



THE GAMBIA

SELECTED ISSUES

December 2021

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November 8, 2021

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THE GAMBIA—TOWARDS A MORE SUSTAINABLE AND INCLUSIVE POST-PANDEMIC ECONOMIC RECOVERY¹

The Gambia registered strong macroeconomic performance following the socio-political turnaround in 2016–17. However, the COVID-19 pandemic has halted some of the hard-won progress. The pandemic affected disproportionately different groups of population; in particular, the poorest, women, and rural population experienced larger loss of employment and income relative to other groups. Going forward, in the near term, priorities should focus on protecting lives and livelihoods by providing resources to combat the pandemic – including vaccination – and provide targeted support to the most vulnerable population. As the pandemic subsides, reforms should aim at creating a job-rich, inclusive, green, and sustainable growth to eliminate the scars from the pandemic and accelerate development. In this regard, measures should be taken to unlock the full potential of digitalization and financial inclusion; employment and income-generation opportunities should be expanded to reduce inequalities while building resilience to climate change.

A. Background: Pre-Pandemic Economic Performance

1. The reforms following the remarkable political turnaround in 2017 led to strong economic performance prior to the onset of the global COVID-19 pandemic at end-2019.

Economic growth accelerated from about 2 percent in 2016 to an average of 6.7 percent in 2018–19, supported by improved confidence leading to a sustained increase in foreign capital inflows and tourist arrivals. Stronger fiscal performance on both revenue and spending sides coupled with international partners' support improved the fiscal position and helped reduce domestic interest rates and debt vulnerabilities. Consequently, credit to the private sector accelerated, the external reserves strengthened. In addition, The Gambia's ranking on the fragility state index improved from 37th in 2017 to 55th out of 179 countries in 2021.

2. The reforms that underpinned the strong performance were far-reaching, covering economic, legal, and governance areas. Economic reforms mainly centered on enhancing revenue mobilization, restoring fiscal discipline, reducing debt vulnerabilities, and strengthening stability of the financial sector including the governance of the Central Bank. The cleaning-up of the tax registry and the setting-up of the treasury single account were initiated; the medium-term fiscal framework is being produced regularly; the thirteen SOEs have been audited; a new central bank act has been enacted to limit the monetization of the budget deficit and strengthen audit and internal controls. The government made significant strides in transitional justice reforms aimed at strengthening the democratic systems, good governance and respect for human rights and the rule of law. Nonetheless, key constitutional reforms are stalled in Parliament and progress on security and civil service reforms was slow.

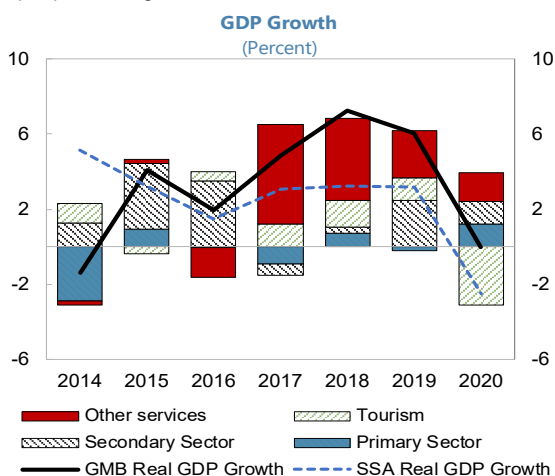
3. Despite the good macroeconomic performance, the Gambian economy still faced key socio-economic challenges. The country ranked 172nd out of 189 countries on the 2020 Human

¹ Prepared by Mamadou Barry, Francis Kumah, Bernard Mendy, and Shivani Singh.

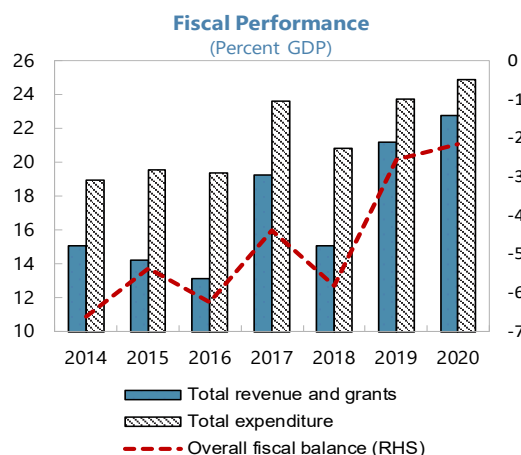
Development Index (HDI). About half (48.6 percent) of the population live below the national poverty line with large disparities between the rural (69.5 percent) and urban (31.6 percent) areas. The business environment is challenging due to low access to finance, low access and unreliable quality of energy, transport, and information and telecommunication (ITC) system. The labor participation rate is low (about 53 percent) due to high level of housewives, who comprise 31 percent of those outside the labor force. Employment is limited to 64.8 percent including 17.4 percent underemployment predominantly among women working in the informal and service sectors. The opening of the Senegambia Bridge in 2019 and the African Free Trade Agreement offer an opportunity for expanding trade and promoting private sector development.

Figure 1. Pre-Pandemic Economic Performance and Social Performance

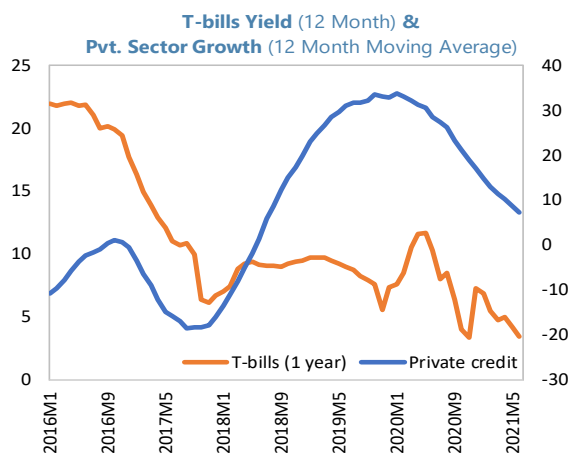
Tourism, service, and construction sectors supported a strong pre-pandemic growth..



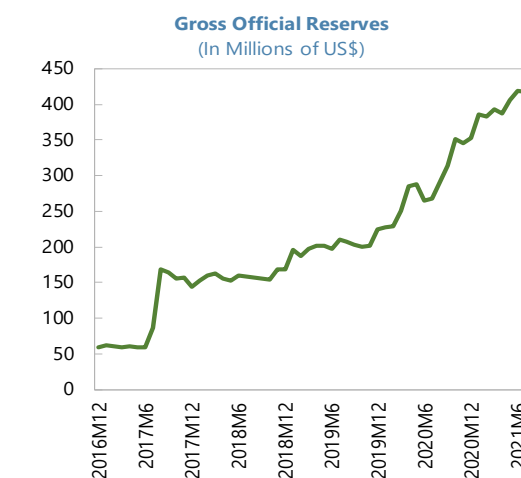
...boosting revenue collection and help lower the fiscal deficit...



...which led to a reduced cost of public borrowing and provided room for a rapid private sector credit growth...



...at the same time the tourism receipts and the large official and private inflows supported a rapid reserves accumulation...



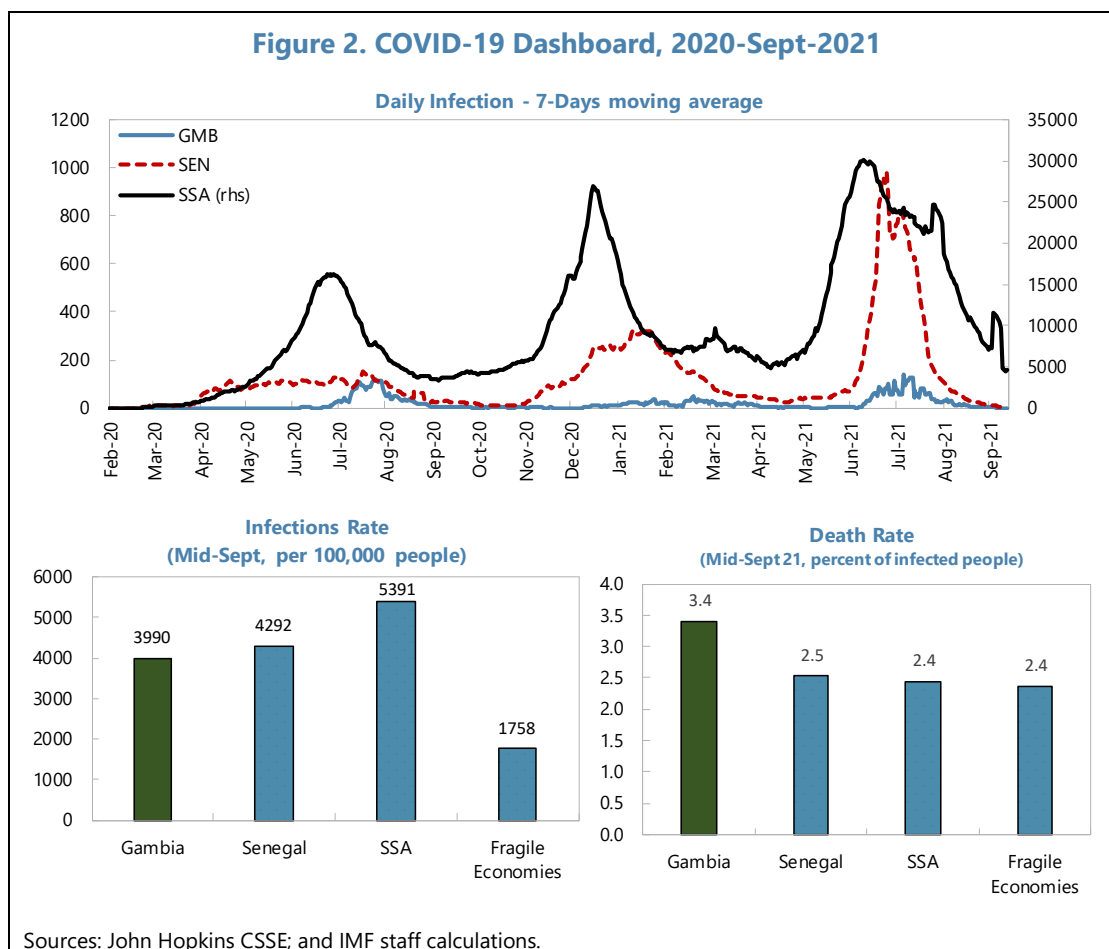
Sources: Gambian authorities and the IMF Staff calculations.

B. The Pandemic and Containment Efforts

4. Like most developing countries, the rapid spread of covid-19 had overwhelmed the health system which neither foresaw, nor was adequately prepared for a pandemic of this magnitude. About 10,000 people have now contracted the virus since it was first reported in The Gambia on May 16, 2020, with recoveries of about 9,500 and a fatality rate of 3.5 percent. The surge of the pandemic strained the already fragile health system and stretched government's ability to properly respond to the pandemic, especially in terms of testing, management of treatment centers, and budgetary resources. Thus, the authorities had to rely on international partners for support, including on the procurement of essential equipment and Covid-19 vaccines, the strengthening of local response capacities, and the provision of emergency relief.

5. The country was able to mitigate the rapid spread of the three waves of the pandemic, thanks to partners' support and the experience derived from the 2014 subregional Ebola outbreak. Measures taken to control the spread of the virus included border closures, the imposition of a night-time curfew, a ban on all public gatherings and closure of all non-essential businesses, educational institutions, and places of worship. Although the country has higher mortality rate compared to its peers, its response capacity has quite improved. The health spending was increased by 128 percent above the initial 2020 budget provision. Through the joint collaboration of the government, donors and the private sector, the national preparedness and prevention efforts were enhanced with the supply of ambulances, ICU beds, and medical supplies, the improvement of the national lab's capacity to handle the COVID-19 tests, and the rehabilitation of a 87-bed hospital (Ndemban Clinic) equipped with modern equipment including 68-beds for COVID-19 treatments.

6. The authorities launched a mass vaccination campaign in March 2021 to vaccinate 60 percent of the population by end-2022, supported by the COVAX-Initiative and a US\$8 million grant from the World Bank. Although progress had been registered in the vaccine rollout, it has been slowed by supply constraints and vaccine hesitancy especially among the rich and the urban population, who are mostly exposed to the misinformation on social media. As of August 2021, the country has received about 363,000 doses of vaccine mainly coming from the COVAX initiative, supported and supplemented by the World Bank, Senegalese, French, and US governments. As of end-September 2021, about 12 percent of the population above 18 years of age were vaccinated, of which 11 percent fully vaccinated.



7. Various spending measures were taken in 2020 and 2021 to support the health sector and mitigate the socio-economic impact of the pandemic. Measures equivalent to 3.6 percent of GDP were implemented in 2020, supported by development partners. These spending included 0.5 percent of GDP funding for the initial COVID-19 response plan, 0.9 percent of GDP nation-wide food distribution plan targeting 84 percent of households including all rural households, as well as additional spending, allocated in the supplementary appropriation (SAP) approved in July 2020, for health, food distribution and support to households and businesses including in the tourism sector. The supplementary budget appropriation also included 0.9 percent of GDP infrastructure spending to support the economic recovery and supply jobs. The initial 2021 budget, which is expected to support the post pandemic recovery, included 2.8 percent of GDP locally funded capital projects, and 0.5 percent of GDP contingency spending for unforeseen COVID-19 spending. Additional infrastructure and health related spending, including 80 ambulances, were provisioned in the 1.5 percent of GDP 2021 SAP.

8. Social safety net programs were strengthened, involving various development partners. The government, in partnership with development partners, financed GMD 224 million food support distributed through the World Food Program in early 2021. In 2020, several UN agencies provided cash and food transfers to 7,029 women living in food insecure households with

children under 5 years of age. The UNPD provided cash transfers to 6,219 targeted informal workers that lost their jobs in the tourism sector because of the pandemic. The World Bank scaled up its social safety nets through the NAFA quick program to provide cash to 83,000 food insecure households in the 30 poorest districts of the country.

Table 1. The Gambia: COVID-19 Additional Spending in 2020

	In GMD million	Percent of GDP
Prevention, containment, and management	1,437.0	1.5
Support to households	1,088.7	1.2
Support to businesses, SOEs, government entities	856.9	0.9
<i>Of which Tourism sector</i>	100	0.1
Total additional spending	3,382.6	3.6

Table 2. The Gambia: Donor COVID-19 Support in 2020–21

	2020	2021
African Development Bank	7	0
European Union	12.0	6.6
International Monetary Fund	25.7	34.6
<i>Of which RCF</i>	21.3	0
<i>ECF augmentation</i>	0	28.9
<i>CCRT</i>	4.4	5.7
World Bank	21.6	8
DSSI	4	2
Total	70.0	51.2

C. Socio-Economic Impacts

9. The Gambian economy contracted for the first time since 2015. GDP growth fell from 6.2 percent in 2019 to -0.2 percent in 2020 well below the 6.4 percent projected prior to the pandemic. The tourism and hospitality industry were the hardest hit due to international travel restrictions and lockdown measures. On-season tourists arrival numbers plummeted by 83 percent between 2018/2019 and 2020/2021 seasons. While government's efforts to administer the price of essential commodities helped reduce inflation in 2020, the persistence of the pandemic and increased supply constraints caused headline inflation to reach 8.2 percent at end-July 2021, its highest level since June 2017, before declining to 6.9 percent at end-August 2021.

10. The pandemic adversely affected a lot of businesses and has compounded the existing vulnerabilities. The Gambia has a challenging business environment. The private sector has a large share of informal sector (71 percent of firms surveyed on the 2018 enterprise survey reported competing with a non-registered firm). Most of them operating in retail and tourism industry that were severely impacted by the pandemic. According to a recent business survey by Gambia Chamber of Commerce and Industry (GCCCI) and 3A's Solutions (a consulting firm), the greatest impact of the pandemic on businesses has resulted in partial loss of income (48 percent), scaling down of operations (43 percent), total loss of income (23 percent), shutdown of operations (19 cent) and total job losses (11 percent).

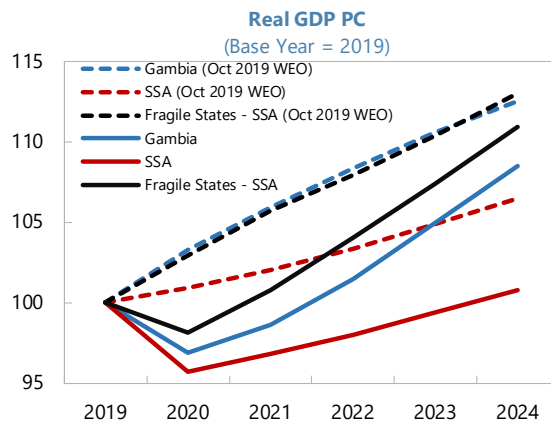
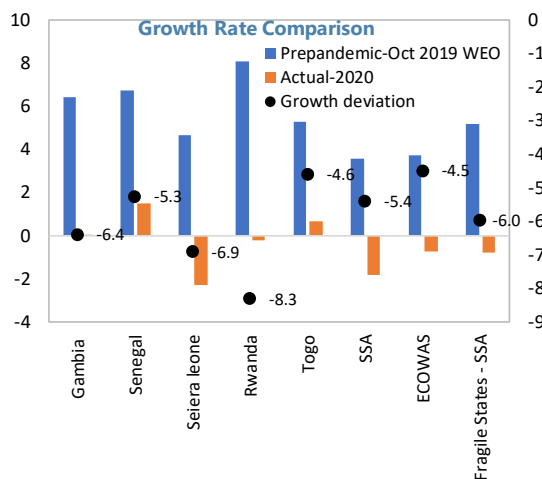
11. The pandemic also affected people's lives and livelihoods and exacerbated existing inequalities between the poor and the rich. Despite the government and development partners' relief programs, more than 9 in 10 people reported a decrease in income between March and August 2020. Several people (figure 3) have lost their employment while the rural population, who mainly live on agriculture lost access to markets due to border closures and the initial ban on weekly local markets dubbed *Lumos*. This loss of business opportunities also led credit to the private sector

to stagnate. Consequently about 25,000 Gambian are pushed to extreme poverty based on World Bank estimates.

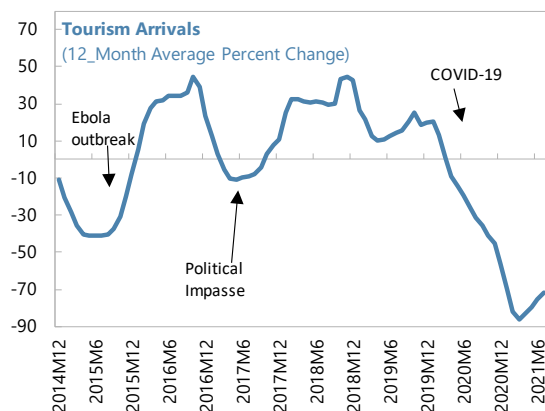
12. Access to basic services was hampered by the lockdown measures and the fear of contracting COVID-19 that may cause long term scars. The school closures between mid-March and end-October 2020, left several children across the country, especially the poor, with very limited learning opportunities due to the shift to e-learning which was impossible to implement for the majority of the schools including for those in the private sector. The need for medical care also expressed by households drastically reduced at the peak of the pandemic (August 2020) reaching 31 percent compared to 50 percent in October 2020. The maternal mortality worsened at the peak of the pandemic to a point that a hashtag “Gambian Women Lives Matter” trended on social media. The pandemic is expected to leave long lasting impact on the country as real GDP per capita is projected to return to its pre-pandemic level only in 2022 and will remain well below its pre-pandemic path in the medium term (Figure 3) thereby reducing the pace and prospect of meeting the SDGs. The pandemic has also dampened prospective for the achievement of key targets of the National Development Plan by end-2021 including (i) increasing the MSME contribution of employment in the economy from 63 to 75 percent, (ii) increasing MSME’s contribution to GDP from 26 to 30 percent, (iii) decreasing youth unemployment from 38 to 30 percent, and (iv) increasing total exports as a percentage of GDP from 9.4 to 17 percent.

Figure 3. Socio-Economic Impact of COVID-19

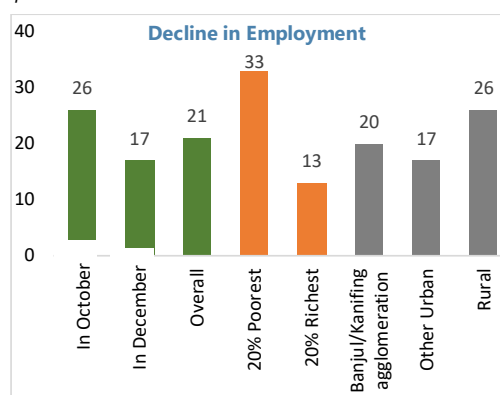
The COVID-19 pandemic led to large growth adjustments in 2020... ..and is expected to leave long lasting impact on the Gambia...



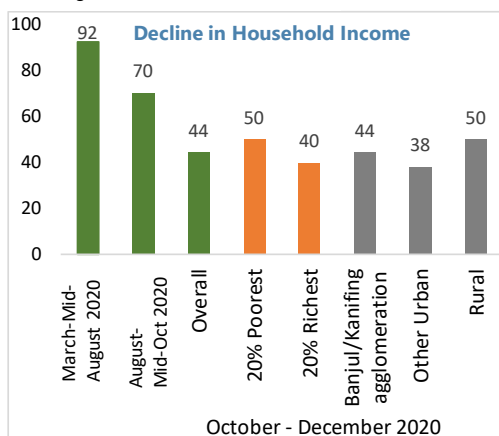
...the tourism sector suffered the most with a larger impact than during previous shocks...



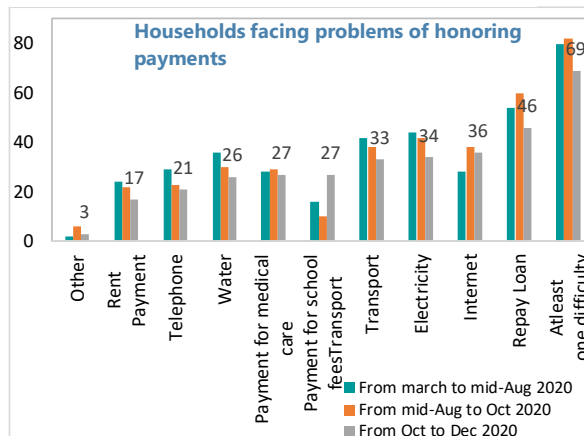
...causing unemployment particularly among poor and rural population...



...and significant loss of revenue...

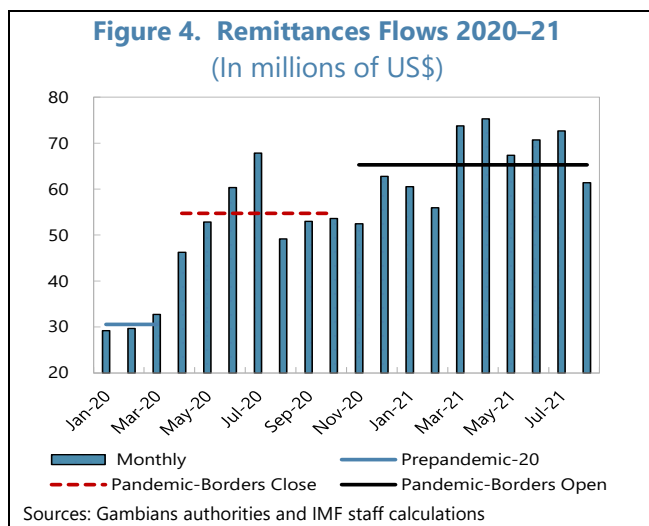


...making it difficult for households to meet their needs...



Sources: World Bank, Gambian authorities; and the IMF Staff calculations.

13. On a positive note, remittance inflows were exceptionally high during the pandemic (Figure 4). Although the pandemic took a toll on the incomes of the immigrant population with the overall inflow of remittances in SSA declining by 8.8 percent in 2020 and is projected to further decline by 5.8 percent in 2021, The Gambia seemed to have been spared. It recorded 79 percent increase in the volume of remittances in 2020, and 60 percent in Jan-June 2021. The increase is impressive even after discounting for the increase in number of MTOs (contributing 6.4 percent in 2020) and the transfer of informal inflows to formal channels, estimated by CBG at between 20 and 30 percent.



14. The use of digital platforms has also mitigated the impact of the pandemic, with the volume and value of mobile money transactions doubling in 2020. Current trends suggest it could triple its pre-pandemic level by end-2021 (table 3). GamSwich reported more than fourfold increase in transaction value on its payment terminals in 2020, while banks expanded ATM access and the use of mobile and internet banking in a bid to satisfy their client while observing the health measures.

Table 3. The Gambia: Increase in Digital Transactions, 2020–21
(in percent of the pre-pandemic period, 2019)

	2020	2021 (annualized)
Volume of mobile money transactions	210	320
Value of mobile money transactions	186	387
GamSwitch payment terminals transaction volumes	463	...
Number of ATM machines	110	...
Number of clients with credit / debit card	140	...

Source: Gambian authorities, Africell, GamSwitch, IMF staff calculation

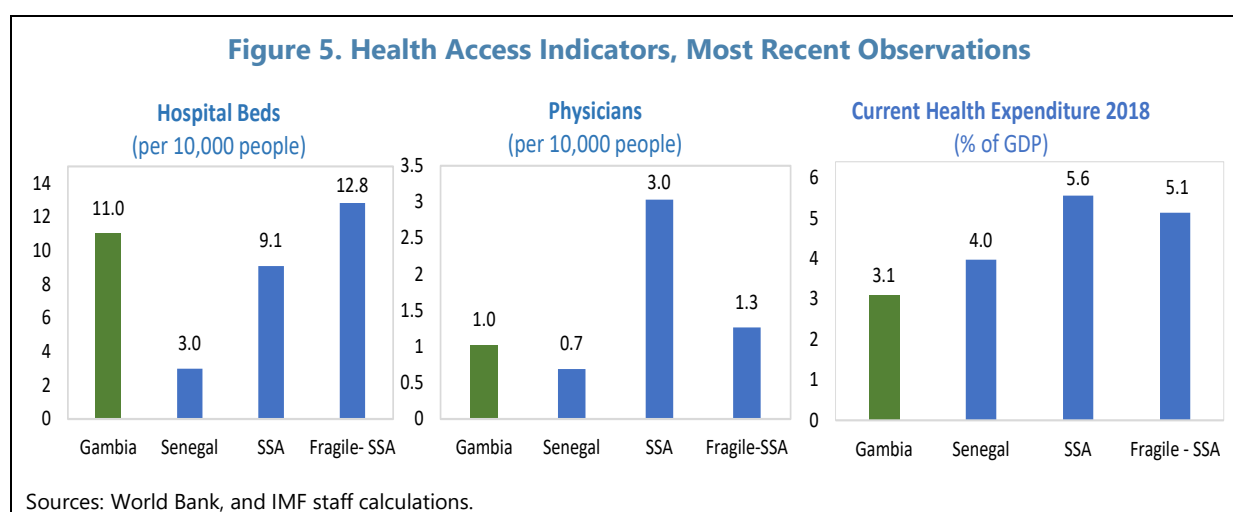
D. The Way Forward to a More Sustainable and Inclusive Post-Pandemic Economic Recovery

15. Policies should follow a two-step approach: short-term priority should focus on protecting lives and livelihoods; as the pandemic subsides, reforms should aim at creating a job-rich, inclusive, green growth. With the increased uncertainty about the end of the pandemic and the slow roll-out of vaccines, the authorities' short-term priorities should focus on protecting lives and livelihoods by providing resources to combat the pandemic including vaccination and provide targeted support to the most vulnerable population while preserving the hard-won progress on debt sustainability. Thereafter, the authorities should aim at eliminating the scars from the pandemic and accelerating growth and development. In this regard, based on the established evidence, The Gambia could gain in strengthening the business environment and accelerating transformative reforms in the areas of digitalization and financial inclusion where the infrastructure

exists; and provide equal opportunities for employment and income generation to reduce inequalities while building resilience to climate change.

Protecting Lives and Livelihoods

16. Scaling-up the resilience of the health sector will help contain the pandemic and support the country effort in achieving the SDGs. Despite recent efforts to improve the primary health care system which improved the number of hospital bed per 10,000 people, The Gambia had limited capacity, with only two referral hospitals, 5 ICU beds, and no COVID-19 testing capability at the onset of the pandemic. With barely 6.5 percent of the national budget allocated to health in 2018 and about 10,000 patients per doctor (figure 5), The Gambia was not ready to handle a major health crisis. However, more attention has been given by the authorities and the development partners to revamp the health sector. The completion of planned projects to build a modern surgery and imagery equipment, and an oxygen plant at Ndemban clinic as well as the construction of the national infectious disease for infectious and public health emergency laboratory and training center some of which are financed by the World Bank US\$18 million COVID-19 support and the US\$ 30 million essential health services strengthening, will enhance resilience and improve health indicators toward meeting the SDGs and the objectives of the National Development Plan.



17. A more inclusive and sustained sensitization are needed to accelerate the roll-out of the COVID-19 vaccine ahead of the tourism season and the presidential elections. With the vaccine financed by donors and the G20 vaccine access support contributing to ease the supply constraints, the government should put in place the logistical, administrative, and financial requirements, including training sufficient staff for the mass vaccination. The improved vaccination will not only limit the spread of the virus but will accelerate the recovery in the tourism sector and support a message of end-to-end safe tourism for the Destination Gambia ahead of the tourism season. This will also minimize the risk of new waves of infections during the electoral campaign period. In this regard, coordinated communication efforts with the government, the local authorities, media, civil society, and the development partners will be needed to minimize the pandemic fatigue

and eliminate the increasing vaccine hesitancy.

18. Strengthening coordination and improving better targeting will achieve a more impactful and efficient relief to the population and businesses. The coordination and the sequencing of the various interventions in 2020 under the National social protection secretariat created in 2019, reduced the risk of duplication and extended the period of relief support for the vulnerable population. In addition, the use of mobile money and electronic cash transfers helped reduce the distribution cost. Building on this experience and finalizing the establishment of the social registry as well as the digitalization of the civil registry will strengthen the targeting and delivery mechanisms for a more efficient social safety net system. This is particularly important as The Gambia is still in high risks of debt distress and the country social and economic development needs are amplified by the pandemic.

Promoting and Inclusive and Sustainable Growth

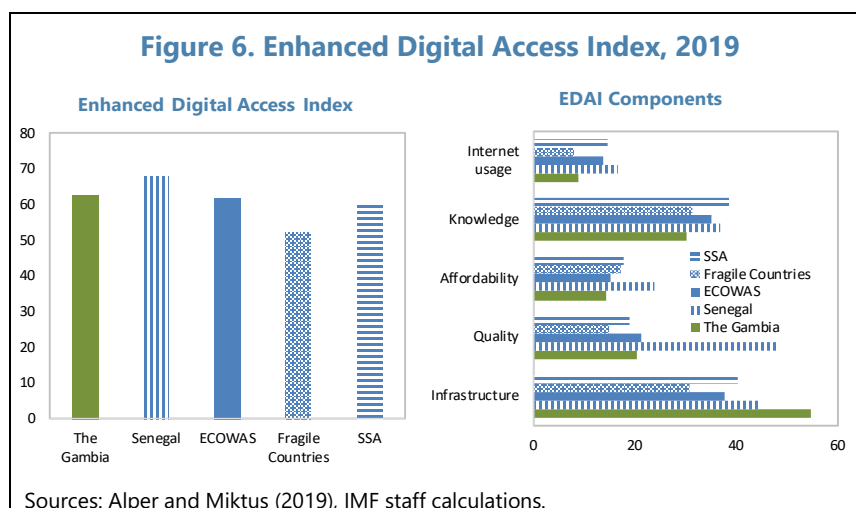
19. Improving the business environment and promoting diversification will create more opportunities for investment and innovation, to support employment and boost private sector contribution to the economy. The ongoing reforms of the GEIPA Act should ensure that it focuses on business facilitation and promotion and less on investment certificates distribution, the excess of which distort competition and reduce government revenue. Progress on governance in recent years will need to be pursued to address the key areas of weaknesses that hinder the business environment. The large remittances inflow, some of which alleviate the financing constraint of businesses particularly MSMEs, need to be formalized to reduce delivery cost, and channeled toward more productive investments. The agriculture value chain through export or linkage to the Tourism industry, a major importer of fresh products, have a great potential for growth, employment, and poverty reduction. To unlock this potential, the government will need to accelerate the implementation of its ambitious business reform initiative launched in 2020, the energy road map to deliver high access to reliable energy supply, the modernization of the ill-equipped Port of Banjul, the digitalization of the tax administration, as well as taking full advantage of the Africa free trade agreement by improving the trade relation with its unique neighbor Senegal.

20. The information and communication technologies (ICT) development, as supported by empirical evidence and experience during the pandemic, could boost productivity growth and employment. The Gambia has a relatively well-developed digital infrastructure (figure 6) with 94.3 percent of Gambians living within 10 km off a fiber node, 98 percent covered by mobile cellular network and the country ranked 5th in Africa on mobile phone density (140 active mobile sim card for 100 inhabitants). Notwithstanding, the digital infrastructure is underutilized with high access cost due to poor international connectivity, limited competition compounded with regulatory gaps, low access of energy and high level of poverty and informal economy. In this regard, connecting to another more reliable and cost effective international fiber optic cable and mutualizing the existing

equipment some of which are exclusive used by the public company², and ending the government moratorium on the deployment of private fiber networks will boost competition, reduce cost, and improve the quality of service. The implementation of the 2020-24 Gambia broadband strategy along with the digitalization of

public services (IFMIS, E-procurement, ASYCUDA world, payment system, ITAS for GRA) will boost revenue, improve the efficiency and transparency of public spending, and accelerate the digitalization process as well as support the recovery. The Gambia ranked 181st out of 193 countries on the e-government development index well behind its peers. The ITU (2020) showed that a 10 percent points increase of the broadband access could lead to 2.46 percentage points growth in Africa.

21. Meanwhile, The Gambia could leverage its large network of financial service providers and digitalization to improve the very low access to formal financial services. The country compares well with peers in terms of bank branch and ATM coverage. The microfinance is relatively well developed yet, according to the 2019 Finscope survey, 69 percent of Gambians adult are financially excluded, with only 5 percent banked and 14 percent using the non-bank financial services. The financial exclusion is smore prevalent in rural areas (75 percent) and among youth (77 percent), but women are less financially excluded (66 percent). The use of mobile money, which is at 2 percent, is also among the lowest in the region while other forms of digital financial services such as e-money, e-credit, e-insurance are nonexistent. Addressing the real economic issues related to poverty, unemployment, and financial literacy could accelerate access to finances, which is the main constraint to doing business in the Gambia. The Government should finalize its financial inclusion strategy and accelerate regulatory reforms that enable the development of digital finance.

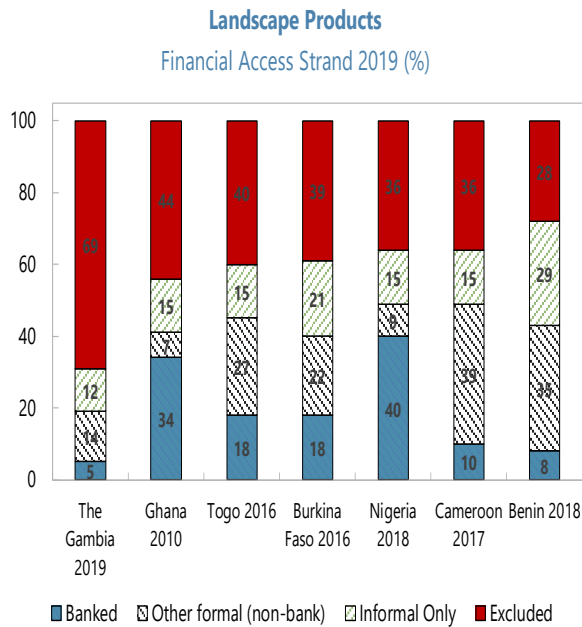
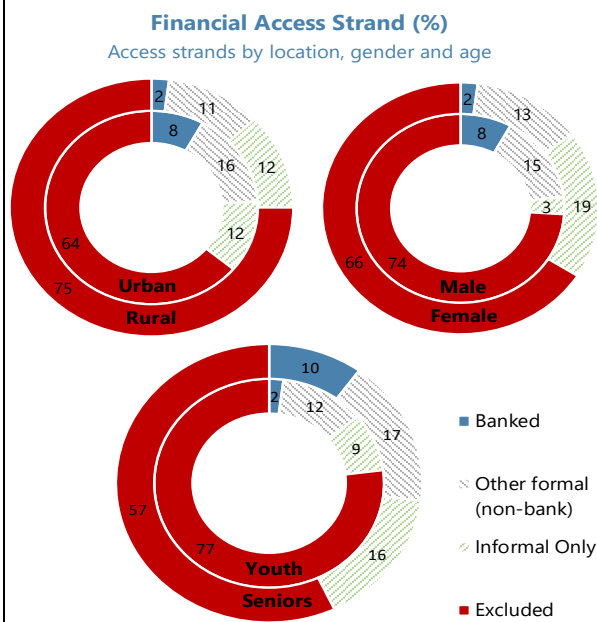


² The Gambia is connected to the Africa-Coastal-Europe (ACE) submarine fiber optic cable that is subject to frequent breakdowns and complemented with an expensive and unreliable back-up connection from Senegal. In line with the NDP objective to transform the Gambia into the digital economy, the government financed through external loans the construction of a well-developed national backbone fiber optic network: the 817 km ECOWAN completed in 2016 and the 420 km National Broadband Network (NBN) completed in 2019. The NBN is exclusively managed and used by Gamtel (the national public telecom company), which lack proper management and financing to connect the end-users. The government also introduced a moratorium on the deployment of private fiber optic cables to protect the investment made by the government.

Figure 7. Financial Inclusion in Gambia

The Gambia has limited financial inclusion...

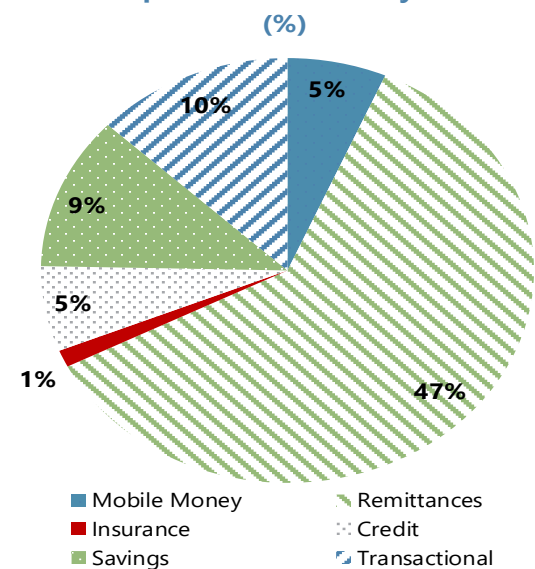
... well behind peer countries.



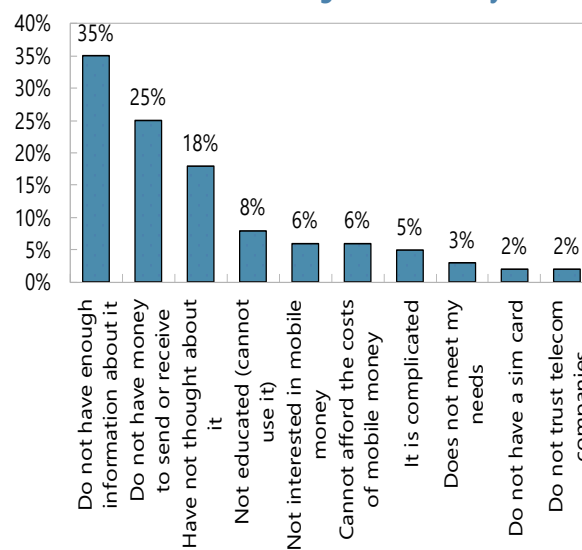
Remittances account for the largest share of financial transaction

.... Only 2 percent of the adult population use mobile money mainly due to lack of awareness and poverty.

Landscape of Access (ONLY of those with financial product - financially included)



Main barriers to using mobile money



Sources: 2019 Finscope survey.

	Gambia	Senegal	ECOWAS	Fragile	SSA
Table 4. The Gambia: Gender Gap Indicators, Most Recent Available Date					
General					
Human development index ranking	172.0	168.0
Population growth	2.9	2.7	2.6	2.6	2.3
Fertility rate (<i>number of child per women</i>)	5.2	4.6	4.7	5.0	4.3
Economic participation and opportunity					
Ratio of female to male labor force participation rate	75.4	61.2	82.5	77.5	81.3
Wage equality for similar work (Normalised score)	0.8	0.7	0.7	0.7	0.7
Unemployment, (% of labor force) (national estimate) female-male ratio	183.3	169.6	138.0	134.0	135.7
<i>Unemployment, female (% of female labor force) (national estimate)</i>	38.3	13.4	7.4	8.2	11.2
<i>Unemployment, male (% of male labor force) (national estimate)</i>	20.9	7.9	5.3	6.2	8.2
Educational Attainment					
Adult Literacy rate (% of people ages 15 and above) female-male ratio	67.3	61.4	67.6	73.9	82.5
<i>Literacy rate, adult female (% of females ages 15 and above)</i>	41.6	39.8	41.3	48.5	59.8
<i>Literacy rate, adult male (% of males ages 15 and above)</i>	61.8	64.8	61.2	65.6	72.5
Primary School enrollment (% net) female to male ratio	110.4	111.7	95.5	99.3	96.4
<i>School enrollment, primary, female (% net)</i>	80.6	79.6	67.8	73.0	70.4
<i>School enrollment, primary, male (% net)</i>	73.1	71.3	70.9	73.5	73.0
Health and Survival					
Maternal mortality rate	597.0	315.0	534.7	581.4	459.4
Birth attended by skilled health personnel	82.7	74.5	70.0	84.4	84.4
Political Empowerment					
Women in parliament	8.6	43.0	16.0	18.8	22.5
Women in ministerial positions	21.1	20.0	20.5	17.9	20.2
Sources: WEF Gender gap Report 2020, UNDP, World development indicators, World bank gender statistics, The Gambia Labor Force Survey 2018.					

22. The COVID-19 has exacerbated existing inequalities in the Gambia which need to be addressed through targeted policies toward employment and empowering women and youth.

The loss of employment and income disproportionately affected the poor population and the rural areas (figure 3) mostly dominated by women and youth. Despite some improvement regarding women access to primary education and primary health, and narrowing wage gaps, inequalities persist in access to high education, economic participation and opportunity, and political empowerment (table 4), which prevent the full women's contribution to the economy. A growth decomposition from an IMF 2015 study suggests that reducing gender inequality in The Gambia to the average of SSA countries could boost average annual per capita GDP growth by 0.2 percentage point; and that if it is increased to the level of the average of Brazil, Chile, Columbia, Mexico and Peru, average annual per capita GDP growth could increase by 1.2 percentage points. While the creation of a ministry in charge of women affairs and the willingness to make progress on gender-budgeting is encouraging, accelerating the revision of the existing discriminatory laws, and the finalization of the 2021-30 gender policy that will take into account the impact of the pandemic on women, particularly the heightened gender-based violence, will improve women contribution to the economy and their participation in the political sphere. Strengthening and accelerating the implementation of current policies to support youth entrepreneurship and employment could contribute to peace and stability and reduce youth vulnerabilities to illegal immigration.

23. The Gambia is among the most vulnerable countries to climate change thus making climate mitigation and adaption policies macro-critical. Although the country's contribution to greenhouse gas emissions is negligible, it has been identified by the Intergovernmental Panel on Climate Change (IPCC) as one of the most vulnerable countries in Africa to the impacts of climate change. Windstorms, floods, sea level rise, coastal erosion, and droughts are becoming more frequent and severe. As a result, the country has adopted a series of climate friendly measures including joining the Kyoto protocol, and the Paris agreement, and banned the use of the plastic bags. According to Climate Action Tracker, an independent scientific analysis of government climate action sand measures relative to the globally agreed Paris Agreement, The Gambia is the only country globally that has submitted plans deemed compatible with the goals of the Paris Agreement. The authorities are also pushing policies toward increasing renewable energy, and sustainable agriculture.

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THE GAMBIA—FINANCING THE INFRASTRUCTURE GAP¹

Building infrastructure is a key strategic priority of The Gambian government's National Development Plan. The Gambia's status of infrastructure is broadly at the average of peer SSA countries but is significantly below the level needed to achieve the SDGs in 2030. This analysis estimates that, under current and planned policies, The Gambia's infrastructure gap will reach about 15 percent of GDP in 2030. Strong government's active policies – to improve domestic revenue mobilization, enhance spending efficiency, and attract private investment – could cover about two-thirds of this infrastructure gap. Support from development partners will be important to address the remaining gap. Reliance on borrowing would lead to a significantly higher public debt, in the current context of limited fiscal space.

A. Background

1. **Building infrastructure is a key strategic priority of The Gambian government's National Development Plan (NDP).** Specific objectives include: (1) investing in energy infrastructure to face the nation's energy (especially electricity) crisis characterized by a significant mismatch between supply and demand, obsolete equipment for energy generation and distribution, a highly indebted and dysfunctional national utility company, and a policy environment not conducive to private sector investment; and (2) transforming the transportation sector by enhancing land, sea and air transport to boost affordability, accessibility, and competitiveness.
2. **The Mid-Term Evaluation (MTE) of the NDP in February 2021 shows that, three years into its implementation, progress on achieving the authorities' objectives on infrastructure is mixed.** About 50 percent of the 22 indicators (and 3 out of 5 outcomes) set to track this infrastructure strategic priority were achieved or on track to be achieved. The remaining 50 percent were perceived as constrained and not expected to be achieved.
3. **Besides low capacity and delays caused by the COVID-19 pandemic, limited funding is cited as one of the main challenges to the implementation of this strategic priority.** Out of the US\$700 million estimated to be the cost of projects tied to the infrastructure strategic priority, the mid-term evaluation found that only 38 percent (US\$270 million) was disbursed three years into the implementation of the four-year plan. Among the constraints is the fact that more than 60 percent of pledges from the international community to support the NDP's financing gap were made in the form of loans, while the country's debt sustainability situation prevents it from acquiring non-concessional debt.
4. **Against this background, this paper analyzes the infrastructure gap in key SDG areas and evaluates the authorities' options for financing this gap without jeopardizing debt**

¹ Prepared by Laurent Kemoe and Shivani Singh.

sustainability. The paper shows that (i) The Gambia’s current status of infrastructure is broadly at the average of peer countries but is significantly below the SDG needs; and (ii) closing this infrastructure gap requires a combination of strong policies (i.e. domestic revenue mobilization and spending efficiency), international support, and private sector participation.

B. Stylized Facts

5. The Gambia has mixed performance relative to Sub-Saharan African (SSA) peers on the quantity and quality of, and citizens’ access to, infrastructure (Figure 1). While The Gambia’s capital stock-to-GDP ratio is below average, the World Economic Forum’s measure of overall infrastructure quality is above average (Panel A). The Gambia also fares slightly better than the average SSA country on access to critical infrastructure, such as electricity and mobile telecommunications.² The Gambia’s situation improves slightly when the indicators are assessed against the countries’ real GDP per capita. The capital stock is close to the level suggested by The Gambia’s development status while the indicators of quality and access are significantly above.

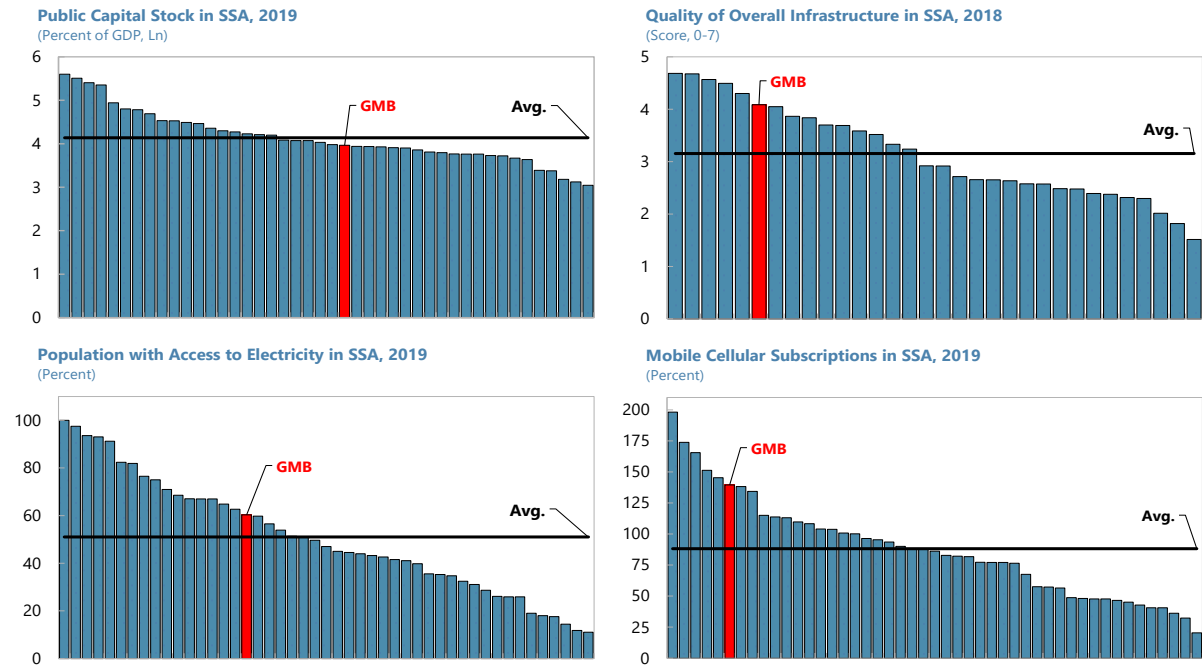
6. However, this mixed performance masks substantial infrastructure gaps in terms of the level of infrastructure required to achieve major development goals, in particular the 2030 SDGs. Ensuring universal access to some basic services remains a challenge. Close to 40 percent of the population lack access to electricity and more than 30 percent do not have access to safely managed drinking water. Besides, even though the quantity and quality of the overall infrastructure seems slightly better in The Gambia relative to the SSA average, the consensus remains that this average is far behind other regions, implying that there is ample room for improvement, including for The Gambia.

7. The IMF projects that under current and planned policies, The Gambia’s infrastructure gap will reach 14.7 percent of GDP in 2030 (Gaspar et al., 2019; Bartolini et al., 2021). The infrastructure gap is estimated as the amount of investment spending needed in 2030 to achieve the SDGs targets in three particular sectors: electricity, roads, and water and sanitation. Taking into account the country’s initial capital stock, its level of investment spending efficiency and the capital depreciation rate, this infrastructure gap translates into an average annual investment need of about 5.3 percent of GDP between 2021 and 2030.

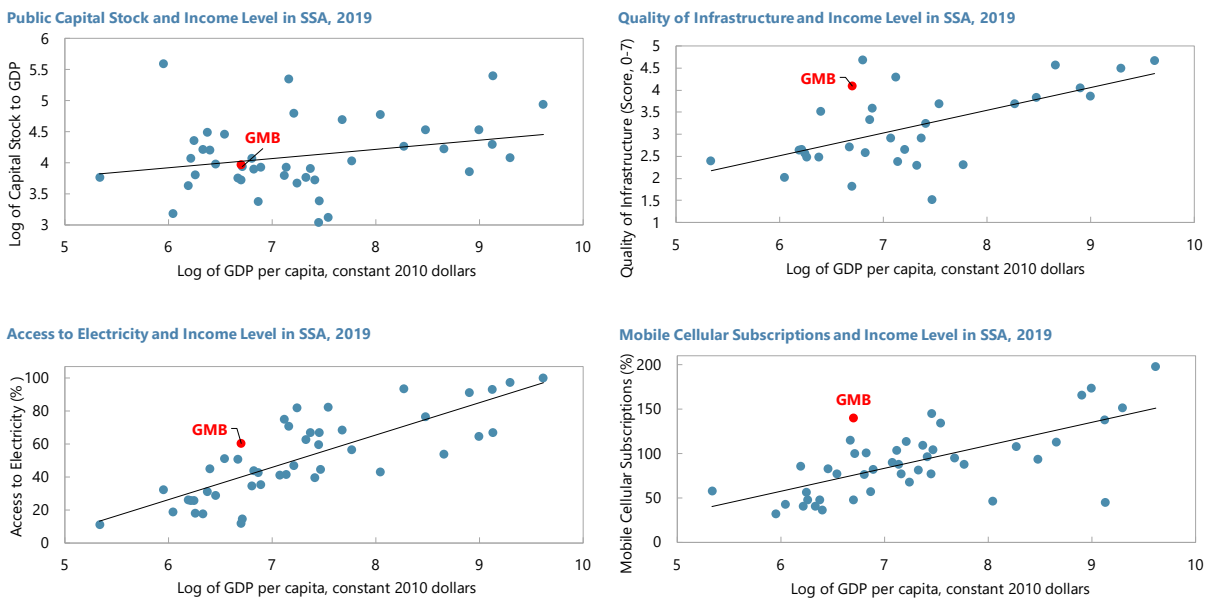
² Indicators of access to water (not shown) portray a similar situation to that of access to electricity.

Figure 1. Measures of Quantity and Quality of Infrastructure in SSA Countries

Panel A: Quantity and quality of infrastructure in The Gambia versus SSA peers.



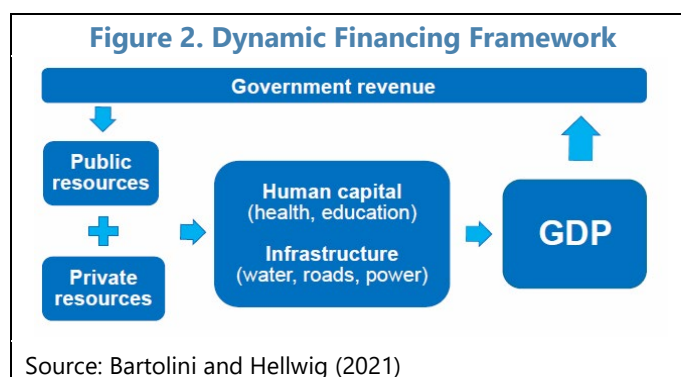
Panel B: Relation between infrastructure quantity/quality and income level.



Sources: IMF Investment and Capital Stock Database, World Bank WDI, and World Economic Forum

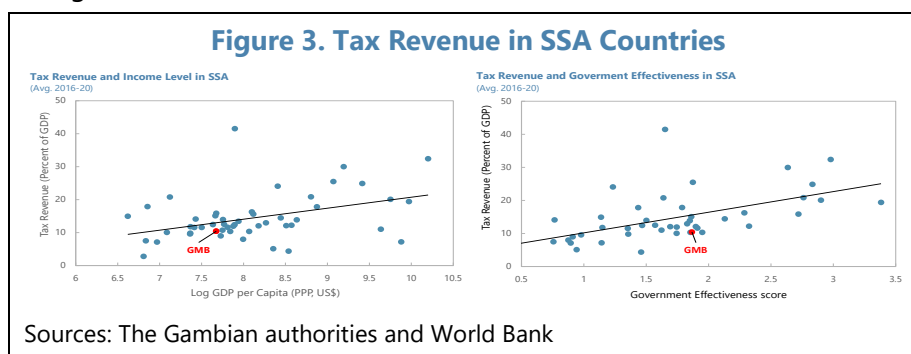
C. Scenarios for Financing the Infrastructure Gap

8. This study evaluates the effect of numerous financing scenarios on the infrastructure gap and on the timing of achieving the infrastructure SDG goals. This exercise is based on a dynamic macroeconomic SDG financing framework developed by Bartolini et al. (2021) and calibrated to the Gambian economy (see Figure 2., and Annex 1 for more details). This model is a long-term, macroeconomically consistent, dynamic framework—it abstracts from business cycle fluctuations and monetary developments—in which output growth is driven by investment in physical and human capital. Bartolini et al. (2021) use the model to: (i) assess the role of the public and private sectors to generate the funding to achieve the SDGs in 5 sectors: education and health (human capital sectors), and electricity, roads, and water and sanitation (infrastructure sectors); (ii) assess various financing scenarios to close the SDGs financing gap; and (iii) evaluate the impact of shocks and structural reforms on the SDGs financing gap.



Domestic Revenue Mobilization

9. One of the options available to the authorities to finance the infrastructure gap is through improved Domestic Revenue Mobilization (DRM). The data show that tax collection in The Gambia is lower than the level suggested by both the country's level of development and its institutional capacity, measured by the level of government effectiveness (Figure 3). To assess the extent to which enhanced revenue administration measures could increase tax revenue, this analysis estimates The Gambia's tax effort (i.e. how does the level of tax revenue collected compare to the frontier) and derive its tax potential (i.e. how much more can be collected if the authorities use their full potential) using Stochastic Frontier (SF) models.



10. Model results show that The Gambia’s tax effort is between 6 and 16 percent below the frontier and the tax revenue-to-GDP ratio could be increased by up to 1.8 percentage points (Table 1, and Annex 2). The analysis shows results from two alternative approaches to estimating the tax effort and tax potential. The first approach estimates the Stochastic Frontier model using the total level of tax revenue, while the second approach estimates the models for individual components of tax revenue and aggregates the results. Both approaches yield similar results. For the first approach, the tax effort ranges between 86 percent and 93 percent, and the tax potential ranges between 0.8 and 1.5 percent of GDP. Similarly, for the second approach, the tax effort ranges between 84 percent and 94 percent, and the tax potential ranges between 0.7 and 1.8 percent of GDP. In the SDG financing simulations, we assess the impact of increasing tax collection between 2022 and 2024 by the maximum tax potential provided by first approach (i.e. 1.5 percentage points).³

	Tax Effort Range (%)		Tax Potential Range (% of GDP)	
	Min	Max	Min	Max
Total Tax revenue Model	86%	93%	0.8	1.5
Total (Model Aggregation)	84%	94%	0.7	1.8
G&S Tax Model	87%	90%	0.4	0.6
Income Tax Model	82%	91%	0.3	0.6
Trade Tax Model	82%	99%	0.0	0.5

Sources: The Gambian authorities and IMF staff estimates

Public Spending Efficiency

11. Another option available to narrow the infrastructure gap is to improve the efficiency of public spending in several areas. Such an improvement can help make savings that could be re-invested on infrastructure, as well as help get the most economic bang for the public investment buck (IMF, 2015).⁴ Once again, this analysis uses SF models to estimate the efficiency of public spending in the sectors captured by the SDG financing framework. In particular, this analysis estimates three models for public spending on health, education, and investment.

12. Estimation results show that there is ample room to improve the efficiency of public spending, especially on education and investment (Table 2, and Annex 2). The Gambia appears to be close to the frontier when it comes to health spending efficiency. However, the models show that educational outcomes could be improved by about 10 percent with the same amount of public education spending, given the country’s initial conditions. Similarly, the outcomes associated with public investment could be improved by 10 to 13 percent with the same level of infrastructure spending. These efficiency parameters estimated are fed into the SDG financing model and simulations are made to assess the impact of increasing public spending efficiency on the SDG

³ Simulation results are virtually the same if tax collection is increased by the maximum tax potential provided by second approach (i.e. 1.8 percentage points).

⁴ See IMF (2015), *Making Public Investment More Efficient*, Washington, D.C.

financing gap as well as on the timing of achievement of the SDGs.

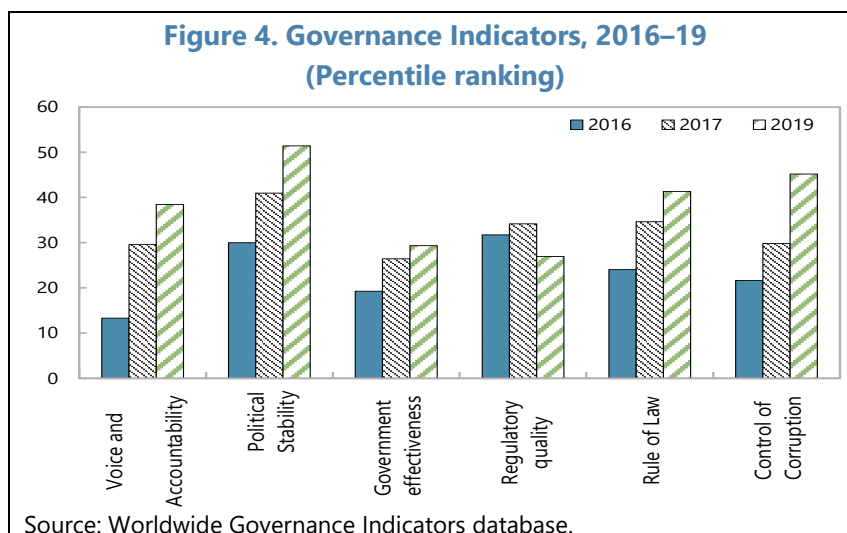
Table 2. The Gambia: Public Spending Efficiency and Potential Savings

	Efficiency of Public Spending (%)		Potential Savings (% of GDP)	
	Min	Max	Min	Max
Health Spending	97%	97%	0.9	0.9
Education Spending	90%	91%	2.3	2.3
Investment	87%	90%	3.0	3.0

Sources: The Gambian authorities and IMF staff estimates

Private Sector Participation

13. Financing could also be leveraged from fostering private sector participation to close the infrastructure gap. This could be done through public private partnerships, and by improving the business environment to attract more domestic and foreign investors. Governance will need to be strengthened further to remove bottlenecks that hinder the development of private sector activity (Figure 4). Therefore, this analysis devises a scenario which assumes that the government takes measures to improve the business environment, leading to an additional one percentage point increase in private sector financing of SDGs. The impact of this measure on the infrastructure gap is presented in Section IV below.



D. Simulation Results

14. Each fiscal measure could help reduce the infrastructure financing gap by about 20 percent. Taking measures that increase tax collection by $\frac{1}{2}$ percentage point each year between 2022 and 2024 helps reduce the infrastructure gap by 3.4 percentage points of GDP to 11.3 percent of GDP in 2030. This lowers the additional infrastructure investment need per year to 4.1 percent of GDP. Boosting spending efficiency to the frontier, not only for investment but also for education and health, leads to similar results on the infrastructure gap and the additional investment need; however, unlike the revenue measure, this scenario leads to a significant improvement in the debt ratio in 2030 (by 2.7 percentage points), most likely due to the more important effect of increased investment efficiency on growth. Together, these two measures could cover more than 45 percent of the infrastructure gap.

15. Gradually increasing private sector investment by only one percentage points by 2030 also helps reduce the infrastructure gap significantly. Under this scenario, the infrastructure gap is reduced by almost 3 percent of GDP; the annual investment need to close the gap by 2030 is lowered by 1 percentage point to 4.3 percent of GDP. Altogether, active policies (combining fiscal measures and private sector participation) could cover almost two-thirds of the infrastructure gap, and reduce the additional annual investment effort needed to achieve the SDGs to 1.8 percent of GDP.

16. Even with active policies, The Gambia will still need support from the international development partners to close its infrastructure gap by 2030. Additional grants needed from development partners would amount to 1.8 percent of GDP per year if all active policies are implemented as described above, and 2.8 percent of GDP if only fiscal measures are taken. Without this support and assuming that the Gambian authorities commit to closing the infrastructure gap by 2030, the alternative would be incurring public debt to invest in infrastructure. In the extreme scenario in which no policy action is taken, the government would need to increase debt by at least 5.3 percent of GDP per year between 2021 and 2023, leading to a significant increase in public debt,

by about 30 percentage points of GDP in 2030 relative to the baseline scenario. This option is difficult to envisage given the current limited fiscal space.

Table 3. The Gambia: Dynamic Infrastructure Financing Framework Scenarios¹

Scenario	Infrastructure SDG targets met by	Additional grants per year	Residual infrastructure gap in 2030	Additional investment need per year	Public debt in 2030
Baseline Settings	2034	0.0	14.7	5.3	38.4
Domestic Revenue Mobilization	2033	0.0	11.3	4.1	38.4
Increased Spending Efficiency	2033	0.0	11.1	4.0	35.7
Combined Fiscal Measures	2032	0.0	7.8	2.8	35.6
Private Sector Participation	2033	0.0	11.8	4.3	38.2
Active policies without Grants	2032	0.0	5.0	1.8	35.4
Baseline plus Grants	2030	5.3	0.0	0.0	37.7
Fiscal Measures plus Grants	2030	2.8	0.0	0.0	35.0
Active policies plus Grants	2030	1.8	0.0	0.0	35.1
Debt Financing	2030	0.0	0.0	0.0	70.7

Source: IMF staff estimates
1/ In percent of GDP.

Annex 1. A Dynamic Macroeconomic Framework for SDG Financing

The macroeconomic framework developed by Bartolini et al. (2021), to evaluate the financing strategies to achieve the SDGs, consists of a set of accounting and behavioral equations covering the real, fiscal and external sectors of the economy, with the overriding objective of ensuring macroeconomic consistency while maintaining flexibility and tractability. The framework focuses on the ability of public and private economic actors to mobilize funding to achieve the SDGs in five key areas, namely education, health, roads, electricity, water and sanitation. The framework ensures that economic growth is consistent with human and physical capital investment and follows demographic developments. The model is used to simulate the effect of policies over the 2020-50 horizon. The main features of the framework are described below (see Bartolini et al., 2021 for a detailed description of the model):

On the real side, the model relies on the IMF's Debt, Investment and Growth (DIG) model that addresses the public-investment-growth nexus and fiscal adjustments in low income and emerging economies. The production function is given by:

$$Y = A(K_{G,nb} + \theta K_{G,b})^\beta K_P^\alpha \left[L \left(\frac{H}{L} \right)^\sigma \right]^{1-\alpha}$$

where H is human capital, A is total factor productivity, $K_{G,b}$ and $K_{G,nb}$ are public bankable (i.e. financed with private resources) and public non-bankable capital stocks respectively. K_P is private capital stock. L is the labor force and $\frac{H}{L}$ is the stock of human capital per worker. The elasticities $\alpha, \beta \in (0,1)$ and $\sigma > 0$ are, respectively, the private capital share of output, the output elasticity of public capital, and the parameter that determines how human capital is transformed into effective labor.

Investment ($I_{i,t}$) and depreciation ($\delta_{i,k}$) determine the dynamics of capital stocks according to the following law of motion:

$$K_{i,t} = (1 - \delta_{i,k})K_{i,t-1} + \epsilon I_{i,t} \quad i = G, P$$

where $0 < \epsilon \leq 1$ is the efficiency with which investment spending is transformed into effective capital.

Similarly, schooling and improvements in health, represented by $\xi > 0$, and depreciation (δ_h) determine the dynamics of human capital according to:

$$H_t = (1 - \delta_h)H_{t-1} + \omega \xi_{t-1} \quad i = G, P$$

where $\omega \in (0,1)$ is the rate at which human capital increases with the previous period of schooling. Human capital generated through schooling and health accumulates according to the following law of motion:

$$\xi_t = (1 - \omega)\xi_{t-1} + [(e * h)^\phi * n^\gamma]_{t-1}$$

where h is the annual nominal spending on health and education, which translates into new human capital according to an efficiency parameter $e > 0$, with elasticity $\phi > 0$. n is the share of school-age population and $\gamma > 0$ is the elasticity of schooling to n .

The fiscal balance determines the amount of resources available for SDGs spending, according the following identity:

$$SDG\ resources = Revenue - NonSDG\ Expenditures - Net\ public\ lending$$

The framework takes the quantification of SDG targets by Gaspar et al. (2019). These targets are used to derive the gap between the actual annual investment spending in infrastructure and the spending required to meet the SDG targets. Therefore, the framework calculates the amount of additional financing (on top of resources in staff's baseline scenario) needed to reach the SDG goals within a given timeframe.

Annex 2. Stochastic Frontier Models for Estimating Tax Potentials and Spending Efficiency

Methodology

A stochastic frontier analysis uses econometric models to link measures of input (or resources) with a measure of output, while controlling for other determinants of the output variable, with the final goal of assessing whether: (1) the inputs produce the highest level of output (maximum efficiency); or (2) less resources could be used to achieve the same outcomes. The stochastic frontier model used in this paper (see Greene, W. H., 2008; Parmeter, C. F. and Kumbhakar, S. C., 2014 for more details) specifies a production technology, $f(X_i, \alpha)$ using inputs for country i , $X_i = (x_i^1, x_i^{-1})$, to produce the optimal output: $y_i^* = f(X_i, \alpha)$. The model assumes that the government only achieves a fraction of y_i^* , namely $y_i = f(X_i, \alpha)\varepsilon_i \exp(v_i)$, where $0 < \varepsilon_i \leq 1$ is the level of efficiency, and v_i is a random shock. Assuming k inputs, a log-linear production function, and defining $\varepsilon_i = \exp(-u_i) \leq 1$, the SFA estimates the following econometric model: $\ln(y_i) = \alpha_0 + \sum_{j=1}^k \alpha_j \ln(x_i^j) + v_i - u_i$.

Tax Potential Analysis

Following the literature in this line of research, economic and socio-political variables are used to explain the behavior of several tax revenue indicators (Total tax, Goods & Services, Income, and Trade) in several sub-group of countries to which The Gambia belongs (Fragile and conflict-affected states, ECOWAS, Low-income countries, Sub-Saharan Africa, and Low-income Sub-Saharan African countries). The estimations use panel datasets with varying numbers of countries depending on the subgroup, over the period of 1996-2019. Specifically, the explanatory variables include the PPP-adjusted real GDP per capita, consumption, CPI inflation, financial deepening index, share of urban population, agricultural value-added, investment, and government effectiveness. Data was obtained from *World Economic Outlook*, *World Development Indicators*, *International Financial Statistics*, and *World governance indicators*.

Estimation results for the total tax revenue model are presented in Annex Table 2.2.1, Panel A.¹ Model results are used to compute the tax effort (TE_i), the tax frontier (TF_i) and the tax potential (TP_i) respectively as: $TE_i = \varepsilon_i$, $TF_i = \frac{y_i}{\varepsilon_i}$, and $TP_i = TF_i - y_i$. These calculations are shown in Table 2.1.

Spending Efficiency Analysis

The efficiency of public spending is analyzed in three key sectors: education, health, and infrastructure (investment). For the education sector, the outcome indicator combines measures of out-of-school children, mean schooling years, and school enrollment and attainment. For the health sector, the outcome indicator combines measures of life expectancy, infant, child and maternal mortality, and treatment outcomes of tuberculosis, diphtheria and measles. Following IMF (2015),

¹ Results from the three other models are available from the authors upon request.

measures of public investment efficiency include measures of coverage (World Development indicators' measures of access to electricity, water, telecommunications) and a measure of infrastructure quality (from the World Economic Forum). Explanatory variables for each model include public spending, private spending (where data is available), the level of development measured by real GDP per capita, as well as other relevant determinants of the outcome variable. Data are obtained from the *World Economic Outlook*, *World Development Indicators*, *International Financial Statistics*, World Health Organization, and UNICEF.

Estimation results for the Public Investment Spending model are presented in Annex 2. Table 1, Panel B.² Model results are used to compute the efficiency of public spending shown in Table 2.

² Results from the *Education* and *Health* models are available from the authors upon request.

Annex 2. Table 1. The Gambia: Stochastic Frontier Estimation Results**Panel A: Total Tax Model**

	FCS	ECOWAS	LICs	SSA	SSA LICs
GDP per capita	0.037 [0.000]	0.180*** [0.044]	0.063 [0.056]	0.069 [0.046]	0.063 [0.075]
Inflation, CPI (annual percent change)	-0.000*** [0.000]	-0.004 [0.003]	-0.001 [0.003]	0.000 [0.001]	-0.001 [0.003]
Imports (percent of GDP)	-0.007*** [0.000]	0.006* [0.003]	-0.001 [0.004]	0.003 [0.003]	-0.001 [0.005]
Exports (percent of GDP)	0.012*** [0.000]	-0.003 [0.004]	0.001 [0.005]	0.001 [0.002]	0.002 [0.006]
Agriculture Value-Added (percent of GC	-0.000*** [0.000]	-0.000 [0.003]	0.002 [0.004]	-0.002 [0.004]	0.001 [0.004]
Consumption (percent of GDP)	0.003*** [0.000]	-0.007* [0.004]	0.001 [0.003]	-0.005 [0.003]	0.001 [0.004]
GFCF (percent of GDP)	0.012*** [0.000]	0.001 [0.003]	0.004 [0.004]	0.001 [0.002]	0.003 [0.005]
Urban population (percent of total)	0.013*** [0.000]	-0.007 [0.008]	0.016* [0.008]	0.006 [0.006]	0.012 [0.009]
Natural resource rents (percent of GDP)	-0.003*** [0.000]	0.003 [0.006]	-0.004 [0.004]	0.004 [0.004]	-0.004 [0.005]
Broad money (percent of GDP)	0.006*** [0.000]	0.008** [0.004]	0.011*** [0.004]	0.005** [0.002]	0.012** [0.005]
Government effectiveness (score)	-0.019 [0.000]	-0.005 [0.073]	0.041 [0.120]	0.119* [0.066]	0.046 [0.142]
Observations	360	273	357	720	314
Number of countries	25	15	21	42	18

Robust standard errors in brackets

*** p<0.01, ** p<0.05, * p<0.1

Panel B: Investment Spending Model

	FCS	ECOWAS	LICs	SSA	SSA LICs
Public investment (percent of GDP)	-0.030 [0.040]	0.081** [0.040]	-0.063*** [0.000]	0.017*** [0.000]	-0.071*** [0.000]
Private investment (percent of GDP)	0.001 [0.044]	0.006 [0.066]	-0.173*** [0.000]	-0.017*** [0.000]	-0.148*** [0.000]
Real GDP per capita	0.634*** [0.198]	0.153*** [0.035]	0.185*** [0.000]	0.713*** [0.000]	0.176*** [0.000]
Business environment index	-0.054 [0.054]	-0.075 [0.053]	-0.281 [0.000]	0.054*** [0.000]	-0.222 [0.000]
Observations	357	247	389	707	324
Number of countries	24	15	24	44	20

Robust standard errors in brackets

*** p<0.01, ** p<0.05, * p<0.1

Source: IMF staff estimations

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THE GAMBIA—REAPING BENEFITS FROM LARGE INFRASTRUCTURE PROJECTS¹

The Gambia is hosting the 2022 summit of the Organization of Islamic Cooperation (O.I.C.). The literature on the hosting of mega-events indicates that their ex-ante expected economic benefits have often been exaggerated. Based on experiences of countries who organized mega-events in the past, some policies could be drawn to minimize fiscal risks and maximize economic benefits from such events. Some policy recommendations could include a cap on public expenditure, a cap on the size and requirements of the event, partnership with the private sector, creation of an entity in charge of event legacies, use of some temporary structures, and knowledge exchange. More broadly, beyond mega-events, a sound and effective infrastructure governance and public investment management are necessary to ensure that public financial resources are used efficiently in support of sustainable and equitable development.

A. Introduction

1. The Gambia is hosting the 2022 summit of the Organization of Islamic Cooperation (O.I.C.). The summit will take place in the capital Banjul during 2022 and will involve hosting delegations from the 57 OIC Member States [in addition to some affiliated institutions, including regional development institutions (such as IsDB, BADEA, AfDB...)].² In anticipation of the potentially high number of participants and increased tourism activity, the government has been planning for a smooth hosting of this major event, notably through the upgrading of the country's physical infrastructure in Banjul and its surrounding areas. The Government is hoping for a significant impact of this event on the economy, from increased tourism spending and infrastructure updates. The projects envisaged by the Government include the construction or repairing of traffic networks (including roads), power and water utilities, transport facilities, and housing facilities (such as hotels).

2. The literature on the hosting of mega-events indicates that their expected economic benefits have often been exaggerated. As one-time, ambulatory occasions of a fixed duration that attract many visitors and have large mediated reach, mega-events entail significant costs and long-term impacts on the environment and the population of the host countries or cities (Müller 2015a).³ However, ex-ante impact assessments of mega-projects generally overestimate the gains and underestimate the costs involved. Experience has shown that it is difficult to justify based on a rigorous cost-benefit analysis why countries or cities compete vigorously for hosting such events.

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² The OIC is the second-largest intergovernmental organization in the world after the United Nations, with a collective population reaching over 1.8 billion.

³ Müller (2015b) characterizes what makes an event a “mega-event” based on the following four constitutive dimensions: visitor attractiveness, mediated reach, costs, and transformative impact. Barclay (2009) mentions Eric Barget, who sets a minimum threshold of a total audience of at least one billion viewers or 30 countries broadcasting the event.

Other non-pure economic— but rather political, cultural, or other intangible—factors come into play and continue to influence the decisions of countries to embark on mega-projects.

3. An important factor of the disconnect between ex ante expectations predictions and ex post impacts of mega-events is their association with the undertaking of large infrastructure investments. The costs of hosting megaevents (infrastructure and operating costs) have increased significantly in just a few years. Operating costs—or the cost of organizing the event itself (such as salaries, temporary overlays, or security)—have increased due to the extensive security that mega-events require since the 9/11 terrorist attacks but constitute a smaller, though significant, part of the total cost.⁴ Infrastructure costs—that is, the money that goes into infrastructure for hosting the event—can be decomposed in two parts: i) the infrastructure directly related to the mega-event (such as stadiums construction in the case of sport or conference venue construction in the case of an international summit); and ii) general infrastructure (such as transportation, tourist accommodations, ICT, energy, or public spaces). General infrastructure constitutes the main cost of mega-events, accounting over the last decade for 50 to 80 percent of the total cost of hosting sport mega events.⁵ The hosting of mega-events is indeed generally considered an opportunity to upgrade the stock of physical infrastructure, with promises of high long-term economic growth.

4. The Gambia’s Government could draw on lessons learned around the world with a view to maximizing the net economic impact of the O.I.C summit. This paper reviews the literature related to the problems encountered in organizing mega events and the policies suggested for maximizing their net economic contribution (or minimizing their net economic costs). To that end, the paper focuses on the management of infrastructure investment scaling-up and the strengthening of infrastructure governance systems.

B. Literature Review and Cross-Country Experiences

5. Macroeconomic theory posits that public investment stimulates economic activity through short-term aggregate demand effects, and it increases the productivity of existing private capital (both physical and human). Public investment encourages new private investment to take advantage of the higher productivity it creates, thereby increasing economic growth (Barro 1990, Barro and Sala-i-Martin 1992, and Turnovsky 1997). More specifically, the impact of public investment on long-term economic growth is directly related to i) the *efficiency* of the new investment—how the new investment translates into additional physical infrastructure—; and ii) the *productivity* of the newly created physical infrastructure—how the created physical infrastructure affects the economy.

6. After some initial disagreement, the empirical literature has confirmed recently the

⁴ For the Olympic games, Sydney spent \$250 million in 2000 while Athens spent over \$1.5 billion in 2004, and costs have remained between \$1 billion and \$2 billion since (McBride 2018).

⁵ For instance, some 85 percent of the Sochi 2014 Olympic Games’ \$50 billion budget went to building non-sports infrastructure from scratch. Also, more than half of the Beijing 2008 budget of \$45 billion went to rail, roads, and airports, while nearly a fourth went to environmental clean-up efforts (McBride 2018).

significance and robustness of the long-term relationship between public investment and economic growth in countries with stronger infrastructure governance institutions.⁶ More specifically, better infrastructure governance—stronger institutions to manage public investments—strengthens the connection between public investment and growth. Gupta and others (2014) used an efficiency-adjusted stock of public capital and found a positive and significant contribution to economic growth. IMF (2015) showed that countries with stronger infrastructure governance institutions exhibit lower average incremental public capital-to-output ratios and, consequently, receive greater growth payoffs from their public infrastructure spending; the study also found that countries with higher public investment efficiency receive greater output dividends from public investment.

7. At the same time, the literature on the hosting of mega-events reveals that their *ex ante* net economic benefits have systematically been exaggerated but the *ex post* assessment of their net socio-economic benefits often points to limited performance. Countries and cities have historically competed vigorously for the right to host “mega-events”, such as sporting events (Olympic Games, FIFA Football or Soccer World Cup, etc.) or international summits, as they are attracted by the promise of a vast economic windfall forecasted by economic impact studies (Müller, 2015a). Hence, an increasing number of developing economies have joined the bidding frenzy, with a view to receive a share of the monetary spoils, upgrade their urban infrastructure, and hopefully kick-start their development. Because of the organizers’ tendency of predicting sizable, long-run benefits that compensate for short-run costs, countries hosting these events commit to significant infrastructure investments.⁷ Where there’s limited fiscal space, these investments in roads, transport, energy generation, sports stadia, communication systems, housing facilities, and traffic networks result in substantial financing needs, high debt, and other fiscal risks.

8. Inadequate infrastructure management during the project cycle—from appraisal and selection through planning and implementation—and other factors are at the root of the observed failures and white elephants. Barclay (2009) and Müller (2015a) summarize the factors behind the causes of the negative *ex post* assessment of the economic impact of mega-projects and the reasons why, despite this legacy, countries and cities continue to compete to host mega events. The main factors include: i) “boosters” predictions; ii) errors associated with impact studies; iii) misuse of multipliers and omission of leakages; iv) hidden costs; v) negative or limited impact of construction projects on the poor; and vi) political economy and other intangible factors. An examination of each of these factors could be as follows:

- **Overly optimistic predictions by boosters.** “Boosters” predict large economic windfalls for cities and countries hosting mega-events, envisioning multitudes of tourist arrivals, summit attendees, or sports fans frequenting local restaurants, hotels, and other businesses, spending

⁶ See Miyamoto and others (2020) and the references therein.

⁷ If the NPV of the difference between expected revenue and costs is positive, the project is viable and hence passes the cost benefit analysis (CBA) test. Otherwise, there is no economic basis for undertaking the project. In practice, CBA gets complicated as most projects have large (certain) start-up costs in the short run and (uncertain) benefits that are in the future (and hence difficult to ascertain).

vast amounts of money. In return, countries and cities commit to some significant infrastructure investment. The question is whether the economic benefit compensates for and outweighs the vast costs and substantial risks incurred. The premise behind overly optimistic studies is that spending on mega-event infrastructure should be considered investments that trigger positive economic returns. However, many studies are commissioned by groups with vested interest in holding such events. These groups stand to benefit directly from the provision of public subsidies that the reports may justify. Consequently, there's a mismatch between the expected and actual economic benefits of mega-projects, with negative consequences, such as the misallocation of resources and the loss of trust in the citizenry.

- **Underestimating of costs.** Mega-events often overrun their budget. Several factors drive organizers to underestimate the costs of mega-events, leading to significant cost overruns: fixed deadline; relaxation of competitive bidding (tendering) rules; reduced competition and high prices; non-divisibility of megaprojects; premiums to finish work in time; planners' large contingencies; lack of knowledge about the demand patterns; demand uncertainty and excess supply capacity; long implementation period and revision to initial assumptions; external events (such as terrorist attacks) and increased costs for security; new regulations (or demands) and vague contractual requirements by event-governing bodies; and, in order to obtain public support, the incentive to distort the real cost by event promoters, as well as by host cities (competing at national level), with also the idea in the latter case of improving the chances of nomination by the national government and the subsidies of the latter. Consequently, the actual budget is significantly higher than the planned budget, with negative consequences, such as misallocation of resources, profiteering, subpar construction quality, and budget shortfalls.
- **Methodological errors of impact studies.** "Impact" studies, which serve the basis for funding, estimate the economic "impact" from two effects: i) the construction of infrastructure and ii) the total commercial activity during the event—taking into account an estimate of the number of visitors, the number of days a visitor is expected to spend and how much on average he or she will spend (Matheson, 2006a). The method for estimating the "direct economic impact" of the commercial activity is flawed when estimated on a "gross" rather than "net" basis. In the case of local consumers, the "gross" measure ignores the substitution effects from increased spending on the event (such as sports) on expenditures on other activities (such as theatres). Owen (2005) considers this issue as one of the main reasons why impact studies are grossly exaggerated.⁸ In the case of external consumers, the overestimation of the direct net economic impact occurs in two ways: First, when for visitors who are in the city or country for business not directly related to the event, impact studies, rather than limit the net spending solely to the event related activities (such as attending a sporting event), they also include their spending on hotels, meals and such like (Siegfried and Zimbalist, 2002); and second, when external visitors engage a phenomenon known as 'time-switching', which occurs when a visitor wishes to visit the city in question but arranges the trip to coincide with the mega event, but impact studies do not ignore the spending related to this visit while the mega event did not influence the visitor's

⁸ To make studies more reliable for mega-events such as the Olympics, one might suggest surveys carried out on those attending the event with questions relating to place of residence thus enabling analysts to eliminate those who hail from the local area (Baade and Matheson, 2004).

choice of location (Crompton, 1995).

- **Problems with accounting for those locals who are non-attendees.** Impact studies neglect the effect of these events on residents who do not attend but live in their vicinity and therefore must change their spending patterns owing to inflated prices, congestion problems, or other adverse impact.
- **Crowding out effect.** With the large proportion of mega events held in popular tourist areas, their negative externalities (such as congestion) may dissuade regular non-interested tourists from visiting the city during the event. If local restaurants and hotels are near full capacity, event visitors may displace and “crowd out” regular tourists, resulting in a smaller than predicted net impact.
- **Hidden costs.** Countries are faced with other hidden costs not accounted for in impact studies: i) maintenance costs of large projects; and ii) long-term fixed costs from the construction boom to increase capacity during an event, which after the event can result into bankruptcies (hotel industry).
- **Misuse of multipliers and leakages.** “Indirect” effects estimated to be a result of “direct” expenditures of the event, are often prone to exaggeration. Economic multipliers used by forecasters and derived from linkages between industries within a region during normal period are unlikely to hold during mega-events. There is also great difficulty accounting for the various leakages that might occur (whether visitors spend on the local economy versus on hotel rooms and restaurants belonging to national chains). Supply-side leakages during mega-events are further increased by the temporary entry of external firms selling products (Olympic games) or the hire from external communities where there is a surplus labor (if the local economy is close to full employment). Hence, a substantially lower proportion of the wages that are paid out in these cases will be recirculated in the local economy.⁹
- **The opportunity cost of construction.** Although new construction may increase economic activity, it is also necessary to consider the vast opportunity costs, as public expenditure on such projects would mean a reduction in other public services, greater government borrowing or higher levels of taxation. For instance, it is not clear whether the return on a sports stadium or a hotel can exceed that of an alternative use of resources. Moreover, construction employment is often temporary (or transitory), and unemployment tends to rise after the event.
- **Housing and urban regeneration.** The long-term benefits from infrastructure projects in host cities (new districts, new trunk roads, renovated districts, and reduced overcrowding in the city) have limited effects on less affluent people. In terms of housing, the positive effect on property prices in an area hosting the mega-event will have a negative effect on the poor who live there (South Africa’s 2010 FIFA World Cup); rents may increase until they become unaffordable. Although the area benefits from the investment in terms of a growing property market and the improved infrastructure associated with a stadium (transport links, for example), the people it was intended to benefit might be pushed elsewhere. Hence, the intended regeneration of the

⁹ These problems arise because, instead of a balance of payments method, forecasters tend to use input–output models, such as the US Department of Commerce’s Regional Input–Output System (RIMS II), which do not account for subtleties such as full employment (Baade and Matheson 2002, p. 11).

host city may amount only to a redistribution of people, as those who originally resided in the event-hosting area move elsewhere, bringing poverty and social problems with them.

- **Legacy and white elephants.** The economic impact of mega-events is “transitory” and “one-time” rather than “a steady state change” (Baade and Matheson, 2002). Thus, a well-known legacy of mega-projects in almost all countries (i.e., not only limited to low-income countries) is the creation of the infamous white elephants—major investment projects with negative social returns—that have never delivered on their initial promise (Schwartz and others, 2020). Big events can have a positive lasting effect if the newly built infrastructure is able to exist symbiotically with that in the surrounding economy, neither competing for nor displacing existing capital and labor.
- **Political economy and other intangible factors.** If the long-term economic benefits for hosting mega-events are questionable, there must be other intangibles that explain why countries wish to host them, in spite the difficulties they pose. The perceived status benefit where a city can rise in the hierarchy of “world cities”, making a claim to high global standing given the growing perception of global competition for tourism and capital flows is often stressed.¹⁰ Moreover, intangible benefits described through expressions such as “restoration of self-confidence”, “civic pride”, “dynamism”, and “nation building” are also put forward.¹¹ International politics plays an extremely important role as well.¹² Lastly, as illustrated by the London 2012 Olympic Games, mega-events are at times used to legitimize public spending that would not otherwise pass comfortably through the political process.^{13 14}

C. Policy Recommendations: Minimizing Risks and Maximizing Benefits

9. Creating good infrastructure through strong infrastructure governance in The Gambia is key to minimizing the net socio-economic cost of the planned scaling up of infrastructure spending (in anticipation of the OIC summit) and maximizing its contribution to long-term

¹⁰ In hosting the 2008 Olympics, Beijing hoped to join the top tier of cities in the world and surpass its Asian competitors (Tokyo, Singapore, and Hong Kong).

¹¹ For example, the lasting image of Nelson Mandela presenting the Rugby World Cup Trophy to François Pienaar in 1995, an event held in South Africa.

¹² The 2008 Beijing Olympics was a “coming out” party for China, showing the economic and political development attained by the country. Wen Jiabao stated in April 2008 that the event was an opportunity for China to show the world how “democratic, open, civilized, friendly, and harmonious” it is.

¹³ Former London Mayor Ken Livingstone has acknowledged that he “didn’t bid for the Olympics because [he] wanted three weeks of sport” but rather because it was “the only way to get the billions of pounds out of the Government to develop the East End—to clean the soil, put in the infrastructure and build the housing into an area [the government] has neglected for 30 years.” The cost of hosting the Olympic Games in London has come under scrutiny, with news that the Tony Blair’s government chose to ignore a 250-page strategy document, signed off in December 2002, that cast doubt on the contention that the Games would produce significant economic returns. Oxford University estimated the sports-related costs at US\$15 billion (compared with \$4.6 billion for Rio 2016, \$6.8 billion for Beijing 2008, and \$21.9 billion for Sochi 2014). London 2012 went over budget by 76% in real terms, measured from bid to completion. Cost per athlete was \$1.4 million, not including wider costs for urban and transport infrastructure, which often equal or exceed the sports-related costs.

¹⁴ In addition to investing large sums in the construction of sports arenas, Barcelona (in 1992) and Seoul (in 1988) used the Olympic Games to upgrade their entire urban infrastructure.

growth. Given the COVID-19 pandemic and its economic fallout, good infrastructure that fosters and supports economic and human development is also key to supporting the post-pandemic economic recovery, creating wealth, and reducing inequalities, as it offers a bridge to the future for current and new generations, connecting citizens, facilitating trade, and building resilience against climate change and natural disasters (Schwartz and others 2020). In this section, drawing on lessons learned in the previous section with respect to the management of mega-events, we review policy suggestions to minimize their net economic cost. Then, we examine ways to strengthen public financial management of public investment with a view to increasing its efficiency and macroeconomic impact through the strengthening of infrastructure governance institutions.

Minimizing Risks and Maximizing Benefits from Mega-Events

10. Several policies have been suggested in the literature to help national governments, cities, and event-governing bodies minimize the negative fallout from mega-events, and avoid cost overruns, inefficient allocation of resources, and oversized infrastructure (Müller 2015a).

- ***Avoid tying mega-events to large-scale urban development.*** National governments and cities must establish, before starting to bid, whether the events require new construction or upgrading of existing infrastructure. If so, there are three options: bid for smaller events; build the required infrastructure before the bid, but only if it aligns with the master plan (the national development plan); or do not bid at all. Event-governing bodies could support this change by preferring bids with existing infrastructure.
- ***Bargain with event-governing bodies.*** Most event-governing bodies (IOC, FIFA, UEFA, ...) act as monopolies that can dictate their terms and make substantial risk-free income, if there is enough demand for their events. Host countries and cities should attempt to gain concessions from event-governing bodies, including fewer requirements, full taxation of revenues, waiving government guarantees, or additional contributions to cover the cost of hosting. Ultimately, the success of bargaining depends on the willingness of the event-governing body to make concessions, the demand for the event, and the bargaining power of the host.
- ***Cap and earmark public expenditures and seek private sector participation.*** The hosts should cap expenditures and earmark the funds to avoid having the public sector compensate for mega-event cost overruns and ventures that lose money. Capping expenditures reduces the risk of profiteering and overspending; earmarking prevents funds for urban development from being diverted to the hosting of the event itself. Host countries and cities should involve the private sector in risk taking to ensure the commercial viability of facilities and to reduce the exposure of the public sector. Cities and governments should not give blanket guarantees to cover all costs. In addition, national governments should not provide extra funding for urban development to support megaevents; this encourages bidding for mega-events just for the sake of extracting these funds. Making funding decisions in this way increases the total cost to society of delivering infrastructure and perverts other ways of determining funding priorities, such as regional and national infrastructure planning processes.

- **Seek independent expert assessments.** Independent expert advice is crucial for decision-makers in the cities, national governments, organizing committees, and governing bodies of the event. Such advice could take the form of reference class forecasting, a method that compares the predicted costs and benefits of many megaevents with the actual ones after the events have taken place. This approach determines how much predicted and actual costs and benefits diverged and provides a better assessment of the bidding documents (Lovallo and Kahneman, 2003).
- **Reduce or cap size and requirements of events.** Reversing the constant growth of mega-events would reduce the size of the sites and infrastructure required and thus the risk of event takeover, the complexity of the management and thus the risk of cost overruns and benefit shortfalls, and the size of the overall construction program and thus the necessity to introduce extralegal measures to complete it in time. The event-governing bodies could scale down the event by reducing the number of athletes and sports, the number of media, or the number of visitors. Reducing the number of visitors seems to be the most viable option, while specific sports or events could be included on a rotational basis or made to share sites.
- **Seek public participation beginning in the bid stage.** Citizen participation reduces the risk that the priorities of mega-events will take precedence over the priorities of urban development and ensures that citizens can have a say in the planning of mega-events. Public hearings and planning consultations with stakeholders not only facilitate better alignment of infrastructure with citizens' needs, but also facilitate consensus and reduce potential opposition.
- **Fix the terms of hosting agreement at the time of bidding.** Hosts should avoid signing any contracts that leave requirements deliberately vague or that postpone concrete specifications to a later stage. This vagueness makes it difficult for cities and countries to plan and budget in advance. Oslo, in its bid for the 2022 Winter Games, successfully insisted that the IOC would not retroactively introduce new requirements that would lead to higher costs for the city (Butler 2014).
- **Create a separate organization in charge of legacies.** A separate organization must ensure that what is left after the event—the so-called legacies—contributes to the long-term development of a city and region. This organization should be created at the bid stage and have a say in all matters of planning that reach beyond the event. This activity should have clear funding sources at the time of the bid.
- **Decentralize the event.** It's more optimal to spread demand spatially rather than build permanent facilities to accommodate peak demand. Events that take place in one city mean a few days or weeks of intense strain for public transport and accommodation. Instead of building many venues in the same place, venues should be distributed across a city or perhaps even to other cities. Los Angeles in 1984 and Vancouver in 2010 practiced such a decentralized model and thus avoided building excessive transport capacity (see Liao & Pitts 2006).
- **Build temporary structures where after-use is uncertain.** For facilities that are hardly used or would otherwise be too large, building temporary (rather than permanent) facilities can be cheaper and eliminate maintenance costs post-event. Construction costs of temporary sites are

between one-half and two-thirds of those of permanent sites (Long 2013). London made extensive use of temporary sites for the 2012 Summer Games, where organizers built 11 of the 34 competition sites as temporary structures from scratch (May and Cardwell 2012). There is, however, a drawback to temporary structures; they increase event-specific expenditure that is unproductive for urban development, so hosts must weigh the costs and benefits in each case.

- **Engage in knowledge exchange.** Better knowledge exchange among past and future hosts can alleviate uncertainty in the demand for infrastructure and services during the event. It can also avoid reinventing the wheel where efficient solutions are available elsewhere, thus reducing budget and time overruns.
- **Do not bypass regular planning procedures.** Regular planning procedures should remain in force for mega-events, even though their fixed deadlines increase time pressures. These procedures exist to ensure equal consideration of interests, rational decision making, and fair tendering and bidding. To override regular procedures increases the risk of nontransparent decisions that favor certain stakeholders over others.

Good Practices in Infrastructure Governance and Public Investment Management: The World Bank Group’s “Eight Commandments” and the IMF’s PIMA

11. More broadly, beyond infrastructure related to mega events, the international financial community has offered detailed guidance on a sound and effective infrastructure governance and public investment management to ensure that public financial resources are used efficiently in support of sustainable and equitable development. In 2014, the World Bank set out “eight must-haves” for every effective public investment management to provide guidance on good processes and procedures for managing the infrastructure project cycle; and it has since been using this framework to guide and support country reform efforts (Rajaram and others 2014):

- **Start by setting a clear strategic direction.** To guide investment and project development, a broader strategic direction is needed. Such a strategic direction underpins and guides government decisions in accordance with national priorities. This can be drawn from a national plan or other long-term strategy paper that sets out economic development priorities.
- **Conduct a feasibility study to rigorously evaluate each project.** The objective of the study is to answer the essential question of whether a project should be considered, once it has been established in advance that it is consistent with the government's priorities. It consists of two stages: a pre-feasibility study, to identify relevant alternatives, and then a comprehensive feasibility study, to determine at the outset whether a proposed project is feasible. The full feasibility study expands on the pre-feasibility study in order to compile all relevant data, refine the expected results of the projects, conduct an in-depth analysis of the solution chosen to achieve the project objectives and undertake a number of different in-depth assessments, including environmental and social impact assessments.
- **Ensure that projects undergo an independent examination.** This makes it possible to avoid projects that are excessively optimistic, underestimating the real costs or overestimating the advantages.

- **Link project evaluation and selection to the budget cycle.** This is true even if the project evaluation cycle differs from the budget calendar. The budgetary framework and the annual budget must set limits so that feasible and sustainable investment programs can be undertaken.
- **Have realistic procurement plans, as well as guidelines and institutional capacity for project management and monitoring.** Ideally, the government should establish a system for managing the total cost budget for the project over several years to forecast budgetary requirements throughout the project execution period.
- **Incorporate enough flexibility into budgeting to allow for the necessary adjustments.** The review of project funding that is generally part of the annual budget process should be somewhat flexible so that changes can be made to the disbursement profile. This approach would make it possible to consider any slippage in costs resulting from delays in project implementation.
- **Have a process to certify operational readiness.** Once the project is complete, there should be a process to ensure that the resulting facility is ready to operate and that services can be provided. This requires an effective mechanism to transfer responsibility for the operational management and maintenance of the assets created.
- **Carry out a basic examination and assessment at completion.** These are examinations by a ministerial office or agency after the project has been completed to determine whether budget limits and deadlines were observed and whether the finished product was delivered as planned. As a supplement to this basic review, a supervisory institution should periodically conduct compliance inspections on a sample of investment projects.

12. In 2015, the IMF launched its Public Investment Management Assessment (PIMA), explicitly designed to help countries assess their infrastructure governance institutions in a holistic manner and design a tailored and prioritized action plan (IMF 2015, 2018a). The PIMA provides a comprehensive framework for assessing infrastructure governance across the full project cycle—the planning, allocation, and implementation stages of public investment—and allows for cross-country comparisons. The PIMA framework is consistent with the various existing guidance frameworks (World Bank, OECD, ...) and expands on these by also focusing on the macro-fiscal and budgetary processes in which infrastructure projects are embedded. It identifies areas in need of attention to improve infrastructure governance and points to specific reforms that governments can implement to stretch limited resources and spend better on public investment.

13. The Gambia's performance across different PIMA indicators was mixed and did not compare favorably with regional peers. The PIMA exercise was conducted in 2019 for The Gambia. It analyzed 15 of the infrastructure governance institutions across three phases of the public investment cycle—planning, allocation of resources, and implementation and evaluation of projects. Performance was relatively strong in areas such as the country's comprehensive national development planning system, coordination between central and local government, and the comprehensiveness and unity of the budget. However, several areas of weaknesses have been identified, including on project appraisal, multi-year projections of investment projects (especially those financed domestically), lack of protection of ongoing projects in the budgeting process, weak

budgeting of maintenance funding, weak implementation of project selection, limited monitoring during project implementation, and insufficient ex-post audits of domestically financed projects. The Gambian authorities should continue following up on these challenges to improve its infrastructure governance.

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