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Democratic Republic of the Congo

Country Economic Memorandum (CEM)

Pathways to Economic Diversification and Regional Trade Integration

Fostering Economic Diversification and Regional Integration for Faster Growth, Job Creation and Poverty Reduction

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Acronyms and Abbreviations

AEZO	*African Economic Zones Organization*
AfCTFA	*African Continental Free Trade Area*
AFD	*French Development Agency (Agence Française de Développement")*
ASM	*Artisanal Small-scale miner*
ASYCUDA	*Automated Systems for Customs Data*
BACI	*International Trade Database (Base pour l'Analyse du Commerce International)*
BIVAC	*Bureau of Inspection, Valuation, Assessment and, Control*
CAFI	*Central African Forest Initiative*
CAGR	*Compound Annual Growth Rate*
CAMI	*Mining cadastre (Cadastre minier)*
CCDR	*Country Climate Development Report*
CE	*Country examples*
CEM	*Country Economic Memorandum*
CEPII	*Center for Prospective Studies and International Information (Centre d'Etudes Prospectives et d'Informations Internationales)*
CET	*Common external tariff*
CMP	*Common Market Protocol*
CGE	*Computable general equilibrium model*
CIT	*Corporation income taxes*
CMO	*Commodity Markets Outlook*
CNSS	*National Social Security Fund (Caisse Nationale de Sécurite Sociale)*
CO_2	*Carbon dioxide*
COMESA	*Common Market for Eastern and Southern Africa*
COREF	*Orientation Committee for Public Finance Reform (Comité de pilotage et d'orientation de la réforme des finances publiques)*
CPSD	*Country Private Sector Diagnostic*
DGDA	*General Directorate of Customs and Excise Duties (Direction Générale des Douanes et Accises)*
DGI	*General Directorate of Taxes (Direction Générale des Impôts)*
DGRAD	*General Directorate of Administrative Revenue (Direction Générale des Recettes Administratives, Judiciaires, Domaniales et de Participations)*
DRC	*Democratic Republic of the Congo*
DTIS	*Diagnostic Trade Integration Study*
EAC	*East African Community*
EIF	*Enhanced Integrated Framework*
ENCORE	*Enhancement of Revenue Collection and Expenditure Management*
ETDs	*Decentralized territorial entities (Entités Territoriales Décentralisées)*
EU	*European Union*
EV	*Electric Vehicle*
FCP	*Counterpart funds (Fonds de Contrepartie)*
FDI	*Foreign direct investment*
FFN	*National Forest Fund (Fonds Forestier National)*
FNSCC	*National Solidarity Fund against COVID-19 (Fonds National de Solidarité contre la COVID-19)*

FOB	*Free on board*
FOMIN	*Mining Fund for Future Generations (Fonds Minier pour les Générations Futures)*
FONER	*Road Maintenance Fund (Fonds d'entretien routier)*
FPC	*Cultural Promotion Fund (Fonds de Promotion Culturelle)*
FPEF	*Education and Training Promotion Fund (Fonds de Promotion de l'Education et de la Formation)*
FPT	*Tourism Promotion Fund (Fonds de Promotion Touristique)*
FTA	*Free Trade Agreement*
GDP	*Gross Domestic Product*
GHI	*Global Hunger Index*
GNI	*Gross National Income*
GUCE	*One-Stop-Shop for Business Creation (Guichet Unique de Création d'Entreprises)*
GUICE	*Single window (Guichet Unique Intégral pour le Commerce Extérieur)*
GVA	*Gross value added*
GWh	*Gigawatt-hours*
HCI	*Human capital index*
ICT	*Information and Communications Technology*
IFC	*International Finance Corporation*
IMF	*International Monetary Fund*
ISYS-Régies	*Management Information System for the digitalization of revenue payments*
LFP	*Labor Force Participation*
LMIC	*Lower Middle-Income Country*
LOGIRAD	*Computerized Management Information System for non-taxes (Logiciel de Gestion Intégrée des Recettes Administratives et Domaniales)*
LPI	*Logistics Performance Index*
LTGM	*Long-Term Growth Model*
LTGM-NR	*Natural Resource Extension of Long-Term Growth Model*
MFN	*Most favored nation*
MoU	*Memorandum of understanding*
MPO	*Macro Poverty Outlook*
MSMEs	*Micro, Small and Medium-sized enterprises*
NDC	*Nationally Determined Contribution*
NTBs	*Non-tariff barriers*
NTM	*Non-Tariff Measures*
OASL	*Office of the Administrator of Stool Lands*
OCC	*Congolese Control Office (Office Congolais de Contrôle)*
OEC	*The Observatory of Economic Complexity*
OLS	*Ordinary least squares*
OPEC	*Office for Small and Medium-sized Enterprises*
PER	*Public expenditure review*
PIT	*Personal income taxes*
PNSD	*Strategic National Development Plan (Plan National Stratégique de Développement)*
PWT	*Penn World Table*

RCCM	*Trade and Personal Property Credit Register (Registre du Commerce et du Crédit Mobilier)*
REDD+	*Reducing Emissions from Deforestation and Forest Degradation and Increasing Carbon Sequestration*
RVA/Go-Pass	*Airway management tax (Regie des voies aériennes/Go-Pass)*
SADC	*Southern African Development Community*
SARA	*Semi-autonomous revenue authority*
SCD	*Systematic Country Diagnostic*
SEZ	*Special Economic Zone*
SMEs	*Small and Medium-sized enterprises*
SPS	*Sanitary and Phytosanitary*
SQMT	*Standards, Quality, Metrology and Testing*
SSA	*Sub-Saharan African*
TADAT	*Tax Administration Diagnostic Assessment Tool*
TBT	*Technical Barriers to Trade*
TFA	*Trade facilitation agreement*
TFP	*Total factor productivity*
TIDD	*Timber Industry Development Division*
TRIMS	*Trade-Related Investment Measures*
TRIPS	*Trade-Related Intellectual Property Rights*
UMIC	*Upper Middle-Income Country*
UNCTAD	*United Nations Conference on Trade and Development*
USD	*United States Dollars*
USGS	*United States Geological Survey*
VAT	*Value Added Tax*
WB	*World Bank*
WDI	*World Development Indicators*
WEO	*World Economic Outlook*
WITS	*World Integrated Trade Solution*
WTO	*World Trade Organization*

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Executive Summary

Fostering Economic Diversification and Regional Integration for Faster Growth, Job Creation, and Poverty Reduction

Under the current macroeconomic framework and despite noticeable efforts, growth in the DRC will not translate into improved living conditions. Ambitious economic reforms are critical to place the country on a diversified growth path conducive to middle-income country status.

Despite its rich endowment in natural and human resources, the Democratic Republic of the Congo (DRC) has struggled to reach its full economic potential, partly due to persistent high levels of vulnerability and fragility. Following decades of conflict, poor governance, weak fiscal institutions, mismanagement of natural resources, and protracted violence have led to limited progress in building human and physical capital, which has resulted in economic underperformance and high levels of poverty. However, over the last decade, the DRC economy has experienced impressive growth associated with a significant return to macroeconomic stability. With 5.7 percent average growth over 2011-2021, the DRC economy ranked among the fastest-growing Sub-Saharan African (SSA) economies. Despite this revival, the DRC shows a lower catch-up pace and has made little progress in bringing its GDP per capita back to its 1960 level.

The DRC's growth levels have not lived up to the full potential of the country's resources to improve living conditions. The last two decades of economic performance have not translated into improvements in the lives of most people, and poverty remains widespread for more than 61.9 percent of the population in 2022. Despite the DRC's considerable economic potential, including its rich endowment in natural and human resources, the country's economy remains concentrated in a few sectors, including mining and the export of raw minerals. Greater diversification of trading partners and products, including along the mining sector value chain, is required to build up resilience and sustain high growth rates, create jobs, and accelerate poverty reduction.

Based on current trends, the outlook is favorable in the medium to long term due to a stronger non-mining sector but will not translate into improvement in per capita GDP without economic reforms. Growth in the DRC is expected at nearly 6 percent in the second half of the 2020s before slowing down to its potential level of 4 percent by 2035 and stabilizing around 4.4 percent until 2050. However, due to fast population growth, real per capita GDP should increase by an average of 3 percent in the second half of the 2020s but decline to 1-2 percent in the long run. In the short term, growth is mostly driven by the mining sector. In the medium to long terms, the non-mining sector has better fundamentals (growing TFP, human capital, and working-age population), while the mining sector suffers from depleting reserves and no productivity gains. By 2050, the share of mining in GDP is projected to be around 13 percent (down from 32 percent in 2020). The main headwinds to per capita growth are population growth and depleting reserves of copper. Without economic reforms, per capita income in the DRC is projected to grow slowly, by less than 2 percent on average, with GNI below USD 1,000 by 2050.

Public and private investment and non-mining productivity are key drivers of growth in the medium term. The mining sector is subject to very fast growth before declining in the second half of the 2020s. Non-mining GDP growth is expected to keep an upwards trend until the late 2020s as the economy will tend to diversify away from the mining sector before leveling out around 5.5 percent until 2050. The contribution of capital accumulation to potential growth is estimated to increase in the near term

before flattening. Required investment (via private and public capital accumulation) is estimated to increase from 11 percent of GDP in 2020 to 16 percent in 2025 but to stagnate at around 17.0 percent by 2050. Strong human capital growth is driven by increased schooling rates and health measures. However, the quality of education remains stagnant. Human capital growth is strong but has a small effect on growth because the mining sector is capital-intensive.

The DRC economy will need more ambitious reforms to challenge its target of lower/upper middle-income country status by 2035/2050. The DRC's economic outlook is improving, and the country has a window of opportunity to enact reforms that will sustain increased levels of growth and allow new drivers of growth to emerge. Modeling simulations show that through an ambitious reform package, the DRC could reach an upside potential growth trend by 2050. When combining different drivers, there is substantial potential for growth through economic reforms. In addition, moderate and ambitious reforms can boost per capita GDP growth to 2-4 percent by 2035 and 3-6 percent by 2050. However, all reform scenarios fall short of reaching the target of upper-middle income country (UMIC) by 2050. Nevertheless, ambitious reforms can nearly double per capita income to over USD 1,600 by 2050 relative to the baseline. In this case, the LMIC target could be achieved by 2035 under the most favorable (ambitious) scenario of reforms when coupled with a strong fiscal response and high mining prices.

Economic Diversification in the DRC is hindered by a business environment and key regulatory and fiscal constraints that are not conducive to private sector-led growth. Policies aimed to address the main bottlenecks hindering sustainable and inclusive growth include: i) improving business regulation; ii) promoting access to digital, electricity, and financing; iii) addressing inefficient taxation and fiscal policy challenges; iv) encouraging fiscal decentralization; and v) attracting value chain development (as illustrated in the two case studies attached to the CEM report and summarized below).

Unlocking private sector-led growth is contingent on a country's ability to establish a predictable and transparent business environment that encourages productive investments. From an operational perspective, a challenging business environment characterized by an inefficient, complex, and non-adaptive tax regime coupled with a gap in the supply of electricity fosters inequality while weakening the private sector.

The DRC's business climate faces deep challenges given its cumbersome and complex regulatory framework, hence efficient and effective design, implementation, and monitoring of regulations affecting business should be an important priority for the government of the DRC. The DRC's competitive environment is in the bottom 10th percentile of 141 economies as measured by the World Competitiveness Report. The challenges faced by businesses in the DRC are rooted in the country's complex and cumbersome regulatory framework. This report analyzes the main regulatory burdens affecting firms at different stages of the business life cycle, from market entry to operation. Business registration remains a challenge due to the lack of enforcement of the reform that established a one-stop shop for business registration. The regulatory framework for licensing is fragmented and overly prescriptive. Businesses do not have easy or timely access to clear and comprehensive guidance on the licenses they need, the steps they need to take, and the time it will take for regulators to review and respond to their license applications.

There is a strong need to streamline and limit licensing only to sectors that address economic, social, environmental, and safety concerns in order to promote business activity and private investment. Licensing should be streamlined and limited to a reduced number of specified sectors and activities where prior control of businesses is required to safeguard economic, social, safety, security, or environmental concerns. Thus the efficient and effective design, implementation, and monitoring of regulations affecting business should be an important priority for the government of the DRC. To address these bottlenecks, the government should work toward attaining full integration of the components of the one-stop shop, ensuring interconnections with the DGI and the Ministry of the Economy. There is also a strong need for licensing reform to reduce the administrative burden on private sector actors operating in the DRC both at the provincial and national levels.

This business environment is hampered by a shallow financial sector characterized by very difficult access to financing, especially for MSMEs, hence, the need to intensify reforms that promote financial inclusion. The ratio of private credit to GDP, estimated at 7.3 percent in DRC in 2020, is one of the lowest in sub-Saharan Africa (SSA). The share of MSME funding in private sector credits is approximately only 15 percent. In addition, credit is very expensive in the DRC. Reforms should focus on the main drivers of increased access to financing for Congolese MSMEs, including banking competition, credit infrastructure, and public policies. There is a need for a more formalized coordination framework with a view to: i) better controlling the risks of overlapping; ii) measuring the complementarity of these programs; and above all iii) maximizing the mobilization of funds from private financial institutions. Two other public policies could have an impact on access to credit for MSMEs: simplified taxation, and the establishment of Approved Management Centers (Centres de Gestion Agréés).

Electricity supply is unreliable and expensive, hence reforms of the energy sector should be accelerated. Compared to its structural peers, the DRC has long remained below average in the area of access to electricity. The gap in the supply of electricity is further reinforced by the cumbersome procedures for obtaining electricity. Liberalization of the energy sector started in 1994, with the most recent reforms taking place in 2021. Reforms since 2021 have included the digitization of the bill payment system, the establishment of targets to ensure the reliability of energy supply, and the creation of the National Dispatching System. In the short term, the government should ensure that the regulatory bodies are operational by providing them with sufficient resources and strengthening the mobilization of investments that can realize the potential of Congolese electricity production.

With the country lacking many digital and analog foundations needed to drive cross-cutting digital transformation, priorities for sector development should include sizable investment in network infrastructure to bridge existing gaps complemented by efforts to boost demand for digital services as well as continued regulatory reform. The lack of many digital and analog foundations constitutes an important barrier to the creation of a robust, private sector-driven digital sector and to unlocking related potential for job creation and economic growth linked to the productive use of data-driven technologies. While in 2019 the Government adopted the National Digitization Plan (*Plan National du Numérique* – PNN), which is due for an intermediate review in 2025, many of the initiatives envisioned have not materialized due to scarce public funding. The DRC thus lacks many of the basic building blocks to move digital transformation forward, including universal digital access, digital public infrastructure (DPI) to facilitate digital service delivery, including digital identification, and digital skills. Policy recommendations should be considered in three broad categories: i) facilitating investment in sector development; ii) developing Digital Public Infrastructure (DPI) to catalyze expansion of digital services; and iii) continuing regulatory reforms and dialogue.

On the taxation side, the public revenue system is clearly underperforming, with a very low global public resources-to-GDP ratio. Underperformance in the public revenue system is due not only to the deficiencies of the tax system, which is highly complex, fragmented, and non-adaptive to the business environment, but also to the weaknesses of the tax administration. Taxation, both direct and indirect, remains largely inefficient in terms of revenue mobilization and includes very generous tax exemptions. However, no reform of the tax and non-tax revenue system can succeed in increasing public revenues without addressing the weakness of the administration, which is over-staffed but underproductive.

In such a context, the DRC government should accelerate ongoing reform to modernize individual and corporate taxation and enlarge and better protect the tax base. The government should accelerate the implementation of the revised law on personal income tax (PIT) and corporate income tax (CIT), combat informality, and review existing tax exemptions in an effort to enlarge the tax base. There is also an urgent need to strengthen VAT management and accelerate efforts to rationalize and better target excises. The government should closely monitor and evaluate tax expenditure and drastically reduce existing derogatory tax regimes. The non-tax revenue system also requires rationalization as economic operators are subject to a multitude of non-tax and parafiscal charges that burden the Congolese economy while representing only a marginal share of total revenues, and the potential of the extractive sector remains under-exploited.

The government could digitize the reporting and payment for all taxes and aim for further coordination and consolidation of all revenue administrations. Efforts to enhance digitization, modernize the integrated management IT tool of the DGI and DGRAD, improve communication and exchange of information between the DGI, DGRAD, and DGDA, rationalize and put in place a risk-based tax audit management are critical. Eventually, the DRC should consider the establishment of a single semi-autonomous revenue authority and a semi-independent administrative body outside the traditional government hierarchy in order to consolidate all revenue administration into one administrative entity. This would address current coordination issues, improve the performance of the revenue administrations as well as the services provided to citizens, and ultimately increase public revenue mobilization in the country.

Fiscal decentralization reforms have considerable potential to help reduce poverty and contribute to shared prosperity in the DRC. Decentralization reforms are known to promote efficiency gains, inclusiveness and responsiveness, a restructuring of political economy forces in a context of fragility, conflict, and violence (FCV); and sustainable development and improved public service delivery. The current context in the DRC is that the central government collects all national revenues and redistributes some of these funds back to the provinces and ETDs under operational investments and payroll transfers. The existing system suffers from a lack of equity in resource transfers in addition to strong disparities in their execution. There is an urgent need for reforms at the local level toward greater accountability of public expenditure and better control over provinces. The government is committed to continue its efforts toward fiscal decentralization with the design of a six-year strategy for Strengthening Financial Decentralization. Pushing for a favorable decentralization process will require establishing frequent dialogue to address misunderstandings and remain adaptive to the ever-changing circumstances of a fragile governance environment, making additional efforts to strengthen the voice of the ultimate beneficiaries of reforms, and holding local and central governments to account while building capacity at all levels of government.

Regional Trade Integration and trade diversification can promote value chain development and help generate jobs, unleashing opportunities for stronger growth and improved welfare.

Regional trade integration can promote development in the DRC and help generate growth and job creation. Given the important size of regional trade in the DRC relative to other countries in Africa, further trade integration and diversification with the region can lead to stronger development. With the DRC sharing borders with 9neighbors, regional integration can foster trade facilitation and modernization of trade policies and bring opportunities of diversification of trade in DRC provinces. In addition, it can allow complementary value chains development with regional neighbors to ensure cost-effectiveness while providing knowledge transfers and skills sharing.

Regional trade is critical for the DRC given the very high barriers to trade the country faces. Trading more locally may be the only economic option when access to distant markets is prohibitively expensive. Estimates of non-tariff barriers rank the DRC as one of the countries with the highest levels in the continent. In addition, the country faces a combination of costly geographical conditions along with generally low level of performance in trade facilitation and logistics, which translate into extremely high logistics costs for the country.

In response, the DRC should pursue a strategy following two complementary paths: i) improving regional trade to offer new opportunities of export diversification and lowering import costs, and ii) leveraging the mining sector to create conditions for capturing a higher share of the value chain. Recommendations regarding the latter can be found in the Mining Case Study. Regarding the former, the DRC's decision to adhere to the African Continental Free Trade Area (AfCFTA) and the East African Community (EAC) are very positive developments and should create the conditions for further integration into regional economies while lowering trade costs altogether.

The most immediate prospects for trade reform and integration are likely to be realized in the context of joining the EAC. The EAC already possesses a strong institutional base and has developed a broad set of integration policies that have been implemented by its members. The DRC should be able to upgrade rapidly to the EAC standards, with significant gains expected from the facilitation of trade with EAC members and access to an enlarged EAC market. Trade facilitation should be a priority agenda for the DRC in both the EAC and AfCFTA contexts. Model simulations suggest that the magnitude of such gains could be very large for the DRC if ambitious trade liberalization policies are implemented.

Trade policy reform simulations suggest that the magnitude of gains from joining the EAC could be very large for the DRC (8 percent of additional wealth) if ambitious trade liberalization policies are implemented. Much of these gains arise from the facilitation of trade as the impact of tariff changes is comparatively much more modest. In practice, the DRC has already started adopting cross-border measures to streamline processes with its EAC neighbors. Gains from integration into the EAC will arise despite the fact that the average MFN tariff applied by the DRC (currently low) will increase because of the need to implement the EAC common external tariff.

The realization of AfCFTA will add substantial benefits on top of what the DRC will gain by integrating into the EAC space. Updated model simulation of DRC benefits from AfCFTA show a potential gain of 13.7 percent of welfare. EAC neighbors are also expected to register important gains from AfCFTA. This means that in terms of policy objectives, further integration of the EAC (and inclusion of the DRC) will be best pursued with the future gains conferred by AfCFTA in mind.

Case Studies in the DRC Country Economic Memorandum: Regional Value Chains

The two case studies discussed in complementary reports are intended to better illustrate the opportunities and challenges described in the Country Economic Memorandum and considered important for economic diversification and job creation through structural transformation and stronger trade and regional integration. The focus is on two key potential growth-driving sectors (mining and agribusiness) that offer substantial opportunities for expansion in the context of global energy transition, food insecurity, and further regional integration. While opportunities and constraints specific to the EV battery-related mining and cassava value chain are presented (and include a climate dimension), most of the challenges and recommendations could also apply to several other products or sectors of the economy (e.g., maize or any manufactured or processed product). The purpose of the illustrative case studies is to highlight how the business environment in general is not attractive to private investment, SME expansion, or product competitiveness.

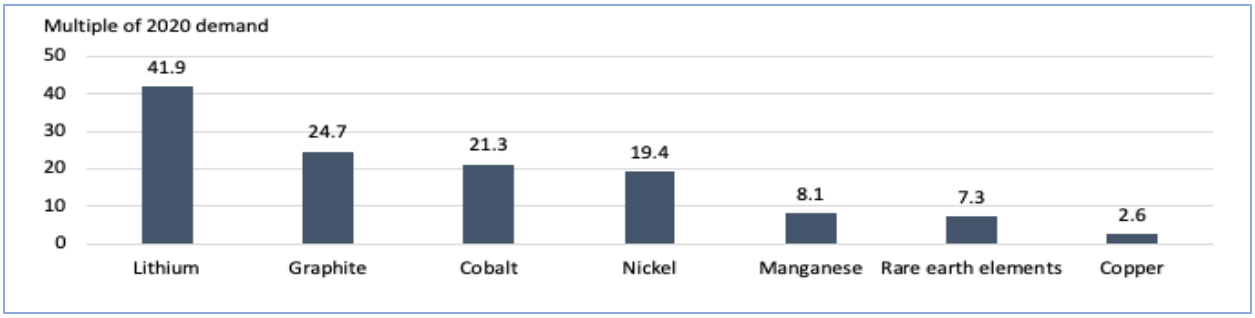
Case Study 1: Mining Value Chains

With the global energy transition, the DRC must seize the opportunity to capitalize on its mineral wealth and lay the foundations for rapid, resilient, and clean development of EV battery-related mining value chains.

The international mining industry is undergoing deep transformation due to the global energy transition. This transition presents opportunities for companies and host governments as interest increases in developing supplies of energy transition minerals, but it also poses regulatory and technological challenges as countries and companies seek to decarbonize their value chains in support of the Paris Agreement commitments. In a world where end consumers and manufacturers producing renewable energy technologies are increasingly seeking to produce clean products, where green credentials are measured throughout value chains, the DRC is well positioned to be a supplier of choice. In fact, both the DRC and Zambia have some of the cleanest copper and cobalt on the planet. This is partly due to the large degree of renewable (hydro) power used in their production but also to the high grades of deposits.

Demand for battery minerals is expected to grow tenfold over the next decade, and the DRC is well positioned to supply a significant percentage of these minerals provided the right enabling conditions are met. Analysis of public data and projections released by global automakers indicate that they will produce 5,819 GWh of battery capacity and 55 million cars, with a total investment of USD 1.2 trillion by 2030.

For some minerals, this represents massive increases in demand (and corresponding supply) by 2040 from 2020 levels. Both lithium graphite and cobalt will see the highest multiples of increased demand, albeit from a small 2020 production base. While copper is likely to see only a small multiple increase of 2.6, this starts from a very large base and presents a significant industry challenge as it cannot be substituted by other minerals.



Mineral demand growth from 2020 to 2040 fur Sustainable Development Scenario (as a multiple of 2020 demand)

The contribution of mining to DRC GDP, exports, and fiscal receipts has been substantial and is increasing. According to EITI, revenues collected from the DRC mining sector surpassed those of the oil and gas sector in 2010, when 63 percent of the USD 875 million came from mining companies. In 2017, the sector generated USD 1.68 billion, accounting for 17.4 percent of GDP, 55 percent of total government revenues, 99.3 percent of total exports, and a quarter of total employment. In 2019 the mining sector's fiscal contribution increased to USD 1.78 billion and reached about USD 4.0 billion in 2021.

Yet the DRC remains poor, and mining sector governance remains a challenge. A new Mining Code was adopted in 2018 after many debates with both the private sector and civil society. While fiscal provisions were revised to ensure greater financial benefits from mining, the Code also created a number of issues in this regard. Above all, as in many developing countries, capacity is limited for fully applying the new Code. Institutional capacity to implement policies, monitor, or enforce the law remains low, as is the government's ability to leverage the sector in order to grow and diversify the economy.

As the DRC's mining sector prepares itself for a new wave of investments and a transition to higher energy intensity operations, the time has come to lay the foundations for a resilient, responsible, and clean supply chain. The ownership composition of the sector is changing and diversifying, with more companies considering taking on more risk. Furthermore, the deepening of existing mines will result in new geology and trigger a wave of new, higher energy intensity investment.

An enabling environment needs to be created for the sector to: i) decarbonize itself before the industry locks itself into carbon-intensive technologies; ii) attract a new wave of investment to support existing operations; and iii) allow the DRC to benefit from development in previously unexplored parts of its territory. Improved governance, stability, predictability, and energy and transport infrastructure are key building blocks in supporting this transition by diversifying the economy in clusters and along economic corridors in order to promote long-term, sustainable, inclusive growth.

Attention to the socioeconomic and environmental issues caused by unregulated artisanal mining will need to be increased. The impact of artisanal and small-scale mining (ASM) is linked to poverty, lack of rural development, and low levels of government control and management. The country's overall risk rating is negatively affected by these factors, and investment in the development of critical minerals through a large-scale mining sector may be jeopardized if these challenges are unmet.

Opportunities	Overall, climate change and the energy transition present diverse opportunities for the DRC: ● ***Providing additional supply of energy transition minerals necessary to mitigate climate change*** ● ***Diversifying global supply chains through local value addition*** ● ***Contributing to two global public goods and creating domestic public good*** ● ***Providing low-carbon inputs to global supply chains of renewable energy technologies*** ● ***Making transformational investments in transport infrastructure*** ● ***Making energy infrastructure a crucial enabler for the DRC's mining sector and value addition beyond mining, as large investments can help alleviate energy poverty in the DRC, if done correctly.*** ● ***Leveraging sector growth and support for value addition to improve human capital formation, particularly skills.***
Challenges	The key challenges for the DRC to address as it seizes the opportunity arising from energy transition include: ● ***The opportunities identified above related to infrastructure (transport and energy), skills, which all present challenges for the DRC*** ● ***Cobalt, the most at-risk commodity in the battery supply chain, with price volatility and concentration of resources in the DRC being the sole reason why researchers have been working to engineer it out of the battery value chain*** ● ***Access to competitive finance, which remains a constraint not only for value chain development but also for all domestic investments in the DRC***

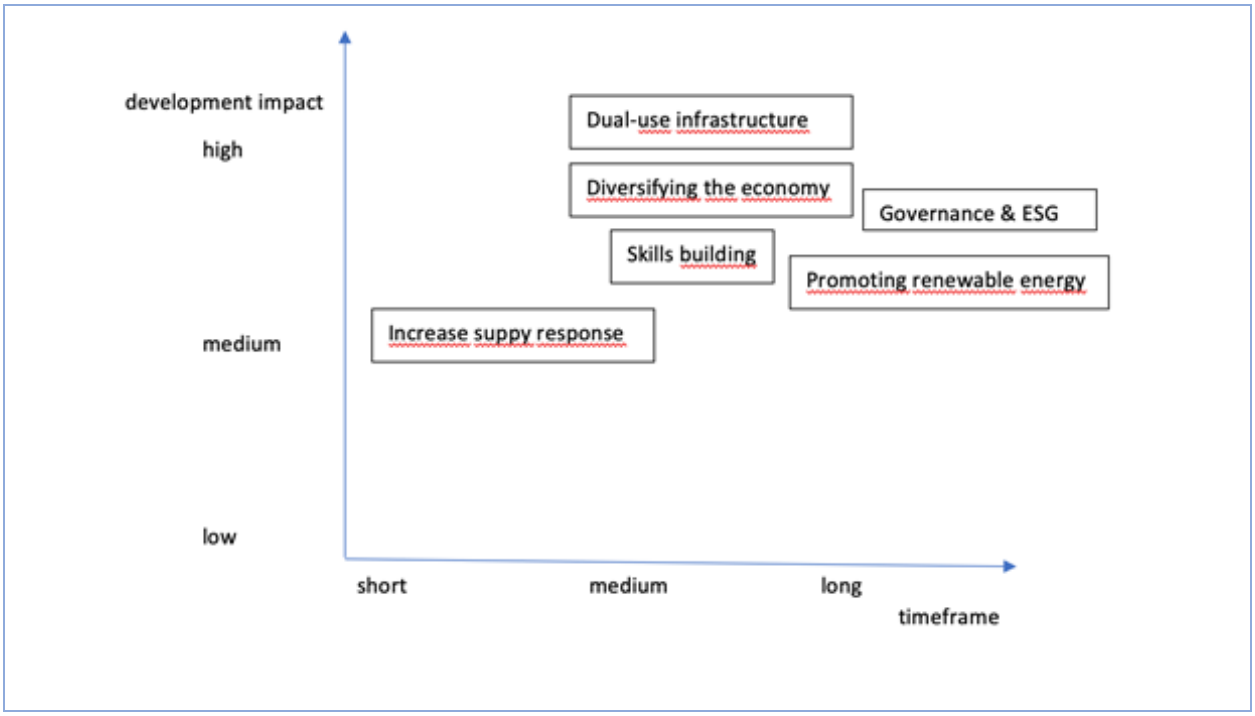
Recommendations

The DRC stands to benefit greatly from the energy transition if it is supported in seizing that opportunity. In response, a six-point agenda for mining and value addition in the DRC is proposed to support the country in seizing this opportunity. Beyond the generation of foreign exchange, fiscal revenue, local procurement, value addition, and jobs, rising demand for critical minerals significantly increases potential benefits from the sector. Furthermore, investing in the DRC's ability to seize mineral value chain opportunities aligns with the Paris Agreement, supporting the global decarbonization agenda while leveraging a considerable development opportunity. thanks to its scale and multiple development agencies, the World Bank Group is uniquely positioned to support the following six-point agenda for mining and value addition in the DRC:

1. Increase the DRC's supply response capabilities through support for mining investments.
2. Unlock long-term transformational development opportunities through strategic, mineral resources-anchored transport infrastructure investments.
3. Support investments in renewable energy to decarbonize mineral value chains, achieve the DRC's nationally determined contributions (NDC), and alleviate rural energy poverty.
4. Support value addition beyond mining in order to capture more value for the DRC (and Africa) and diversify the economy and global value chains in favor of energy transition minerals.

5. Invest in human capital formation to allow the DRC's population to seize income opportunities from the booming sector, its downstream value chain, and economic diversification.
6. Strengthen governance, mining-impacted communities, and environmental stewardship to ensure that mining and metals development inclusively benefit the DRC and its citizens within a context of sustainability.

Below is a table prioritizing the above six recommendations in terms of potential speed of realization and development impact:



Adoption of the six-point agenda can yield multiple benefits for the DRC. Some of these will be captured entirely by the DRC itself, such as domestic revenue mobilization and macroeconomic benefits, good quality employment opportunities, and economic diversification, while others will be shared internationally as they generate global public goods such as improved global ability to mitigate climate change, improve the resilience of energy transition minerals, reduced emissions intensity in value chains, and improved integration into the global economy.

Specific Recommendations for Enabling Value Addition in the Copper and Cobalt Value Chains

Cobalt and copper are essential components of the energy transition value chain and have established mining production in the DRC. While expanding the value chains of these industries should be a top priority for job creation and exports, value addition will contribute very little in terms of additional tax revenue. Two particular areas of interest are the manufacturing of copper wiring and precursor mineral processing for EV batteries.

The first value addition option for the DRC would entail the development of copper-based manufacturing in the ex-Katanga region, with a focus on transforming the region into a manufacturing cluster with local concentration of similar or complementary industries. In comparison with smelting

and refining, manufacturing copper products requires less energy. Moreover, as demonstrated by existing operators, manufacturing is already economic and technically feasible in the DRC.

Opportunities in the copper value chain range from the production of electrical products, starting from copper wires, cables, and other semis and eventually move into products such as electric motors, transformers, renewable energy, and potentially copper foils used in EV battery cells. The production of USD 500 million of copper-based products per annum would result in USD 112 million in additional exports and 1,300-2,000 additional employment opportunities but only USD 9 million in annual taxable revenue as margins are small.

On the other hand, the EV battery value chain is much more complex and difficult to enter, requiring highly technical skills along much of the value chain, though it has the potential to quadruple the end value of battery minerals mined in Africa. Developing the full value chain will require a regional approach – with each country in Southern Africa contributing in terms of specific metals and capabilities in order to undertake complex manufacturing and attract the necessary investment.

For the DRC, precursor production of cobalt hydroxide is a necessary small step in a much longer and more complex journey. The jump from developing the capabilities to make precursors to developing the capabilities needed to manufacture batteries is considerable. However, the production of precursors is a first and very important step toward this ambition, and although it may help generate a small cost advantage in the short term, it will set the stage for longer-term production for other value chain products.

To achieve this, the DRC needs to overcome specific challenges in terms of skills gap, access to finance, and infrastructure such as energy and transport. To address the skills gap, a multi-pronged strategy is required, which will include: i) facilitating access to skilled foreign workers with commensurate requirements for skills transfer programs and obligations; and ii) reinforcing the DRC's own pipeline of skills, starting with STEM skills, with an inclusive focus on women, girls, and the disabled in order to building vocational skills capabilities, and finally improving the pipeline of quality graduates.

If these challenges are addressed, building a battery precursor plant in the DRC could be economic. However the main concerns will be the minimum adjusted rate of return required along with environmental, social, and governance (ESG) risks associated with the sourcing of cobalt ores. While economic and political risks can be mitigated through sound operations and risk insurance, ESG risks are more difficult to mitigate and currently constitute a major deterrent not only to investment in the DRC but also a threat to the use of cobalt EV battery chemistry in the long term.

Looking through the various opportunities, constraints, and country case studies, several specific key recommendations emerge that could support the DRC in capturing greater value addition in the copper and cobalt value chains. These are listed below and detailed along with country examples (CE) in the Recommendations section at the end of the Mining Case Studies chapter.

1. **Improve Infrastructure and Logistics:** Invest in infrastructure development, including transport networks, power supply (by leveraging green resources), and logistics to facilitate the movement of raw materials and finished goods (CE: China and Vietnam).
2. **Accelerate the Development of the Kinsevere Special Economic Zones dedicated to copper and cobalt processing and manufacturing:** These zones should offer incentives such as tax breaks, streamlined regulations, and access to reliable utilities to attract both domestic and foreign investors. Where infrastructure gaps exist, policy makers should be in dialogue with the international community with a view to aligning projects designed to support the government's objectives (CE: China, Ethiopia, Singapore, Mexico).

3. **Encourage Technology Transfer and Research and Forge Public-Private Partnerships:** Promote technology transfer by partnering with international companies or institutions to facilitate knowledge exchanges and enhance local capabilities in copper and cobalt processing and invest in research and development to improve extraction techniques, metal refining processes, and product development for higher value-added applications. The leading European battery manufacturer Northvolt has expressed an interest to the World Bank in developing a relationship with the DRC government, and this could constitute an area of cooperation together with the skills development agenda discussed in the next paragraph. Engage with industry associations, research institutions, and foreign governments to leverage their expertise, networks, and funding opportunities (CE: South Korea, India).
4. **Enhance Skills and Workforce Development**: Invest in technical and vocational training programs to develop a skilled workforce capable of operating advanced machinery, managing production processes, and conducting research. A good way to do this will be to collaborate with educational institutions and industry experts to design training programs that align with the needs of the copper and cobalt value chains (CE: Germany, Malaysia).
5. **Support Access to Financing:** Facilitate access to financing for small and medium-sized enterprises (SME) involved in value addition activities by establishing specialized funds, grants, or loan programs to support entrepreneurs and businesses interested in establishing copper wire and foil production facilities or cobalt-based component manufacturing for electric vehicle (EV) industries (CE: Malaysia, Brazil).
6. **Strengthen Environmental and Social Standards:** Complying with international sustainability standards will enhance the DRC's reputation and attract ethical investors. Operationalization of government plans for the formalization of cobalt mining together with traceability programs could feature as activities under this recommendation (CE: Norway, Costa Rica).
7. **Promote Local Processing and Manufacturing:** Outside the law on special economic zones, the government should encourage local processing and manufacturing by providing incentives for companies to establish production facilities within the DRC. This could be achieved by implementing policies that prioritize domestic procurement for copper wire, foils, and cobalt-based components to promote value addition and create employment opportunities for the local population (CE: Brazil, Thailand).
8. **Support Domestic Market Development and Work Regionally:** Facilitate market development by actively promoting the DRC's value-added copper and cobalt products, first regionally through participation in international trade fairs, and work collaboratively across the Southern African Development Community (SADC) region to support other country's value addition ambitions. Leverage the forthcoming shift in South Africa's automobile manufacturing sector to secure continental demand for the DRC's future value-added products in the EV battery value chain. Explore opportunities for strategic partnerships with EV manufacturers and battery producers (CE: Germany, Kenya).
9. **Establish Clear Regulations and Policies:** Develop clear and consistent regulations and policies that support value addition in the copper and cobalt value chains by providing a transparent, comprehensive and easy-to-access framework for investment and industry growth (with guidelines on licensing, taxation, and export procedures) to create an investor-friendly environment and foster long-term stability in the sector. Ensure that any contracts to be negotiated are standard to avoid unnecessary uncertainty and allow investments into the DRC (CE: United Kingdom, South Africa).

Case Study 2: The Cassava Value Chain

To address food security concerns and build resilience against external shocks, the DRC should promote economic diversification through the development of the agri-business sector by focusing on priority agriculture processing such as the cassava value chain.

The development of key agricultural value chains is an essential step toward economic diversification and food security and an essential contributor to a sustainable and credible macroeconomic framework in the long-term.[1] Despite its huge untapped agricultural potential, the Democratic Republic of the Congo (DRC) is a net food importer, which increases its vulnerability to external and climate shocks. The DRC imports 80 percent of its food,[2] including commodities such as palm oil, which it produced competitively up to the 2000s.[3] With a narrow export basket, the DRC government should tackle the strong agribusiness potential so as to contain its trade imbalance by becoming more food secure and laying the foundations for tackling exports of crops and horticulture, livestock, and fisheries to Sub-Saharan African and European markets. This immense potential is based on: i) an estimated 51 million hectares of unexploited cultivable land; ii) increased food insecurity, which is affecting approximately a quarter of the population in the first half of 2023;[4] iii) climatic and ecological conditions favorable for various agricultural development; and iv) an important and rapidly growing regional market of over 200 million that is young and rapidly urbanizing.[5]

In an effort to rely less on the import of wheat and become more self-sufficient, the DRC government is seeking substitute products so as to become sustainably more food secure. Strengthening the trade balance is an important mechanism for driving economic growth and diversification and reducing poverty, as highlighted in the World Bank report on the Role of Trade in Ending Poverty.[6] As the DRC focuses on its diversification agenda, it has the potential to play an important role in the global cassava value chain from a production and transformation standpoint. Unlocking this opportunity by improving the enabling environment for private sector development, attracting foreign investment faster, reducing administrative costs, and improving productivity can translate into higher tax revenues for the government, improved profitability for enterprises, and more sustainable growth for the sector along with improved employment opportunities for MSMEs and rural workers. This is even more crucial for a country in which approximately 62 percent of the population continue to experience poverty and one in six Congolese continue to live in extreme poverty despite being home to one of the youngest populations in the world.[7]

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[1] Marivoet, Wim, Ulimwengu, John M., and El Vilaly, Mohamed Abd Salam. 2018. "Understanding the Democratic Republic of the Congo's Agricultural Paradox Based on the eAtlas Data Platform." Addis Ababa: International Food Policy Research Institute (IFPRI). http://ebrary.ifpri.org/cdm/singleitem/collection/p15738coll2/id/132259

[2] https://www.trade.gov/country-commercial-guides/republic-congo-agricultural-sector

[3] https://globalpressjournal.com/africa/democratic-republic-of-congo/drc-palm-oil-prices-skyrocket-demand-outpaces-production

[4] https://www.wfp.org/countries/democratic-republic-congo

[5] Country Private Sector Diagnostic (CPSD) (2022) https://www.ifc.org/wps/wcm/connect/publications_ext_content/ifc_external_publication_site/publications_listing_page/cpsd-democratic-republic-of-congo

[6] https://www.worldbank.org/en/topic/trade/publication/the-role-of-trade-in-ending-poverty

[7] https://www.worldbank.org/en/country/drc/overview

The cassava value chain offers untapped opportunities for the DRC to depend less on grain exports and to become a priority agricultural value chain alongside maize and fisheries. In 2021, the country's cassava production was the world's second largest after Nigeria, at 45.67 million tons of fresh cassava and growing at a Compound Annual Growth Rate (CAGR) of 3.91 percent.[8] This important crop is increasingly critical to achieving food security, alleviating poverty, generating employment, adapting to climate change, and balancing trade. Given global economic volatility, the government should take proactive measures to develop the cassava value chain so as to address a rapidly growing population and chronic deterioration in living conditions, which have resulted in an estimated 26.4 million people facing acute food insecurity, 5.7 million becoming internally displaced, and 2.8 million children becoming acutely malnourished in the first half of 2023.[9] In fact, the impact of the war in Ukraine has accelerated the effort to rely less on the import of wheat, become more self-sufficient, and hence further promote the development of agribusiness such as the cassava value chain.

Accelerating the development of an industry around cassava, a climate-resilient crop, will support the DRC's national efforts to enhance both climate change adaptation and mitigation. The DRC ranks 178th out of 182 countries on the 2020 Notre Dame Global Adaptation Index,[10] thus highlighting its high vulnerability to climate change. In addition, several studies such as the 2021 publication by the UNs International Fund for Agricultural Development (IFAD)[11] contend that climate change is projected to reduce grain yields by 30 to 80 percent across the Sub-Saharan region in the coming decades if temperatures continue to rise. By developing this priority value and incorporating climate-smart agricultural methods and technologies, according to FAO Stat, cassava yields can be improved two to four-fold from a yield of 8.15 MT/ha in 2021. Despite cassava's climate resilience, fresh cassava spoils within 48 to 72 hours after harvest, with over 50 percent of the global annual harvest lost on average. Consequently, most farmers, primarily female smallholders, live on under one dollar a day per capita. Once processed, derivative products such as fufu have a shelf life of 18 months. Increasing yields and reducing post-harvest losses can mean 2 to 4 times more revenue for these smallholders. Provided food security is achieved across its territory, the DRC can further take advantage of its strategic location at the center of the African continent and of its borders with nine countries to begin shifting more of its agricultural production, including cassava, toward an export-oriented industry. With rising demand in Western countries, where cassava is becoming a mainstream food ingredient, there is increasing opportunity to target strategic ports in the Netherlands and Belgium that serve as major distribution hubs for most of the continent.

Across priority agribusiness value chains and more specifically for cassava, a national development strategy in partnership with the private sector needs to be coupled with strong coordination and commitment at the national, regional, and local levels in order to effectively address the key challenges and constraints that prevent the DRC, the world's second largest global producer of cassava, from achieving food security for its citizens and eventually tackling export markets. Structural challenges, particularly access to reliable infrastructure (electricity, road transportation, and telecommunications networks) and business environment constraints on micro, small, and medium-sized enterprises (MSME)

[8] FAO Stat. 2021. https://www.fao.org/faostat/en/#data/QCL

[9] https://www.wfp.org/countries/democratic-republic-congo

[10] The ND-GAIN Country Index summarizes a country's vulnerability to climate change and readiness to improve resilience.

[11] https://www.ifad.org/en/web/latest/-/ifad-report-predicts-steep-drop-in-african-staple-crops-by-2050%C2%A0prompting-urgent-call-for-adaptation-funding-at-cop26

negatively affect the growth acceleration required to achieve domestic food security, improve livelihoods and social inclusion, build an export-oriented industry, and cope with the effects of climate change. Establishing partnerships with the private sector is a critical step given that MSMEs employ 88.6 percent of the working population.[12.] Moreover, action plans need to be well-suited to businesses of different sizes, from smallholders to commercial enterprises, in order to create sustained growth acceleration, with a triple win for the public sector, the private sector, and the environment.

The recent World Bank Group agricultural value chains structured interviews undertaken for the CEM analysis[13] confirmed some of the main challenges discussed in the report and associated with the development of a strategic industry such as cassava. These include taxation (fiscal and parafiscal charges), major administration management costs, access to land, infrastructure and logistics, access to financing, women's entrepreneurship, and climate change (among other constraints):

- ***On taxation***, the burden falls disproportionately on the private sector, which unanimously complains of fiscal pressure. About 52 payments are required from businesses per year compared to an average of 37.4 in Sub-Saharan Africa, and the total tax rate is 54.6 percent of profits compared to 46.8 percent in the rest of Africa and 39.8 percent in OECD countries. This creates administrative management complexities that result in another 20 to 35 percent in costs for accounting and legal fees in order to keep up with administrative forms and fees.
- ***On land access***, all participants surveyed agreed that the main obstacles to access to land included: i) the high cost of purchasing land; ii) land ownership security; iii) the frequency of land conflicts, which may affect land tenure security; and iv) infrastructure challenges associated with farmland development.
- ***On infrastructure constraints***, electrification, irrigation, and post-harvest road transport conditions and logistics remain major obstacles to moving beyond subsistence agriculture.
- ***Regarding access to financing*****,** only 30 percent of commercial farmers and processors had a loan in progress. Another 30 percent stated that they could not take out a bank loan either with a traditional bank or with a microfinance institution, a challenge for the majority of MSMEs.
- ***Regarding gender specific challenges***, the main constraints that limit women's access to entrepreneurship are: i) poor access to financial resources; ii) lack of autonomy of decision compared to men; iii) lack of entrepreneurial training; iv) fear of sexual harassment; and (v) difficult access to financing.
- ***Lastly, to mitigate the effects of climate change*** and its impacts on productivity and profitability, farmers, especially smallholders, tend to adapt by favoring short-term solutions that may not always provide them with sustainable results when it comes to crop rotation, disease outbreak control, land fertility, water management, flooding prevention, and weather forecasting.

[12] World Bank Group. 2022. Country Partnership Framework for the Democratic Republic of Congo for the Period FY22–26. Washington, DC.

[13] In collaboration with the International Finance Corporation (IFC).

The below table summarizes policy recommendations over time.

Priority Policy Recommendations

Quick Win
Define an enabling business-friendly environment so as to accelerate private investments in priority value chains
Reduce the fiscal burden and streamline administrative procedures to promote access to land and private market development and hence MSME sustainable growth in the priority value chains
Improve access to financing tailored to MSMEs from smallholders to commercial producers and aggregators
Strengthen the capacity of existing entrepreneurship support and tailor entrepreneurship programs to vulnerable groups, including women and young people
High Priority
Accelerate the country's infrastructure modernization and digital transformation, including that of priority agricultural value chains
Expand specialized economic zone (SEZ) development and access so as to attract more foreign investment
Catalyze market development opportunities to promote regional integration within and outside the country
Expand climate change adaptation programs

CHAPTER 1

ECONOMIC DIVERSIFICATION: MACROECONOMIC STORY OF CURRENT AND FUTURE GROWTH DRIVERS

The mining town of Kolwezi the capital of Lualaba Province in the southern part of the Democratic Republic of the Congo (DRC). October 2022. By EdwinAlden.1995. Under Creative Commons license

Chapter 1: Economic Diversification: Macroeconomic Story of Current and Future Growth Drivers

1.1. Country Context

1. **Despite its rich endowment in natural and human resources, the Democratic Republic of the Congo (DRC) has struggled to reach its full economic potential, partly due to persistent high levels of vulnerability and fragility.** Decades of conflict, poor governance, weak fiscal institutions, mismanagement of natural resources, and protracted conflict and violence have led to limited progress in building human and physical capital, which has resulted in economic underperformance and high levels of poverty. The DRC economy remains highly dependent on mineral extraction and thus vulnerable to commodity price movements and growth performance in its major trading partners, which might be disturbed by geopolitical conflicts and the resurgence of pandemics. In addition, despite its huge untapped agriculture potential, the DRC is a net food importer, which further increases its vulnerability to external and climate shocks and exacerbates its food insecurity. Structural constraints have fostered a large informal economy and hindered the development of the private sector and its capacity to provide the goods and services the economy needs.

2. **Recent noticeable efforts in stabilizing the economy and boosting economic growth have been undertaken, with limited structural transformation and little to no poverty reduction at national level and in rural areas in particular**. Years of expanding economic activity – an average annual GDP growth rate of 5.6 percent over the past two decades – have only resulted in a modest decline in the poverty rate, from 69.3 percent in 2005 to 64 percent in 2012. Despite a further decrease (4.3 percentage points) between 2012 and 2018, poverty remains widespread, with relatively high inequality. This is partially exacerbated by high population growth, with the number of poor people increasing by 6 million, reaching nearly an estimated 60 million in 2022, and significant regional disparities, ranking the DRC second in terms of high numbers of extremely poor in Sub-Saharan Africa. Hunger and stunting outcomes are very high in the DRC, and more so in rural areas. All of the above constrain much-needed human capital accumulation that is highly beneficial for structural transformation.

3. **Looking ahead, a pathway toward economic diversification through structural transformation can only be paved by reducing constraints, promoting incentives, enabling private sector innovation and making resources available for economic activity.** Significant barriers to the growth and competitiveness needed to deliver this economic transformation in the DRC persist. Improving the business environment and closing gaps in infrastructure (including connectivity) and human capital are needed to achieve economic diversification and reduce commodity dependence. However, macro- and micro-challenges cannot be addressed by the DRC government alone and require external public and private partners' involvement to place the country on a strong and sustainable growth path. The business environment as well as addressing market failures are mounting challenges for private sector development. Among binding constraints, the Systematic Country Diagnostic (SCD 2017) listed governance and institutions, access to finance, poor quality and high cost of inputs, lack of infrastructure, and unfair competition.

4. **The DRC authorities are strongly engaged in building economic resilience and are currently revising the Strategic National Development Plan (PNSD) to take into account external shocks to the economy**. Following the impact of the COVID-19 crisis and the war in Ukraine on the DRC economy, the government launched the process of revisiting and extending the current PNSD (2019-2023) and initiating a new strategic and programmatic planning cycle for the period 2023-2027. The objective is to cover a wide

range of development areas and address challenges specific to the DRC. The revised PNSD will also seek to build on the country's natural assets and resources, such as its mineral resources, landscapes, ecology, and greenspaces, while integrating and encouraging a more sustainable and carbon-considerate way of living. The findings and recommendations of the present CEM are expected to further inform the revised PNSD.

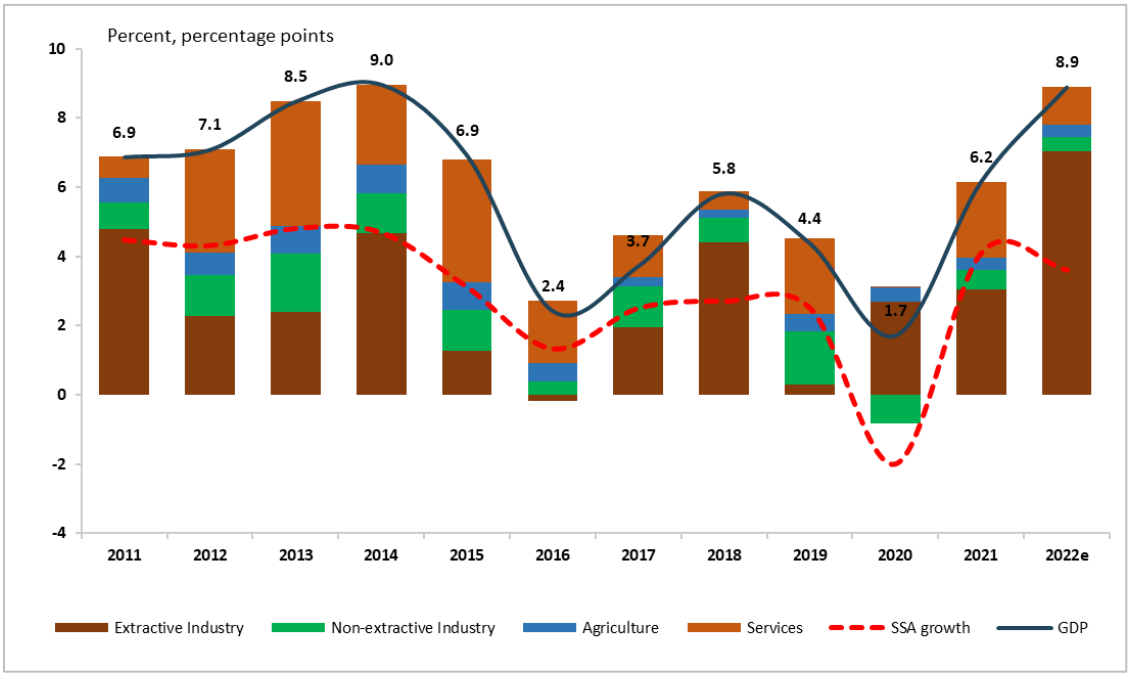
5. **The purpose of this chapter is to analyze the DRC's growth performance and potential to foster inclusive growth and to identify constraints to economic diversification and specialization in key sectors in order to foster inclusive growth**. The analysis will consider lessons learned from the DRC's economic development over recent decades as well as lessons from other structural and aspirational peer countries. It will include an analysis of: (i) potential GDP growth, growth drivers, and patterns; and (ii) constraints on the creation and expansion of firms.

1.2. DRC's Current Growth Trends and Drivers

6. **Over the past two decades, the DRC Economy has experienced remarkable growth, associated with a significant return to macroeconomic stability**. Since 2002, the DRC economy has enjoyed its longest continuous expansion after the country suffered from the impact of two major wars during the 1990s and early 2000s. The unsustainable nationalization (called "Zairianization") and radicalization policies followed during the 1990s had disastrous effects on the economy through poor agricultural production, hyperinflation, unemployment, and shortages of basic goods, all of which led to a contraction of -5.3 percent of GDP in 1990-2001 and millions of lives lost. The end of the war in 2002 coincided with a recovery in mining prices on international markets. This fostered a rise in real GDP growth in the DRC that accelerated at an annual average rate of 5.6 percent a year in 2002-2021 (Figure 1.1), offering opportunities for rising public and private investments and sound macroeconomic policies. The DRC economy has maintained this strong growth momentum and demonstrated greater resilience to external shocks, supported mainly by the mining sector's performance. After a slowdown to 1.7 percent in 2020 due to the adverse effects of the COVID-19 pandemic, growth picked up to 8.9 percent in 2022 following recovery of about 6.2 percent in 2021 as mining production expanded strongly.

7. **Growth over the past decade has been driven primarily by expansion of output in the extractive industry, which spilled over to the construction and services sectors**. During 2012-2021, extractive activities expanded by 8.9 percent per year as a result of the increase in the price of major commodities exported by the DRC. Cobalt production increased from 3,570 tons in 2001 to 93,011 tons in 2021 while copper increased over 50 times, from 30,821 tons in 2001 to about 1,800,000 tons in 2021. With cobalt and copper accounting for about 80 percent of DRC exports in 2012-2021, the extractive sector's overall contribution to growth represented over 40 percent of total growth (Figure 1.1). In addition, GDP growth in the non-extractive sector also accelerated by 4.5 percent per year on average during 2012-2021, driven in part by the construction and services sectors. The construction sector was boosted by the government's efforts to address challenges related to poor infrastructure (roads, energy, and transport). A closer look at the service sectors shows a significant expansion in the telecommunications sector since its liberalization in 2002, while the trade and commerce sector benefited from macroeconomic stability and improving business and regulatory environments. Employing more than 70 percent of the total labor force, the agricultural sector has been growing at 3 percent per year since 2002, showcasing its limited productivity since it remains predominantly in subsistence agriculture, catering to local markets, all still facing security and connectivity concerns in rural areas.

Figure 1.1. Real GDP growth and contributions to real GDP growth (%).

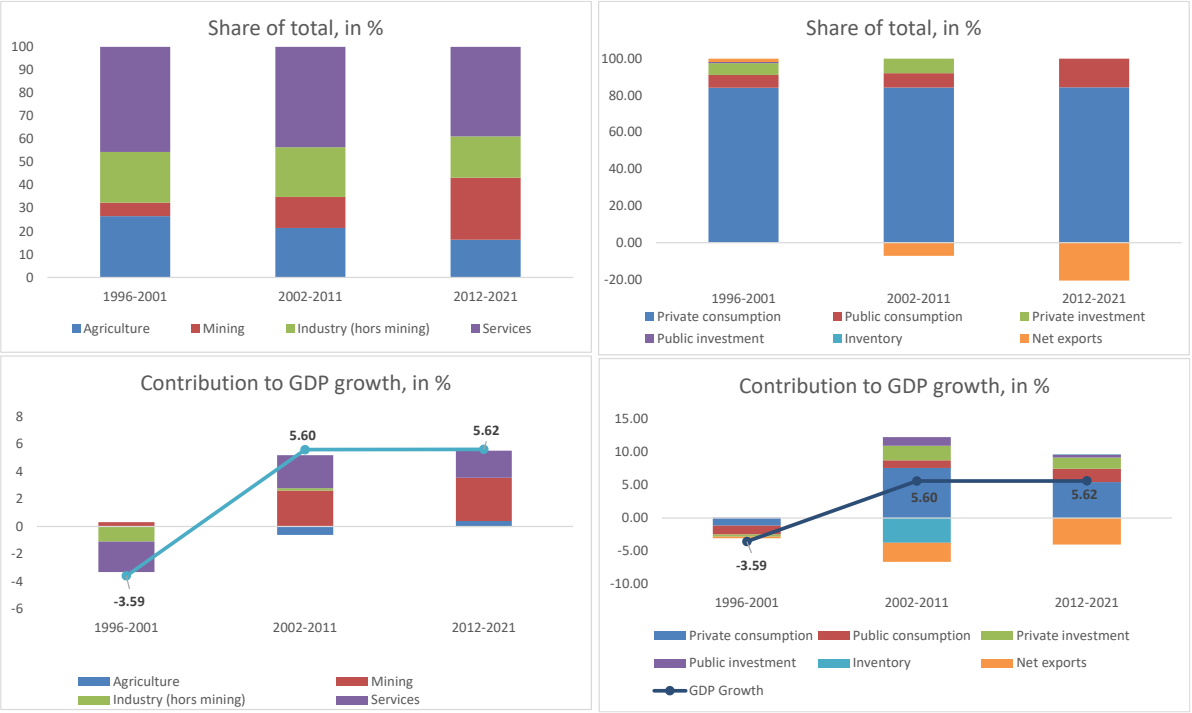


Sources: DRC Statistical Authorities, World Bank

8. **In addition, sound macroeconomic policies have supported macroeconomic stability and aggregate demand.** The government's commitment to restoring macroeconomic stability and liberalizing the economy in the early 2000s allowed for a break in the vicious cycle of hyperinflation encountered in the 1990s and laid the foundation for a recovery in economic growth. One of the important actions undertaken was to stop the monetization of the fiscal deficit, thus limiting the strong influence of the public finances on monetary policy. As a result of the cash-based management policy, the inflation rate declined from over 500 percent in 2000 to 135 percent in 2001 before being contained at around 14.1 percent over the period from 2002 to 2022. Recently, inflation accelerated from 5.3 percent in 2021 to 13.1 percent at end 2022 (averaging 9.2 percent in 2022) owing to elevated prices of imported food and oil due to the war in Ukraine. The Central bank has opted for a tight monetary policy to anchor inflation expectations and to keep the exchange rate at a relatively stable level.

9. **Private and public consumption and investment supported the positive growth trend**. Expansionary investment, both public and private, largely in public infrastructure and the mining sector underpinned the increase in output. Private consumption led growth, supported by the sharp slowdown in inflation in the context of the resumption of economic activity after the war period coupled with higher demand resulting from increased government expenditure. Net exports of goods and services contributed only marginally to growth as the expansion of mining exports was offset by an increase in imports, mainly due to large domestic demand for food and capital goods (including services) and higher prices of imported foods and energy (Figure 1.2).

Figure 1.2. Real GDP growth and decomposition.

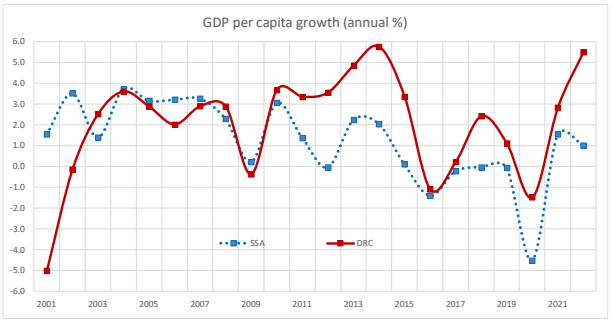


Source: World bank staffs based on the WDI

10. **The DRC's economy has even been among the fastest-growing Sub-Saharan African (SSA) economies over the last decade.** With real GDP growth accelerating at an annual average rate of 5.8 percent since 2002 against a contraction of 4.9 percent in 1992-2001, the DRC economy is among the fastest-growing Sub-Saharan African (SSA) economies, outperforming the SSA average by 3.3 percentage points. Growth in the DRC was estimated at 6.2 percent in 2021, exceeding the average 5.1 percent for mineral and metal resources-rich countries such as Botswana, Zambia, South Africa, Mauritania, Liberia, Niger, etc. Only countries such as Ethiopia, Côte-d'Ivoire, Rwanda, Guinea, Ghana, and Tanzania saw their average annual growth rate exceed the DRC's economy during this last decade.

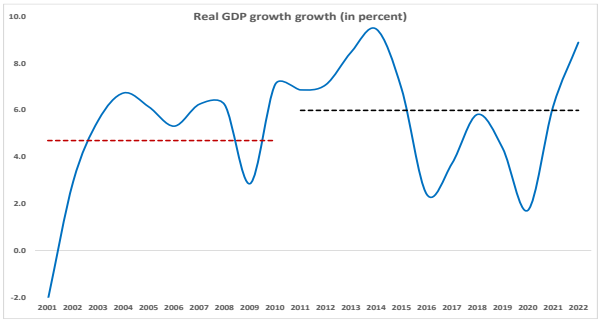
Figure 1.3. DRC: Key growth trends and poverty.

a. GDP per capita growth (%): DRC vs SSA



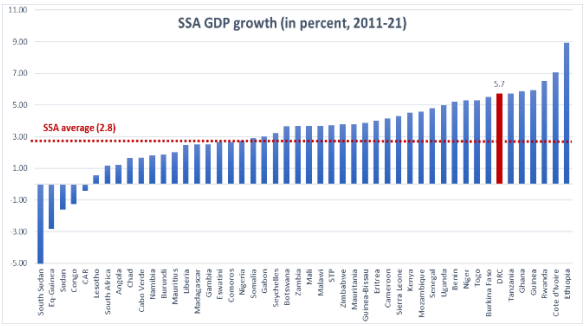
Source: World Development Indicators

b. Long-term real GDP growth (%)



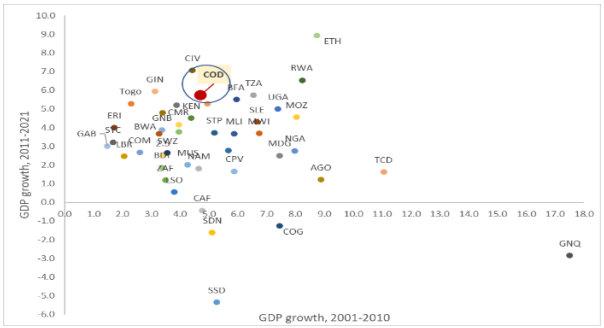
Source: World Development Indicators

c. GDP per capita growth (%): DRC vs SSA



Source: World Development Indicators

d. Real GDP growth (%): DRC vs SSA

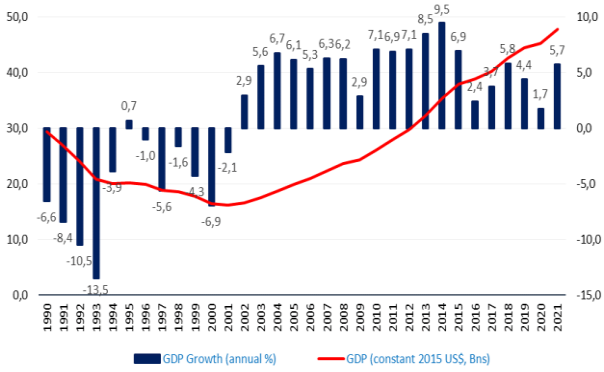


Source: World bank MPO

11. **Despite this growth revival, DRC has shown a lower catch-up pace than its peer countries** (**Figures 1.3c-1.3d**). As one of the fastest-growing SSA countries, the DRC economy has yet to recover from the deep losses of previous decades. Figure 1.3d shows a steep rise in GDP per capita since 2012 compared to its historical performance and relevant peers. Despite the DRC's growth being higher than the average of its peers, its real GDP index remains the lowest, reflecting the DRC's need to reach a faster catch-up phase in its growth. According to the SCD, the high growth experienced in the past few years in the DRC was the result of convergence toward average incomes in the world economy (the *catch-up effect*) rather than a dynamic growth path that could have led to substantial poverty reduction. The catch-up effect resulted from a combination of a commodity price super cycle, the implementation of sound economic policies and structural reforms, and massive foreign aid.

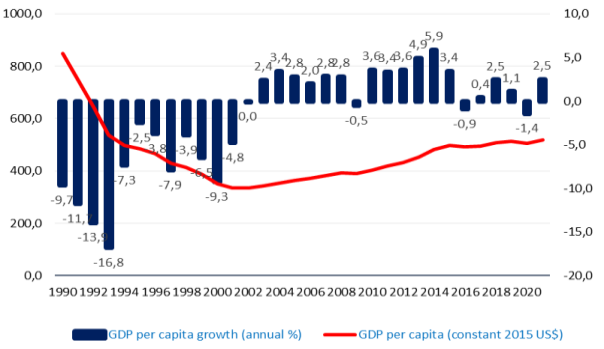
Figure 1.4. Real GDP, Real GDP per capita, and growth trends.

a. DRC: GDP Growth (in % - Right) and GDP (Left-Constant 2015 USD, Bns)



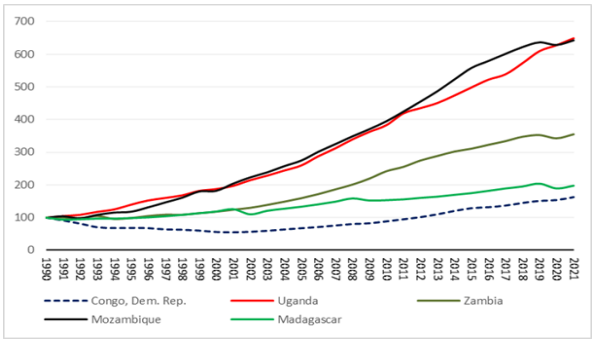
Source: World Development Indicators

b. DRC: GDP per capita growth (in % - Right) and GDP per capita (Left - Constant 2015 USD)



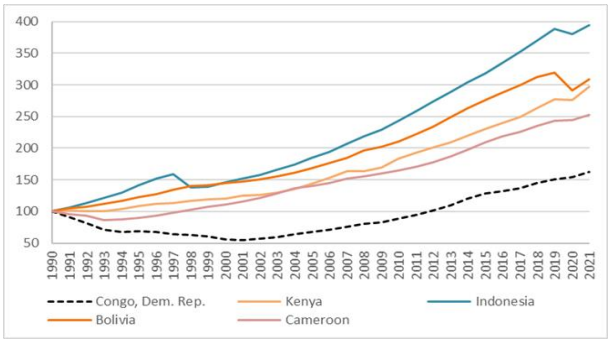
Source: World Development Indicators

c. GDP Index by Country (1990 = 100), DRC and structural peers, 1990-2021



Source: World Development Indicators

d. GDP Index by Country (1990 = 100), DRC and aspirational peers, 1990-2021

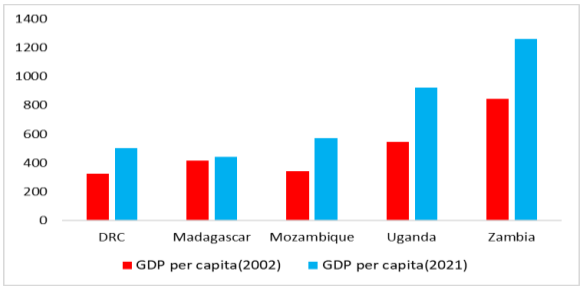


Source: World Development Indicators

12. **The DRC has made little progress in bringing back its GDP per capita to its 1960 level, with a less than impressive performance compared to its peers.** Figures 1a and 1b show a return to growth in the DRC since 2002, leading to positive growth per capita that averaged about 2.4 percent yearly in 2002-2021 (from -8.2 percent in 1990-2001). However, high population growth prevented further gains of this growth momentum, which was insufficient to meet the development challenges. After declining by about 3.1 percent per year on average in 41 years from USD 1,255 (in constant 2015 USD) in 1960 to USD 323 in 2001, the GDP per capita increased significantly to USD 501 in 2021. However, this still represents only 40 percent of the level of 1960. At the current pace of growth per capita (about 2.2 percent on average in 2002-2021), it will take the DRC 43 years to reach its 1960 level. This contrasts strongly with most of its structural and aspirational peers, which maintained a positive trend (except Madagascar). More specifically, over 2011-2021, real GDP per capita in the DRC was 40 percent lower than that its structural peers (Madagascar, Mozambique, Uganda, and Zambia) and 80 percent lower than its aspirational peers (Bolivia, Cameroun, Kenya, Indonesia, and Nigeria).

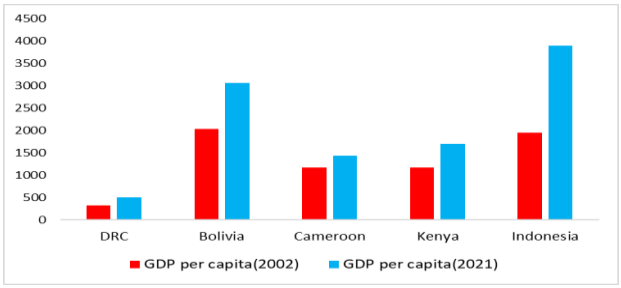
Figure 1.5. DRC VS peers: GDP per capita in USD (2002 vs 2021).

a. GDP per capita (2002 vs 2021): DRC vs Structural peers



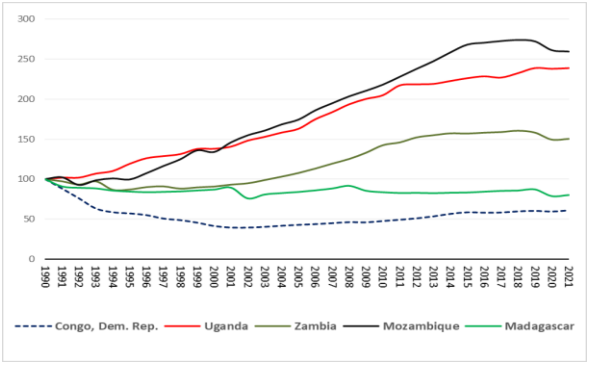
Source: World Development Indicators

b. GDP per capita (2002 vs 2021): DRC vs Aspirational peers



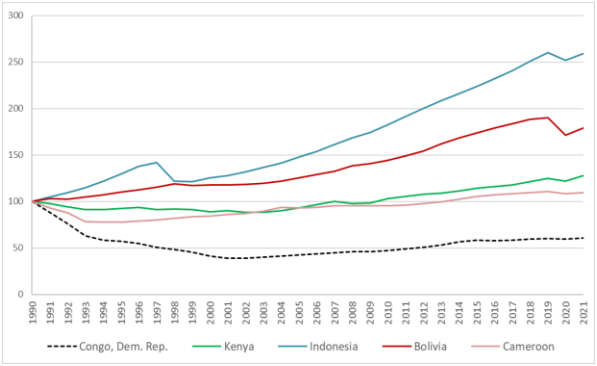
Source World Development Indicators

c. GDP per Capita Index by Country (1990 = 100), DRC and structural peers, 1990-2021



Source: World Development Indicators

d. GDP per Capita Index by Country (1990 = 100), DRC and aspirational peers, 1990-2021



Source: World Development Indicators

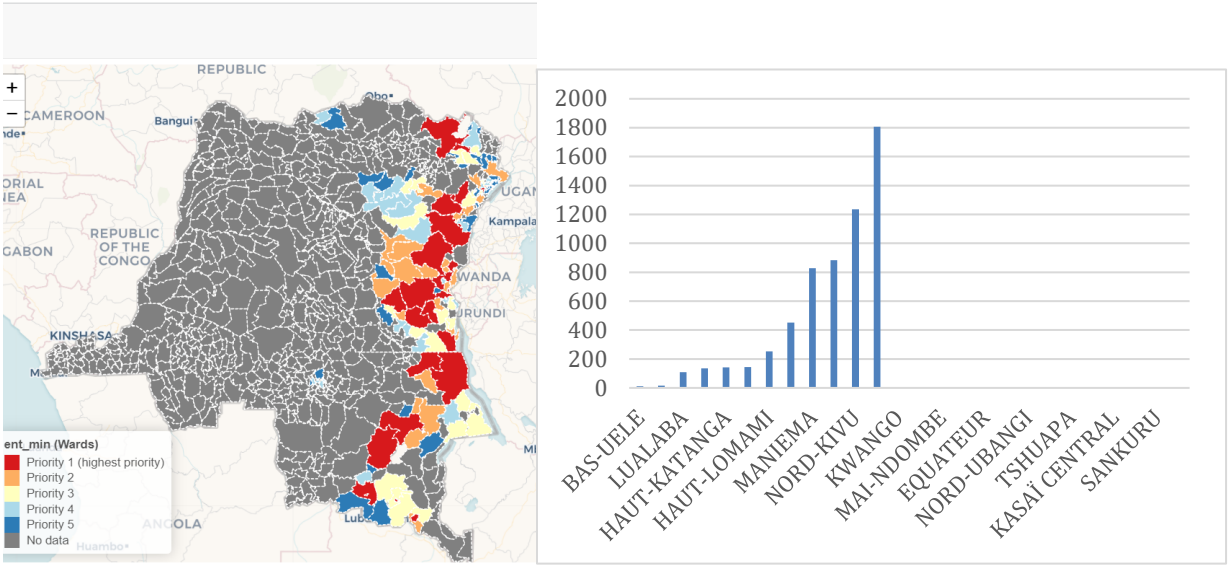
13. **The DRC's economy remains challenged by high levels of informality**. About 60 percent of operators are estimated to be informal. According to the 2019 Enterprise Census, as many as 98 percent of firms are informal. High levels of informality affect tax collection, worker security, and the potential for the economy to engage in long-term investment. With limited formal wage employment opportunities, high levels of insecurity, and negligible public investments, DRC households rely upon other societal groups such as families and other networks to secure income and livelihoods in addition to remittances from the diaspora.

1.3. Why Does Economic Diversification Matter for the DRC?

14. **The DRC's growth levels have not lived up to the full potential of the country's resources to improve living conditions.** Two decades of economic performance did not translate into improvements in the lives of most people, with an estimated 60 million continuing to live in poverty as of 2022. Despite the DRC's considerable economic potential, including its rich endowment in natural and human resources, the country's economy remains concentrated in a few sectors, including mining and export of raw minerals. According to several World Bank analytical reports, this is driven by an insufficient growth rate that failed to lead to substantial poverty reduction but also to the sources of growth and the management of natural resources, the existence of several binding constraints on sustainable inclusive growth, and insufficiently leveraging public policies to promote inclusive growth and address the low poverty elasticity of growth.[14] In such a context, economic diversification, in particular in exports, is more crucial than ever in fostering more job creation, building resilience, and sustaining the high growth rates necessary to significantly reduce poverty and inequality (SCD, 2018).

[14] Aterido, Alvaro Gonzalez, Dino Merotto, Carly Petracco, and Javier Sanchez-Reaza. 2017. "Democratic Republic of Congo: Jobs Diagnostic." World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO; and DRC SCD (2018).

Figure 1.6. (a) Mining wards and number of firms (formal and informal), (b) number of mining sites.



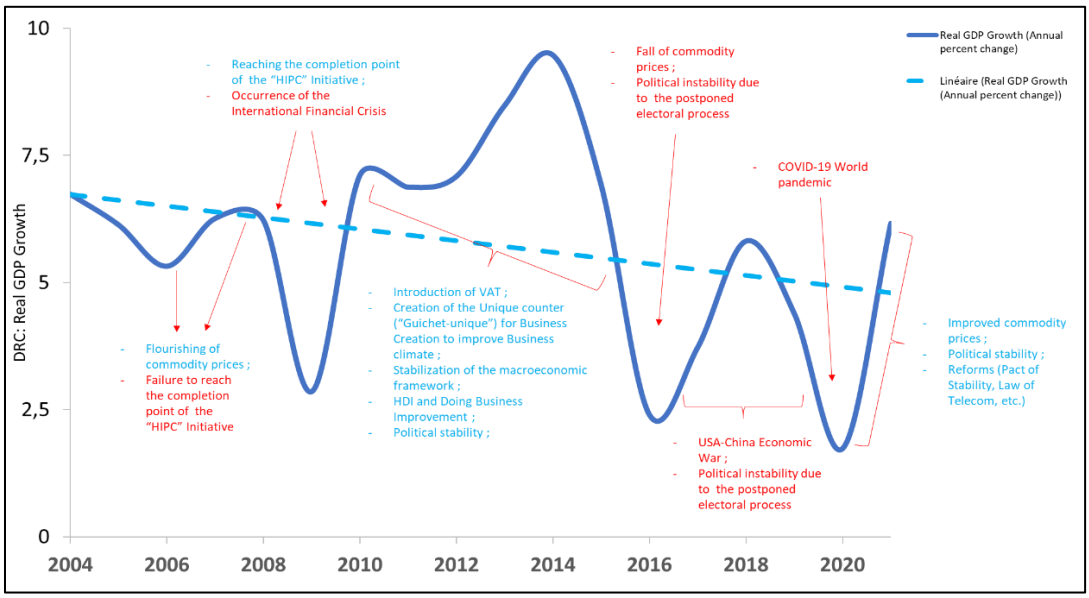
Source: (a) Poverty & Equity DRC Observatory's Project Targeting Index; (b) IPIS[15]

15. **Greater diversification of trading partners and products, including along the mining sector value chain, is required to build up resilience and sustain high growth rates.** The high level of exports (35 percent) and the concentration of exports by market (40 percent to China) and product (90 percent for oil and mining) exposes the economy to the volatility of commodity prices and to swings in the GDP of trading partners.[16] This susceptibility to shocks was illustrated by major falls in commodity prices in 2009, 2016, and 2019 and more recently geopolitical conflicts and the COVID-19 global pandemic, which also led to the downturns observed during the last two decades (Figure 1.7). Volatile commodity prices are impinging on growth and compromising further reductions in poverty. In terms of diversification within the mining sector, robust interventions will be needed for the DRC economy to benefit from increasing global demand for the strategic minerals the country possesses. A mining boom could have important impacts on jobs across the spectrum, particularly in services, as well as adding jobs for women. As recorded during the 2019 Enterprise Survey, about 28 percent of all firms in the DRC are in the same wards where at least one mining site is present. In the same wards, 13 percent of firms are active in agriculture, 20 percent in industry, and 28 percent in services while 26 percent are active in other segments. Furthermore, these wards employ 25 percent of the whole female workforce.

[15] https://ipisresearch.be/fr/home/cartes-donnees

[16] Bou-Habib, Chadi, and Ephraim Kebede. 2016. "Democratic Republic of Congo: Product and Market Concentration and the Vulnerability to Exogenous Shocks." Policy Research Working Paper, No. 7700. Washington, DC: World Bank.

Figure 1.7. DRC: Growth dynamic in the context of shocks.



Source: World Bank staff

16. **A more diversified and job-rich growth path is required to accelerate poverty reduction.** Diversification could be realized along the value chain of mining, agriculture, manufacturing, services, and trade in general provided the country improves its investment climate. According to the Job Diagnostic undertaken for the DRC, commercial agriculture may have the potential to create wage-paid work and can also be a stimulus for both off-farming service jobs (in transport, storage, packing houses, and trading) and agro-processing jobs. With over 60 percent of employment concentrated in agriculture, the potential gains from increasing the low level of agricultural productivity and facilitating the movement of workers are large. In addition, the government could also consider mapping value chains in manufacturing and agribusiness that have the most potential for job creation through their linkages abroad.

17. **Economic diversification is also an essential step in the long-term commitment to a sustainable and credible macroeconomic framework**. According to the SCD, to promote long-term development objectives and increase the country's resilience, the DRC needs to adopt and enforce credible legal, administrative, and institutional frameworks to improve its domestic revenue mobilization from the natural resources sector in order to remove infrastructure bottlenecks and enhance human capital needed to diversify the economy. Solid and more diversified growth will not only offer the opportunity to put the country's current underdevelopment onto a sustainable path of growth but will also foster resilience and the credibility of the macroeconomic framework over the next decade.

1.4. Constraints on Growth and Diversification and Labor Productivity Challenges

18. **The DRC's growth levels have not lived up to the full potential of the country's resources due to multiple constraints and sources of shocks faced by the country in the past two decades.** The DRC's susceptibility to shocks highlights the need to strengthen its economic resilience and to focus on diversifying the economy. To achieve this diversification, the country will need long-term investments in infrastructure and human capital as well as overcoming institutional and structural weaknesses, including the lack of human and financial resources.

1.4.1. Constraints on Economic Diversification

This sub-section briefly summarizes the major constraints on diversification. A more detailed analysis along with policy recommendations is provided in Chapter 2.

19. **Building resilience and sustaining high growth rates to significantly reduce poverty and inequality will require unlocking** investments in infrastructure and human capital as well as overcoming institutional and structural weaknesses. This includes the lack of human and financial resources. The low share of generated capital reflects the country's infrastructure deficit, which is limiting competitiveness for the private sector and constraining economic diversification. The DRC SCD (2018) identified three broad pathways to attaining twin goals: (1) building the resilience of the macro-fiscal and institutional frameworks; (2) building human capital; and (3) building infrastructure and boosting private sector development.

20. **The governance and business environment are constrained by excessive regulations, multiple taxes, parafiscal charges, and trade impediments, all of which limit business creation and growth**. Over the last decade, the DRC has made improvements in governance. Unfortunately, many of these improvements to the business environment have not translated to material improvements, and progress is still considered slow. The World Bank SCD also suggests that the DRC has improved in voice and accountability since the first decade of the 2000s. The DRC is ranked 169th out of 189 countries in the Transparency International Corruption Perception Index (CPI), that is, a score of 19/100. In addition, the DRC scored 3.85 in government effectiveness, 6.25 on regulatory quality, 3.37 on the rule of law index, and 3.81 on stability and absence of violence.[17] On the taxation and parafiscal side, paying taxes is complex and convoluted, less because of the levels of taxation but largely because of the number and complexity of taxes and para-fiscal charges businesses are required to pay. This raises limited revenues for the government while creating significant barriers to private sector expansion. In addition to the heavy burden of paying taxes, a cumbersome business licensing process and a multitude of regulations create disincentives for private investment and formalization of businesses.

21. **The poor state of infrastructure represents a major constraint on sustainable and inclusive growth as well as service delivery.** Gaps are particularly wide in road transport, thus hindering market access, internet connectivity, electricity supply, and access to water supply and sanitation (WSS) services. These are visible in urban areas[18] and especially in rural areas. The historical multimodal transport network (rail, road, water) is no longer operational for connecting firms to domestic and global markets (both for imports and exports). Only six of the twenty-six provincial capitals can be reached by road from Kinshasa, and only 5 percent of the road network is paved, with about 14 percent in good condition.[19] Broadband fiber optic infrastructure remains patchy and largely concentrated on the Kinshasa-Lubumbashi corridor, while affordable satellite connectivity that could help to connect remote rural areas is currently unavailable. In parallel, the energy sector is a nationwide problem despite the DRC's colossal endowment in hydropower capacity. The overall electricity access rate in the DRC is a mere 19 percent.[20] Wide

[17] These numbers are from 2015, and most have since improved or decreased. However, they were all taken from the recent DRC Systemic Country Diagnostic (SCD) of 2018, immediately before the current DRC administration.

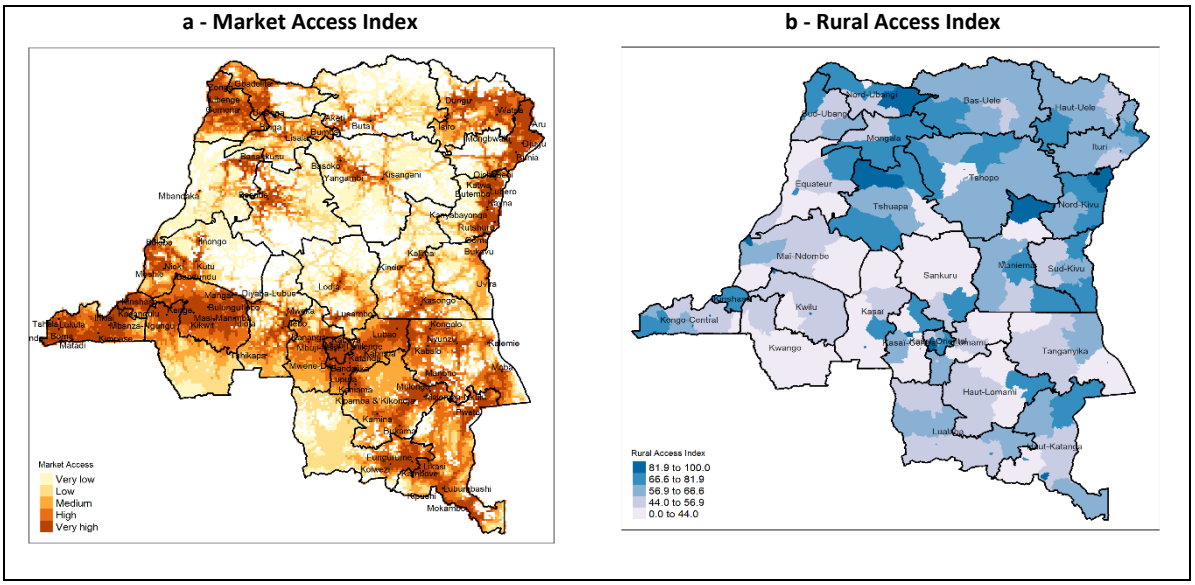
[18] DRC Systematic Country Diagnostic: Policy Priorities for Poverty Reduction and Shared Prosperity in a Post-Conflict Country and Fragile State, World Bank, 2018.

[19] DRC Country Partnership Framework for the period FY22-26, World Bank, 2022.

[20] Increasing Access to Electricity in DRC – Opportunities and Challenges, World Bank, 2020.

geographic disparities in access are also noteworthy, as only 1 percent of rural dwellers have access to electricity compared to 45 percent in urban areas such as Kinshasa.[21] Industry, mostly the extractive industry, accounts for the largest share of electricity consumption, representing 55 percent of DRC demand, followed by 35 percent for residential and 10 percent for other commercial uses and services.

Figure 1.8. (a) Market Access Index and (b) Rural Access Index.

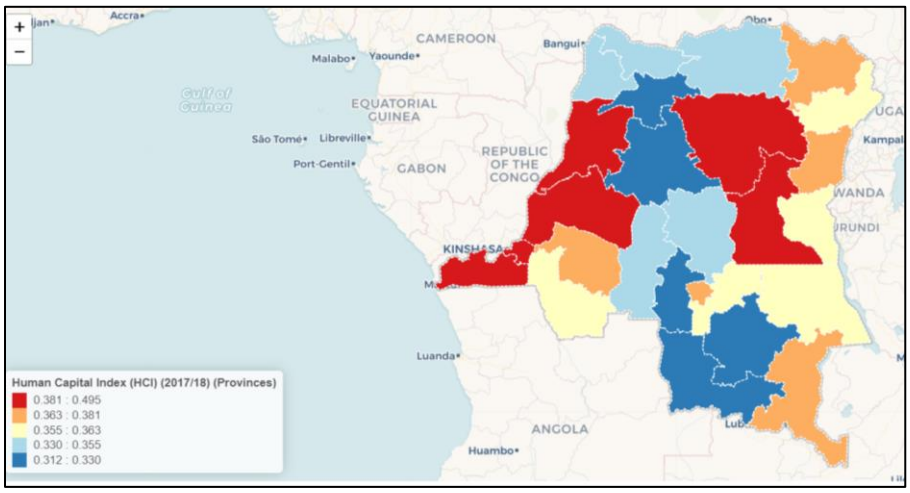


Source: Poverty & Equity DRC Observatory's Project Targeting Index

22. **The current state of human capital and gender gaps are also critical constraints on economic diversification**. Low human capital leads to low labor quality and productivity. For instance, in 2020, the DRC's 2020 Human Capital Index (HCI) score was 0.37, below the 0.40 average for SSA. This means that a Congolese child born today can expect to achieve only 37 percent of his or her productive potential as an adult. The poor health of workers affects their productivity, while the prevalence of pandemics combined with poor health services is a deterrent to investors and tourists. Gender inequalities exacerbate the situation; while the HCI for girls is the same as for boys, gender-based differences and wide disparities exist, especially in some human capital components such as education and health. Poor human capital accumulation in the DRC is largely due to several factors: (i) a weak education system underscored by poor school environments, lack of teacher effectiveness, poor school infrastructure, and low learning outcomes; and (ii) a high child stunting rate of about 42 percent during the past two decades. The skills shortage and the mismatch between the outputs of the education system and the needs of the labor market contribute to high youth unemployment. With only 15.4 percent mobile broadband penetration, weak ICT technology infrastructures are a barrier to leveraging digital services and innovation, expanding access to education, and improving the quality and relevance of education and competencies required for the creation of goods and services. Despite some improvements in recent years, the quality of education needs to improve for the Congolese population to be competitive by international standards.

[21] Country Partnership Framework for the DRC for the period FY22-26, World Bank, 2022.

Figure 1.9. Human capital index across the DRC.



Source: Poverty & Equity DRC Observatory's Project Targeting Index

1.4.2. Jobs and Weak Dynamic of Labor Productivity

23. **The DRC is simultaneously experiencing an increase in the working-age population while labor force participation is low**. The projected share of the working-age population is 51 percent of the population in 2022. This translates into the country having about 50 million young Congolese joining the labor market in 2022 and nearly 60 million in 2030 (according to UN projections) – about 8 million more, as about 1 million young Congolese join the labor market every year. However, the size of the labor force is typically about two-thirds of the working-age population. Overall, the DRC's labor force was estimated at 33.4 million, ranking above all its peers except for Indonesia, with an active population of over 138 million. Only two-thirds of the working-age population is employed, while only 2.2 percent is unemployed. This means that almost one-third of the working-age population is out of the labor force. Thus the country needs to create productive jobs for a sufficient portion of the working-age population in order to harvest the demographic dividend.

24. **Moreover, employment in the DRC has remained concentrated in sectors with low productivity and income gains.** Over 60 percent of workers continue to be locked in agriculture, which contributes only about 15.5 percent of total output, reflecting the low level of potential gains in labor productivity in the sector. This is especially true since the sector is dominated by small-scale and subsistence farmers. However, the increase in value added per worker needed in agriculture requires shedding labor and introducing capital. In parallel, although employment in industry has expanded, it remains small—roughly 3.3 million jobs out of 28 million in total. This reflects in part the dominance of capital-intensive mining in the industrial sector. Industrial value added per worker in 2018 was several times larger than that of agriculture, and the gap with respect to services was even larger (Figure 1.10). Moreover, excess labor in the agriculture sector is unlikely to be fully absorbed by industry and services, which are both creators of more and better jobs. Thus, the need to increase productivity is fundamental for job creation and to increase the country's wellbeing through better wages and economic growth.

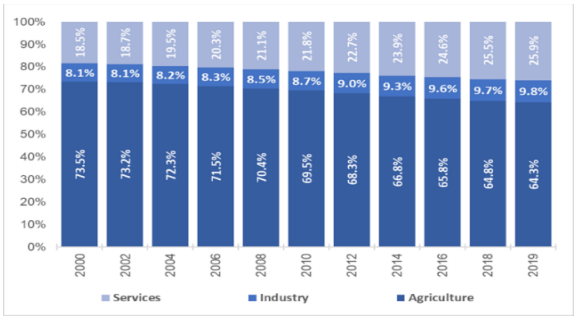
25. **However, the DRC's low level of labor productivity in growth-driving sectors has been an impediment to job development (Figure 1.10).** Between 2000-2021, though employment expanded across sectors in the DRC economy, labor productivity performance varied across sectors and was almost entirely responsible for growth. The productivity of the extractive industry – the key driver of economic

growth and representing around 26.5 percent of GDP – rose with real price increases in copper and cobalt, but its capital-intensive nature likely limited its contribution to job creation. Although the services sector is developing fast and accounts for the largest share of GDP with 37.8 percent (CPSD, 2022), its labor productivity remains weak, being essentially concentrated in the informal sector. In fact, productivity compensated for shortcomings in both the labor market and demographic change and saw a significant change in the direction of its contribution to growth from a negative effect in the early 2000s to a positive one the following years. Yet productivity remains low compared to other countries in the region.

26. **The need to increase productivity in agriculture could deliver better farming and off-farm jobs.** Gaps in labor productivity between sectors are wide. With over 60 percent of employment affecting agriculture, potential gains from increasing the low level of agricultural productivity and facilitating the movement of workers to non-agricultural work are large. Those non-agricultural jobs could mean either further urbanization and its benefits or off-farm jobs in higher value-added agriculture. Commercial agriculture may also have the potential to create waged work and can be a stimulus for both off-farming service jobs (in transport, storage, packing houses, and trading) and agro-processing jobs.

Figure 1.10. DRC: productivity, employment, and the jobs market.

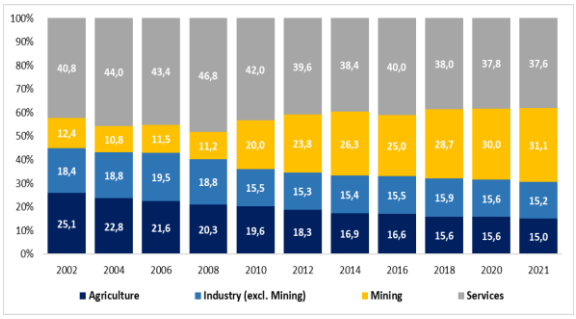
a. DRC: Employment shares by major sector (2000-2019)



Source: Macro Poverty Outlook and WDI

Note: Total employment is sourced from the MPO and employment shares from the WDI based on ILO estimates. The working-age population is assumed to be ages 15-64.

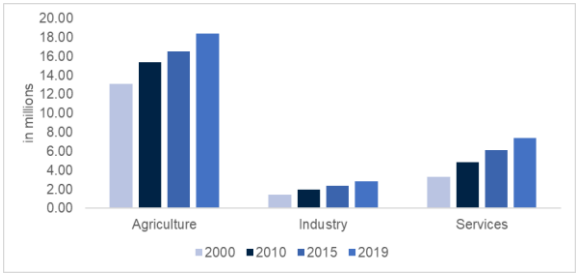
b. DRC: Value-added shares by major sector (2002-2021)



Source: Social National Account and WDI

Note: Based on data from the SNA. Value added is measured as Gross Domestic Product (GDP) in constant 2005 CDF.

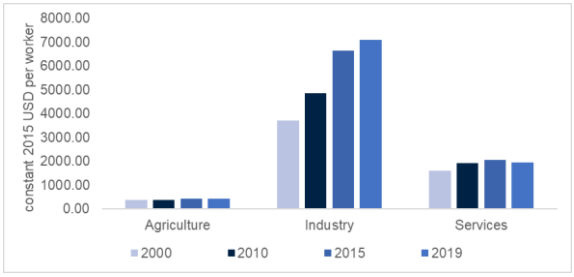
c. DRC: Employment by sector (in millions), 2010-2019



Source: Macro Poverty Outlook and WDI

Note: Total employment is sourced from the MPO. Employment shares from the WDI based on ILO estimates. The working age population is assumed to be ages 15-64.

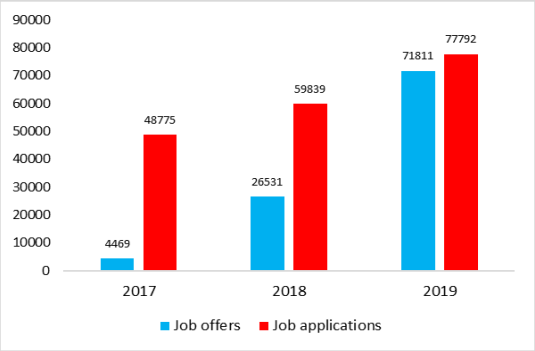
d. DRC: Value added per worker (index, 2000=100), 2000-2019



Source: Macro Poverty Outlook and WDI

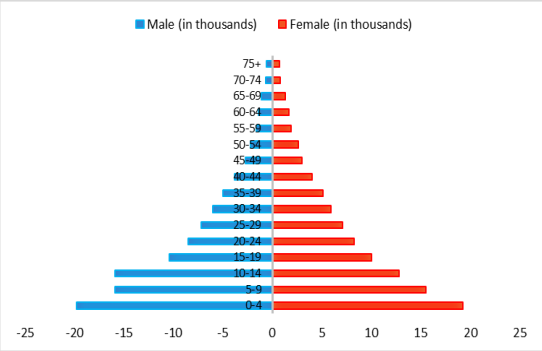
Note: Based on data from the MPO. Value added is measured as Gross Domestic Product (GDP) in constant 2015 USD.

e. DRC: Job market dynamic (2017-2019)



Source: DRC National Statistics Institute

f. DRC : Population pyramid

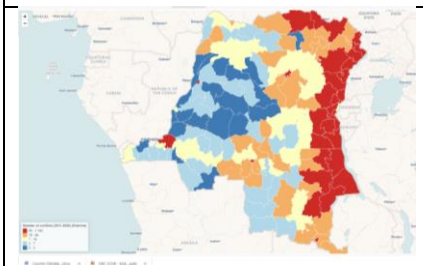
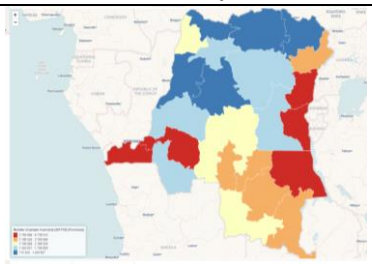
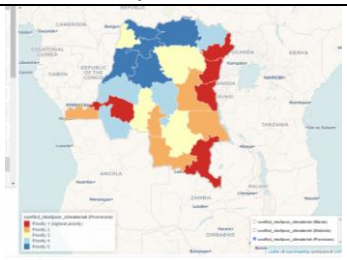


Source: DRC National Statistics Institute

1.4.3. Poverty Assessment, Mapping, and Follow-up Challenges

27. **Despite several years of wealth creation, poverty in the DRC remains widespread while inequality remains stable and high**. The percentage of the population living below the national poverty line decreased from 69.3 percent in 2005 to 64 percent in 2012. Despite another slight decrease (4.3 percentage points) between 2012 and 2018, the number of poor people increased by 6 million, reaching nearly 55 million in 2018 mainly due to high population growth. The DRC has the third-largest number of people living in poverty worldwide. Poor governance, weak fiscal institutions, mismanagement of natural resources, and protracted conflict and violence have led to limited progress in building human and physical capital, which has resulted in economic underperformance and high levels of poverty. The international poverty rate is estimated at 77.2 percent (2021 World Bank estimate), with 55 percent of the DRC's poor residing in rural areas,[22] where the poverty headcount is 80.2 percent compared to 56.3 percent in urban areas.[23] Moreover, significant geographical disparities exist between provinces, with extreme poverty concentrated in central and northwestern provinces, while the largest number of poor are to be found in the country's Eastern provinces. A large share of the DRC's population, most notably its number of poor, live in areas where conflict is already prevalent, particularly in areas with the largest number of artisanal mining sites- and climate risks are elevated (Figure 1.11).

Figure 1.11. Conflict, priority restoration areas, and number of poor.

Conflict	Number of poor	Unweighted average of conflict, number of poor, climate risks
		

Source: Poverty & Equity DRC Observatory's Project Targeting Index

28. **Overall, non-monetary or multidimensional poverty decreased from 2014 to 2018 but worsened in rural areas.** At the national level, the incidence of non-monetary or multidimensional poverty – that is,

[22] World Bank (2019). Territorial Development Review, Phase 2.

[23] World Bank (2018). Systematic Country Diagnostic. Report No. 112733-ZR.

simultaneous deprivation in more than one-third of 10 dimensions related to health, education, and living standards – decreased from 72.3 to 64.5 percent between 2014 and 2018. However, in rural areas, it increased from 85.6 to 87 percent over the same period**.** The incidence of multidimensional poverty in rural areas is almost twice as high as in urban areas, driven by very high deprivation rates in electricity, drinking water, and housing, exceeding 80 percent in these areas as against at most 40 percent for urban areas. At the national level, the proportion of the poor population experiencing severe poverty decreased from 18.3 to 13.3 percent, driven by a decline in severe poverty in urban areas, while the severity of poverty increased slightly in rural areas from 53.7 to 55 percent. Taking into account both the share of people deprived and the degree to which they are deprived, the Multidimensional Poverty Index (MPI) also shows a slight decline in non-monetary poverty.

29. **Hunger and stunting outcomes are very high in the DRC and more so in rural areas**. In 2021, the DRC scored 39 on the Global Hunger Index (GHI) and ranked 112th out of 116 countries. As a result of this severe hunger, too many children under age 5 suffer from stunting, high morbidity and mortality. Overall stunting rates have changed relatively little in the country, decreasing from 42.6 to only 42 percent but increased from 47.5 to 50.3 percent in rural areas and from 14.7 to 15.7 percent in Kinshasa. In terms of stunting, the DRC has the third worst rate of all countries, doing better than only Niger and Burundi.

1.5. Future drivers of Growth in the DRC

30. This section discusses the future possible trajectory of economic growth and the potential to foster long-term growth in the DRC. After a brief presentation of the government's Vision 2050, it suggests potential drivers of growth in the DRC and analyzes a range of scenarios for the DRC's potential economic growth over the next three decades using the World bank's Long-Term Growth Model (LTGM).

1.5.1. The DRC Government's Vision 2050

31. **The government's Vision 2050 aims to reach Upper MIC status by 2050**. The Government of the DRC has laid out its vision for the country's development to 2050 and mapped out near-term steps in the DRC's National Strategic Development Plan (PNSD) 2019–2023. Government authorities have decided to pursue the implementation of the PNSD over the next five years (2023 to 2027), which lays out a revised vision for the DRC's development to become a middle-income country with a diversified and inclusive economy in two steps in 2035 and 2050. Under the targeted growth scenarios, to become a lower-MIC country by 2035, the DRC economy would require about 5 percent real GDP per capita annual growth (or about 8 percent annual real GDP growth), while reaching the UMIC by 2050 would entail 7 percent annual real GDP per capita growth (or about 10 percent annual GDP growth).This vision focuses on the valuation of natural resources, which will promote the creation of the fiscal space necessary to finance public investments in infrastructure (transport, energy, water systems, and information and communication technologies) and human capital (health and education). The resulting gains in productivity will have positive implications for the production sectors (particularly agriculture and agribusiness) and structural transformation.

32. **Simulations show that achieving the government's ambitious goal of UMIC status by 2050 will require significant acceleration in economic growth, especially productivity growth**. Based on the government's Vision 2050, two growth scenarios are considered for the DRC: (i) becoming a lower middle-income country (LMIC) by 2035; and (ii) becoming an upper middle-income country (UMIC) by 2050.

1.5.2. Potential Drivers of Growth

33. **The DRC's economic outlook is improving, and the country has a window of opportunity to enact reforms that will sustain increased levels of growth and allow new drivers of growth to emerge.** Given abundant natural resources, a strategic location bordering nine countries, and a young and growing population, the DRC has considerable economic potential. The DRC's hydro potential alone is estimated to be sufficient to provide three times as much power as Africa currently consumes. It also has one of the highest concentrations of mineral wealth of any country in the world, with more than 1,000 substances, including 20 strategic ores. The DRC's flora and fauna are among the richest on the continent. With a land surface area of 2.345 million km^2, the DRC is the largest country in Sub-Saharan Africa (SSA), with over 80 million hectares of fertile and arable land, and 52 percent of all freshwater resources in SSA. the DRC could potentially feed the entire African continent; yet today. it is unable to adequately feed its own population. If exploited sustainably, supported by appropriate infrastructure and suitable sector governance and standards, these natural resources could create important opportunities for the DRC's economic growth and for the private sector to implement green technology, create jobs, and support the transition to a low-carbon economy. With continued reforms, these effects can spread and create new opportunities for other sectors of the economy, starting with the agribusiness, construction, and service sectors to serve rapidly growing urban markets.

34. **Mining can also be an important opportunity for the country pending appropriate frameworks being put in place.** Given the country's important mineral wealth, mining can be a source of numerous formal jobs, including up the value chain for more skilled professionals, let alone increased government revenue and accelerated demand for the additional service jobs this could foster. All of it could happen pending the right regulatory frameworks being in place to ensure stable structures, the "rules of the game." The DRC government has recently taken important steps in this direction by striking agreements with the United Arab Emirates, the most important destination for gold from East Africa. Similar agreements are in the process of finalization for the 3Ts (Tin, Tungsten, and Tantalite). Certification processes in the country will help ensure that metal quality is enshrined with producers. Furthermore, the government is putting forth plans to build Africa's largest smelting works in Bukavu to ensure that some upscale mineral processing is done in the country. All of the above is contributing to a more virtuous cycle of resource use. A supporting case study (Case Study 1) from the World Bank, produced in parallel for this Country Economic Memorandum, examines in detail the potential and prospects for developing the DRC's mining and supply chain industries (the main results are presented in Chapter 2).

35. **The agribusiness potential is huge and has a large market in the DRC**. This immense potential is based on: (i) an estimated 51 million hectares of unexploited cultivable land; (ii) climatic and ecological conditions favorable for various agricultural endeavors; (iii) potential for developing export crops, horticulture, livestock, fisheries; and (iv) an important and rapidly growing regional market of over 200 million that is young and rapidly urbanizing.[24] The DRC imports a large share of the food it consumes (USD 1.1 billion in food imports in 2021) and exports very little. Kinshasa has to import a large share of its food at very high cost, including products such as palm oil the DRC used to produce competitively. Following the war in Ukraine and in an effort to rely less on the import of wheat and become more self-sufficient, the DRC's agribusinesses started exploring the development of the maize flour value chain

[24] Country Private Sector Diagnostic (CPSD) (2022).

(as maize and maize flour are mainly imported). More details are provided in Chapter 2 and in Case Study 2 on Agribusiness – The Cassava Value Chain produced in parallel to illustrate key challenges and to inform how to attract climate-smart investments to the agribusiness sector.

36. **DRC's unique hydropower resources — estimated at about 100 GW — have the potential to provide large-scale and flexible renewable energy at highly competitive cost.** The country has one of the greatest hydropower potentials in the world, with 13 percent of the world's hydroelectric potential, only 2.5 percent of which has been exploited. The Inga Falls alone has a current potential capacity of 44 GW and could produce some of the least costly hydroelectricity in the world at USD 2 cents/kWh. However, the realization of this highly complex project will require strong governance, substantial external support in terms of expertise, and could be developed in phases while ensuring compliance with environmental and safeguard policies.

37. **The DRC's large forests are a valuable asset, storing the equivalent of around 85 billion tons of CO_2. However, they are underproductive and under threat.** About 67 percent of the country (around 152 million hectares) is covered by forests (the Congo Basin being the second largest rainforest in the world and the DRC accounting for 60 percent of it). This is the largest carbon sink in the tropics, removing over 600 million tons of CO_2 equivalent a year, almost six times more than the Amazon. However, together with the oil rich peat underneath it, it holds 8.1 billion tons of "irrecoverable" carbon that, if released, could not be recaptured in time to prevent dangerous climate impacts. Forests also represent 66.5 percent of the DRC's natural capital and 27.7 percent of the country's wealth.[25] Addressing the drivers of deforestation and forest degradation will continue to provide the country with the opportunity to capitalize on its forests through climate financing for Reducing Emissions from Deforestation Degradation (REDD+)[26] and potential development of carbon markets. Forest loss has a significant adverse impact on rainfall patterns and key ecosystems services, water quality, erosion control, and food security in the DRC and the wider Congo Basin. The DRC Country Private Sector Diagnostic (CPSD) highlighted the potential to leverage carbon finance mechanisms to provide results-based incentives for forest protection and restoration.[27] The DRC CCDR, currently in preparation, will highlight the main challenges and potential of the forest sector and suggest ways of implementing strategic and impactful climate-smart and ecosystem development policies.

1.5.3. The DRC's Long-term Growth Prospects

38. **To better understand the different ways the DRC's economy will progress over the next 30 years, this report uses the Natural Resource Extension of the World bank's Long-Term Growth Model (LTGM-NR).**[28] The LTGM-NR captures long-run productive capacity and decomposes the DRC's economy

[25] The Changing Wealth of Nations – Managing Assets for the Future, World Bank, 2021.

[26] The DRC's National REDD+ Investment Plan 2015-2020 has mobilized notable financing to date, including nearly USD 250 million from the Central African Forest Initiative (CAFI) and USD 130 million from the World Bank.

[27] International Finance Corporation. (2022). Country Private Sector Diagnostic: Creating Market in the Democratic Republic of Congo. Putting Natural Resources to Sustainable Productive Use. Available at: https://www.ifc.org/wps/wcm/connect/publications_ext_content/ifc_external_publication_site/publications_listing_page/cpsd-democratic-republic-of-congo

[28] The Long-Term Growth Model (LTGM) is built on the Solow-Swan Growth Model to generate different simulations on income growth based on the different parameters in the Cobb-Douglas production function. The Natural Resource (NR) extension is designed for a disaggregation of the economy into resource and non-resource sectors. The LTGM and its extensions are designed for long-run simulation exercises over the next 5-30 years but not for short-run forecasting. The models only run at an annual

into two economic sectors (mining and non-mining) to capture heterogeneity in the dynamics of these two sectors. The model allows sector-specific calibration of key parameters, initial conditions, and exogenous future paths, keeps track of the effects of discoveries and depletion of reserves on growth, and simulates the effects of commodity price shocks on investment and long-term growth.

39. **This section is divided into four sub-sections**. Sub-section A discusses the "business-as usual" baseline assumptions, where growth drivers are assumed to follow their recent historical trend and presents the growth path under the baseline over the next 30 years. Sub-section B discusses growth decomposition and the contribution of each driver to growth, while sub-section C provides an analysis on economic reforms needed to boost growth. Finally, sub-section D deepens the discussion on diversification and structural transformation and elaborates on how reforms can accelerate the process.

A. Baseline Assumptions and Growth Path

40. **The LTGM provides a set of simulations on different economic, social, and demographic scenarios for each growth driver**. Under the "business-as-usual" baseline scenario, the LTGM combines assumptions about growth fundamentals to generate a trajectory for GDP and GDP per capita growth over the next 30 years assuming that recent historical trends continue on the same path—that is, in the absence of future major shocks or reforms. The trend for the non-mining sector is based on assumptions on standard drivers of growth, such as total factor productivity (TFP), human capital, investment, and demographics (population growth, age structure, and labor force participation). As for growth in the mining sector, this depends on sector-specific TFP, physical capital and the level of proven reserves, hence on the profile of discoveries and extraction of mineral products. Box 1.1 provides a brief discussion of the baseline assumptions extrapolated in the LTGM simulations for the DRC over the next 30 years.

frequency, do not include a Keynesian demand-side, and are too simple to capture the multitude of shocks to short-run growth. Further details on the LTGM-NR are provided in Annex 1.A of this chapter.

Box 1.1. LTGM-NR: Summary of Key Assumptions for the DRC

This box summarizes the key assumptions under the baseline along witha brief description of all parameters, initial conditions, and exogenous paths used to project baseline growth with the LTGM-NR.

- **Mining sector**. The baseline scenario for mining GDP makes assumptions for copper and cobalt prices. The baseline price of copper at USD 8,000/mt (CMO, 2022) will slowly converge to USD 6,000/mt by 2050 (the 50th percentile of the forecast distribution,) while the price of cobalt will be nearly flat at USD 40,000/mt, similar to the World Bank Commodity Markets Outlook (CMO) 2022 and the median of forecast distribution. Copper and cobalt reserves are estimated at 31 million and 3.5 million metric tons in 2020, respectively (USGS). The baseline assumes large discoveries made in 2020 will become available for production over 2020-2030. Based on data provided by USGS on copper and cobalt reserves and production in the DRC, about 2,500,000 discoveries of copper will be made each year from 2030 to 2050 (similar to the average over 2010-2019) and 100,000 discoveries of cobalt each year from 2020 to 2050 (below the 2010-2020 average).
- **Total factor productivity (TFP)**. The model constructs a TFP path using PWT data on GDP, physical and human capital, and employment. The baseline TFP growth in the non-mining sector is set to match IMF forecasts for non-mining GDP growth until 2024 (Article IV) and for total GDP growth over 2025-2027 (World Economic Outlooks, WEO). After 2035, non-mining TFP growth converges to 1 percent, the 2010-2019 average, consistent with the DRC's delayed structural transformation. TFP growth in the mining sector is set to match IMF forecasts for mining GDP growth until 2024 (Article IV) and to converge to 0 percent after 2030 based on the Chilean experience ("Productivity in the Chilean Copper Mining Industry" Report, 2017).
- **Human Capital**. This projection is also based on the LTGM Human Capital extension, which does not include tertiary education, and combines cohort-level data on the quantity and quality of education to trace human capital over time measured as the average productivity of the workforce with full health and completed pre-tertiary education (as in HCI). Under the baseline scenario, a sharp increase in schooling rates will lead to strong human capital growth but decline from 1.2 percent to 0.4 percent by 2050 as the quality of education stagnates. School closures due to COVID-19 will depress the pace of human capital growth as less educated will join the workforce until 2035.
- **Investment** is assumed to be in line with WEO forecasts up to 2027, then remaining constant at 17 percent of GDP. This seems pessimistic when compared to peer countries but optimistic historically (the postwar average is 14 percent of GDP). Based on postwar average, the baseline assumes that the public investment will represent 20% of total investment.
- **Population and Labor Force Participation (LFP)**. Incorporating the UN's forecast of demographic trends for the DRC, the LTGM-NR forecasts baseline population growth to decelerate from 3.2 percent in 2020 to 2.3 percent by 2050. The labor force participation rate is assumed to remain constant at 66 percent, with a small impact on growth in the short term because of the significant dependence on the mining sector, which is more capital intensive. The trajectory of the working-age population will rise slowly from about 50 percent in 2020 to 60 percent by 2050.

A. Initial conditions	Value	Source
Per capita GDP in 2020	US$500 (real 2015)	UN-WDI
Non-mining	72% of GDP	UN-Comtrade
Mining	28% of GDP	UN-Comtrade
Capital-to-GDP ratio	3	PWT 10.0
Non-mining	1.6	Own calculations
Copper	1.1	Equalize MPK
Cobalt	0.3	
Reserves:		
Copper	31 MM metric tons	USGS
Cobalt	3.5 MM metric tons	USGS
B. Main parameters		
Labor share in non-mining	70% non-mining GDP	TED
Mining rents	33% of mining GDP	GTAP

C. Trajectory of exogenous variables, 2023-2050		
Commodity prices		
Copper	$7,300→US$6000/mt	WB-CMO
Cobalt	$40,000/mt	WB-CMO
Investment:		
Total	15%→17% of GDP	IMF-WEO
Public share	20%	IMF-FAD
Productivity:		
Non-mining TFP (⟦TFP⟧_t^0)	1% after 2035	TED
Copper Mining TFP (⟦TFP⟧_t^Cu)	0% after 2030	
Cobalt Mining TFP (⟦TFP⟧_t^Co)	0% after 2030	
Human capital	1%→0.4%	LTGM-HC
Demographics:		
Population growth	3.2%→2.3%	UN
Working-age population	51%→58%	UN
Participation rate	66% constant	WB-WDI

41. **Under the baseline scenario, real GDP growth in the long term should return to its potential trend**. Recovering from 1.7 percent in 2020 due to the COVID-19 effects to 6.2 percent in 2021 and then to 8.9 percent in 2022, based on very recent data of May 2023 (from initial estimates of about 7 percent), growth in the DRC is expected to average 6 percent in the second half of the 2020s before slowing down to its long-term level of 4.4 percent until 2050. Nonetheless, due to a fast population growth, real GDP per capita will increase by an average of nearly 3 percent in the second half of the 2020s but decline to a range of 1-2 percent in the long run. Thus real GDP per capita will increase from USD 500 in 2020 to about USD 685 in 2035 and to USD 880 in 2050, or about USD 380 in 30 years. This trajectory for GDP per capita is still insufficient, remaining below the threshold (USD 1,000) needed for the DRC to become an LMIC by 2050.

Figure 1.12. GDP growth.

Percent

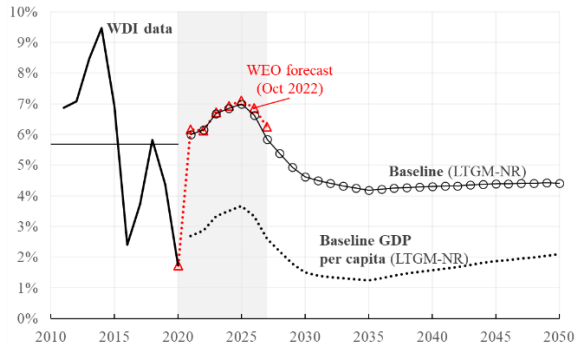


Figure 1.13. GDP growth.

Percent

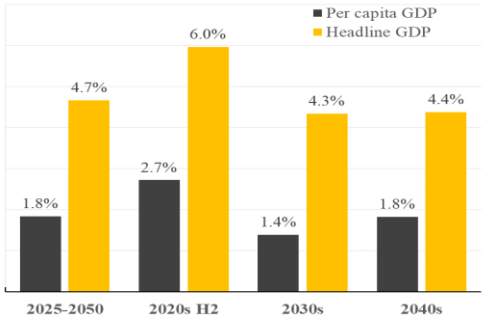
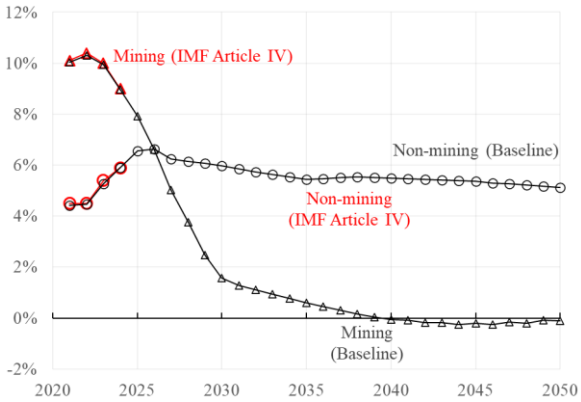


Figure 1.14. Sectoral GDP growth.

Percent



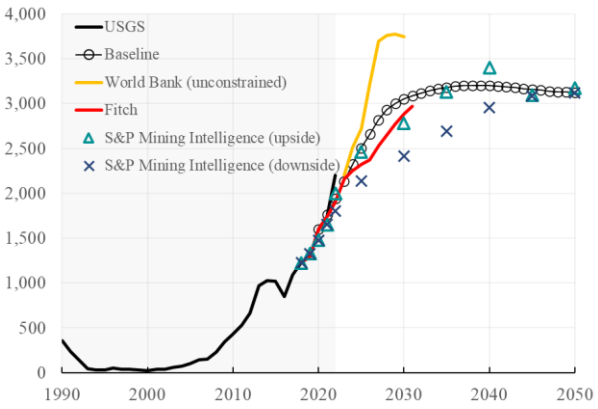
Source: WB's staff estimates based on LTGM

42. **In the short term, the mining sector will be subject to very fast growth before slowing down in the second half of the 2020s.** From a very strong baseline GDP growth of around 10 percent in the short term, mining GDP growth will decline sharply in the second half of the 2020s, then grow at a slower pace in the 2030s before contracting in the 2040s (Figure 1.14). Driven by growth in the copper and cobalt sectors, mining GDP will reach almost 32 percent of GDP in 2025 (from 28 percent in 2020) and shrink to 13 percent by 2050 due to falling prices and depleting mining reserves. The volume of copper is expected to ramp up

until 2030 and to plateau at about 3 million metric tons per year until 2050 (Figure 1.15). Cobalt production will follow a similar trend as copper and stabilize at about 200,000 metric tons per year by 2035 (Figure 1.16).

Figure 1.15. Copper production.

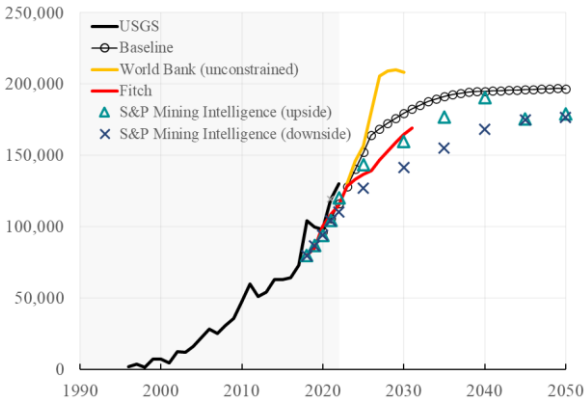
Thousands of metric tons



Source: WB's staff estimates based on the LTGM

Figure 1.16. Cobalt production.

Metric tons



Source: WB's staff estimates based on the LTGM

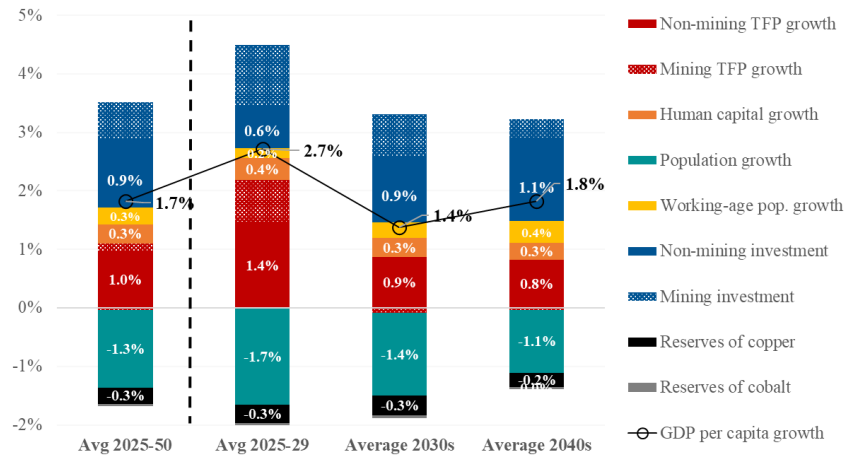
43. **Non-mining GDP growth is expected to stabilize above 5 percent after 2035 as the economy tends to diversify away from the mining sector**. Non-mining sectors are expected to accelerate by 6 percent starting from the second half of the 2020s and slightly decelerate before stabilizing at around 5 percent as of 2035. This growth should be boosted by the reallocation of physical capital, whereby the capital stock is growing faster in the non-mining sector because of its better fundamentals (growing labor force, TFP, and human capital) relative to the mining sector (given depleting reserves and no gains in TFP). Thus, investment in the non-mining sector will increase from 5.9 percent in 2020 to 7.5 percent of GDP in the short-term and will stand at 12.4 percent by 2050. Moreover, due to substantial productivity gains in the non-mining sector, mainly through total factor productivity (TFP) but also human capital, the efficiency of investment (i.e., the marginal product of capital) will increase over time.

B. Baseline Growth Decomposition

44. **Baseline growth is mainly driven by capital deepening and productivity.** In addition to the baseline, a series of counterfactual growth simulations were performed to show the contribution of each driver, providing a decomposition of per capita GDP. For example, we evaluated the contribution of TFP to baseline growth by running a counterfactual simulation without TFP growth. The counterfactual highlighted two main points. First, the main drivers of baseline growth in the DRC are investment and non-mining TFP, which contribute 1.3 and 1.0 percentage points growth on average over 2025-2050, respectively (see Figure 1.17).[29] Second, the main headwinds to growth are population growth and depleting copper reserves. More specifically, the contribution of copper reserves to growth stands at an average of around -0.3 percentage points over 2025-2050, while the adverse effects of population growth go from -1.7 percentage points to -1.1 percentage points over the same period. Overall, this slowdown is driven by depleting reserves and stagnation in mining TFP.

[29] Working-age population and human capital have small effects on growth because the mining sector is capital intensive.

Figure 1.17. Contribution of each driver to GDP per capita growth.
Percentage points in growth due to each growth driver



Source: Author's calculations based on the LTGM-PC.

Note: The decomposition is an approximation which abstracts from the interaction between the growth drivers. In this case, the sum of contributions of each driver does not match actual baseline growth rates exactly.

C. Economic Reforms to Boost Growth

45. **This section analyzes how the DRC could boost its potential growth with reforms.** The analysis assesses the impact of economic reforms and provides key results depending on the intensity of reforms implemented (moderate or ambitious). The target for each growth driver is based on the income of peers—all of them countries with the DRC's current GNI per capita—plus the structural and aspirational peers used in this chapter's analysis (Bolivia, Indonesia, etc.). As a result, the effect of each reform on growth depends on: (i) how sensitive growth in the DRC is to the specific growth driver; and (ii) how far the DRC lags behind peer countries. Specifically, the analysis considers economic reforms to boost: (a) non-mining TFP; (b) human capital growth (schooling rates, quality of education, and health measures); (c) public and private investment; and (d) workforce participation. For each reform, two scenarios are considered: moderate reforms (more feasible but less promising) and ambitious reforms (very promising but with challenging implementation). Moderate reforms typically target the 50-75th percentile of the distribution of peers, while ambitious reforms typically target higher percentiles of the distribution or specific top-performing economies.[30] Table 1.1 provides an overview of assumptions and results of the simulations under the baseline and reform scenarios (moderate and ambitious).[31]

[30] The sample includes three sets of countries. First, it comprises countries that once had a Gross National Income (GNI) per capita similar to the DRC's today. For these countries, the 20-year average growth is computed starting from when their GNI per capita was around USD 500. Second, it includes low-income countries with a GNI per capita below USD 1,000 in the initial year of the GNI time series. Third, the sample encompasses structural and aspirational peers. The Atlas method determines low-income status if GNI per capita is below USD 1,000 in 2020 USD.

[31] Further details on the tables and figures of the LTGM exercise for DRC and the different reform scenarios can be found in Annex 1.B of Chapter 1.

Table 1.1. Overview of Moderate and Ambitious Reform Scenarios.

	Baseline	Moderate Reform	Ambitious Reform
(A) Non-mining TFP Growth	2%→1%	2%→1%	Constant 2%
(B) Human Capital Growth:	1.2%→0.4%	1.2%→1%	1.2%→2%
•Expected schooling	9 years	10 years	12 years
•Quality of education	0.5 score	0.6 score	0.65 score
•Adult survival rates	75%	75%	85%
•Not stunted rates	57%	70%	80%
(C) Investment	15%→17% of GDP	15%→20%	15%→28%
•Private	12%→13.5%	12%→14%	12%→18%
•Public	3%→3.5%	3%→6%	3%→10%
(D) Labor force participation	64% of 15-64 years	69% by 2050	76% by 2050
•Female	62%	62% by 2050	70% by 2050
•Male	66%	76% by 2050	82% by 2050
(E) Mining prices			**High-price scenario**
Copper	$7,300→US$6,000/mt		$7,300→$9,000/mt
Cobalt	$40,000/mt		$40K/mt→$60,000/mt

Source: WB's staff estimates based on LTGM

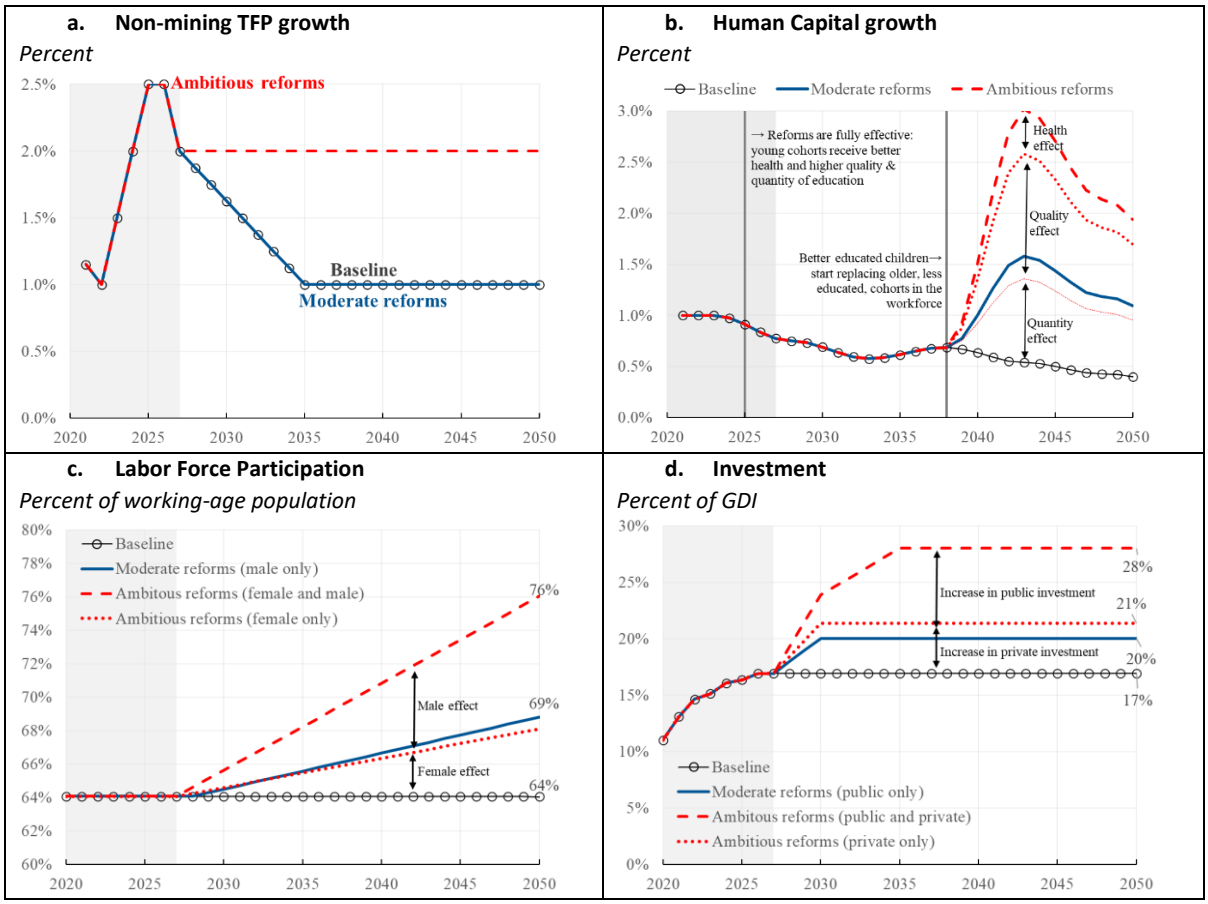
46. **The DRC economy needs more ambitious reforms to challenge its target of (lower or upper) middle-income country status by 2050.** Simulations show that through an ambitious reform package, the DRC could look forward to upside potential for growth by 2050. In an ambitious reform scenario, when combining all reforms, the average GDP per capita growth rate for 2025-2050 rises from a baseline of 1.8 percent to 4.4 percent (5.6 percent in the non-mining sector), with GNI per capita exceeding USD 1,600 by 2050 (Figure 1.21) and allowing the country to reach lower middle-income country (LMIC) status by 2035. In contrast, the moderate reforms scenario would generate only 2.5 percent growth for real GDP per capita on average over 2025-2050 (Figure 1.20). With such levels of growth rate, achieving the growth targets of lower middle-income country (LMIC) status by 2035 and upper middle-income country (UMIC) status by 2050 is unlikely.

47. **A reform package is required to put the DRC economy on a diversification and structural transformation trajectory, and a decomposition of growth under each scenario highlights the underlying drivers.** Each driver of reform would individually boost growth substantially, but a combination of reforms would be mutually reinforcing and benefit from complementarity, thus resulting in the strongest growth trajectory. This could be achieved through a combination of all drivers of growth (discussed individually above), which would be implemented simultaneously, i.e., (a) non-mining TFP, (b) human capital growth (schooling rates, quality of education, and health measures), (c) public and private investment, and (d) workforce participation. Under the moderate package of reforms, growth per capita would be mainly driven by non-mining productivity and strong investment. A decomposition of growth under this reform scenario displays a significant role attributed to public investment, which peaks in the early 2030s and stagnates afterwards (Figure 1.19). In the long term, incremental growth would be mostly driven by reforms in human capital[32] and labor force participation. Under the most ambitious scenario, the package of all reforms would generate around 6.0 percent growth by 2050. A decomposition of growth under this ambitious reform scenario highlights the increased importance of non-mining TFP and human capital (education) in driving growth in the long run while maintaining a key role for labor

[32] The DRC lags far behind its peers in the proportion of children not suffering from stunting (see Annex 1.B, Figure A2), hence a substantial potential for improving health measures. This will boost education, human capital, and growth (see Panel b of Figure 1.18, the contribution of health to HC growth).

force participation. However, all reform scenarios fall short of reaching the target of upper-middle income country (UMIC) by 2050. Nevertheless, ambitious reforms can nearly double per capita income by 2050 relative to the baseline. As a result, the LMIC target could be achieved by 2035 under the most favorable scenario of reforms thanks to high mining prices coupled, for example, with favorable fiscal rules that would reinvest all mining windfalls, (Figure 1.21).[33]

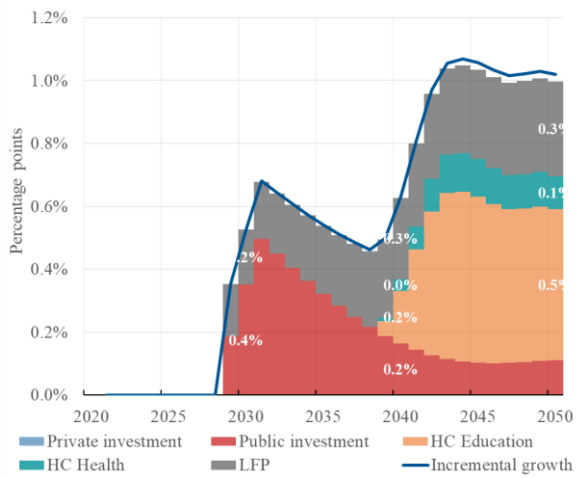
Figure 1.18. Reform Packages.



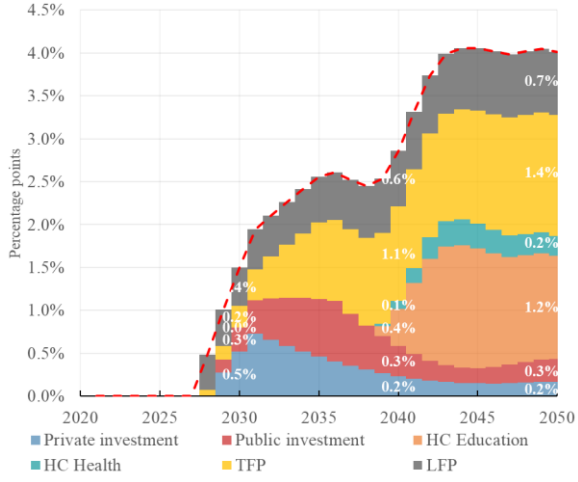
Source: WB's staff estimates based on LTGM

[33] Moderate reforms would only allow the DRC to reach LMIC status by 2050.

Figure 1.19. Contribution of each reform to incremental GDP per capita growth.



Source: WB's staff estimates based on LTGM



Source: WB's staff estimates based on LTGM

48. **Addressing weaknesses in total factor productivity (TFP) is essential in strengthening potential growth in the DRC and speeding up the country's economic diversification beyond mining.** Many studies have revealed the presence of a positive relationship between diversification and productivity.[34] This also explains differences in development between nations. Indeed, cross-country differences in total factor productivity (TFP), i.e., efficiency in combining the different factors of production despite greater differences in factor endowments overwhelmingly explain cross-country differences in income per worker at the aggregate level.[35] In the DRC context, a reform package would pay off immediately and lead to faster TFP growth that would contribute significantly to its upward transition from a low-income country to a middle-income country. Under the ambitious reform scenario, the TFP would increase from 1 percent in 2022 to 2.5 percent in the second half of 2020s before stabilizing at 2 percent. Ambitious reforms in non-mining would boost GDP per capita growth by 1.0 percentage point by 2035 and 1.4 percentage points in the long run (Figure 1.19). Moreover, higher productivity gains in the non-mining sector, mainly through total factor productivity (TFP) but also human capital, would increase the efficiency of investment (i.e., the marginal product of capital).

49. **Capital accumulation has a strong impact on growth in the medium term.** Simulations show strong indirect effects through induced capital accumulation in the medium term when considering its effects on the productive sectors. However, the effect of investment is stronger in the medium term but wears off over time (Figure 1.19). A broad set of reforms is necessary to attract significant FDI and strengthen private investment, while major reforms could improve revenue mobilization from natural resources to raise public investment capacity. Public and private investment is estimated to hit 20 percent of GDP with moderate reforms and 28 percent of GDP (18 percent of GDP and 10 percent of GDP, respectively, for private and public investment) under ambitious reforms in 2028-2035. Investment in the non-mining

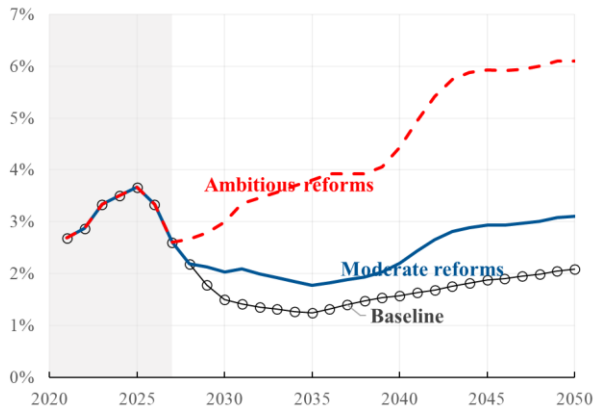
[34] Hall R, Jones C (1999) Why do some countries produce so much more output per worker than others?" Quarterly Journal of Economics 114:83–116 and Rouvinen P (2002) R&D–Productivity dynamics: Causality, lags and dry holes. Journal of Applied Economics 5:123–156.

[35] Calderón, César. 2021. Boosting Productivity in Sub-Saharan Africa: Policies and Institutions to Promote Efficiency. Washington, DC: World Bank.

sector is expected to significantly increase, replacing investment in the mining sector following the depletion of mineral reserves and lower productivity gains (Figure 1.22). These ambitious reforms would have a considerable impact on the economy, boosting GDP per capita to 6.0 percent by 2050, an increment of 4.0 percentage points compared to the baseline scenario (Figure 1.20).

Figure 1.20. GDP per capita growth.

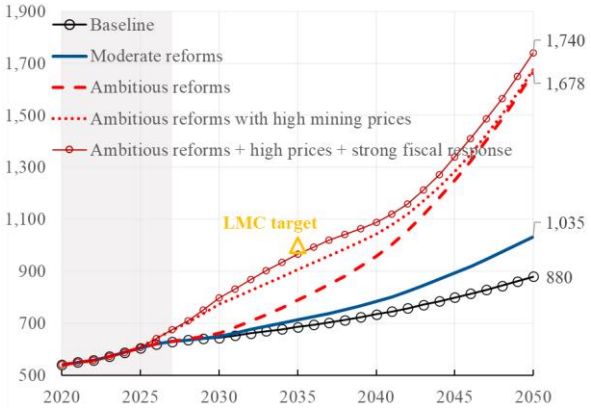
Percent



Source: WB's staff estimates based on LTGM

Figure 1.21. Per Capita Gross Domestic Income.

Real 2020 USD



Source: WB's staff estimates based on LTGM

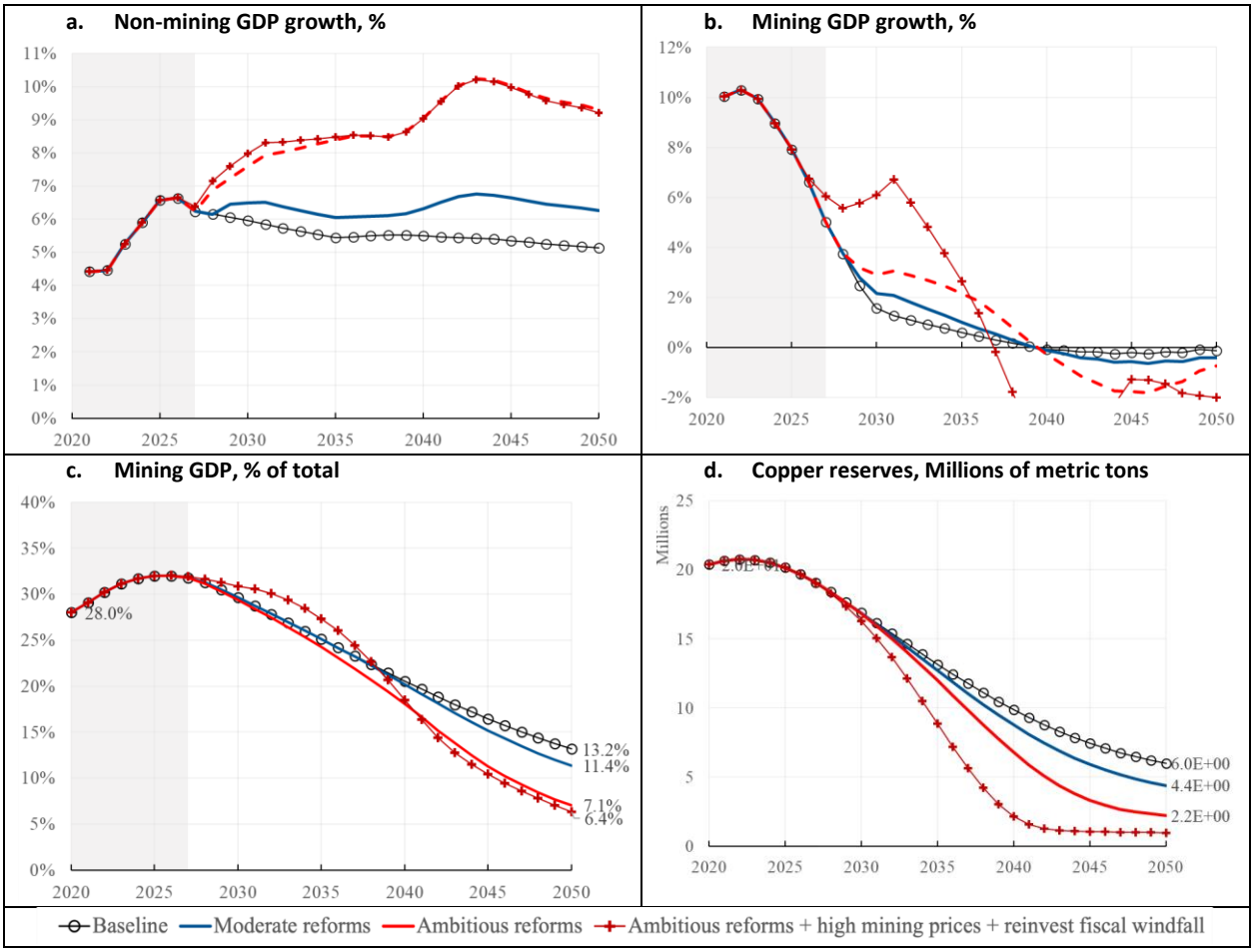
50. The **DRC authorities can accelerate human capital growth by increasing the quality and years of schooling for the population.** The LTGM shows that years of schooling must be raised to 12 years in the case of ambitious reforms and about 10 years if reforms are moderate. Though not directly affecting labor force participation (LFP), investments in education do lead to an increase in the productivity of the workforce (and hence wages). Human capital increases the effectiveness of the workforce in the production process, thus raising output per unit of labor. The economic effects of greater human capital will become more important and lead to a peak of +1.4 percentage points of GDP by 2044 (and +0.6 percentage points of GDP by 2050 under the moderate reform scenario) as the non-mining sector expands, with large gains from better health and higher quality and quantity of education. For the DRC, LFP would rise gradually from 64 percent of the working-age population under the baseline to reach 76 percent (mostly males) by 2050.

C. Diversification and Structural Transformation

51. **A successful diversification strategy should decrease long-term dependence on mining for income and employment opportunities**. This does not necessarily imply the exclusion of mining altogether. Several advanced economies, such as Norway and Chile, have effectively cultivated strong and resilient economies alongside substantial resource sectors. This is not yet the case for the DRC. Economic reforms fail to promote growth in job-intensive and poverty-alleviating sectors. The "business-as-usual" baseline scenario shows a U-shaped trajectory for diversification in the DRC, with a significant shift beyond 2030. The lack of productivity improvements and diminishing reserves in the mining sector reduce the marginal returns on capital, prompting a reallocation of investment toward non-mining activities. The mining sector's contribution to GDP more than halves, from 30 percent to 13.2 percent between 2030 and 2050 under the baseline. However, in the reform scenario, the path to diversification is even faster. Interestingly, the fastest diversification takes place under the most favorable scenario despite high mining prices. This is because elevated prices increase marginal returns, investment, and production in the mining

sector during the 2030s (as indicated in Panel b of Figure 1.22), but more intensive production and extraction in the 2030s results in scarce copper reserves and hence low production in the 2040s.

Figure 1.22. Economic Growth and Diversification in the DRC: Baseline versus Reforms Scenarios.

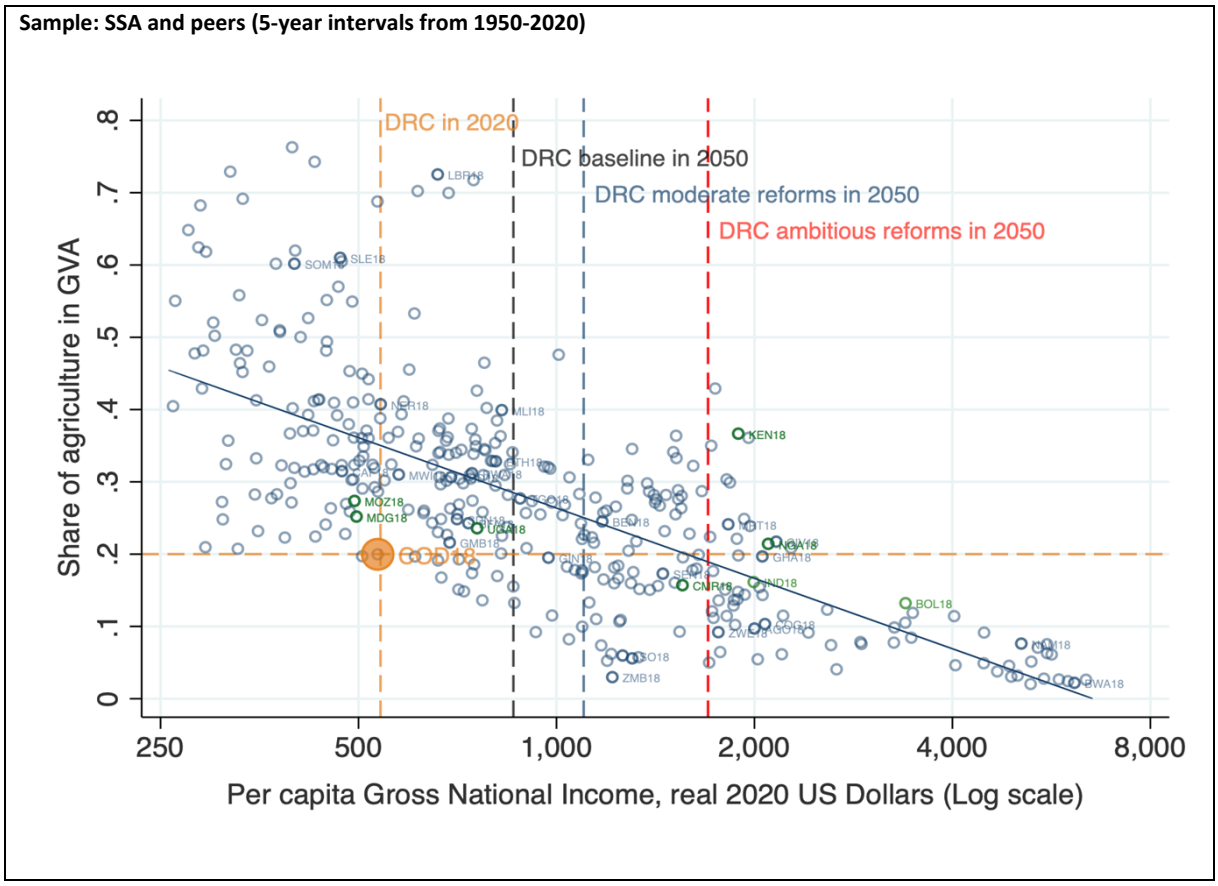


Source: WB's staff estimates based on the LTGM

52. **An analysis on structural transformation in the DRC also confirms the necessity of ambitious reforms.** The LTGM-NR decomposes the DRC economy into two economic sectors (mining and non-mining) and does not disaggregate the non-mining sector into agriculture, (non-mining) manufacturing, and service. Nevertheless, this analysis can infer the stages of structural transformation across growth scenarios (from the LTGM) based on empirical evidence. Using a panel of African countries and peers, Figure 1.23 suggests a strong relationship between income levels and the share of labor in agriculture. Accordingly, a country with the DRC's 2020 income per capita of USD 540 is predicted to have 35 percent of employment in agriculture, which is above the observed level in the DRC in 2020 (20 percent). For countries with higher incomes such as Botswana and South Africa, the regression predicts an agriculture share of only about 5 percent. Given that the DRC's per capita GNI will be USD 880 in 2050 under the baseline growth path of the LTGM, the relevant agriculture share is around 28 percent, still above the DRC's current 20 percent. This is in line with the assumption that the baseline assumes limited structural transformation. The shares of agriculture in GVA and employment are maintained constant alongside the

baseline growth path.[36] Under the ambitious reform scenario, per capita income in the DRC will reach USD 1,700. At this income level, the OLS regression predicts an agriculture share of 18 percent. This is also consistent with the assumption that non-mining TFP growth accelerates from baseline 1 to 2 percent under the ambitious reform scenario.

Figure 1.23. GNI per capita versus employment share of agriculture.



Source: WB's staff estimates
Notes: Aspirational peers are Bolivia, Cameroon, Indonesia, Kenya, and Nigeria. Structural peers are Mozambique, Zambia, Uganda, and Madagascar.

1.6. Key Recommendations

53. **A comprehensive reform package in the DRC could yield a significant improvement in the country's economic transformation and ability to converge toward LMIC status.** In the absence of economic reforms, per capita income in the DRC is projected to grow slowly (by less than 2 percent on average), with GNI below USD 1,000 by 2050. There is substantial potential for growth through economic reforms, especially when combining different drivers. Moderate and ambitious reforms could boost GDP per capita growth to 2-4 percent by 2035 and 3-6 percent by 2050. For this to occur, suggested key reforms must be tailored toward stronger TFP, investments, human capital, and labor market participation given short- to long-term time frames:

[36] Assuming a constant share of agriculture in the baseline is reasonable because the DRC's 20 percent is already very low for its current development stage.

- Reforms to non-mining TFP growth have the strongest and most sustainable impact on growth;
- Reforms to investment are very important in the short and middle term but fade away over time;
- Reforms to human capital growth, especially the quality and quantity of education, have a strong impact on growth, but the effect will take place only in the 2040s when the better educated and healthier children join the workforce.

54. Reforms to labor market participation should have a large and persistent effect on growth but should decline fast beyond 2050 as the DRC achieves high participation rates.

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CHAPTER 2

THE BUSINESS ENVIRONMENT: TACKLING KEY REGULATORY CONSTRAINTS AND CHALLENGES

The mining town of Kolwezi the capital of Lualaba Province in the southern part of the Democratic Republic of the Congo (DRC). October 2022 By EdwinAlden.1995. Creative Commons license

Chapter 2: The Business Environment: Tackling Key regulatory Constraints and Challenges

Policies to Address the Main Bottlenecks for Sustainable and Inclusive Growth

55. This chapter will focus on the shorter-term reforms that could inform policy makers and provide recommendations related mostly to business environment regulations, taxation, and the fiscal framework, which are seen as key constraints on a favorable business environment. To better illustrate these challenges, it will also provide sector-specific policy recommendations relevant to the development of the mining and agribusiness value chains. More details on the mining (EV battery) and the agri-business (cassava) value chains, including opportunities and challenges, are provided in the attached illustrative two case studies of the Country Economic Memorandum.

2.1 Improve Business Regulations

56. **Unlocking private sector-led growth is contingent on a country's ability to establish a predictable and transparent business environment that encourages productive investments.** Business regulations generally address a wide range of public policy objectives, from protection of property rights to consumer safety and environmental concerns. Regulations inevitably impose costs on businesses, but they are also critical in addressing market failures such as negative externalities or asymmetric information. Business regulations and the way in which they are implemented shape a firm's operating environment. They impact the cost and risk of doing business, the composition of players in the market, and the nature of that competition.

57. **Results of the 2019 Global Investment Competitiveness (GIC) survey show that investors rank a county's legal and regulatory environment as one of the top three factors shaping investment decisions,** confirming the importance to investors of transparent, predictable regulatory environments. Additionally, as business environment reforms inadvertently reduce business costs, firms can increase profits, which may be further reinvested to increase market share, output, and employment. When it comes to investors who consider these factors "critically important," the legal and regulatory conditions of the host countries rank behind only political and macroeconomic stability and ahead of considerations such as low input costs.

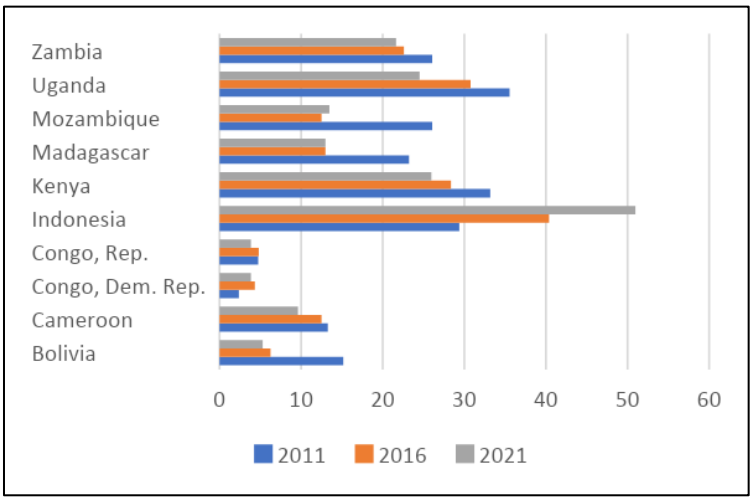
58. **Thus the efficient and effective design, implementation, and monitoring of regulations affecting business should be an important priority for the government of the DRC.** This chapter provides an overview of the main features of the business environment in the DRC based mainly on international comparisons that can shed light on the major constraints that characterize it.

2.1.1 International Perspective

59. **The DRC lags behind regional and aspirational peers in terms of regulatory quality and competitive environment.** International indicators provide useful insights into the regulatory complexity businesses face in the DRC. The Worldwide Governance Indicators (WGI) reports aggregate and individual governance indicators for over 200 countries and territories over the period 1996–2021 for six dimensions of governance. The Regulatory Quality dimension of the WGI captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. Figure 2.1 shows that the DRC lags behind regional and aspirational peers as well as the average country in Sub-Saharan Africa in terms of regulatory quality. This suggests much room for

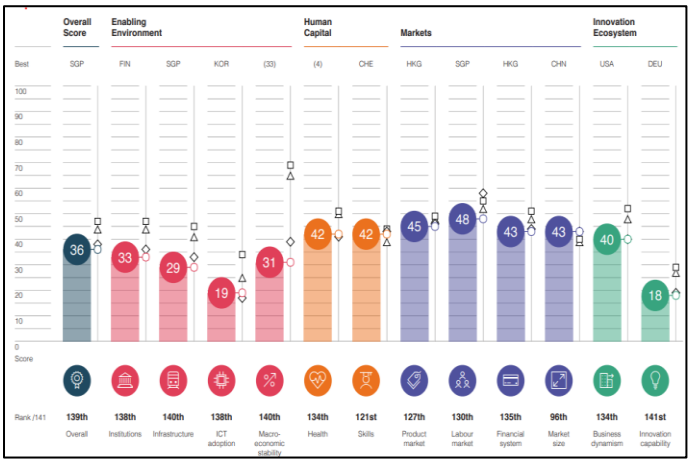
improvement if there is strong commitment from the government of the DRC. In addition, the DRC's competitive environment as measured by the World Competitiveness Report is in the bottom 10th percentile among 141 economies, ranking 138th out of 141 economies in the World Competitiveness Report (Table 2.1). A closer look at the indicators that are part of this ranking reveals some of the challenges faced by businesses in the DRC as a result of the country's complex and cumbersome regulatory framework. For instance, the DRC places 110th out of 141 economies in the indicator that measures the burden of government regulation, with a value of 2.4 out of 7, well below all its regional and aspirational peers, which score between 2.9 (Madagascar) and 4.0 (Indonesia).

Figure 2.1. Regulatory Quality.



Source: World Governance Indicators.
Note: higher values correspond to better outcomes.

Table 2.1. World Competitiveness Report: DRC.



The following section will analyze key regulatory burdens affecting firms along different phases of the business life cycle from market entry to operations and present recommendations for untangling some of the bottlenecks identified.

2.1.2 Market Entry

A. Business Registration

60. **The government of the DRC implemented major reforms to improve business registration between 2014 and 2021, but the lack of operationalization remains a problem.** A one-stop shop for business creation (GUCE) was set up, bringing together all the actors involved in the creation process (Tax, RCCM, CNSS, National Identity number etc.) and setting the timeline for business creation at 3 days. However, to date, the one-stop shop is not fully operational and is barely represented across the country, with only 5 provinces out of 26 covered. As a result, the DRC's business registration performance has deteriorated over time despite strong results in Kinshasa in the early years following the establishment of the one-stop shop. According to a study conducted by the Investment Promotion Agency (ANAPI), it takes 40 days to start a business in Kinshasa and the 4 other cities with a one-stop shop, and twice as long in the other provincial cities.

61. **The complexity of the business registration process may be a contributing factor to the relatively low number of registered businesses in DRC.** According to the World Development Indicators, the country's new business density measured by the number of registered businesses per 1,000 people aged between 15 and 64 has consistently remained below 1, which is comparable to other countries in Sub-Saharan Africa, including the DRC's aspirational peer Madagascar, but below other regional comparators such as Zambia (1.1) and Zimbabwe (2.5). The poor performance of the business registration procedure is due to the following factors:

- The one-stop shop is not working to its full potential due to a lack of inter-connection with certain key services such as the tax administration (*Direction Générale des Impôts,* DGI) or the Ministry of the National Economy, which continues to generate the national identification number manually.
- Low level of digitization of the administrations involved in business registration.
- Lack of financial autonomy of the GUCE, which depends on a budget the Ministry of Finance often does not disburse in full or on time.
- Limited coverage of the one-stop-shop throughout the country.

62. **To address these bottlenecks, the government should work toward attaining full integration of the components of the one-stop shop, ensuring interconnections with the DGI and the Ministry of the Economy.** Other recommendations include digitizing the processes of the administrations involved in the registration process, enhancing GUCE's financial autonomy by enabling it to retain the resources it generates as provided in its legal framework, and introducing a unique business identifier, which would provide the foundational information related to legal entities, thus enabling government and business to uniquely identify legal entities in various transactions and regulatory interactions.

B. Business Licenses and Inspections

63. **The DRC's legal framework for business licensing is fragmented and overly prescriptive.** In the DRC, all or most business activities require ex-ante authorizations, and there is no clear sense of the number of licenses required to operate.[37] Companies do not have easy or timely access to clear and comprehensive guidance on the licenses they need, the steps they need to take, or the time it will take for regulators to

[37] Business licensing encompasses all ex-ante authorizations and procedures relevant to businesses entering the market and commencing operations after incorporating and registering with the tax authorities. Business inspections refer to supervision activities relevant after the business enters the market.

review and respond to their license applications. Similarly, the legal framework on inspections is unclear, with overlaps and duplication prevalent. This lack of transparency often leads to significant discretion in the application of the inspection regime, resulting in abuse, corruption, and uncertainty. Based on the number of levies and fees charged to firms operating in the DRC at both the provincial and the national levels, some practitioners estimate the number of licenses imposed on the private sector in the DRC at 300. Yet a more detailed inventory could reveal an even higher number of licenses. In Kenya, a detailed inventory revealed over 1,300 business licenses and associated fees imposed by more than 60 government agencies and 175 local governments compared to initial estimates of 300 licenses.

64. **There is a strong need for licensing reform to reduce the administrative burden on private sector actors operating in the DRC.** Licensing reform should focus on streamlining and limiting licensing to a reduced number of specified sectors and activities where prior control of businesses is needed to safeguard economic, social, safety, security, or environmental concerns. Furthermore, risk-based frameworks that mandate proportional, targeted, and consistent approaches to supervision and enforcement should be considered. The benefits to this approach include: i) attaining public policy objectives such as promoting the health and safety of the population and protecting the environment by targeting higher-risk businesses; ii) reducing the regulatory burden on low-risk businesses; iii) making better use of scarce government resources; and iv) enhancing accountability, transparency, predictability, and consistency in decision making, thus limiting opportunities for discretion.

2.1.3 Operations

A. Paying Taxes: The Need to Ease the Process

65. **The challenging business environment is characterized by an inefficient, complex, and non-adaptive tax regime**. **Private** sector firms endure harassment from government officials, especially for tax, non-tax, and parafiscal payments. Most investors consider these payments abusive, discretionary, and not reflective of the public services rendered, thus increasing costs, distorting competition, and hindering entrepreneurship. Three public administrations oversee tax and non-tax revenue administration: the General Directorate of Taxation (DGI), accounting for 48 percent of tax revenues, the Directorate General of Customs and Excise (DGDA), accounting for 25 percent of revenues, and the Directorate General of Judicial Administrative Revenues, State Property and Participations (DGRAD), accounting for the remaining 27 percent of government revenues. In addition to these entities, provincial governments and other decentralized territorial entities are also entitled to collect taxes.

Table 2.3. Tax payment process and overall burden.

	COD	UGA	MDG	ZMB	MOZ	CMR	KEN	BOL	IND	SSA average
		Structural peers				Aspirational peers				
Enterprise survey										
Inspection by tax official (% of firms)	92.9	75.5	56.1	60.3			70.1			70.6
Frequency of inspections/meetings with tax officials	10.3	3.9	1.5	2.2			2.2			3.2
% of firms rating tax rates as a major constraint	4.7	18.5	6.1	5.5			9.4			9.7
Doing Business - *Regulations*										
Payments no	52.0	31.0	23.0	11.0	37.0	44.0	24.0	42.0	26.0	36.6
Time (hours)	346.0	195.0	183.0	158.0	200.0	624.0	179.5	1025.0	191.0	280.6
Total contribution rate	50.7	33.7	38.3	15.6	36.1	57.7	37.2	83.7	30.1	47.3
Post-filing index (0-100)	27.1	72.3	21.8	85.9	50.2	49.3	62.0	50.0	68.8	55.9
Paying Taxes Indicator Ranking	180.0	92.0	134.0	17.0	127.0	181.0	94.0	186.0	81.0	131.0

66. **A closer look at the tax regulatory process places paying taxes and the total contribution rate among the critical challenges faced by businesses.** Table 2.2 summarizes the tax regulatory process and fiscal burden based on the Enterprise Survey (ES) and the Doing Business (DB) methodology**.** The Doing Business report ranked the DRC poorly (180th) on the Paying Taxes indicator in 2020, well behind most of its structural or aspirational peers. Particularly interesting is the total contribution rate, which combines the level of taxes with the administrative burden,[38] which is estimated at 50.7 percent, well above the DRC's peers and the sub-Saharan average. The post filling index[39] appears to be particularly problematic with a score of 27.07 over 100, well below all other comparators. Multiple numbers of payments (52 taxes and fees identified in the DB report in 2019) and relatively long delays (346 hours per year) reflect the cumbersome procedures firms must fulfill to comply with their tax obligations. With regards to interactions with the tax administration, the 2014 ES survey indicated a high incidence of firms inspected by tax officials annually (92.9 percent), which leads to an excessive number of meetings with tax agents (roughly 1 per month). Overall, taxes and fees that apply to most businesses are more burdensome than the DB report would indicate. For instance, more recently, the Federation of Businesses of the Congo (FEC), reported that there are 246 different taxes and levies at the central level (mostly administered by DGRAD) in the DRC and another 347 taxes and levies imposed by subnational entities (provinces).

67. **The government of the DRC should amplify its efforts to reduce procedures and timeframes for declaring and paying taxes** on the one hand and further reduce the number of non-tax collections on the other, as recommended in Section 2.3 below. To ensure the effectiveness of these reforms, the government should clarify why the various taxes are levied, who is subject to them, who collects them, and how they are calculated as well as their legal basis.

B. Legal and Judicial Security

68. **One of the primary constraints on the business environment pertains to legal and judicial security of investment and operations for businesses, encompassing investment protection, property rights, and contract enforcement.** Compared to its regional and aspirational peers, the DRC consistently falls short on protecting minority investors.[40] Property rights and the enforceability of contracts pose significant challenges to investment, particularly for new FDI seeking to enter the country. Despite constitutional guarantees of property protection for private investors, evidence suggests that these protections remain largely on paper, with incomplete records and recurring legal disputes over land transactions.

69. **In recent years, the country has made notable reforms in the realm of legal security of investment and operations for firms, specifically concerning commercial justice**. In 2016, the DRC established 13 commercial courts located in the DRC's main business cities, including Kinshasa, Lubumbashi, Matadi, Boma, Kisangani, and Mbuji-Mayi. These courts are designed to be led by professional judges specializing

[38] Total contribution rates is a simulation that include taxes, excises, and duties levied a medium-size company must pay in a given year as well as measuring the administrative burden of paying taxes and contributions and complying with post-filing procedures. Taxes and contributions measured include profit or corporate income tax, social contributions, and labor taxes paid by the employer, property and property transfer taxes, dividend tax, capital gains tax, financial transactions tax, waste collection taxes, vehicle and road taxes, and any other small taxes or fees.

[39] For DRC the Post-filing index has two components— time to comply with a corporate income tax correction and time to complete a corporate income tax correction. Doing Business Methodology 2019.

[40] The DRC's business environment ranks a dismal 176th out of 180 countries in terms of protecting minority investors.

in commercial matters and exist in parallel to the judicial system. These reforms have also been supported by the country's membership or official accession to various international agreements, including OHADA treaty and ICSID, bolstering its commitment to improving the business environment.

70. **Despite these improvements the resolution of disputes through the court system remains painstakingly slow and unreliable, leading private sector actors to avoid relying on it altogether.** Dispute resolution can drag on for an average of 610 days, and the outcomes are often highly unfavorable, with an average of 80 percent of the value at stake being lost, as highlighted by the 2020 Doing Business report. Even the well-functioning of commercial courts have been hampered by a lack of qualified personnel, limited financial resources, outdated systems, inadequate infrastructure, and the reluctance of some DRC jurisdictions to fully recognize OHADA law and institutions.

71. **The government should prioritize accelerating modernization and strengthening of commercial courts, enhancing the training of judges, ensuring the publication of judgments, and setting-up case management systems.** These measures will contribute to greater transparency in the management of judicial affairs and further improve the business environment in the DRC. A new law aiming to strengthen and modernize commercial justice in a larger number of provinces is pending approval by Parliament. The government should promote alternative methods, with greater flexibility, speed, and party control, for the delivery of justice, for which the state is responsible.

72. **A new law regulating alternative dispute resolution (ADR) mechanisms arising from contract execution was adopted in 2019 with the objective to streamline the resolution of commercial disputes and provide greater legal clarity.** As in other jurisdictions, ADR mechanisms in the DRC are rooted in the desire of businesses (themselves regular litigants) to find more commercially focused, tailor-made dispute resolution mechanisms that do not suffer the excesses and failings of the courts. ADR was first introduced in the DRC in 2004 by the business association FEC. The mechanism was replicated 2 years later by another initiative led by the private sector.

73. **After 20 years, arbitration is yet to be accepted and an adopted practice by the private sector operating in the DRC.** As of May 31, 2023, only 25 cases have been instructed and resolved. This is the result of several factors, including a lack of knowledge of arbitration rules on the part of key stakeholders (attorneys, business managers, or legal teams) and the absence in contracts of provisions that accept arbitration as a means of redress in the event of litigation. Improving this situation and making arbitration more effective in the resolution of commercial disputes requires building the capacity of the relevant actors, enhancing credibility of existing arbitration centers, elaborating incentives or legal measures that facilitate the use of arbitration, and promoting better coordination or a merger between the two existing arbitration centers.

C. Reform Governance

74. **In the DRC, which is characterized with low government capacity and weak institutions, reform plans often fail to achieve their goals due to lack of effective oversight and poor coordination mechanisms to ensure implementation.** For instance, the institutional framework for business environment reforms is fragmented, with poor or no cross-institution coordination mechanisms. ANAPI, working under the Ministry of Planning, the Business Climate Unit (*Cellule du Climat des Affaires)* in the Presidency, and to a lesser extent the Business Climate Unit in the Prime Minister's Office have overlapping mandates for coordinating and supervising implementation of business environment reforms. In some cases, they have competing initiatives, resulting in inefficiencies and delays in reform implementation.

The institutional mechanism for reforms could be modernized through the three-tiered structure that is common to most economies that have successfully reformed their business environment:

i) Technical working groups identify the constraints businesses face and develop solutions.
ii) High-level oversight committees or public-private councils prioritize the reform agenda and maintain reform momentum.
iii) A dedicated team is designated to lead the coordination of the overall reform efforts.

2.2 Promote Access to Digital, Electricity, and Financing

2.2.1 Access to Digital: Facilitating Digital Sector Development

75. **Roughly half of the DRC's population is unable to access broadband, and the country has some of the highest retail prices and lowest adoption in Africa.** Broadband penetration currently stands at 12.8 percent based on unique mobile subscriptions,[41] with marked gender gaps in access. However, existing mobile networks cover roughly half of the population, with 3G and 4G coverage rates at 54 and 42 percent, respectively. 4G coverage is largely limited to Kinshasa, Lubumbashi, and Goma, with regional disparities in overall network coverage. The DRC currently has among the highest retail prices for broadband in Africa, with the price of a 2GB data-only mobile-broadband basket equivalent to 10.34 percent of gross national income (GNI),[42] well above the United Nations Broadband Commission's 2 percent affordability target.[43]

76. The **DRC currently lacks a national fiber optic backbone network able to cost-effectively distribute high-speed internet across the country.** The DRC's vast and challenging terrain combined with insecurity and lack of supporting infrastructure makes fiber optic network deployment costly, resulting in many years of under-investments into a very underdeveloped broadband market. This impacts both the cost and the quality of services for consumers, which in turn contributes to low demand. Existing fiber backbone transmission links are concentrated along the West-South corridor (Muanda – Kinshasa – Lubumbashi) and West-East corridor (Muanda – Kinshasa – Goma). Unlocking further investments to develop new fiber links will be key to increasing competition and strengthening network resilience, especially in the central and northern region, in the face of rising climate risks and network outages.

77. **The country lacks many of the digital and analog foundations needed to drive cross-cutting digital transformation.** This constitutes an important barrier to the creation of a robust, private sector-driven digital sector and to unlocking related potential for job creation and economic growth linked to the productive use of data-driven technologies.[44] While in 2019 the government adopted the National Digital Plan (*Plan National du Numérique* – PNN), which is due for an intermediary review in 2025, many of the initiatives envisioned have not materialized due to scarce public funding. The DRC therefore still lacks many of the basic building blocks needed to move digital transformation forward, including universal digital access, digital public infrastructure (DPI) to facilitate digital service delivery, including digital identification, and digital skills.

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[41] GSMA Intelligence, 2022

[42] ITU ICT Price Baskets

[43] https://www.broadbandcommission.org/advocacy-targets/2-affordability

[44] Begazo, Tania, Moussa P. Blimpo, and Mark A. Dutz. 2023. Digital Africa: Technological Transformation for Jobs. Washington, DC: World Bank.

78. **Going forward, priorities for sector development should include sizable investments in network infrastructure to bridge existing gaps complemented by efforts to boost demand for digital services and continued regulatory reform.** Policy recommendations can be considered in three broad categories:

a. Facilitate investment in sector development: In 2019, the UN Broadband Commission estimated that USD 8 to 9 million will be needed to achieve universal access to broadband in the DRC. At the same time, the PNN aimed to build more than 30,000 additional kilometers of fiber optic network.[45] Further support is needed to create a more enabling environment for network investment, especially along some of the less profitable backbone routes in rural areas. This will need to be complemented by efforts to provide improved conditions for investors by facilitating a stronger and more transparent regulatory dialogue, designing public-private partnerships with appropriate incentives for investments, and training a qualified workforce for maintenance and operation of the infrastructure.
b. Develop Digital Public Infrastructure (DPI) to catalyze expansion of digital services: Increasing access to digital services that are attractive and locally relevant will be key to stimulating wider productive usage of digital technology, with positive effects on job creation, innovation, and economic growth. This can be enabled by investing in shared and transversal DPI, including trusted interoperability platforms, a foundational identification system, and digital payments systems so as to form the building blocks of a digital stack for the emergence of transactional e-services, data-driven innovation, and digital businesses.
c. Continue regulatory reform and dialogue: While the adoption of the 2020 Telecoms Law creates a platform for increasing private sector investments, there are still ways in which sectoral governance can be improved to improve market efficiency. In particular, the foundational frameworks for interconnection, licensing, and operationalization of the Universal Service Fund are still to be developed. Meanwhile, a proliferation of parafiscal taxes and fees has created an opaque taxation regime, which is also proving challenging for the private sector. The recent adoption of the Digital Code (*Code du Numérique)* provides a positive signal for the future development of many of the DPI elements mentioned above, even if several application texts still need to be developed and the many new agencies planned under the code will place a significant burden on the administration to increase its sector governance and management capacity and efficiency.

2.2.2 Access to electricity: Enhancing Energy Supply

79. **According to the 2014 Enterprise Survey, electricity supply is unreliable and expensive, and the problem persists today.** This is not surprising given the observable frequency and unpredictability of power outages in the limited part of the country connected to the grid. The country's hydraulic network itself has a potential electricity production estimated at 13 percent of the world's production capacity, capable of covering the entire demand of the African continent, but only 19 percent of the population has access to it, with an unequal distribution between rich (24 percent) and poor households (14 percent) and between rural (11 percent) and urban (26 percent) areas. For many decades, electricity supply was provided by the state-owned company *Société Nationale d'Électricité* (SNEL), which was stripped of its production and distribution monopoly in 2013, allowing dozens of private companies to enter the sector.

80. **The gap in the supply of electricity is further reinforced by the cumbersome procedures involved in obtaining electricity.** The country is ranked 177th out of 180 countries in terms of the procedures, cost,

[45] However, latest consultations with the government point to a total estimated need of more than 50,000 km of fiber network.

and time required for a new business to obtain a permanent electrical connection in its premises (Doing Business, 2020). Compared to its structural peers, DRC has long remained below average in the area of access to electricity. The country was ranked 38th to 45th over the period 2010 to 2020 in the Doing Business rank, far below Mozambique and Zambia but very close to its neighbor Uganda. However, compared to its aspirational peers, the DRC has remained far behind since 2010.

81. **Liberalization reforms of the energy sector started in 1994, with the most recent reforms taking place in 2021.** Reforms since 2021 include the digitization of the bill payment system, the establishment of targets to ensure the reliability of energy supply, and the creation of the National Dispatching System. In the short term, the government should ensure that regulatory bodies are operational by providing them with sufficient resources and strengthen the mobilization of investments that can realize the potential of Congolese electricity production.

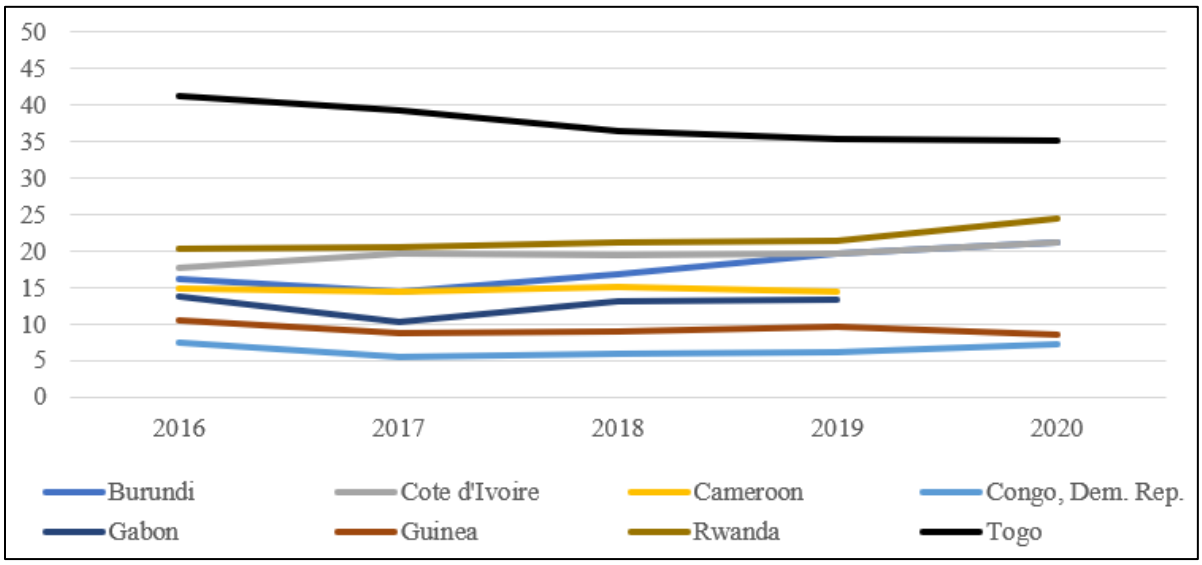
2.2.3 Access to Finance: Promoting Financial Inclusion

82. **The weak business environment is also hampered by a shallow financial sector, and the supply of credit is not diversified, especially for MSMEs.** According to a 2017 World Bank survey, 62 percent of MSMEs believe they have unmet financial needs, ranging between USD 50,000 and 500,000, which is very high compared to some peer countries in the region.[46] The private credit-to-GDP ratio (7.7 percent at end 2021) is one of the lowest on the continent (see Figure 2.2 below). According to financial institutions, outstanding loans to MSMEs represent only 18 percent of total outstanding loans, a low proportion the credit institutions justify by the fact that 90 percent of poor performing loans would generally be loans granted to MSMEs. Business loans are therefore mainly used to finance short-term business needs and trading (export and import) activities. Except for microfinance, credit is mainly limited to larger companies or companies offering cash collateral or companies benefiting from offshore guarantees. Revisions to the law of leasing, a financing tool specifically adapted to MSMEs for the acquisition of equipment, are underway. In the absence of an ad hoc legal framework, there is also no factoring, participatory financing (crowdfunding) in the form of loans from individuals (crowdlending), and very limited financing in the form of venture capital or private equity. To a certain extent, this weak performance also reflects two intrinsic characteristics of the economy that distinguish it from many of its comparators: a lower share of the secondary sector in the economy, and greater informality of businesses.

[46] These include Burundi (16 percent), the Central African Republic (16 percent), Côte d'Ivoire (7 percent), Guinea (18 percent), and Rwanda (16 percent).

Figure 2.2. Evolution of private credit.

Percentage of GDP



Source: World Bank database

83. **Despite high inflation rates, the real cost of credit is exorbitant.** Interest rates average 17 percent for banks (which can go up to 22-23 percent for short-term financing) and 23 to 25 percent on average and up to 60 percent for MFIs. Banks generally explain these high rate levels as being a result of high operating and risk costs. In addition, the prudential rules of the central bank (BCC) impose a bi-annual revaluation of any mortgaged property (to verify that its value covers the loan granted), the cost of which is borne by the customer. Moreover, the insufficient level of collateral (mortgages, financial guarantees, and collateral) or even its absence when applying for credit leads these financial institutions not to grant credit to MSMEs.[47] The establishment of a movable collateral registry would enhance access to credit for MSMEs, which would be able to use their movable assets as collateral when applying for a loan.

84. **Reforms have been initiated in recent years to support the Congolese financial system and promote financial inclusion**. These reforms include the adoption of the Organization for the Harmonization of Business Law in Africa (OHADA) Uniform Act in 2014, which broadens the range of goods that can be used as collateral, and the creation of a credit register to improve access to information on credit in 2015. In 2021, the government started to consider making information on the creditworthiness of borrowers available to financial institutions and creating a credit bureau that could facilitate access to finance. Unfortunately, no progress has been made in implementing these reforms due to the problem of resources, as mentioned by the Central Bank of Congo. Given the important role played by the lack of collateral in the failure to access credit, critical actions include improving the collateral system for financing, notably property rights, leasing and private credit bureaus, and providing partial credit guarantees and long-term credit lines (DRC CPSD, 2022).

85. **The MSME credit segment remains largely untapped due to shortcomings in credit infrastructure and lack of adequate public policies.** The main financing constraints for MSMEs are: i) asymmetry of credit

[47] The amount of collateral required is high (often 150 percent of the loan amount requested on average, as reported by financial institutions).

information due to inadequate credit reporting system (there is no private credit bureau and the public credit registry, which covers only 1.5 percent of the adult population and has an unreliable database, needs to be modernized; ii) insufficient public institutions and policies (including the absence of a credit risk sharing mechanism); and iii) inefficient insolvency and credit resolution mechanism. Other constraints include: i) weak bank capital coupled with a high rate of bad debts; ii) limited access to products specific to SMEs such as factoring and leasing, absence of long-term financing, even absence of limited bankable projects due to the lack of financial statements, and a high level of informality (linked to a particularly complex and costly tax system for companies).

86. **There are several public entities in the field of MSME financing, but there is no formal inter-ministerial monitoring, coordination, and evaluation framework**. Several state institutions carry out actions in favor of the financing of MSMEs in the DRC: the Congolese Entrepreneurship Guarantee Fund (FOGEC), the National Microfinance Fund (FNM), the Financial Development Company (SOFIDE), and the Industry Promotion Fund (FPI), to name only the main ones. Although there are bilateral relations between the various ministries on certain projects, there is a need for a more formalized coordination framework with a view to: i) better control the risks of overlap; ii) measure the additionality of these programs; and above all iii) maximize the mobilization of funds from private financial institutions. In addition, as the government contemplates the creation of a public investment bank for medium and long-term financing of businesses, it is imperative to consider: i) setting up professional and independent governance; ii) ensuring that private co-investments are systematically attracted (rather than crowding them out); and iii) setting up financial, economic, social, environmental performance indicators, etc. with a view to justifying the use of public funds. This entity should also be supervised by the BCC.

87. **Risk-sharing mechanisms such as MSME partial credit risk guarantee schemes are not widely used in the DRC.** Unlike many countries, credit institutions in the DRC make little use of this type of guarantee. A few financial institutions use international or African guarantee funds, but to a very limited extent due to their restrictive eligibility conditions and high cost. FOGEC, created in 2020, is just getting operational, while the process of joining the African Guarantee and Economic Cooperation Fund (FAGACE) has not yet been completed. However, the situation is changing because the government has just given FPM SA (a private credit institution) the necessary financial means to launch a partial portfolio guarantee with the financial and technical assistance of the World Bank through the TRANSOFRME Project.

88. **Two other public policies could have an impact on access to credit for MSMEs: simplified taxation, and the establishment of Approved Management Centers (Centres de Gestion Agréés).** According to various employers' organizations, including the Federation of Congolese Companies (FEC), taxation for companies is of a complexity and cost that discourages entrepreneurs from transitioning from informality (thus depriving a significant number of productive structures of access to credit). In addition, financial institutions note that they encounter difficulties in assessing MSME risks because very often financial statements are not certified. The establishment of Approved Management Centers and a private credit bureau could help credit institutions partially overcome these difficulties (particularly through scoring).

2.3 Address Inefficient Taxation and Fiscal policy Constraints and Challenges

89. **This section briefly presents the main constraints and challenges for fiscal policy in the DRC that the government should address in priority as they constitute important bottlenecks for economic**

development. Data[48] show that the government revenue system is clearly underperforming due to: deficiencies in the tax, non-tax, and revenue systems but also because of the weaknesses of the tax administration. The main policy recommendations provided across different time spans (short, medium- and long term), are summarized in the last sub-section (5).

2.3.1 An underperforming public revenue system

90. **Compared to its African peers, DRC has a very low global public resources-to-GDP ratio.** Total public resources (tax and non-tax revenues and grants) as a percentage of GDP for 2020 (9.6 percent) amount to less than half of the African average (22.8 percent), far behind peer countries such as Rwanda, Cameroon, Ghana, or Côte d'Ivoire, with the exception of Nigeria. This global ratio peaked in 2014 (16.1 percent) and declines steadily until 2020 (9.6 percent). However, the IMF forecast for 2021 shows a clear increase as the ratio is expected to reach 13.7 percent of GDP.

91. **Both tax revenue-to-GDP and non-tax revenue-to-GDP ratios in the DRC are low and lag behind peers.** The total tax revenue as percentage of GDP (tax-to-GDP) for 2020 is also less than half the African average (16 percent) and far behind peer countries (Figure 2.4). This ratio has not changed significantly over the last ten years and even tends to decline slowly between 2012 (10.8 percent, the peak following the introduction of VAT) and 2020 (7.3 percent)[49]. However, the IMF forecast for 2021 shows a slight increase as the ratio is expected to reach 8.1 percent of GDP. In any case, the DRC is among the group of African countries with a tax-to-GDP ratio below 10 percent (together with Congo, Equatorial Guinea, Niger, and Nigeria). The IMF considers that a tax-to-GDP ratio below 16 percent is too low for a country to finance the additional spending required to achieve the Sustainable Development Goals (SDG).[50] In addition, non-tax revenues as a share of GDP have dropped by almost two thirds over a decade (from 6.2 percent in 2010 to 2.3 percent in 2020) and are now almost one third of the African average (6.8 percent) (Figure 2.5). Grants from foreign governments or international organizations[51] are the largest source of non-tax revenues for the DRC (0.9 percent), slightly ahead of property income (0.81 percent), which includes rents and royalties from natural resources (such as oil or mining) and telecommunications. This situation may seem paradoxical since according to World Bank estimates of the contribution of natural resources to economic output, the DRC is a country where underground natural resources contributed at least 17 percent of GDP to economic output in 2020.[52]

[48] The data presented by the OECD differ slightly from those provided by the IMF for the DRC. However, for purposes of comparison, we opted for the OECD data. The African average is made up of data from the 31 African countries that participated in the OECD Revenue statistics project.

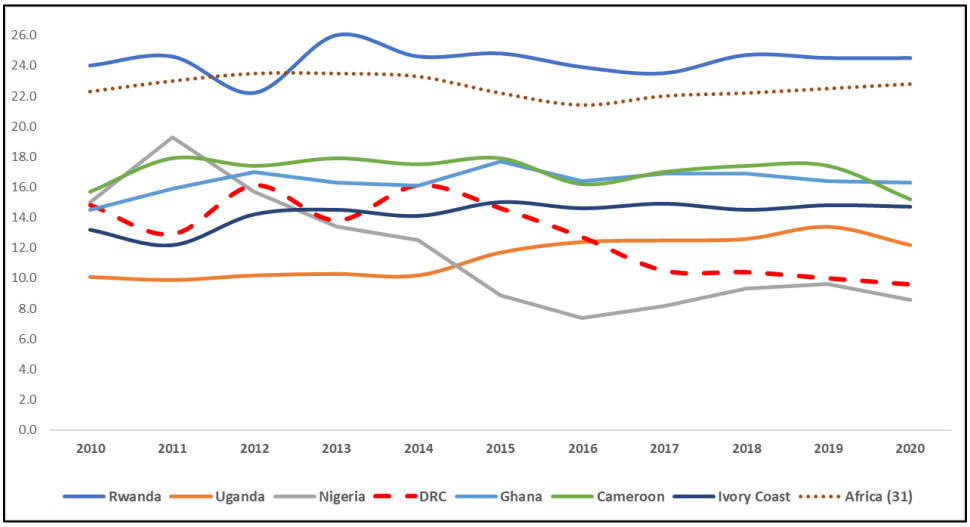
[49] The COVID-19 crisis had a large impact on a resource-rich country such as the DRC. Sharp fluctuations in mineral prices in 2020 affected GDP, and the average tax-to-GDP ratio decreased by 0.4 percentage points between 2019 and 2020.

[50] Gaspar, V. et al. (2019), Fiscal Policy and Development: Human, Social, and Physical Investments for the SDGs. https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2019/01/18/Fiscal-Policy-and- Development-Human-Social-and-Physical-Investments-for-the-SDGs-46444

[51] These include budget aid, food aid, capital transfers, current transfers, project grants, program grants, international debt relief, etc.

[52] World Bank (2022), World Development Indicators. https://data.worldbank.org

Figure 2.3: Total revenue and grants (as % of GDP).



Source: OECD Revenue Statistics in Africa, 2022; https://doi.org/10.1787/7f54581d-fr

Figure 2.4: Total tax revenue.

Percent of GDP

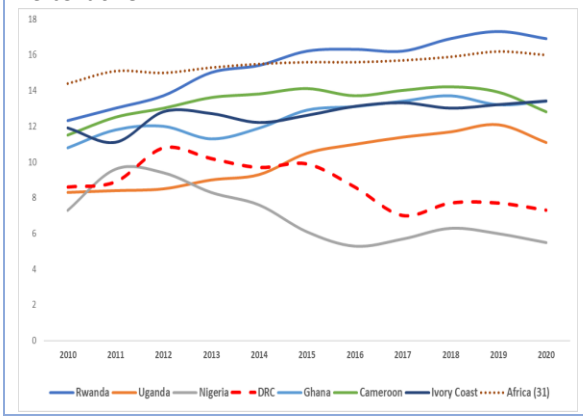
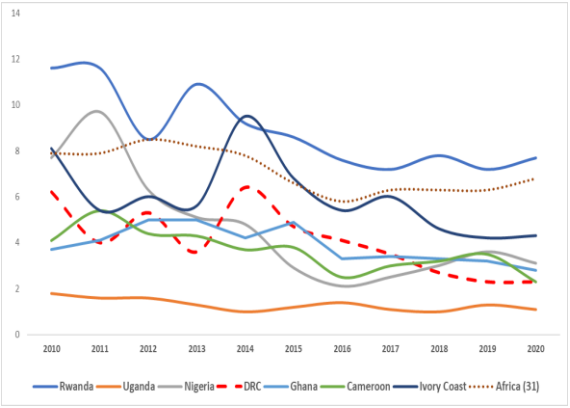


Figure 2.5: Total non-tax revenues, including grants.

Percent of GDP



Source: OECD Revenue Statistics in Africa, 2022. https://doi.org/10.1787/7f54581d-fr

(1) The data presented by the OECD differs slightly from those provided by the IMF for the DRC. However, for reasons of comparison, we have opted for the OECD data.

(2) The African average is made up of data from the 31 African countries that participated in the OECD Revenue statistics project.

2.3.2 Challenges of the Tax Revenue System

92. The underperformance of the public revenues system in the DRC is partly due to the deficiencies of the tax system itself, which is highly fragmented. Both direct and indirect taxation remain largely inefficient in terms of revenue mobilization while at the same time the tax system includes very generous tax exemptions.

A. Fragmentation of the Tax Legislation

93. **To date, the legal sources of the Congolese tax system have not been codified.** Although two Ordinance-Laws fix the nomenclature of taxes, duties, fees, and charges applying to the Provinces, EDTs

and the Central Government,[53] which report on the full range of taxation applicable in the DRC, the underlying legal sources (the rules on the tax base, rates, computation, collection, procedures, etc.) are dispersed in the legal order. This is partly the result of the fiscal decentralization model adopted in the DRC, which overlays two levels of taxation (Central Government vs. Provinces) with a certain degree of autonomy. The division of fiscal powers between the Central Government and the Provinces is set out in the Constitution but remains complex and uncertain and causes coordination difficulties. Better coordination between the central and provincial tax authorities through the institutionalization of a permanent dialogue would be beneficial for the DRC.

Table 2.4. Structure of non-tax revenues in the DRC (2020).

	Amount in million CDF	Percentage of total non-tax revenues	Percentage of GDP
Grants	930,571	44	0.90
Property income	828,625	39	0.81
Sales of goods and services	267,178	13	0.26
Fines, penalties and forfeits	80,584	3.5	0.08
Miscellaneous and unidentified revenues	11,821	0.5	0.01

Source: Author; OECD Revenue Statistics in Africa, 2022

94. **The codification process has been launched.** State taxes are based on a tax "code" that is in fact a mere compilation of legal texts adopted in 1969 concerning schedular taxes on income, VAT (which replaced the Turnover Tax as per a 2010 law), and exceptional taxes on expatriate remunerations. A separate tax procedure code was adopted in 2003. Specific (State) tax provisions also exist in sectoral legislations (mining, petroleum, forestry, special economic zones, investment, etc.). In addition to state taxation, there is provincial taxation, composed of a multitude of taxes, duties, and fees of a parafiscal nature whose legal sources are also scattered in hundreds of different legal texts. This fragmentation of the legal sources for taxation undoubtedly contributes to the complexity of the tax system, and a **codification of this legislation is urgently needed**. The government has embarked on a process of codification of both tax and non-tax legislation with the assistance of the World Bank and the IMF, respectively. This reform is underway, and commissions have been set up and are currently working. The new codes are expected by 2024.

95. **The tax system is clearly underperforming.** The tables and figures below show that in comparison with the average of African countries, the DRC tax system reveals a major tax gap in terms of both direct and indirect taxation. Even though the share of revenues from taxes on goods and services (mainly VAT and excise duties) in the DRC's total tax revenues (51 percent) is well within the African average (50.4 percent) and shows that the Congolese tax system does not rely only on indirect taxation, this share (3.7 percent of GDP) represents half the average for African countries (8 percent of GDP), well below all the countries in our benchmark (Nigeria excepted). This is a point of major concern as tax revenues in the DRC depend mainly on indirect taxation on goods and services. The same conclusion also applies to revenues from direct personal and corporate taxation. Even though these make up a significant proportion of total tax revenues (33.1 percent), their yield (2.4 percent of GDP) is lower not only than the African average (6.2

[53] Ordnance-Law no. 13/001 of February 23, 2013 specifying the nomenclature for taxes, fees, and dues of provinces and decentralized territorial entities along with their distribution modalities.

percent of GDP) but also the majority of countries in the benchmark. Specific studies carried out on this issue recently confirm this situation, particularly concerning VAT and income taxes.[54]

Table 2.5. Tax structure (in % total and of GDP) – 2020.

	RWA	UGA	NGA	**DRC**	GHA	CAM	CIV	**Africa** (31)
In % of tax revenues								
Income and profits (PIT+CIT)	41.3	36.2	49.1	**33.1**	40.5	28.7	12.3	**39.1**
Social security	6.2	…	11.5	**11.1**	8.0	11.7	11.6	**8.1**
Payroll	0.0	0.0	0.8	**2.7**	0.0	1.2	11.6	**0.8**
Property	1.8	-	-	**0.8**	-	0.9	2.9	**1.7**
Good and services (incl. VAT and excise duties)	51.6	63.1	32.5	**51.0**	51.1	58.5	60.9	**50.4**
Other taxes	0.0	0.7	6.0	**1.2**	0.0	2.7	0.7	**1.3**
In % of GDP								
Income and profits (PIT+CIT)	7.0	4.0	2.7	**2.4**	5.5	3.7	1.6	**6.2**
Social security	1.0	…	0.6	**0.8**	1.1	1.0	1.6	**1.5**
Payroll	0.0	0.0	0.0	**0.2**	0.0	0.2	1.6	**0.1**
Property	0.2	-	-	**0.1**	-	0.1	0.4	**0.3**
Good and services (incl. VAT and excise duties)	8.7	7.0	1.8	**3.7**	6.9	7.5	8.2	**8.0**
Other taxes	0.0	0.1	0.3	**0.1**	0.0	0.3	0.1	**0.2**

Source: OECD, Revenue Statistics in Africa, 2022; https://doi.org/10.1787/7f54581d-fr

B. Main issues regarding direct taxation

a) General Considerations

96. **Outdated multi-scheduler system.** Direct taxation is currently governed by Ordinance-Law No. 69/009 of February 10, 1969, which institutes a multi-schedular income tax system that includes rental income, income from movable capital, and professional income. The tax system is purely territorial and exempts foreign sources of income. As in any schedular system, each category of income has its own base rules and rates. Business income realized by individuals and corporations is taxed under professional income, with a common set of rules.

97. **Stagnating performance in terms of revenues.** Total income and profits revenues in the tax structure fluctuate over the years but steadily remain well below African average (Figure 2.7). The ratio of income and profits revenues to GDP follows a similar pattern, with significant variation from one year to the other, but showing disappointing overall revenue mobilization. Income and profits taxation is therefore inefficient in the DRC.

98. **Ongoing reform efforts.** The government is working on a direct taxation reform project with the support of the World Bank. This project, which has been validated by the government and should be submitted to Parliament shortly, attempts to address the shortcomings of the current income tax legislation by introducing a clear separation between individual taxation (PIT) and corporate taxation (CIT). Regarding individual taxation, the reform should follow the dual income tax approach, which is generally

[54] Leif Jensen and Grégoire Rota-Graziosi. 2017. "Étude sur les Ecarts Fiscaux en République Démocratique du Congo." Washington, DC: World Bank.

considered best practice.[55] Excluding the rental tax, which is a provincial tax, the project intends to tax income separately from capital and from labor (employment and business) in two different schedules, to which a single rate will be applied (a low rate on capital income and a progressive rate scale on wages and business income). This approach is simpler and makes the tax system fairer.

Figure 2.6. Total income and profits, 2015-2020
Percentage of tax revenues

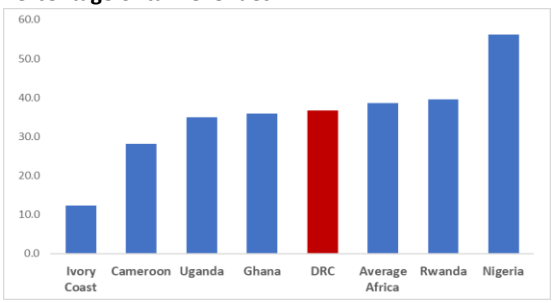
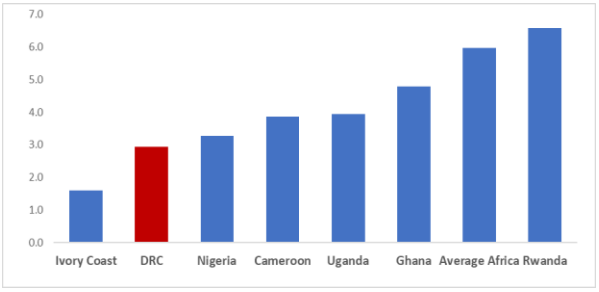


Figure 2.7. Total income and profits revenues, 2015-2020, ***Percentage of GDP***

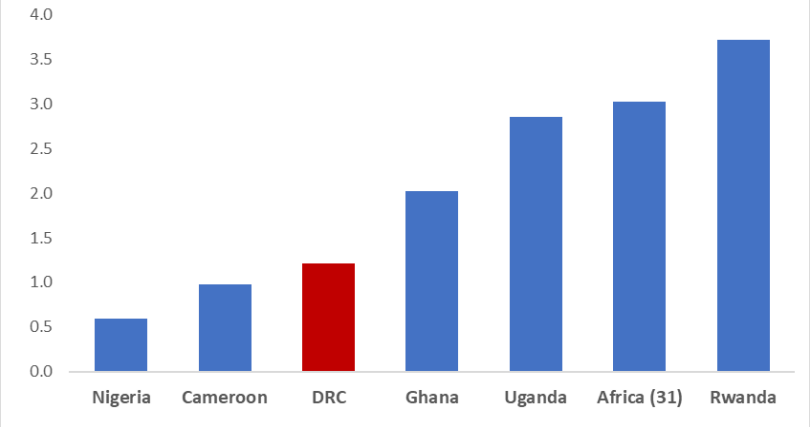


Source: OECD Revenue Statistics in Africa, 2022; https://doi.org/10.1787/7f54581d-fr

b) Taxation of Individuals

99. **Declining performance in terms of revenues mobilization.** After a peak in 2014-2016, the ratio of total taxes on income and profits of individuals to GDP is steadily declining and remains well below the African average, or 1.1 percent in 2020. Though this low ratio is not unique in Africa, the declining trend is preoccupying, and there are no signs of improvement.

Figure 2.8. Total taxes on income and profits of individuals, 2015-2020.
Percentage of GDP



Source: OECD Revenue Statistics in Africa, 2022; https://doi.org/10.1787/7f54581d-fr

100. **The structure and rates of individual taxation are in line with best practices.** The DRC has recently simplified and streamlined the taxation of wages tax system, with only four brackets, in line with best practice. Employment income is subject to a withholding tax on a progressive tax scale, as follows:

- 3 percent for earnings from 0 to CDF 1,944,000

[55] World Bank. 2019. Étude sur la politique fiscale en Afrique de l'Ouest: Bénin, Burkina Faso, Côte d'Ivoire, et Togo. Options de Réforme dans une Perspective Sous-régionale. Washington DC .

- 15 percent for earnings from CDF 1,944,001 to 21,600,000
- 30 percent for earnings from CDF 21,600,001 to 43,200,000
- 40 percent for earnings exceeding CDF 43,200,000
- The tax due is capped at 30 percent of the taxpayer's total income

101. **The tax potential linked to the taxation of wages is not negligible given that the tax administration still has difficulty identifying the level of remuneration and in assessing benefits in kind, which are often the subject of abusive practices.** There is a specific tax regime for expatriate remuneration (IERE) established to discourage employers from hiring expatriate staff. Employers of expatriate employees are subject to a tax of 25 percent on the expatriates' remuneration (10 percent for mining companies). This discriminatory tax regime does not seem justified and should be eliminated as it is not conducive to a good business climate.

102. **Rental income is managed by a decentralized administration, and the potential of property tax is underexploited.** Rental income tax is administered at the level of the provincial tax authorities. Gross rental income is subject to tax at a flat rate. Each province determines its own rate (e.g. 22 percent in the Province of Kinshasa). This is highly unusual as the management of rental income tax requires significant resources and a high level of expertise (in terms of both collection and audit) local authorities do not always have. It would be preferable to reintegrate rental income into State capital income taxation and transfer to the provinces the taxation of property capital (instead of property income), whose tax potential is not sufficiently exploited. More precisely, property taxation applies to constructions and land located in the DRC, with many exemptions depending on the status of the owner. The tax rate structure is complex and varies according to the nature of the property and locality rankings. Property capital taxation is thus highly complex both for the taxpayer and for the tax administration, which ultimately makes it an inefficient source of tax revenue. A simple set of tax base rules and a tax cadaster are core elements for the performance of property taxation.

c) Corporate Taxation

103. **There is an overlap between individual and corporate tax rules.** The interweaving of individual and corporate tax rules in the IPR makes it very difficult to read and understand the tax regime applicable to each category of taxpayers. A separated and specific set of rules related to CIT is essential for a better understanding of the corporate tax regime.

104. **The tax rates for business and non-business income are in line with best practice and peer countries**. Business and non-business income is taxed at a single and proportional rate of 30 percent (with a minimum income tax of 1 yearly of yearly turnover).

Table 2.6. CIT rate in selected countries.

Country	Rate
Rwanda	30%
Uganda	30%
Nigeria	30% for large companies 20% for medium companies 0% for small companies
DRC	30%
Ghana	25%
Senegal	30%
Côte d'Ivoire	25%

Source: Authors

105. **A wildly fluctuating performance in terms of revenues mobilization is noted for the CIT.** Although the CIT tax rate is in line with international standards, CIT revenues have fluctuated wildly over recent years both in the tax structure and in terms of GDP. CIT revenues largely depend on the international context, and the sharp decrease of 2020 can be attributed to the Covid-19 pandemic. However, overall CIT revenues are well below the African average, and CIT is thus also underperforming in the DRC.

Figure 2.9. CIT revenues, 2015-2020.

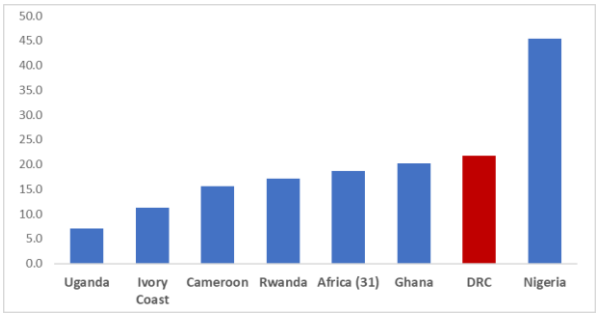
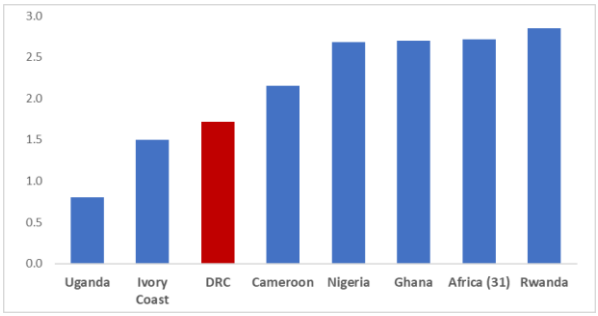


Figure 2.10. CIT revenues, 2015-2020.



Source: OECD Revenue Statistics in Africa, 2022; https://doi.org/10.1787/7f54581d-fr

d) Narrow Tax Base

106. **Low revenue mobilization is the result of a narrow tax base.** Tax rates for both individual and corporate taxation are not significantly lower than those applied by peer countries. However, in the DRC, direct taxation generates less revenue, partly due to a very narrow definition of the tax base. Specific measures should be envisaged to address this issue.

107. **Generous and often unjustified tax exemptions and loopholes on income taxation are a hindrance to increased revenue mobilization.** The government should review the taxation system of the DRC with the objective of limiting as far as possible unjustified tax exemptions. The evaluation of tax expenditure must be the reference tool in this respect. Closing the loopholes for the full taxation of income from individuals is critical. Capital gains from individuals should be subject to tax in the DRC.

108. **Legal instruments do not allow for protection of the corporate tax base**. Protecting the tax base from tax evasion and tax avoidance is of great concern following the OECD's work in this area as well as the inclusive framework (BEPS Project). It mainly consists of capping the deductibility of certain expenses

that are often abused (thin-capitalization schemes, transfer pricing arrangements, etc.). Moreover, the DRC lags far behind in regional and international tax coordination. It is not a member of the OECD-led Global Forum on Transparency and Exchange of Information for Tax Purposes, which has 168 member states to date, including the majority of countries on the African continent.[56] In the same way, the DRC has not applied for membership of the Convention on Mutual Administrative Assistance in Tax Matters developed jointly by the OECD and the Council of Europe, which has no fewer than 147 jurisdictions, including many African countries.[57] The DRC thus lacks sufficient legal instruments to exchange information with other countries and effectively protect its tax base from international tax evasion.

109. **The high degree of informality is a major obstacle to tax revenue mobilization**. Specific tax regimes for micro-size and small-sized businesses were introduced to facilitate the formalization of small economic operators given the high degree of informality in the economy (more than 60 percent of operators are informal). These regimes follow best regional practices but partially fail in their objective. The number of registered taxpayers is still very low compared to the working population and economic operators working in the country. Unfortunately, tax evasion has become a well-established norm in the DRC, and this is due to the loss of credibility of the tax administration, which struggles to enforce tax rules on the ground. The tax administration should put in place a global tax control strategy for small economic operators in partnership with local authorities and organize exchange of information with social institutions (CNSS, INPP, ONEP) to cross-check and identify informal activities that escape taxes. Other initiatives could also be carried out, such as the introduction of a network of Approved Management Centers (*Centres de Gestion Agréés*), which has proved successful in WAEMU and whose membership is mandatory to access public contracts or specific services.

110. The **DRC authorities need to strengthen ongoing reform efforts.** As mentioned above, an income tax law project (PIT and CIT) is in the process of being adopted and should remedy these shortcomings. This reform is expected to increase the level of tax revenue provided that the management of these taxes by the tax administration is concomitantly strengthened.

C. Main Issues Regarding Indirect Taxation

a) Value-Added Tax (VAT)

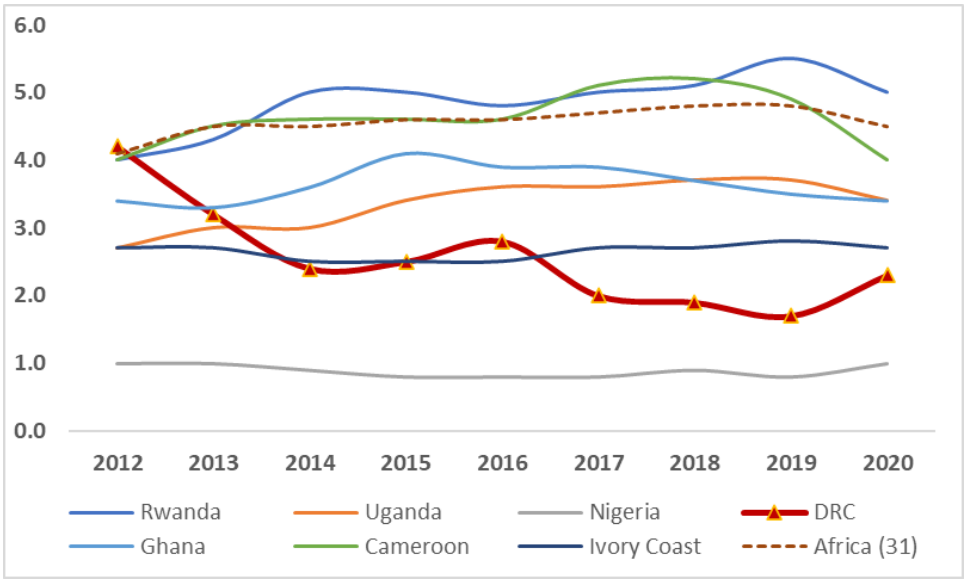
111. **VAT performance has also declined over the years.** VAT was introduced in the DRC in 2010 (but entered into force in January 2012), replacing the turnover tax. Since 2012, the VAT revenues-to-GDP ratio steadily declined from 4.2 percent of GDP in 2012 to 2.3 percent in 2020. In 2022, it was estimated at 2.8 percent of GDP, still well below the African average of 4.5 percent. Among all peer countries, only Nigeria's performance is worse than the DRC's.

[56] https://www.oecd.org/tax/transparency

[57] https://www.oecd.org/tax/exchange-of-tax-information/convention-on-mutual-administrative-assistance-in-tax-matters.htm

Figure 2.11. VAT revenues in selected countries, 2012-2020.

Percentage of GDP



Source: OECD Revenue Statistics in Africa, 2022.

112. **The tax rates and VAT threshold are similar to those of peer countries.** There are currently three VAT rates in the DRC: the normal VAT rate at 16 percent, a new reduced rate at 8 percent covering a list of basic products, and a 0 percent rate for exports and assimilated transactions. Low revenue mobilization cannot be therefore attributed to low VAT rates. The VAT threshold is CDF 80 million, which is also not particularly high.

Table 2.7. VAT rates and threshold in selected countries.

Country	Threshold (in USD)*	Rate(s)
Rwanda	17,800	18% / 0%
Uganda	40,200	18% / 0%
Nigeria	70,000	7.5%
DRC	**35,000**	**16% / 8% / 0%**
Ghana	17,900	15%
Senegal	no threshold	18% / 10% (tourism sector)
Côte d'Ivoire	41,000 for services 82,000 for goods	18% / 9%

*Source: Tax Codes. * The conversion rate is that in force on May 26, 2023.*

113. **The VAT system is dysfunctional.** In the DRC, the VAT system is not working well, for the following reasons:

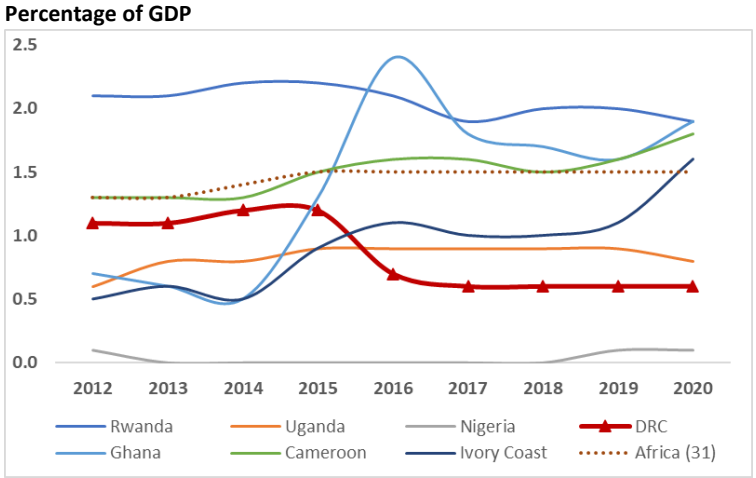
- Weakness of VAT administration by the tax authorities, which are not able either to monitor the list of taxpayers or control compliance with tax obligations by taxpayers (withholding and repayment of the VAT to the Treasury). Under these conditions, VAT tax audit can only be inefficient.
- Weakness of border controls on imported consumer goods, which entails a large loss of VAT. The recent introduction of brand-new IT border systems with full digitalization of the process and E-gate solutions in addition to one-stop post at major borders by the Customs administration and all agencies operating in the borders is expected to improve this situation.
- Expansion of the list of tax-reduced or exempted products due to external shocks (e.g., the Covid and Ukraine crises) but also to lobbying by the various groups concerned by these benefits. Beyond the mere loss of revenue in cases of exemption, the tax authorities have difficulty mastering the VAT base because of the multiplicity of tax rates, which increases the burden of managing this tax.
- Difficulty by the State in reimbursing VAT credits, which further reduces the VAT yield.

Strengthening the management of VAT and limiting exemptions is the only way to improve revenue mobilization of VAT.

b) Excises

114. **The performance of excise duties is also declining.** With an excise duties revenue to GDP ratio of 0.6 in 2020, the DRC is also underperforming on excises. Since 2013, this ratio has steadily decreased and is now far below all peer countries as well as the African average of 1.5.

Figure 2.12. Excise duties revenues in selected countries, 2012-2020.



Source: OECD Revenue Statistics in Africa, 2022.

115. **The number of excise duties is high, but excises are not rationalized or properly targeted.** The rates of excise duties vary hugely from 5 to 80 percent. In addition, some taxed products are very unusual (toothpaste, body deodorants, soap, shampoo). Excise duties should be refocused on traditionally taxed products such as tobacco, alcoholic and non-alcoholic beverages, bleaching or straightening hair products, petrol, cars, or telecoms, which account for 90 percent of total excise duty revenue. The tax rate of these

products could increase to compensate for the abolition of all other excise duties or even to increase the total revenues from excise duties. In fact, the majority of countries in the sub-region have far fewer excise duties[58] that provide as much or more tax revenue.

116. **There is an ongoing effort to rationalize excise duties through the introduction of an Excise Duty Tracking System.** This system will improve both follow-up and collection. In parallel, the DGDA is working on a rationalization plan to eliminate excise duties on some products.

D. Tax Expenditures

117. **The DRC has numerous and overly generous tax expenditures.** A common constraint on revenue mobilization is the uncontrolled use of tax concessions for economic and social policy purposes. Such measures may be cyclical (e.g., to combat inflation) or structural (to attract investment or encourage a particular activity). These tax concessions result in revenue losses (known as "tax expenditures"), which should theoretically be compensated by a corresponding gain in terms of growth, employment, etc. As the loss of revenue can be significant, it is important to assess the budgetary cost of these measures but also their socio-economic impact to ensure that they are appropriate. This is why tax expenditures assessment is now part of good public finance management and is required of most countries. The DRC has introduced numerous derogatory tax regimes, notably in the Investment Code, the Mining Code, and the Hydrocarbon Code. It has also introduced numerous tax concessions for social and economic purposes. The introduction of exemptions of all kinds (usually VAT) should be limited as much as possible as their effects are very uncertain, and they may incur considerable cost in terms of tax revenue losses. For example, the recent adoption of a SEZ[59] or the new reduced VAT rate (at 8 percent) for some essential products may negatively affect domestic revenue mobilization.

[58] The number of excise duties is limited and strictly controlled in WAEMU, ECOWAS, CEMAC and EAC member states, which have harmonized excise duties within their community.

[59] Decree No. 20/004 of March 5, 2020, applying Law No. 14/022 of July 7, 2014 stipulating the regime for Special Economic Zones in the DRC.

Table 2.8. Tax Expenditures in the DRC (2019-2021).

		2019	2020	2021
In CDF million		**2,222.4**	**1,916.1**	**2,142.5**
In percentage of GDP		*2.7*	*2.1*	*1.9*
In percentage of total revenues		*26.6*	*24.3*	*16.9*
In CDF million	Tax revenue	2,198.7	1,907.7	2,135.1
	Income tax	102.5	58.2	128.3
	Taxes on goods and services	1,859.7	1,574.0	1,620.1
	VAT	1,182.0	1,137.0	1,027.7
	Excises	677.7	437.0	592.4
	International trade	236.5	275.5	386.7
	Non-tax revenue	23.7	8.4	7.4
In percentage of total	**Total**	**100.0**	**100.0**	**100.0**
	Tax revenue	98.9	99.6	99.7
	Income tax	4.6	3.0	6.0
	Taxes on goods and services	83.7	82.1	75.6
	VAT	53.2	59.3	48.0
	Excises	30.5	22.8	27.7
	International trade	10.6	14.4	18.0
	Non-tax revenue	1.1	0.4	0.3

Source: DRC authorities and WB staff calculations

118. **The evaluation of tax expenditure is incomplete.** The DRC has already carried out with the help of PTFs annual evaluations of tax expenditure, but this work is not complete. For example, the loss of revenue linked to tax exemptions granted in the mining and oil sectors has not yet been evaluated.

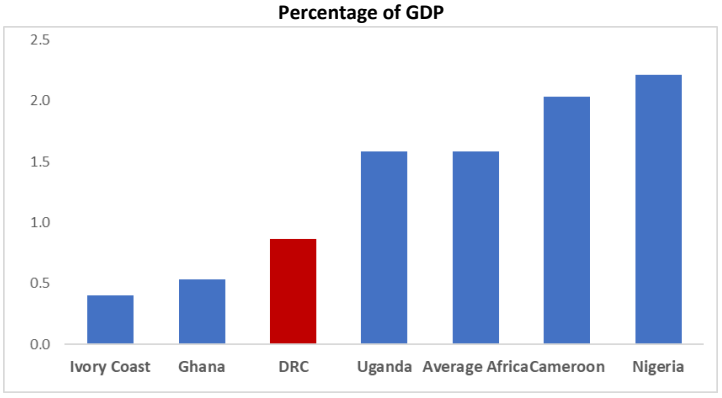
2.3.3 Challenges of the Non-tax Revenue System

A. Non-tax and Parafiscal Charges

119. **Pressure from non-tax and parafiscal charges is particularly high in DRC**. Whereas tax revenues remain low, economic operators are subject to a multitude of non-tax and parafiscal charges that weigh heavily on the Congolese economy. In addition to income tax and VAT, which are the responsibility of the DGI, a business may potentially be subjected to more than 400 parafiscal charges collected by the DGRAD for the Decentralized Territorial Entities (ETDs) and more than 300 additional levies collected by the provinces. This is a unique feature of the Congolese revenue system. These charges are generally small and are justified by a service provided by the State or a decentralized or local entity, but in many cases, they are not (for example, on imported or exported goods). Moreover, these levies do not always have a legal basis and can be levied in a discretionary manner, which creates much tax insecurity for economic operators. These levies thus discourage investment and seriously damage the business climate, which requires relative simplicity and predictability. Although all these charges represent only a small share of total revenues (0.3 percent of GDP), they have taken on a disproportionate dimension in terms of compliance and financial burden for SMEs and need to be reformed. With the support of the IMF, the government committed in 2022 to rationalize and codify in a single legal document all these non-tax and parafiscal charges.

B. Contribution of Extractive Sectors to Non-tax Revenues

Figure 2.13. Resource extractive revenues, 2015-2020.



Source: OECD Revenue Statistics in Africa, 2022; https://doi.org/10.1787/7f54581d-fr

120. **Low contribution of extractive sectors to non-tax revenues.** The contribution of the extractive sectors to national revenues is very low in comparison with other rich-resources countries such as the Republic of the Congo, Mauritania, Equatorial Guinea, Nigeria, or even Cameroon, where rents and royalties from resource extraction are equivalent on average to 6.4 percent of GDP. This low revenue mobilization can also be explained by the lack of diversification of the Congolese economy. For example, wealth generated by forests in the DRC represents almost 10 percent of GDP but does not contribute significantly to national revenues. Some African countries (Cameroon or Ghana, for example) have introduced a number of specific taxes, royalties, and fees from forest exploitation introduced in their tax legislation. These examples should be a source of inspiration for DRC.

Box 2.5. Main forest sector taxes, royalties, and fees in Ghana.

Area-based Charges

Timber rights fee (TRF): A concession fee paid by holders of a timber utilization contract (TUC), established through a process of competitive bidding. Initially an annual fee, in 2017, this was changed to a one-off fee.

Land rental fee (contract area rent): Paid by holders of a TUC to landowners. These fees are collected by the Forestry Commission, which pays these rents to landowners through the Office of the Administrator of Stool Lands (OASL).

Distribution: For on-reserve forests, 60 percent to the Forest Services Division of the Forestry Commission and 40 percent to traditional authorities and local government. For off-reserve forests, 100 percent to traditional authorities and local government.

Volume-based Charges

Stumpage fee: Paid on the volume of timber harvested under a TUC. The fee is reviewed quarterly, based on free on board (FOB) timber prices.

Distribution: 50 percent retained by the Forestry Commission, 50 percent for redistribution to traditional authorities and local government.

Timber Export Levies and Taxes

Export levies: Based on invoiced export value at a rate of 1.5 percent since 2007. Special and export premium levies on high-value threatened species and lumber exports over a certain thickness (various rates) were introduced in 2014. An export levy for air-dried lumber is set at 10 percent.

Distribution: 0.5 percent of the basic export levy goes to the the Forest Plantation Development Fund. All other revenues are retained by the Timber Industry Development Division (TIDD) of the Forestry Commission.

121. **Challenges related to extractive sectors.** The DRC encounters significant challenges in taxing the extractive sectors, mainly because of longstanding tax exemptions or contracts between the country and the extractive industries benefiting local elites.[60] Moreover, the DRC lacks the critical institutions needed to ensure that natural resources participate fully in the country's growth since powers and competences are fragmented between different ministries and public administrations. Rationalizing taxation of the extractive sectors could be beneficial to domestic revenue mobilization.

2.3.4 Challenges Related to Revenue Administration

122. **The parallel existence of different revenue administrations is hampering enforcement and coordinated action.** In the DRC, the management of State taxes is shared between the General Directorate of Taxes (DGI), the General Directorate of Administrative Revenue (DGRAD), and the General Directorate of Customs and Excise (DGDA). Even if it is good practice to separate the management of customs duties and State taxes, entrusting the management of non-tax levies to a specific administration other than the DGI is atypical in comparative tax law and may be the source of coordination difficulties likely to hamper the efficiency of the tax system. In practice, taxpayers deal with multiple interlocutors, with different

[60] Odd-Helge Fjeldstad, Morten Bøås, Julie Brun, Bjørkheim Frida, and Margrethe Kvamme. 2018. "Building tax systems in fragile states: Challenges, achievements, and policy recommendations." CMI Report No. 3 (March).

administrative and tax procedures, which is burdensome and may discourage them from operating in the formal sector.

123. **Digitization of the revenue chain in DRC is ongoing.** The DRC has recently been assisted by AFD, the EU, and the IMF to digitize the revenue chain with new computer software and hardware (ISYS-Régies, Data Warehouse, and LOGIRAD), which are currently operational. Although it is too early to measure their real impact, it is expected that revenue mobilization will benefit greatly from this achievement.

124. **Tax administration is hypertrophic but underproductive.** All the administrations managing State taxes are over-staffed but poorly trained. Combined with inconsistent human resource management, their overall performance is suboptimal.

125. **The administration of taxes should be improved.** A 2016 TADAT assessment identified many weaknesses in tax administration systems and practices, including in collection of information and data analysis. At this level, many actions are needed to bring the DRC's tax administration up to the level of certain countries in the sub-region (for example, Rwanda). These are mainly:

- Establishment of mechanisms to improve tax compliance to ensure a good rate of tax returns filed on time; and
- Introduction of e-procedures (digital reporting and digital payment with mobile phone solutions) for all taxes and all taxpayers

126. **The revenue administration's internal organization and procedures also need to be improved**, notably by:

- Modernizing the integrated management IT tool of the DGI and DGRAD (on the model of the DGDA), with a single database for all services and intranet
- Improving communication (exchange of information) between DGI, DGRAD and DGDA, with the need of a shared data system
- Putting in place risk-based tax audit management that would allow for reorganizing the activities of the tax audit (planning)
- Rationalizing the tax audit process by coordinating the competent authorities to avoid tax harassment of taxpayers
- Improving internal audit

127. **These improvements could contribute to the broadening of the tax base**, thus enabling better mobilization of domestic revenues while at the same time avoiding placing an excessive tax burden on a small group of taxpayers operating in the formal sector, which can discourage investment.

128. The **DRC should consider the introduction of a single Revenue Authority.** The DRC could draw inspiration from the experience of some French-speaking African countries that have recently merged their financial administrations into a single revenue agency. This is the Semi-Autonomous Revenue Authority (SARA) model, which involves merging the tax and customs administrations and giving it a degree of management autonomy from the Ministry of Finance, to which it is accountable on the basis of a global performance contract. The agency then functions like a company, not only in its management and internal functioning but also in its culture, which turns the taxpayer into a customer. In the DRC, a revenue agency could consolidate in one administrative body the DGI, DGRAD, and DGD under one management and thus resolve current coordination challenges. The experiences of Rwanda and Togo have shown that this project could considerably improve the performance of tax management and revenue mobilization.

For example, in Rwanda, collection of tax and custom revenues have increased by 700 percent between 1997, the date of the creation of the Rwanda Revenue Authority, and 2020.

2.3.5 Policy Recommendations

129. The challenges discussed in this section can be overcome by the following recommendations grouped based on their feasibility through different time spans from short to long term.

A. Short-term Recommendations

- Complete the codification of the tax legislation
- Complete the ongoing reform of income taxation by broadening the tax base and reducing tax exemptions. In particular,
    - Establish a specific set of rules related to CIT for a better understanding and adaptation of the corporate tax regime
    - Better protect the corporate tax base by capping the deductibility of certain expenses that are often abused (thin-capitalization schemes, transfer pricing arrangements, etc.)
    - Review, assess, and limit unjustified tax exemptions
    - Integrate rental income into State capital income taxation and transfer to the Provinces the taxation of immovable property
    - Close loopholes for full taxation of income from individuals, notably by taxing capital gains from individuals
- Make operational the Excise duty Tracking System and establish a rationalization plan to eliminate excise duties on some products
- Complete the evaluation of tax expenditure by evaluating the loss of revenue linked to tax exemptions granted in the mining and oil sectors
- Rationalize and codify in a single legal document all non-tax and parafiscal charges
- Digitize the revenue chain

B. Medium-term Recommendations

- Enhance regional and international tax coordination by
    - Participating in the OECD-led Global Forum on Transparency and Exchange of Information for Tax Purposes
    - Apply for membership of the Convention on Mutual Administrative Assistance in Tax Matters developed jointly by the OECD and the Council of Europe
- Combat informality by putting in place a global tax control strategy for small economic operators
- Delete the discriminatory regime for expatriates
- Strengthen the management of VAT and review exemptions
- Design and launch the reform of excise duties
- Rationalize the taxation of the extractive sectors
- Review the derogatory tax regimes and delete them where appropriate
- Strengthen the tax administration by:
    - Introducing e-procedures (digital reporting and digital payment with mobile phone solutions) for all taxes and all taxpayers
    - Modernizing the integrated management IT tool of the DGI and DGRAD (on the model of DGDA) with a single database for all services and intranet.

- Improving communication (exchange of information) between DGI, DGRAD, and DGDA with a shared data system
- Putting in place risk-based tax audit management that would allow for reorganizing the activities of the tax audit (planning)
- Improving internal audit.

C. Long-term Recommendations

- Merge DGI, DGRAD, and DGD into a one single Revenue authority by drawing on the experience of Rwanda or Togo.

2.4 Encourage Fiscal Decentralization

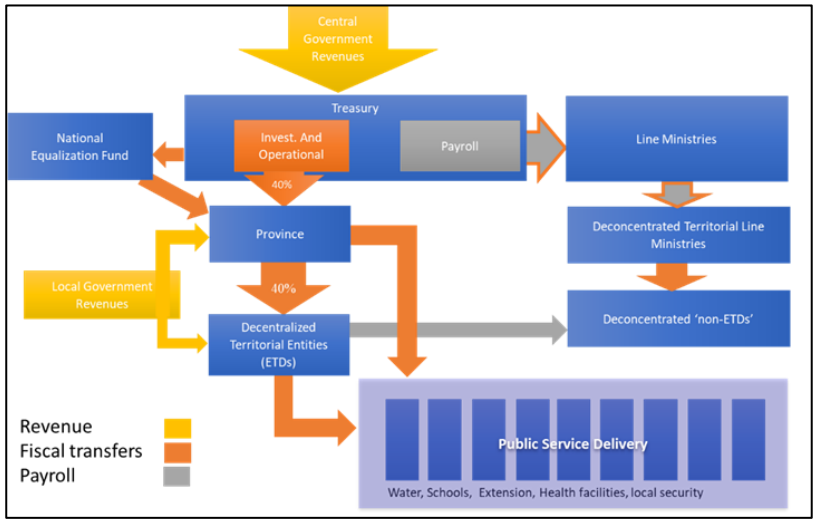
130. This section discusses the main challenges and opportunities associated with fiscal decentralization in the DRC. It builds up on the fiscal challenges discussed in the previous section and studies the potential and underlying conditions associated with the transfer of financial resources from the Central Government to subordinate or semi-independent subnational governments. A more detailed analysis is discussed in the ongoing World Bank's Public Expenditure Review (PER 2023).

2.4.1 Unfinished process of fiscal decentralization in the DRC

131. **For the past 17 years, the DRC has been pursuing the three dimensions of decentralization: i) political, ii) administrative, and iii) fiscal with the aim of increasing accountability and improving public service delivery.** These dimensions cover the transfer of political, administrative and fiscal authority and oversight responsibility from the Central Government to the provinces and decentralized territorial entities (ETDs). The goal of this decentralization process is to devolve power from the center to increase accountability and political voice and to improve public service delivery at the local level. Fiscal decentralization examines the transfer of fiscal authority and responsibility as well as financial resources from the Central Government to subordinate or semi-independent subnational governments. In the DRC, the Constitution places significant fiscal responsibilities on provincial and local governments. For instance, the Central Government is not exclusively responsible for public revenue collection as provinces and ETDs are permitted to mobilize their own revenues through the collection of local taxes. On the fiscal side, the 2006 Constitution empowers provinces and ETDs to receive 40 percent of nationally raised revenues at the local level, while 60 percent remains at the discretion of the Central Government.[61] The Constitution also foresees a National Equalization Fund meant to further enhance fiscal space at the provincial and local levels by contributing 10 percent of the national revenue collected locally to subnational entities. The same transfer rates are to be applied for transfers from the provinces to the ETDs. Figure 2.14 below illustrates a simplified fiscal map of the *de jure* situation of transfer payments from the Central Government to service delivery providers in the DRC. In theory, this would mean that the bulk of public expenditure for service delivery would be borne by the provinces and the ETDs.

[61] Art 51, 51 of the Constitution

Figure 2.14. De-jure fiscal map of the DRC.



Source: Author (based on template and collected information and legal codes in DRC)

132. **Decentralization reforms have considerable potential to help reduce poverty and contribute to shared prosperity in the DRC.** Several of the DRCs most acute development challenges as identified in the country's latest CPF are intricately linked to its ability to successfully devolve governance responsibilities and establish fiscal transfer mechanisms that are effective, transparent, and help provide public services to citizens. Decentralization reforms are known to promote: i) efficiency gains; ii) inclusiveness and responsiveness; and iii) restructuring of political and economic forces in contexts affect by fragility, conflict, and violence (FCV); and iv) sustainable development and improved public service delivery.[62] More specifically, decentralization reforms can help improve human development by strengthening systems for improved access to and quality of basic public services, contribute to the protection of the DRC's environment, and strengthen the country's governance system. Decentralization can also help reduce conflict and counteract fragility through greater transparency and accountability and better service delivery at the local level.

2.4.2 Current Context and Challenges to Fiscal Decentralization Efforts in the DRC

133. **The current context in the DRC is that the Central Government collects all national revenue and redistributes some of these funds back to the provinces and ETDs through operational, investments and payroll transfers**. According to Law No. 08/016 of October 7, 2008, revenues collected and eligible for transfer to the provinces are in two categories (A and B).[63] Although no conditions are officially attached to their use, in practice, intergovernmental fiscal transfer payments from the Central Government to the provinces and ETDs are classified as operating costs, investments, and payroll. The Central Government covers payroll payments of local public officials and capital investments for specific projects on behalf of provinces and ETDs. Transfers for payroll constitute by far the largest share of all transfer payments to local governments (Figure 2.15). Operational transfers are the second largest transfer category, accounting for

[62] For further details, please refer to the World Bank Public Expenditure Review (PER), 2023.

[63] Category A: Administrative, judicial, and State revenues collected in the provinces and tax revenues collected at the place where they are generated. Category B: Administrative, judicial, State, and participation revenues collected at central government level, customs and excise revenues, tax revenues collected from large companies, and revenues from oil producers.

roughly 11 percent of total transfers in 2022. Transfers for capital investments represented only 1 percent of total transfers in 2022. Subsidies to decentralized line ministries are a separate budget item. Together with local tax collection, user fees, and donor funding this makes up the gross revenue of provinces.

Figure 2.15. Distribution of transfer payments to decentralized entities, by category, 2022.

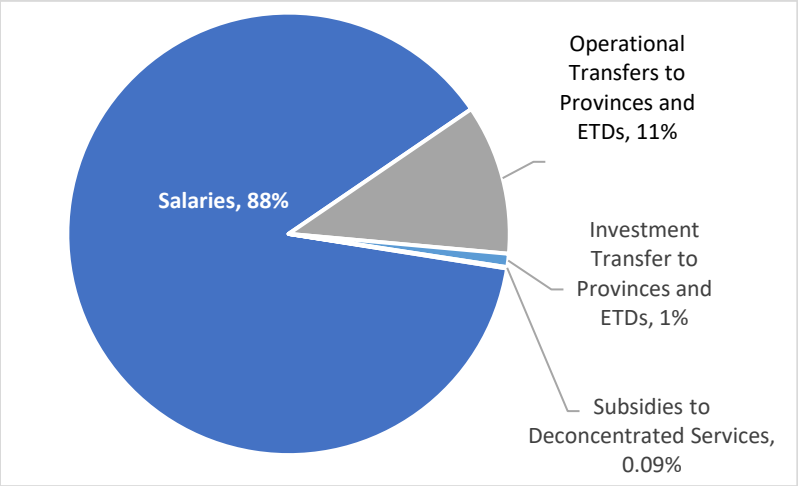


Figure 2.16. Payroll, operational, and capital investment transfers to provinces and ETDs per capita, 2016-2022.

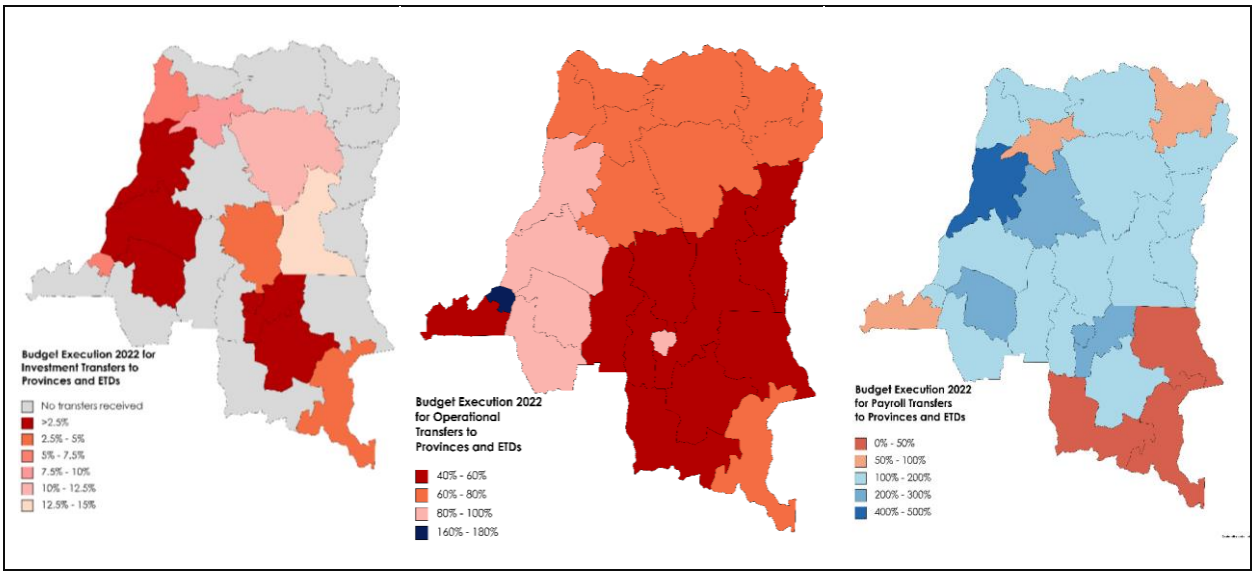
Source: Ministry of the Budget

134. **The existing system suffers from lack of equity in resource transfers in addition to strong disparities in their execution**. Taking 2019 as basis since this is the latest year with provincial demographic numbers,[64] the government transferred USD 13 per capita to provinces and ETDs. However, as the following figures illustrate, there is a lack of equity in the treatment of the provinces, especially with regard to payroll transfers, by far the largest share of all transfer payments. In 2019, the province of Equateur received USD 45 per capita compared to Tanganyika, which received less than USD 0.50, nearly 78 times less per person. While a slightly less pronounced image presents itself for operational transfers, there is still a marked difference in terms of per capita spending, ranging from USD 2 in Maniema Province to just USD 0.5 in Kwilu Province, four times less per inhabitant. Some provinces receive few operational transfers but fare well on payroll transfers, while others receive few transfers across all three categories. Thus budget

[64] UNDP-CD-ANNUAIRE STAT 2020

overspending and recurring emergency expenditures are a serious concern and may contribute to relatively low budget execution for these transfers. For instance, while payroll transfers exceeded the 2022 budget by 14 percent, only 2.19 percent of budgeted capital investment transfers were actually spent.

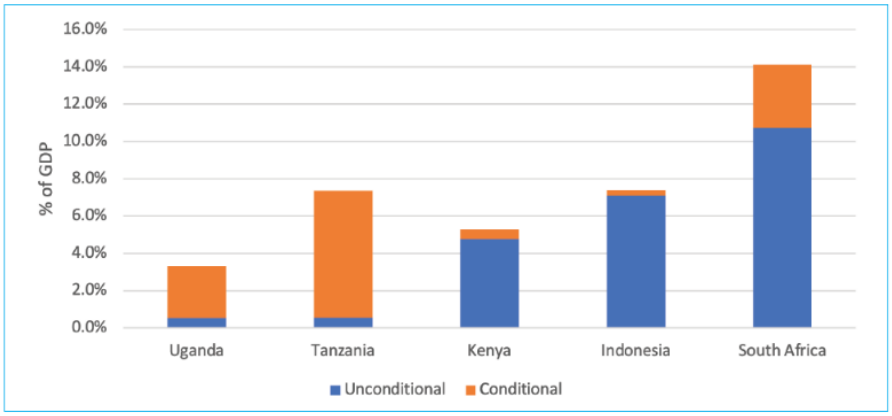
Figure 2.18. Budget execution rates across provinces in 2022.



Source: Ministry of the Budget

135. **There is significant inconsistency between the *de facto* and the *de jure* intergovernmental fiscal system, though political momentum is growing for accelerated reforms.** Despite the existing legal framework, the mechanisms of transfer to provinces are not clear in practice. An inter-ministerial decree signed by the Ministers of Finance and of the Budget will determine the modalities of transfer of nationally raised resources in Categories A and B to provinces based on their contributing capacity to the Central Government as well as demographics. Both measures were adopted in May 2023 and subsequently published based on a public finance reform strategy. Pending their implementation and based on the criteria developed by the Ministry of the Budget and approved by Parliament as the budget authority, a plan to transfer nationally raised resources is being devised and executed by the Ministries of Finance and of the Budget. Even if the new transfer modalities were fully introduced, serious questions around the calculation method remain and should be made available to the public. Leaving payroll transfers aside, the government has consistently failed to transfer the required 40 percent back to the provinces. Decentralized transfers are highly conditional, but the conditions are poorly codified and not transparent to the public. When compared to neighboring countries, the DRC's transfer mechanism resembles more closely that of Uganda or Tanzania than that of Kenya or South Africa (Figure 2.17).

Figure 2.17. Balance between conditional and unconditional funding for local governments in different countries.



Source: Conditional Grants : A Primer. Hadley, Williamson, Yilmaz (2022)

136. **There is an urgent need for reforms at the local level toward greater accountability for public expenditure and for control over provinces.** While local revenue collection has increased steadily in recent years due to the introduction of new taxes, it remains insufficient to make up for the shortfalls from transfer payments from the Central Government. As regards control, the absence of Audit Chambers at provincial levels limits efforts toward accountability and governance at the provincial level. The establishment of these Chambers is part of ongoing public financial management reform that will begin in the Kasaï provinces as part of the World Bank Enhancement of Revenue Collection and Expenditure Management (ENCORE) project and should allow them to exercise all the control powers devolved to the Court of Accounts (*Cour des Comptes*) over the accounts of provinces and ETDs. The Constitution mandates the annual report of the Court to be published and remitted to the President of the Republic, Parliament, and the Government.[65] The Court has in previous reports noted severe shortcomings in the budget processes of provinces.[66] In its latest report of January 2023, it noted the following regarding budget processes within provinces: i) the use of a non-regulated emergency procedure for payment of certain expenses. ii) excessive recourse to the provision of funds procedure for major expenses; and iii) excessive recurrent expenditures.

2.4.3 Recommendations Moving Forward

137. **The Government is committed to continuing its efforts toward fiscal decentralization with the design of a six-year strategy.** The bleak picture on fiscal decentralization has prompted the government to devise a six-year Strategy for Strengthening Financial Decentralization. The Strategy aims to strengthen governance at the sub-national level through effective public financial management in line with sustainable development objectives. A revised draft of the Strategy was finalized at a workshop that took place in May 2023 in Lubumbashi, where it was validated and signed by the Minister of Finance. Ongoing reform efforts are complemented by the Public Finances Reform Orientation and Steering Committee (*Comité de Pilotage et d'Orientation de la Réforme des Finances Publiques)* convened by COREF with

[65] Constitution of DRC. Art. 180

[66] Journal Officiel (various years, i.e., 2011:31-177, passim).

support from the World Bank project ENCORE and chaired by the Minister of Finance.[67] Moreover, the government recently finalized an inter-ministerial ordinance on the transfer of nationally raised revenue (Category B) to provinces and a ministerial circular on the allocation of Category A revenue. The ordinance and the ministerial circular are expected to be signed by the Ministers of Finance and of the Budget by the end of June 2023. It will be opportune to define a clear and transparent calculation method of revenue distribution over the provinces.

138. Given experiences of recent decades, including in the DRC, the following recommendations can be highlighted in order to push toward a favorable decentralization process:

1. **Establish frequent dialogue to address misunderstandings, conduct course corrections, and remain adaptive to the ever-changing circumstances of a fragile governance environment**. Dialogue should be centered around the desired results rather than inputs. i.e., less on fiscal resources but rather on how local governments can provide the services they are mandated to offer citizens.
2. **Identify a commonly desired end-result that decentralization should achieve and place it at the center of reforms**. Decentralization should never be viewed as a means to an end. A strong commitment by all policy actors on such a result can help create the necessary enabling environment and provide answers to complex questions that may determine if a decentralization reform succeeds or fails. Stakeholders across all levels of government can address questions such as: i) What roles should deconcentrated line ministries have vs. decentralized ones; (ii) What funds are needed so that ETDs can operate according to their mandate; and (iii) Which actors require additional encouragement to contribute to the reforms.
3. **Make additional efforts to strengthen the voice of the ultimate beneficiaries of reforms and hold local and central governments to account.** Decentralization reforms are meant to increase transparency and accountability by moving political decision making and government spending for public services closer to citizens. Grassroots activities such as participatory budgeting mechanisms, have shown success at strengthening local financial management, including in the DRC.[68] [69] [70] These interventions provide an important contribution to the overall decentralization reform efforts in many countries.
4. **Building capacity at all levels of government is essential.** Building institutional capacity remains a crucial aspect of any successful decentralization reform. Lack of capacity and staff inhibit the establishment of local subnational institutions, create bottlenecks in service delivery, and open the door to corruption and waste. The DRC has previously struggled to devolve government functions to provincial ministries due to a lack of adequate staff and efforts to train and strengthen public officials. Any reform focused on capacity building must take place with a multilevel governance approach in mind. This includes the center of government, from where trained public officials may subsequently be sent to the provinces to support the establishment of provincial and local institutions.

[67] COREF is implementing a USD 250 million World Bank ENCORE project whose main component is focused on strengthening the country's decentralization. Other technical and financial donors also support aspects of decentralization.

[68] https://www.worldbank.org/en/news/feature/2012/09/10/participatory-budgeting-an-experience-in-good-governance

[69] https://www.ned.org/region/africa/congo-democratic-republic-2021

[70] https://www.opengovpartnership.org/stories/participatory-budgeting-spreading-across-the-globe

2.5 Attract Value Chain Development: Illustrative Case Studies

139. This section aims to summarize the mining and agri-business value chains development potential and to stress the importance of an enabling policy environment to foster economic diversification, job creation, and faster growth through structural transformation and stronger trade and regional integration. The focus is on two key potential growth driving sectors (mining and agribusiness) that offer a major opportunity for expansion in the context of the global energy transition, food insecurity, and further regional integration. While opportunities and constraints specific to the mining EV battery and cassava value chains are presented (including a climate dimension), most of the challenges and recommendations illustrated could also apply to several other products or sectors of the economy. The purpose of the case studies is to highlight how the business environment in general is not attractive to private investment, SMEs expansion, or product competitiveness. A detailed analysis of each value chain is provided in the two case studies attached to this CEM.

2.5.1 Mining EV Battery Value Chain Development

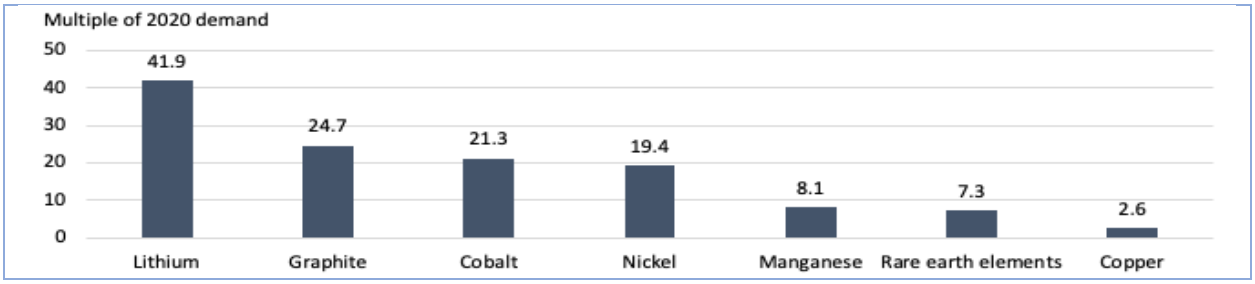
A. Opportunities in the Mining Industry[71]

140. **The international mining industry is undergoing deep transformation due to the global energy transition.** This transition presents opportunities for companies and host governments as interest increases in developing supplies of energy transition minerals, but it also poses regulatory and technological challenges as countries and companies equally seek to decarbonize their value chains in support of the Paris Agreement commitments. In a world where end consumers and manufacturers producing renewable energy technologies are increasingly seeking to produce clean products and green credentials are measured throughout the value chain, the DRC is well positioned to be a supplier of choice. Both the DRC and Zambia have some of the cleanest copper and cobalt on the planet. This is partly due to the large degree of renewable (hydro) power used in their production but also because of the high grades of the deposits.

141. **Demand for battery minerals is expected to grow tenfold over the next decade, and the DRC is well positioned to supply a significant percentage of these minerals if the right enabling conditions are met.** Analysis of public data and projections released by global automakers indicate that they could produce 5,819 GWh of battery capacity and 55 million cars with a total investment of USD 1.2 trillion by 2030. For some minerals, this represents massive increases in demand (and corresponding supply) by 2040 from 2020 levels. Lithium graphite and cobalt will see the highest multiples of this increased demand, albeit from a small 2020 production base. While only a small multiple increase of 2.6 may be seen for copper, it is starting from a very large base and presents a significant industry challenge as it cannot be substituted by other minerals.

[71] Case Study 1 of the CEM report provides a detailed analysis of the mining (EV battery) value chain.

Figure 2.19. Mineral demand growth from 2020 to 2040 fur Sustainable Development Scenario (as multiple of 2020 demand).



142. **The energy transition presents several opportunities for DRC, one of which is to provide the additional supply of energy transition minerals necessary to mitigate climate change and to contribute to two global public goods.** Demand for various energy transition minerals is predicted to grow exponentially. Specifically, the future is more mineral-intensive than the past: since 2010, the average amount of minerals needed for a new unit of power generation capacity has increased by 50 percent as the share of renewables has risen (IEA, 2021). Unlike previous commodity booms, this increase is structural and not transitory. Thus the time has come for the DRC to make long-term investments in its mineral supply opportunities. Doing so will not only benefit the DRC but can lead to the creation of transformational infrastructure investments in transportation and energy, both of which could provide public goods and assist in diversifying the economy, if done correctly. With the increased supply of energy transition minerals by the DRC and diversification of the supply chain, the DRC has the opportunity to contribute to two global public goods: assist with much needed mineral supply to deploy technologies necessary to mitigate climate change, and diversify renewable energy supply chains, which will improve the resilience of those supply chains and reduce geopolitical tensions.

B. Challenges

143. **The DRC remains poor, and mining sector governance remains a challenge.** A new Mining Code was adopted in 2018 after many debates with both the private sector and civil society. While fiscal provisions were revised to ensure greater financial benefits from mining, the Code also created some issues in this regard. Above all and as in many developing countries, capacity is limited for fully applying the new Code. The assessment of institutional capacity to implement policies and monitor or enforce the law remains low, as is the government's ability to leverage the sector to grow and diversify the economy.

144. **As the DRC's mining sector prepares for a new wave of investments and a transition to higher energy intensity operations, the time has come to lay the foundations for a resilient, responsible, and clean supply chain.** The ownership composition of the sector is changing and diversifying, with more companies considering taking on more risk. Furthermore, the deepening of existing mines will result in new geology and trigger a wave of new, higher energy-intensity investment.

145. **An enabling environment needs to be created for the sector to:** i) decarbonize itself before industry locks themselves into carbon-intensive technologies; ii) attract a new wave of investment to support existing operations; and iii) allow the DRC to benefit from development in previously unexplored parts of its territory. Improved governance, stability, predictability, and energy and transport infrastructure are key building blocks in supporting this transition and diversifying the economy into clusters and along economic corridors to promote long-term, sustainable inclusive growth.

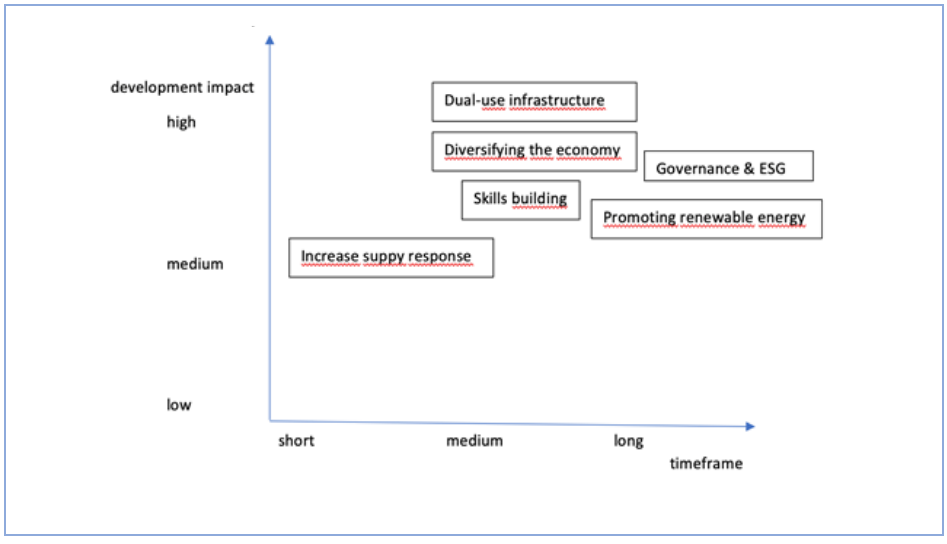
146. **Attention to the socioeconomic and environmental issues caused by unregulated artisanal mining will need to be accelerated.** The impact of ASM mining is linked to poverty, lack of rural development, and low levels of government control and management. The country's overall risk rating is negatively affected by these factors and investment into the development of critical minerals through the large-scale mining sector can be jeopardized if these challenges go unmet.

C. Recommendations

147. **The DRC stands to benefit hugely from the energy transition if it is supported in seizing the opportunity. A six-point agenda for mining and value addition is proposed to support the DRC in seizing this opportunity.** Beyond the generation of foreign exchange, fiscal revenue, local procurement, value addition, and jobs, rising demand for critical minerals significantly increases potential benefits from the sector. Furthermore, investing in the DRC's ability to seize mineral value chain opportunities aligns with the Paris Agreement, supporting the global decarbonization agenda while leveraging a tremendous development opportunity. Thanks to its scale and multiple development agencies, the World Bank Group is uniquely positioned to support the following six-point agenda for mining and value addition in the DRC:

i. Increase the DRC's supply response capabilities through support for mining investments.
ii. Unlock long-term transformational development opportunities through strategic, mineral resources–anchored transportation infrastructure investments.
iii. Support investments in renewable energy to decarbonize mineral value chains, achieve the DRC's NDCs, and alleviate rural energy poverty.
iv. Support value addition beyond mining to capture more value for the DRC (and Africa) and diversify the economy and global value chains for energy transition minerals.
v. Invest in human capital formation to allow the DRC to seize income opportunities from the booming sector, its downstream value chain, and economic diversification.
vi. Strengthen governance, mining-impacted communities, and environmental stewardship to ensure that mining and metals development inclusively benefit the DRC and its citizens within a context of sustainability.

Below is a table prioritizing the above six recommendations in terms of potential speed of realization and development impact:



148. **Adoption of the six-point agenda can yield multiple benefits for the DRC.** Some of it will capture domestic revenue mobilization and macroeconomic benefits, good quality employment opportunities, and economic diversification. Others will be shared internationally as they generate global public goods such as improved global ability to mitigate climate change, improve resilience of energy transition minerals, reduce the emissions intensity of value chains, and improve integration into the global economy.

Specific Recommendations to Enable Value Addition in Copper and Cobalt Value Chains

149. **Cobalt and copper are essential components to the energy transition value chain and have established mine production units in the DRC. Expanding the value chains of these industries should be top priority for job creation and exports. However value addition will contribute very little in terms of additional tax revenue.** Two areas of interest in particular are the manufacturing of copper wiring and precursor mineral processing for EV batteries.

150. **The first value addition option for the DRC would entail the development of copper-based manufacturing in the ex-Katanga region, with a focus on transforming the region into a manufacturing cluster with a local concentration of similar or complementary industries.** In comparison with smelting and refining, manufacturing copper products does not require as much energy, and, as demonstrated by existing operators, manufacturing is already economic and technically feasible in the DRC. Opportunities in the copper value chain range from the production of electrical products, starting from copper wires, cables and other semis and eventually move into products such as electric motors, transformers, renewable energy, and potentially copper foils used in EV battery cells. The production of USD 500 million of copper-based products per annum would result in USD 112 million in additional exports and possibly 1,300-2,000 additional employment opportunities but only USD 9 million in annual taxable revenue as margins are small.

151. **On the other hand, the EV battery value chain is much more complex and difficult to enter, requiring highly technical skills for much of the value chain, though it has the potential to quadruple the end value of battery minerals mined in Africa.** Developing the full value chain will require a regional approach, with each country in Southern Africa contributing in terms of specific metals and capabilities to undertake complex manufacturing and attract the necessary investment. For the DRC, precursor production of cobalt hydroxide is a necessary small step on a much longer and more complicated journey. The jump from developing the capabilities to make precursors to developing the capabilities to manufacture batteries is wide. However, the production of precursors is a first and very important step toward this ambition, and although it may help generate a small cost advantage in the short term, it would set the stage for longer-term production for other value chain products.

152. **To do this, the DRC needs to overcome specific challenges in terms of skills gap, access to finance, and infrastructure such as energy and transport.** To address the skills gap, a multi-pronged strategy is required, which includes: i) facilitating access to skilled foreign workers with commensurate requirements for skills transfer programs and obligations; and (ii) reinforcing the DRC's own pipeline of skills, starting with STEM skills with an inclusive focus on women, girls, and the disabled, building vocational skills capabilities, and finally improving the pipeline of quality graduates.

153. **If these challenges are addressed, building a battery pre-cursor plant in the DRC could be economic.** However the main concerns will be the minimum adjusted rate of return required as well as ESG risks associated with the sourcing of cobalt ores. Though economic and political risks can be mitigated

through sound operations and risk insurance, ESG risks are more difficult to mitigate and are currently a major deterrent not only for investment in the DRC but also because this threatens the use of cobalt EV battery chemistry in the long term.

154. When looking through the various opportunities, constraints, and country case studies, several key recommendations emerge that would support the DRC to capture more value addition in copper and cobalt value chains. These are listed and detailed below along with country examples (CE) in the recommendations section at end of the Mining Case Study chapter:

1. **Improve Infrastructure and Logistics:** Invest in infrastructure development, including transportation networks, power supply (by leveraging green resources), and logistics, to facilitate the movement of raw materials and finished goods (CE: China and Vietnam).
2. **Accelerate the Development of the Kinsevere Special Economic Zones Dedicated to Copper and Cobalt Processing and Manufacturing:** These zones should offer incentives such as tax breaks, streamlined regulations, and access to reliable utilities to attract both domestic and foreign investors. Where infrastructure gaps exist, policy makers should be speaking with the international community now in order to align projects to support the government's objectives (CE: China, Ethiopia, Singapore, Mexico).
3. **Encourage Technology Transfer and Research and Forge Public-Private Partnerships:** Promote technology transfer by partnering with international companies or institutions to facilitate knowledge exchange and enhance local capabilities in copper and cobalt processing and invest in research and development to improve extraction techniques, metal refining processes, and product development for higher value-added applications. The leading European battery manufacturer Northvolt has expressed an interest to the World Bank in developing a relationship with the DRC government, and this could be an area of cooperation together with the skills development agenda discussed next. Moreover, engage with industry associations, research institutions, and foreign governments to leverage their expertise, networks, and funding opportunities (CE: South Korea, India).
4. **Enhance Skills and Workforce Development**: Invest in technical and vocational training programs to develop a skilled workforce capable of operating advanced machinery, managing production processes, and conducting research. A good way to do this would be to collaborate with educational institutions and industry experts to design training programs that align with the needs of the copper and cobalt value chains (CE: Germany, Malaysia).
5. **Support Access to Financing:** Facilitate access to financing for small and medium-sized enterprises (SMEs) involved in value addition activities by establishing specialized funds, grants, or loan programs to support entrepreneurs and businesses interested in establishing copper wire and foil production facilities or cobalt-based component manufacturing for electric vehicle (EV) industries (CE: Malaysia, Brazil).
6. **Strengthen Environmental and Social Standards:** Complying with international sustainability standards will enhance the DRC's reputation and attract ethical investors. Operationalization of government plans for the formalization of cobalt mining together with traceability programs could feature as activities under this recommendation (CE: Norway, Costa Rica).
7. **Promote Local Processing and Manufacturing:** Beyond the law on special economic zones, the government should encourage local processing and manufacturing by providing incentives for companies to establish production facilities within the DRC. This can be achieved by implementing policies that prioritize domestic procurement for copper wire, foils, and cobalt-based components to

promote value addition and create employment opportunities for the local population (CE: Brazil, Thailand).

8. **Support Domestic Market Development and Work Regionally:** Facilitate market development by actively promoting the DRC's value-added copper and cobalt products, first regionally through participation in international trade fairs, then collaboratively across the SADC region to support other country's value addition ambitions. Furthermore, leverage the forthcoming shift in South Africa's automobile manufacturing sector to secure continental demand for the DRC's future value-added production in the EV battery value chain. Explore opportunities for strategic partnerships with EV manufacturers and battery producers (CE: Germany, Kenya).
9. **Establish Clear Regulations and Policies:** Develop clear and consistent regulations and policies that support value addition in the copper and cobalt value chains by providing a transparent, comprehensive and easy to access framework for investment and industry growth (with guidelines on licensing, taxation, and export procedures) in order to create an investor-friendly environment and foster long-term stability in the sector. Ensure that any contracts to be negotiated are standard to avoid unnecessary uncertainty and allow investments into the DRC (CE: United Kingdom, South Africa).

2.5.2 Agribusiness-Cassava Value Chain Development

The following section considers the specific constraints and challenges faced by MSMEs in the agribusiness sector illustrated through the analysis of the cassava value chain. Moreover, an assessment was conducted among large cassava actors to distinguish their challenges from those of the most common actors: smallholders. [72]

A. Opportunities

155. **Cassava is becoming one of Sub-Saharan Africa's main food starches. This crop is increasingly important to achieve food security, alleviate poverty, promote employment, and foster trade.** It is known as a "super crop" due to: i) its storability, which allows for considerable flexibility across weeks and seasons as to when it is harvested; ii) its resilience against harsh climate conditions; and iii) its tolerance under limited input conditions. Moreover, the biofortification of cassava and the fortification of its derivative products can alleviate the malnutrition burden that many countries in the region, including the DRC, still face.

156. **In an effort to rely less on the import of wheat and become more self-sufficient, the gov is seeking substitute products to become more food secure sustainability.** Strengthening the trade balance is an important mechanism for driving economic growth and diversification and reducing poverty, as highlighted in a World Bank report on the Role of Trade in Ending Poverty.[73]. As the DRC focuses on its diversification agenda, it has the potential to play an important role in the global cassava value chain from a production and transformation standpoint. Unlocking this opportunity by improving the enabling environment for private sector development, attracting foreign investments faster, reducing administrative costs and improving productivity can translate into higher tax revenues for the government, improved profitability for enterprises, and more sustainable growth for the sector along with improved employment opportunities for MSMEs and rural workers. This is even more crucial for a country in which

[72] Case Study 2 of the CEM report provides a detailed analysis of the cassava value chain development.

[73] https://www.worldbank.org/en/topic/trade/publication/the-role-of-trade-in-ending-poverty

approximately 62 percent of the population[74] continues to experience poverty, and one in six Congolese continues to live in extreme poverty despite having one of the youngest populations in the world.

157. **The cassava value chain offers untapped opportunities for the DRC to depend less on grain exports and to become a priority agricultural value chain alongside maize and fisheries.** In 2021, the country's cassava production was the world's second largest after Nigeria at 45.67 million tons of fresh cassava and growing at a Compound Annual Growth Rate CAGR 3.91 percent.[75] This important crop is increasingly important to achieve food security, alleviate poverty, generate employment, adapt to climate change, and balance trade. Given global economic volatility, the government can take proactive measures to develop the cassava value chain in order to address a rapidly growing population and chronic deterioration of living conditions that has resulted in an estimated 26.4 million people facing acute food insecurity, 5.7 million becoming internally displaced, and 2.8 million children becoming acutely malnourished in the first half of 2023.[76] Moreover, the impact of the war in Ukraine has accelerated the effort to rely less on the import of wheat and grains and to become more self-sufficient, hence promoting further the development of agribusiness such as the cassava value chain.

158. **Accelerating the development of an industry around cassava, a climate-resilient crop would also support DRC's national efforts to enhance both climate change adaptation and mitigation.** According to FAO Stat, by developing this priority value and incorporating climate-smart agricultural methods and technologies, the yield of cassava can be improved two- to four-fold from a yield of 8.15 MT/ha in 2021. Despite cassava's climate-resilience, fresh cassava spoils within 48 to 72 hours after harvest, with over 50 percent of the global annual harvest lost on average. However, once processed, derivative products such as fufu have a shelf life of 18 months. Increasing yields and reducing post-harvest losses can mean 2 to 4 times more revenue for smallholders. Provided food security is achieved across its territory, the DRC can further take advantage of its strategic location at the center of the African continent and its nine bordering countries to begin shifting more of its agricultural production, including cassava, toward an export-oriented industry. With rising demand in Western countries, where cassava is shifting to being a mainstream food ingredient, there is increasing opportunity to target strategic ports in the Netherlands and Belgium that serve as major distribution hubs for most of the continent.

B. Challenges

159. **The DRC's enabling environment for private sector development and public sector modernization is key to improving the governance and institutional capacity.** Despite growing political will evidenced in strategic frameworks in place for the development of key productive sectors of the economy such as the new vision for the digital economy outlined in the 2019 National Digitization Plan (Plan National du Numérique – PNN),[77] implementation remains a major challenge. Political consensus and increasing the presence and credibility of the government, including through improved governance, will be key to ensuring stability and continued progress of structural reforms to attract investments and create jobs. To date, structural constraints have led to an underdeveloped private sector and fostered a large informal economy.

[74] https://www.worldbank.org/en/country/drc/overview

[75] FAO Stat. 2021. https://www.fao.org/faostat/en/#data/QCL

[76] https://www.wfp.org/countries/democratic-republic-congo

[77] https://presidence.cd/services/1/plan_national_du_numerique_horizon_2025

160. **Persistent global economic volatility and social and climate fragility compel urgent reforms in the business environment to attract the private sector.** Across priority agribusiness value chains and more specifically for cassava, a national development strategy in partnership with the private sector needs to be coupled with strong coordination and commitment at the national, regional, and local levels to effectively address the key challenges and constraints that prevent DRC, the second largest global producer of cassava, from achieving food security for its citizens and eventually tackle export markets. In fact, structural challenges, particularly access to reliable infrastructure (electricity, road transportation, and telecommunications networks) and business environment constraints for micro, small, and medium-sized enterprises (MSME), negatively affect the growth acceleration required to achieve domestic food security, improve livelihoods and social inclusion, build an export-oriented industry, and cope with the effects of climate change. Establishing partnerships with the private sector is a critical step given that MSMEs employ 88.6 percent of the working population.[78.] Moreover, action plans need to be well-suited for businesses of different sizes from smallholders to commercial enterprises to create sustained growth acceleration with a triple win for the public sector, the private sector, and the environment.

161. **The recent structured interviews conducted by the World Bank Group regarding agricultural value chains as part of the CEM analysis[79] confirmed some of the main challenges discussed in the report associated with the development of a strategic industry such as cassava.** These include taxation (fiscal and parafiscal charges), major administration management costs, access to land, infrastructure and logistics, access to financing, women's entrepreneurship, and climate change (among other constraints).

- ***On taxation***, the burden falls disproportionately on the private sector, which unanimously complains of fiscal pressure. About 52 payments are required from businesses per year compared to an average of 37.4 in Sub-Saharan Africa, and the total tax rate is 54.6 percent of profits compared to 46.8 percent in the rest of Africa and 39.8 percent in OECD countries. This creates administrative management complexity that results in another 20 to 35 percent of costs in accounting and legal fees to keep up with the administrative forms and fees.
- ***On land access***, all participants surveyed agreed that the main obstacles to access to land included: i) the high cost of purchasing; ii) land ownership security; iii) the frequency of land conflicts, which may affect land tenure security; and iv) infrastructure challenges associated with farmland development.
- ***On infrastructure constraints***, electrification, irrigation, post-harvest road transport conditions, and logistics remain major obstacles to moving beyond subsistence agriculture.
- ***Regarding access to financing,*** only 30 percent of commercial farmers and processors had a loan in progress. Another 30 percent stated that they could not take out a bank loan either with traditional banks or with microfinance institutions, a challenge for the majority of MSMEs.
- ***Regarding gender specific challenges***, the main constraints that limit women's access to entrepreneurship are: i) poor access to financial resources; ii) lack of autonomy of decision compared to men; iii) lack of entrepreneurial training; iv) fear of sexual harassment; and v) difficult access to financing.

[78] World Bank Group. 2022. Country Partnership Framework for the Democratic Republic of Congo for the Period FY22–26. Washington, DC: World Bank Group.

[79] In collaboration with the International Finance Corporation (IFC).

- ***Lastly, to mitigate the effects of climate change*** and its impacts on productivity and profitability, farmers, especially smallholders, tend to adapt by favoring short-term solutions that may not always provide them with sustainable results when it comes to crop rotation, disease outbreaks control, land fertility, water management, and flooding prevention and weather forecast.

C. Policy Recommendations

162. The following sub-section considers specific recommendations to address constraints and challenges faced by MSMEs and to fulfill the potential of the cassava value chain:[80]

1. **Define a business-friendly enabling environment to accelerate private investments in priority value chains.**
   Country Examples: Côte d'Ivoire's business environment has matured substantially in the last decade. The economy's strong dynamism, the increasingly stable political and stable environment, the friendliness of the legal and regulatory framework, and cost competitive inputs are among key factors that contribute to private sector development and foreign investments. Sierra Leone's politically stable government has been effective at controlling corruption and offering adequate government incentives to diversify its economy with increased activities in agriculture and construction as well as the resumption of iron ore production and exports.

2. **Reduce fiscal burden and streamline administrative procedures to promote access to land and to private market development and MSME sustainable growth in priority value chains.**
   Country Examples: Morocco, Nigeria, Ghana may offer fiscal consolidation case studies[81] to improve the sustainability of public finances by lowering the trajectory for debt and debt-servicing costs while minimizing any negative effects on the economy. Sierra Leone offers favorable tax rates, and Liberia provides low-cost business-related administrative processes that have been a key element in making these countries attractive for private sector development and foreign investments, respectively.

3. **Improve access to financing tailored to MSMEs from smallholders to commercial producers and aggregators.**
   Country Example: As part of a decade-long financial sector reform and agricultural sector development plan, Morocco has consistently improved access to finance through tailored tools to the agriculture sector thanks to a strong partnership between the government and the Groupe Crédit Agricole du Maroc.

4. **Strengthen the capacity of existing entrepreneurship support and tailor entrepreneurship programs to vulnerable groups, including women and youth.**
   Country Examples: Tunisia and Senegal have implemented a Startup Act packaged with policies adapted to early-stage business administration and access to financing and to market. For more agricultural focused policies, Morocco and Côte d'Ivoire could also be considered, with their ongoing digital transformation agribusiness value chain modernization and digitalization programs.

5. **Expand specialized economic zone development and access to attract more foreign investments**

[80] Further details and country experience sharing are provided in Case Study 2 of the CEM Report.

[81] https://ifs.org.uk/publications/fiscal-consolidation-after-covid-19-issues-and-policy-options-sub-saharan-africa

Country Examples: Kenya, Nigeria, Morocco, Egypt, and Ethiopia are leaders on the African continent despite differences in special economic zone (SEZ) definitions and statistics. The United Nations Conference on Trade and Development (UNCTAD) suggests that in 2020, Kenya had 61 SEZs, followed by Nigeria and Ethiopia, with 38 and 18 SEZs, respectively. On the other hand, the African Economic Zones Organization (AEZO) reported different figures, with Morocco topping the continent with 26 SEZs, while Nigeria and Egypt followed with 23 and 16 SEZs, respectively.

6. **Accelerate the country's infrastructure modernization and digital transformation including that of priority agricultural value chains.**
   Country Examples: Ghana is one of the most competitive economies in Africa and owing to its strong institutions and significant investments in its Information and Communications Technology (ICT) infrastructure along with access to low-cost labor and energy. Kenya and Morocco are also ongoing case studies when it comes to the digital transformation of their agricultural sector, from digital connectivity to public digital platforms and digital financial services to digital businesses and skills.

7. **Catalyzing market development opportunities to promote regional integration within and outside the country**
   Country Examples: Leading countries in the global cassava production include Nigeria, Brazil, Thailand, Mozambique, Vietnam, Ghana, and Côte d'Ivoire, among others. Given regional integration within the country, the government can prioritize urban centers and the distinct five economic hub zones highlighted in Appendix I. Regional integration outside the country can focus on the DRC's traditional trade partners along its immediate borders as well as leading countries across the continent that seek to strengthen Africa's leadership in the cassava global value chain.

8. **Expanding Climate Change Adaptation Programs**
   Country Examples: Tunisia, Morocco, and Botswana are leading African countries and middle-upper performers in the 2020 Notre Dame Global Adaptation Index. Among the most important criteria to consider in country case studies should combine sustainable development of the agricultural sector and a well-executed renewable energy and energy efficiency plan that strengthen their Nationally Determined Contribution (NDC).

The below table summarizes the policy recommendations over time.

Priority Policy recommendations

Quick Win
Define a business-friendly enabling environment to accelerate private investments in priority value chains
Reduce the fiscal burden and streamline administrative procedures to promote access to land and to private market development and MSME sustainable growth in priority value chains
Improve access to financing tailored to MSMEs from smallholders to commercial producers and aggregators.
Strengthen the capacity of existing entrepreneurship support and tailor entrepreneurship programs to vulnerable groups, including women and young people.

High Priority
Accelerate the country's infrastructure modernization and digital transformation, including that of priority agricultural value chains
Expand specialized economic zone (SEZ) development and access to attract more foreign investments
Catalyze market development opportunities to promote regional integration within and outside the country
Expand climate change adaptation programs

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CHAPTER 3

REGIONAL TRADE INTEGRATION AND TRADE DIVERSIFICATION: INTEGRATING THE DRC INTO REGIONAL MARKETS, PROSPECTS FROM EAC ADHESION, AND THE AFRICAN CONTINENTAL FREE TRADE AREA

World Bank Managing Director and COO meets with women on cross border trading.

Chapter 3: Regional Trade Integration and Trade Diversification: Integrating the DRC into Regional Markets, Prospects from EAC Adhesion, and the African Continental Free Trade Area

3.1. Will Regional Integration Prospects Open the Door to Diversification?

3.1.1. A Difficult Geography for Trade

163. **The DRC is a vast country, the third largest of the African continent, sharing borders with 9 neighbors**: Angola, Burundi, the Central African Republic, the Republic of Congo, Rwanda, South Sudan, Tanzania, Uganda and Zambia. Although the country is not landlocked, the DRC's maritime access is highly constrained, with a coastline only 37 kilometers long. In addition, the country has extremely limited maritime port capacity: the port of Matadi on the Congo River is served through transshipment mainly via Pointe Noire in the Republic of the Congo, representing 95 percent of the DRC's maritime traffic. In addition to the Pointe Noire-Matadi corridor, the DRC is served by 13 land corridors that rely on ports in neighboring countries serving as natural gateways. Five of these corridors have a predominantly economic role: East Africa (Central and Northern corridor), South Africa (North-South Corridor), and Angola (Luanda corridor) (CPSD, 2020).[82] This geography results in very high trade costs compounded by decaying infrastructure, State-owned operators, and onerous border compliance costs.

164. Hinterland connections in the above countries are either difficult or non-existent, which means that key economic centers in the country are doing little trade with each other and instead depend largely on exchanges with neighboring countries.

3.1.2. DRC Trade is highly concentrated

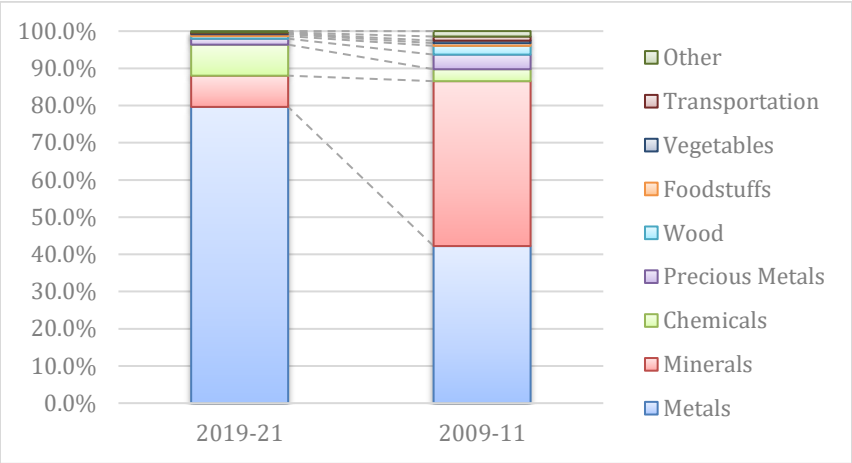
165. **The DRC's exports are highly concentrated**, with mining, copper, and cobalt products accounting for 96 percent of total exports (2019-2021). This concentration has increased over time while the share of products outside of mining and metal diminished substantially. Food products and vegetables accounted for 1.4 percent of total exports on average 10 years ago and now represent only 0.7 percent of total exports. Likewise, wood products fell from 2.3 to 0.7 percent of the total (Figure 3.1).

166. **The degree of processing of DRC exports has increased.** A decade ago, mineral products represented 44 percent of total exports but now account for only 8.4 percent of exports. Since 2013, the DRC has aimed to limit exports of copper concentrate., While insufficient smelting capacity has led to the government to issue waivers, this situation may soon change as new smelters are coming into operation.[83] For cobalt, investments in cobalt hydroxide production have led to an increase in exports of the processed product and the near elimination of exports of cobalt ore (Figure 3.2). Previously, mining ore was exported to Zambia.

[82] The Lobito corridor with Angola, though not yet economically significant, is seen as a potential additional export route via Angola for mining.

[83] Since 1980 GECAMINES has been operating the Lubumbashi copper smelter, which for a long while was the only smelter in the country. In 2021 the Lualaba Copper smelter was opened following the opening of the Deziwa mine. Also, Ivanhoe mines which exploits the Kamoa-Kakula concession announced that it would build a smelter with 250,000 t per year production capacity, nearly tripling DRC's current capacity. Construction was announced to start in May 2022 with delivery in 2024.

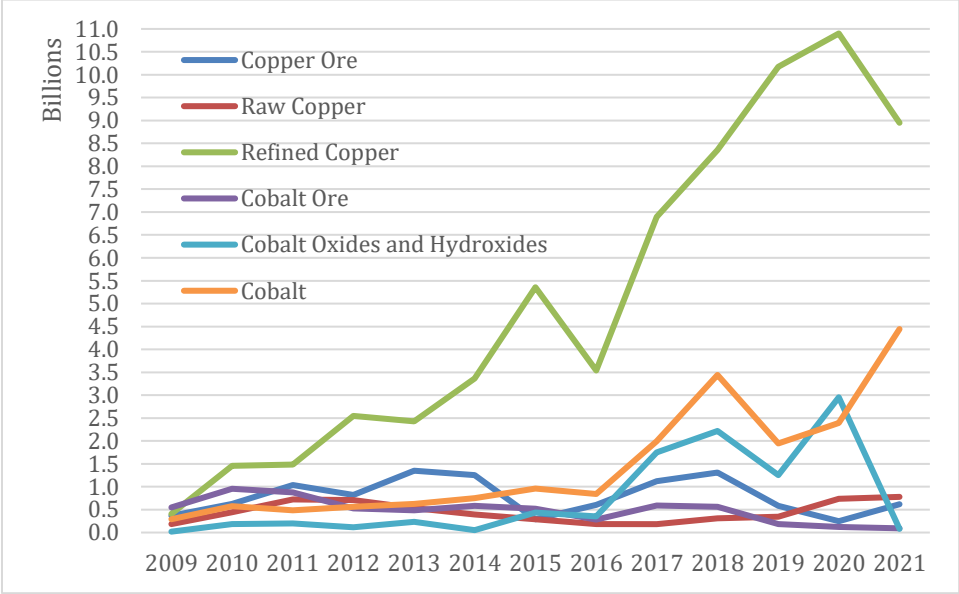
Figure 3.1. Composition of DRC exports.



Source: CEPII BACI database from OEC

167. **In the same period, trade has become concentrated among a smaller range of partners**. China remains by far the main trading partner and has consolidated this position in the last decade, accounting for 50 percent of exports on average between 2019 and 2021 as against 45 percent a decade earlier. China also nearly doubled its share of DRC's imports, from 12.7 to 24.7 percent, in the same period. The DRC trades mostly with countries that are not in its immediate neighborhood. This is truer of exports than of imports. In total, one third of DRC imports originate from Africa, and 18.6 percent of its exports are destined for Africa. In the latter case, these consist for the most part of value exports of ore and metal products to Zambia and Tanzania.

Figure 3.2. Exports of copper and cobalt ore and refined products, 2009-2021.



Source: CEPII BACI database from OEC

168. **International trade in the DRC can be characterized by different segments of the economy operating almost in isolation from each other,** thus revealing a multifaceted nature. Notwithstanding inefficiency at border posts, the different provinces of the country are connected to different regions of

the continent, trade independently of each other (and little with each other), and are subject to different conditions.

- Kivu (and likely also Tanganyika) provinces trade intensely with Uganda, Rwanda, and Tanzania, which all act as transit gateways but also as suppliers or clients in active small-scale trade. Statistics in neighboring countries give in some instances a detailed picture of the nature of this trade, which consists mostly of consumption goods.
- On the other hand, Haut Katanga Province is connected to Zambia and through it to Southern Africa. Trade is dominated by the important mining exports[84] of the province (and neighboring Lualaba) and imports of maize from Zambia.
- Kinshasa and Kongo Central are close to the country's main gateway: the port of Matadi, itself fed by the Port of Pointe Noire. The provinces also trade with the Republic of Congo across the Congo River. Internal transport on the Congo River then further connects the provinces of Équateur, Mongala, and Tshopo.

169. **Different geographic and geomorphic realities in distant provinces have led—or could lead—to various degrees of economic specialization**. Thus they may face different challenges but also different opportunities that must be considered in the country's strategy for diversification. An indicator of specialization may be provided by the composition of DRC's exports to its various neighbors. Recorded exports from the DRC to regional neighbors shows the following: 1) Exports to Zambia are almost exclusively made up of mineral products, copper, cobalt and zinc, which are then smelted in Zambia, and resales of machinery; exports are highly undiversified; 2) Exports to Angola are modest and made up of consumer products, vegetables, and oils; 3) Exports to the Republic of Congo are also modest despite the proximity of the two capitals and include mostly manufactured products that may consist of resales of previously imported products; 4) Exports to East African Community (EAC) countries are comparatively more important, dominated by sawn wood, metal scraps, food oil and fats, and some minerals. Statistics on trade in services with neighboring countries are not available; however, anecdotal evidence suggests that embedded exports of transport services are likely to be relatively important (especially to Zambia as copper is transported by truck). The DRC also exports electricity to neighbors.

Table 3.1. Total exports and top 5 product categories exported by the DRC to regional neighbors.

CONGO (2019)			ANGOLA (2019)			ZAMBIA (2020)			EAC 5 (2021)		
hs	product	000 usd	hs	product	000 usd	hs	product	000 usd	hs	product	000 usd
89	SHIPS, BOATS	2,757	33	ESSENTIAL OILS AND RESINOIDS	1,404	26	ORES, SLAG AND ASH	62,140	44	WOOD AND ARTICLES OF WOOD	25,024
87	VEHICLES OTHER THAN RAILWAY	475	7	EDIBLE VEGETABLES AND CERTAIN ROOTS	399	28	INORGANIC CHEMICALS	4353	72	IRON AND STEEL	6881
70	GLASS AND GLASSWARE	406	34	SOAP, ORGANIC SURFACE-ACTIVE AGENTS	330	84	MACHINERY	2813	12	OIL SEEDS AND OLEAGINOUS FRUITS	6016
84	MACHINERY	275	84	MACHINERY	222	87	VEHICLES OTHER THAN RAILWAY	658	15	ANIMAL OR VEGETABLE FATS AND OILS	4253
28	INORGANIC CHEMICALS	134	15	ANIMAL OR VEGETABLE FATS AND OILS	180	78	LEAD AND ARTICLES THEREOF	373	26	ORES, SLAG AND ASH	2427
	OTHERS	605		OTHERS	1,653		OTHERS	647		OTHERS	9,206
	TOTAL	4,652			4,189			70,984			53,807

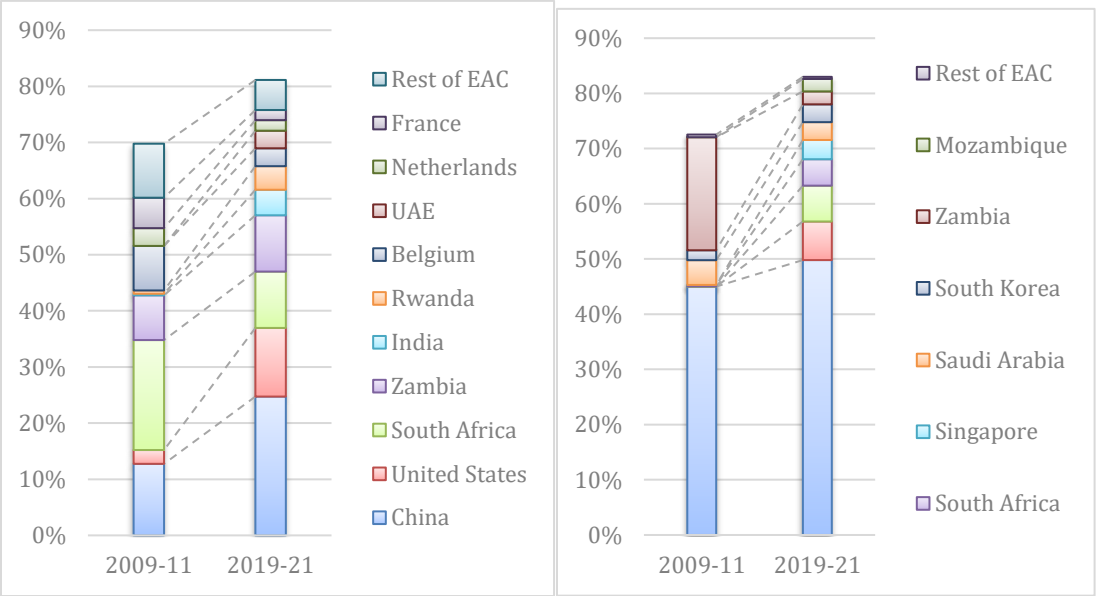
Source: UN Comtrade data using mirror trade statistics

170. **Regional trade is important, with about 20 percent of DRC imports coming from its eastern neighbors, Zambia, and the EAC**. Imports from EAC countries have remained stable in terms of share, with a small decline from 10.2 to 9.6 percent of total imports between 2009 and 2011 and 2019 to 2021. However, imports from individual EAC members have seen greater change, with Rwanda emerging as the key supplier of formal imports. Imports from Zambia have grown from 8 to 10 percent of total imports.

[84] https://www.reuters.com/world/africa/congo-plans-border-post-expansion-mining-trucks-endure-up-60-km-queues-2022-07-12/

Imports from South Africa, another regional not-too-distant neighbor, have increased to reach 5 percent of the total. Relative to other SSA countries, the DRC tends to rely more on imports from trade partners from the continent. For comparison, World Bank (2020) shows that the DRC trades more intensively on the import side with the continent. Other EAC members also tend to rely relatively more on imports from the rest of Africa.

Figure 3.3. Origin of DRC imports and destination of DRC exports (share of total).



Source: CEPII BACI database from OEC

171. **Formal trade flow statistics with the region do not consider sizeable informal trade flows, in particular in the eastern part of the country**. For these, only partial data are available from surveys of small-scale border trade conducted by some of the DRC's neighbors. Table 3.2. summarizes available evidence for EAC countries. According to these numbers, small-scale imports from the EAC region are substantial, amounting approximately to USD 430 million on average, mostly from Uganda and Rwanda and roughly equivalent to 13 percent of the amount of formally recorded imports from Sub-Saharan Africa and nearly half (47 percent) of recorded formal imports from EAC partners.[85] On the export side, numbers are more modest, with only around USD 40 million in small-scale exports.

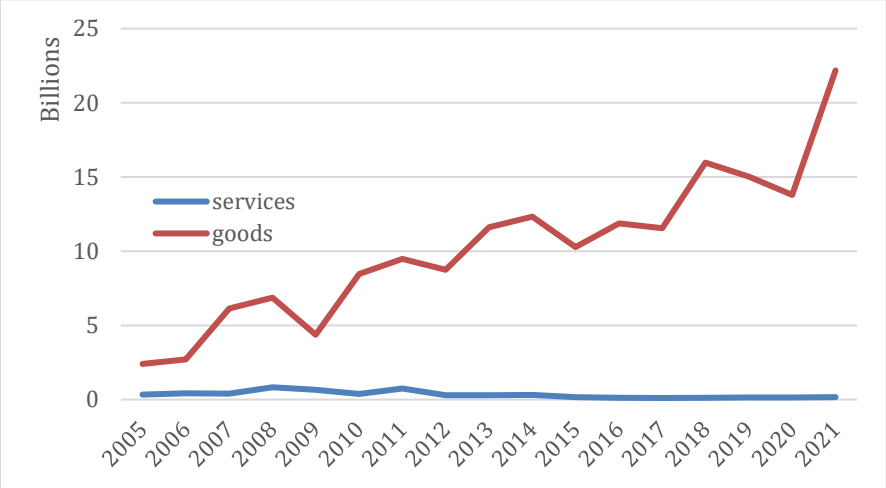
[85] For these calculations, the average of imports into the DRC in 2019-2021 was used. Source: BACI data from OEC.

Table 3.2. Small-scale border trade within EAC (in million USD, 2018, 2019, or 2021).

	Importer					
Exporter	Burundi***	Uganda**	Rwanda	Kenya	Tanzania	DRC
Burundi***		0	-	-	7.1	9.3
Uganda**	0.5		11	97.5	32	329.8
Rwanda*	11.3	11.3		-	-	101.5
Kenya	0	23.3	-		-	-
Tanzania	37.3	5.3	-	-		-
DRC	0.7	23.5	-	-	-	
** 2021 source: Northern corridor biannual report*						
*** 2019 source: Annual ICBT survey (except imports from Rwanda, 2021)*						
****2018 source: Rapport sur le commerce transfrontalier informel (except imports from Rwanda, 2021). The northern corridor represented a total of USD 47.4 million for Burundi in 2018, with 56 percent for the DRC.*						

172. **Export of services exports are very modest, representing only a small fraction of total trade.** Historically the contribution of exports of services to the balance of payments has been very modest: only USD 168.7 million in 2021, representing only 0.75 percent of total exports of goods and services (Figure 3.4).

Figure 3.4. DRC exports of goods and services (balance of payment) in USD.



Source: World Bank WDI

3.2. Policies for Trade: Initial Assessment of EAC and AfCFTA

3.2.1. Initial Assessment of How EAC and AfCFTA Accession Could Foster Trade Reform

173. **Poor connectivity and poor trade policy integration with its immediate neighbors are two key trade policy impediments to the DRC's closer integration into world markets**. This comes on top of significant competitiveness challenges that also affect its economy.

174. **Import duties in the DRC are relatively low at 10.9 percent for the MFN simple average and 8.4 percent in 2020 when weighted by import values**. The DRC is a member of the 16-member SADC and the 21-member COMESA, therefore offering reciprocity in terms of duty-free access with these markets. Five EAC countries are also COMESA members (South Sudan is not part of COMESA).

175. **The signing of the African Continental Free Trade Area agreement and DRC entry into the EAC will substantially change the country's regional integration prospects**. The DRC ratified the EAC Treaty on 8 April 2022, becoming a full member on 11 July 2022.[86] The full modalities of EAC accession are currently under discussion as the DRC accession roadmap is being negotiated. The end goal of the EAC is to establish a federation and a monetary union (the Protocol for the establishment of EAC monetary union has been in force since 2014).

176. **While the DRC already has access to its EAC neighbors' markets under the COMESA agreement, membership in the EAC should nevertheless have immediate implications in terms of market access**. The average rate of utilization of preferences in EAC is by far higher than in other RECs (77.9 percent), COMESA (39.8) percent, and SADC (25.3 percent) (UNCTAD and COMESA, 2023). For instance, Rwanda utilization rate for its exports to EAC stands at 83.7 percent when only 7 percent of its exports to COMESA benefit from preferential rates. Uganda's utilization rates are almost non-existent for the COMESA trade regime (1.4 percent) while for the EAC it is 53.8 percent. Burundi also shows high utilization of EAC trade preferences of 82.9 percent and significantly lower utilization rate for COMESA trade preferences of 15.8 percent.

177. **Overall, the DRC tends to impose relatively high duties on its African trading partners when other countries in Africa tend to offer better preferential rates, which is also evidence of low use of preferential trade regimes by the country**. The World Bank (2020) calculated the average tariff levied on African trading partners for 25 countries of the continent and the DRC's average imposition of around 9% is among the highest, with only 4 countries imposing higher duties. Note also that this average rate is quite close to the DRC's average Most-Favored Nation (MFN) rate, which also confirms that tariff preferences are rarely applied or granted. Combined with the fact that the DRC is also among the countries with the highest share of imports from Africa in this sample of 25 countries, the potential effect of regional liberalization should be high.

[86] Source: EAC

Table 3.3. Distribution of tariff rates in DRC external tariff in 2020 (percentage of total).

	MFN 2020	
	Agr.	**Non-Agr.**
zero	3.7	0.4
5%	18.6	39.0
10%	54.3	31.6
20%	23.4	29.0
Total	**100.0**	**100.0**

Source: WTO Tariff profile 2022[87]

Table 3.4. Distribution of tariff rates in EAC common external tariff in 2022 (percentage of total).

	EAC 2022	
	Agr.	**Non-Agr.**
zero	15.6	41.0
10%	15.9	20.3
25%	24.9	34.2
35%	39.5	3.7
50%	0.4	0.3
60%	1.9	0.0
Other	1.8	0.5
Total	**100.0**	**100.0**

Source: EAC tariff and authors' calculations

178. **Accession to the EAC will mean a modification of DRC's most favored nation (MFN) tariff regime toward a more protective regime.** By acceding to the EAC, the DRC will adopt the common external tariff the EAC has implemented since 2010 under its customs union protocol. A comprehensive review of the CET was conducted by its members and concluded in May 2022 when the new CET tariff schedule was adopted, with implementation starting on 1 July 2022. The main outcome of the review was the adoption of a new maximum tariff rate, which was raised from 20 to 35 percent. Close to 500 products now fall under the new maximum band of 35 percent, and the simple tariff average increased from 12.7 to 13.5 percent (Table 3.5). Products affected are mostly consumption products: food and beverages, furniture and leather, and textile. The review also eliminates the practice of stays of application, which allowed EAC members to deviate from the CET on a temporary basis.

179. **The structure of EAC and DRC tariffs are very different,** as Tables 3.3 and 3.4 demonstrate. The EAC tariff has higher maximum duties, with a maximum rate of 35 percent as well as special regimes for sensitive products, whereas the DRC's maximum tariff duty is only 20 percent. On the other hand, the EAC has a higher proportion of tariff lines exempt of duties whereas the DRC has none. The simple average of the new EAC tariff is 13.5 percent, with a large difference between tariffs on agricultural products (25.4 percent on average) and non-agricultural products (11.2 percent), significantly above the DRC's current MFN average of 10.9 percent, with almost no differences between average tariffs on agricultural products (11 percent) and non-agricultural products (10.9 percent).

[87] https://www.wto.org/english/res_e/statis_e/daily_update_e/tariff_profiles/cd_e.pdf

Table 3.5. Comparison of revised EAC CET with 2017 CET.

	CET 2022	%	CET 2017	%
zero	2,244	37.7	2,128	37.3
10%	1,175	19.7	1,159	20.3
25%	1,964	33.0	2,297	40.2
35%	496	8.3	12	0.2
50%	19	0.3	18	0.3
60%	16	0.3	15	0.3
other	39	0.7	82	1.4
Total	**5,953**	**100.0**	**5,711**	**100.0**
simple average MFN		**13.5%**		**12.7%**

180. **Other aspects of accession to the EAC should contribute to the modernization and liberalization of the DRC's trade regime**. The EAC's ambition is a deep integration effort even if in practice the breadth of policies it covers and commitments it requires from its members are more limited. However, the disciplines imposed by the EAC are more extensive than those of COMESA or SADC, the two agreements of which DRC is currently a member (Table 3.6). Several initiatives have been taken to reinforce integration among its members. In 2007, a common mechanism for the reporting and elimination of NTBs was instituted. This mechanism has been successful in helping solve market NTB issues, and there has been a decrease in reported issues.[88] For standards and metrology, the Standards, Quality, Metrology and Testing (SQMT) Act of 2006 and the SQMT Protocol of 2001 provide a framework toward an EAC common policy (WTO 2019). Several reforms have also been undertaken in the areas of customs and trade facilitation with the establishment of joint border posts, a regional scheme for authorized economic operators, and the interconnection of customs systems. A Common Market protocol was signed in 2010 providing for the freedom of movement of people, goods, services, labor, and capital, although several aspects of the protocol remain to be implemented (for instance, there is no common investment regime in the EAC).

Table 3.6. Implementation roadmap of DRC accession to EAC.

Customs Union
• Adoption of EAC Rules of Origin (2022-2023) • Integration and adoption of negotiated trade agreements with third Parties (2022-2023) • Free Movement of Trade in Services in the EAC (2022-2023) • At least 50 percent of reported non-tariff barriers (NTBs) resolved in the Region (June 2023) • MSMEs facilitated to access EAC cross border market (June 2023) • DRC participation in harmonization of EAC standards and adoption of harmonized EAC standards (2022-2025)

[88] Trademark Africa, How Non-tariff Barriers Affect Trade in the EAC, https://www.trademarkafrica.com/how-non-tariff-barriers-affect-trade-in-the-eac

Common Market
• Operationalization of framework for monitoring the implementation of the CMP in the DRC (2022-2024) • Harmonization of investment policies, private sector development initiatives, and automation of business registry (2022-2024) • Development and prioritization of bankable infrastructure projects and programs (including linking of the DRC with the central and northern corridors under the memorandum of understanding (MoU) signed by EAC and ECCAS (2022-2025) • Implementation of an EAC Industrialization Policy (Mineral Value addition and Extractive sectors) (2022-2023)
Monetary Union, Political Federation, and Other Cross-cutting Areas
• Implementation of Roadmap for the Attainment of EAC Monetary Union (2022-2023) • Model for EAC Political Confederation adopted (2022-2024) • Appointment of judge and establishment of East African Court of Justice sub-registry in Kinshasa (2022-2023) • Membership and participation of the DRC in the East African Legislative Assembly (2022-2023)

Source: Byiers et al. (2023) from unpublished EAC sources

Figure 3.5. Policy coverage of COMESA, SADC, and EAC agreements.

	COMESA	SADC	EAC			COMESA	SADC	EAC
Agriculture					Information Society			
Anti-dumping					Investment			
Approx. Legislation					Labour Markets			
Competition Policy					Movement of Capital			
Countervailing measures					Political Dialogue			
Cultural Cooperation					Public Administration			
Economic Policy Dialogue					Public Procurement			
Education and Training					Regional Cooperation			
Energy					Research and Technology			
Environmental Laws					SPS			
Export Restrictions					Services			
Financial Assistance					Social Matters			
FTA Agriculture					Statistics			
FTA Industrial					Subsidies			
Health					TBT			
Human Rights					Trade Facilitation			
Illicit Drugs					TRIPS			
Industrial Cooperation					TRIMS			
					Visa and Asylum			

Source: Deep Trade Agreement Database 2.0

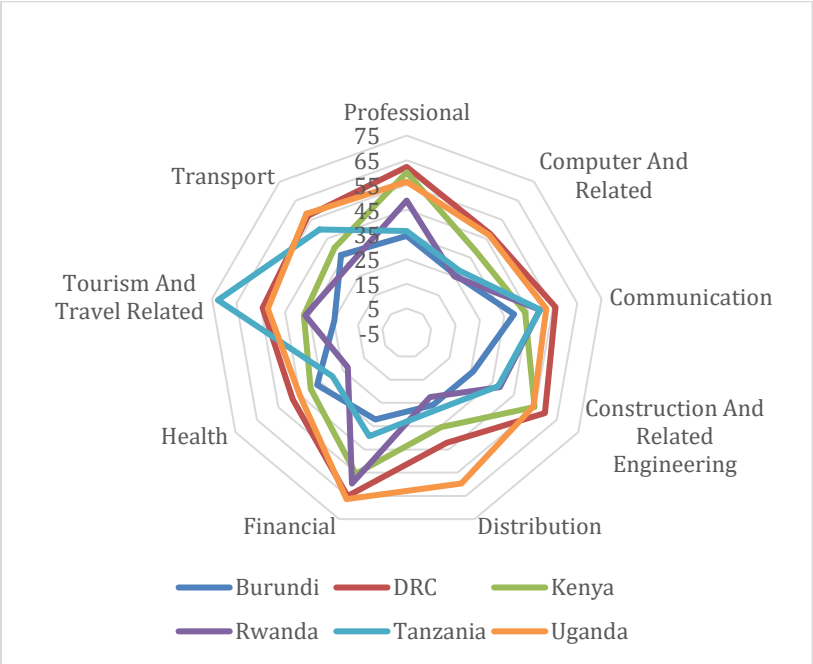
Note: Red = no coverage; Orange = non-binding rules; Green = binding rules

181. **The DRC is relatively open to trade in services, scoring higher than EAC members in most categories** according to the latest Services Trade Restrictiveness Index scores (Figure 3.6). The EAC has made significant strides in liberalizing services sectors within the community, as evidenced by Dihel and Goswami (2016), with several early initiatives such as the mutual recognition of qualifications, the facilitation of movement within the EAC with a single tourist visa, and a monitoring mechanism with the

EAC Common Market Scorecard, which had few parallels in other regional economic communities in Africa. However, there is further scope for gains from liberalization, as noted by Hoekman and Shepherd (2015), which remain unrealized. In the case of the DRC, the absence of trade barriers to delivery of services should not hide the fact that important market restrictions exist in domestic services markets. For instance, World Bank (2019) reports important distortions and market failures in several services sectors such as transport and electricity supply. Thus, while there is a potential agenda for further liberalization of services markets, as discussed earlier, services exports do not play an important part in the DRC's external balance. Given that the early dynamism of EAC reform in trade in services may have slowed, it seems likely that services trade will not play an important role in the short run in the context of the DRC's accession to the EAC.

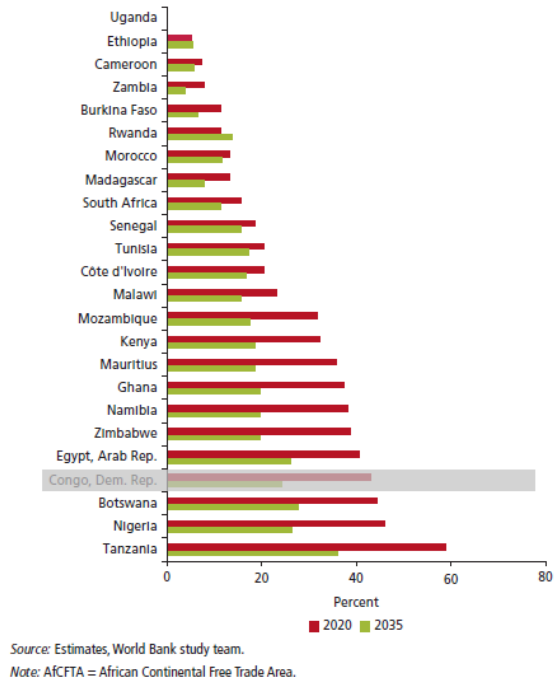
182. **Information on non-tariff barriers in DRC is relatively scarce.** An instance of NTM is the use by the DRC of pre-shipment inspection, but overall, there is no data on DRC in the UN WITS database. Therefore, analysis of NTBs in DRC must rely on estimates. Here, we use the same estimates used in World Bank (2020) and sourced from the methodology proposed by Kee, Nicita, and Olarreaga (2009). These estimates show that NTBs are relatively high in the DRC, equivalent to around 10 percent *ad valorem*.

Figure 3.6. DRC Services trade restrictiveness compared to EAC countries.



Source: WTO-World Bank STRI database

Figure 3.7. Trade-weighted nontariff barriers imposed on AfCFTA imports by country, 2020 and 2035.



Source: AfCFTA Report, World Bank 2020

183. **The main barrier to trade for the DRC is trade facilitation and logistics, where the country faces a combination of costly geographical conditions and generally low level of performance**. Reported costs of trade in the DRC are very high, as evidenced by the following prices on corridors serving the three main economic centers of the country:

- In the Matadi-Kinshasa corridor, in its Diagnostic Trade Integration Study (DTIS), EIF (2019) reports that the cost of shipping a twenty-foot TEU container from Rotterdam to Matadi is close to double (EUR 3,800 – USD4,270) the cost of shipping it to Pointe Noire or Luanda (EUR 2,100 – USD 2,359).[89] This is because goods must be transshipped from deep-sea ports to boats that can navigate upriver to the shallower port of Matadi. From Matadi onward, additional costs apply to ship the goods to Kinshasa by truck or rail. EIF (2019) reports two examples of freight costs by truck for a twenty-foot container from Matadi to Kinshasa of between USD 3,376 and 3,677. In total, the cost of shipping a container to Kinshasa could be estimated at around USD 7,600-7,950, more than 4 times the cost of shipping it to Pointe Noire. For shipments to the hinterland on the Congo River, this amount will be even higher (IFC, 2022).
- In the Mombasa corridor serving Eastern DRC, the Kenya Competition Authority (2019) reports that the cost of shipping a twenty-foot container from Mombasa to Goma was USD 6,127 in 2017.[90]

[89] Exchange of rate of EUR 0.89 = USD 1 as of December 31, 2019.

[90] Kenya Competition Authority (2019).

- Lubumbashi is mainly served by two corridors: one connecting it through Zambia with the port of Durban in South Africa (42 percent of volume according to Afreximbank, 2021) and Dar Es Salaam through the EAC (50 percent of volume). According to the report, average transport costs to Lubumbashi range between USD 6,370 (Durban) and 8,300 (Dar Es Salaam) for a 20-foot TEU container.[91]

184. **Poor transport infrastructure and uncompetitive transport markets (EIF, 2019) contribute to the high cost of trade**. EIF (2019) and IFC (2022) report poor efficiency in transport services and the heavy presence of inefficient state-owned companies impacting the poor performance of transport in all modes (maritime, rail, road, and river).

185. **The recently released LPI (2023) shows that border and logistics performance remains low in the DRC**. In 2023, the DRC ranked 97th in the world out of 140 countries with a score of 2.5, 58 percent of the level of the best performer. However, the DRC's LPI performance is not atypical of low-income countries in Africa, which all face considerable challenges, and it compares relatively favorably with peers, with an overall LPI above or equal to that of several neighbors and the average of Sub-Saharan Africa. However, the DRC's performance is significantly below that of Rwanda, the best performer among LDCs in Africa. Unsurprisingly, the DRC's gap relative to Rwanda is most pronounced for infrastructure followed by logistics competence.

186. **The LPI also shows a lack of significant progress in the DRC over the years**. After regressing early, progress has been slow. In 2023, the DRC regressed in two categories relative to 2018 (logistics competence and customs), and overall performance improved marginally. Since the LPI scores countries' performance against each other, the lack of progress in the DRC on the LPI highlights the fact that it is not catching up with better performing countries despite reforms that have been conducted.

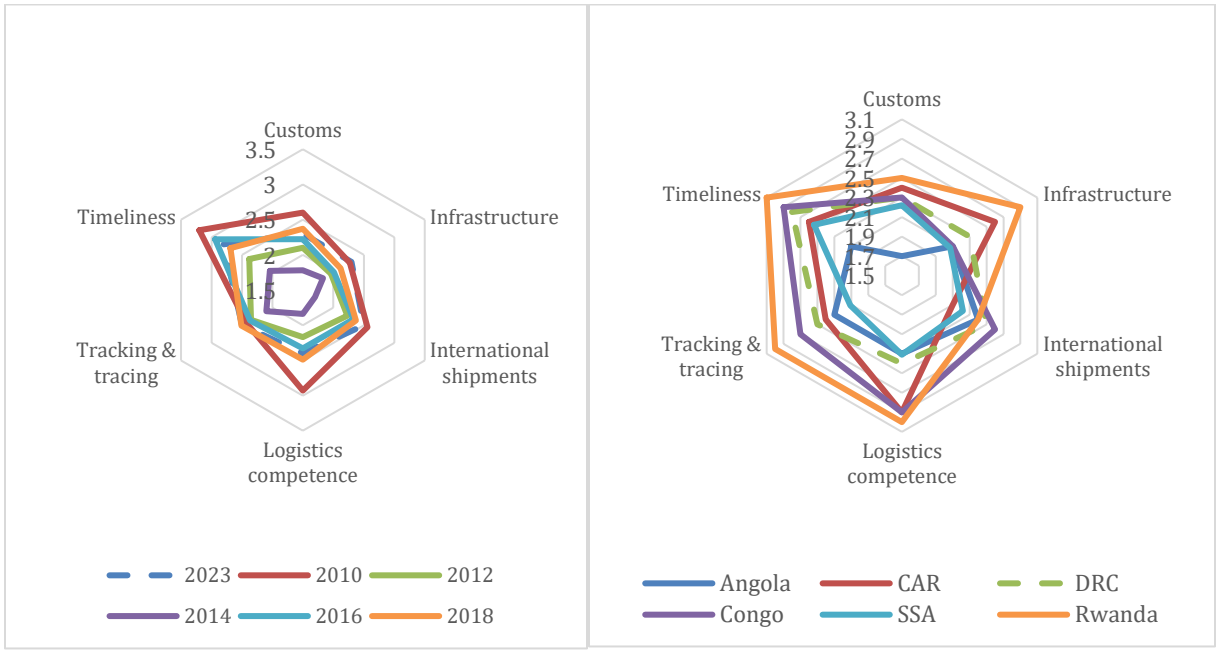
187. **On the customs front, the DRC has been gradually modernizing its processes**, with a new customs code in 2010 in line with the Revised Kyoto Convention, the introduction of a single window in 2018 (GUICE), and several mutual assistance agreements with neighboring countries (12 in total). The introduction of computerized customs procedures with ASYCUDA World helped reduce customs clearance from 10 to 3 days (EIF, 2019). Among the challenges the DRC continues to face are the electronic interconnection of smaller border posts (52 customs offices out of 98 were connected) (EIF, 2019), the integration of ASYCUDA World in the GUICE and the possibility of electronic payments for clearance (IMF, 2021), the extension of GUICE to certain procedures (EIF, 2019), and the question of double inspection of goods by BIVAC and the OCC (EIF, 2019).

188. **In the domain of trade facilitation, accession to the EAC will confer benefits to the DRC and should contribute to accelerating customs modernization and facilitation of trade**. The DRC has been a member of the EAC Regional Electronic Cargo Transit System since July 2019, which has contributed to significant gains in time and improved security in the EAC corridors.[92] Participation of the DRC in EAC initiatives such as the EAC Single Customs Territory, Authorized Economic Operator schemes, Non-Tariff Barriers monitoring, and Electronic Cargo Tracking systems as well as waivers of travel visas will further reduce trade costs.

[91] For comparison, the cost of shipping a container to Lusaka on the Durban rail corridor is half the cost, at USD 3,174 and more than half the corresponding cost (USD 3,555) on the Dar Es Salaam corridor (Afreximbank, 2021).

[92] See, for example, https://www.trademarkafrica.com/country-eac

Figure 3.8. Logistics Performance Index 2023: DRC performance against peers and over time.



Source: World Bank LPI (2023)

3.2.2. Trade Issues and the Mining Value Chain

189. **Several of the policies discussed so far could have an important role to play in the DRC's strategy to move up the mining value chain**, namely trade policies towards inputs, regional integration, and transport logistics.

190. **DRC has been prohibiting exports of copper and cobalt concentrates since 2013** to stimulate processing into refined metal within the country. However, this ban is subject to frequent exemptions as the country lacks refining capacity. One issue with this regime seems that exemptions have been granted without much foresight for the industry, thus creating somewhat uncertain conditions for economic operators[93] and opening the DRC to the possibility of challenges in the WTO (Case Study 1 on mining value Chains also discusses this issue and refers to the case of Indonesia regarding nickel ore export bans).[94] For copper, with two new smelters adding to the country's capacity,[95] the DRC should soon be able to export processed copper products only.

191. **Some of the inputs required for the processing of mineral products are imported**, including other minerals needed in the production of downstream products such as precursors for batteries. Supplies of manganese from Gabon and nickel from Madagascar are considered in the Bloomberg (2021) study. While the high price of nickel makes its supply relatively insensitive to transport costs, manganese would be more sensitive to logistics considerations, as would the issue of the ease of arranging shipments.

[93] For recent developments, see, for example, https://www.reuters.com/article/congo-copper-idAFL2N2NF1OK
https://www.fastmarkets.com/insights/exclusive-drc-bans-cobalt-copper-concentrate-exports-cutting-off-zambia-trade

[94] UNCTAD (2017) offers a discussion of the cost and benefits of such bans.

[95] See note above.

192. **Logistics for the transport of metal products are complex and have a strong bearing on competitiveness.** The high transport costs in the key corridors serving Lubumbashi reported above represent an important operating cost for mining companies. For instance, Naveed and Nazir (2023) report figures from Ivanhoe, one the large mining operators in the DRC, showing that logistics costs account for 39 percent of cash costs for copper production, a point of pressure according to the mining company, though logistics costs down to 32 percent of costs in Q1 2023).[96] Another example is lithium, another strategic metal, with a feasibility study by AVZ Minerals showing that transport costs represent 68 percent of operating costs.[97] Regarding precursor batteries, the relatively high cost of the finished product (USD 11-15 per kg) could absorb the high transport costs faced by the DRC.[98]

193. **A portion of the logistics costs is due to policy failures**. Various charges and taxes are levied on trucks crossing the border between the DRC and Zambia. These charges for each vehicle are significant and can add several hundred dollars to the cost of freight. They also discourage truck transport to cross the border and lead to the unloading and reloading of consignments. There are also reports of security issues for copper freight along road corridors.[99]

194. **Times needed to ship mineral products are lengthy**. For the moment, the main routes are through Zambia to the port of Durban, through Tanzania to the port of Dar Es Salaam, or Mozambique to the port of Beira. According to a recent Bloomberg report, time needed to transport these products can vary from 2 weeks to a month, the latter being the time it takes to reach Durban from the Katanga mines[100] Recent congestion issues at the Zambian border due to border opening times highlight the relative fragility of logistics supply chains to and from the DRC[101] while other problems along the logistics chain involve availability of trucks and security.

3.3. Estimating Gains from Deeper Regional Integration with EAC and AFCTA

195. **In the space of a few months, the DRC has ratified the AfCFTA treaty and has become a member of the EAC. The full participation of the DRC in these two regional trade agreements could be consequential for the country's development prospects**. The objectives of AfCFTA and the EAC overlap to some extent since AfCFTA is seen as a consolidation of regional integration efforts in Africa. However, the implementation path for the DRC in these two agreements will largely dictate the benefits it can derive from deeper integration with its immediate neighborhood.

196. **The adhesion to the EAC and the signing of AfCFTA pursue similar objectives, albeit on different geographical scales and with different paths of liberalization**. Several aspects of the modalities of liberalization being still under negotiation and implementation arguably still in the future, this report uses

[96] https://ivanhoemines.com/news/2023/ivanhoe-mines-issues-2023-first-quarter-financial-results-and-overview-of-construction-and-exploration-activities/

https://www.reuters.com/article/mining-copper-ivanhoe-idAFL5N2VX4RA

[97] Noting that one of the two routes considered in the study, the Lobito corridor, is not yet operational.

[98] A rapid calculation based on the freight cost reported earlier for Durban for a container at full load (25 tons) shows that transport costs would amount to less than 2 percent of other production costs.

[99] Recent examples are given in the following news articles:
Freight News, June 6, 2022. https://www.freightnews.co.za/article/drc-zambia-cross-border-freight-costly-business
Africa News, March 9, 2023, https://www.africanews.com/2022/03/09/drc-cobalt-copper-cross-border-transport-nightmare

[100] https://www.bloomberg.com/news/audio/2022-11-04/the-copper-you-need-is-stuck-in-a-30-mile-traffic-jam-podcast

[101] https://www.bloomberg.com/features/2022-africa-copper-supply-chain-snarls

several forward-looking scenarios to assess the impact of policy reforms associated with the two agreements.

197. **As discussed earlier, the revision of the EAC tariff adopted in 2022 has increased trade protection in the EAC**. This is expected to have a negative welfare impact on EAC countries as well as mild negative spillovers into the DRC. Because of this recent change, the model baseline was updated to reflect the new EAC tariff before simulating any of the trade policy scenarios discussed in this section. Table 3.7 below summarizes the impact of the new EAC tariff on welfare exports, and imports for EAC countries and the DRC.

Table 3.7. Impact on the EAC and DRC of new 2022 CET relative to the baseline, year 2035.

	Welfare	Exports	Imports
DRC	-0.01%	-0.01%	-0.04%
Kenya	-0.03%	-0.29%	-0.02%
Rwanda	-0.10%	-0.24%	-0.13%
Tanzania	-0.06%	-0.83%	-0.53%
Uganda	-0.13%	-0.47%	-0.27%
Rest of EAC	-0.24%	-0.66%	-0.76%

Source: Authors

3.3.1. Modeling Scenarios

A. DRC Accession to the EAC

198. **Scenario 1: Free trade between the DRC and EAC (DRC Accession)**. This scenario models the impact of adoption of the EAC CET and tariff dismantling with the entry of the DRC into the EAC. In the absence of detailed information about the schedule of adoption of the EAC CET by the DRC (under negotiation at the time of writing) or indications that the process of adoption of EAC commitments would be rapid (Byers et al., 2023), it is assumed that the DRC will immediately implement the EAC tariff at the signature of the agreement. Simultaneously, the DRC will offer full tariff preference to other EAC members. Likewise, in the absence of information on a potential schedule of liberalization, immediate liberalization is assumed.

199. **Scenario 2: Deeper integration effects of EAC accession (Deep DRC Accession)**. By joining the EAC, the DRC will benefit from several mechanisms that have been successfully implemented by EAC members. A reduction in NTMs and the facilitation of trade should be expected from the implementation of EAC commitments. The reduction in NTMs and trade barriers in the DRC alone is modeled in the same way as in the AfCFTA scenarios here below, assuming reductions on a Most-Favored Nation basis. Regarding trade facilitation, noting that the DRC lags the best-performing EAC members,[102] we expect that participation in the EAC will bring trade costs down half-way with its AfCFTA participation. Therefore, we simulate a scenario in which that trade costs are reduced by 5 percentage points on an MFN basis, or half of the

[102] This was noted earlier in relation to the LPI. This is also correlated to the fact that trade costs (which include both geographic and policy-based factors) in the DRC as measured by the World Bank trade cost database in 2018 are 26 percent above those of Rwanda, the best performer among the EAC countries represented in the database. The estimates used in World Bank (2020) to assess trade facilitation gains for the DRC are significantly behind those of other EAC members, and a 5 percentage point reduction still puts the DRC behind the EAC average.

10 percentage points reduction that would be expected to take place under AfCFTA (see below), and that the *ad valorem* equivalents of NTM are reduced on a bilateral basis for EAC members.

B. AfCFTA Model Scenarios

200. **Scenario 3: AfCTA integration with reductions of tariffs, NTMs on goods and services and trade facilitation (Deep AfCFTA)**. AfCFTA will be accompanied by measures that facilitate trade through implementation of a trade facilitation agreement (TFA). Estimates of the size of these trade barriers were provided by de Melo and Sorgho (2019). These are halved in this scenario even when capped at 10 percentage points. The scenario also incorporates increases in net FDI inflows, as estimated by François et al. (2022):

- FDI impacts: Simulates the impact of provisions in additional policy areas to be covered by the AfCFTA, notably in investment policy, competition policy, and intellectual property rights.
- Reduction in trade costs, also estimated by François et al. and simulated on top of trade costs decrease due to trade facilitation.

201. **Scenario 4: AfCFTA Deep integration and DRC accession to the EAC.** This last scenario combines the effect of the DRC joining the EAC (Scenario 1) with that of joining AfCFTA (Scenario 3), noting that the deep integration benefits of joining AfCFTA for the DRC will be expected to be concurrently implemented through implementation of its accession to the EAC by adopting existing EAC deep integration measures.

3.3.2. Impact of DRC accession to the EAC

202. **Overall, the effect of acceding to the EAC Common market is expected to bring mild positive benefits to the DRC despite having to adopt the nominally higher EAC CET**. EAC membership will enable the DRC to access a market of 188 million and enable DRC consumers to source products from the regional space free of duty. Gains from EAC accession solely from duty-free market access should translate into a growth increment of 0.14 percent of GDP and 0.51 percent for exports. Figure 3.8 details the disentangled effects of the DRC acceding to the EAC, showing the partial impact of adopting the CET and of joining a free trade zone within the EAC. For the DRC, the negative welfare impact of increased protection (leftmost column) is compensated by increased market access (second column) for an overall positive impact. The effects of tariff changes alone remain modest, a reflection of the fact that formal trade with the EAC is small relative to the DRC's overall external position. Sectors that could benefit from integration into the EAC market such as agricultural and food products are not formally traded in large enough volumes to generate strong impacts from tariff liberalization. Another effect of the adoption of the CET relates to the collection of revenues from customs duties: while external tariffs are higher, the overall effect of joining the EAC will be negative because of the liberalization of tariffs with EAC partners, with fiscal revenues from tariffs decreasing by 9.9 percent[103]

[103] Small gains from tariff liberalization are also obtained in other CGE analyses (see for example World Bank 2020), which could be related to the fact that dynamic potential gains from tariff liberalization are not considered, such as changes in productivity or investment.

Table 3.8. Impact of DRC accession on the EAC CET – Real income percentage change compared to the baseline in 2035.

	Adoption of CET by DRC*	Free trade zone in EAC**	DRC Accession (Scenario 1)
Congo, DR	-0.10%	0.23%	0.14%
Kenya	-0.03%	-0.04%	-0.04%
Rwanda	-0.10%	-0.01%	-0.01%
Tanzania	-0.06%	0.08%	0.09%
Uganda	-0.13%	-0.10%	-0.10%
Rest of EAC	-0.24%	-0.24%	-0.24%

*Notes: * Impact of the DRC changing its external tariff to the EAC CET without taking into account free market access to the EAC.*
*** Impact of free market access to the EAC, including the DRC, without impact of change of external tariff for the DRC.*
Source: Authors

203. **Gains from deeper integration with the EAC should be much more sizable**. Under a scenario of deep DRC integration into the EAC positing that DRC integration into the EAC would assist it in upgrading its border processes and non-tariff measures, estimates of potential welfare gains amount to 8.0 percent of additional GDP relative to the baseline. This shows that the path toward closer integration of the DRC into global and African continental economies could start with joining the EAC and adopting deeper integration measures and disciplines offered by the EAC. As regards deeper trade integration, the streamlining of DRC trade with its EAC partners in the areas of non-tariff measures, services policies, and trade facilitation would also benefit DRC trade with the rest of the Continent and the world at large.

Table 3.9. Gains from deep DRC accession to the EAC (Scenario 2).

	Impact on real incomes	Impact on exports volume	Impact on imports volume
Congo, DR	8.04%	12.48%	31.50%
Kenya	0.00%	-0.35%	-0.06%
Rwanda	0.62%	4.18%	4.24%
Tanzania	0.58%	0.52%	1.76%
Uganda	0.34%	2.80%	4.20%
Rest of EAC	-0.24%	-0.61%	-0.53%

Source: Authors

204. **Trade will increase significantly if the DRC integrates deeply with the EAC and especially with Rwanda and Uganda**. In this scenario, exports would increase by 12.5 percent in volume and imports by nearly one third relative to the business-as-usual baseline. As expected, since these are already two of the most important regional partners, trade with Rwanda and Uganda would benefit the most from this integration. However, it should be noted that the estimates do not consider the large volumes of informal flows highlighted earlier, which should also benefit from these improvements as the modernization and streamlining of border processes and policies is also associated with the formalization and facilitation of informal trade.

205. **For the DRC, the sectoral impacts of increased exports should see processed foods, wood products, and some light manufacturing registering significant increases in exports**, albeit from a low base in some cases (especially manufacturing). This underlines that potential opportunities should arise from improved access to large and fast-growing markets in neighboring countries. The sector expected to expand the most, both in relative and absolute terms, is energy intensive manufacturing, which comprises non-metallic minerals, iron and steel, and non-ferrous metals.

Table 3.10. Impact on DRC sectoral exports in volume.

	DRC Accession Scenario 1	Deep DRC Accession Scenario 2	Deep DRC Accession + EAC CET + AfCFTA Scenario 4
Agriculture	1.9%	3.9%	-5.5%
Fossil fuels	0.1%	-10.9%	-13.3%
Minerals n.e.s.	0.2%	-5.1%	1.3%
Processed foods	2.4%	23.8%	34.8%
Wood and paper products	-1.1%	11.8%	30.1%
Textiles and wearing apparel	8.0%	25.2%	38.2%
Energy intensive manufacturing	0.3%	14.8%	28.3%
Petroleum, coal products	0.0%	-1.1%	-12.8%
Chemical, rubber, plastic products	0.0%	0.1%	14.0%
Manufactures, n.e.s.	0.1%	0.5%	-11.7%
Construction	0.7%	12.9%	12.3%
Trade services	186.7%	597.1%	524.5%
Road and rail transport services	-0.2%	4.4%	21.1%
Water transport services	2.1%	27.2%	31.1%
Air transports services	-1.0%	10.6%	30.9%
Communication services	0.1%	1.9%	-3.3%
Other financial services	-0.2%	0.8%	-4.6%
Insurance, real estate services	-0.2%	3.9%	12.1%
Other business services	0.1%	-2.8%	4.4%
Hospitality services	0.3%	1.3%	-4.2%
Other services	8.8%	34.6%	45.4%

Source: Authors

3.3.3. AfCFTA Scenarios

206. **World Bank studies on the impact of AfCFTA have highlighted that the DRC stands to be among the countries benefiting the most from continental integration.** These prospects are largely linked to the fact that the cost of trade is high in the country but also that the DRC is a large market because of the size of its population. In this section, we provide updated estimates for the policy scenarios investigated in World Bank (2020) and World Bank (2022) and add to these estimates the effects of the DRC joining the EAC, a fact that was not integrated in prior analyses.

207. **The full implementation of AfCFTA, including a reduction in trade costs and barriers to investment, is expected to translate to 13 percent additional welfare gains for the DRC**. The DRC is one of the countries that stand to gain the most with the full implementation of the continental agreement. With the added benefit of EAC accession, the DRC could be expected to gain even more, with a 13.7 percent gain in real incomes compared to the baseline.

Table 3.11. Welfare gains from AfCFTA: percentage change compared to baseline 2035.

	Deep AfCFTA Scenario 3	Deep Accession EAC + AfCFTA Scenario 4
Congo, DR	13.0%	13.7%
Kenya	12.8%	12.3%
Rwanda	4.3%	4.3%
Tanzania	12.2%	12.0%
Uganda	6.2%	5.6%
Rest of EAC	4.5%	4.3%

Source: World Bank (2022) and authors

208. **AfCFTA is therefore expected to add substantial benefits to what the DRC will gain by integrating into the EAC space**. EAC neighbors are also expected to register important gains from AfCFTA. This means that in terms of policy objectives, the further integration of the EAC (and inclusion of the DRC) will be best pursued with the future gains conferred by AfCFTA in mind.

209. **DRC and its EAC partners recognize the benefits of realizing the objectives of both EAC realization and integration into AfCFTA**. However, these objectives may face a reality check where there could be some resistance to liberalization within the EAC sphere. Indeed, there has been a strong push within the EAC market to keep protecting strategic sectors through stays of applications of the EAC CET, which ultimately led to a relatively protracted revision of the CET that lasted seven years and ultimately led to the creation of the higher 35 percent external tariff to keep protecting these sectors (affecting close to 500 strategic products). It is likely that the list of sensitive EAC products excluded from AfCFTA liberalization encompasses the products subject to the highest tariff rates.

3.4. Conclusions and Recommendations

210. **The highly concentrated nature of DRC trade, which is dominated by mining products, means that prospects for impactful trade diversification will need time to be realized.** Mining, copper, and cobalt products account for 96 percent of total exports. Trade is also highly concentrated geographically as the main trading partner is China, accounting for 50 percent of DRC exports according to recent trade statistics. Finding new trading partners also takes time.

211. **However, an important feature of DRC trade is that the size of regional trade is important relative to other countries in Africa.** This regional trade is also concentrated in a handful of neighboring countries, mainly to the east of the country. Exports, mostly of ore and metal products, are destined to Zambia and Tanzania, while imports are sourced from EAC members and Zambia. Informal trade flows with neighboring countries, mostly from Uganda and Rwanda, are quite significant. According to estimates from surveys of small-scale border trade conducted by some of the DRC's neighbors, they account for 47 percent of formal imports from EAC partners.

212. **One possible reason for the importance of regional trade is that the DRC faces very high barriers to trade.** Trading more locally may be the only economic option when access to distant markets is prohibitively expensive. Estimates of non-tariff barriers makes the DRC one of the countries with the highest *ad valorem* equivalents on the continent. Moreover, the country faces a combination of costly geographical conditions with generally low levels of performance in trade facilitation and logistics, which translate to extremely high logistics costs.

213. **In response, the DRC should pursue a strategy following two complementary paths: i) improving regional trade to offer new opportunities of export diversification and lowering of import costs; and ii) leveraging the mining sector to create conditions for capturing a higher share of the value chain**. (Recommendations regarding the latter can be found in Chapter 2) Regarding the former, the DRC's decision to adhere to the African Continental Area and the East African Economic Community are positive developments and should create the conditions for further integration into regional economies while lowering trade costs.

214. **The most immediate prospects for trade reform and integration are likely to be realized in the context of joining the EAC**. The EAC already possesses a strong institutional base and has developed a broad set of integration policies that have been implemented by its members. The DRC should be able to upgrade rapidly to EAC standards, with significant gains expected from the facilitation of trade with EAC members and access to an enlarged EAC market. Trade facilitation should be a priority for the DRC in both EAC and AfCFTA contexts. CGE Model simulations suggest that the magnitude of such gains could be very large for the DRC if ambitious trade liberalization policies are implemented. In practice the DRC has already started adopting border measures to modernize and streamline its processes with EAC neighbors.

215. **Gains from integration in the EAC will arise despite the average MFN tariff applied by the DRC, which is currently low but will increase following accession to the EAC**, with negative welfare and trade consequences from the increase in the cost of imports. The recent reform of the EAC tariff points to pressures against liberalization that exist within the community, which may end up slowing down or diminishing prospects of greater regional integration. It will be important to closely monitor the progress made by the DRC and its partners in the implementation of EAC regulations. The DRC could also become a voice for further liberalization within the EAC community.

216. **The signing of the African Continental Free Trade Area agreement and DRC entry into the EAC will substantially change the DRC's regional integration prospects**. Results from general equilibrium model simulations show that accession to EAC could have a positive impact on real incomes even if external tariffs on some products increase. The negative impact of the increase in tariffs, which should not be overlooked, is outweighed by market access gains to the region and largely outweighed by gains from deeper integration. Higher gains could be obtained if integration into the EAC also covers trade facilitation and non-tariff barriers reductions. Trade with EAC partners, mainly Rwanda and Uganda, could increase significantly, with a positive impact on trade diversification by partners.

217. **As noted above, there will be strong complementarities between enlargement of the EAC and implementation of AfCFTA.** This chapter updates the estimates from two previous World Bank studies for the DRC and the region and confirms the importance of the gains to be expected from liberalization. With EAC enlargement, these gains will increase and confirm the World Bank prior studies on the impact of AfCFTA for the DRC which stands to be among the countries benefiting the most from continental integration. These prospects are largely linked to the fact that the cost of trade is high in the country but also that the DRC is a large market because of the size of its population.

218. **AfCFTA is therefore expected to add substantial benefits on top of what DRC will gain by integrating into the EAC space**. EAC neighbors are also expected to register important gains from AfCFTA. This means that in terms of policy objectives, the further integration of EAC (and inclusion of the DRC) will be best pursued with the future gains conferred by AfCFTA in mind.

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Annexes

Annex 1.A. The World Bank's Long-Term Growth Model (LTGM) using The Natural Resource Extension (NR)[104]

The LTGM is a suite of Excel-based tools to analyze future long-term growth scenarios, building on the celebrated Solow-Swan Growth Model (1956). The tools are designed to be simple, transparent, and to have low data requirements. The LTGM takes assumptions about growth fundamentals—the *drivers of growth*—, such as investment and productivity, to generate a trajectory for economic growth over the next three decades. The box provides a brief overview of the LTGM which allows for a decomposition into a resource (mining in the DRC) and non-resource sectors. More specifically, GDP is given by a simple Cobb-Douglas production function:

$$Y_t(GDP) = A_t K_t^{1-\beta}(h_t L_t)^{\beta} \qquad \textit{Equation 1}$$

where A_t is the total factor productivity (TFP), K_t is the physical capital stock, and $h_t L_t$ is effective labor used in production, which can be further decomposed as h_t human capital per worker (discussed in more details below), and L_t is the number of workers. The parameter β is the labor share. The labor force is decomposed into $L_t = \varrho_t \omega_t N_t$ where ϱ_t is the participation rate (ratio of labor force to total working-age population), ω_t is the working-age population to total population ratio, and N_t is total population.

The stock of physical capital follows the usual law of motion: $K_{t+1} = (1-\delta)K_t + I_t$, where I_t is investment and δ the depreciation rate. To express GDP in per capita terms, divide equation 1 by N_t:

$$y_t = GDP_t/N_t = A_t(K_t/N_t)^{1-\beta}\left(h_t \varrho_t \omega_t\right)^{\beta} \qquad \text{Equation 2}$$

After some manipulation of the above expression, we can express GDP per capita growth in terms of the *drivers of growth* (TFP, human capital, participation rate, working-age population, population growth, and investment):[105]

$$g_{t+1}^{GDPPC} \approx g_{t+1}^{A} + \beta\left(g_{t+1}^{h} + g_{t+1}^{\varrho} + g_{t+1}^{\omega}\right) + (1-\beta)\left[\frac{I_t}{Y_t}\Big/\frac{K_t}{Y_t} - \delta - g_{t+1}^{N}\right]$$

where g_{t+1}^{X} denotes the annual growth rate of variable X in period $t+1$.

Direct effect of drivers of growth in the short term. TFP growth has the largest direct effect on growth: a 1 percentage point (ppt) increase in TFP growth (g_{t+1}^{A}) leads to exact 1ppt increase in GDP per capita growth in the short term. A 1ppt increase in human capital growth (g_{t+1}^{h}), labor force participation rate growth (g_{t+1}^{ϱ}), or working-age population share growth (g_{t+1}^{ω}) increase GDP per capita growth by βppts. Population growth and depreciation reduce GDP per capita growth by $1-\beta$, because they reduce capital per worker by either reducing the amount of capital (δ) or increasing the number of workers (g_{t+1}^{N}).

The effect of an increase in the investment rate (I_t/Y_t) depends on both the capital share $(1-\beta)$, as well as the existing capital-to-output ratio (K_t/Y_t). For Croatia, $1-\beta = 0.4$, so a large 10ppt of GDP increase in the investment rate raises short-run growth by 2ppts per year if $K_t/Y_t = 2$, but only 1ppt if $K_t/Y_t = 4$. This means that an investment-led growth strategy which causes capital to accumulate faster than GDP will quickly become less effective, unless it is accompanied by other reforms to boost productivity, human capital or participation to mitigate the increase in K/Y.

[104] For more information visit the Long-Term Growth Model website: www.worldbank.org/LTGM

[105] For details, check the model documentation here: https://thedocs.worldbank.org/en/doc/133191589476085869-0050022020/original/ModelOutlineV43.pdf

Long-run effects of drivers of growth. In the long run, the direct effect of drivers of growth is amplified if it induces Further capital accumulation. One can see this by rewriting the GDP per capita (Equation 2) with a fixed "steady-state" capital-to-output ratio $y_t = A_t^{1/\beta}(K_{ss}/Y_{ss})^{(1-\beta)/\beta} h_t \varrho_t \omega_t$. In this case, a 1ppt increase in TFP growth would boost GDP per capita growth by $1/\beta$ppts, and there would be a one-to-one effect of g^h_{t+1}, g^{ϱ}_{t+1} or g^{ω}_{t+1}. Note however, that capital adjustment is very slow, and GDP takes several decades to converge. However, the long-run effects are a useful upper bound, and the effects of drivers of growth throughout our three-decade simulation period (2021-2050) will fall in between the "direct short-run" and "long-run effect".

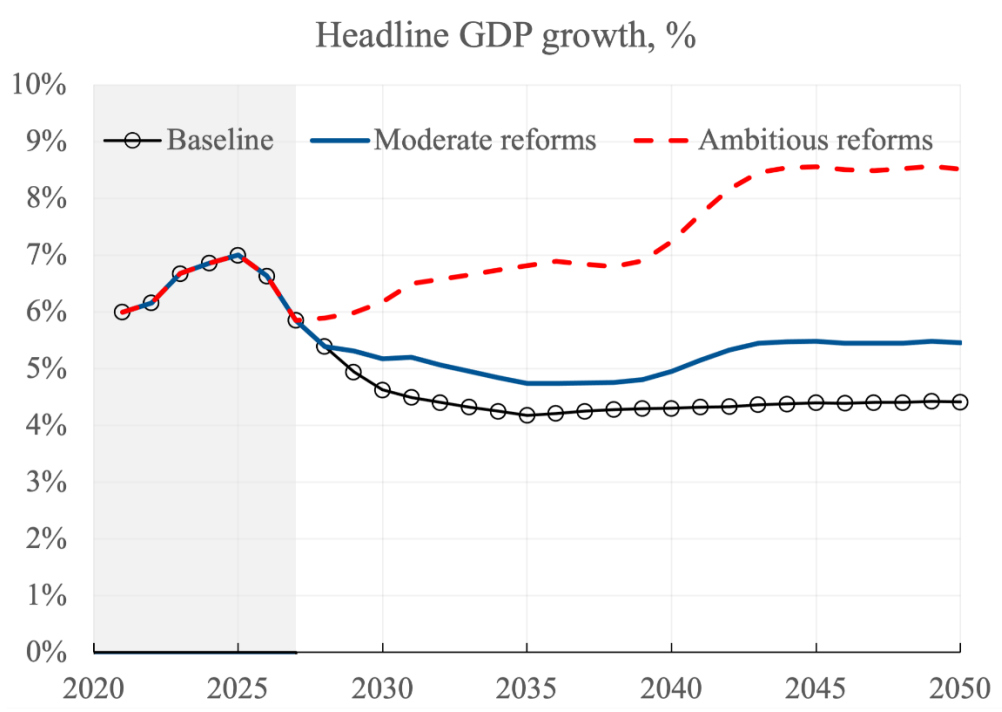
Annex 1.B. Summary of tables and figures from different reform scenarios for the DRC modeling Exercise

Table A1. Summary of simulated GDP growth rates (LTGM).

	A. Baseline			B. Moderate reforms			C. Ambitious reforms		
I. Total economy	GDPPC growth (2025-2050)	GNI PC in 2050, 2020 US$	mining in GDP in 2050	growth (2025-2050)	GNI PC in 2050, 2020	of mining in GDP	growth (2025-2050)	GNI PC, 2020 US$	of mining in GDP
Baseline	**1.8%**	**880**	**13%**						
Incremental growth from reforms (one-by-one):									
A. Non-mining TFP growth				1.8%	880	13%	2.6%	1,072	11%
B. Human capital growth				2.1%	934	12%	1.9%	1,012	11%
C. Investment				2.0%	923	13%	2.1%	1,014	12%
D. Female participation				2.0%	927	12%	2.3%	1,000	12%
Reforms package (A-D)				**2.5%**	**1,035**	**11%**	**4.4%**	**1,670**	**7%**
Reforms package + high mining prices							4.3%	1,678	7%
Reforms package + high prices + reinvest windfall							4.4%	1,740	6%
II. Non-mining sector									
Baseline	2.8%	764							
Reforms package (A-D)				3.5%	917		5.6%	1,552	
III. Mining sector									
Baseline	-1.5%	116							
Reforms package (A-D)				-1.5%	117		-1.5%	118	

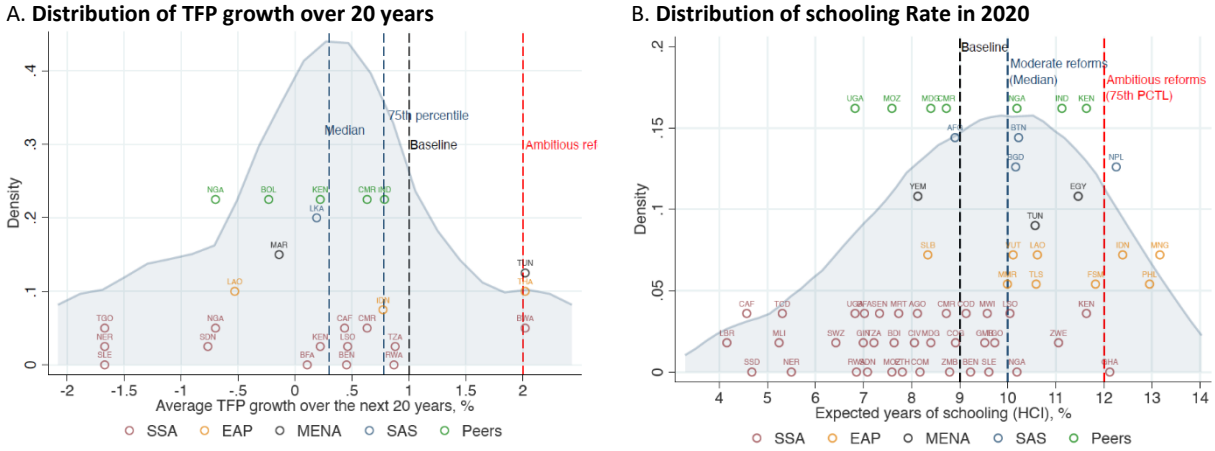
Source: WB's staff estimates

Figure A1. GDP under different reform scenarios.

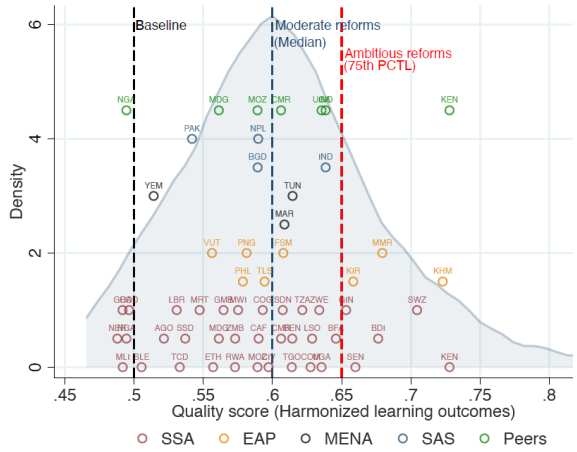


Source: WB's staff estimates

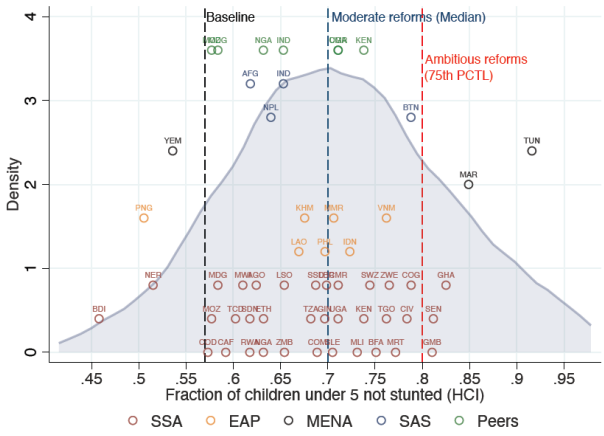
Figure A2. Distribution of each driver of growth in structural and aspirational peer and SSA countries.



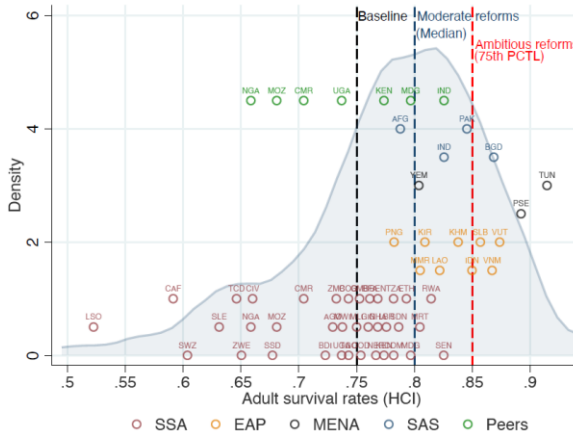
C. **Distribution of Education Quality in 2020** (or most recent)



D. **Distribution of Fraction of Children not Stunted in 2020** (or most recent)

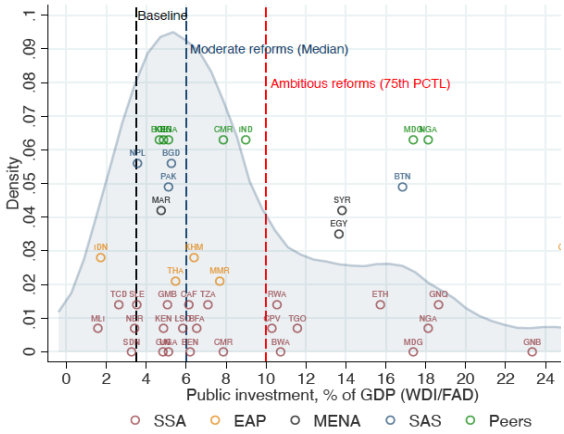


E. **Distribution of Adult Survival Rates in 2020** (or most recent)

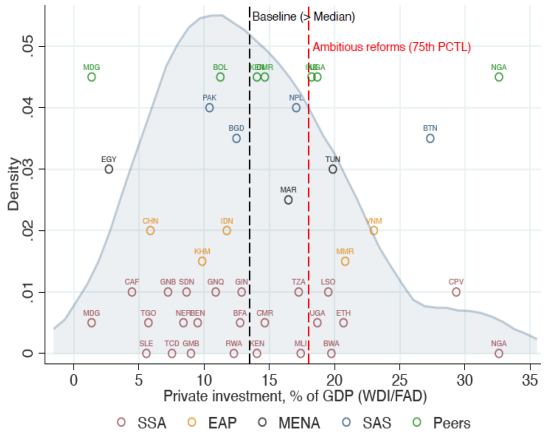


E. **Distribution of Public Investment**

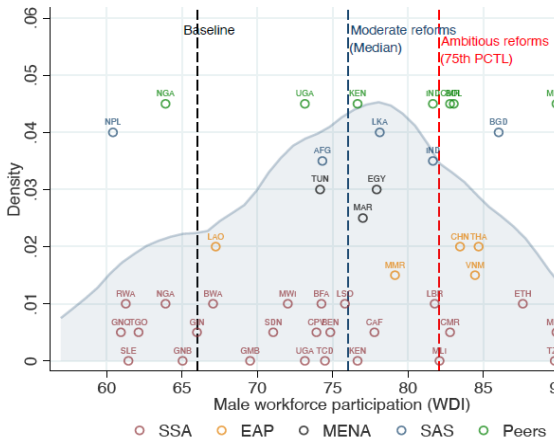
F.



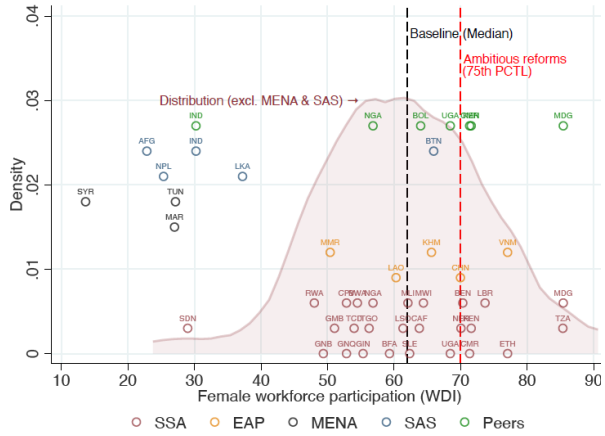
G. **Distribution of Private Investment**



H. **Distribution of Labor Force Participation for Male**



I. **Distribution of Labor Force Participation for Female**



Source: WB's staff estimates

Annex 3.A. CGE modeling methodology

To assess the impact of these changes on DRC economic prospects, this report used the ENVISAGE computable general equilibrium model (CGE model) that was applied by the World Bank to estimate the impact of the AfCFTA (World Bank, 2019 and World Bank, 2022). The full details of the model are presented in van der Mensbrugghe (2019); also Annex 3.B below.

While the same specification of the model as in previous AfCFTA reports (World Bank, 2019 and World Bank, 2022) was applied, the baseline data is different as it was updated with the latest available information on tariffs, considering changes in tariffs expected from currently ratified trade agreements worldwide. To update this information, we used the forward-looking tariffs database from MacMap. We also introduced changes in tariffs applied in 2018 from the so called "trade war" between China and the US (Li 2018).

CGE modeling is subject to limitations that **should** be considered when interpreting results. First the quality of simulations is very much dependent on the quality of national accounts data. In the case of DRC one fact that colors most of the results is the sheer size of the metals sector which dwarves all other sectors in the economy. We run a sensitivity analysis (detailed below) which consist in an alternative scenario that further assumes that this sector has supply-response constraints (reflecting the limitation of mineral resources and long lead time to bring mineral production online) to evaluate how other sectors are affected. Also, informal trade flows are not accounted for in the absence of sufficient data. The impact on trade flows accounts for the increase at the intensive margin and not the extensive margin, as zero trade flows remain constant regardless of the change in relative prices. Finally, some elasticities might explain to a large extent the results obtained. We introduced a sensitivity analysis with different elasticities to report how impact at the sectoral level can change.

Sensitivity analysis

In the main model specification, we use the trade elasticities applied in the GTAP model as well as in previous AfCFTA analysis done by the World Bank applying Envisage. However, sectoral impacts could show some sensitivity to the values of the elasticities assumed.

We run the scenario that assumes the AfCFTA deep scenario combined the EAC accession assuming that the import demand elasticity for the Energy intensive manufacturing sector is lower, and that the supply elasticity for the primary energy sectors is also lower. This assumption seems closer to a reality in which the supply of minerals which are the key inputs in the energy intensive sectors is relatively inelastic because it is conditional on the availability of underground ore reserves.

Assuming lower elasticities has not a significant impact on macroeconomic outcomes, which confirms the conclusion that important gains will be reaped from trade liberalization. As we impose a constraint in some of the sectors with comparative advantage, real income increases slightly less, which could be interpreted as a slightly more realistic estimate, noting again that the differences in the two estimates (sensitivity analysis vs. earlier scenarios) is not that significant.

This analysis shows however, very different impacts at the sectoral level and highlights potential sectors of diversification for DRC. As shown in Table A.3. below, when the energy intensive manufacturing sector inputs supply is constraints, we still see an important expansion, but the growth is lower. Other sectors on the other hand expand much more. This means that resources are less directed to the resource intensive sector, and other sectors such as agriculture, wood and paper products (this important sector is discussed further in the forthcoming World Bank DRC CCDR), textiles and wearing apparel, as well as services sectors grow because of the lowering of trade costs: these are the sectors where DRC could exploit the potential of its comparative advantage.

Table A2. Output impact, percentage change compared to baseline, 2035.

	Accession EAC + AfCFTA Deep Scenario 4	Accession EAC + AfCFTA Deep lower elasticities
Agriculture	-0.1%	6.5%
Fossil fuels	-13.4%	-12.9%
Minerals n.e.s.	1.2%	1.2%
Processed foods	-2.5%	1.8%
Wood and paper products	-15.0%	7.0%
Textiles and wearing apparel	-6.1%	5.6%
Energy intensive manufacturing	22.9%	12.2%
Petroleum, coal products	-13.5%	11.3%
Chemical, rubber, plastic products	-37.5%	-13.3%
Manufactures, n.e.s.	-35.9%	-13.6%
Construction	7.5%	11.9%
Trade services	1.0%	4.6%
Road and rail transport services	2.6%	4.6%
Water transport services	3.5%	3.4%
Air transports services	-4.9%	2.0%
Communication services	4.0%	9.5%
Other financial services	-2.7%	4.1%
Insurance, real estate services	-21.4%	-10.5%
Other business services	1.1%	5.1%
Hospitality services	9.1%	11.8%
Other services	1.0%	4.0%

Source: authors

Annex 3.B. Description of the ENVISAGE model

The Environmental Impact and Sustainability Applied General Equilibrium (ENVISAGE) model follows the circular flow of an economy paradigm. Firms purchase input factors (such as labor and capital) to produce goods and services. Households receive factor income and in turn demand the goods and services produced by firms. Equality of supply and demand determine the equilibrium prices for factors, goods, and services. The model is solved as a sequence of comparative static equilibria in which the factors of production are exogenous for each time period and linked between time periods with accumulation expressions. Production is implemented as a series of nested constant-elasticity-of-substitution (CES) functions aimed at capturing the substitutability across all inputs. Three production archetypes are implemented: (1) for crops, reflecting the intensification of inputs versus land intensification; (2) for livestock, reflecting range-fed versus ranch-fed production; and (3) as the default, revolving largely around capital/labor substitutability. Some production activities highlight specific inputs (for example, agricultural chemicals in crops and feed in livestock), and all activities include energy and its components as part of the cost minimization paradigm. Production is also identified by vintage—divided into *old* and *new*—with typically lower substitution possibilities associated with *old* capital.

Each production activity is allowed to produce more than one commodity—for example, the ethanol sector can produce ethanol and distiller's dried grains with solubles (DDGS). And commodities can be formed by the output of one or more activities (such as electricity). ENVISAGE therefore uses a different classification of activities and commodities. One of the features of the model is that it integrates the new Global Trade Analysis Project (GTAP) power database that disaggregates GTAP's electricity sector ("ely") into 11 different power sources plus electricity transmission and distribution. Although the database has both a supply and a demand side for all 11 power sources, the aggregation facility permits aggregation of electricity demand into a single commodity and the "make" matrix specification combines the output from the different power activities into a single electricity commodity.

Income accrues from payments to factors of production and is allocated to households (after taxes). The government sector accrues all net tax payments and purchases goods and services. The model incorporates multiple utility functions for determining household demand. A set of three household demand functions is linked to the ubiquitous linear expenditure system (LES): (1) the standard LES; (2) the extended LES (ELES) that incorporates household saving into the utility function; and (3) an implicitly directly additive demand system (AIDADS) that allows for nonlinear Engel curves in the LES framework. The fourth option relies on the constant differences in elasticity (CDE) utility function that is used in the core GTAP model (Corong et al. 2017; Hertel 1997). The ELES framework incorporates the decision to save in a top-level utility function. The other demand systems assume savings is an exogenous proportion of disposable income in the default closure. The consumer utility function determines consumer demand bundles that are subsequently converted to produced goods using a consumer demand "make" or transition matrix. Investment is savings driven and equal to domestic savings adjusted by net capital flows.

Trade is modeled using the so-called Armington specification, which posits that the demand for goods is differentiated by region of origin. The model allows for domestic/import sourcing at the aggregate level (after aggregating domestic absorption across all agents) or at the agent level. In the standard

specification, a second Armington nest allocates aggregate import demand across all exporting regions using a representative agent specification.

A newer though minimally tested version of the model known as the MRIO specification allows for sourcing imports by agent. Exports are modeled in an analogous fashion using a nested constant-elasticity-of-transformation (CET) specification. The domestic supply of each commodity is passed to the domestic market and an aggregate export bundle using a top-level CET function. The latter is allocated across regions of destination using a second-level CET function. Each bilateral trade node is associated with four prices: (1) producer price; (2) export border price, also referred to as the free on board (FOB) price; (3) import border price, also known as the cost, insurance, and freight (CIF) price; and (4) the end-user price, which includes all applicable trade taxes. The wedge between the producer price and the FOB price represents the export tax (or subsidy if negative), and the wedge between the CIF and end-user prices represents the import tariff (and perhaps other import-related distortions). Finally, the wedge between the CIF and FOB prices represents the international trade and transport margins. These margins represent in turn the use of the real resources supplied by each region. The global international trade and transport sector purchases these services from each region in order to minimize the aggregate cost.

The model has two fundamental markets for goods and services: (1) domestically produced goods sold on the domestic market and (2) domestically produced goods sold by region of destination. All other goods and services are composite bundles of these goods. Two market equilibrium conditions are needed to clear these two markets. The model incorporates five types of production factors: (1) labor (up to five types); (2) capital; (3) land; (4) a sector-specific natural resource (such as fossil fuel energy reserves); and (5) water. Segmentation of the labor market is allowed (though not required)—typically agriculture versus non-agriculture. The model also allows for regime switching between full and partial wage flexibility. In this gender-sensitive version of the model, the labor bundle is composed of four labor types—skilled and unskilled labor, each broken out by gender. At the first stage, the aggregate labor bundle is composed of skilled and unskilled labor. In the default parameterization, the substitution elasticity is 0.5. Each skill bundle, unskilled and skilled, is composed of labor by gender—male and female. The default substitution elasticity is 0.5 across gender. This implies that all four labor types are equally substitutable in the default configuration.

Capital is allocated across sectors to equalize rates of return. If all sectors are expanding, *old* capital is assumed to receive the economywide rate of return. In contracting sectors, *old* capital is sold on secondary markets using an upward sloping supply curve. This implies that capital is only partially mobile across sectors. Aggregate land and water supply are specified using supply curves. Although there are several options, the preferred supply curve is a logistic function that has an upper bound. Water demand also includes exogenous components for environmental uses and groundwater recharge. Land and water are allocated across activities using a nested CET specification. Natural resources are supplied to each sector using an isoelastic supply function, with the possibility of differentiated elasticities, depending on market conditions. ENVISAGE incorporates the main greenhouse gases—carbon, methane, nitrous oxides, and fluorinated gases. It also incorporates 10 non-greenhouse gases that may have impacts on the atmosphere and climate change, and yet often also have significant local impacts, particularly on health. Emissions are generated by consumption of commodities (such as fuels) and factor use (such as land in rice production and herds in livestock production). There are also processed base emissions such as methane from landfills.

Democratic Republic of the Congo

Country Economic Memorandum (CEM)

Pathways to Economic Diversification and Regional Trade Integration

Fostering Economic Diversification and Regional Integration for Faster Growth, Job Creation and Poverty Reduction

THE WORLD BANK