THE DIGITAL SECTOR: CENTRAL ENABLER IN EMERGING ECONOMIES
PREFACE

The Côte d'Ivoire Economic Update has two objectives. First, it reports on recent developments in the Ivorian economy, and places these in a longer term and global context. Based on these developments, and on policy changes over the period, it updates the outlook for the economy. Second, the update provides a more in-depth examination of a selected economic and policy issue. It is intended for a wide audience, including policymakers, business leaders, financial market participants, think tanks, non-governmental organizations and the community of analysts and professionals engaged in the Ivorian economy.

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FOREWORD

According to the GSM Association, in 2022, Côte d’Ivoire has 9.6 million Internet users with a penetration rate of more than 34 percent and this is expected to continue growing rapidly. Internet access allows these users not only to access information, but also to conduct an ever-increasing number of commercial transactions and administrative procedures, such as declaring taxes, redoing identity papers, obtaining information, or consulting school or university exam results. This rapid growth of the digital economy in Côte d’Ivoire is also reflected in the figures: according to the Ivorian authorities, the telecom services sector will generate total revenues of around 1,139 billion CFA francs in 2021 (about US$1.8 billion), representing 3% of GDP and providing nearly 3,000 direct jobs and more than 100,000 indirect jobs. Better yet, the Google-SFI report, entitled “e-Conomy Africa 2020,” indicates that the digital sector - including telecommunications services but also a wide range of applications and new information technologies such as digital financial services, e-commerce, etc. - could contribute more than CFA 3442 billion (US$ 5.53 billion) to the Ivorian economy by 2025. This figure could multiply by 4 by 2050 and approach 10 percent of GDP. This digitalization of Côte d’Ivoire is also driven by an economy that is showing strong resilience after slowing down in 2020. Despite the shocks of the pandemic, the temporary energy crisis, and an accelerating level of inflation, Côte d’Ivoire has managed to achieve a growth rate of 7 percent in 2021, well above the 6.2 percent in 2019. Assuming successful implementation of the National Development Plan 2021-2025, control of the pandemic, and global recovery, the medium-term economic outlook remains positive, although growth will slow to 5.7 percent in 2022 due to the war in Ukraine and inflation is expected to accelerate. Despite these contingencies, Côte d’Ivoire will have to meet a major twofold challenge: to mobilize more domestic public resources in order to expand the fiscal space necessary for its economic development and to maintain its progress towards the structural transformation of its economy, which should be more resilient and inclusive.

To achieve this, Côte d’Ivoire will be able to count on an important ally: the digital economy. This report shows that the Ivorian economy can take advantage of digital technology to strengthen the inclusiveness of growth and accelerate its march towards an emerging economy. To do so, it is necessary to strengthen action around the five fundamental pillars of digital presented in this report: infrastructure, platforms, financial services, entrepreneurship, and skills.

I would therefore like to encourage both public and private authorities to embrace the challenges of digitalization and make it a vector of emergence and inclusion for most of the population, including the poorest in the country’s rural and remote areas.

Coralie Gevers
Country Director for Côte d’Ivoire, Benin, Togo and Guinea
ACRONYMS AND ABBREVIATIONS

ANSUT  Agence Nationale des Services du Service Universel Des Télécommunications - TIC
ARTCI  Autorité de Regulation des Telecommunications / TIC de Côte d'Ivoire
B2G    Business to Government
BCEAO  Central Bank of West African States (Banque Centrale des Etats de l’Afrique de l’Ouest)
CFAF   CFA franc
CIV    Côte d'Ivoire
DFS    Digital Financial services
ECOWAS Economic Community of West African States
ESO    Entrepreneurship support organization
FJN    Fondation Jeunesse Numérique
GDP    Gross domestic product
ICT    Information and communications technology
IFC    International Finance Corporation
KYC    Know your customer
LLU    Local loop unbundling
LMI    Lower-middle income
MFI    Microfinance institution
MNO    Mobile network operator
PND    National Development Plan
PPG    Public and publicly guaranteed debt
Ppt    Percentage point
SME    Small and medium-sized enterprises
SOE    State-owned enterprise
SSA    Sub-Saharan Africa
STEM   Science, technology, engineering, and mathematics
TVET   Technical and vocational education and training
US$    United States dollar
USF    Universal Access and Service Fund
USSD   Unstructured supplementary service data
WAEMU  West African Economic and Monetary Union
Y-o-y  Year-on-year
EXECUTIVE SUMMARY

Recent Economic Developments

i. Côte d’Ivoire aims to become an upper middle-income economy by 2030. This will entail doubling GDP per capita and halving poverty to 20 percent. Political normalization and strong economic reforms have helped to foster macroeconomic stability and make major strides in economic and poverty reduction. Over the last decade, GDP per capita has doubled, to reach US$ 2,313 in 2020, and poverty has declined sharply, from 55.4 percent in 2011 to 39.5 percent in 2018.

ii. As the pandemic recedes, the country is resuming its path toward high sustained growth. The number of COVID-19 cases has dropped sharply to single digits, thanks to a commendable vaccination rollout. Against that backdrop, a broad-based recovery commenced in the second half of 2020 and gained momentum throughout 2021. Annual real GDP growth is estimated at 7.0 percent in 2021, up from 2 percent in 2020, driven by the services and industrial sectors on the supply-side and a buoyant domestic demand, despite a temporary energy shock. Strong credit and employment growth reinforced domestic demand, reflecting positive firm dynamics and continued fiscal support to the private sector. In 2021, 44 large enterprises and 269 Small and Medium size Enterprises (SMEs) benefited from the COVID-19 economic support program, bringing the total since 2020 to 137 and 859, respectively.

iii. Combined with adverse climate shocks and supply-side disruptions, higher domestic demand, however, pushed inflationary pressures. Headline inflation hit a 10 year-high in 2021, reaching an average of 4.2 percent, mainly caused by food price hikes (+7.4 percent). Poor households are the most affected by increasing inflation, which is estimated to have increased the extreme poverty rate (international PPP US$ 1.90/day) by 0.2 percentage point over 2020-21.

iv. Monetary policy remained accommodative and macroprudential measures have so far supported the resilience of the financial sector. The BCEAO has responded effectively to the crisis, preventing the emergence of financial stress and contagion to the banking sector at the regional level. Reflecting the accommodative monetary policy stance, financing conditions eased in 2021. The average bank lending rate was just above 5 percent in 2021-Q4, the lowest in the WAEMU, where the average was 7.3 percent (with Niger, Mali Togo and Guinea Bissau pushing the average up). Macroprudential measures include the establishment of a forbearance framework by private financial institutions that allows for the deferral of loan maturities without interest, fees, or penalties for companies affected by the pandemic, the deferral of the Basel II and Basel III transitional provisions for an additional year, and the extension of prudential standards for capital requirements. Against this backdrop, the banking system has shown remarkable resilience to the crisis. However, while remaining well below the WAEMU average of 12 percent, and still among the lowest in the union, as of September 2021, NPLs stood at 9.6 percent of total loans, up from 8.7 percent in 2020. Initiatives to foster financial inclusion continue.

v. Strong economic growth has led to an increase in imports, widening the current account deficit, while the region’s external position has improved. The current account deficit (CAD) (including grants) is expected to widen to 3.8 percent of GDP in 2021 from 3.2 percent in 2020, due to a decline in the trade surplus, higher interest payments, and lower official grants. Thanks to improved terms of trade, the trade surplus remained positive, but it narrowed as the volume of imports grew faster than exports and oil prices rose. The increase in imports was mainly driven by investment-related products and consumer
goods. The trade balance in transfers and services remained negative. The current account deficit was financed by Eurobond issuances and the Special Drawing Rights (SDR) allocation. The BCEAO's external reserves have risen to comfortable levels due to strong capital inflows.

vi. **Anticipated fiscal consolidation in 2021 was delayed due to the energy crisis and higher health and security needs, but the fiscal stance still improved due to revenue over-performance, while public debt increased.** The amending fiscal law had revised up the fiscal deficit from 4.7 percent to 5.6 percent like in 2020. However, it narrowed to 5.1 percent of GDP in 2021 due to a rebound in tax revenues. Revenue collection recorded the largest increase in 10 years. Tax buoyancy, with the materialization of tax policy and tax administration reforms explain the achievement. Government spending increased moderately by 0.2 percent of GDP; higher capital expenditures were driven by project lending and reflect progress on large infrastructure projects. The moderate increase in spending and the substantial increase in revenue were not enough, however, to contain the pace of the public debt growth. The risk of public and external debt distress remains moderate, although space to absorb shocks has narrowed.

**Outlook, Risks and Challenges**

vii. **The medium-term outlook is broadly positive, supported by the National Development Plan (PND) and continued macroeconomic stability to macroeconomic stability.** The government renewed its five-year PND, the PND 2021-2025. The PND relies mostly on the private sector to accelerate industrialization and foster employment by reinforcing the business climate and improving skills while addressing the effects of climate change. The growth outlook relies on its continued implementation, the taming of the pandemic, and a resumption of the global recovery and trade in the medium term. In addition, recent large oil and gas discoveries, which are expected to commence production in 2023, will further sustain the recovery. In the short term, however, growth will be adversely affected by the global inflationary pressures stemming notably from higher commodity and fuel prices and supply-side disruptions resulting from the Russia-Ukraine conflict. As a result of the external shock, the convergence to the regional fiscal deficit of 3 percent of GDP is expected to be delayed by one year, to 2025.

viii. **Overall, risks are perceived to be contained but headwinds are looming.** While the COVID-19 vaccination rollout is among the highest in West Africa, the country remains vulnerable to a potential external shock from new infection waves that disrupt main trading partners. Heightened regional and security tensions in the Sahel could also dampen the outlook. The tightening of monetary policies in advanced and emerging markets to counter inflationary pressures will pose challenges for BCEAO, tighten funding sources, and affect debt sustainability. A protracted Russia-Ukraine conflict would exacerbate these dynamics in a context of constrained fiscal space, with greater risks of delayed fiscal consolidation. In the medium term, the roll out of the PND will depend on adequate financing, premised on greater domestic revenue mobilization and private financing. Climate change also poses serious risks to the Ivorian and regional economies.

ix. **In order to sustain the recovery, it is critical to create fiscal space** to maintain and increase growth-enhancing expenditure, while consolidating e to continue ensuring debt sustainability and rebuild prudential buffers. Two sets of actions will be crucial. Stepping up domestic revenue mobilization – an urgency that is heightened by the limited fiscal space and vulnerability to external shocks in a highly volatile global environment; and improving the efficiency of public spending in order to achieve effective revenue-based consolidation. Improving the efficiency of social expenditure appears crucial to progressively build adequate human capital, reduce skill mismatches, and improve social cohesion. Widespread use of digital
technology (e-economy) could support the increase in fiscal space by further simplifying tax, customs, and procurement procedures. This would enhance revenue mobilization and spending efficiency.

x. **Côte d’Ivoire is therefore doing well economically, but there is still considerable scope for improvement to achieve the country’s development goals.** Economic performance could have been better had it not been for the pandemic and the worsening regional and international geopolitical tensions and insecurity. Despite the substantial decline, poverty and inequality remain high compared to emerging and frontier market economies in sub-Saharan Africa. More than 10 million people have yet to be lifted out of poverty, and growth is less inclusive than the average in SSA. Economic complexity has stalled and is below the level expected for the country’s income level. Moreover, the current pace of productivity growth—which is expected to average 2 percent in the medium term—will not be sufficient to achieve the country’s development ambitions for the decade. The quest to improve and unlock the potential for productivity and efficiency must therefore continue; and accelerating digital transformation can play a critical role in this regard.

Special topic: **Boosting the digital economy can help achieve inclusive and more resilient economic growth**

xi. The digital economy offers the country immense potential to accelerate growth resiliency and poverty reduction. The digital economy has become an important driver of economic growth, innovation, and improved service delivery worldwide. It is rapidly shaping the fundamental patterns of economic and social activity in our societies: how we learn, work, do business, and communicate with each other, improving productivity and efficiency across broad segments of the economy, including education, financial services, healthcare, agriculture, and supply chains. The digital economy in Côte d’Ivoire has been growing rapidly. According to Ivorian authorities, the Telecommunications services sector generated a total revenue of about 1,139 billion CFA francs in 2021 (about US$1.8 billion), representing 3 percent of GDP and providing about 3,000 direct jobs and over 100,000 indirect jobs. The recent report by the International Finance Corporation and Google (IFC-Google), entitled “e-Conomy Africa 2020”, points out that the digital economy could still contribute more than US$5.5 billion by 2025. This potential could quadruple by 2050, representing about 10 percent of the country’s GDP. In addition, universal and affordable internet coverage, coupled with universal mobile cellular penetration— as pursued by the African Union’s digital transformation goal—would increase real GDP per capita growth by 2 ppts per year and reduce the poverty rate by 1 ppt per year in all SSA countries. For Côte d’Ivoire, this would enable it to exceed its national development plan’s annual growth targets and halve the time needed to reach its ten-year poverty reduction target. These gains could even more than double if appropriate investments are made in human capital.

xii. However, to fully harness these potential gains, the country should address a number of key challenges and build a solid foundation around the so-called five digital pillars. These are infrastructure, platforms, financial services, entrepreneurship, and skills. The report builds on the World Bank’s 2021 Digital Economy Diagnostic (DE4A) for Côte d’Ivoire, which conducted an in-depth analysis of these pillars, highlighting urgent challenges and policy priorities.

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3. Telecommunications services, but also a wide range of applications and new information technologies such as digital financial services financial services, e-commerce, etc.
xiii. *Infrastructure. Despite substantial investments in infrastructure, the scope for technology adoption remains significant.* The country has significantly improved internet coverage and mobile broadband, as well as access to the global internet through five international submarine cables. However, performance is still low due to affordability (especially for handsets and data plans), limited broadband adoption, skills and literacy gaps, and limited access to reliable power. According to the regulator ARTCI, the network coverage of mobile operator reaches around 98 percent of the population in 2G, around 95 percent of the population in 3G, and 60 percent in 4G, with only 34 percent of the population using mobile internet and about 5 percent of households having access to fixed broadband. Moreover, the gender digital divide remains significant, with 77 percent of adult women having access to a cell phone against 91 percent of adult men. These gaps are more pronounced in rural areas as the gender gap in cell phone ownership is only 8 percent in urban areas versus 22 percent in rural areas. Strengthening digital infrastructure networks (especially in rural areas) and supporting a more competitive telecommunications sector are proposed measures to boost the development of the digital economy.

xiv. *Platforms. Digital platforms in the public sector are advancing, but with still limited interoperability indicating a need for greater institutional coordination.* The country’s digital economy environment offers several opportunities to expand access, innovations and user-centric digital public services and infrastructure. Côte d’Ivoire was one of the first West African countries to invest in digital platforms, adopting several policies, strategies, laws, and regulations for a greater use of ICT services in the public sector. It has expanded the use of public digital platforms including the Persons-to-Government (P2G), Government to Government (G2G) and Government-to-Persons (G2P) that allow individuals and government to connect and exchange information. Government payments are also shifting to digital, pushed by the COVID-19 crisis. However, institutional coordination of these various initiatives could be strengthened, and existing public digital platforms need to increase interoperability. Creating a stronger online trust environment is critical to both encouraging and enabling more Ivorian to transact online.

xv. *Digital financial services (DFS). Access to second-generation DFS is relatively low despite the popularity of mobile money.* Côte d’Ivoire is ranked among the top ten countries worldwide in the share of the adult population using mobile money, but gender and rural/urban gaps persist. Despite its diversified and dynamic financial sector, the development of DFS has been slow due to a lack of investment capacity (financial and human resources), microfinance (MFI) regulations, and interoperability and interconnection issues. Despite the popularity of mobile money, the DFS market has not yet evolved into second-generation DFS products and several challenges remain, especially in rural areas. Given the importance of agriculture in the economy, DFS market players have an opportunity to develop services in agriculture value chains like cocoa, cashew, rice and cassava, establish innovative partnerships with the private sector for Government payments, continue to support fintech’s emergence with adequate policies and funding, and foster innovation through access to USSD and new DFS products.

xvi. *Digital entrepreneurship has much potential, given Côte d’Ivoire’s young and rapidly growing urban population.* However, it is hampered by the high costs and limited penetration of the internet, the low uptake of digital technology and platforms beyond mobile banking and mobile money transactions, and lack of digital skills. Ivorian startups also suffer from a lack of entrepreneurship culture, training and support, access to markets, pre-seed and seed financing, and a poor institutional, as well as regulatory and tax framework. In addition, one of the underlying constraints to the development of a more robust entrepreneurial and innovation ecosystem is linked to the slow development of digital skills, especially those that foster value creation in emerging and traditional industries.

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6 GSMA, unique mobile internet users 2022 and Telegeography fixed broadband 2021
Digital skills development could be strengthened to improve human capital formation as well as adequate labor supply for potentially productive jobs. While digital skills training is offered at lower and upper secondary levels, benefits are not yet spreading to the whole society due to inequalities (spatial inequalities, lack of access to training for the poorest, gender inequalities), poor instructor expertise, and outdated equipment. At the higher education levels, enrollment in science, technology, engineering, and mathematics (STEM) programs is low (only 18 percent of students, of whom 25.6 percent were women in 2018). Given the importance of digital technologies to the development agenda, recent programs have undertaken to improve digital instruction, learning, and comprehension. The Education Sector Plan (ESP) for 2016–2025 aims to increase equitable access to education first by “improving the quality of learning and training services.” In line with the government’s plan to introduce ICT/digital skills into the secondary school curriculum, the Center for Animation and Teacher Training (CAFOP) has conducted pilot phases of ICT integration in teacher training.

Next steps for Côte d’Ivoire’s digital transformation identified in the DE4A report include:

1) **Strengthen digital infrastructure networks and support a competitive telecom sector.** Additional efforts are needed to bridge the urban/rural and digital gender gaps. This could be achieved by strengthening the national Universal Service Agency (ANSUT), and by improving digital connectivity by stimulating investments through a possible combination of: (i) coverage obligations; (ii) tax incentives; (iii) infrastructure sharing incentives; and (iv) capital subsidies. In addition, the retail fixed broadband market could be stimulated by further opening up the wholesale fixed broadband market (Orange currently benefits from a dominant position, with a market share of 88 percent revenue and 98 percent customer).

2) **Define an e-government institutional anchorage and coordinate actions for user-centric and efficient public platforms,** with a greater focus on the quality, accessibility, and interoperability of existing systems. A successful transformation strategy and master plan would not only spell out a clear vision for national digital platforms, but also clarify the role of each government entity to move towards a whole-of-government approach.

3) **Enhance interoperability, accessibility, and relevance of digital financial services (DFS).** Key legal and regulatory reforms would improve access conditions (e.g., through the enforcement of appropriate USSD fees) and boost the use of DFS by individuals and small businesses, while paving the way for fintech. Improving the financial infrastructure would foster the expansion of DFS.

4) **Support and strengthen the entrepreneurship ecosystem to create new digital champions.** Scale up support for startup incubators and accelerators and intensify efforts to include more women in digital entrepreneurship. This could include leadership workshops, confidence-building initiatives, and training geared at shifting mindsets towards entrepreneurial career paths.

5) **Create a coherent skills development strategy to support the digital ecosystem.** This should cover the full workforce pipeline – from the formal education system which allows people to gain fundamental, technical, and agile skills, through to workplace and social digitalization. The population needs to be equipped with general literacy, numeracy, soft, and user and specialized digital skills through public, private and industry learning systems.
CÔTE D'IVOIRE
ECONOMIC UPDATE
APRIL 2022
1. RECENT ECONOMIC DEVELOPMENTS

Context

1. **The COVID-19 pandemic temporarily paused in 2020 a decade of impressive growth and development progress.** Côte d’Ivoire ranked as one of the fastest-growing economies in the world and in sub-Saharan Africa (SSA) for almost a decade. Real gross domestic product (GDP) growth averaged 8.2 percent annually over 2012–19 (5.7 percent in per capita terms). Political normalization and strong economic reforms have helped to foster macroeconomic stability and make major strides in economic and poverty reduction. Over the last decade, GDP per capita has doubled, from US$ 1,558 to US$ 2,313 (constant US$ 2015) (Figure 1), and poverty has declined sharply, from 55.4 percent in 2011 to 39.5 percent in 2018, lifting 1.76 million people out of poverty. As an example, the share of population with connection to a power grid has increased substantially, to reach nearly 94 percent in 2020 from 34 percent in 2013, and the Human Development Index has improved steadily (Figure 2).

2. **A broad-based recovery commenced in the second half of 2020 and gained momentum in 2021.** The government’s swift and appropriate health and economic response helped stabilize the economy in mid-2020 and contain economic and social losses. The COVID-19 response plan involved various pillars: a health spending plan (0.3 percent of GDP); and an emergency economic plan (1.2 percent of GDP, including 0.3 percent on tax deferrals and incentives) to support critical sectors and state-owned enterprises (SOEs) and private firms experiencing temporary cash-flow difficulties, and to provide social safety nets to the most vulnerable households. The response has however increased the fiscal deficit, which grew by 3.3 percentage points of GDP (ppts) while public and publicly guaranteed (PPG) debt rose by about 9 ppts to 49.7 percent of GDP in 2020.

3. **As the pandemic recedes, the country must resume its path toward structural economic change and inclusive growth.** Despite falling, poverty and inequality remain high compared to emerging and frontier market economies in SSA. At 2018 rates, more than 10 million people are yet to be lifted out of poverty. Large regional disparities exist, with rural areas accounting for 68 percent of the poor. In addition, growth has been less inclusive than in other SSA countries: a 10 percent growth in real GDP per capita has translated into a 7.1 percent decline in the poverty rate, less than the SSA average of 19 percent (World Bank, 2021). Economic complexity has stalled and is below the expected level for the country’s income level. The informal sector, although declining, still accounts for up to 42 percent

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7 Deferrals of tax, social security contributions, and electricity bills, acceleration of VAT refunds, and tax control moratorium were swift. The largest share of revenue measures consisted of tax and social security contribution deferrals, of which a large share was subsequently collected by the end of the year, so that their net fiscal cost over 2020 was only about 0.1 percent of GDP. Implementation of the economic response plan spending measures was carried out through the enactment of emergency procedures and temporary regulations, creating four extra-budgetary funds which started operations in April 2020. The supplementary budget law regularizing appropriation of spending was adopted in November 2020.

8 Economic complexity refers to the composition of a country’s productive output and represents the structures that emerge to retain and combine knowledge. The economic complexity of a country is calculated by the diversity of exports it produces and their ubiquity, or the number of countries capable of producing them (and the complexity of those countries). Countries that are able to maintain a diverse range of productive know-how, including sophisticated and unique know-how, are able to produce a wide variety of goods, including complex products that few other countries can produce. Source: https://atlas.cid.harvard.edu/glossary.
of GDP. Several bottlenecks continue to limit structural transformation, labor productivity growth and inclusiveness, including low human capital quality and allocative efficiency of public spending on social sectors, due to barriers to competition and other market frictions. Domestic revenue mobilization has remained low, at about 13 percent of GDP in 2021, limiting the fiscal space for spending productive and social spending.

Trends in real per capita income and human development

![Graph: Real GDP per capita over the last decade]

Source: World Bank (2022), Country Economic Memorandum

![Graph: Human development indicators]

Source: UNDP (2021), Human Development Report

4. **Efforts are underway to address these lingering challenges.** The government renewed its National Development Plan (PND, from its French acronym) in December 2021 (Box 1) and has put in place an ambitious social spending program (PSGouv, see Box 3). The 2021-2025 PND is part of the Nouvelle Stratégie 2030, which aims to turn Côte d’Ivoire into an upper middle-income economy by 2030. This will entail doubling GDP per capita and halving poverty to 20 percent. The PND relies mostly on the private sector to accelerate the country’s industrialization and foster employment by reinforcing the business climate and improving skills while addressing the effects of climate change. As part of this strategy, the government regards digital transformation as a potent tool to underpin the private sector development and foster inclusion (see Section 3).
Box 1. The National Development Plan (PND 2021-25) underpins Côte d'Ivoire's ambitions

Adopted in December 2021 and underpinned by *the nouvelle stratégie 2030* – that of achieving upper middle-income status by 2030 and doubling real GDP per capita -, the PND 2021-25 has three main goals: (i) developing the national industry to make it an engine of the economy and a provider of decent jobs; (ii) ensuring better factor productivity, in particular human capital; and (iii) strengthening governance in order to support the private sector through an inclusive development process. It encompasses 6 pillars:

1) Accelerating the structural transformation of the economy through industrialization and the development of economic clusters, with greater private sector participation, allowing for increased investment in employment-generating sectors.

2) Human capital development and employment promotion, including building the skills to use modern technologies; and preserving human capital to ensure longevity through health and social protection policies.

3) Private sector development and investment to improve the overall competitiveness of the economy. This includes strategies and programs to promote private investment, financial and infrastructure development, strengthen the business climate, and expand domestic, regional, and local markets to increase trade and investment.

4) Strengthening inclusion, national solidarity, and social action, by promoting participation in economic development and improving access for all to essential economic and social services.

5) Balancing regional development, preserving the environment and combatting climate change. This program also includes safeguarding natural heritage and promoting the ecological exploitation of natural resources.

6) Strengthening governance, modernizing the state, and promoting cultural transformation to consolidate peace, and ensure security, justice and social contract.

The plan is underpinned by the premise of a solid and stable macroeconomic framework. Average real GDP growth is projected at 7.7 percent over 2021-25 in the baseline scenario, and up to 8 percent in alternative scenarios, driven by the primary and secondary sectors on the supply side; and by higher investments on the demand-side, with an expected increase of between 10-50 percent in total investments depending on the scenario (from 21.1 percent of GDP in 2020 to 25 percent of GDP in 2025 in the baseline). The share of the informal economy is also expected to decline from an estimated of 88.4 percent of total employment to 83.7 percent.

Total investments for achieving the plan are estimated at CFAF 59,000 billions (167 percent of 2020 GDP), with 74 percent expected to come from the private sector. The PND expects an increase in domestic revenue of less than 1 percentage point of GDP over the period, with tax revenues expected to increase to 13.3 percent of GDP by 2025. Much of the public financing of the PND relies on the continuation of active and responsible public debt management within the Medium-Term Debt Strategy (MTDS). The 2019-23 MTDS, adopted with the Budget Law 2021, is consistent with the Debt Sustainability Analysis (DSA) and should ensure that the costs and risks associated with new financing are controlled. Indeed, the strategy progressively gives priority to domestic financing and seeks to limit the foreign exchange risk associated with external borrowing, particularly in US dollars.

Source: Government of Côte d'Ivoire (2021), Plan national de développement 2021-25.
Real Sector

Economic recovery was solid in 2021, bolstered by buoyant domestic demand, despite poor agricultural production and a temporary energy shock

5. The number of new COVID-19 cases has dropped sharply to single digits, thanks to the implementation of the two response plans along with a commendable vaccination rollout. After a slow start in 2020, the government stepped up its vaccination plan, expanding vaccine acquisition and coverage, and reinforcing testing capacity while intensifying outreach to reduce hesitancy. As of March 5, 2022, about 16 percent of the population was fully vaccinated, while 26.1 percent had received one dose, up from 2.9 percent in the first half of 2021. As a result, the number of cases has been moderate, totaling 0.3 percent of the population (Figure 3). This is despite a surge during the Omicron wave in December 2021, during which monthly daily cases edged up to 1,578 before dropping sharply to 0 on March 7, 2022. At present, the government intends to further expand the vaccination campaign, extending coverage to youth over the age of 12. The moderate increase in cases avoided any further containment measures, with the last ones put in place in mid-2020 (Figure 4).

6. Against this backdrop, the recovery strengthened in 2021. High-frequency data indicate that a broad-based recovery commenced in the second half of 2020 and gained momentum throughout 2021, with GDP growth averaging 6.9 percent in the first to third quarters (Q1-Q3) (Figure 5). As a result, annual real GDP growth is estimated at 7.0 percent in 2021 (4.4 percent in per capita terms) against 2 percent in 2020. This was driven by the services (4.8 ppt) and the industrial sectors (1.3 ppt), while agriculture contributed marginally, at 0.3 percentage points.

7. Despite temporary disruptions in electricity supply, the recovery in the supply-side was marked by a strong expansion in industry and services. Supported by the gradual pickup in activity after the lifting of the mobility restrictions and an increased use of digital services, the services sector recorded a tremendous broad-based acceleration over the course of 2021, with hotel and restaurant activities increasing over 100 percent in Q2. The retail business index grew at 11.4 percent year-on-year in 2021. Industry also recovered by 6.2 percent y-o-y. Manufacturing and petroleum accounted for more than 95 percent of this increase (Figure 6). The turnover in the industrial sector grew by 16.9 percent over 2021, driven by both manufacturing (+21.3 percent) and mining (+13.4 percent). The recovery in manufacturing was broad-based, with all sectors recording strong increases, including petroleum refining and coking (+56.7 percent), chemicals (+43.7 percent), rubber and plastics (+25.2 percent), and other manufactured products (+26.1 percent). The performance of the extractive sector was led by metal ores and hydrocarbons. Equipment failure at the main thermal power plant and a water deficit in the hydroelectric dams, triggered by the long drought in the first half of the year, moderated the contribution of energy and water (+0.4 percent), while agribusiness decelerated by 4 percent. Poor climatic conditions, which affected agricultural production, while the extractive sector performed poorly, culminated in a marginal contribution of the primary sector to growth.

8. On the demand side, investment and private consumption were the main drivers of growth in 2021. Total investment was the largest contributor to growth, amounting to 5.8 ppt, driven by continued high levels of public investment (2.5 ppt) with a faster-than-expected execution of public infrastructure projects, as the PND projects started to accelerate. There was also a strong pickup in private investment
(3.3 ppt, up by 21 percent y-o-y), reflecting a significant recovery in key sectors, such as services, construction, and manufacturing. Private consumption was also a large contributor to growth (3.4 ppt), while government consumption (despite being positive) contributed less due to lower recurrent spending. In contrast, the contribution of net exports was negative (-2.3 ppt), reflecting the acceleration of investment-driven imports and foodstuffs outpacing export growth.

9. **Strong credit and employment growth reinforced domestic demand, reflecting positive firm dynamics and continued fiscal support to the private sector.** Private sector credit expanded by 13 percent y-o-y. Short-term domestic credit was primarily to the services sectors (commerce, restaurants and retail); while the sectors displaying the fastest growth for medium- and longer-term credit up to September 2021 were insurance, real estate and manufacturing, and agriculture in the third quarter.9 Employment growth (+7.5 percent y-o-y) was supported by an increase in firm creation, following a reform in June 2021 allowing firms to fully register online through the investment one-stop shop (Centre de promotion des investissements en Côte d’Ivoire, CEPICI).10 These dynamics reflect the resumption of private economic activity, aided by continued public-sector support. An additional 44 large enterprises and 269 small and medium-sized enterprises (SMEs) benefited from the COVID-19 health and economic support program in 2021, bringing the number of beneficiary large enterprises and SMEs to 137 and 859, respectively, since 2020. In parallel, the Central Bank maintained its expansionary monetary policy.

Recent Economic developments

**Figure 3. COVID-19 cases have remained under control and vaccination has ramped up...**

Source: 2019 Novel Coronavirus Visual Dashboard operated by the Johns Hopkins University Center for Systems Science and Engineering (JHU CSSE COVID-19)

**Figure 4. ...As a result, mobility indicators support the pickup in economic activity and demand**

Source: Google mobility trends and Oxford University Stringency Index

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9 BCEAO monthly credit statistics to the private sector (include up to September 2021).
10 The reform also reduced the cost of business registration – from CFAF 695,000 to CFAF 15,000 for a SARL with capital of less than CFAF 10 million. Since the creation of the one-stop shop, the average number of businesses registering daily has increased from 20 to 90.
The secondary and tertiary sectors were the main drivers of growth on the supply-side.

Manufacturing and petroleum boosted the industrial sector.

Services rebounded, reflected in retail and telecom growth.

Agricultural production decelerated in the second half of the year due to climate shocks.

Performance in the mining sector was mixed.

Employment growth supported aggregate demand.
CÔTE D’IVOIRE
ECONOMIC UPDATE
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Figure 11. High electricity consumption in the second half of 2021 reflected the rebound in demand...

Figure 12. ...And fuel consumption also soared

Source: Ministry of Economy and Finance and World Bank Staff calculations.

Source: Ministry of Economy and Finance, INS and World Bank Staff calculations

Combined with adverse climate shocks and supply-side disruptions, economic recovery however, increased inflationary pressures

10. **Headline inflation hit a 10 year-high in 2021, reaching 4.2 percent**, up from 2.4 percent in 2020 and 0.8 percent in 2019, 2.2 ppt above the Central Bank target. The increase was driven by foodstuffs, which contributed 2.3 ppt to the inflation growth, far above other components, such as housing (+0.6 ppt) (Figure 13). These food price pressures were the result of a water deficit that affected production, disruptions in the cultivation schedules of some crops due to mobility restrictions lingering since 2020, increased insecurity at the northern borders, as well as increased freight costs that have doubled in the first half of 2021. The rise, however, was contained by administered measures and a partial implementation of the fuel prices automatic mechanism (Box 2). Core inflation, excluding energy and food items, also increased to 2.8 percent contributing 1.7 percent to headline inflation (from 0.5 percent in December 2019) suggesting a possible passthrough to inflation expectations. The increase in inflation has been a common phenomenon around the globe, resulting from pent-up demand and supply-side disruptions and accommodative monetary and fiscal policy in response to the COVID-19 crisis. The average CPI across the WAEMU was 3.6 percent with most countries displaying increasing trends.

11. **Poor households are the most affected by increasing inflation.** The incidence of extreme poverty measured using the US$1.9 a day per capita (2011 PPP) international poverty line, declined from 8.95 percent in 2019, to 8.75 percent in 2021, slightly higher than pre-COVID (2019) poverty projections of 8.6 percent. The recent inflation spike is estimated to have increased the extreme poverty rate by 0.2 ppt point over the 2020-21 period (Figure 14).

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11. Core inflation encompasses energy prices and all food products prices. The authorities' core inflation considers only fresh food products. However, trends of both variables are similar.

12. An overall assessment of inflation expectations in the WAEMU done by the IMF (2022) suggests nonetheless that although inflation persistence seems to have increased in recent months, it remains mostly driven by food. Core inflation was projected to decline slowly in 2022, although the war in Ukraine is likely to reverse the process.
Inflation and extreme poverty

**Figure 13. Food prices were the main drivers of inflation...**

![Graph showing contribution to inflation](image)

Source: BCEAO, INS and World Bank staff estimations

**Figure 14. ...Affecting the poorest households the most.**

![Graph showing percentage point changes in poverty rates](image)

Box 2. Measures to control inflation

Côte d’Ivoire has an automatic stabilization mechanism for hydrocarbon prices linked to fluctuations in international markets. The monthly adjustment is done for fuel prices at the pump and includes diesel, gasoline, kerosene and butane gas. The mechanism is controlled by the Ministry of Mines, Petroleum and Energy. In 2021, the average price for gasoline was capped at CFAF 615/L for super unleaded gasoline and diesel. As for kerosene, used in rural areas, the price per liter has remained at CFAF 555 for several years.

Exceptional additional measures to cap other staple prices were also put in place in early 2022. On March 4, 2022, the Ivorian government announced a series of nine measures to contain rising inflation, particularly for food and petroleum products. After reaching a 10-year high of 4.2 percent in December 2021, inflation has continued to rise in 2022, driven by food prices, which is beginning to create some social discontent. In response, the government adopted measures in March 2022 to contain soaring prices. The measures announced include: (i) a partial subsidy for petroleum products of approximately CFAF 55 billion (US$ 92.5 million); (ii) a 3-month price cap on some staple foods; (iii) restrictions on exports of consumer food products through the requirement of specific authorizations; and (vi) financial support to the agri-food industry to facilitate supply. These measures could help alleviate the impact of higher global fuel and commodity prices on the poorest households. The war in Ukraine could continue to exert pressure on prices, with potential high fiscal impacts were the measures to last.

External Sector

**Strong economic growth led to higher imports, widening the current account deficit, while the region’s external position improved**

12. The current account deficit (CAD) (including grants) is estimated to have widened to 3.8 percent of GDP in 2021 (from 3.2 percent of GDP in 2020) but remained well financed. This is due to a lower trade surplus, higher interest payments and lower official grants, despite improved terms of trade and marginally higher export volumes. Reflecting the strong momentum of investment and domestic demand, import volumes grew substantially in 2021, up by 18 percent y-o-y (Figure 14). This was driven by investment-related imports – with equipment and intermediary products, excluding petroleum, growing by 37.8 and 24.3 percent y-o-y, respectively – and consumer goods (up 19.8 percent y-o-y). Coupled with higher oil prices, the trade surplus declined but remained positive thanks to positive terms of trade (+4.6 percent on average in 2021) (Figure 15). The transfers and services trade balance was negative, despite a slight increase in remittance inflows and in services exports. Côte d’Ivoire has trailed peers in terms of services exports in the last decade and export diversification remains an important agenda (see Country Economic Memorandum, World Bank, 2022).

13. The financial account improved, supported by greater portfolio flows and the Special Drawing Rights (SDR) allocation. The improvement in the financial account was due to increases in both private and official inflows, as Côte d’Ivoire took advantage of positive market conditions to issue its second Eurobond since the onset of the COVID-19 in February 2021 (for approximately US$ 1 billion). The capital account is also estimated to have improved, with slightly higher project grants (0.1 ppt increase compared with 2020). The overall external position in 2021 remained strong, leading to an overall positive balance of payment (2.6 percent of GDP), and contributing to the accumulation of regional reserves at the Central Bank of West African States (BCEAO).

14. The BCEAO’s external reserves have risen to comfortable levels due to strong capital inflows. Nominal reserves in dollars increased by 9 percent between end-2020 and end-November 2021 to reach US$ 23.7 billion. Over the same period, the import cover increased from 5.5 months to 5.8 months of imports. This upward trend reflects a rebound in repatriation of export proceeds, the SDR allocation (US$ 2.3 billion), and portfolio inflows linked to Eurobond issuances by Benin, Côte d’Ivoire, Senegal and the BOAD (for a cumulative amount of 2.6 percent of regional GDP). In addition, the 2020 and 2021 WAEMU external positions are assessed as broadly consistent with fundamentals and desirable policy settings (IMF 2022).

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13 In Côte d’Ivoire, the authorities communicated that they would use the SDR allocation during 2021 as a substitute for more expensive domestic financing.
Monetary Policy and Financial Sector

Monetary policy remains accommodative, and macroprudential measures have so far supported the resilience of the financial sector.

15. The BCEAO has responded effectively to the crisis, averting the emergence of financial stress and contagion to the banking sector at the regional level. Côte d’Ivoire monetary and exchange rate policies are managed by the regional central bank (BCEAO), which maintains a peg between the CFA Franc and the Euro. In 2020-21, the BCEAO took important steps to mitigate the impact of the pandemic on economic activity. These included a 50-basis points policy rate cut to 2 percent since June 2020, the launch of new 6-month and 12-month refinancing windows for government securities at the minimum bid rate of 2 percent (the COVID-19 and recovery bonds) and increasing liquidity supply to banks by expanding their access to the refinancing facility through the full fixed rate allocation policy where all the demand for liquidity is met at the policy rate against adequate collateral. In addition, the BCEAO eased financing access to 1,700 new firms. So far, the regional financial market has also been able to accommodate the increased demand for sovereign funding without tightening financial conditions and crowding-out private sector credit.

16. To support firms, BCEAO relaxed the collateral requirements to access central bank refinancing and established a framework to support firms with repayment difficulties. As regards financial stability, the BCEAO recommended the implementation of a forbearance framework by private financial institutions for enterprises and individuals affected by the pandemic, deferring loan maturities for a period of three months, renewable, without interest, fees, or late penalties. Moreover, the timetable for the transitional arrangements under Basel II and Basel III was deferred in June 2020 for an additional year, and the prudential standards applicable to capital components in 2019 were extended. Finally, steps aimed at electronic money issuers, introduced to encourage customers to use electronic payments in their transactions, have been extended into 2021.

17. Reflecting the accommodative monetary policy stance, financing conditions eased in 2021. The average bank lending rate was just above 5 percent in Q4 2021, the lowest in the WAEMU, where the average was 7.3 percent (with Niger, Mali, Togo, and Guinea Bissau pushing the average up). The long-term yield curve flattened as a result when comparing end 2021 to end-2020. The financial system met the demand for sovereign financing without crowding out private sector credit, which expanded at about 13 percent y-o-y in 2021 (Figure 16), after registering a 9.2 percent growth in 2020. Credit to both households and the non-financial-private sector increased. The credit structure remained stable, oriented mostly to the manufacturing and commerce sectors (accounting for more than half of all loans), compared to 5 percent for the agricultural sector. Claims on the Ivorian economy increased, rising at an annual rate of 14.3 percent in 2021, as claims to public administration and the economy grew by 18.1 and 12.5 percent, respectively. Net external assets also increased by 32.3 percent. The money supply grew at an annual rate of 18.3 percent (+CFAF 2,392.7 billion).

18. Against this backdrop, the banking system has shown remarkable resilience to the crisis. Non-performing loans (NPLs) stood at 9.6 percent of total loans as of September 2021, up from 8.7 percent in 2020 (Figure 17). They remain well below the WAEMU average of 12 percent and are still among the lowest in the union. The deterioration partly reflects the recommendation of the Banking Commission to
restrict the distribution of dividends and the forbearance on loan repayments of distressed customers (which expired in March 2021). This temporary measure may have helped contain the impact of the pandemic on asset quality indicators. Still, the banks’ capital adequacy ratio improved from 11.3 percent at end-2020, to nearly 12.7 percent at end-June 2021 (last data point). As of the end of June 2021, only three public banks – holding 6.8 percent of the sector’s assets, 0.7 percent of outstanding loans and 8.2 percent of deposits – did not meet the solvency ratio norms. But this situation predates the pandemic and the banks concerned have made significant progress in their restructuring.

19. **Initiatives to foster financial inclusion have continued.** Efforts to enhance transparency and payments via digital payments continue. In 2021, the Ministry of Education expanded its use of digital payments to include the collection of all exam fees via TresorPay. Based on a successful pilot, the Public Treasury will extend its local municipality digital payment program (NetCollect) to cover all municipalities, with the aim of covering at least 80 percent of municipalities by 2023. To facilitate cash payment and management, it also plans to equip all its outlets with POS infrastructure integrated with its core accounting system, and rollout the use of TresorPay debit/payment cards in 2022. Banking penetration (as measured by total banking sector assets to GDP) continued to improve, to 47.5 percent in 2020 from 40.7 percent at year-end 2019, while mobile money accounts also continued to increase over the year, with nearly 37 million mobile money accounts open in 2020, up from 30 million in 2019.

**External, monetary and financial sectors**

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14 **TresorPay** is the government’s central platform for the payment of notices or other types of revenue from the public treasury.
Fiscal and Debt Dynamics

Fiscal consolidation was delayed in 2021 due to the energy crisis and higher health and security needs, but the fiscal stance still improved due to revenue over-performance.

20. The overall fiscal deficit is expected to have narrowed to 5.1 percent of GDP in 2021 despite delayed consolidation, due to a rebound in tax revenues. It was initially expected to remain unchanged from 2020 (at 5.6 percent of GDP against 4.7 percent initially envisaged, Table 1), due to additional spending in the revised budget law to accommodate urgent security needs, additional health spending, and expectations of lower revenues due to short-term electricity shortages. An exceptional domestic revenue performance caused the primary deficit to decrease to 3.0 percent of GDP from 3.7 in 2020. The financing needs were covered by external and domestic issuances and the SDR allocation (US$ 2.3 billion, 1.3 percent of GDP).

21. Revenue collection was exceptional, recording its largest annual increase in 10 years. Total revenue, including grants, increased by more than 15 percent in absolute terms with respect to 2020, to 15.7 percent of GDP, with tax and non-tax revenue increasing by 17 and 16.2 percent, respectively. On the other hand, grants decelerated marginally to 0.4 percent of GDP from 0.5 percent in 2020. Tax revenue growth was broad-based, with most taxes exceeding their targets.

22. Tax buoyancy, and the implementation of tax policy and administration reforms, are the main drivers this achievement. Overall, tax revenue is estimated at 13 percent of GDP in 2021, up from 12.3 percent of GDP in 2019-20. According to provisional data, most of the improvement resulted from gains
in direct taxation and import duties. Gross corporate taxes (excluding oil and gas) exceeded their targets by more than CFAF 90 billion owing to the monetary easing; a good recovery of the banking sector after the SAF-Cacao crisis;\textsuperscript{15} higher mining prices and production, especially gold; and the reintroduction of the minimum flat tax rate after its suspension in 2020. Higher gas demand – due to the short-term power shortages – boosted gas revenue collection, exceeding the annual objective by 28 percent. Cocoa export duties also increased from 1.5 to 3 percent, doubling cocoa revenues. In addition, estimations indicated that increase in total tax expenditures was entirely driven by its customs component, which grew by 32 percent, while those of the General Tax Directorate fell by about 40 percent of total tax revenue, increased by 14.5 percent. This positive performance underlines the large potential for higher domestic revenue mobilization by improving the productivity of tax collection.\textsuperscript{16}

23. **Government spending increased moderately, by 0.2 percent of GDP, 11.7 percent y-o-y in nominal terms.** The increase was mostly driven by higher interest payments (+18.3 percent), capital (+14.3 percent), and operating expenditures (+8.3 percent). COVID-19-related expenditures also increased, with subsidies and other transfers increasing significantly (over CFAF 300 billion year-on-year in November 2021). On the other hand, the increase in personnel expenditure was contained, reflecting the government’s commitment to gradually reducing the wage bill to the regional norm of 35 percent of tax revenue. The overall increase in debt service has reduced fiscal space.

24. **Higher capital expenditures were driven by project lending and reflect the progress on large infrastructure projects.** Several infrastructure projects are ongoing, including those related to the organization of the 2023 African Cup of Nations, new universities (notably Bondoukou), roads and interchanges as part of the Abidjan urban transport project and the rehabilitation of the Abidjan-San-Pedro coastline, the presidential program for social, economic and luxury housing as well as the new social development plan (PSGOUV2) (Box 3).

**Improved fiscal stance, however, was not enough to contain the increase in public debt.**

25. **The stock of public debt has increased in the last two years, propelled by the COVID-19 response.** Public debt has been increasing steadily over the last decade to finance social and infrastructure needs under the two previous national development plans (2012-2015 and 2016-2020). The pandemic-induced larger fiscal deficits have further increased borrowing needs. At end-2021, public and publicly guaranteed (PPG) debt increased to 53.5 percent of GDP, up from 49.4 percent of GDP at end-2020, with external debt increasing by 4.9 ppt of GDP over 2019-21. Domestic debt increased 7.6 ppt of GDP, and accounts for about one third of total debt. The debt of public entities rose to 2.7 percent of GDP in 2021 (of which 65 percent is guaranteed).

\textsuperscript{15} In 2018, a court in Côte d’Ivoire ordered the liquidation of SAF-Cacao, the top exporter and the world-leading cocoa grower, over debts owed to the Coffee and Cocoa Council (CCC) marketing board. Ivorian banks were struggling to secure repayment of up to CFAF 200 billion (USD 360 million) lent to exporters during the country’s crisis-hit 2016/17 season. The banking sector recovered slowly through the liquidation of the company’s assets, which protractedly affected the cocoa sector.

\textsuperscript{16} Estimates of tax buoyancy over 1980-2021, after controlling for inflation, the political stability and the 1994 devaluation, show that an increase of 1 percent in nominal GDP translates into an 0.8 percent increase in tax revenues in the long term and 0.6 percent in the short run.
26. **External debt represents two-thirds of total public debt – 80 percent is commercial borrowing.**

The share of external commercial debt has increased along with the Eurobond issuances and amounted to more than 50 percent of total PPG debt (Figure 19). Eurobonds account for about 80 percent of the commercial debt. The IMF and the World Bank jointly covered more than 25 percent of the country’s financing needs in 2021. In contrast, the share of bilateral debt has been on a downward trend since 2017, representing 16.4 percent of external debt outstanding in 2021, against 21.1 percent in 2017. The government has privileged euro-denominated debt in its debt strategy with the aim of limiting the exchange rate risk. Tighter financial conditions and better resource mobilization averted a second Eurobond issuance in 2021. The averted issuance would have followed the 12-year issuances of EUR 1 billion in November 2020 (at 4.8 percent) and EUR 850 million in February 2021 (at 4.3 percent). From these issuances, EUR 1.1 billion was used to support the 2021 budget, with the remainder used in a liability management operation to lengthen maturity and reduce exchange rate risks. While the government was planning a second issuance in July 2021, tightened international market conditions, good performance on domestic revenue mobilization and the SDR allocation averted it.

27. **The risk of public and external debt distress remains moderate, although space to absorb shocks has narrowed.**

The country’s sound debt management policies have so far help mitigate increased debt vulnerabilities. The ongoing pre-mission World Bank/IMF debt sustainability analysis (DSA) finds that the risk of external and public debt distress remains moderate. However, the space to absorb shocks has narrowed. More specifically, the ratio of debt service to revenue is expected to remain close to its threshold and could exceed it in the event of a major shock. Under the current macroeconomic policy framework, expectations for economic growth, revenue mobilization and fiscal deficit should help maintain this position. However, the Russia-Ukraine conflict could weigh on the outlook if it were to last. Strengthening the resilience of the economy and accelerating domestic revenue mobilization are crucial to ensure fiscal sustainability.

**Box 3. From PSGouv to PSGouv II**

To increase shared prosperity, following the years of rapid economic growth, the government put in place a special vehicle – the PSGOUV (*Programme Social du Gouvernement*) – which encompasses selected social and productive spending in 2019-20 directed towards the most vulnerable sectors and regions. The PSGOUV expenditures are accounted as part of the national budget, but the implementation and monitoring mechanisms are independent. The process of developing the PSGOUV was guided by the principle of targeting projects with a significant and rapid impact on the population, particularly in rural and peri-urban areas. They were selected on the basis of five strategic areas: (1) providing the population with local health services and improving social protection; (2) strengthening the conditions of school access and retention for children aged 6 to 16, particularly girls, and improving students’ studying and living conditions; (3) promoting access to electricity and housing for the population; (4) increasing access to income and decent and stable employment for youth and women, the pillars of our families and communities, through the development of income-generating activities, labor-intensive work, internship programs, skills development and women’s empowerment; and (5) creating conditions for the well-being of rural populations, ensuring food security and improving access to drinking water.

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17 As part of the ongoing DSA, BOAD debt was reclassified as external debt, in an ongoing WAEMU regional harmonization effort.
Initially, 12 major projects arising from these 5 axes constituted the scope of the PSGouv, at a cost of CFAF 727.5 billion. Given the initial encouraging results observed in the field, new projects were included in the scope of the PSGouv with the support of certain technical and financial partners, bringing the overall adjusted budget of the PSGouv to CFAF 1,010.6 billion for the 2019-2020 period.

In November 2021, following the success of the first phase of the program, the PSGouv II (2022-24) was announced with five priority areas: (1) tackling fragility in the northern border areas, (2) education and training, (3) improving living conditions in rural areas and empowering women, (4) the professional integration of young people, civic service and second chance schools, (5) and social coverage of vulnerable populations. The estimated budget for this new phase is CFAF 3,200 billion.

Source: Government of Côte d’Ivoire, psgouv.ci.

But debt management capacity is strong

28. The government has made strides to reassure investors and strengthen debt management. Côte d’Ivoire’s debt management procedures and policies are robust. Continuous progress on debt policy and debt management saw the country's score on the Country Policy and Institutional Assessment (CPIA) indicator (Q3) increase from 3.5 to 4 in 2020. The country has a Medium-Term Debt Strategy (MTDS) which is regularly updated, evaluated, and adjusted depending on the financing needs and the external environment. The government updated its Annual Borrowing Plans (ABP) in March 2021 to account for increased COVID-19-related financing needs. The recent introduction of budget programming and tax administration reforms has also supported fiscal sustainability. The government is committed to continuing debt management reforms and has done so in the context of the Sustainable Development Finance Policies (SDFP), with actions to increase both transparency and fiscal sustainability.

Spreads, commercial debt composition

**Figure 18. EMBIG spreads declined since the peak of the COVID-19 crisis**

![EMBIG Spreads chart]

Source: Bloomberg and WB Staff calculations. Note: CIV: Côte d’Ivoire; SEN: Senegal; EMBI: Emerging Markets Bond Index

**Figure 19: External commercial debt represents 80 percent of total external debt**

![External debt composition chart]

Source: Ministries of Budget, Economy and Finance, and World Bank Staff calculations
### Table 1. Fiscal deficit and debt service

#### Fiscal developments, 2019-2021

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Source: Ministry of Budget and State-owned entities, Ministry of Economy and Finance, and World Bank staff calculations
2. OUTLOOK, RISKS AND CHALLENGES

The medium-term outlook is positive, supported by the 2021-2025 PND and commitment to macroeconomic stability, but headwinds are looming in the short term

29. **Growth is expected to decelerate to 5.7 percent in 2022 due to increased negative global pressures; but should accelerate in the medium term.** In the short-term, growth will be affected by the global inflationary pressures stemming from higher commodity and fuel prices and supply-side disruptions resulting from the Russia-Ukraine conflict (Box 4, Figures 20-21). Growth in Europe and the US (major trading partners) is expected to slow down. At the moment, the growth forecast for 2022 has been revised downward with the expectation that the conflict will not last beyond Q2. Still, inflation is expected to increase further to 5.5 percent in 2022, before gradually abating to 3 percent in 2024. Inflation will impact the poor and reduce disposable income. Measures to contain the impact will weigh on the fiscal stance. Higher oil prices will cause a further deterioration of the current account deficit, to 4.7 percent of GDP in 2022, before narrowing in the medium term on the back of an improved trade balance as oil exports increase. Oil revenue will need to be adequately managed to ensure macroeconomic stability (Box 5). The growth outlook beyond 2022 is positive nonetheless, and relies on the continued implementation of the PND, the taming of the pandemic, and a resumption of the global recovery and trade in the medium term.

30. **In the medium term, the growth drivers are set to remain roughly the same as in 2021.** The agricultural sector should benefit from a strengthening of the national agricultural investment program (PNIA 2) and measures for the food crop sector to contain food inflation, including the distribution of improved seeds and the reorganization of the sector. The gradual easing of mobility restrictions with neighboring countries should ease labor shortages. Improved commodity prices should support national mining production. Modern services and construction, as well as ICT (including digital services), should continue to benefit from the spillover effects of urbanization and economic progress, leading to an expansion in demand. As the pandemic subsides, transportation will pick up with the re-opening of regional land borders. Finally, the industrial sector should benefit from the government’s policy to promote the processing of agricultural products (cashew nuts, cocoa, oil) and the creation of several special zones in Abidjan and in the country’s secondary cities. Results are contingent on the continued improvement of the business climate.

Box 4. How can the Russia-Ukraine conflict affect Côte d’Ivoire?

Cote d’Ivoire is set to be mostly affected through indirect channels of higher fuel and commodity prices. The conflict is exacerbating the recent sharp rise in world energy and wheat prices, as well as other grains. Compounded by regional security concerns, this could exert a significant high pressure on inflation, with higher transport prices possibly affecting production costs across sectors if persistent. The poor will be the most vulnerable with higher prices affecting recent progress in food security. Preliminary GMM estimates using 14 SSA countries over the period 1993-2016 indicate that the food deficit over-reacts to increases in food and energy prices, with elasticities of around 2 and 3.3 percent respectively.  

18 The other variables of control include agricultural productivity, agricultural land square, and real per capita GDP growth. Data are available upon request.
Direct channels are more contained but could impact the external balance and exert pressure on debt sustainability. Imports/exports from Russia are both below 1 percent of total, but imports of wheat, cereals, and other flour-related products account for about 23 percent of Côte d’Ivoire’s food imports and 11.6 percent of total imports. Higher import costs could further deteriorate the trade balance and increase the external financing needs. Depending on the fiscal policy response (transfers, utility subsidies), fiscal financing needs could also increase. Both at a time when anticipated tighter monetary policy in advanced economies and emerging markets, would increase external borrowing costs for Cote d’Ivoire. As of March 1, 2022, Cote d’Ivoire Eurobond spreads had risen to above 7 percent across different maturities, close to the levels observed in May 2020. Rollover risks could increase debt vulnerabilities.

The government initiated temporary measures to mitigate the crisis’ effects on staple food prices. They include the tariff-free import of wheat and the expansion of subsidized staples (rice, sugar, concentrated tomatoes, milk, pasta, refined palm oil, beef). The fiscal response could constrain the composition of government spending at the cost of a lower allocation to the growth-enhancing sectors. If the magnitude of the negative impact is high, the government could shift its spending to transfers and social spending at the expense of public investment, causing delays in the execution of the many infrastructure projects underway and affecting their efficiency. This in turn could retard the growth and poverty reduction objectives as defined in the NDP.

Source: World Bank staff analysis.

Fiscal consolidation is expected to resume in the medium term to create fiscal space for investment in growth-enhancing sectors and further reduce poverty

32. While sustaining a higher fiscal deficit in 2022, the authorities are set to resume fiscal consolidation in the medium term. Initially, in 2021-Q4, they adopted a medium-term budget law for 2022-2024 with the objective of gradually converging to the WAEMU fiscal deficit target of 3 percent of GDP by 2024. Given the higher expected impact of the global external shock from the Russia-Ukraine conflict, they are expected to delay this objective to 2025. The fiscal deficit should slightly increase in 2022 to 5.7 percent of GDP (including grants) in 2022 from 5.1 percent in 2021. Expenditure are kept unchanged to accommodate for extra spending in response to the higher food and fuel prices (20.7 of GDP). In the medium-term, revenue enhancing measures, a consistent implementation of the public wage bill strategy, the scaling back of COVID-related expenditures, coupled with enhanced internal controls and efficiency, should drive consolidation in the medium term. Conversely, investment is set to accelerate, in line with the objective of stimulating economic growth.

33. The delay in consolidation should increase financing needs and push debt up in the short term before it gradually declines. The debt stock is expected to increase slightly and stabilize at around 53 percent of GDP in 2023-24. The external debt burden is expected to increase due to recent government bond borrowing in the regional market, while international market conditions stiffen due to monetary policy tightening in advanced and emerging economies. Against this backdrop, risks to debt sustainability are expected to increase, including rollover risks, given the importance of external commercial debt in the overall debt portfolio. Exchange rate risk is contained due to the pegging of the CFAF to the Euro. In 2022, the government intends to rely more on the regional domestic market, which should mitigate its exposure, but increases risks of crowding out financing for the domestic private sector.
34. **The pressing need to step up domestic revenue mobilization is heightened by the limited fiscal space and vulnerability to external shocks in a highly volatile global environment.** The response to the pandemic has narrowed the available fiscal space, while the increasing share of debt service in public spending – now averaging more than a quarter of total public spending – outweights investment, education, and health expenditures. In 2022 it is projected to reach nearly one-third of spending, higher than spending in these key sectors. Improving tax revenue collection through greater tax administration and policy measures is an imperative going forward, otherwise gains in growth and poverty reduction will be limited. Tax revenue to GDP remains low compared to the WAEMU target of 20 percent of GDP and the SSA average (16 percent of GDP) and is below the average of LMICs.

35. **Improving the efficiency of public spending is critical to fostering the effectiveness of revenue-based consolidation.** There is strong evidence that the effectiveness of fiscal consolidation – even if tax-based – depends critically on the governance and efficiency of public spending. This suggests creating fiscal space for inclusive growth and development does not just require raising revenues or preserving priority expenditures, but also strengthening governance efforts and the quality of public spending. Looking ahead, the government could build on the PSGouv experience (Box 3) to further strengthen the targeting of populations and needs, and the tracking and monitoring of expenditures, and to focus more on delivering results to beneficiaries. Governance and performance-based reforms in key sectors such as education and health need to be further strengthened.

36. **Overall, adverse risks are perceived to be contained, but they are increasing in the short term.**

37. **Sovereign risk perceptions are positive overall.** In 2021, the three major private sovereign rating agencies (Fitch, Standards and Poor’s and Moody’s) upgraded the country's long-term sovereign rating from “B+” to “BB”, making it one of the highest rated countries in SSA, after Botswana and South Africa (BB+). According to the agencies, the upgrade reflects political normalization, sustained economic performance, continued commitment to fiscal consolidation, sound debt management policies, and reforms to improve the business climate. The rating suggests that sovereign risk is moderate, and the economic outlook is positive and stable, but it remains vulnerable to adverse changes in economic or business conditions over time. The rating and its stable outlook should reassure investors and assist the government to maintain access to international capital markets at an affordable cost, which is essential to continue supporting its poverty reduction agenda. Furthermore, the OECD’s country risk assessment of Côte d’Ivoire upgraded the country’s rating from 6 to 5, placing it in the top five best-rated African countries. Finally, recent large oil and gas discoveries, which are expected to commence production in 2023, could further sustain the recovery.

38. **But headwinds loom.** While the COVID-19 vaccination rollout is among the highest in West Africa, the country remains vulnerable to a potential external shock from new infection waves that disrupt its main trading partners. In the context of the Ukrainian-Russian conflict, the authorities’ response to increasing food prices through price caps and subsidies could deteriorate fiscal and debt sustainability with the overall impact depending on the length of the conflict and its spillovers. Heightened international geopolitical and security tensions in the Sahel as well as climate-related factors could also dampen the outlook. In the medium term, the roll out of the PND will depend on adequate financing, premised on greater domestic revenue mobilization and private financing. Two major risks are developed next.

39. **Climate change poses serious risks to the regional and Ivorian economies.** The recurrence of climatic events, such as droughts, that have caused energy shortages and inflation could exacerbate supply disruptions, hamper food security, and harm vulnerable populations, thereby increasing the risk of

19 International Monetary Fund (2017).
social unrest. Such events could weigh on private investment and growth by increasing investment costs or reallocating public spending to more social spending than investment to cushion the social impact, limiting gains in employment and inclusive growth. While domestic actions are necessary, international co-operation will be essential to minimize the adverse impacts.

39. **Fewer accommodative monetary policies in advanced and emerging markets to counter inflationary pressures will pose challenges for BCEAO and debt management.** First, higher interest rates will tighten external financing for the government and increase debt vulnerabilities. Second, high external returns could trigger capital outflows, putting downward pressure on currencies and further fueling inflation. Although domestic inflation is not monetary in origin, the BCEAO would have to tighten monetary policy in due course to preserve the regional reserve pool, which would increase the cost of domestic credit. Third, the tightening of international financial conditions will require additional recourse to the regional market, which could be more costly than expected as all WAEMU member countries will have to resort to it. Gradual tightening would eventually be inevitable, while being accompanied by effective monetary communication to avoid slowing the recovery.

**Box 5. Managing oil revenue for macroeconomic stability**

Oil resources usually play a significant role in oil-rich countries, in gross domestic product and government revenues. This high dependence of government revenues on oil can contribute to severe recession following an adverse commodity price shock. Pro-cyclical fiscal policy, high dependence on the resource sector and the absence of oil revenue management mechanism have left countries vulnerable to volatility and exogenous commodity price shocks. Indeed, low savings rates and boom-bust cycles have plagued economic development in a wide range of resource-rich developing countries.

For resource-rich economies, the exhaustible character of the resource and capacity constraints that restrict the speed with which investments can be efficiently made and absorbed give rise to difficult intertemporal trade-offs in deciding how much of the wealth and revenues generated today should be consumed and invested versus saved and invested or consumed tomorrow. The decisions made have implications for intergenerational equity, as well as fiscal and external sustainability. Especially in resource-rich developing countries, the volatility and disproportionate size of revenues compared with other sectors of the economy may imply different short and medium-term trade-offs and additional precautionary savings.

Fiscal frameworks for managing oil revenues have traditionally implied a cap on public expenditure to prevent governments from overspending resource revenues on non-productive expenditures. This approach naturally derives from a long-term view on how to convert depletable resources into long-term non-resource capital capable of generating revenues after the resource is depleted. Although theoretically desirable, constraining expenditures, and in particular earmarking revenues to non-recurring expenditures, is a politically sensitive topic and might not be feasible in some contexts, for instance where urgent and unavoidable security-related expenditures are a recurring competitor for funding. A second option is to focus on the revenue side and attempt to decouple revenues as much as possible from the commodity cycle, leaving full freedom to the government for allocating expenditures. Such plans require both strong institutional capacity and strong commitment to plans that might not be feasible in low-income countries. Alternatively, volatility can be addressed directly at source either by creating natural resource funds, in most cases for stabilization and saving purposes, or by market-based financial insurance.

Source: Designing Oil Revenue Management Mechanisms, Champagne, Kitzmuller, Tordo, PRWP 9402
Medium-term outlook, 2015-2024

**Figure 21.** Private consumption and investment as well as exports will support growth on the demand-side.

**Figure 22:** Industry and services are set to be the main drivers of growth on the supply side.

**Figure 23:** Inflation is expected to accelerate, before gradually returning to the 3 percent target.

**Figure 24:** The current account deficit is expected to narrow gradually owing to buoyant exports.

**Figure 25:** The authorities are committed to reducing the fiscal deficit to 3 percent by 2024.

**Figure 26:** Moderating the debt pace and its servicing.

Source: World Bank’s staff estimations, The Ivorian authorities, International Monetary Fund
3. HARNESSING THE DIGITAL ECONOMY FOR RESILIENT AND INCLUSIVE GROWTH

The digital economy can make an important contribution to Côte d'Ivoire's inclusive economic growth

40. The Ivorian authorities regard digital transformation as a potent tool to achieve their objectives of inclusiveness and economic transformation. Around the globe, the digital economy has become an important driver of economic growth, innovation, and improved service delivery. Digitalization is rapidly changing the fundamental patterns of economic and social activity in our societies: how we learn, work, do business, and communicate with one another. Internet users worldwide increased from 1 billion in 2005 to 4.9 billion in 2021. According to the IFC-Google recent report, the contribution of the digital economy, which encompasses a wide range of new information technology applications in business models and products such as digital financial services, e-commerce, etc., is estimated at around US$115 billion in Africa and has the potential to reach US$180 billion by 2025, accounting for 5.2 percent of the continent's gross domestic product (GDP). According to the same report, the Ivorian economy is expected to capture about US$5.5 billion and US$22 billion, or 6 percent and 9.9 percent of its GDP, in 2025 and 2050, respectively. This trend is likely to strengthen as digital technologies have come to the forefront in the unprecedented global fight against the COVID-19 pandemic, offering the only opportunity for businesses, governments, and individuals to ensure business continuity, prevent service disruptions and cope with social distancing. The crisis is presenting society with critical challenges, highlighting the need for a cultural shift to adopt digital technologies in daily life and commerce and exposing the stark digital divide between the connected and unconnected.

41. The enormous potential dividends of the digital economy can further increase and accelerate growth and poverty reduction if adequate policies and digital infrastructure are put in place. The evidence that broadband infrastructure has the potential to foster long-term economic growth and development is well established. The internet promotes inclusion, efficiency, and innovation by lowering the cost of transactions, expanding markets and services to excluded communities, and making supply chains more efficient. Developing economies can harness the digital economy as a driver of growth and innovation to unlock new pathways for rapid economic growth, innovation, job creation and access to services. The African Union’s (AU) Digital Transformation Strategy for Africa (2020-30) proposes to harness digital technologies and innovation to transform African societies and economies, promote regional integration, generate inclusive economic growth, stimulate job creation, and break the digital divide. Mobile voice and broadband infrastructure have the potential to drive real gross domestic product (GDP) growth per capita and poverty reduction. However, improved digital connectivity can only have the desired transformational impact if it is combined with improvements in digital skills and literacy, coverage by digital identity systems, access to digital payments, and other financial services, and digital support for startups and digital support for startups and existing businesses.

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22 In broad terms, digital infrastructure consists of the infrastructure for connectivity, such as high-speed internet (or broadband) networks and services; internet exchange points; data repositories, such as data centers and clouds; and the internet of things.
42. **Côte d’Ivoire places digital development among the key priorities in its development strategy** (Box 6). The government plans to accelerate the digitization of public finances and the entire administration and boost private investment in the sector, with the aim of ranking among the five most innovative African countries by 2025. This special topic looks at what they can do to get there. It assesses the digital economy performance and key bottlenecks to its progression, focusing on five main foundational areas for the digital economy: infrastructure, platforms, financial services, entrepreneurship, and skills, making recommendations for how each can move forward.

The performance of digital infrastructures has improved, but urban/rural and gender digital gaps remain

43. **The Ivorian ICT sector** has expanded steadily over the last few decades, with Côte d’Ivoire ranking in the top quartile of the best performing countries in SSA. According to the Ivorian authorities, the telecommunications services sector has generated a turnover of about FCFA1.139 billion in 2021 (around US$1.8 billion) representing about 3% of the country’s GDP and providing about 2.932 direct jobs and over 100,000 indirect jobs. Côte d’Ivoire’s mobile connectivity score places the country in the top quartile of SSA countries. However, internationally, Cote d’Ivoire ranks 129th out of 170 countries in terms of mobile connectivity, suggesting that significant efforts are still required. The main players in the ICT market are the three mobile network operators: Orange Côte d’Ivoire (OCI) with around 40 percent market share, MTN Côte d’Ivoire (around 35 percent market), and Moov Côte d’Ivoire (around 25 percent market share). In the fixed broadband sector, the dominant operator remains Orange with around 98 percent market share; other internet service providers include Group Vivendi Africa, VipNet, and Konnect Africa. The tower company IHS Tower is active in the mobile tower market.

**Box 6. The Digital Strategy of Côte d’Ivoire to 2025 includes infrastructure goals**

The government of Côte d’Ivoire acknowledges the importance of strong digital infrastructure. Adopted in December 2021, the National Digital Development Strategy (NDDS) 2021-2025 (Stratégie Numérique de la Côte d’Ivoire à l’horizon 2025, SNCI 2025), the new National Cybersecurity Strategy 2025 (Stratégie Nationale de Cybersécurité), and the National Innovation Strategy 2025 (Stratégie Nationale d’Innovation) are the foundations for the reform agenda in the sector, aiming at deploying a digital infrastructure network that allows affordable, inclusive, and high-quality access to digital services for all.

The key goals of the NDDS 2021-2025 relating to digital infrastructure are to:

1) Strengthen the legal and regulatory framework and stimulate telecom sector competition by enacting a new Telecom law.

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23. According to the OECD ICT sector definition based on ISIC Rev.4, the ICT sector is considered as the sum of “ICT manufacturing” and “ICT services”, which comprises “ICT trade industries”, “Software publishing”, “Telecommunications” and “IT and other information services”.

24. The GSMA Mobile Connectivity Index is compiled on an annual basis across four dimensions (infrastructure, affordability, digital consumer attitudes, and content and services) using various indicators, such as network coverage and performance, digital literacy and basic skills, and local language content. See GSMA (2020), Mobile Connectivity Index.

25. The main legislation covering the telecommunications sector in Côte d’Ivoire was Law 95-526 (Telecommunications Code), updated by Ordinance 2012-293. Additional decrees have since been adopted on the interconnection and unbundling of the local loop (Decree 2013-300) and on licenses (Decree 2013-302 and Decree 2014-104). Law 2017-803 on the Orientation of the Information Society clarified several points concerning cybersecurity (supplemented by Decree 2020-128 creating the CI-CERT computer emergency response team), digital identity, technological neutrality, and infrastructure sharing. The country also has Law 2013-450 on personal data protection (supplemented by Decree 2015-79 which sets out the procedures for processing personal data).
2) Address the spatial digital divide by extending national universal coverage and building relevant telecom infrastructure, including operationalizing and extending the national broadband network.

3) Promote inclusive access to high-speed internet, especially for rural populations, students, and people with disabilities.

4) Strengthen public administration digital transformation that offer innovative infrastructure and services, including interoperability of platforms and enhanced cybersecurity.

Source: National Digital Development Strategy (NDDS) 2021-2025

Mobile access is relatively high, unlike fixed broadband, but could be cheaper

45. **The penetration of the mobile standard service (voice and SMS) has been encouraging.** With more than 38 million SIM cards, the mobile connection penetration rate (number of total SIM cards divided by the total population) reached 141.5 percent at the end of Q4 2021, one of the highest penetration rates of all lower middle-income countries. However, given the high degree of multi-SIMing in the country (where an individual owns more than one SIM card), it is important to consider unique mobile users (i.e. those who own only one SIM card) to get a deeper understanding of the mobile market performance. Based on 14.9 million unique subscribers, mobile penetration (number of unique mobile users divided by total population) reached 53 percent at the end of 2022-Q1. The unique mobile broadband subscriptions market penetration rate was 34.18 percent, with 9.6 million mobile internet users.

46. **However, mobile telephony retail prices appear relatively expensive, especially for low-income individuals, while over-the-top services are progressively eroding revenues per user.** Although mobile operators offer relatively cheap packages for telephony services in absolute terms, households’ low purchasing power – approximated by gross national income per capita (GNI p.c.) – means that mobile services are still expensive for a large proportion of the population. Using a price basket methodology, the cost of the least-expensive mobile broadband plan combined with voice and SMS services is about 5.8 percent of GNI p.c. for mobile telephony in 2021, well above the cost in Ghana (1.7 percent) and Nigeria (3.3 percent). When comparing the cost of a 20GB monthly prepaid plan, Côte d’Ivoire is ranked 23rd in SSA and is lagging behind similar countries such as Ghana (8th), Nigeria (15th) or Senegal (16th). Nevertheless, there has been some progress, as ten years ago the price of mobile telephony services represented more than 20 percent of GNI p.c. The digital divide does not only include the poorest households, but women are particularly disadvantaged when it comes to affordable access to digital technology (Box 7).

47. **Fixed broadband penetration is low, albeit similar to the rest of the region.** With a little more than 330,000 fixed lines in Q4 2021, fixed broadband reaches only 5.3 percent of households in Côte d’Ivoire.
Based on these figures, fixed broadband connectivity will remain elusive and limited to the biggest companies and the most affluent urban households. Côte d’Ivoire, like the rest of Africa, will have to rely on mobile broadband for internet connectivity to reach the masses. Nevertheless, the fixed broadband market remains of strategic importance for business customers such as retail groups, banks, industries, offshore IT platforms, etc. These customers have specific needs and quality of service requirements that cannot be fulfilled by standard wireless technologies such as mobile (even 4G and 5G). Vertical integration of the dominant operator has limited the entry of alternative ISPs despite existing regulations.

Box 7. More could be done to promote women’s internet access and e-inclusion

Women in low- and middle-income countries are, on average, 10 percent less likely to own a mobile phone than men, which translates into 184 million fewer women owning mobile phones. Even when women own mobile phones, there is a significant gender gap in usage, particularly for more transformational services, such as mobile internet. Women are less aware of mobile internet compared with men, which significantly limits their uptake, particularly in Africa.

In Côte d’Ivoire, for instance, the gender gap in mobile ownership stands at 8 percent in urban areas compared to 22 percent in rural areas. On mobile internet usage, the gender gap widens to 34 percent in urban areas and 51 percent in rural areas. Social norms likely explain why many of these barriers are felt more acutely by women. Social norms influence women’s role, status, empowerment, access to education and income in society, and consequently, their relationship with mobile technology. Thus, instead of being a discrete, stand-alone barrier, ‘social norms’ appear to be an underlying barrier, the effects of which are often hidden within other more commonly cited barriers to women’s access to and use of mobile technology.

Regarding the awareness of mobile internet among women and men, in Côte d’Ivoire only 49 percent of women (versus 67 percent of men) are aware of mobile internet, precluding internet use for a large part of the population. Côte d’Ivoire does not have an active plan or strategy to promote internet access and e-inclusion for women. The Sector Plan for Education 2016-2025 does not specifically mention policies geared toward e-inclusion for women. Even though the gender gap in mobile phone ownership is less acute than in many other African countries, there remains a strong gender gap in accessing the internet, with 56.6 percent of males versus 36.4 percent of females accessing the internet in Côte d’Ivoire.

Closing the gender gap represents a substantial commercial opportunity for the industry. If mobile operators in low- and middle-income countries could close the gender gap in mobile ownership and mobile internet use today, this would generate an estimated incremental revenue of $15 billion over the coming year.

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33 CE Pro (2019).
34 In order to stimulate the retail fixed broadband market, ARTICI should ensure compliance with the obligation for Orange to provide local loop unbundling to alternative operators.
35 Data source: GSMA 2020 Mobile gender gap report.
36 According to the GSMA 2020 Mobile gender gap report, those who had used mobile internet before were automatically categorized as ‘aware’. Those who had never used mobile internet were asked, “Which of the following best describes your knowledge of accessing the internet on a mobile phone?” They were considered ‘not aware’ of mobile internet if they answered either “I don’t know what the internet is” or “I know what the internet is but I was not aware it is possible to access the internet on a mobile phone”.
37 Economist Intelligence Unit (2019).
39 GSMA 2018 Mobile Gender Gap report. The $15 billion estimate assumes that the gender gap in mobile ownership and mobile internet use would be closed during 2018, and represents the subsequent 12-month incremental revenue opportunity.
Bandwidth use is expanding rapidly

48. Bandwidth is expanding for Ivorians and the region. Côte d'Ivoire has access to the worldwide internet thanks to five international submarine cables: the South Atlantic 3/West Africa Submarine Cable (SAT-3/WASC), West Africa Cable System (WACS), MainOne cable, Africa Coast to Europe (ACE) cable, and Maroc Telecom West Africa cable. A sixth cable named “2Africa” is under construction. This cable is owned by a consortium including Facebook, Vodafone, MTN Group, Orange, China Mobile and some segments are scheduled to enter service in 2023. 2Africa will become the world’s longest subsea internet cable (45,000 km), with landing points in 33 countries, including Côte d’Ivoire. Since the opening of the international bandwidth market – with the second and third submarine cable in 2012 – performance has significantly improved. The total international bandwidth used jumped from 9 gigabits per second (Gbps) in 2012 to 337 Gbps in 2020, a 37-fold increase. This compares to the “only” 17-fold increase for the entire Africa continent (Figure 28). The increase in bandwidth is not solely for Côte d’Ivoire’s use. As a landing point for five international submarine fiber cables has several terrestrial fiber links connecting neighboring countries such as Mali and Burkina Faso. In November 2019, Orange Group announced plans to deploy a new international backbone network connecting eight countries in West Africa, to be built around a terrestrial fiber network combined with submarine cables.

49. Côte d’Ivoire is one of the few countries in the region to have deployed two Internet eXchange Points (IXPs), which have significantly improved performance and reduced costs. IXPs are physical sites to which network operators, Internet Service Providers (ISPs) and content delivery networks connect to exchange traffic with each other. They promote the development of the Internet in their areas of service through the reduction of network access costs and the expansion of local content and increasingly innovative services. In 2013, the first IXP (CIVIX) was commissioned in Côte d’Ivoire. From 2013 to 2018, as all the active operators and ISPs in the country have been connected, CIVIX’s total traffic volume increased from 434.65 Mb/s to 284,514 Mb/s. In October 2019, the regulator and five telecommunication companies – Orange, MTN, Moov, VipNet and Yooome – signed an agreement to set up a new internet exchange point (IXP) in the capital Abidjan, leading to improved performance and lower costs for end users.

50. Network coverage is good, but some rural populations are still offline. The telecom operators – Orange CI, MTN CI and Moov CI – both own a backbone that covers the most important cities in Côte d’Ivoire, and passive infrastructure sharing is allowed by the telecommunications regulator ARTCI (L’Autorité de Régulation des Télécommunications/TIC de Côte d’Ivoire). In 2011 the government launched a National Broadband Network (NBN) program. The NBN consists of deploying a total of 7,000 km of fiber optics to complement the existing backbones. Around 5,000 km of fiber have already been deployed in the first two phases. The recruitment of the private operator in charge of managing the national backbone has been an ongoing challenge (three calls for tender have been attempted since 2014 to recruit the private partner without success). As for mobile coverage, according to ARTCI, the network coverage of

40. A sixth submarine cable (2Africa) should be deployed and activated by 2023. It is owned by Facebook, Vodafone, MTN Group, China Mobile, WIOCC, Orange, Telecom Egypt, and Saudi Telecom. The planned cable will extend 45,000 kilometers linking 33 countries in Africa, the Middle East, and Europe. Source: https://www.2africacable.com/
41. The World Bank has provided extensive support to Benin and Guinea, through the West Africa Regional Communications Infrastructure program, to connect the two countries to the ACE submarine cable; access to ACE by Côte d’Ivoire was funded by the private sector.
42. TeleGeography Global Bandwidth Research (2021).
43. APC and Deloitte (2015).
44. Rapport d’activité Côte d’Ivoire Internet Exchange Point (CIVIX), 2018.
mobile operators reaches around 97.55 percent of the population in 2G, 94.62 percent of the population in 3G, and around 60 percent in 4G.\footnote{ARTCI (2022)}

**Digital penetration and costs of access**

\begin{figure}[h]
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\includegraphics[width=\textwidth]{Figure26.png}
\caption{Market penetration, unique mobile subscribers, has been encouraging.}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Figure27.png}
\caption{Unique mobile broadband connection penetration has expanded sharply.}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Figure28.png}
\caption{Total used international bandwidth has evolved dramatically for Côte d'Ivoire - Gigabits per second (Gbps)}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Figure29.png}
\caption{Mobile telephony retail prices appear expensive compared to peers.}
\end{figure}

Regulatory aspects are satisfactory, though the fixed broadband market needs diversifying.

\footnote{ARTCI (2022).}
51. **The regulatory framework is mostly in line with international standards, although additional efforts are needed to improve competition, especially in the fixed broadband market.** The national regulatory authority, ARTCI, established in 2012, oversees the sector. It has initiated several actions to improve sector competitiveness, including active and passive infrastructure sharing, technology neutrality, and the latest launch of mobile number portability (MNP) in September 2018. The MNP regulation conditions include that the number must be active for more than 60 calendar days and there must be a difference of 60 calendar days between two successive portings. Côte d’Ivoire also signed a memorandum of understanding (MoU) in April 2019 with telecommunications regulators in Liberia, Guinea, and Sierra Leone for the One Area Network initiative. This MoU facilitates free mobile roaming services for users travelling in signatory countries. Regarding the fixed broadband sector, the regulator could further stimulate the retail market by opening the wholesale fixed broadband market more fully.

**Cybersecurity and data protection are advancing**

52. **There are cybersecurity and data protection laws; a new Cybersecurity Strategy 2021-2025 has also been adopted.** The strategy aims to secure cyberspace to support the acceleration of the digital transformation. It is based on establishing a national security operations center (SOC) capable of monitoring cybersecurity incidents in real-time, strengthening the protection of critical infrastructure, and integrating key government online services with a centralized electronic signature platform. For this purpose, the creation of two major structures is planned: a National Cybersecurity Committee under the authority of the Prime Minister, which will be responsible for defining strategic orientations and steering the implementation of action plans; and a National Agency for Information Systems Security (Agence Nationale de Sécurité des Systèmes d’Information – ANSSI), created in 2021. The related decree is expected to be adopted in 2022 and will clarify the organizational structure of this new agency. The ANSSI is responsible for implementing action plans, coordinating the management of cybersecurity crises to protect critical infrastructure and public and private information systems, and steering the processes of prevention, protection, monitoring, detection, and response to incidents. Until these institutions are established, ARTCI has the national cybersecurity mandate and co-hosts the computer emergency response team (CERT46) with the Ministry of Interior. The regulator has instigated laws for data protection, cyber-crimes and cyber transactions. According to the ITU 2020 Global Cybersecurity Index, Côte d’Ivoire ranks at the 75th place globally for the quality of its cybersecurity environment, ahead of comparators such as Senegal (100th), but behind Rwanda (57th), Kenya (51st) and Nigeria (47th).

**Digital platforms in the public sector are advancing, but their reach is limited**

53. **The government is aware of the transformative potential of digital platforms and has made significant strides in the sector.** Over the past few years, several policies, strategies, laws, and regulations have been adopted to improve public sector management, service delivery, operational efficiency, and customer satisfaction through a greater use of ICT services in the public sector. Côte d’Ivoire was one of the first West African countries to invest in digital platforms. Government payments are also shifting to digital, pushed by the COVID-19 crisis. For example, in May 2020, a total of 2,279 individuals operating in the informal sector, of whom 57 percent were women, received CFAF 531,5 million (US$ 0.9 million47) in financial assistance from the *Fonds d’Appui au Secteur Informel* (FASI).48

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46 The CERT’s main role is to prevent, detect and manage hacking and malicious activities that target governments and private companies’ systems/platforms.
47 At the rate of 1 USD = 591 XOF (March 17, 2022)
48 FASI (2020).
54. **However, while there are several digital public platform champions, their mandates overlap, and coordination could be improved.** The absence of a clear institutional anchorage delimiting the areas of intervention of each leading institution while providing strategic oversight to ensure interoperability, data governance, cybersecurity, and shared resources is resulting in intra-government competition and missed opportunities. Côte d’Ivoire should set clear guidelines for standardizing its institutional approach to its digital transformation project and lay the foundations for a whole-of-government approach. The recent COVID-19 pandemic has highlighted the need for a fundamental shift away from face-to-face interactions toward more efficient (and less susceptible to corruption) models of government operations, service delivery and interactions with individuals. This work is one of the Government’s priorities.

55. **Existing platforms are still fragmented and designed to be standalone, rather than using integrated approaches; this undermines interoperability, data sharing and governance.** Public institutions have developed their own initiatives based on their needs or leadership vision, without waiting for a consensual plan. Currently, officials affirm that more than 90 government procedures or services are dematerialized and available online for individuals in diverse domains such as education, health, etc. However, adoption and uptake by primary users are yet to be achieved in most cases. A successful transformation strategy would not only spell out a clear vision for national digital platforms but would also clarify the role of each government entity to move towards a whole-of-government approach. This strategy should capitalize on existing initiatives while taking into consideration institutions’ readiness and capabilities. The Government’s ambition is to federate all these initiatives into a single platform for the provision of dematerialized public services.

### Identification systems face fundamental structural challenges

56. **Côte d’Ivoire is currently rolling-out its digital identification system** based on interoperable foundational ID (fID)⁴⁹ systems and the ECOWAS National Biometric ID Card (ENBIC). The roll-out of a fID platform is crucial to expand individuals’ access to digitized services and transactions (for example for financial, social, and education services), for which identification is often a prerequisite, and to take advantage of economic opportunities, including formal employment and property rights.

57. **Identification systems face fundamental structural challenges, however, because of the country’s recent crises,** including the deep and prolonged periods of crisis in the first decade of the 2000s. The questions of identification and identity are sensitive matters. At the onset of the crisis, it was estimated that more than a quarter of the population lacked effective proof of nationality and were not recorded on any official registers. This fueled conflict over the legitimacy of voting rights of large segments of the population.⁵⁰ Without government-recognized credentials, such as birth certificates, unique identification numbers (UNIs) or other ID credentials, people are frequently denied access to rights and basic public services, with the most vulnerable population groups (those who might otherwise benefit most from social protection services) being the most adversely affected. A digital social inclusion program is under development by the Government and should provide solutions to these challenges.

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⁴⁹ Foundational ID systems are designed for primary identification for general use, and include national IDs and civil registries. In contrast, functional ID systems are designed for a specific purpose, and include driving licenses and social security numbers. The key characteristics of a foundational digital ID system are universality (accessibility to the entire population), interoperability (serving as a platform on which other systems, registries and applications can be built), and double core functionality (establishing the uniqueness of the population and facilitating reliable identity authentication using a variety of mechanisms).

⁵⁰ World Bank (2016b).
Côte d’Ivoire hosts several private datacenters and may plan to develop a public one. A national datacenter can be a key facility that would help host all the government data, documents, and digital services such as a digital ID system. A datacenter can prevent information gaps and errors during the lifecycle of documents and data, i.e. from their production to their use in management systems. Current private data centers in the country include those owned by MainOne MDX-i, mobile operators MTN and Orange, DataBridge, and many others. Most government applications are either hosted on local private datacenters or the National (Société Nationale de Développement Informatique, SNDI) local servers. There seems to be no government-owned datacenter, except for a “shared emergency data center of the general directorates”. The government has engaged in conversations about deploying a fully-fledged public datacenter dedicated to official and administrative use, but no concrete plans have yet been implemented. However, this concern remains the priority of the Government, which has indicated that it intends to launch the construction of a national data center in 2022.

Access to digital financial services is relatively low despite the popularity of mobile money

Côte d’Ivoire is one of the largest mobile money markets in Africa, representing 39 percent of all WAEMU accounts. It is significantly above its peers for this regional market share, with Burkina Faso at 15 percent, Benin (14 percent) and Senegal (11 percent). Côte d’Ivoire ranks in the top ten countries in the world for its share of the population using mobile money. In terms of use, phone unit recharge and cashouts are the most prominent transactions, accounting for roughly a third of the country’s transaction volume. It has the largest number of mobile money access points in the region (148,000), representing 29 percent of the region’s cash distribution points. It also has the largest number of active mobile money access points (76 percent). It is the leading market in the region for volume and value of mobile money transactions, representing 30 percent of the region’s volume of transactions and 41 percent of its value. It also leads on the volume and value of payments, as well as transfers within the WAEMU zone.

While the Ivorian financial sector is the most diversified and dynamic in the WAEMU, it has been slow to launch DFS. The Ivorian banking sector is the largest in WAEMU, with 28 banks and 2 financial institutions defined as having a banking scope. The ecosystem also included 50 microfinance institutions (MFIs) and 34 insurance companies at the end of 2018. Eight institutions have a mobile money license. Banks are becoming active players in the development of DFS. There are 28 registered banks, and though most continue to focus on serving their existing clients in the formal sector and the majority of their branches are in the capital, some are beginning to pilot and rollout DFS to reach the mass market. Overall, however, they have been slow to create partnerships with mobile network operators (MNOs), though many have developed them with money transfer operators, such as Western Union, Money Gram, and Ria. They often lack the investment capacity (financial and human resources), claim to be discouraged by the MFI regulations, and are challenged to become electronic money institutions themselves. As a result, first generation DFS products still dominate the market in Côte d’Ivoire, though second-generation

60. UNCTAD (2020).
54. BCEAO (2021a).
55. BCEAO (2021b).
56. Revenues from non-savings and credit related services cannot surpass 5 percent of their total revenues.
57. Because of their smaller customer base and transaction volume than MNOs, and ability to meet regularity requirements (CGAP, 2016).
products are emerging. The majority of the transactions are still for basic services such as cash-in cash outs, person-to-person (P2P) transfers, safe money keeping, and airtime purchases. There has been growth in bill payments, while 80 percent of merchant payments (for goods and services) are still made in cash (Rousset 2018).

61. Interoperability is only partially effective, but the BCEAO is committed to upscaling it. Mobile money interoperability enables users of different mobile service providers to interact with each other (i.e. send/receive money, make payments). Though interoperability is not mandated by regulations, the 2015 e-money instruction requires issuers to facilitate interoperability: e-money issuers must ensure that they take the necessary technical and operational steps to facilitate interoperability with other payments systems (Article 7). BCEAO has developed a “road map for interoperability” to encourage interoperability among competitors, while taking measures to ensure full interoperability through a regional payment interoperability system (GIM-UEMOA) that should be fully operational by 2024.

62. Interconnection through the unstructured supplementary service data (USSD) channel is regulated and not yet fully liberalized. Access to the USSD channel at an equitable price for all players is critical to developing DFS, as mobile money transfers and even value-added services such as digital credit can be carried out with a basic mobile handset using the USSD short code menu, and with a 2G telecommunication network. Telecom legislation states that network access, interconnection, and sharing of essential infrastructure should be provided on an equal, nondiscriminatory basis. The ARTCI decision (2018-0452) defines mobile network operators’ (MNOs) obligations for access to and pricing of USSD codes. ARTCI now requires MNOs to open the USSD channel to payment services providers. While the regulations promote access, they do not provide for a maximum time in which operators must respond. In 2019, there were more than 50 requests for USSD codes, but only 4 were granted (World Bank 2019a).

63. While know-your-customer (KYC) regulations are conducive to the development of DFS, access to traditional financial accounts is still restricted. Tiered KYC is permissible for e-money account holders and allows for limited mobile money use without formal identification documents. The 2015 e-money guidelines set the transaction and monthly thresholds for mobile wallet customers to CFAF 200,000 (US$ 380) before a valid ID is required. However, as there is currently no tiered KYC permission for financial institutions, they still require new customers to provide a photo ID and proof of address, thereby restricting uptake. Biometric identification is permissible, but subject to government authorization. As part of the COVID-19 response, the BCEAO has published new guidelines aiming to encourage the use of digital payments. The communiqué, published on April 1, 2020, allowed payment service providers

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58 First generation DFS products include basic cash-in, cash-out, person-to-person (P2P) transfers, bill and utility payments, airtime top-ups, and bulk payments. Second generation products include digital credit, savings and insurance, merchant payments, international remittances, and bank-to-wallet services.

59 A 2017 survey shows 40% of transactions are for CICO, 35% for P2P, 22% for safekeeping, and 17% for airtime (CGAP, 2018).

60 Regional payments switch (Groupement interbancaire monétique GIM de l’UEMOA) : https://www.gim-umoia.org/solutions-services/gim-switch

61 GIN-UEMOA (2022).

62 Ordonnance no. 2010/293 Relative aux Télécommunications et aux Technologies de l’Information et de la Communication, arts. 16, 18, 35-49. Loi no. 95-526 portant Code des telecommunications. arts. 2.41, 2.42, 2.50, 2.55, 4, 6.

63 ARTCI is mandated to co-operate with other regulatory bodies in Côte d’Ivoire and the region to regulate competition in the telecoms and data markets, ensure interconnection and quality services, and protect consumers.

64 The national ID card (NID) is issued upon presentation of a certificate of nationality which requires attestation by a judge at a local court by submitting a copy of the birth certificate or a copy of a parent’s birth registration document. The entire process can result in costs of CFAF 10-13,000 (USD 16.66-21.65) and takes one to three months to issue the NID after the application process is complete. Though the Global Findex reports that 68% of adults had an identity card in 2017, another report records only a 45% registration rate for the NID (World Bank, 2017b).
(PSPs) to digitally onboard customers based on their mobile number (i.e., without the need to have an ID card). It also allowed for free P2P transfers of up to CFAF 5,000 (US$ 9) and utility bill payments under CFAF 50,000 (US$ 89). Finally, the wallet size has been increased from CFAF 2 million to CFAF 3 million per month (US$ 3,000 to US$ 4,000). These emergency measures by BCEAO, which expired in July 2020, boosted the number of accounts opened in Côte d'Ivoire and throughout the region.

64. Despite the overall increase in financial inclusion, gender and rural/urban gaps persist. A 2018 survey indicated that men are 65 percent more likely than women to have a mobile money account and 85 percent more likely to be active users. The World Bank's Global Findex Database was last updated in 2017 and puts account ownership shares at 30 percent of surveyed women and 38 percent of men, and 31 percent of the surveyed rural population compared to 34 percent of the entire surveyed population (Figure 30). Despite the persistent gender gap, women and men recorded the same growth rates for mobile money account ownership between 2014 and 2017, while the growth rate for young adults was higher than for older adults.

Access to bank account and mobile money account divides

*Figure 30. Poverty, location and gender still affect access to bank accounts in Côte d'Ivoire*
Digital entrepreneurship has potential, but the ecosystem lags peers

65. Côte d’Ivoire is a prime breeding ground for digital entrepreneurship in the medium to long term. Favorable aspects include: a young (78 percent of the population is under 35 years old) and growing urban population (+3.38 percent per annum), in a context of strong economic growth and investment attraction (including 17 percent in technology), the increasing use of technologies, including a high mobile internet penetration rate with a double-digit annual growth, and a nascent innovation ecosystem (incubators, co-working spaces, etc.). In May 2019, in order to support the digital entrepreneurship ecosystem, the government adopted a set of measures to ease small and medium-sized enterprises’ (SMEs) access to public markets and procurement. The B2B (business to business) market also shows potential if linkages between established/traditional companies and startups can be developed.

66. However, the startup ecosystem lags behind other comparable emerging economies, such as Anglophone Africa or Senegal. For example, Partech Ventures found that only US$ 6.5 million (i.e., CFAF 3.7 billion) was mobilized in venture capital funding by Ivorian startups in 2020 (Figure 32), compared to US$ 305 million in Kenya, US$ 8.8 million in Senegal and US$ 11.6 million in Rwanda. On the SeedStars Index (SSI), which measures the quality, maturity, and future potential of 54 emerging ecosystems around the world, Côte d’Ivoire (Abidjan) scores below average at 43.9 points. Meanwhile, the SSA front runners – South Africa (Cape Town) and Kenya (Nairobi) – achieved an average of 74.4 points and 68.4

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66. Including reserving 20 percent of public markets for SMEs (which is not mandatory but is monitored), limiting the documents requested during calls for tender, and encouraging international and larger firms to partner with Ivorian SMEs.
67. Established traditional Ivorian firms in major employment-generating sectors, such as agribusiness, have not yet absorbed the benefits of technology adoption.
68. The DE4A diagnostic toolkit is based on the Babson Entrepreneurship Ecosystem model. This model captures the most widely held understanding of entrepreneurial ecosystems, including the factors that constitute them and how they work, namely: policy, finance, support organizations, culture, human capital, and market.
The study also found Côte d’Ivoire to perform below its economy potential for its entrepreneurship ecosystem, which indicates strong room for progress.

67. **Structural challenges and specific market failures explain the gap.** Ivorian startups suffer from specific market failures in entrepreneurship culture; training and support; access to markets; pre-seed and seed financing; and the institutional, regulatory and tax framework. Some public programs exist for promoting, financing, and supporting entrepreneurs, but their results are still insufficient in view of the scale of the challenge. Given the nascent status of the Ivorian startup ecosystem, the bulk of the technical and financial support needs especially concern the pre-seed and seed stages.

**Venture capital by startups in Africa**

*Figure 32. There is large scope to raise more venture capital by Côte d’Ivoire’s startups*

<table>
<thead>
<tr>
<th>Country</th>
<th>Venture Capital Raised (in millions USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>307</td>
</tr>
<tr>
<td>Kenya</td>
<td>305</td>
</tr>
<tr>
<td>Egypt</td>
<td>269</td>
</tr>
<tr>
<td>South Africa</td>
<td>229</td>
</tr>
<tr>
<td>Ghana</td>
<td>116</td>
</tr>
<tr>
<td>Benin</td>
<td>112</td>
</tr>
<tr>
<td>Burkina</td>
<td>8.8</td>
</tr>
<tr>
<td>Guinea</td>
<td>6.5</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>4.6</td>
</tr>
<tr>
<td>Cameroon</td>
<td>4</td>
</tr>
<tr>
<td>Togo</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Source: Partech Ventures (2020), Annual report on VC funding in Africa

68. **The lack of appropriately skilled talent (both as staff and founders) is a major constraint to the digital ecosystem.** Startups are challenged to find well-performing employees with the soft and technical skills they require. 16.6 percent of Ivorian employers listed inadequate workforce skills as a major constraint in the World Bank’s 2017 Enterprise Survey of Côte d’Ivoire, and many startups interviewed stated that the main challenge they face is the high cost of talent. The minimum monthly gross salary of an executive with three to five years of experience is around FCFA 400,000 (i.e. US$ 680), but few Ivorian startups have sufficient funds to afford such talent. Additionally, not only is there a lack of general engineering and digital skills, but some specific skills required for tech startups, such as data scientists, are not available. The lack of skills also hinders startup founders themselves, as they lack the capacity to grow their venture successfully.

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71. VC4A (2017).
69. **Entrepreneurship support organizations (ESOs), which should partially offset these difficulties, have emerged in the past five years in the private sector.** Côte d’Ivoire currently has over 22 ESOs and the numbers are on the rise. The ESOs help to strengthen entrepreneurs’ technical and managerial capacities and to identify market needs and relevant products/services. This should theoretically enable them to significantly increase their chances of success and create viable and job-creating companies. Among the ESOs there are two public initiatives, Fondation Jeunesse Numérique (FJN) and Dream Factory, which demonstrate the support of the government in entrepreneurship. This support was confirmed by the 2020 Startup Act. The involvement of corporates in the tech space is led by telecommunication companies, as shown by the existence of Orange Fab and Yello Startup (MTN) incubation programs. However, uncertain funding is hindering ESOs in recruiting experienced staff and mentors for digital startups. This is crucial, since research has shown that support structures run by people with no entrepreneurial experience can in fact negatively affect the community.

70. **There is an entrepreneurial gender gap.** Although Ivorian women can legally open businesses and sign contracts the same way as men, they can be discriminated against in access to credit. The rate of women's participation in the labor force is 41.7 percent, which is much lower than their male counterparts, at 67 percent. In the startup field, ecosystem stakeholders stressed that women-led digital firms are uncommon, and that little is done to promote women's entrepreneurship. The Ivorian education experts also note that only small numbers of women matriculate in ICT-related studies; more generally, women represent only 10 percent of Abidjan university's 60,000 students. Therefore, the quality and type of sensitization and support these women-led startups receive will be critical and should be linked to recent global efforts to customize support to women entrepreneurs and to promote gender-lens investing.

71. **The government has a pivotal role in creating an enabling regulatory framework to increase the digital sector’s potential.** The Ivorian government has drafted, in partnership with the tech ecosystem, a Startup Act which is planned to be enacted in 2022. The law covers the required fiscal and other regulatory measures for the development of a digital ecosystem. It was born out of the Abidjan Policy Hackathon in October 2018 and developed together with the entrepreneurship community. Ensuring the effective implementation of the law will be the next step.

**Digital skills development is insufficient**

72. **Despite the government’s clear desire to promote technology in the economy, to boost the employment and welfare of the population, digital skills are yet to be developed.** About half of the population are internet users in Côte d’Ivoire, the majority using mobile devices. While over 24.3 percent (6.7 million) subscribe to Facebook and are considered to have foundational digital skills (i.e., can complete simple tasks online), only 7.1 percent of Ivorians have completed online commercial transactions (World Bank 2018b).

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72 GSMA (2019).
73 World Bank (2016a).
74 Endeavour (2018).
75 World Bank (2019b).
76 World Bank (2018b).
77 Internet World Statistics (2020).
73. **Digital skills training has room for improvement.** In Côte d’Ivoire, e-business skills training is introduced during business management training, in technical and vocational education and training (TVET) and at higher education levels. In schools, it is offered at both lower and upper secondary levels, but is ineffective due to inequalities, poor instructor expertise and outdated equipment. There are considerable disparities in the quality of education to which students have access, with significant differences between the public and the private sector, as well as rural areas and cities. Public schools are better staffed than private schools but are three times more likely to have unlicensed teachers. Nearly 43 percent of public education resources are appropriated by the top 10 percent. Boys consume 20 percent more resources than girls, and urban people consume 30 percent more resources than rural people. In 2018/19, only 18 percent of students enrolled in science, technology, engineering, and mathematics (STEM) programs and 25.6 percent of those students were women. STEM programs also tend to be more expensive given their resource requirements, creating barriers to entry. Finally, although the private sector administers 97 percent of TVET programs, STEM programs lack investment. Private TVET programs seldom invest the level of resources required for adequate instruction and infrastructure for specialist skills training. Incubators, hubs, coworking spaces, entrepreneurial innovation labs (fab labs) and third places supported by non-profit and private actors provide better quality training in current digital technologies and processes.

74. **Specialist skills training programs are essential to support the development of the digital economy, and there is recognition by the Government of the need to improve.** The expansion of skill training programs faces key challenges. The first is the cost of connectivity. Although an interconnected optical fiber network has been created linking the existing public tertiary institutions, it is not yet functional. The second challenge is the limited number of students enrolled in STEM and ICT programs. The third challenge is the limited number of highly qualified ICT trainers. To address some of these given the importance of digital technologies to the development agenda, recent programs have undertaken improvements in digital instruction, learning, and comprehension. Strategies aim to employ new pedagogical approaches, increase expenditure on teaching, support computerized systems and provide subsidies for the private educational system to absorb students who are not placed in the public system. In 2018, the Ministry of Education introduced ICT/digital skills in the curriculum for secondary education. On a practical level, the Center for Animation and Teacher Training (CAFOP) has conducted pilot projects to integrate ICT into teacher training. Additionally, in co-ordination with the Global E-Schools and Communities Initiative, the government has launched an African Digital Schools Initiative to transform secondary schools into integrated and agile learning environments through digital technologies. The implementation of the Virtual University allows for the absorption of a significant portion of new baccalaureate students and offers an opportunity to increase the ICT skills of students. These initiatives could be continued.

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78 UNESCO (2016).
79 The Education Sector Plan (ESP) for 2016–2025 aims to increase equitable access to education first by “improving the quality of learning and training services.”
Looking ahead: What are the priorities for the next phase of Côte d’Ivoire’s digital transformation?

Suggestion 1: Digital infrastructure. Strengthen regulations and expand access to infrastructure to boost competition and consumer benefits

75. To preserve the fiber network, the public-private partnership (PPP) for the national fiber-optic backbone network (NBN) needs to be finalized. Finalizing the PPP management contract (concession) as soon as possible by finding a private partner to operationalize the public backbone (National Broadband Network, NBN), will ensure that the potential of the infrastructure is preserved. This project is part of the Government’s priorities as the NBN could support the expansion of digital access and services in rural areas by increasing the reach of fiber optic networks to connect public administrations, as well as deploying private mobile towers (backhauling). While it is fully legitimate for the public authorities to want to achieve the best possible terms, the delay in signing the contract also bears an opportunity cost as the fiber network sits idle.

76. To improve last-mile connectivity, the authorities could consider a mix of regulatory, fiscal, financial, and political tools to support broadband access in rural areas and to achieve near-universal coverage of mobile broadband. To achieve these objectives, the authorities could: (i) enforce coverage obligations with coverage targets at the regional/departmental level rather than the national level; (ii) offer specific rural tax breaks or exemptions for new towers (e.g., property tax paid to municipalities), with the government or the Universal Access and Service Fund (USF) compensating for the loss of revenue to municipalities;82 (iii) consider using Universal Service Funds to subsidize the deployment of sites in rural areas, and/or consider implementing a “pay-or-play” mechanism whereby operators that invest in rural areas can deduct these investments from their contribution to the USF. In any case, improving last-mile connectivity would require strengthening the mandate and efficiency of the universal service agency ANSUT. The World Bank is currently supporting the extension of digital connectivity in rural areas through the e-Agriculture Investment Project (P160418).

77. To boost the retail fixed broadband market, the regulator could further open up the wholesale fixed broadband market (where Orange enjoys a dominant position) by strengthening the regulator. The regulator has passed Decree 2013-300 on local loop unbundling (LLU) (dégroupage de la boucle locale), which allows alternative internet service providers (ISPs) to lease the copper line owned by Orange so that they can sell broadband access to individual and business consumers (the technology used is called Digital Subscriber Line DSL). LLU is a widespread wholesale offer in much of the developed world and is a key success factor for stimulating the retail broadband market.83 Unfortunately, LLU has never been fully implemented in Côte d’Ivoire as alternative operators claim that the dominant operator does not provide a technically and financially viable LLU offer. It is therefore recommended that to open up the retail fixed broadband market, the regulator ARTCI could ensure that the obligation for Orange to provide local loop unbundling to alternative operators is respected. The regulator could also ensure that appropriate supervision of the fiber market (Fiber to the Home FTTH) is in place to foster investment and competition.

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82 This could be combined with additional criteria, such as that the new tower would have to host at least two MNOs to qualify for a tax exemption.
83 Regulators usually tackle the dominant position of the incumbent on fixed (copper) internet access with a combination of wholesale remedies involving wholesale physical network infrastructure access (WPNIA) (also called partial and full local loop unbundling LLU) and wholesale broadband access (or bitstream).
Suggestion 2: Digital platforms. Take a strategic government-wide approach with a greater focus on the quality, accessibility, and interoperability of existing systems

78. Improve government and stakeholder coordination around a common national platform architecture. The government could create a master plan for the existing platforms by (i) conducting an inventory and audit of the existing platforms and assessing their compliance with cyber-security, privacy, and data standards; and (ii) developing a lifecycle plan for back-office systems that would detail a timeline for their upgrade and phase-out and the phase-in of new platforms. Initiatives should be ambitious but should also be based on structural assessment to guarantee success and scaling up. Using approaches like User-Centered Design (UCD) could be highly effective. Using a UCD philosophy entails putting the end-users at the heart of the design and development process of e-government services. This would enable them to efficiently and easily interact with digital services that respond to their needs. Restructuring the governance of the institutional framework of the Digital Economy is a priority for the Government and could allow the implementation of a user-centered approach.

79. Ensure interoperability and data sharing frameworks. Platforms would be more efficient and would create better data to guide decision making if they worked on common repositories and frameworks. For example, a framework for digital ID would be useful for government back-office systems, such as human resources and payroll management, e-tax filling, online permits, and private sector KYC. The government could create a common framework for digital payments and make it available for and usable by all the other platforms. This would reduce development costs and increase transparency. In the context of the pandemic, the government could leverage digital technologies to mitigate the health impact of COVID-19 and to enhance its health management system. It could improve its health back-office platforms and develop an approach involving patient and statistics data sharing between public and private hospitals, under strict rules of privacy and confidentiality. This would allow better patient handling and health statistics. E-education platforms are also critical, especially during a crisis. Côte d'Ivoire could use the power of digital platforms to develop an e-education curriculum that could benefit the country's less developed areas and could also serve as a backup during disruption by pandemics or natural disasters.

80. In the long-term, a whole-of-government approach could be appropriate. The government could also create a national agency to lead on government information systems and platform management. This agency would ideally have enough convening power and staffing to work closely with line ministries, SNDI and ANSUT to achieve the government's digital transformation objectives. The agency would have an advisory role and could help other government body institutions to pilot digitization projects. Its role could also be to ensure interoperability of systems and data sharing to facilitate government functioning and serve Ivorians better.

Suggestion 3: Digital financial services. Strengthen policies and the regulatory environment to enable a continued expansion of digital financial services

81. Adopting key legal and regulatory reforms would improve access conditions and boost the use of digital financial services by individuals and small businesses, while paving the way for fintechs. This could be done both at the (i) national level by liberalizing access to USSD for fintechs, adopting a decree to open the credit bureau to mobile data to enhance credit scoring and lending; and (ii) at the regional level by improving current e-money regulations in areas of digital onboarding of consumers, digital credit services, international remittances, and interest generated from funds deposited in an escrow account. Côte d'Ivoire also needs an enabling framework for fintech firms. This framework should
promote innovation and competition by not hindering the entry of new types of PSP, new instruments and products, new business models or channels – as long as they are sufficiently safe and robust.

82. **The financial infrastructure in Côte d'Ivoire could also be improved to broaden the expansion of DFS.** This could be done by (i) extending TresorPay to process payments beyond the government ecosystem to include merchant and bill payments; (ii) digitally identifying customers; and (iii) deploying a Public Key Infrastructure (PKI) to strengthen security of digital financial services. La Poste has a network of 200 branches throughout Côte d'Ivoire. Over the years, the institution has acquired a certain amount of trust with the population. The government could envisage developing partnerships with La Poste for government-to-person (G2P) and person-to-government (P2G) payments. Postal employees could be trained to facilitate and help improve consumers' digital and financial skills. As the Postal Service is a well-known and trusted partner to the public, leveraging the postal network could help the country increase its financial capability and resilience.

**Suggestion 4: Digital entrepreneurship. Support and strengthen the entrepreneurship ecosystem to create new digital champions**

83. **The government could continue and scale up support for ESOs, such as startup incubators and accelerators.** Countries such as Israel, Singapore, and Finland have catalyzed successful startup ecosystems through government-led assistance to startup programs. Lessons from these leading countries in bringing startups to the forefront of economic growth recognize the role of government policy and programs in this process and include: (i) avoiding a top-down approach and including the local innovation system when building and operating new technology parks/hubs, so they can be fully effective; (ii) focusing on building on existing startups rather than creating new ones; (iii) promoting and supporting the best human capital and leadership within startup programs.

84. **Efforts are needed to include more women in digital entrepreneurship.** This could include leadership workshops, confidence-building initiatives, and training geared at shifting mindsets towards entrepreneurial career paths. The government could encourage initiatives such as the Women Investment Club (WIC), as well as collaborate with existing African female entrepreneurship initiatives such as She Leads Africa (online content and Pan-African events on women entrepreneurship), She Code Africa (encouraging the uptake of STEM/coding classes by girls), or the International Trade Centre’s She Trades (connecting one million women entrepreneurs to the market by 2020). Stakeholder consultations to further understand the gender gap and how to address it may be beneficial. The nascent status of the ecosystem provides an opportunity to avoid replicating the tech sector gender gap prevalent in other countries.

85. **Pursuing efforts to build an enabling environment for the digital economy should boost B2C, B2B, and B2G markets.** The established private sector and government of Côte d'Ivoire have a significant role to play in catalyzing early firm growth by being early customers of entrepreneurs providing useful digital services. A program to pair public administrations and established firms with digital startups could be set up, leading to: (i) increased technology absorption and innovation capacity within public administrations and traditional firms; (ii) new products, processes, services, and ventures at lower cost (lower than when hiring an international firm); and (iii) a better understanding of local needs by startups. The government could also target more digital entrepreneurs by reserving a share of public markets/procurement for SMEs.

84  GALI (2017).
85  Startup SG, a government-led initiative to strengthen Singapore’s Startup Ecosystem https://www.startupsg.gov.sg/programmes/
86. **A new category of financial instruments is needed to address the shortage of funding faced by early-stage entrepreneurs in the initial stages of their venture.** Providing pre-seed financing is necessary to help entrepreneurs prototype, test the viability of their business ideas, finance the initial commercialization of their innovations and help establish their companies. This can take the form of soft loans, i.e., non-collateral and interest-free loans that can be repaid in the event of success or transferred to a grant in the event of failure. The government could build on lessons learned from international experience and from *la Fondation Jeunesse Numérique*’s (FJN’s) pilot operation, which provided 25 interest-free loans to selected startups. Crowdfunding can also bridge part of the funding gap for Ivorian startups. A few crowdfunding platforms have tried to launch in Côte d’Ivoire, but their emergence has been hampered by the lack of a legal and regulatory framework. This limits the sector to non-financial return-based models, i.e., donation and reward-based crowdfunding, while debt and equity-based models account for most of the market activity involving startups in more established markets.

**Suggestion 5: Digital skills: Create a coherent skills development strategy to support the digital ecosystem**

87. **Digital skills policy and initiatives should maximize modern technologies and processes, prepare a quality and agile workforce, and minimize disruptions.** They should also cover the full workforce pipeline – from the formal education system which allows people to gain fundamental, technical, and agile skills, through to the workplace and social digitalization. They should be supported by broad digital economy policies that allow for operational agility. The government would conduct this process in collaboration with the association of ICT professionals (GOTIC), which should lead to (i) the adoption of a framework for digital skills; and (ii) the deployment of digital skills training in formal education. Outside of formal learning systems, the government could use games and incentives to transform young Ivorians’ use of digital technology into interest in learning digital skills. This includes tools that highlight workforce pathways to digital entrepreneurship – specifically development, distribution, and management of technologies. Regarding the creation of digital content, the government could develop and implement a policy to support and incentivize domestic digital content creators.

88. **The population needs to be equipped with general literacy, numeracy, soft, and user and specialized digital skills through public, private and industry learning systems.** Up-to-date scientific pedagogy and training for teacher digital competence is needed, as well as integrating digital skills within the pedagogical process so as to increase primary and secondary student exposure to and comfort with digital technology. The government could also form partnerships with local and domestic digital creators and service providers to advise and assist individuals to attain digital skills. Together with industry, the government could co-evaluate and improve TVET and tertiary education’s delivery of market-ready specialist and advanced (specialist+) digital skills, working with the Higher Education Development Support Project. Additionally, the government should provide business incentives for in-house industry skills training and financially and strategically support stand-alone user digital skills workshops and community/peer digital skills training programs to fast-track adult digital literacy.

89. **Globally, the digital economy has become an important driver of economic growth, innovation and improved service delivery.** Cote d’Ivoire could take full advantage of this digital transformation of economies by bridging its telecommunications infrastructure gap and making digital services more accessible to the population. The government could accompany this action by strengthening the other basic pillars to produce obvious economic benefits: create these much-needed jobs, in particular prepare...
youth for the jobs of the future by relying on appropriate digital skills, support the emergence of digital entrepreneurship, modernize financial transactions to facilitate trade and commerce, and finally improve the provision of government services to individuals and businesses. The country could thus strengthen its march towards the goal of a more prosperous Côte d’Ivoire where everyone benefits from growth and strengthens it, as envisaged in “the Nouvelle Stratégie 2030”.

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### APPENDIX

#### Table 2. Selected Macroeconomic indicators (2019-2025)

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<tr>
<td>Real GDP</td>
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<td>Total Revenue and Grants</td>
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<td>15</td>
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<tr>
<td>Total Expenditure</td>
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<td>20.5</td>
<td>20.7</td>
<td>20.7</td>
<td>20</td>
<td>19.6</td>
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<tr>
<td>Overall balance (incl grants, comm. basis)</td>
<td>-2.3</td>
<td>-5.6</td>
<td>-5.1</td>
<td>-5.7</td>
<td>-4.8</td>
<td>-3.9</td>
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<tr>
<td>Grants</td>
<td>0.8</td>
<td>0.5</td>
<td>0.4</td>
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<td>Balance of goods and services</td>
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<td>0.9</td>
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<td>Exports fob</td>
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<td>Imports fob</td>
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<td>Current transfers (net)</td>
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<td>Current account balance (incl. grants)</td>
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<td>-3.8</td>
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<td>Overall BOP balance</td>
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<td>Public debt (external and domestic)</td>
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<td>of which External debt</td>
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<td>31.5</td>
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<td>Nominal GDP (US$ Millions)</td>
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<td>Real GDP per capita (annual % change)</td>
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<td>-0.6</td>
<td>4.3</td>
<td>3.1</td>
<td>4.1</td>
<td>3.9</td>
<td>4.0</td>
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Source: World Bank-estimates and projections as of March 2022, IMF, Ivorian authorities. Notes: Budget projections are from the Ivorian authorities.