between infrastructure and social sectors may derail the government's fiscal and financial path.** The December 2013 events are a reminder of the fact that Congo is still a fragile country[7]. In this context, rent seeking behavior may exacerbate social tension. Currently, the fiscal framework is biased in favor of economic infrastructure. In fact, over the last three years, one-third of the budget was allocated and spent on infrastructure while only about 20 percent was devoted to social sectors. Recently, the government started to experiment with the World Bank (in the health sector) in a result-based program to improve its health indicators. If successful, the government can launch more of these programs in order to please the population and diffuse tensions. All these would upsurge sharply the already high level of public spending and would break the newly adopted fiscal rule.

Figure 28: Infrastructure sources of funding



Sources: Congolese authorities and World Bank staff estimate

56. Difficulties in the disbursement system may cause domestic debt arrears to build up, which will weigh heavily on prospects in the non-oil sector. In recent years, the government disbursement system has been under pressure with an important number of SMEs experiencing difficulties obtaining funds to launch activities of public contracts or to receive payment upon satisfactory execution of the contract. The accumulation of internal debt by SMEs could hamper their development and render them ineffective. Consequently, this could cloud the takeoff of the non-oil private sector in Congo.

57. Difficulties in budget execution and inadequacy of the absorption capacity with the volume of public investment have the potential to increase the inefficiency of government spending. Some issues in the implementation of the new procurement procedure have led to a reduction of the execution rate of public investments as well as current spending. Also, the very high pace with which government spending is increasing raises the issue of the absorptive capacity of the Congolese economy. Very high fiscal space for government spending that surpasses the absorptive capacity of the country could result in higher inflation and wastage of public funds, reducing the efficiency of public spending. A decrease of the current efficiency of public spending will reduce its impact on current macroeconomic prospects.

58. Finally, the organization of the 11th All-African Games may derail the fiscal rule and lead to an unsustainable fiscal path. The Republic of Congo will host the All-African Games in 2015. In order to make this event a success, the government plans to build new infrastructure in Brazzaville. Pressure to deliver infrastructure on time could drive the government to break procurement rules and other public financial management rules. This could also lead to breaking the fiscal rule and could lead to a non-sustainable fiscal policy.

[7] In December 16, 2013 fighting erupted in Brazzaville between official armed forced and the armed guard of colonel Tsourou. The fighting disrupted economic activities for an entire week and brought back memories of the 1997 civil war among the population of Brazzaville.

1.3. Toward better investment in infrastructure

59. The country's underperformance toward the development can be addressed by a number of economic policies aimed at improving short- to long-run determinants of economic growth. As a short-run measure, the government can improve the investment environment by introducing business friendly laws and regulations. In the medium-run, the government can focus on its spending efficiency and policies that can boost intra-regional trade. As a long-run measure, the government can consider investing in human capital as well as continuing its investments in sorely needed infrastructure (recall the 155th of 155 ranking in this area). The government can enhance human capital by strengthening vocational education and invest more at all levels of education.

60. Investing efficiently is essential for economic success. It has been proven that investment efficiency in infrastructure matters greatly in achieving economic development (e.g., Calderón and Servén (2004) and Fedderke, Perkins and Luiz (2006). Availability and quality of economic infrastructure can help to minimize production and transportation costs, with positive impacts across all sectors of the economy.

61. In Congo, increasing government efficiency will significantly improve investment outcomes. According to Nielsen and Lofgren (2011), the type and extent of improvement depend on which areas of government spending and services are scaled up in response to increased efficiency. These findings are in line with other studies, such as Hulten (1996), which shows that low and middle income countries that use infrastructures inefficiently pay a growth penalty in the form of a much smaller benefit from infrastructure investments. Moreover, the magnitude of this penalty is apparent when the growth experience of Africa is compared with that of East Asia. In fact, over one-quarter of the differential growth rate between these two regions can be attributed to the difference in effective use of infrastructure resources. At the same time, the difference due to new public capital formation is negligible. An even stronger impression is conveyed when comparing high and low growth rate economies. Here, more than 40 percent of the growth differential is due to the efficiency effect, making it the single most important explanatory factor of differential growth performance.

[8] In Calderón and Servén (2004) use panel data on about 100 countries, and show that infrastructure positively impacts growth. Also, Fedderke, Perkins and Luiz (2006) show with South Africa data that productive public expenditure in infrastructure (such as roads, transportation and housing) can play an important role in promoting economic growth and encouraging private investment.

[9] As in the above footnote.

Part II :
Leveraging Economic Infrastructure for Sustained Growth

Main points

- *The poor state of Congo's economic infrastructure has led to exceptionally high input costs, which in turn has held back economic growth and the country's development. In the past few years, substantial efforts have been made to rehabilitate the infrastructures that were severely damaged during the civil war, but their quality remains low.*

- *The Congolese government is implementing an ambitious investment program to improve access to and delivery of basic services, and these ongoing and planned infrastructure investments have the potential to enhance Congo's economic diversification by significantly reducing input costs for the country's productive sector, and by helping to reshape the economy.*

- *It is essential to manage public investments efficiently to maximize the impact of using Congo's resource wealth and to increase investment outcomes. Congo currently ranks 70th out of 71 surveyed countries in the Public Investment Index, which indicates that it needs to improve all aspects of the public investment management project cycle in order to maximize its return on investment.*

- *The ongoing infrastructure investments alone would positively impact the country's economic growth. However, if not managed well, these investments could pose a challenge to the country's limited absorptive capacity and drive up building and maintenance costs. At the same time, inefficient public management of infrastructure resources can also reduce growth by up to 40 percent loss compared to the case in which such resources were efficiently used.*

- *By focusing on improving government efficiency, Congo would be well positioned to achieve sustained and diversified growth. Focusing on increasing the productivity of economic infrastructure would significantly improve the growth outcome of these investments by providing less steam to domestic markets and therefore to infrastructure building costs.*

- *Congo's government can achieve better outcomes of public investments by implementing sound PFM policies. For example, the government could: (i) better prepare and plan investment projects before they are included in the budget; (ii) put in place systems-based commitment controls in budget execution to track public spending; (iii) speed up procurement procedures; and (iv) make the disbursement system more transparent.*

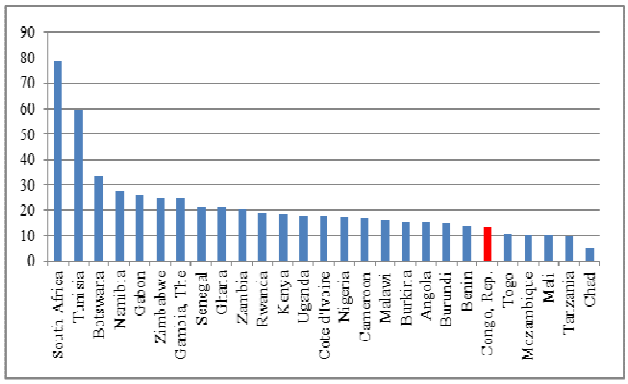
2.1. Poor state of economic infrastructure leading to exceptionally high input costs

62. This chapter discusses the government's ambitious investment program in infrastructure and assess its impact on the Congolese economy. The success of this program will depend on how it handles the issue of the country's low absorptive capacity and in particular the poor efficiency of public investment management. Growth remains constrained by the underdeveloped physical infrastructures. However, the contribution of infrastructure to Congo's growth is weak. In fact, a cross-country statistical analysis conducted by the World Bank (2010) shows that the contribution of the infrastructure sector to Congo's per capita growth over the past decade was 0.5 pp. This contribution was considerably lower than in other countries in the region: 0.87 pp for Nigeria, 0.91 pp for DRC, 0.89 pp for CAR, and 0.99 for the entire SSA region.[10]

2.1.1. Coverage and access to infrastructure services in Congo

63. Substantial efforts have been made to rehabilitate infrastructure which was severely damaged during the civil war, but infrastructure quality remains low. According to the index of infrastructure development in Africa (AIDI)[11], established by the African Development Bank, Congo was ranked 36th out of 53 in the standings in 2010.[12] With an index of 13.1, it ranked behind countries with a per capita income two to seven times lower such as Gambia (15th with 24.7), Senegal (18th with 21.7), and Uganda (24th with 17.9). Congo underperformed in transport, in electricity, and in water and sanitation. In transport infrastructure, the country ranked 43th with a composite index of 2.3 (compared to 6.7 for Côte d'Ivoire, 9.0 for Uganda, and 9.5 for Burundi). In electricity, it was ranked 31st out of 53 with 135.4 kWh per capita (compared to 222.7 for Senegal, 705.4 for Mozambique, and 855.1 for Zambia). In water and sanitation, Congo was ranked 36th with an index of 40.8 (compared to 55.3 for Burundi, 58.3 for Senegal, and 78.5 for Gambia).[13]

Figure 29: Selected countries – Infrastructure development index, 2010

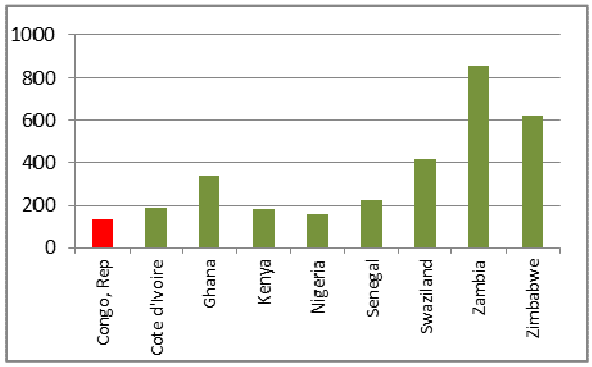


Source: African Development Bank (2013)

64. Congo's poor transport and energy infrastructure need particular attention. With regard to road infrastructure, only 7.1 percent of the road network is paved, compared to 18.3 percent for Sub-Saharan Africa. A well maintained road network is a must for sustainable economic development. Due to lack of rehabilitation and maintenance, Congo's railway network is one of the least developed in the continent. The number of accidents per km traveled is 0.05 percent against 0.001 percent and 0.03 percent in Cameroon and DRC, respectively. Despite an estimated 14,000 MWh of hydroelectric potential, access to energy infrastructure in Congo is low. Only 30 percent of the population has access to electricity, well below the low income country average (41 percent). Access to electricity in rural areas remains very low, at about 5 percent.

65. Telecommunications development indicators of Congo are broadly comparable to those of other African countries. Significant efforts have been made by Congo to expand access to mobile phones. The results are good. In 2009, the number of mobile phone subscriptions per 100 people was 58.9 compared to 37.3 for the rest of Sub-Saharan Africa.

Figure 30: Selected countries — Electricity Index (Kwh per capita), 2010



Source: African Development Bank, 2013

---

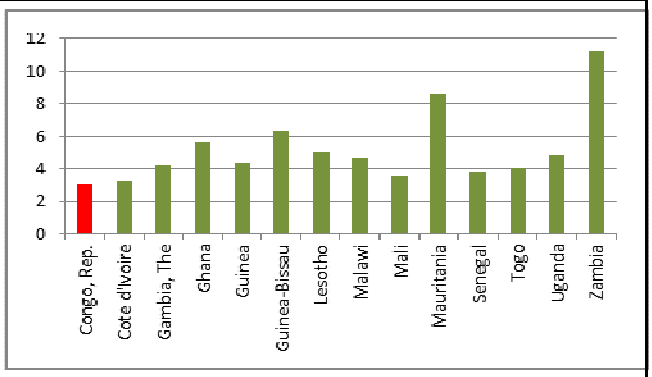
[10] Infrastructures have the potential to contribute for more than 3 pp a to the annual growth rate of per capita GDP in the future, if access to and quality of infrastructure services were improved to the level seen in Mauritius, the leading African country in infrastructure quantity and quality (World Bank 2010b). This compares with an average of 2.3 percentage points for the whole African continent. Upgrading Congo's infrastructure, in particular in the power sector, is a prerequisite for economic development and the provision of social services.

[11] The AIDI is based on four major components: (i) transport; (ii) electricity, (iii) ICT, and (iv) water and sanitation. These components are disaggregated into nine indicators that have a direct or indirect impact on productivity and economic growth.

[12] Banque Africaine de Développement (2013).

[13] Companies in charge of the sectors of water and electricity are having difficult financial situations that do not allow them to invest much to maintain their infrastructure.

Figure 31: Selected countries— Total Paved Roads (Km per 10,000 inhabitants), 2010



Source: African Development Bank, 2013

66. **Access to clean water remains inadequate, despite favorable hydrological conditions**. In 2012, only 75.3 percent of the total population had access to clean water, compared to 64.4 percent for Sub-Saharan Africa and 87.6 percent for low-income countries. The condition in the rural areas is much worse, with only 38.8 percent of the rural population having access to clean water against 52.5 percent for the rest of the continent. This poor performance is likely to hamper the chances of the country achieving the MDG of providing clean water to 85 percent of the total population by 2015.

2.1.2.Infrastructure bottleneck leading to exceptionally high input costs

67. **Access to and cost of infrastructures both represent a major constraint to private sector development.** In fact, according to the Enterprise Indicator Survey carried out in 2009, more than 70 percent of private firms consider the lack of electricity as the main obstacle for private sector development in Congo (World Bank, 2009). Power cuts are estimated to have reduced firm turnover by 19 percent and 82 percent of firms must rely on a generator. The quality of the fixed line telecommunications network is poor, and international/regional connectivity is underdeveloped. The overall poor state of infrastructure leads to exceptionally high input costs in all areas.

68. Poor transport infrastructure and transport services remain major bottlenecks to investment and trade. As reported in the 2014 Doing Business report (World Bank, 2013), it takes 54 days to import goods and 50 days to export goods. The railway between Pointe-Noire and Brazzaville is inefficient with high freight tariffs, and the road between the two cities is still under construction. The rail network is among the worst in Africa in terms of service quality and safety, and tariffs are also among the highest. Rail traffic fell by two-thirds during the conflict and has not yet returned to pre-conflict levels. Tariffs, at US$ 0.16 per ton/km, are up to three times as high as in Southern Africa. This is due to insufficient rehabilitation and maintenance of tracks, outdated and insufficient rolling stock, weak internal supervision, management deficits and human resource limitations. Surface transportation costs are more than double the Southern Africa average (Briceño-Garmendia and Foster, 2009).

69. The poor state of the country's infrastructures leads to exceptionally high input costs. According to Briceño-Garmendia and Foster (2009), surface transportation costs around US$0.11 per ton-km versus US$0.05 per ton-km in Southern Africa. Not only is the availability of power unreliable, power costs around US$0.23 per kWh in the south and US$0.62 per kWh in the north, compared with the country's long run potential to produce power at around US$0.08 per kWh, and to import power at US$0.06 per kWh from neighboring Cameroon. These high service costs are compounded by inefficient administration at ports and borders.

2.2. Planned and ongoing government investments in infrastructures

70. In response to challenges faced by the country, the Congolese government has embarked on an ambitious investment program to improve access to and delivery of basic services. Indeed, since 2006, the authorities have scaled up investment spending substantially to improve the infrastructures, particularly in the power and transport sectors. For example, the investment budget is set at XAF 1991.8 billion (approximately US$ 4.0 billion) or 28.8 percent of GDP in 2014, representing an increase of almost 10.9 percent compared to XAF 1796.4 billion (approximately US$ 3.3 billion) or 25.8 percent of GDP in 2013. Moreover, since 2006, public investment grew annually at an average rate of 32.8 percent in real terms, while the entire private sector grew at an average rate of 9.8 percent per year.

71. **In 2004, the authorities launched the Municipalisation Accélérée (Accelerated Reconstruction of Municipalities) program, an infrastructure investment program aimed at equipping and modernizing the country's Departments to stimulate their economies and improve the living conditions of populations.** This program has already been implemented in nine Departments, chosen alternately in the Northern and Southern parts of the country. For 2012, more than XAF 500 billion of the investment budget was devoted to the financing of large-scale infrastructure in the cities to restore basic and social services.

72. The Congolese government invested in almost every type of public infrastructure. It invested to build or rehabilitate roads and airports. It also invested to build dams for electricity production, to build infrastructure for electricity distribution, and water plants. In addition, the government invested in transport and telecommunications infrastructure.

Box 2: Brazzaville-Beijing strategic partnership

The foundation for the economic and technical cooperation between China and the Republic of Congo includes the agreement signed on October 2, 1964 in Beijing and the establishment of the Joint Commission for Cooperation, signed on May 27, 1982 in Beijing. The strategic partnership agreement signed on June 19, 2006 in Brazzaville is considered as one of the main supports of the cooperation between China and Congo.

Under the strategic partnership between China and -Congo, several agreements were signed. In June 2006, the two countries signed a framework agreement to finance new basic infrastructure projects such as the construction of the second Djiri plant, modernization and redevelopment of terminal facilities at Maya-Maya international airport, and the construction of roads and housing.

The official visit of the President of China to Congo in March 2013 was marked by the signing with the Congolese of ten cooperation agreements in various fields. These agreements include: the construction of the Oyo port; the construction of the Ouesso hydroelectric plant; the construction of an ore port at Pointe Noire, which the funding will be discussed between the two parties; the construction of social housing (preferential loan of 370 million yuan); the construction of the Mpila high school (preferential loan of 400 million yuan), and the construction of 200 social housing units. A financing agreement in the amount of three hundred million euros for SMEs was signed in October 2013 in Beijing.

China is heavily involved in almost any major infrastructure project in Congo, the hydraulic power plant of Imboulou (US$280 million), the headquarters of the Ministry of Foreign Affairs and Cooperation, the home of the national radio and television, the University Library of Brazzaville, two hospitals and five modern markets are the result of this cooperation.

In exchange, China is increasingly involved in the exploitation of the vast resources of raw materials present on Congolese soil. Cooperation agreements were signed in the forestry, mining and oil fields. The country also keeps a fair amount of its foreign reserves in China.

2.2.1. Encouraging improvement in transport infrastructure

73. From 2006 to 2013, about 1,000 km of national, sub-regional and urban roads have been built, paved or rehabilitated. The highways program concentrated on improving the south-north truck road from Pointe-Noire to Ouesso by asphalting the Route Nationale No. 1 (RN1) between Pointe-Noire and Dolisie and the Route Nationale no. 2 (RN2) between Owando and the river Mambili, and on linking Congo with Gabon via the Cuvette-Ouest department. The bridge over the river Mambili and the Owando-Makoua-mambili section (126 km) were built by the China Road and Bridge Corporation. In March 2008, Socafran started work on the Ngo-Djambala road, widening it by seven meters, adding a 10-cm sand and bitumen layer and a four-centimeter surface.

National road II (Bridge on Mambili River)

74. **The main road projects under way are the continuation of works on the Pointe-Noire-Brazzaville-Ouesso truck road, the asphalting of additional cross-country routes, and the creation of road links with Cameroon.** The Dolisie-Brazzaville section, which is 376 km long, is being built in five stages by China State Construction Engineering (CSCE-Congo). By the end of the ongoing road projects, it will be possible to drive all the way from northern to southern Congo. The rehabilitation and widening of the RN2 is progressing well, despite delays due to bad weather. The Djiri-Ingha section (86 km), handled by Escom, is completed at 66 percent and the Etsouali-Ngo section (60 km) executed by Socofran is completed at 90 percent.

75. The government has launched a program to rehabilitate, modernize and extend the Autonomous Port of Pointe-Noire (PAPN). Furthermore, the container terminal has begun to cope with the increased volume of shipping. According to the authorities, between 2010 and 2011 alone, traffic increased by 19.5 percent. One year after, traffic has also continued its increase by 11.1 percent reaching 7,652 million tons in 2012 as opposed to 6,889 million tons in 2011. Container traffic has increased by 15 percent, up from 442,802 TEU in 2011 to 509,037 TEU in 2012. Shipping is set to grow with the expansion of the PAPN, now able to accommodate large vessels with a draft of up to 16 meters.

Development of the Pointe-Noire Port

76. The Congo-Ocean Railway (CFCO) has been given a makeover. The Congolese railway network has 795 km, from Pointe Noire to Brazzaville and from Mont Mbelo to the Gabonese border and it includes 32 functional stations. It is undergoing repairs and replacements of its track and rolling stock, which has badly deteriorated following the social and political conflicts and from lack of maintenance. The CFCO currently has 25 locomotives, down from the 48 in 1986, but well above five at the end of the war. Due to these efforts, the traffic of goods increased by 2.2 percent between 2012 and 2013 amounting to 982,859 tons, due to the recovery of the traffic of logs along the river, cement and wheat flour. The passenger traffic increased by 10 percent over the same period, with 574,000 passengers at end December 2013. The entry into service of the train "gazelle" and the increase in passenger cars constitute the main factors behind this improvement.

77. **Since 2006, the government has built or rehabilitated eight airports.** The government invested to reshape and upgrade its two main international airport of Brazzaville and Pointe-Noire. The first terminal module and second runway of Maya Maya, Brazzaville's international airport were opened in 2011. The terminal and runway of the Pointe-Noire's Antonio Agostinho Neto Airport have been modernized, refurbished and extended. In addition to the Brazzaville and Pointe-Noire airports, a new airport has been built at Ollombo and secondary airports such as Dolisie, Ouesso, Impfondo and Owando have been rehabilitated to comply with international standards. Given the geographic and economic size of the country, this number is quite high and suggests that the country is using the very expensive air transport services to overcome the still evident shortcomings of the surface network. The rationale of this strategic choice of investment is still not fully understood.

2.2.2. A major increase in water and electricity production

Djiri 2 Water plant

78. **In the water sector, about 10 water plants, mobile water production units and dams providing running water to Brazzaville households have been built.** From these 10 plants, Djiri is the most important one. The construction of a second drinking water production plant in Djiri (Djiri 2) is nearing completion. Djiri 2 will expand Brazzaville's drinking water distribution network, which currently consists of the Djoué plant (1,500 m3/h), public water utility (SNDE) boreholes (300 m3/h), and two Potabloc mobile water production units (2,400 m3/h). The first plant (Djiri 1) is undergoing renovation of the building, pumping station, patte d'Oie water tower and Ngamakosso dam. Rehabilitation of the waterworks will start once Djiri 2 is operational.[14]

79. **Since 2002, various programs have been implemented to boost electricity production, transport and distribution capacity**. Recently built or rehabilitated hydroelectric dams (e.g. Imboulou and Moukoukoulou) and power stations (Djiri) have increased the available power supply to 600 MW. In addition to hydroelectricity power, Congo produces electricity from thermal and gas-fired power stations, which have increased in numbers in recent years. The network of extra-high, high, medium and low voltage power lines grew from 800 to 1,500 km and extends across the country, transmitting electricity produced recently. [15]

A power plant in Congo—Pointe-Noire

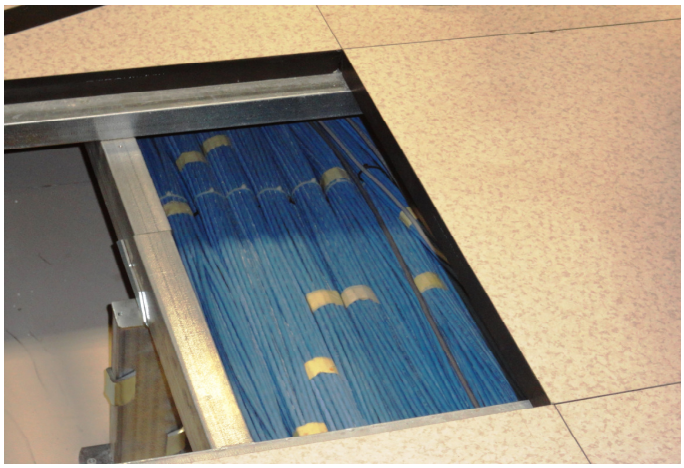
---

[14] Within the framework of PEEDU, investments are made to sustainably increase access to safe drinking water in Brazzaville and Pointe-Noire and to improve management in the urban water subsector. This will be achieved through investments in Brazzaville and Pointe-Noire as well as the provision of support to the Government and to SNDE towards technical, commercial, and financial recovery of the SNDE. The main results expected are to: (i) expand access to basic services by supplying safe drinking water mainly through household connections and standpipes; (ii) reduce losses and boost productivity; and (iii) stabilize the financial situation of the SNDE by establishing a partnership with the private sector. A private operator (PO) has been hired under a services contract for a 4-year period. The specific objectives of hiring the private water operator will be to (i) improve the knowledge of the current condition of the SNDE's physical assets and of water supply services in Brazzaville and Pointe-Noire; (ii) support the SNDE in operating the investments under the proposed project; and (iii) contribute to the company's recovery through an increase of its performance, which will be sought by developing its capacity on technical, commercial and financial matters.

[15] The government is committed to the reform of the electricity sector with the support of the Bank under the PEEDU. The objective in restructuring the electricity sector is to rearrange the main functions of the sector: production, transport, distribution, marketing and rural electrification. As for the restructuring of the SNDE, its purpose is improving its economic and financial viability so as to create favorable conditions for the private sector. Three options for restructuring were analyzed: (i) maintaining SNDE as vertically integrated undertaking; (ii) cutting the SNDE into separate companies by function; (iii) cutting the SNDE in companies with combinations of functions. The Government has signed a services contract with EDF whose purpose is to provide technical assistance to the Republic of Congo to sustainably contribute to the structuring and development of the electricity sector and improve the performance of the SNDE.

2.2.3. Substantial upgrade of telecommunications infrastructure

80. Congo already has broadband internet access and the optic fibre network is being expanded. This broadband access is due to the Matombi West Africa Cable System (WACS) stationed near Pointe-Noire, which connects the country to the submarine WACS cable, and the optic fibre backbone between Pointe-Noire, Brazzaville and Owando. Congo has 1,000 km of fiber optic cable already installed and the Matombi terminal station at Pointe-Noire will soon be operational.



2.2.4. Major infrastructure projects are planned for the coming years

81. In the next five years, projects currently under way will be completed. For example, asphalting of major roads, renewal of the track and rolling stock of the CFCO, and extensions to Congo's two main airports will be completed. New transport investments will be allocated to river transport: the river ports of Brazzaville and Ouesso, which are key links in Congo's multimodal transport system and offer suitable modes of transport for heavy goods, will be rehabilitated and reinforced. In addition, high priority investments scheduled at the PAPN will be allocated to, amongst others, reinforcing port installations and building new headquarters Finally, Congo will launch the construction of the Sounda hydroelectric dam (1200MW) in the department of Kouilou, which will be by far the biggest hydroelectric plant in the country.

82. A high scale project: the construction of a road and rail bridge linking Brazzaville and Kinshasa is planned . Once built, the bridge will give Congo access to an immense hinterland, and a direct link to the DRC. According to Congolese authorities, the conclusions of the feasibility studies of the Brazzaville-Kinshasa road-rail bridge and the extension of the Kinshasa-Ilebo railway line will be available soon. In a conference in 2013, it was approved that the bridge will be built 60 km north of both cities. In addition, the main planning, financing and operation principles were adopted and the socio-environmental impacts studied. The design of the Kinshasa-Ilebo railroad was approved. This bridge would ensure the continuity of the Tripoli-Windhoek-Cape Town Corridor. The Bridge over the Congo River will support regional integration in the Economic Community of Central African States, given the low level of trade between its member states and the low integration of its transport infrastructure. The DRC committed to implementing transport projects in the sub-region, which is an essential condition for its development. The road-rail bridge is also an essential link in the Tripoli-Windhoek-Cape Town Trans-African Highway (TAH3), one of NEPAD's 14 priority projects and among the 55 priority projects of the Central African Consensual Transport Master Plan (PDCT-AC).

2.3. Potential impact of ongoing and planned infrastructure projects on economic diversification and growth

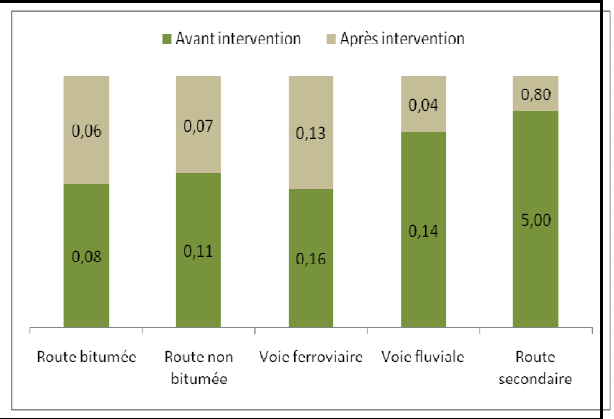
83. By reducing production costs in non-oil sectors, ongoing infrastructure investments will boost Congolese economic diversification, which in turn will provide a broader base for economic growth. For example, the Commission on Growth and Development's Growth Report (2008) highlighted infrastructure investments as crucial to both structural transformation and export diversification. Also, OECD (2010) confirms that infrastructures, especially transport infrastructure, are a key factor that supports economic diversification in all the selected countries.

84. The ongoing infrastructure investments have the potential to enhance Congo's economic diversification by significantly reducing input costs for the country's productive sector. According to Briceño-Garmendia and Foster (2009), when all these projects are completed, it is likely that the costs of transport and energy inputs may decrease substantially. This production cost reduction may render Congo's non-extractive sectors more competitive, resulting in an expansion of these sectors and ultimately to a more diversified economy. Transportation services, agriculture and manufacturing are likely to gain directly from these infrastructure investments.

New roads, railways and airports will help reduce transportation costs, thereby increasing the size of the transportation industry

85. According to Briceño-Garmendia and Foster (2009), ongoing/planned infrastructure interventions on roads, railways and ports are expected to reduce the cost of infrastructure services (by at least 30 percent), which are key inputs for the production process. More precisely, the improvement of truck roads will gradually reduce vehicle operating cost and increase productivity of these vehicles, resulting in lower road user costs. Indeed, road user costs could fall by one-third under these interventions. The benefits of the rehabilitation of railways are savings associated with being able to divert a greater volume of traffic from the road to the rail network. Transporting freight by rail (rather than by road) brings certain efficiency advantages. These include lower consumption of fuel, reduced carbon emission costs, reduced road maintenance costs, and savings in travel time. These savings are estimated to amount to US$0.03 per ton-km. Road rehabilitation and upgrades could reduce costs of road transport by 45 percent. Rail rehabilitation could reduce costs of surface transport by 30 percent.

Figure 32: Cost of merchandise transportation



Source : Briceno-Garmendia et Foster. 2009.

86. In the case of ports, investments and institutional reforms will substantially reduce handling and administration costs associated with imports and exports. The cost of moving imports through the port is about three times as high as exports: US$97 versus US$33 per ton. This is due to the greater delays and storage costs associated with imports, as well as the customs duties that apply. It is estimated that both costs can be reduced by around 30 percent by a combination of targeted investments addressing key bottlenecks within the port, plus extensive institutional reforms to improve the efficiency of handling and customs processes. The upgrade of ports can reduce costs of cargo handling by 30 percent.

87. The improvement of the quality of transportation infrastructures may lead to an expansion of transportation services. Reducing import as well as export costs will boost international trade. The improvement of railways will further reduce transportation costs and many goods will therefore be transported between Brazzaville and Pointe-Noire. As a result, transportation services for goods will see a major restructuring. Moreover, the availability of the road network will expand the transportation demand of people and goods. According to a simulation from Mac-Congo, the transportation sector will grow by 12 percent over the 2014-2025 period, which is an improvement of 8.8 percent recorded over 2001-2013. As a result, the transportation sector, which accounted for 5.5 percent of GDP in 2010, will increase to a 7.6 percent share of GDP by 2025. The impact of these transport infrastructures to the entire GDP growth will reach 0.8 pp over the entire period.

88. If markets are not adequately regulated, these infrastructure projects may not result in the anticipated expansion of transportation services. In fact, most of the services considered (railways, port) are monopolistic or oligopolistic, implying that tariffs can diverge substantially from costs. Therefore, the benefits of improved infrastructure could translate entirely into

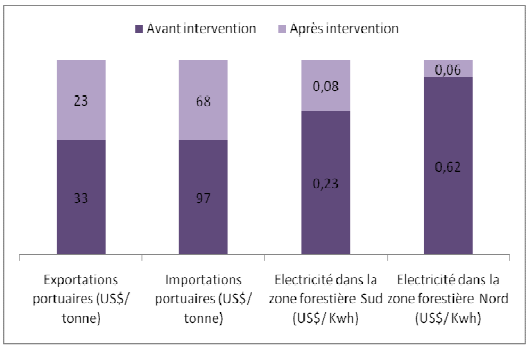
profits for infrastructure service providers. However, if markets are adequately regulated and greater competitive pressures introduced, the cost improvements may be passed on to the users of the infrastructure and the transport services sector will expand as predicted and could generate externalities for other sectors.

Improving the quality and quantity of feeder roads will enhance food and cash crops sectors

89. The improvement of road quality all over the country will provide incentive for Congolese to invest in food crop agriculture because they can access key markets. According to Briceno-Garmendia and Foster (2009), providing feeder roads would reduce costs of moving agricultural produce by 90 percent. This sharp reduction of costs will render agricultural products more competitive. It would therefore boost both food and cash crop production in Congo.

90. More importantly, the benefit of creating feeder roads is to allow people to switch from carrying loads on foot to the use of animals or small scale motorized vehicles. Based on the assumption that one person can carry a 20 -kg load walking at one km per hour for 8 hours per day, the cost of moving agricultural goods in the absence of any formal rural feeder road network is as high as US$5.0 per ton-km. By allowing these loads to be switched to animals, small carts, motor bikes or pickup trucks, a basic engineered earthen road about three meter wide, plus drainage, would reduce the costs of transporting agricultural goods to US$0.6 per ton-km, a substantial improvement if still well above the cost of freight movement on the truck road network, due to the lower speeds and smaller vehicles associated with rural transportation.

Figure 33: Costs of production infrastructure



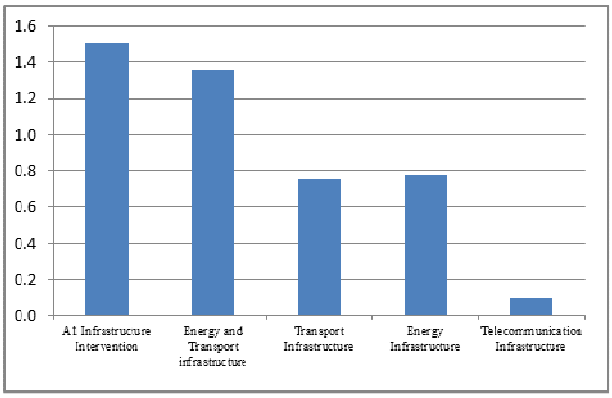
Source : Briceno-Garmendia, C., et V. Foster. 2009.

Electricity capacity and surge in manufacturing

91. The main weakness that hampered the development of a fair number of manufacturing projects in the Republic of Congo is the lack of affordable and reliable energy. Briceno-Garmendia and Foster (2009) show that improving power supply could reduce energy costs to firms by as much as 25 percent. Therefore, with the development of roads and the availability of affordable energy, some manufacturing projects such as food processing could be economically viable in cities such as Pointe-Noire and Brazzaville.

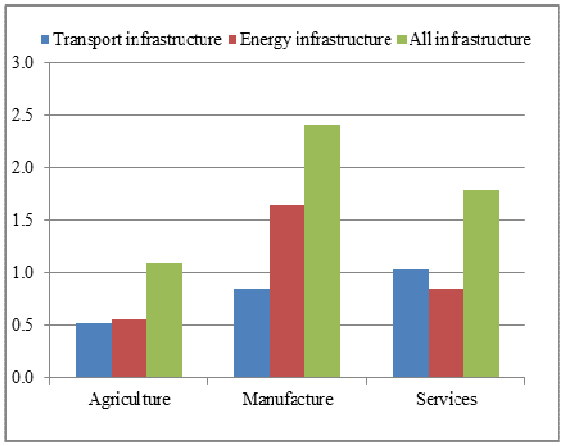
92. The impact comes from making grid electricity more broadly available and allowing the import of lower cost power from Cameroon. All northern forest concessionaires, as well as some of those in the south, are located too remotely to be able to benefit from grid electricity. As a result, much of the timber processing is done using onsite energy generation. Due to the much lower cost of diesel in the southwest of the country in the proximity of Pointe Noire, the cost of power generation is estimated at US$0.23 per kWh for the southern concessionaires and US$0.62 per kWh for the northern concessionaires. This can be compared with long-run marginal costs of US$0.08 for grid electricity, falling to US$0.06 per kWh if power could be imported from Cameroon.

Figure 34: Impact of infrastructure on average GDP growth, 2010-2025



Source: Simulations with Mac-Congo, 2014

Figure 35: Impact of infrastructure on average sectorial growth, 2010-2025



Source: Simulations with Mac-Congo, 2014

93. Simulation estimation from Mac-Congo[17] indicates that over 2010-2025, ongoing/planned projects are likely to add 1.5 pp to annual GDP growth over this period.[18] In fact, energy and transportation infrastructures will each add 0.75 pp. Telecommunication infrastructure has considerably improved during the last decade, and therefore it will add relatively less in coming years. In terms of sectoral breakdown, agriculture will gain 1.1 pp, manufacturing 2.4 pp and services 1.8 pp. Manufacturing will benefit more from energy infrastructure, which alone may add up to 1.6 pp to the growth rate in this sector during this period. Agriculture will benefit equally from transportation and energy infrastructures. Transportation infrastructure will be more effective for services as it will reshape transportation services and expand the number of consumer of services by making services more accessible to a broader population. As a result, the share of manufacturing in Congolese GDP will increase by 0.6 pp and the share of services will increase by 1.8 pp, but the share of agriculture will not increase significantly.

[17] Mac-Congo is a macro modeling framework of the family of Financial programming. However, the Mac-Congo is driven by sectorial projections. In fact, Mac-Congo is a macro-econometric model, which is mainly characterized by its capacity of estimating the growth rate of each sector by using specific production function. This model assures coherence of the national account, government financial statistics, balance of payments, and the monetary situation.

[18] Calderón and Servén (2004) show, using panel data on about 100 countries, that infrastructure positively impacts growth. Also, Fedderke, Perkins and Luiz (2006) show with South African data that productive public expenditures in the area of infrastructure (such as roads, transportation and housing) can play an important role in promoting economic growth and encouraging private investment.

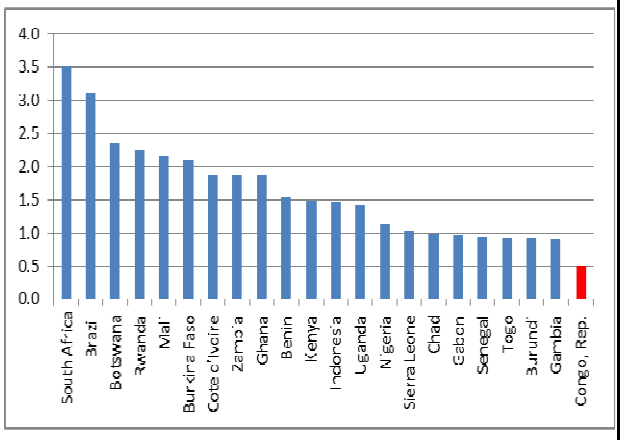
2.4. Impact of improved efficiency of public investment on economic diversification and growth

94. The notion of public investment efficiency is associated with the idea of creating or obtaining the maximum amount of public capital for each dollar spent by the government. In this view, a more efficient government in terms of public investment is a government that obtains or creates a higher level of public capital for a given amount of money invested.

95. The most relevant measure of efficiency is the investment rate of return (IRR), but no such figures are available on completed investments in the Republic of Congo. Only Briceno-Garmendia and Foster (2009) provided some IRR figures on prospective public investment projects. However, some implicit indicators of IRR show that the level of efficiency in Congo is low. For example, large investments in public infrastructure have not yet led to significant narrowing of the infrastructure gap. Congo's average public investment budget during the last decade has been impressive, but power outages remain frequent and road infrastructure is far from adequate. From 2000 to 2013, the country spent an average of about US$ 600 million per annum, representing about one-tenth of its GDP. More precisely, Congo invested more during the last fifteen years than DRC, Cameroon and Gabon, but the country is producing less electricity and has a lower percentage of paved roads than all these countries. Therefore, all things being equal, public investment in electricity and paved roads in Congo has been less efficient than in DRC, Cameroon and Gabon.

96. Given the absence of IRR figures, we will use the Public Investment Management index (PIMI) of Dabla-Norris et al. (2011) as a proxy of public investment efficiency. In fact, the PIMI is a measure of how well the key steps of implementation of public investments are undertaken. Its background rationale is that, if all steps of implementation are done right, the investment rate of return will be higher.

Figure 36: Public Investment Management index

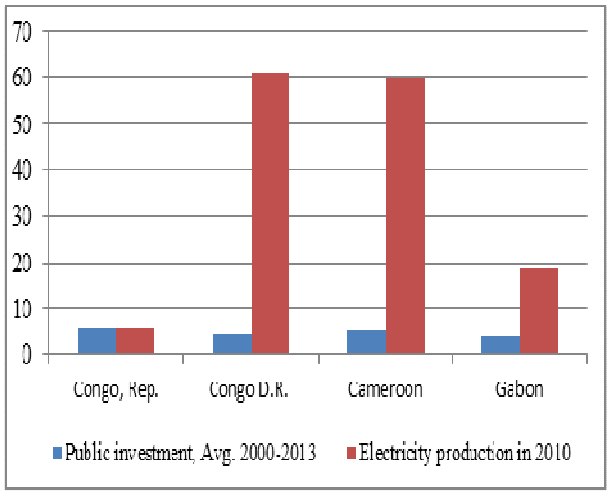


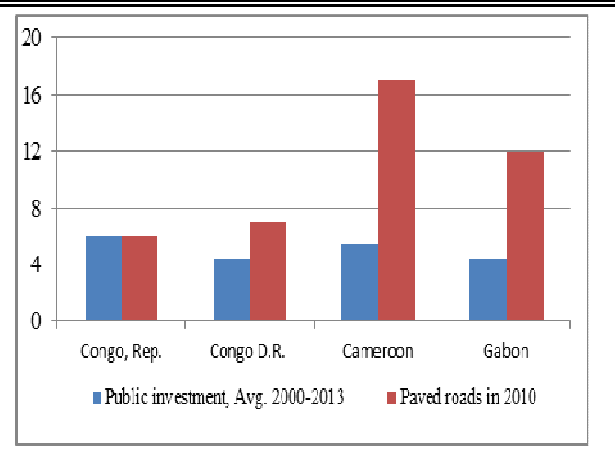
Source: Dabla-Norris et al., 2011

97. Based on this PIMI developed by the IMF, the Republic of Congo ranks 70th out of 71 surveyed countries. Congo ranks second to last, just ahead of Belize with an overall score of 0.50, while the median score for all countries is 1.65. Congo fares particularly badly in the appraisal and evaluation category with a score of 0 each. This situation has not significantly changed since then. In order to use the country's resources effectively and efficiently, public investment management needs to be improved in all areas of the project cycle. The index is far from perfect and was computed a couple of years ago; however, change in the infrastructure management system has been slow, so even if there may have been some improvement, the state of efficiency continues to be low in Congo.

98. The efficiency of public investments is critical to maximize the impact of using the resource wealth of the Republic of Congo. Nielsen and Lofgren (2011) used MAMS to assess the impact of increased investment efficiency on growth and employment.

Figure 37: Public investment in 100 million of US$





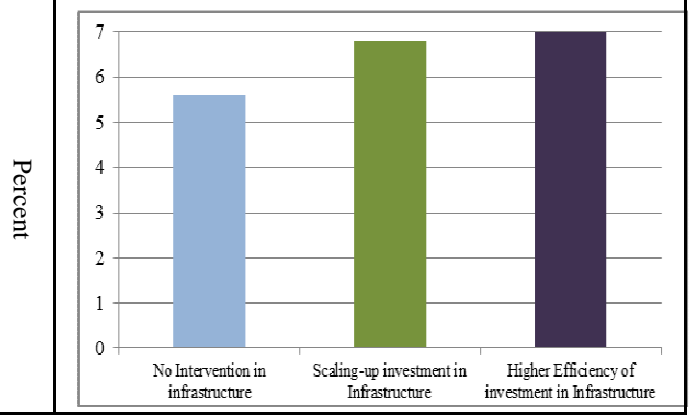
Sources: IMF and World Bank

A baseline scenario serves as benchmark to measure the effect of higher productivity and efficiency of investment as well as the timing of the investment program. They find that ongoing infrastructure investments will lead to improvements in growth, private consumption and investment, trade indicators, poverty rates and Millennium Development Goal (MDG) indicators regardless of the country's environment. Moreover, delaying investments and improving their efficiency will pay off. In fact, higher growth rates and lower unemployment rates can be achieved when slightly delaying investment and simultaneously improving efficiency compared to frontloading investment with low efficiency. The brief delay in large investment projects could be used to improve government systems, especially in project appraisal, selection and implementation, which could significantly increase the productivity of the investment in selected projects. The highest average annual growth rate is achieved by gradually scaling up investment and ensuring high productivity gains, i.e. 4.5 percent increase of productivity over 2010-2025 (which corresponds to an increase of 400 percent of the investment return rate (IRR) by the end on the period). This implies an additional 1.2 pp of real GDP growth per year over the next 15 years.

99. **In addition to increased productivity, another reason for a better outcome with a scenario of delayed expansion of investment spending is the lower pressure on domestic markets and the resulting lower price increase for relevant investment commodities, including construction services.** This adds to the effectiveness of the spending in terms of generating new capital. The timing of investments for infrastructure improvement therefore needs to be considered carefully and measures taken to ensure that the country's resources are used as productively as possible.

100. Ensuring higher efficiency while slightly delaying investments seems to be more effective in achieving higher results. Nielsen and Lofgren (2011) find that significantly improving efficiency alone (an increase of the investment return rate by 400 percent by end 2025) could increase average annual growth by 1.3 pp over 2010-2025. In fact, improved efficiency implies that less capital and labor is needed per unit produced. For example t the same amount of recurrent spending could produce 1 percent more services, applying to all inputs (labor, capital and intermediate), thereby reducing investment needs. Starting from a low level, efficiency gains in the short- and medium-term can be expected and could result from improved processes for investment management (project selection and implementation in particular), but also through better cost recovery for the provision of public services (Estache, 2005).

Figure 38: Impact of infrastructure on average growth,



Source: Nielsen and Lofgren, 2011

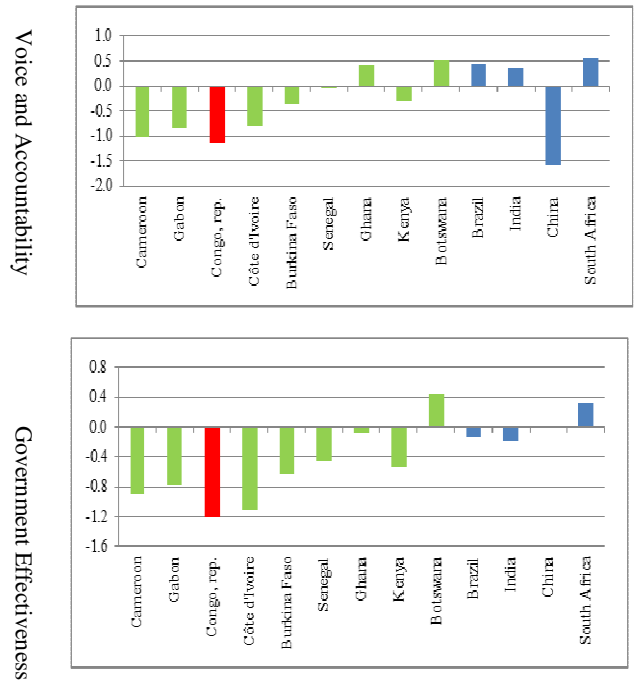
101. Moreover, simulations from Mac-Congo show that if the efficiency of public investments was to be increased continuously to reach a 60 percent of improvement from its current state by 2020, the impact of ongoing infrastructure projects could be larger. In fact, it could add an average of 0.7 pp to annual GDP growth over the period 2014-2025. More specifically, agriculture could increase by about 0.4 pp, manufacturing by 0.6 pp and services by 0.8 pp, driven by transportation and telecommunication services, which could increase by 0.9 pp on average over the entire period. A 60 percent improvement in investment efficiency in Congo means that the country will be as efficient as Senegal or Gabon according to the PIMI. This level of efficiency is achievable and the country can do more because Gabon and Senegal are also at the bottom of the index.

2.5. A policy agenda to improve the efficiency of government spending

102. Congo's stance on efficiency of public spending is very low, and the government can achieve a better outcome by implementing sound policies to deal with this issue. Dabla-Norris et al. (2011) identify that this inefficiency was due to poor selection, evaluation and monitoring of investment projects as well as to previously non-regulated public procurement systems. The government could build on the experience of some of its peers in improving their stance on the PIMI to draft and implement a successful reform.

103. How can the government improve its project selection and evaluation? The government could follow the example of Rwanda and create Public Investment Committees in line ministries. These committees will select only projects with an investment project proposal that is accompanied by project profile documents, multiple year investment plans, investment rate of return analyses and feasibility studies

Figure 39 : Selected countries-Governance indicators



Sources: World Bank, Worldwide Governance Indicators, 201

104. The government should better prepare and plan investment projects before they are included in the budget. A number of projects are included in the budget without pre-appraisal studies or a road map for their implementation. Going forward with the adoption of a program-based budget, the government could consider the introduction of a multi-year framework to link investment and budget planning. The first year consists of pre-appraisal studies. If the project obtains the go ahead at this stage, then prepare a road map of the project implementation for the coming years, and allocate a budget to the investment project according to this road map.

This new planning has the potential to reduce delays in the procurement phase and will also increase the efficiency of government spending since only well-planned and profitable projects will be included in the budget and implemented.

105. To strengthen this, Congo can follow the example of Ghana, which put in place systems-based commitment control in budget execution to track public spending across government ministries, departments and agencies. In fact, Ghana ranks 27th of 71 countries in the PIMI ranking and recently has made good progress in strengthening the effectiveness of its Public Financial Management systems with the progressive implementation of Ghana Integrated Financial Management Information System (GIFMIS). Notably, Ghana now has in place a systems-based commitment control in budget execution to track public spending across government ministries, departments and agencies, from the point of requisition through final payment. This ensures that expenditures and upcoming payment obligations and expenditure arrears can be both documented and controlled.

106. The government could improve its spending efficiency by speeding up procurement procedures. Congo's stakeholders involved in planning and executing investment budgets indicate that there are bottlenecks in the Ministry of Finance (MF) that affect the efficiency of the execution of investment budgets. More specifically, (i) the process is lengthy with many round trips from line ministries to the MF, (ii) the clearance process in the MF generally exceed by far the approved deadline set by the government. The government could take appropriate measures to address the delay. Specifically, the cabinet of the MF could strengthen its human resources capacity to deal with the high number of public contracts that it should approve.

107. The Congolese government can improve its governance credential and the efficiency as well as effectiveness of public spending by making the disbursement system more transparent. Disbursement procedures are lengthy and have many bottlenecks. Even in an environment with abundant funding, the government is still accumulating arrears because its disbursement procedure is not transparent, and it allows the staff of the treasury administration to miss deadlines and to pick who to pay. The government could reform its disbursement system by training staff involved in it. The government may consider using only civil servants and avoid using ministerial staff in order to ease the disbursement system. The National Treasury could have well-trained staff capable of speeding up disbursement.

108. Finally, the Congolese government can follow Rwanda and implement a rigorous national public investment policy that covers all aspects of public investment projects. In fact, Rwanda defined its policy on PIM in the National Public Investment Policy Document in 2009 and rigorously implemented PFM reforms in the spirit of the Paris Declaration on Aid Effectiveness (2005) and the Accra Agenda for Action (2008). During the implementation of the reform, the Government of Rwanda strengthened its own administrative capacities and actively solicited the use of its national systems and procedures. A Public Investment Committee that has decision-making authority over the public investment program was created. The PFM system makes sure that future budget implications of public investments fully account for operations and maintenance costs. All these have helped Rwanda to improve significantly its efficiency in public investments.

References

Abhijit Banerjee, Esther Duflo, and Nancy Qian. 2012. "On the Road: Access to Transportation Infrastructure and Economic Growth in China." NBER Working Paper No. 17897.

Banque Africaine de Développement. November 2011. "Étude Économique et Sectorielle Développement des Infrastructures au Congo : Contraintes et Priorités à Moyen Terme." Département régional centre (orce).

Banque Africaine de Développement. May 2013. "The Africa Infrastructure Development Index (AIDI)." Development Research Department (EDRE).

Briceño-Garmendia, C. and V. Foster. 2009. "Republic of Congo: Prioritizing Infrastructure Investments—A Spatial Approach." Report No.52430-CG, World Bank, Washington DC.

Calderón, C. and L. Servén. 2004. "The Effects of Infrastructure Development on Growth and Income Distribution." World Bank Policy Research Working paper,3400.

Commission on Growth and Development's Growth Report. 2008. "Strategies for Sustained Growth and Inclusive Development."

Dabla-Norris, E., J. Brumby, A. Kyobe, Z. Mills and C. Papageorgiou. 2011. "Investing in Public Investment: An Index of Public Investment Efficiency." IMF Working Paper, WP/11/37.

Dessus, S. and R. Herrera. 2000. "Public Capital and Growth Revisited: A Panel Data Assessment." Economic Development and Cultural Change, pp. 407-418.

Estache, A. 2005. "What Do We Know About Sub-Saharan Africa's Infrastructure and the Impact of its 1990s reforms?" World Bank Draft Working Paper, version 4.

Fedderke, J. W., P. Perkins and J. M. Luiz. 2006. "Infrastructural Investment in Long-run Economic Growth: South Africa 1875-2001." *World Development*, Vol. 34, No. 6, pp. 1037-1059.

Fedderke, J.W. and Z. Bogetic. 2009. "Infrastructure and Growth in South Africa: Direct and Indirect Productivity Impacts of 19 Infrastructure Measures." *World Development*, Vol. 37, No. 9, pp. 1522-1539.

Foster, V. and C. Briceño-Garmendia (eds). 2010. Africa's Infrastructure: A Time for Transformation. Agence Française de Développement and World Bank.

Hulten R. 1996. "Infrastructure Capital and Economic growth: How Well You Use it May Be More Important than How Much You Have." NBER Working Paper 5847.

IMF. 2008. Burkina Faso: Selected Issues. IMF Country Report No. 08/169.

IMF. 2013. Republic of Congo Article IV Consultation, Report No. 13/282.

Kempe, R. H. 2010. "Infrastructure Constraints and Development in Kenya: An Analytical Review." *Journal of Infrastructure Development*, Vol. 37, No. 9, pp. 91-104.

Kopits, G. and S. A. Symansky. July 1998. "Fiscal Policy Rules." International Monetary Fund, Occasional Paper No. 162.

Nielsen, H. and H. Lofgren. 2011. "How Important Is the Efficiency of Government Investment?: The Case of the Republic of Congo." World Bank Policy Research Working Paper 5901.

OECD, United Nations and OSAA. 2010. Economic Diversification In Africa: A Review Of Selected Countries.

References

Prud'homme, R. 2005. "Infrastructure and Development," pp. 153-180 in F. Bourguignon and B. Pleskovic (eds.), Lessons of Experience: Annual World Bank Conference on Development Economics. World Bank, Washington, D.C.

Pushak, N. and C. M. Briceño-Garmendia. 2011. "The Republic of Congo's Infrastructure: A Continental Perspective." World Bank Policy Research Working Paper 5838.

Ministry of Spatial Planning and Delegate General for Major Public Works. 2013. "L'Axe de Brazzaville-Pékin se Consolide." *Magazine du Ministère du l'Aménagement du Territoire et de la Délégation Générale aux Grands Travaux – Reflet. No.15*. Brazzaville, République du Congo.

République du Congo. 2012. "Congo Délégation Générale aux Grands Travaux 2002-2012: Faire de l'Ambition de Moderniser une Réalité." Les éditions du Jaguar/ Éditions Conseil-2012.

République du Congo. June 2013. "Rapport de Programmation Budgétaire 2014-2016." Comité Permanent de Cadrage Macroéconomique et Budgétaire, Ministère de l'Economie, des Finances, du Plan, du Portefeuille Public et de l'Intégration.

UNDP. June 2012. "Étude sur la Vulnérabilité de l'Économie Congolaise et ses Perspectives de Diversification."

World Bank. 2007. "World Development Report 2008: Agriculture for Development." Washington, DC.

World Bank. March 2010. "The Republic of Congo's Infrastructure: A Continental Perspective." Africa Infrastructure Country Diagnostic – Country Report. Washington, DC.

World Bank. 2010c. "Republic of Congo Public Expenditure Review – Using Oil Wealth Effectively to Accelerate and Diversify Growth." Report No. 54734-CG. Washington, DC.

World Bank. 2011. Republic of Congo Employment and Growth Study: From Jobless to Inclusive Growth. Report No. 61999-CG.

World Bank. 2011. "Doing Business 2012 - Economy Profile: Congo, Rep." Washington, DC.

Appendix

Table 1. Republic of Congo: Real GDP growth rates – 2010-2016

	2010	2011	2012	2013	**2014**	**2015**	**2016**
		Est.				Proj.	
Primary sector	**11.8**	**-1.9**	**-5.2**	**-4.7**	**5.4**	**3.9**	**9.2**
Agric., livestock, hunt, fishery	6.4	7.9	7.8	8.5	8.2	6.8	8.3
Agric., livestock,	7	8	8.3	9	8.6	7	8.5
Hunt	3.5	6.5	5.2	5.8	4.8	4.7	6.2
Fishery	4	8	6.1	6.7	7.4	6.3	8
Forestry	5	1.6	3	3.1	5.6	5.9	2.7
Extractive Industries	13.7	-4.8	-9.6	-10	4.1	2.5	9.9
Petroleum sector	13.7	-4.8	-9.6	-10	4.1	2.5	3.1
Other extractive industries	0	0	0	0	0	0	0
Secondary sector	**6.3**	**8.7**	**8.7**	**8.9**	**9.2**	**8.8**	**7.3**
Manufacturing industries	5.9	8.6	8.6	9	8.8	8.4	6.2
Food industries	4.5	8	8.4	9	9.5	8.2	6.9
Other manufacturing industries	8.2	9.6	8.8	9	7.8	8.8	5
Electricity, gas and water	5.5	7.4	7.5	7	7.4	7.3	5.1
Constructions.& public works	8.8	10.5	10.5	10.2	12	11.5	13.3
Tertiary sector	**5.7**	**7.2**	**10.8**	**8**	**7.9**	**7.9**	**9.7**
Transports and Communications	6.9	9.2	9.1	9.1	7.3	7.8	10.8
Transports	5.9	8.5	8.6	8.5	7	7.6	10.6
Communications	8.6	10.4	9.8	10	7.7	8.2	11.2
Commerce, restaurants, hotels	7.4	9.2	9.5	9.2	7.4	8.3	11.3
Public Administration	3.2	3.2	17.7	7.9	10.6	7.9	6.4
Other services	4.9	6.7	6	4.4	5.7	7.4	10.5
GDP at factor cost	**8.5**	**3.3**	**3.7**	**3.2**	**7.2**	**6.6**	**9.1**
Import taxes	16	6.6	8.1	8.1	5.5	5.5	7.9
GDP at constant prices	**8.7**	**3.4**	**3.8**	**3.4**	**7.1**	**6.6**	**9.1**
Non-oil	6.4	7.5	9.7	8.2	8	7.8	8.8
Mining	0	0	0	0	0	0	0
Oil	13.7	-4.8	-9.6	-10	4.1	2.5	3.1

Sources: Congolese authorities and World Bank staff estimates.

Table 2. Republic of Congo: Sectoral contribution to nominal output – 2010-2016 (percent of GDP)

	2010	2011	2012	2013	2014	2015	2016
		Est.				Proj.	
Primary sector	**73.4**	**73.9**	**70.9**	**67.6**	**66.4**	**64.5**	**63.3**
Agric., livestock, hunt, fishery	3.3	3.3	3.6	4.1	4.3	4.4	4.3
Agric., livestock,	2.8	2.7	3	3.4	3.6	3.7	3.7
Hunt	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Fishery	0.3	0.3	0.4	0.4	0.4	0.4	0.4
Forestry	0.3	0.3	0.3	0.3	0.3	0.3	0.2
Extractive Industries	69.8	70.3	67	63.3	61.9	59.8	58.7
Petroleum sector	69.8	70.3	67	63.3	61.9	59.8	55.5
Other extractive industries	0	0	0	0	0	0	3.2
Secondary sector	**7.1**	**7**	**7.8**	**8.8**	**9.2**	**9.9**	**10.2**
Manufacturing industries	3.6	3.5	3.8	4.3	4.5	4.7	4.6
Food industries	2.6	2.6	2.8	3.1	3.3	3.5	3.4
Other manufacturing industries	0.9	0.9	1	1.2	1.2	1.3	1.2
Electricity, gas and water	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Constructions.& public works	2.9	2.9	3.3	3.8	4	4.4	4.9
Tertiary sector	**17.9**	**17.4**	**19.4**	**21.6**	**22.2**	**23.4**	**24.3**
Transports and Communications	4.1	4	4.4	5	5.1	5.4	5.7
Transports	2.9	2.9	3.2	3.6	3.7	3.9	4.2
Communications	1.1	1.1	1.2	1.3	1.4	1.5	1.6
Commerce, restaurants, hotels	5.5	5.5	6	6.8	7	7.4	7.9
Public Administration	3.7	3.4	4.1	4.5	4.9	5.1	5
Other services	4.7	4.6	4.9	5.3	5.3	5.5	5.5
GDP at factor cost	**98.3**	**98.3**	**98.1**	**97.9**	**97.9**	**97.8**	**97.7**
Import taxes	1.7	1.7	1.9	2.1	2.1	2.2	2.3
GDP at market prices	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Non-oil	30.2	29.7	33	36.7	38.1	40.2	41.3
Mining	0	0	0	0	0	0	3.2
Oil	69.8	70.3	67	63.3	61.9	59.8	55.5

Sources: Congolese authorities and World Bank staff estimates.

Table 3. Republic of Congo: Supply and use at current prices – 2010-2016

	2010	2011	2012	2013	2014	2015	2016
	Est.				Proj.		
Gross domestic product (GDP)	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Domestic demand	**61.8**	**64**	**76.9**	**87.6**	**90.9**	**94.4**	**96.7**
Consumption	32.1	29.6	33.7	41.2	42.5	44.2	46.3
Public (Government)	8	7.3	8.9	9.9	10.6	11.2	11
Private	24.1	22.2	24.8	31.3	31.8	33	35.3
Domestic investment	29.7	34.5	43.2	46.4	48.5	50.2	50.4
Fixed expenditure	29.7	34.5	43.2	46.4	48.5	50.2	50.4
Public (Government)	7.9	11.7	18.8	25.8	27.4	28.6	29.3
Private (Enterprises et households)	21.8	22.8	24.4	20.6	21.1	21.6	21.1
Petroleum sector	18.4	19	19.9	15	14.8	14.5	13.7
Mining sector	0	0	0	0	0	0	0
others secotrs (Non oil and mining)	3.5	3.8	4.5	5.6	6.3	7	7.4
Variation of stocks	0	0	0	0	0	0	0
Net exports	**38.2**	**36**	**25.9**	**12.4**	**9.1**	**5.6**	**3.3**
Exports of G and NFS (BOP)	92.2	84.9	93.2	84.3	82.7	80.5	75.1
Goods	89.1	81.6	90	80.8	79.1	76.8	71.3
Oil exports	85	77.3	85.6	76.5	74.8	72.4	67.1
Others exports (Non oil)	4.1	4.3	4.3	4.2	4.3	4.4	4.2
Non factor services	3.1	3.3	3.2	3.5	3.6	3.7	3.8
Imports of G and NFS (BOP)	-54	-49	-67.3	-71.9	-73.6	-74.8	-71.8
Goods	-26.7	-24.5	-36.9	-40.6	-42.4	-43.7	-41.9
Oil imports	-7.7	-7.2	-7.3	-6.7	-6.6	-6.5	-6.1
Others imports (Non oil)	-19	-17.3	-29.6	-34	-35.8	-37.2	-35.8
Non factors services	-27.3	-24.4	-30.4	-31.2	-31.2	-31.1	-29.9

Sources: Congolese authorities and World Bank staff estimates.

Table 4. Republic of Congo: Central Government Operations – 2010-2016 (percent of GDP)

	2010	2011	2012	2013	2014	2015	2016
		Est.				Proj.	
1. Revenue and grants	**36.6**	**41.3**	**42**	**48.4**	**49.3**	**47.3**	**43.6**
Revenue	36.6	40.9	41.8	48.4	49.3	47.3	43.6
Oil and mining revenue	28.9	32.7	32.6	37.3	36.6	34.8	31.1
Oil revenue	28.9	32.7	32.6	37.3	36.6	34.8	30.4
Mining revenue	0	0	0	0	0	0	0.7
Non oil revenue	7.7	8.2	9.2	11.1	12.7	12.5	12.5
Fiscal taxes	7.3	7.9	8.9	10.2	11.6	12	12.1
Non tax revenue	0.4	0.4	0.3	0.9	1	0.5	0.4
Grants	0	0.4	0.1	0	0	0	0
2.Expenditure and net lending	**20.1**	**24.7**	**35.9**	**40.5**	**42.6**	**41.1**	**39.2**
Current expenditure	11.2	9.9	14.7	14.6	15.2	16.6	16.7
Wage bill	3	3	3.6	3.9	4.5	4.7	4.7
Other current expenditure (primary)	7.3	6.8	10.9	10.5	10.5	10.7	10.7
Material and supplies	2.9	2.6	4	3.7	4.5	4.6	4.5
Common charges	0.8	1	1.6	1.5	1.4	1.3	1.2
Budget reserves	0	0	0	0	0	0	0
Transfers	2.8	2.6	4.8	4.8	3.9	4.1	4.3
Local authorities	0.7	0.6	0.6	0.5	0.8	0.7	0.7
Interest on public debt	1	0.2	0.2	0.2	0.2	1.2	1.3
Domestic	0	0	0	0.2	0	0.3	0.2
External	0.9	0.2	0.2	0	0.2	1	1.1
Capital expenditure	9	14.8	21.2	25.8	27.4	24.5	22.5
Domestically financed	8.5	11.8	17.3	15.9	18.5	17.1	16.4
Externally financed	0.5	3	3.9	7.9	8.9	7.4	6
Net lending	0	0	0	0	0	0	0
Primary balance, domestic resources basis	17.9	19.4	10	18.9	15.8	14.8	11.8
Non-oil primary balance	-11	-13.3	-22.6	-18.4	-20.8	-20	-19.3
Balance, commitment basis, excluding grants	16.5	16.3	6	8	6.7	6.2	4.4
Balance, commitment basis, including grants	16.5	16.7	6.1	8	6.7	6.2	4.4
Change in arrears (- = decrease)	-2.5	-1.3	-0.9	-0.4	-0.8	-0.7	-0.5
Domestic (principal and interest)	-2.5	-1.3	-0.9	-0.4	-0.8	-0.7	-0.5
External (principal and interest)	0	0	0	0	0	0	0
Balance, cash basis	13.9	15.4	5.2	7.6	5.8	5.5	3.9
3. Financing	**-13.9**	**-15.4**	**-5.2**	**-7.6**	**-5.8**	**-5.5**	**-3.9**
Foreign (net)	0.4	-1.1	2.7	8.8	4.2	2.9	0.5
Domestic (net)	-14.3	-14.3	-7.9	-16.4	-10	-7.8	-6
Residual financing gap	0	0	0	0	0	0	0

Sources: Congolese authorities and World Bank staff estimates

Table 5. Republic of Congo: Central Government Operations – 2010-2016

	2010	2011	2012	2013	2014	2015	2016
		Est.				Proj.	
1. Revenue and grants	**121.1**	**139.3**	**127.2**	**131.8**	**129.2**	**117.9**	**105.7**
Revenue	121.1	137.9	126.7	131.8	129.2	117.9	105.7
Oil and mining revenue	95.6	110.2	98.8	101.6	96	86.7	75.3
Oil revenue	95.6	110.2	98.8	101.6	96	86.7	73.6
Mining revenue	0	0	0	0	0	0	1.7
Non oil revenue	25.5	27.8	27.9	30.2	33.2	31.1	30.4
Fiscal taxes	24.2	26.5	26.9	27.8	30.5	30	29.3
Non tax revenue	1.3	1.3	1	2.4	2.7	1.2	1.1
Grants	0	1.4	0.4	0	0	0	0
2.Expenditure and net lending	**66.6**	**83.1**	**108.6**	**110.1**	**111.7**	**102.5**	**94.9**
Current expenditure	36.9	33.3	44.4	39.8	39.8	41.4	40.5
Wage bill	9.8	10	10.8	10.6	11.7	11.7	11.4
Other current expenditure (primary)	24	22.8	33.1	28.6	27.6	26.7	25.9
Material and supplies	9.7	8.8	12.1	10.2	11.7	11.4	10.8
Common charges	2.7	3.2	4.9	4.1	3.6	3.3	2.9
Transfers	9.3	8.7	14.5	12.9	10.3	10.2	10.5
Local authorities	2.3	2.1	1.7	1.4	2	1.8	1.6
Interest on public debt	3.2	0.5	0.6	0.6	0.5	3.1	3.2
Domestic	0.1	0	0	0.6	0	0.6	0.5
External	3.1	0.5	0.6	0	0.5	2.4	2.7
Capital expenditure	29.7	49.7	64.2	70.3	71.9	61	54.4
Domestically financed	28	39.6	52.4	43.1	48.5	42.7	39.9
Externally financed	1.7	10.1	11.8	21.5	23.4	18.3	14.6
Net lending	0	0	0	0	0	0	0
Primary balance, domestic resources basis	59.4	65.5	30.4	51.6	41.4	36.8	28.5
Non-oil primary balance	-36.3	-44.7	-68.4	-50	-54.6	-49.9	-46.8
Balance, commitment basis, excluding grants	54.5	54.9	18.1	21.7	17.4	15.4	10.8
Balance, commitment basis, including grants	54.5	56.3	18.5	21.7	17.4	15.4	10.8
Change in arrears (- = decrease)	-8.4	-4.4	-2.8	-1	-2.2	-1.6	-1.3
Domestic (principal and interest)	-8.4	-4.4	-2.8	-1	-2.2	-1.6	-1.3
External (principal and interest)	0	0	0	0	0	0	0
Balance, cash basis	46	51.8	15.7	20.7	15.3	13.8	9.5
3. Financing	**-46**	**-51.8**	**-15.7**	**-20.7**	**-15.3**	**-13.8**	**-9.5**
Foreign (net)	1.3	-3.8	8.3	23.9	10.9	7.2	1.2
Project financing	0.2	0	0	5.9	6.6	7.2	5.8
Drawings	1.5	8.7	11.3	23.4	12.5	-0.7	0.4
Amortization due (principal)	-3.4	-4.1	-3	-5.4	-8.1	-0.9	-1.2
Debt rescheduling	0	0	0	0	0	0	0
Debt cancellation	3	0	0	0	0	0	0
External debt relief obtained	0	0	0	0	0	0	0
Net short terms secured debt and other	0	0	0	0	0	0	0
Domestic (net)	-47.4	-48.1	-24.1	-44.6	-26.2	-19.3	-14.5
Bank system	-15.7	-18.9	15.6	0	-2.7	2.4	2.6
Non bank system	-31.7	-29.2	-39.7	-44.6	-23.5	-21.8	-17.1
Residual financing gap	0	0	0	0	0	-1.7	3.8

Sources: Congolese authorities and World Bank staff estimates

Table 6 . Republic of Congo: Executed budget –2008-2013 (percent of the total budget)

	2008	2009	2010	2011	2012	2013
			Est.			
1. Revenue and grants	**100**	**100**	**100**	**100**	**100**	**100**
Revenue	100	98.9	100	99	99.7	100
Oil and mining revenue	86	69.8	79	79.1	77.7	77.1
Oil revenue	86	69.8	79	79.1	77.7	77.1
Mining revenue	0	0	0	0	0	0
Non oil revenue	14	29.1	21	19.9	21.9	22.9
Fiscal taxes	12.4	26.7	20	19	21.2	21.1
Non tax revenue	1.6	2.4	1.1	0.9	0.7	1.8
Grants	0	1.1	0	1	0.3	0
2. Expenditure and net lending	**50.3**	**83.2**	**55**	**59.6**	**85.4**	**83.6**
Current expenditure	31.8	46.9	30.5	23.9	34.9	30.2
Wage bill	6.7	13.1	8.1	7.2	8.5	8
Other current expenditure (primary)	19	28.3	19.8	16.4	26	21.7
Material and supplies	7.1	10.9	8	6.3	9.5	7.7
Common charges	1.7	2	2.2	2.3	3.8	3.1
Transfers	9.2	12.5	7.7	6.3	11.4	9.8
Local authorities	0.9	1.8	1.9	1.5	1.3	1.1
Interest on public debt	6.1	5.5	2.6	0.4	0.4	0.5
Domestic	0.4	0.7	0.1	0	0	0.5
External	5.7	4.8	2.6	0.4	0.4	0
Capital expenditure	18.4	36.2	24.5	35.7	50.5	53.3
Domestically financed	15.8	35.1	23.1	28.4	41.2	32.7
Externally financed	2.6	1.2	1.4	7.3	9.2	16.3
Net lending	0	0.1	0	0	0	0
3. Budget surplus	**49.7**	**16.8**	**45**	**40.4**	**14.6**	**16.4**
Budget surplus, percent of GDP	26.9	5.1	16.5	16.7	6.1	8

Sources: Congolese authorities and World Bank staff estimates.

Table 7. Republic of Congo: Oil forecasts and realizations – 2005-2018 (millions of barrels)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
					Est.						Proj.	
Forecast	92.6	100	101.3	93.9	109.6	124.8	135.1	105.3	100	95.5	98.7	101.5
Realization	82.6	98.7	81.7	86.6	100.7	114.5	109	98.6	88.7	92.4	94.7	97.6

Sources: Congolese authorities and World Bank staff estimates.

Table 8. Republic of Congo: Selected macroeconomic indicators – 2010-2016

	2010	2011	2012	2013	2014	2015	2016
		Est.				Proj.	
GDP growth (constant prices, annual %)	8.7	3.4	3.8	3.4	7.1	6.6	9.1
GDP growth - oil (constant prices, annual %)	13.7	-4.8	-9.6	-10	4.1	2.5	3.1
GDP growth - non-oil (constant prices, annual %)	6.4	7.5	9.7	8.2	8	7.8	8.8
Private Consumption growth (current prices, annual %)	5.4	7.9	9.9	3.8	6.3	6.5	7.6
Gross Fixed Investment (current prices, % of GDP)	29.7	34.5	43.2	46.4	48.5	50.2	50.4
Gross Fixed Investment - Public (current prices, % of GDP)	7.9	11.7	18.8	25.8	27.4	28.6	29.3
Gross Fixed Investment - Private (current prices, % of GDP)	21.8	22.8	24.4	20.6	21.1	21.6	21.1
Inflation, consumer prices (annual %, end of year)	5.4	1.8	7.5	2.1	3.2	2.5	2.6
Inflation, consumer prices (annual %, period average)	5	1.8	5	4.6	3	2.9	2.9
GDP deflator (annual %, average)	26.9	11	-3.8	-3.4	-2.6	-2	0.5
Nominal Exchange Rate (CFAF/US$, period average)	494.4	471	510	494	500	500	500
Real Effective Exchange Rate Index (2005=100)	108.7	107.9	106.4	112.3			
Overall Fiscal Balance (commitment basis, incl. grants % of GDP)	16.5	16.7	6.1	8	6.7	6.2	4.4
Overall Fiscal Balance (commitment basis, excl. grants % of GDP)	16.5	16.3	6	8	6.7	6.2	4.4
Overall Fiscal Balance (commitment basis, incl. grants % of non-oil GDP)	54.5	56.3	18.5	21.7	17.4	15.4	10.8
Primary Fiscal Balance (% of GDP)	17.9	19.4	10	18.9	15.8	14.8	11.8
Non-oil Primary Fiscal Balance (% of non-oil GDP)	-36.3	-44.7	-68.4	-50	-54.6	-49.9	-46.8
Total revenue (excl. grants, % of GDP)	36.6	40.9	41.8	48.4	49.3	47.3	43.6
Oil revenue (% of GDP)	28.9	32.7	32.6	37.3	36.6	34.8	30.4
Non-oil revenue (% of non-oil GDP)	25.5	27.8	27.9	30.2	33.2	31.1	30.4
Merchandise exports (fob, current US$ billions)	7.1	8.7	7.3	6.9	7	7	6.7
of which oil exports (current US$ billions)	6.4	7.9	6.5	6	6.1	6.1	5.8
Merchandise imports (fob, current US$ billions)	0	0	0	0	0	0	0
of which oil exports (current US$ billions)	0.9	1.1	1	0.9	1	1	1
Current account balance (incl. transfers, % of GDP)	-0.1	-0.1	-0.3	-0.4	-0.4	-0.4	-0.5
Foreign Direct Investment (net, current US$ bilions)	3	3.3	2	4.6	5.1	5.5	3.7
of which oil sector (net, current US$ billions)	2.5	2.7	1.2	3.4	3.5	3.6	1.4
Population, total (millions)	4	4.1	4.3	4.4	4.5	4.7	4.8
Unemployment Rate	..	6.9	..	..	..	..	..
Formal sector job creation (%, yoy)	..	..	..	..	..	..	..
Poverty headcount ratio at national poverty line (% of population)	..	46.5	..	..	..	..	..
Inequality - Income Gini	..	0.4	..	..	..	..	..
Population Growh (annual %)	2	2.9	2.9	2.9	2.9	2.9	2.9
Life Expectancy	..	51.6	..	..	..	..	..
Infant mortality rate (per 1,000 live births)	64.3	63.8	62.2	..	..	..	..

Sources: Congolese authorities and World Bank staff estimates.

Table 9. Republic of Congo: Chinese financing of infrastructure

Type of agreement	Amounts to borrowing	Project Name	Disbursement in million of US$
Strategic Partnership I signed June 9, 2006		Road Obouya-Boundji-Okoyo	84
		Oyo hospital	26
		Maya-Maya Equipment	72
		Construction Maya-Maya	81
		Road Pointe-Noire Malele	85
		Road Malele-Les Saras	84
		Road Lessara-Mvouti	84
		Road Mvouti-Dolisie	74
		Bridge over the Mambili	69
		Road Owando-Makoua	85
		Road Makoua-Mambili	76
		Airport Ollombo	53
		Accommodation camp on August 15	45
		Extension Factory Djiri	84
		Modernization Djiri 1	81
		Building of networks Djiri	80
	1600	**Total**	**1163**
Strategic Partnership II	1000	Road Dolisie-Brazzaville	1000
Strategic Partnership III signed in March 29, 2013		Road Mambili-Moyoye	84
		Road Moyoye-Liouesso	77
		Road Liouesso-Ouesso	83
		Road Okoyo-Gabon Border	77
		200 units Mpila	45
	600	**Total**	**366**
Excluding strategic partner-ship agreements with the private sector		Phase 1 of telecoms	70
		Phase 2 of telecoms	63
		Phase 3 telecom	76
		Aircraft Air Congo	41
		Construction of Dam Imboulou	238
		Transports of Imboulou lines	551

Sources: Congolese authorities