MADAGASCAR ECONOMIC UPDATE

Navigating Through the Storm

WORLD BANK GROUP

Photos: Unsplash and Shutterstock.

Forewords

Development prospects in Madagascar continue to be hampered by the country's low growth potential and exposure to frequent, deep, and persistent crises. Growth averaged 3.5 percent in the five years leading up to the pandemic and was followed by a recession in 2020 that was about 3 times deeper than in the rest of Sub-Saharan Africa. Activity had started to recover in 2021 but was disrupted again in 2022 by a third wave of the COVID-19 pandemic, a series of extreme weather events and the fallout from the conflict in Ukraine. The crisis in Ukraine is expected to have a noticeable impact on economic developments in Madagascar, particularly through slowing demand from key trading partners. Higher international oil prices are projected to lead to a deteriorating trade balance and growing pressure on public finances due to a lack of adjustment of regulated fuel prices and growing losses of the national utilities company JIRAMA. The impact of rising international food prices, particularly of wheat, corn and edible oil, is expected to be more modest, given their relatively low share in overall imports and consumer spending. Against this backdrop, growth is projected to slow down to 2.6 percent in 2022 (less than half the previous forecast of 5.4 percent), before picking up to a weaker-than-expected 4.2 percent in 2023 and 4.6 percent in 2024, as structural constraints and weaker external demand prevent a faster rebound. The relatively subdued economic outlook is reflected in a poverty rate that would remain close to 80 percent by 2024, nearly twice the average of Sub-Saharan African countries.

In the absence of a new drive for reforms, Madagascar risks falling further behind as peers continue to grow faster and demonstrate stronger resilience to shocks. The country would need to sustain significantly higher and more inclusive growth to bring poverty down in coming years. This can only happen if the government kickstarts far-reaching reforms supporting private investment and job creation, better access to basic services and infrastructure, and greater resilience to shocks. Several policy priorities are highlighted as particularly urgent in this *Economic Update,* including (i) a clear strategy to speed up vaccination for vulnerable groups as well as in urban and tourist areas; (ii) the restoration of essential public services and infrastructure following the impact of severe cyclones; (iii) forceful actions to address the ongoing food insecurity crisis and boost domestic food production; (iv) fuel and electricity price reforms that seek to protect the poor while preventing unsustainable fiscal deficits and socially regressive subsidies; (v) a new momentum to boost access and affordability of broadband and digital services, particularly in rural areas; and (vi) more public sector transparency and accountability, guaranteeing a strong and independent Court of Accounts, anti-corruption institutions and the judiciary. This report also highlights the importance of boosting public school performance following the continued deterioration in learning outcomes and advocates for a set of reforms reinforcing teachers' selection and evaluation, salary and school grant management, redress mechanism and local community engagement.

Marie-Chantal Uwanyiligira

World Bank's Country Manager for Madagascar

ACRONYMS & ABBREVIATIONS

BFM	Banky Foiben'i Madagasikara (Central Bank of Madagascar)
CDC	Centres for Disease Control and Prevention
CPB	Centraal Planbureau
DEWA	Division of Early Warning and Assessment
DHS	Demographic and Health Survey
D-RAS	Disaster-Resilience Analytics & Solutions
EM-DAT	Emergency Events Database
FAO	Food and Agriculture Organisatio
FDTIC	Fonds de Développement des télécommunications et TIC (Reform of the Universal
	Access Fund)
FRAM	Fikambanan'ny Ray Aman'dRenin'ny Mpianatra (Students' Parents Association)
GDP	Gross Domestic Product
GFDRR	Global Facility for Disaster Reduction and Recovery
GRID	Global Resource Information Database
HFS	High Frequency Survey
IMF	International Monetary Fund
INSTAT	Institut National de la Statistique
JIRAMA	Jiro sy Rano Malagasy
LIC	Low Income Countries
MICS	Multiple Indicator Cluster Survey
OEC	Observatory of Economic Complexity
PPP	Purchasing Power Parity
PPP	Public–Private Partnership
SCD	Systematic Country Diagnostic
SME	Small and Medium sized Enterprise
SMS	Short Message Service
SOE	State-Owned Enterprise
SPM	State Procurement of Madagascar
SSA	Sub-Saharan Africa
TIMSS	Trends in International Mathematics and Science Study
UNEP	United Nations Environment Programme
WDR	World Development Report
WHO	World Health Organization
WJP	World Justice Project

ACKNOWLEDGEMENTS

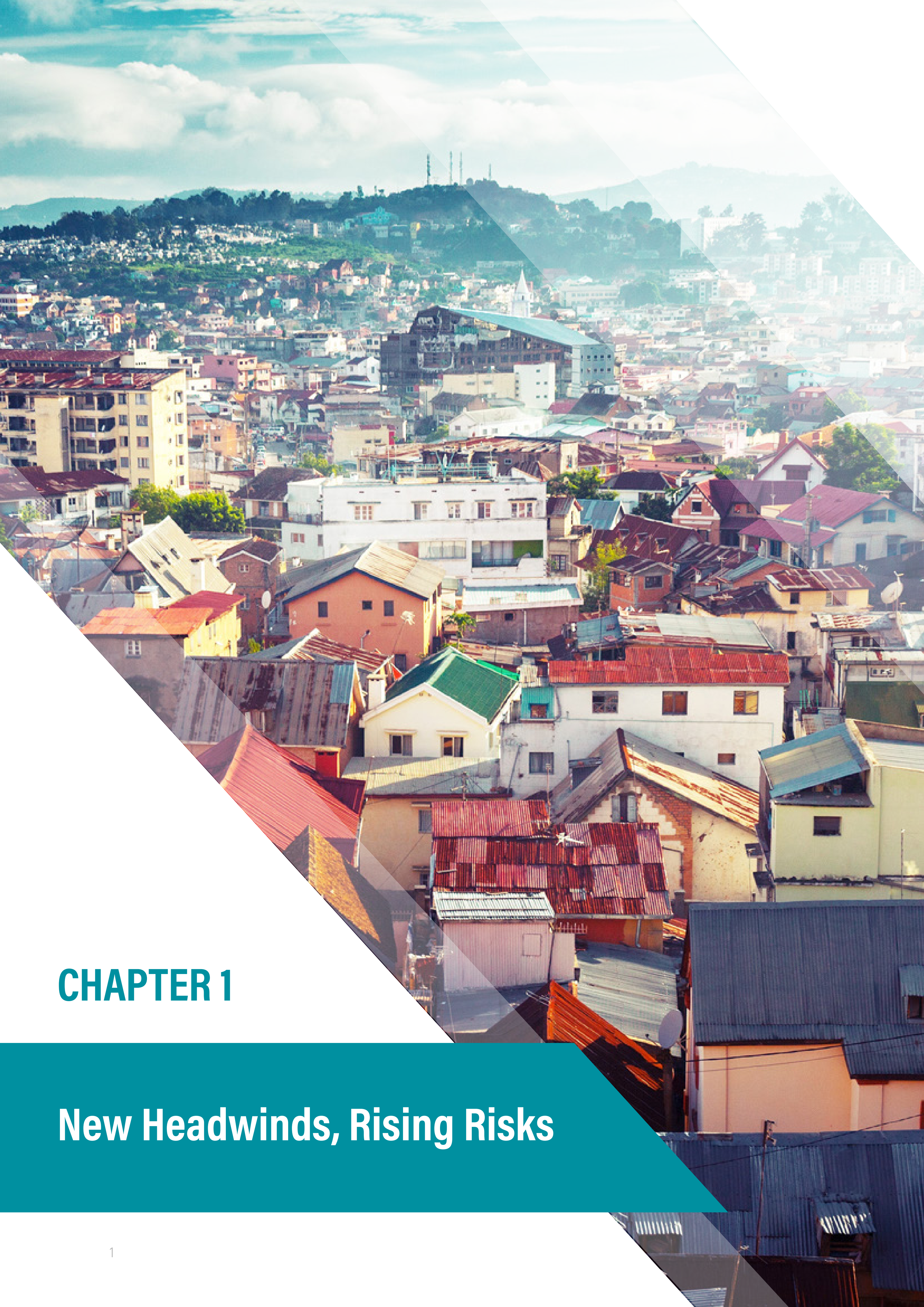
The *Madagascar Economic Update* was prepared by a team led by Marc Stocker (Senior Economist, EAEM2) with core team members including Ibrahim El ghandour (Public Sector Specialist, EAEG2) and Antsa Raoelijaona (Economist, EAEM2). The work was carried out under the supervision and guidance of Marie-Chantal Uwanyiligira (Country Manager, AFMMG) and Mathew A. Verghis (Practice Manager, EAEM2).

TABLE OF CONTENTS

Figures

Boxes

Tables



CHAPTER 1

New Headwinds, Rising Risks

Following a recession in 2020 that was about three times deeper than in the rest of Sub-Saharan Africa, an economic recovery started in Madagascar in 2021 but was interrupted in 2022 by a sequence of domestic and international shocks. In addition to these new headwinds, the growth potential of the economy has been negatively impacted during the crisis by a retrenchment in private investment, deteriorating human capital and weakening governance. In this context, growth projections were downgraded to 2.6 percent in 2022 and to an average of 4.4 percent in 2023-24, with the poverty rate now expected to remain close to 80 percent by 2024. A commitment by the government to implement bold reforms in order to stimulate private investment and job creation, improve public sector governance, and reinforce the resilience of the poor could set the country on a more favorable trajectory.

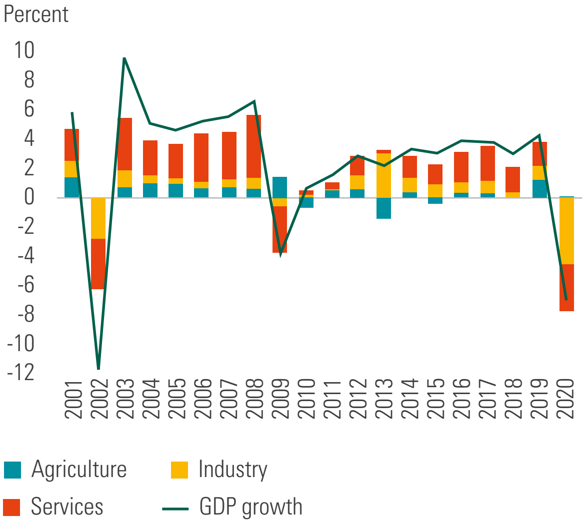
Growth and poverty reduction made limited headways before the crisis

Growth before the crisis remained insufficient to boost living standards. The return to constitutional order in 2013 helped spur a modest economic revival that was driven by renewed political stability, the reopening of key export markets, and the reengagement of development partners. However, despite these positive developments, growth peaked at a still modest 4.4 percent in 2019 and averaged only 3.5 percent over the period 2013-19, which barely surpassed population growth and was significantly weaker than the investment-led recovery of the mid-2000s (Figure 1.1). Overall, GDP per capita increased at an average rate of 0.7 percent per year from 2013 to 2019, which was insufficient to allow a significant reduction in the poverty rate over that period.

Low investment was a key factor holding back activity and job creation. Private and public investment averaged about 19 percent of GDP over the period 2013-19 (in nominal term), lower than most peers and trending down from the early 2010s as capital spending in the private sector decelerated (Figure 1.2). Low investment rates reflected an unfavorable and unpredictable business environment, deteriorating connectivity infrastructures, barriers to competition and constrained access to energy, land, and finance. Public investment gradually recovered from an historical low of 2.3 percent of GDP in 2012 to reach 5.4 percent in 2019 but remained significantly lower than most peers. Overall, capital deepening contributed over the period 2013-19 between 2 and 4 times less to growth than in comparator countries like Rwanda Uganda, Tanzania, Cambodia, or Bangladesh (Figure 1.3). Productivity levels also continued to decline, due to deteriorating supply side conditions in the agricultural sector and subdued job creation in higher value-added sectors.

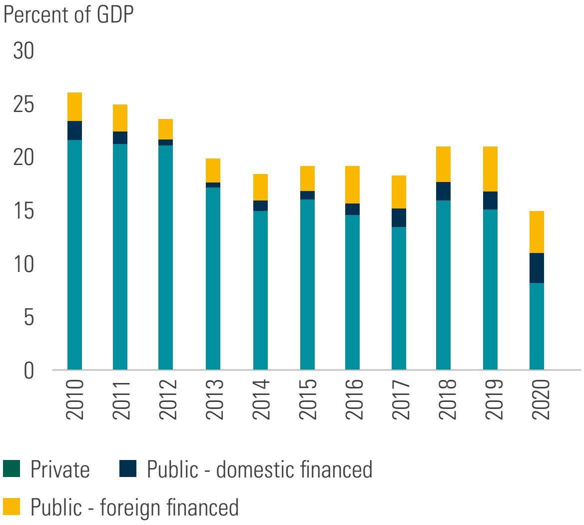
Only a handful of sectors were supporting activity during the pre-crisis period. The mining sector accounted for about 30 percent of real GDP growth over the period 2013-19, while construction and public works, telecommunication, banking and business services accounted for another 50 percent (Figure 1.4). Sectors where Madagascar is considered to have strong comparative advantages such as textile, agribusiness and tourism contributed only marginally to the recovery, partly reflecting a lack of new investments. The agriculture sector has been stagnant, reflecting several years of weak crop production due to locusts, cyclones and droughts, as well as the impact of deteriorating infrastructure and the lack of improvement in production techniques. Informal services in urban areas absorbed an increasing share of the labor force, partly reflecting the absence of job opportunities in other sectors.

FIGURE 1.1 GDP growth



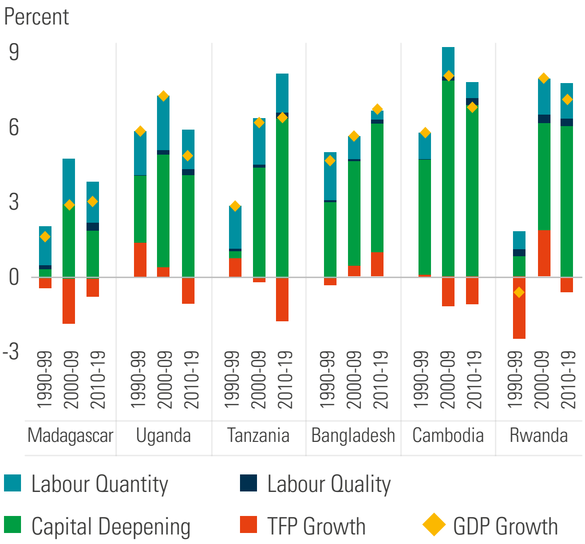
Source: Instat, World Bank.

FIGURE 1.2 Private and public investment rates



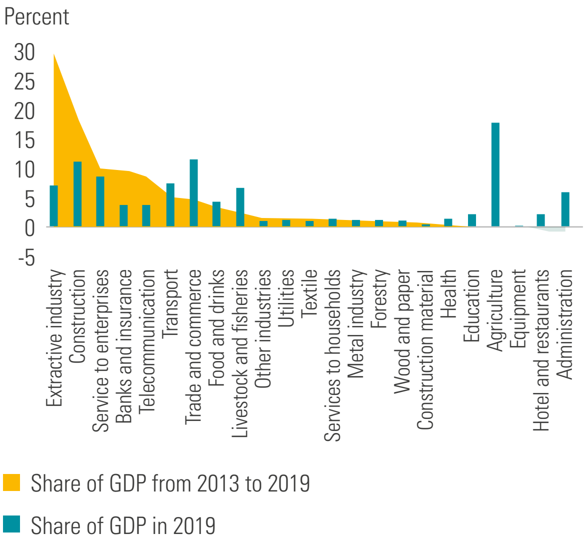
Source: Ministry of Economy and Finance, World Bank.

FIGURE 1.3 Growth accounting in Madagascar and aspirational peers



Source: Conference Board, World Bank.

FIGURE 1.4 Sectoral contributions to GDP growth over the period 2013–19



Source: Instat, World Bank.

Poverty reduction made limited headways in the period leading up to the pandemic. The share of the population living in extreme poverty (below the international poverty line of US$1.90 per day in 2011 PPP) is estimated to have fallen slightly from 78.8 percent in 2012 (the last year for which household survey data is available) to 77.4 percent in 2019. The persistence of high monetary poverty during the pre-crisis period reflected primarily the slow pace of income per capita growth and the associated lack of economic opportunities. The prevalence of extreme poverty was significantly higher in rural areas, due to low and generally declining labor productivity in agriculture, the lack of accumulation of productive and human capital, and exposure to frequent climatic shocks. This continued lack of progress in raising living standards and reducing poverty sets Madagascar apart from most other peers (Figure 1.5).

Access to basic services improved, but gains concentrated in wealthier regions. Modest improvements in access to electricity, sanitation, housing, and cooking fuel helped reduce non-monetary poverty rates during the decade leading up to the pandemic but these were largely concentrated in wealthier Northern regions (Figure 1.6), exacerbating the gap with Southern regions where limited progress was observed (Figure 1.7), including in child mortality, nutrition, access to water and school attendance. Worryingly, non-monetary poverty increased in urban areas as a rapidly growing urban population put severe strains on infrastructure and public services, as visible in deteriorating access to water, electricity, and housing (Figure 1.8).

FIGURE 1.5 Poverty rate in Madagascar and aspirational peers

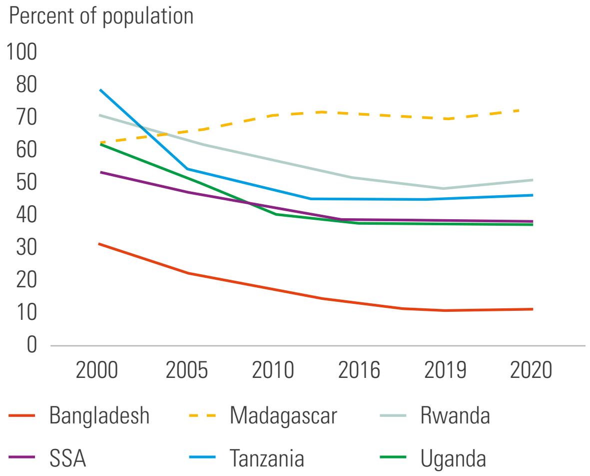


FIGURE 1.6 Indicators of deprivation in the Sava region (North)

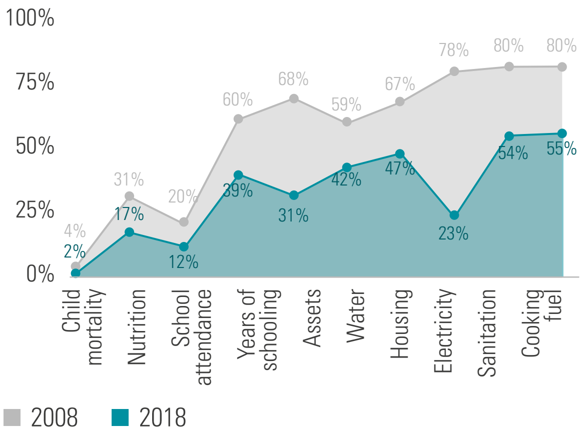


FIGURE 1.7 Indicators of deprivation in the Atsimo–Andrefana region (South)

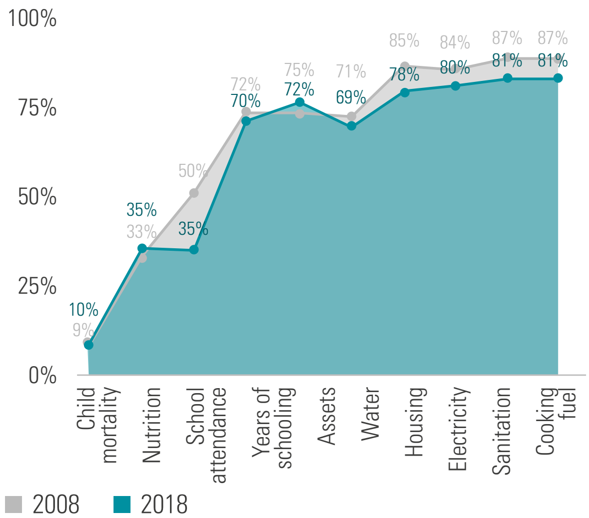
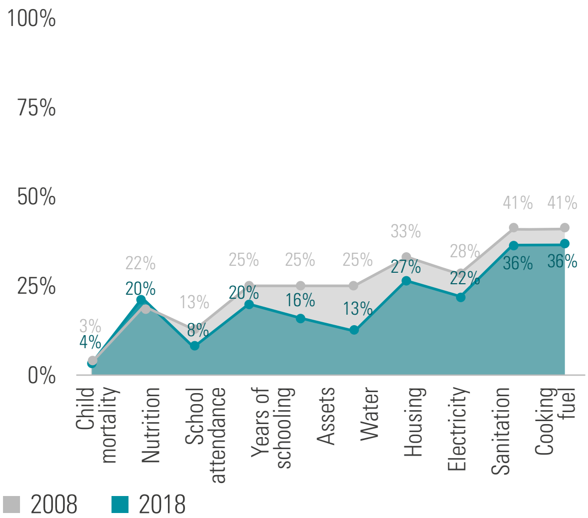


FIGURE 1.8 Indicators of deprivation in urban areas

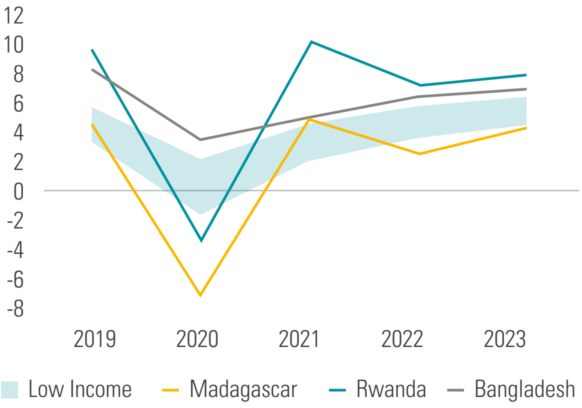


Source: MICS (2018), DHS (2008), World Bank.

Large socio-economic impacts of the 2020 recession

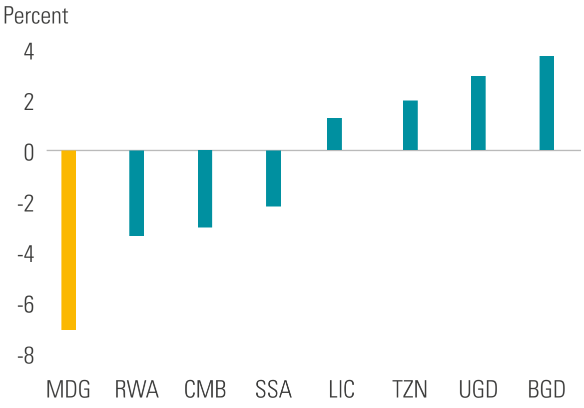
The COVID-19 pandemic triggered one of the deepest recessions in Madagascar's history. A collapse of export revenues and private investment resulted in a GDP contraction of 7.1 percent in 2020, which was the sharpest recession since 2002 and about three times deeper than in the rest of Sub-Saharan Africa (Figure 1.10). In this context, income per capita contracted by 9.6 percent in 2020, falling back to new historical lows.

FIGURE 1.9 GDP growth in Madagascar and low–income countries



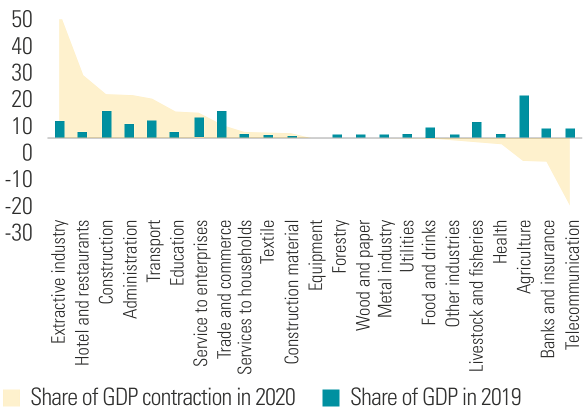
Source: World Bank.

FIGURE 1.10 GDP growth in 2020 in Madagascar and peer countries



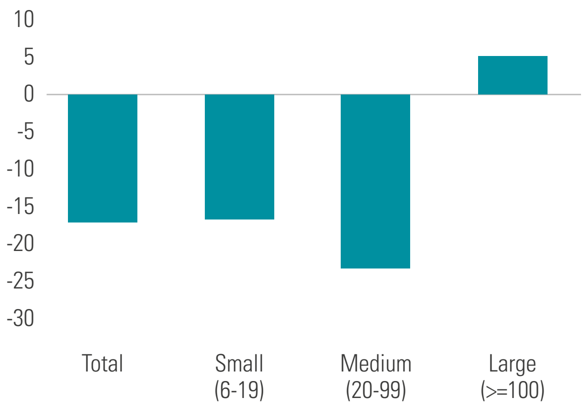
Source: World Bank.

FIGURE 1.11 Sectors' contribution to the GDP contraction in 2020



Source: Instat, World Bank.

FIGURE 1.12 Employment change by firm size



Source: Instat, World Bank, High Frequency Surveys, 2020.

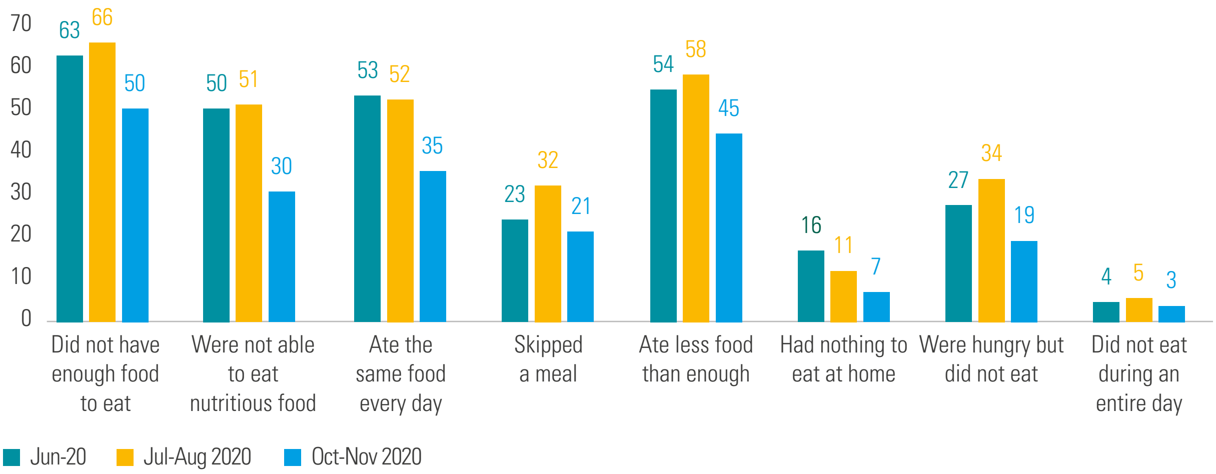
Mining, tourism, transport and public services were hardest hit. Industrial output contracted by -19.5 percent in 2020, with the temporary shutdown of mining activity accounting for nearly 50 percent of the GDP contraction that year (Figure 1.11). Tertiary sector activity suffered a sharp drop as well, with activity in tourism sector coming to a standstill. Public works and transport were also significantly impacted by the interruption of public services, lockdowns in major cities and travel restrictions. In contrast, telecommunications, healthcare and financial services posted gains, which helped offset contractions in other services subsectors.

Agriculture, livestock, fishing and forestry experienced low but positive growth during the recession. In particular, rice and cassava production, which account for a significant share of food consumption, increased in 2020, while the output of forestry, livestock and fishing subsectors was stagnant. Despite gains in agricultural output at the national level, extreme droughts in the South led to widespread crop failures and rising food insecurity. The lack of pasture and water led to the loss of livestock, while an outbreak of Rift Valley Fever affected pastoralist livelihoods.

Smaller enterprises have been hurt the most. While all firms were impacted by the economic downturn, small and medium sized enterprises (SMEs) experienced the biggest revenue contraction and have also shed the most jobs (Figure 1.12). Businesses with access to digital platforms have fared better as they were able to ensure the continuity of their activities and consequently, protect jobs. Out of the surveyed firms, 41 percent were able to improve their operations thanks to digital technologies, with social distancing measures accelerating the use of digital technologies for both public and private services.

More than a decade of gains in poverty reduction have been reversed in a year. The share of the population in extreme poverty is estimated to have risen to 81 percent in 2020, up from 77.4 percent in 2019, implying that an additional 1.8 million people fell below the international poverty line of $1.90/capita/day (in 2011 PPP) during the recession. These impacts reflect job losses in the formal sector and declining incomes more generally. By the end of 2020, 48 percent of employees reported having received their normal wage, while 30.6 percent had received no payment since the start of the crisis. In this context, the share of households that reported having reduced food consumption, sold assets, and/or borrowed in response to the pandemic increased significantly during the crisis, with 50 percent of all households reporting that they did not have enough food to eat at the end of 2020 (Figure 1.13).

FIGURE 1.13 Share of households experiencing food insecurity



Source: Instat, World Bank, High Frequency Surveys, 2020.
Notes: The results are based on 3 waves of the High Frequency Survey (HFS). The 1st wave took place in mid-June reaching 1,240 households. The second and the third waves covered each 1,580 households and took place in August and November 2020.

A fragile and lopsided recovery during 2021

COVID-19 outbreaks continued to disrupt activity in 2021, but a recovery was ongoing. Madagascar faced two additional waves of COVID-19 in 2021, one starting in March and another in November (Figure 1.14). The State of Emergency was re-instated during the second wave but was lifted again in September 2021. Beyond special flights for emergency and repatriation purposes, Madagascar has remained shut to air passenger traffic for most of 2021. A partial reopening was operated in October 2021, with traffic remaining at about a third of pre-crisis levels (Figure 1.15). Between the second and third wave of pandemic, domestic activity had started to recover but private investment remained subdued and employment registration started moderating again towards the end of the year (Figure 1.16).

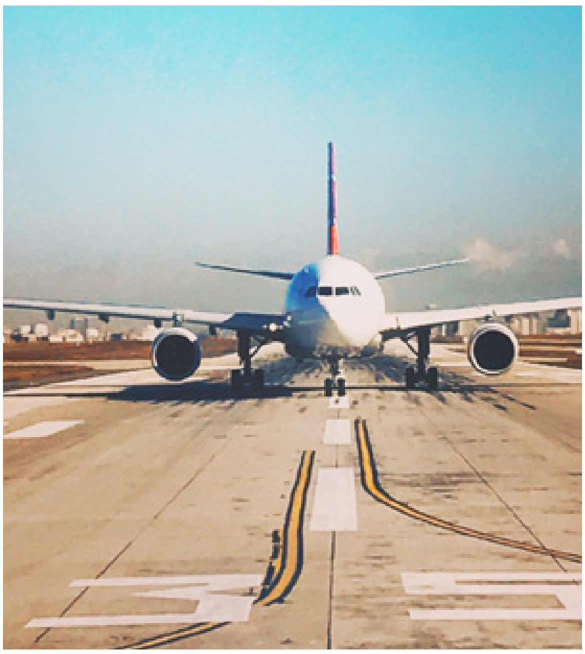
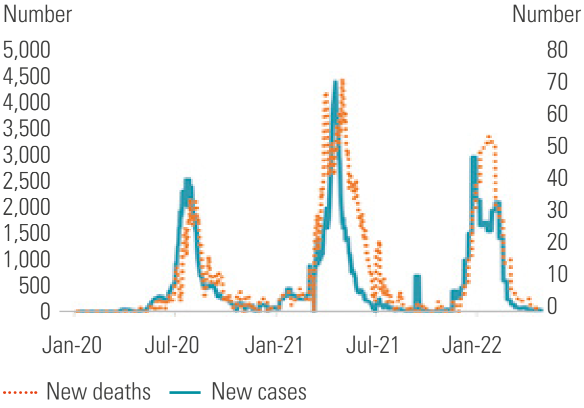
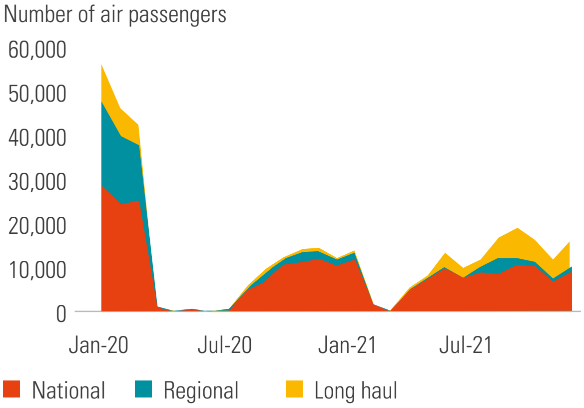


FIGURE 1.14 Weekly COVID–19 cases



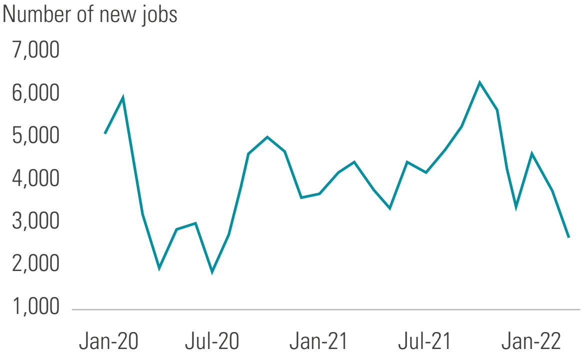
Source: World Bank.

FIGURE 1.15 Number of air passengers



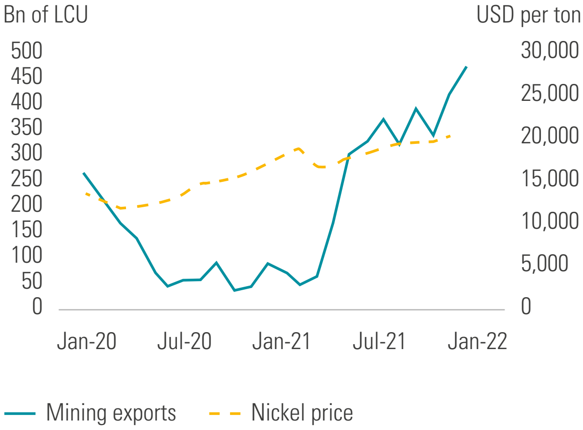
Source: Instat, World Bank.

FIGURE 1.16 Employment registration



Source: Instat, World Bank.

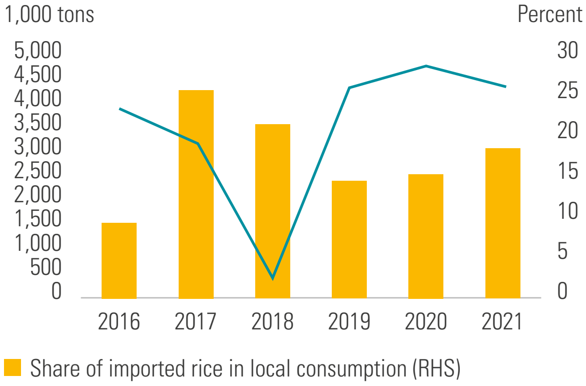
FIGURE 1.17 Mining exports and nickel price



Source: Instat, World Bank.

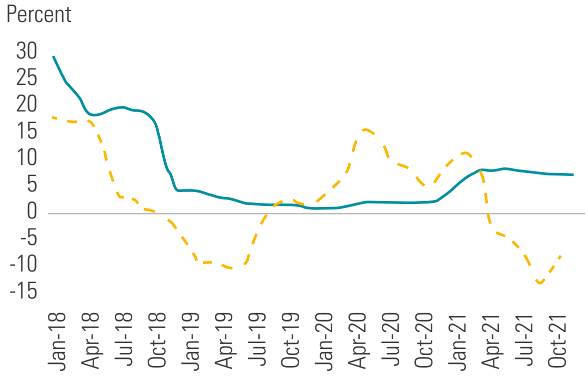
Export revenues were bolstered by the resumption of mining production and strengthening global demand. Mining export recovered rapidly following the reopening of the Ambatovy mine in March 2021, which led to a significant rebound in revenues (Figure 1.17) and contributed to a faster-than-expected pick up in GDP growth during the third quarter of 2021. Other supportive factors included strong global demand and rising prices of nickel and cobalt, bolstered by accelerating stainless-steel production in China (which accounts for about two thirds of global nickel consumption) and a surge in electric vehicle sales (boosting the demand for battery components). A rebound in export revenues was also observed in the vanilla and textile sector.

FIGURE 1.18 Rice production and imports



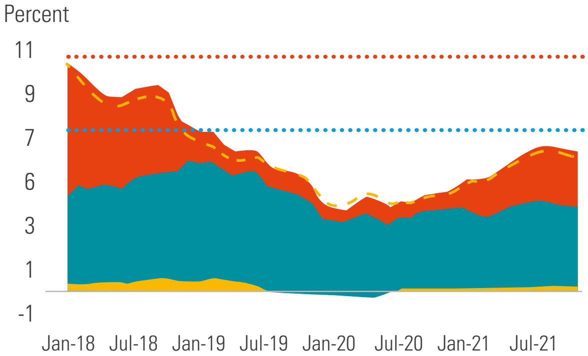
Source: Instat, World Bank.

FIGURE 1.19 Domestic and international rice price inflation



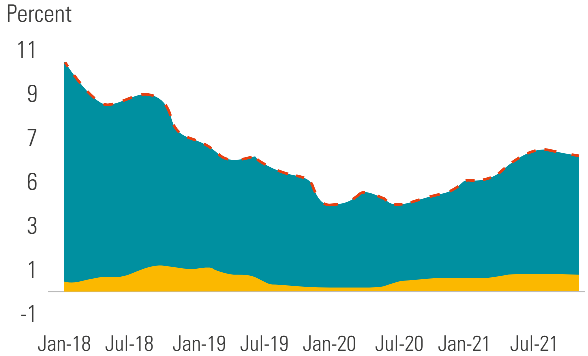
Source: FAO, Instat, World Bank.

FIGURE 1.20 Inflation and contribution from food and energy prices



Source: Instat, World Bank.

FIGURE 1.21 Inflation and contribution from imported goods and services

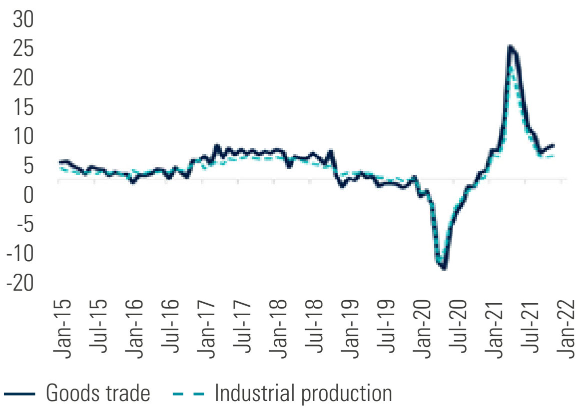


Source: Instat, World Bank.

Rice production declined. National paddy production dropped about 6 percent in 2021 (to an estimated 4 million tons), despite relatively favorable weather in the central and northern regions (Figure 1.18). Sown areas declined, owing to a poor start of the rainy season and the impact of the recession on farmers ability to save and invest. Given domestic production shortfalls the import of rice accelerated in 2021, covering 18 percent of the domestic consumption (up from 15 percent in 2020). Deteriorating supply conditions contributed to an uptick in the price of rice, which was at the end of 2021 about 7 percent higher than a year earlier (Figure 1.19). This acceleration occurred after a prolonged period of relative price stability and contributed to amplify the impact of the crisis on vulnerable households. This said, this episode of rice price inflation was about four times milder than that observed during 2018 upsurge. The government imposed a ceiling on the retail price of imported rice in December 2020 and intervened on the market through the State Procurement of Madagascar by importing and distributing subsidized rice.

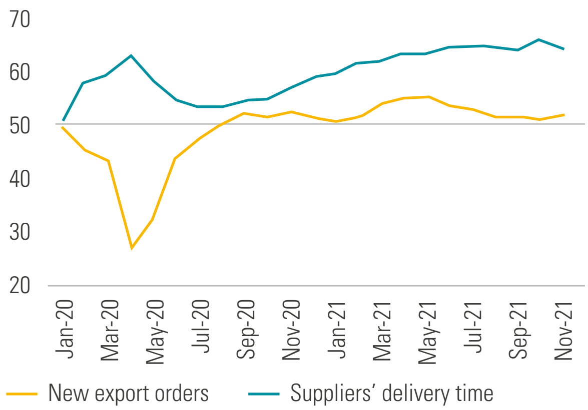
Inflation rose but remained below historical averages. Since reaching a two-decade low of 3.9 percent around mid-2020, inflation has been trending upwards, reaching 6.2 percent in December of 2021 (Figure 1.20). While the increase was noticeable, inflation remained still below historical averages and was not particularly elevated from an international perspective, as supply chain disruptions, higher commodity prices and recovering demand led to a broad-based increase in inflationary pressures in both advanced and developing economies during 2021. Price increases in Madagascar were most noticeable in the food sector and reflected local market conditions, as both imported and semi-imported products did not contribute much to the uptick in consumer price inflation (Figure 1.21).

FIGURE 1.22 Global trade and industrial production



Source: CPB, World Bank.

FIGURE 1.23 Global export orders and supplier's delivery time



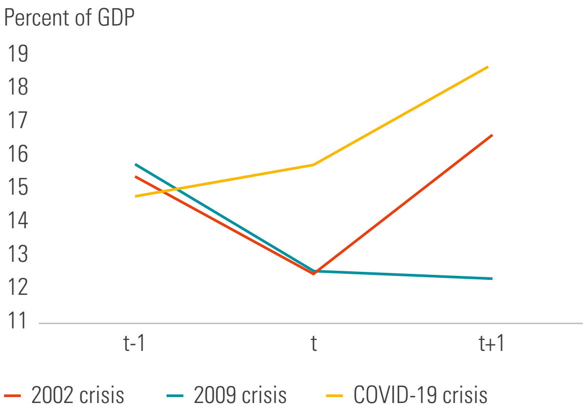
Source: Markit, World Bank.

Growth among trading partners lost momentum since mid-2021. Global trade was growing at a robust pace at the start of 2021, as activity in China, the United States and Euro Area recovered in unison from the 2020 recession and as global demand rotated toward more trade-intensive manufactured goods. However, the recovery in those economies lost steam during the second half of year reflecting the resurgence of the pandemic, diminishing policy support, supply bottlenecks and rising inflation (Figure 1.22). This contributed to a deceleration in global demand, including for goods and agribusiness products exported by Madagascar. Significant strains in global supply chains were observed last year, constraining activity and pushing up prices, but these are expected to be mostly transitory, reflecting pandemic-related factory and port shutdowns and logistics bottlenecks (Figure 1.23).

Monetary and fiscal policy played a stabilizing role

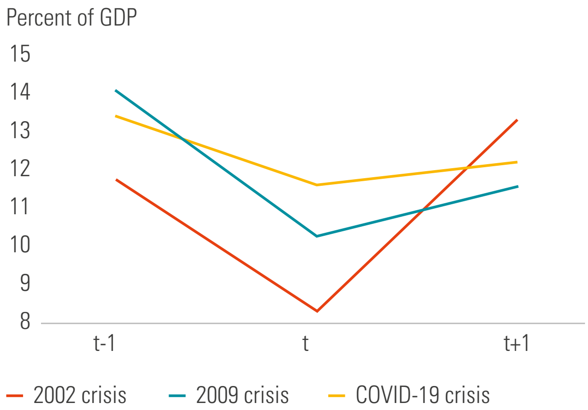
Fiscal policy contributed to limit the impact of the crisis, in contrast with previous recessions. Access to emergency lending allowed the government to increase public spending in both 2020 and 2021, in contrast with the experience of previous recessions when a sharp contraction in public spending deepened the contraction in activity (Figure 1.24). This response also contrasted with that of a majority of emerging and developing economies, which generally cut public investment amid tightening financing conditions. On the revenue side, the shock was milder than during previous recession episodes (Figure 1.25). While helping to alleviate the impact of the crisis, this countercyclical increase in both current and capital spending led the budget deficit to 4.1 percent in 2020, which contributed to an uptick in public debt to 49 percent of GDP in 2020, up from 38.5 percent in 2019, but still well below risk thresholds considered for a country like Madagascar.

FIGURE 1.24 Public spending to GDP ratio during crisis episodes



Source: IMF, World Bank.

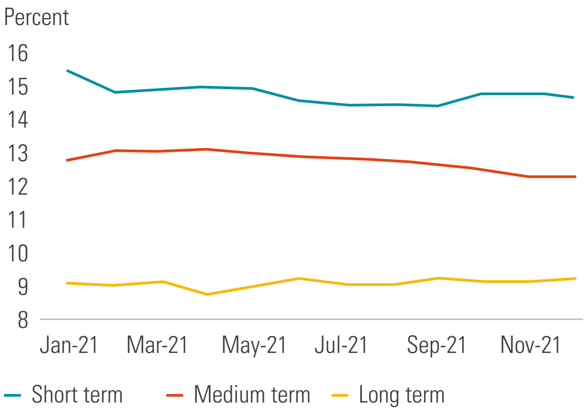
FIGURE 1.25 Public revenue to GDP ratio during crisis episodes



Source: IMF, World Bank.

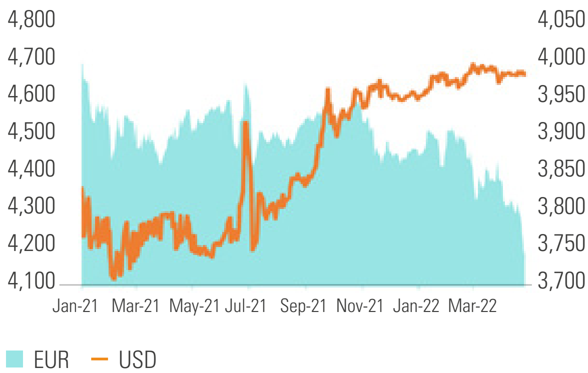
Price and exchange rate stability was maintained. An uptick in inflation led the central bank to raise interest rates twice in 2021, and again in May 2022, but the monetary policy stance remained broadly accommodative (Figure 1.26). The central bank narrowed the interest rate corridor by raising interest rates on its deposit facility while maintaining interest rates on its marginal lending facility and the reserve requirement unchanged to continue to stimulate credit to the private sector. The gradual transition of the monetary policy framework to an interest rate targeting system has helped to improve monetary policy transmission while enhanced foreign exchange market operations contributed to smooth exchange rate fluctuations, alongside ample foreign exchange reserves supported by significant emergency lending operations by development partners (Figure 1.27).

FIGURE 1.26 Average lending rates



Source: BFM, World Bank.

FIGURE 1.27 Exchange rate



Source: BFM, World Bank.

The financial sector was recovering in 2021, although areas of weakness persisted. Lending from the banking sector recovered somewhat in 2021, while liquidity remained adequate, capital adequacy ratios were above minimum requirements, and profitability improved. The resilience of the banking sector is explained by conservative financing policies and control exercised by international banking groups, rather than by the effectiveness of regulatory and supervisory arrangements. Banks have been traditionally risk averse in their lending practices and favored a business model based on charging high real interest rates and fees on loans to a limited number of creditworthy clients. This small client base limits financial inclusion and is a source of a risk for the banking sector as it increases exposure to idiosyncratic shocks.

Factors of fragility have continued to intensify in 2021

Historic droughts have led to crop failure and widespread food insecurity in the South. Exceptionally low rainfalls caused devastating damage to agricultural production during the main harvest in 2021, with losses of up to 60 per cent in three of the most populated districts (See Box 1 for details). Moreover, seed stocks were severely depleted, with an estimated 70 percent of households in the Androy and Anosy regions reported having no seeds or other inputs critical to reviving agricultural production. Households in many areas ran out of food reserves much earlier than usual and have resorted to desperate feeding practices. Many households have also been forced to sell assets, accumulate debt, or migrate elsewhere in search for food. However, evidence suggests that migration out of the most affected regions remains primarily local, likely reflecting the cost of moving to more remote areas and constrains to settling in denser urban areas. In fact, most migrants from Atsimo Andrefana and Androy appear to remain in those regions while a smaller proportion are seeking to move further North in regions like Mianavaratra in central Madagascar or Boeny in the North-West. Analamanga, the region of the capital, doesn't appear to be a major destination for migrants from Southern regions during the recent drought episode. A majority of migrants are not expected to return to their place of origin in either the short or medium term.

Health and education outcomes have worsened. In addition to the impact of the crisis on poverty, access to services has also been negatively affected. Estimates suggest that due to disruptions in health services, child mortality and maternal mortality in Madagascar could have increased in 2021 by 18 percent and 12 percent respectively. School closures increased already high drop-out rates among poorer children, while household surveys indicate that the low proportion of children able to engage in remote learning likely worsening learning inequality. Gender-based violence also increased while the provision of services to address the risk and protect young girls have been disrupted.

Environmental sustainability has been negatively impacted. Madagascar remains highly vulnerable to the over-exploitation of natural resources, with their depletion resulting from the unregulated expansion of extractive industries, illegal trafficking, and open access to common resources, such as forests and fisheries. The pandemic has placed additional pressure on natural resources by reducing the availability of public funding to manage protected areas while the economic downturn pushed more people into poaching, deforestation and other illegal activities.

Box 1: Food Security Crisis in Madagascar's 'Grand Sud'

Decades of underinvestment compounded by a severe and prolonged drought has contributed to one of Madagascar's worst food crises. The South of the country experienced five below-average rainy seasons since 2015, leading to broad-based crop failure[1] and pushing an estimated 1.64 million people in a state of acute food insecurity by early 2022.[2] More than 300,000 children are expected to suffer from acute malnutrition during 2022.

The drought-induced crisis has coincided with the COVID-19 pandemic, amplifying downside impacts and aggravating poverty and vulnerability. COVID-19 restrictions disrupted food supply chain operations, reduced urban to rural remittances, restricted labor migration, and otherwise debilitated the population's traditional coping capacity. The supply of food and seeds, necessary for emergency provision and recovery, was also disrupted by movement restrictions.

1 For the main 2020–2021 agricultural campaign, food production was estimated to be less than 40 percent of the five-year average across large swaths of the southern region. Vegetable harvests were particularly affected: on average reduced by more than 80 percent compared to last year. Herd sizes (cattle and small ruminants) are about 40 percent lower than the previous year.

2 FEWSNET Food Security Outlook - Madagascar, December 2021. https://fews.net/southern-africa/madagascar/food-security-outlook/march-2021.

The drought crisis has compounded long-standing vulnerabilities in the South and driven communities to adopt extreme coping measures to survive. These include desperate feeding practices, such as eating clay mixed with tamarind, termites and grasshoppers, wild tubers, or unripe mangoes, accumulating debt, or selling their critical livelihood assets such as livestock, farm implements, kitchen utensils, and even their land to buy food and other essentials needed to survive. Others have resorted to engaging in illegal activities in the South-West while countless thousands have been forced to migrate elsewhere in search for food and assistance.

The crisis has been the catalyst to initiate a new development strategy for the South. Following the launch of the National Response Plan and the Flash Appeal in June 2021, the Government convened the 'Regional Symposium for the Emergence of the Deep South of Madagascar' ('Colloque Regional pour l'Émergence du Grand Sud de Madagascar'), to consult and agree on a comprehensive humanitarian and development strategy for the South. This process emphasized the need to move beyond a humanitarian crisis response to interventions that will more systematically address the drivers of vulnerability and enhance the resilience and coping capacity of communities.

Amid massive assistance and expectations of the first good harvest in years in some areas, the food security situation appears to be improving. Reflecting more supportive rainfall trends and crisis response interventions, more than a half-million people are expected to move out of crisis status over the period from May to August 2022. However, roughly 1.1 million people are expected to continue facing high acute food insecurity, corresponding to 25 percent of the population in affected areas, including an estimated 182,000 people facing emergency conditions.

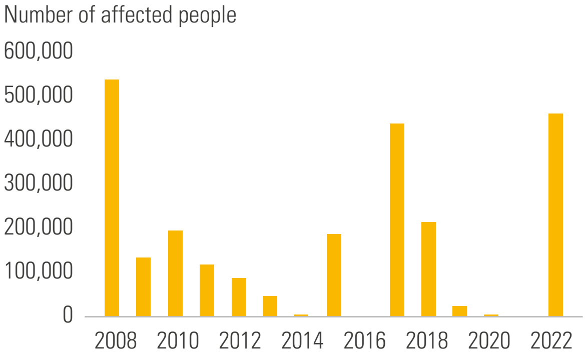
OUTLOOK, RISKS, AND POLICY CHALLENGES

New headwinds weighing on growth prospects

Growth is projected to moderate in 2022, reflecting a combination of severe domestic and international shocks. The combined impact of a third wave of the pandemic around the turn of the year, 4 major tropical storms hitting the country since January and the escalating conflict in Ukraine are expected to result in growth dipping in 2022 to 2.6 percent (less than half of the previous forecast of 5.4 percent), while inflation accelerates to 7.5 percent (compared with 6.3 percent previously expected) and the current account deficit widens to 7.0 percent (compared with 5.4 percent previously).

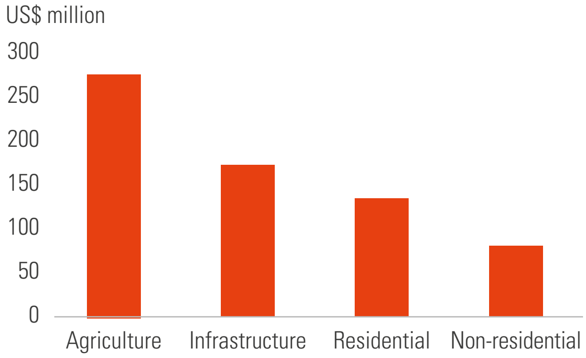
The cyclone season was one of the most disruptive in recent years. More than 450.000 people were affected by the four tropical storm systems hitting Madagascar during the first quarter of 2022, the largest number since 2008 (Figure 1.28). According to initial estimates, damages could amount to $660 million, or 4.8 percent of GDP, with reconstruction and recovery efforts likely extending over a decade in the most affected areas. The loss of crop and agriculture assets would account for 42 percent of estimated damages (Figure 1.29). High poverty rates, a lack of functional institutions, and decades of underinvestment in infrastructure have amplified the vulnerability of farming communities, especially among women and other marginalized groups, undermining their capacity to mitigate and recover from climatic and other shocks. Supply disruptions could continue to impact economic activity for several months.

FIGURE 1.28 Populations affected by cyclones



Source: EM-DAT, World Bank.

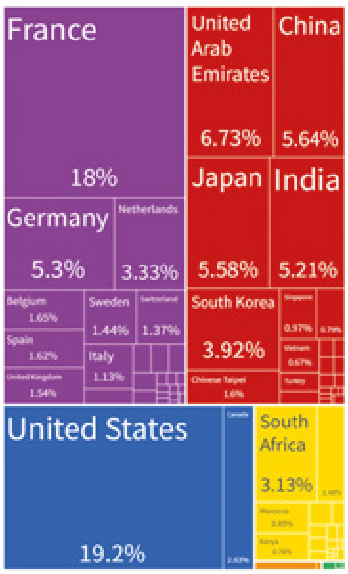
FIGURE 1.29 Estimated damages from the four tropical storm systems in 2022



Source: GFDRR, D-RAS, World Bank.

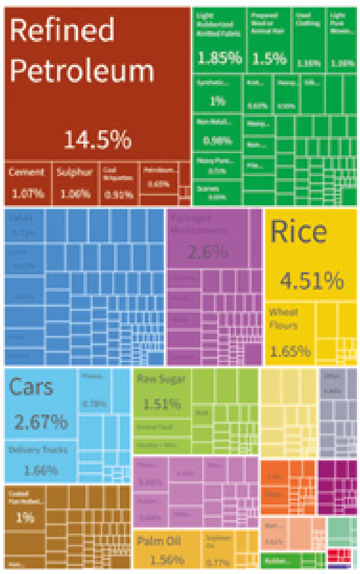
The conflict in Ukraine will have significant repercussions on growth prospects among major trading partners, reducing demand for Madagascar's exports. As the European Union is the destination of more than 32 percent of Madagascar's exports, well ahead of the United States (20 percent) and China (5 percent), the deepening energy crisis in Europe will have a significant knock-on effect on economic prospects in Madagascar (Figure 1.30). The downgrading of Euro Area growth projections alone is expected to reduce growth in Madagascar by 0.3 percentage points in 2022. The impact will be felt mostly through a deceleration in export demand for key agribusiness and manufactured products, including textile, as well as a slower-than-expected recovery in tourism arrivals. The impact from slowing demand in the United States and China will be less pronounced, reflecting more moderate effects of the conflict on those two economies (the United States is a major producer of oil and natural gas, and China has a lower share of oil in its energy consumption) as well as smaller bilateral trade flows. Overall, the impact of slowing demand from major trading partners is expected to shave about 0.5 percentage points off 2022 growth projections for Madagascar.

FIGURE 1.30 Export destinations – 2019



Source: OEC, World Bank.

FIGURE 1.31 Import structure – 2019



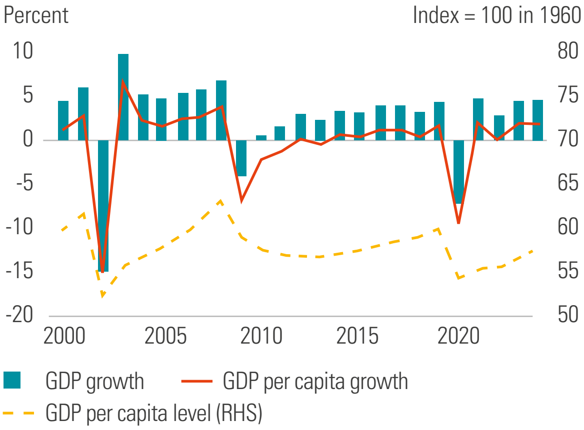
Source: OEC, World Bank.

Rising international energy prices, and to a lesser degree, rising international food prices will also have adverse effects, particularly on public finances given price regulations and government interventions. Increasing international oil prices will contribute to widen the trade and current account deficits, as refined petroleum products account for 14.5 percent of the total value of imports in Madagascar, or 5.1 percent of GDP (Figure 1.31). It will also entail significant fiscal pressures reflecting an increase in government liabilities vis-à-vis fuel distributors as regulated pump prices will only partially adjust to rising international prices and as the public utilities company JIRAMA and the national airline Air Madagascar will face rising fuel costs. Considering the possibility of a fuel price adjustment at the pump in June, liabilities towards oil distributors are estimated to increase by about US$40 million in 2022 (0.3 percent of GDP) while fuel costs at JIRAMA by US$117 million in 2022 (0.8 percent of GDP), deepening losses and requiring additional public transfers. The increase in international food prices such as wheat, edible oil, and corn will have a significantly milder effect on the trade balance given their limited share in overall imports. For instance, wheat flour accounts for 1.9 percent of import values (0.7 percent of GDP), compared to 4.5 percent for imported rice (1.6 percent of GDP). Baseline projections assume a 35 percent increase in both oil and wheat prices in 2022 (compared with 2021). Under this scenario, total oil and wheat imports value would increase in 2022 by 1.8 and 0.2 percentage points of GDP, respectively, corresponding to a total increase in import costs of US$230 million. The impact on consumer price inflation will be modest, given that 86 percent of the consumption basket is made of domestic products and wheat imports amount to about 1 percent of total consumer spending. Moreover, the State Procurement of Madagascar (SPM) is intervening directly in the purchase and distribution of imported food and first necessity goods to cap prices.

The increase in import costs will be partially offset by the rising price of nickel, cobalt and gold. The conflict in Ukraine has contributed to a sharp increase in the price of nickel, which accounts for 14.7 percent of total export revenues in Madagascar (4.5 percent of GDP). Assuming that Nickel prices in 2022 remain on average 40 percent above 2021 levels, this would add 1.8 percentage points of GDP in export revenues, or $190 million. However, the price of Nickel has been extremely volatile since the start of the conflict in Ukraine, making any assumptions for 2022 highly uncertain. The impact of rising prices of cobalt and gold would be less pronounced, reflecting more limited price changes and the smaller share of these metals in export revenues. Overall, the impact of recent commodity price shocks on Madagascar's terms of trade is predicted to be moderately negative in 2022, with the deceleration of export volumes being a key driver of the projected widening of the trade and current account deficit this year.

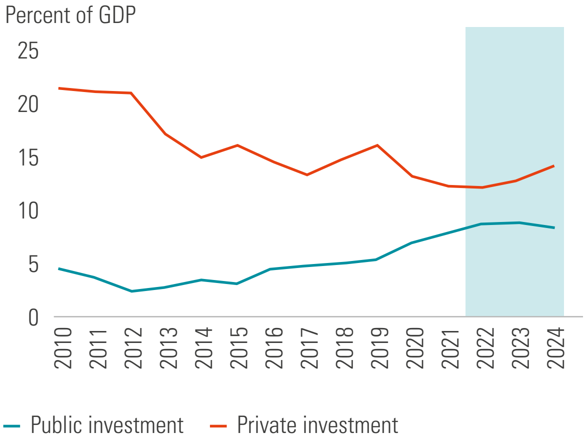
The government announced increases in public wage salaries and support for minimum wages in the private sector to offset the impact of higher inflation on

FIGURE 1.32 Growth and income per capita levels



Source: World Bank.

FIGURE 1.33 Public and private investment rates



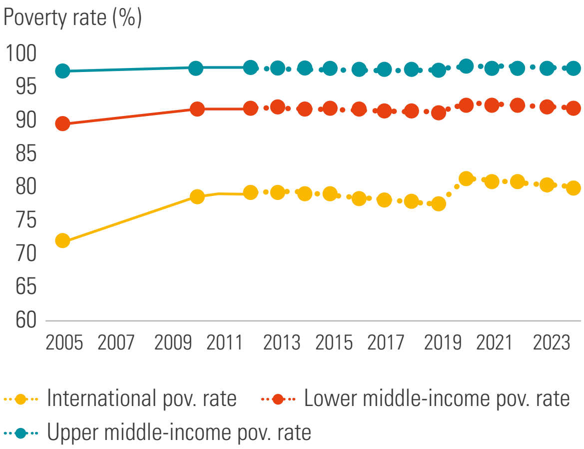
Source: World Bank.

purchasing power. A public sector wage increase of 13 percent on average is expected to increase the wage bill by about 0.4 percent of GDP in 2022 and 0.9 percent of GDP in 2023. The minimum wage in the private sector was increased by 25 percent (from MGA 200,000 to MGA 250,000), 15 percent of which will take the form of public support through reduced social security contributions. This would amount to an additional 0.03 percent of GDP in public support for 2022 and 0.05 percent in GDP in 2023. As a result of these measures, as well as the expected payments of accumulated liabilities towards fuel distributors, additional transfers to JIRAMA and the impact of slowing growth on revenues, the budget deficit is expected to increase to 7.2 percent of GDP in 2022, up from 6.3 percent in 2021.

Growth is projected to recover at a slower-than-expected pace in 2023 and 2024. Growth is expected to pick up to 4.2 percent in 2023 (compared to a previous projection of 5.1 percent) and 4.6 percent in 2024, driven by a modest rebound in consumer spending and private investment (Figure 1.32). Beyond conjunctural factors, the growth potential of the economy remains low and has been negatively impacted by the crisis. First, job losses are expected to have pushed more people into self-subsistence agriculture and low-productivity informal services. This process, which impacts aggregate productivity and living standards, has been observed during previous recessions and proved difficult to reverse even as activity recovered. Second, the quality of human capital has been impacted, with evidence of deteriorating learning outcomes and the loss of on-the-job skills. Third, economic and policy uncertainty remains elevated, which has caused firms to delay or scale down investment plans, with negative consequences for growth and jobs prospects (Figure 1.33). These factors are expected to result in the growth potential of the economy slowing to around 4 percent in the absence of reforms enabling more private investment and job creation.

Against this backdrop, the poverty rate is expected to remain well above pre-crisis levels. The expected recovery in economic activity in 2023-24 will translate into a gradual decline in poverty rates, from an historical high of 81 percent in 2020 to 80.2 percent in 2023 and 79.9 percent in 2024, thereby remaining well above pre-crisis levels (Figure 1.34). Progress with poverty reduction will largely be determined by the capacity of the economy to bounce back and the absence of additional climate or other shocks.

FIGURE 1.34 Poverty rate and GDP per capita

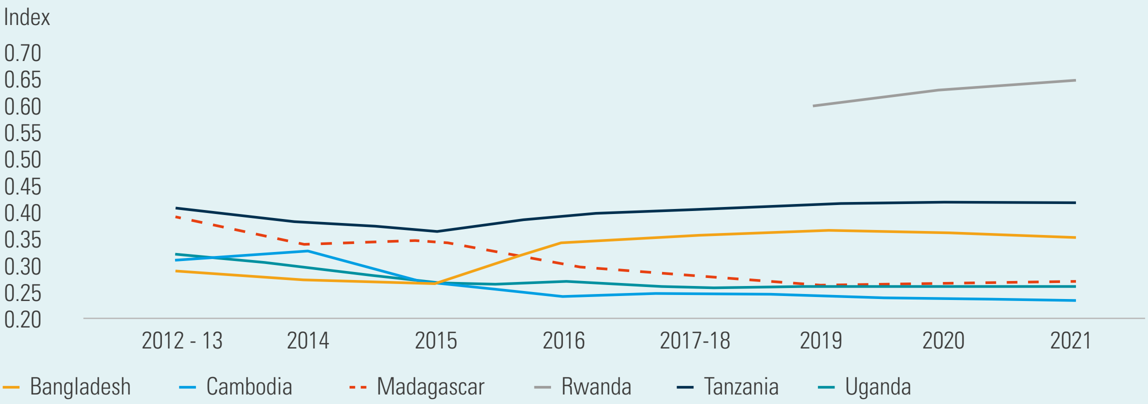


Source: World Bank.

Box 2: Transparency and accountability during the COVID-19 crisis

The government has implemented reforms to promote budget transparency in recent years, including the 2019 Open Budget decree and the 2020 COVID-19 fund decree. This led to the publication of a dashboard on budget execution performance and sporadic information on COVID-related funds, but implementation has been slow and the timeliness and quality of the data remains weak.

FIGURE BOX 1 Control of corruption



Source: World Justice Project.

The Government has recently published the findings of four audit reports by the Court of Accounts on government operations during the COVID-19 crisis. The auditor highlighted evidence of widespread weaknesses in the budget control framework, including several examples of senior management override of procurement processes and payments through the use of emergency procedures that have legally unclear applicability, coverage and duration. Moreover, the government seemed to have relied heavily on the use of direct contracting as the standard for COVID-related spending.

While an accountability framework is in place, its effectiveness remains limited. Over the years, successive administrations have established an anti-corruption system composed of several institutions with mandates ranging from prevention to investigation and prosecution. The enforcement of anti-corruption policies also remains deficient; with insufficient financial autonomy and human resources for anti-corruption agencies, lack of effective focus on high vulnerability areas such as public sector recruitment, public procurement, and illicit asset recovery. Moreover, the Parliament adopted a revision to the anti-corruption law in 2021 limiting the mandate and independence of Anti-Corruption Poles. As a result of the index of corruption in the World Justice Project (WJP) dropped further in 2021, and remains below aspirational peers like Rwanda, Tanzania, or Bangladesh (Figure Box 1).

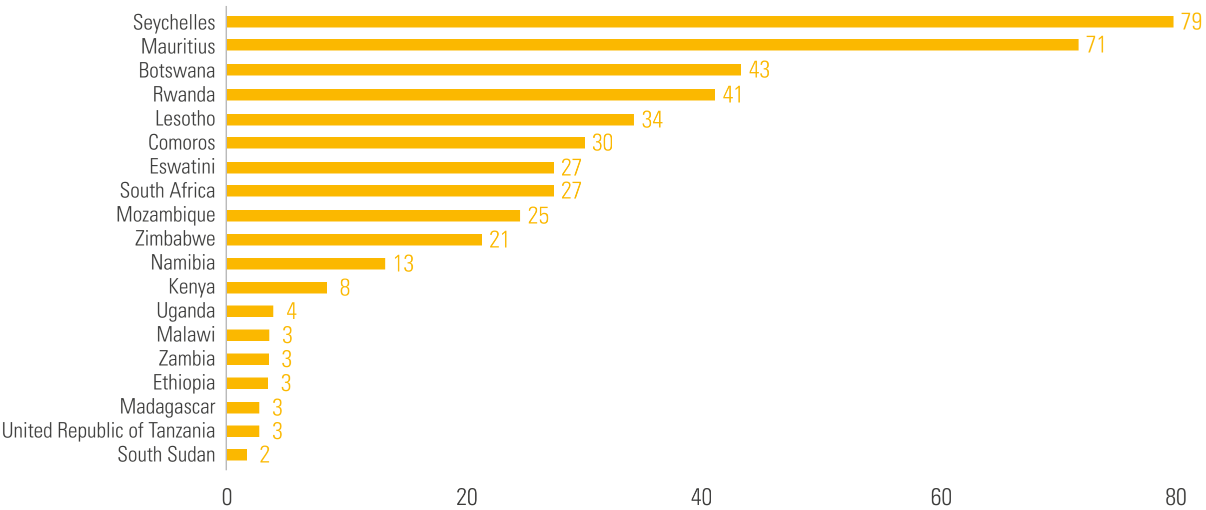
A renewed commitment to greater transparency and accountability of civil servants and public and elected officials will be critical to restore trust in government and reinforce the social contract between the state and the population. This requires strengthening accountability institutions including anti-corruption institutions and the court of accounts and enforcing rules on asset declarations, asset recovery, and whistleblower protection. Accelerating the modernization and digitization of public financial management systems which continue to suffer from weak capacity and siloed management and information systems would ensure more transparency and reduce waste and corruption.

The outlook is subject to growing risks

Both international and domestic risks have increased. At the international level, a further escalation of geopolitical tensions associated with the Russian invasion of Ukraine could have larger-than-expected repercussions on global energy, fertilizer and grain prices and trigger a recession among main trading partners. New variants of COVID-19 could also heighten the risk of a hard landing of the global economy, which would negatively impact a small open economy like Madagascar. At the national level, additional climate shocks could lead to further damages to infrastructure, crop production and the livelihood of most affected populations.

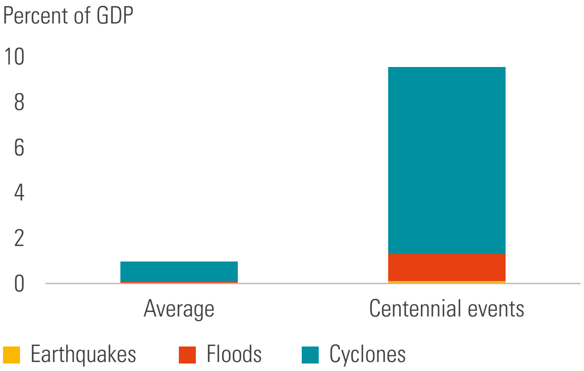
Low vaccination rates. The Government launched a vaccination campaign in March 2021 but only 4 percent of the population has been fully vaccinated so far, which is among the lowest rates in Sub-Saharan Africa (Figure 1.35). Amid high vaccination hesitancy, there is a risk that the objective of vaccinating 50 percent of the population by June 2023 will fall significantly short. In this context, the pandemic may become an endemic public health problem leading to recurrent and extended disruptions to economic activity and health services. The emergence of new strains that are able to circulate within previously infected populations could prove especially damaging. New variants could encourage governments around the world to reinforce travel restrictions and could make tourists more selective about travel destinations depending on vaccination coverage.

FIGURE 1.35 Ratio of completed COVID–19 vaccine dose series per 100 people



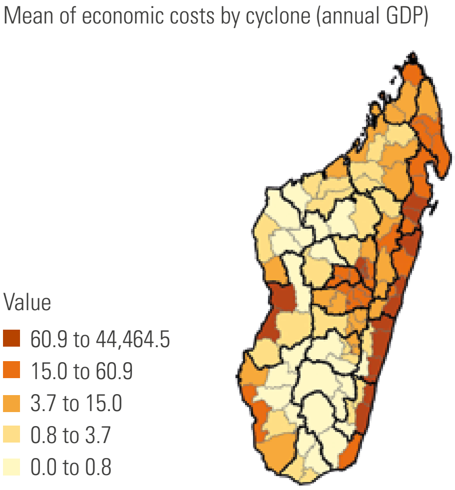
Source: WHO.

FIGURE 1.36 Estimated cost of natural disasters



Source: GFDRR and World Bank (2016).
Note: Modelled estimates of the total impact of hazards. Centennial events are once in 100-year estimated losses. A larger return period is associated with less likely occurrence but a greater intensity of disasters.

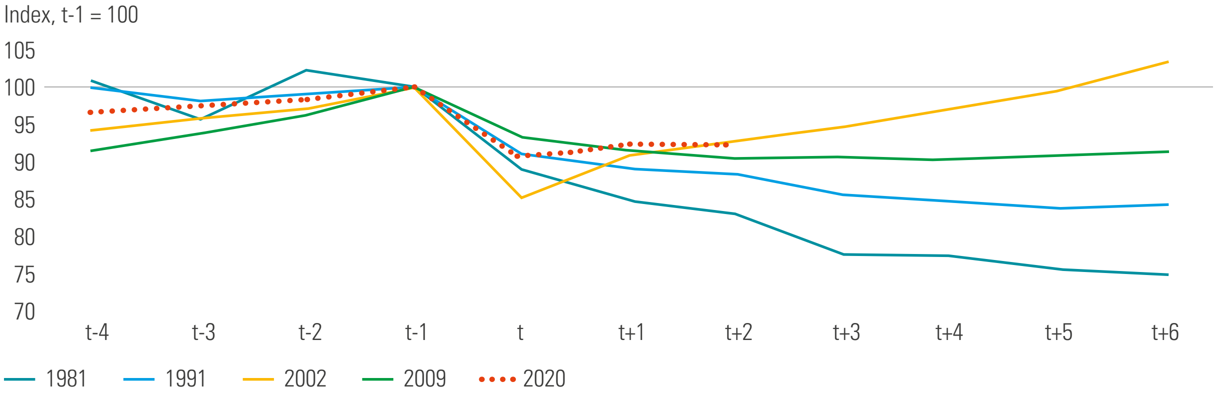
FIGURE 1.37 Economic costs of cyclones by region



Source: UNEP/DEWA/GRID-Europe.

Exposure to climate shocks. Madagascar has one of the highest cyclone risks among African countries, with an average of 3 to 4 cyclones affecting the country each year. The cyclone season (from November to March) consistently results in serious impacts such as crop loss, flooding, waterborne diseases' outbreaks, coastal degradation, and damages to critical infrastructure and services. On average, natural disasters are estimated to cost the economy about 1 percent of GDP each year, and up to 8 percent of GDP for once-in-a-century events (Figure 1.36), with devastating consequences for rural communities and agriculture-based activities along the Eastern Coast (Figure 1.37). This year's cyclone season was severe, with estimated costs significantly above historical averages. Beyond the frequency and severity of these shocks, other factors of fragility such as poverty, weak infrastructure, lack of access to public services and financial protection systems can turn even moderate events into humanitarian crises. Research suggests that while the frequency of cyclones might not necessarily increase in coming years, their intensity could, which would require stronger disaster risk management, more resilient infrastructure, and social safety nets.

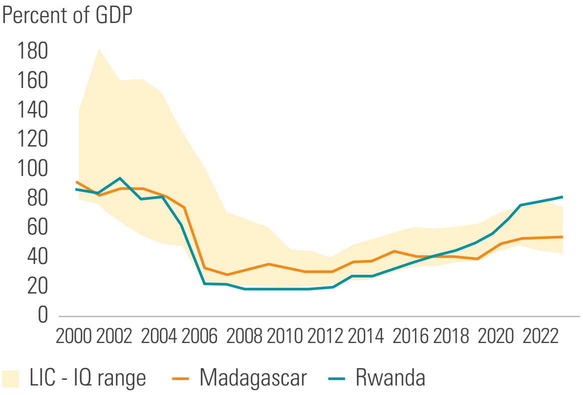
FIGURE 1.38 GDP per capita around crisis episodes



Source: World Bank.

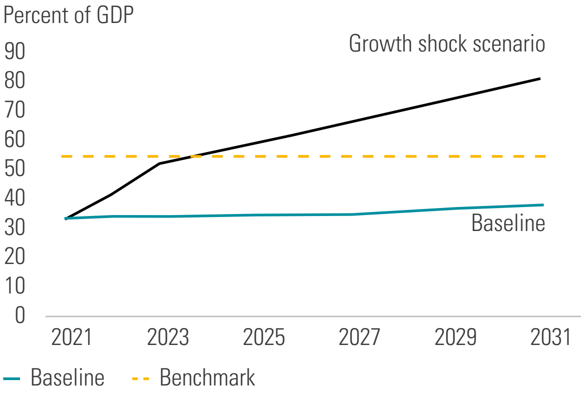
Political instability. Political crises have disrupted all but one growth spurts since independence in 1960 and have led to losses in GDP per capita far exceeding gains during periods of stability (Figure 1.38). These crises were manifestations of conflicts among the ruling elites jockeying to regain or maintain control of the country's natural resources. The 2009-13 crisis and particularly long, and had lasting economic and social impacts, including the suspension of preferential trade agreements and international aid, which contributed to a sharp decline in the delivery of services. Political stability has been maintained since the return to constitutional order in 2013, but social discontent could escalate amid rising poverty, higher inflation and a lack of progress with reforms.

FIGURE 1.39 Public debt to GDP ratio



Source: World Bank and IMF.

FIGURE 1.40 Public debt distress risks



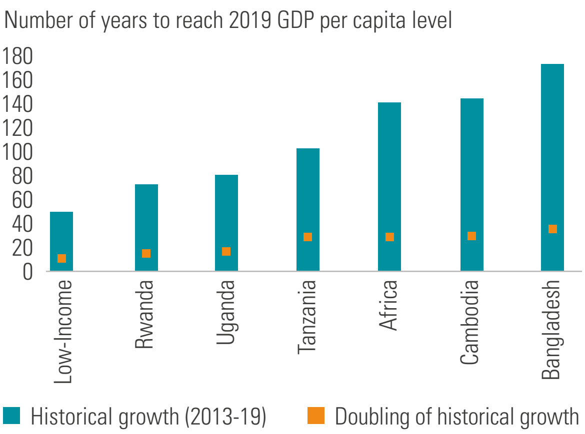
Source: World Bank and IMF.

Fiscal risks. Following an uptick to 7.2 percent of GDP in 2022, the budget deficit is predicted narrow gradually to reach 5.0 percent in 2024, mainly driven by a projected recovery in government revenues and post-election restraints on the spending side. Projected debt levels remain relatively modest compared to other low-income countries (Figure 1.39) and debt distress risks are assessed to be moderate, assuming ongoing reforms to boost domestic revenue mobilization and prudent management of contingent liabilities (Figure 1.40). However, experience from other low-income countries suggests that debt sustainability risks can rapidly escalate once debt dynamics start deteriorating. In fact, one-third of the countries that experienced an increase in debt distress risks from low to moderate (as Madagascar did in 2020) saw a further deterioration to high distress risks within three years. Among the fiscal risks that require particular attention in Madagascar is public investment management, institutional capacity to manage contingent liabilities, and growing financial pressures facing key SOEs, including JIRAMA and Air Madagascar. The creation of a sovereign wealth in 2021 also raises concerns as its resources, mandate, and governance framework remain unclear to this day.

Policy challenges and priority interventions

In the absence of a new drive for reforms, Madagascar risks falling further behind. Based on pre-crisis trends, it would take about 10 years of uninterrupted growth to revert the loss in average incomes that occurred during the 2020-22 crisis and 73 years to reach current living standards in Rwanda, which is Madagascar's closest aspirational peer (Figure 1.41). To have a meaningful shot at reducing extreme poverty in coming years, the country would need to sustain significantly higher and more inclusive growth. For instance, increasing Madagascar's average growth rate to 7 percent would allow shortening the time needed to catch up with Rwanda's current living standards by a factor of five (from 73 years to 15 years). This can only happen if the government kickstarts far-reaching reforms that will enable new investments in sectors critical to job creation and structural transformation, better access to basic infrastructure, greater resilience of vulnerable populations, and more transparency and accountability

FIGURE 1.41 Years needed to reach pre–crisis living standards of peers



Source: World Bank.

in public policies (see Chapter 2 for a discussion of governance reforms in the education sector). Concrete policy recommendations along those lines are presented in the recent World Bank's Systematic Country Diagnostic report,[3] but several reforms are highlighted here as being particularly urgent to speed up the recovery.

Accelerate COVID-19 vaccination to prevent further economic and social dislocations. At the current rate (less than 10,000 people vaccinated per week), it will take more than 20 years to reach the government's own objective, which fall short of the Africa CDC recommendations. While vaccine availability is not an issue, with more than 4 million doses received so far and another 3 million doses already secured, vaccine hesitancy is the most binding constraint to higher coverage. The impact of new waves of COVID-19 could quickly overwhelm health services and causes avoidable deaths. Impact of human capital are also significant, as school closures have significantly impacted learning outcome. Moreover, a tourism-dependent economy like Madagascar might not regain its attractiveness unless travelers are confident that COVID risks are minimized. Operational capabilities, vaccines and financing are available to support an acceleration of the vaccination campaign. A One Government Approach is needed, with a clear strategy to speed-up vaccination in targeted areas (urban, tourist areas and vulnerable groups) and stronger engagement to win over vaccine hesitancy.

Strengthen the response to recent climate shocks to avoid long-term damages. Addressing the ongoing food security crisis and building the resilience of food systems are critical to save lives in the short term and safeguard livelihoods of vulnerable populations over time. In the South, adverse impacts from a multi-year drought are now exacerbated by the proliferation of a pest invasion that threatens to substantially reduce food production in the affected areas. Nationwide, an increase in food prices has been observed, jeopardizing the food and nutrition security of both rural poor (due to challenging harvest conditions) and urban poor (due to rising imported food costs). Priority actions to mitigate adverse impacts include improving access to agricultural inputs (mainly seeds and fertilizers) and farm equipment; reinforcing irrigation systems maintenance and financing; increasing access to agricultural loans for off-season production; scaling up cash transfer programs; increasing food storage capacities; and enhancing the productivity and resilience of food systems through more efficient public investments. Revising the land law would also offer hope of land security for millions of farmers and hence contribute to boosting investment and food security. Rapid-response programs to alleviate the impact of a sequence of severe cyclones in early 2022 also need to be accelerated, alongside improvements in multi-hazard early warning systems, contingency plans and implementation capacities at the local level.

Ensuring a balanced and sustainable response to the impact of the crisis in Ukraine. Initiatives to buffet the impact of rising international energy and food prices should be targeted on the poor and be fiscally responsible. Blanket energy subsidies are socially regressive as they mostly benefit the top quintile of the population while state interventions in competitive markets are itself of source of distortions and welfare losses over time. Moreover, as the government is expected to offset the increase in liabilities towards oil distributors with levies supporting the Road Fund, the capacity to maintain the road network could also be negatively affected. Upward fuel price adjustments are overdue, but should be accompanied by measures to mitigate the impact on the most vulnerable, as well as reforms supporting more affordable public transport, reducing fuel storage and transport costs, and promoting greater market competition. A strong communication campaign is needed to explain how current energy prices are calculated and the need for fuel pricing reforms in the current context. Social safety net programs could also be adjusted to support the urban poor confronted by rising costs of imported food products. More generally, effective market regulation and supervision and measures to lower barriers to market entry should be favored over direct sate interventions. Trade restrictions such as export bans should also be

3 The SCD serves as a basis for the preparation of the next Country Partnership Framework with Madagascar.

avoided, as these interventions have proven in the past to amplify food crises rather than alleviate their impacts.

Accelerate energy, digital and transport sector reforms to leverage new investments. Attracting much-needed investment in the power sector will require significant strengthening of the performance and financial viability of the national utilities company JIRAMA, a stronger role for the private sector in service delivery, and an improved legal and institutional framework for PPPs. This requires (a) an overhaul of JIRAMA's management; (b) rationalization of power purchase and rental agreements; (c) restructuring of arrears; (d) further tariff optimization (mainly the OPTIMA business), (e) finalization of large renewable energy projects, (f) development of solar projects and hybridization of thermal power plants while waiting for the big hydro, (g) legal reforms. Regarding the digital sector, the government should take immediate action to foster greater market competition and promote affordability of services, including by (i) promoting open access in the national backbone and reducing wholesale prices, (ii) strengthening regulation of market dominance and competition, (iii) removing remaining constraints on the construction and commercialization of fiber to ensure a level playing field for all operators, and (iv) ensuring a strong, effective, and independent telecom/ICT regulator capable of working without political interference. Reform of the Universal Access Fund (FDTIC) should also be undertaken to ensure more effective investment in underserved areas, beginning with public reporting on FDTIC-funded activities for greater transparency. In the transport sector, the government should accelerate reforms to stimulate further private sector investments in railway, air transport and maritime sectors and develop more efficient modes of transport and multi-modality. The selection of priority investments in the road sector should also follow a well-developed road asset management system and be supported by a stronger Road Agency.

Increase transparency and accountability to reinforce trust in public policies. Priorities include giving greater autonomy and resources to the court of accounts and anti-corruption institutions and strengthen the capacity of the judiciary to hold public officials accountable. Regarding to the Court of Accounts' audit of COVID spending, the government should engage openly with all relevant stakeholders to implement the recommendations of the court. It will also be critical to improve the quality of transparency and participation mechanisms by disclosing more data (e.g., crisis information, safety nets, fiscal spending, policy responses) and promote participatory budgeting. The modernization and digitization of public financial management, procurement, and payment systems should also be accelerated, including by integrating open contracting data standards into the government's e-procurement platform. Finally, establishing a formal framework for the appraisal of public investment projects based on objective and transparent criteria is critical to improve development outcomes and reduce fiscal risks.

TABLE 1.1 Macroeconomic Projections

	2018	2019	2020e	2021e	2022f	2023f	2024f
Real Economy	(Annual percent change, unless otherwise indicated)						
Real GDP	3.2	4.4	−7.1	4.4	2.6	4.2	4.6
GDP per capita (USD, constant 2015)	480.9	488.9	442.2	449.7	449.5	456.5	465.4
GDP deflator	7.1	8.3	5.1	7.4	6.7	6.6	5.2
CPI annual average	8.6	7.9	4.2	6.2	7.5	6.6	6.2
Exports volume	2.4	10.9	−22.6	11.6	4.4	5.4	6.4
Imports volume	11.1	4.6	−13.8	7.4	4.5	5.4	6.1
Fiscal account	(Percent of GDP unless otherwise indicated)						
Total Revenues and Grants	13.0	13.9	12.4	12.5	13.0	13.3	13.4
Taxes Revenues	10.3	10.6	9.5	10.4	10.5	11.2	11.8
Non–Tax Revenues	0.3	0.3	0.4	0.4	0.4	0.1	0.4
Grants	2.5	3.1	2.5	1.7	2.1	2.0	1.2
Public debt	39.5	38.5	49.0	53.1	55.6	58.0	58.7
Total expenditures	14.4	15.4	16.3	18.8	20.2	20.2	18.4
Current expenditures	9.4	9.5	9.6	11.4	12.2	11.9	10.6
Wages and Compensation	5.1	4.9	5.6	5.6	6.2	6.6	6.5
Interest Payments	0.8	0.7	0.7	0.9	1.1	1.1	1.0
Transfers and subsidies	2.3	3.1	3.8	3.4	3.4	2.7	2.5
Others	1.2	0.8	−0.6	1.5	1.6	1.5	0.6
Capital Expenditures	5.0	5.8	6.8	7.4	8.0	8.3	7.8
General Government balance (commitment basis)	−1.3	−1.4	−4.0	−6.3	−7.2	−6.9	−5.0
Balance of payments	(Percent of GDP unless otherwise indicated)						
Current account balance (including grants)	0.7	−2.3	−5.4	−5.3	−7.0	−7.0	−7.0
Imports, Goods and Services	37.8	35.0	30.4	31.0	34.2	34.4	35.2
Exports, Good and Services	34.7	30.8	23.4	24.4	25.9	26.2	26.9
FDI	3.6	2.6	1.9	1.5	1.9	2.1	2.5
Terms of Trade (percent change)	5.0	−9.7	−2.7	−1.4	−3.8	0.4	0.5
Memorandum items							
GDP nominal in MGA (billions)	45401	51351	50095	56169	61522	68371	75235

CHAPTER 2

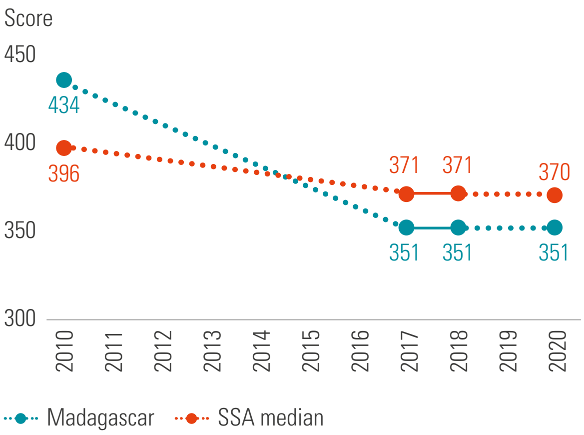
Boosting School Performance

Improving school performance will be critical to revert the recent deterioration in learning outcomes and improve development prospects. Findings from a new survey illustrate weaknesses across various dimensions that are known to impact pupils learning: recruitment and selection of staff, teacher incentives, and school management. The teacher recruitment and selection process is particularly vulnerable to corruption, which is concerning given the Government's plan to recruit 10,000 new civil servant teachers by end-2022. Recurrent delays in wage payments and school grant transfers combined with the perception of low wages and poor working conditions negatively impact teacher motivation and performance and increase the likelihood of unethical behavior. The latter is also tightly connected to the absence of accountability mechanism with the lack financial audits and limited community involvement contributing significantly to corruption risks. These findings suggest the need for a new approach to performance enhancement that includes measures reinforcing transparency and effectiveness of teachers' selection and evaluation, salary and school grant management, redress mechanism and citizen engagement.

Introduction

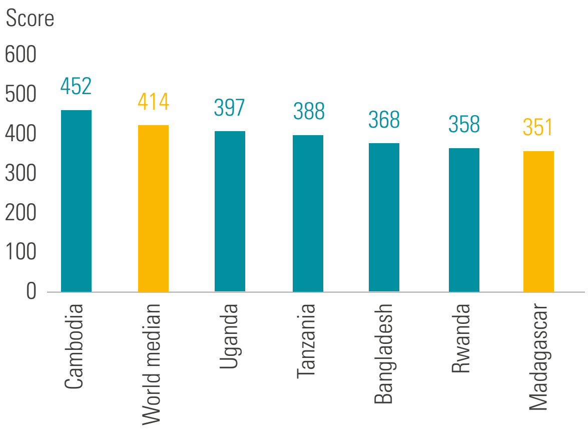
Learning outcomes have deteriorated over the last decade. School closures during the pandemic have intensified a more structural deterioration in learning outcomes in previous years, with 97 percent of students at age 10 not able to read and comprehend a simple text in French, just 7 percent having foundational numeric skills, and test scores declining below most comparator countries (Figure 2.1 and 2.2). As a result, learning poverty in Madagascar is 10 percentage points worse than the average for the Sub-Saharan Africa region and 6.8 percentage points worse than the average for low-income countries.

FIGURE 2.1 Harmonized Test Scores for pupils



Source: Human Capital Index
Note: Measured in TIMMS-equivalent units, where 300 is minimal attainment and 625 is advanced attainment.

FIGURE 2.2 Harmonized Test Scores for pupils



Source: Human Capital Index
Note: Measured in TIMMS-equivalent units, where 300 is minimal attainment and 625 is advanced attainment.

The poor performance of the education system is tightly connected to teacher effectiveness, job satisfaction and school management. Teachers generally have low academic qualifications, particularly community teachers, as 80 percent of them have no formal credentials. The situation is particularly challenging in poor rural communities, intensifying regional disparities. In addition, school management systems do not provide adequate support to teachers or accountability in case of poor performance or unethical behavior. Job satisfaction among public school personnel is very low, reflecting difficulties in getting paid, job insecurity, lack of in-service training, high pupil-teacher ratios, and lack of basic infrastructure and teaching materials (Lassibile and Buron 2016).

Reform strategies that combine measures boosting transparency, citizen engagement, school management, and teacher incentives can lead to better learning outcomes. In Brazil, the Parana state school report card provided both parents and school personnel information about school performance which had positive effects in terms of increasing parental voice and driving wider education reforms.[4] In Uganda, public impact evaluations and increased citizen engagement helped improve test scores and reduce teacher absenteeism.[5] In a similar vein, increasing transparency at the communal level in Vietnam led to significant improvement in the provision of educational services.[6] In Madagascar, anecdotal evidence suggests that transparency and community-based school monitoring arrangements improve school performance.

Three dimensions impacting learning outcomes are analyzed in this chapter. These dimensions are (i) teacher recruitment and selection, (ii) teacher incentives, and (iii) school management. The examination of transparency and accountability issues are dealt with in a transversal manner across these dimensions. The analysis is based mainly on the results of a large-scale phone survey designed jointly by the World Bank and the Ministry of Education in Madagascar. The survey includes responses from 1,195 public officials, 624 teachers, and 206 school directors in 14 districts covering 8 regions.[7]

Teacher Recruitment, Selection and Performance

Merit-based recruitment is key to school performance and learning outcomes. Research shows that transparent and merit-based recruitment is associated with lower levels of corruption, higher citizen satisfaction and trust, and greater performance, motivation, and satisfaction among civil servants (Cingolani, Thomsson, and de Crombrugghe 2015; Meyer-Sahling et al. 2018). A World Bank study of teacher recruitment in India highlighted the importance of ensuring a streamlined and transparent recruitment process to improve learning outcomes (World Bank, 2015). The analysis of survey data underlined the need for competency-based testing of candidates and transparent procedures to minimize non-merit-based considerations.

Recruitment processes and promotion lack transparency in the public education sector. There are four categories of primary school teachers in Madagascar: civil servants, contract teachers, community teachers paid by the parents only, and community teachers paid by the parents and receiving subsidies from the Government (community hired teachers known as FRAM). According to survey results, more than 40 percent of civil servant teachers and more than 65 percent of community-hired teachers have not participated in a competitive recruitment process (Figure 2.3)[8] and close to half of teachers consider that recruitment lacks transparency (Figure 2.4). In addition, a sizeable share of respondents finds it difficult to obtain information on staffing decision and allocations. There are no clear rules that govern the recruitment and management of FRAM teachers by parents' associations or communities, which have led to the hiring of poorly qualified teachers, especially in more remote rural areas. Typically, FRAM teachers are initially hired by the community then tend to be recruited as contract teachers for a 6-year period with the government before getting recruited into the civil service stream. There are no adequate quality screenings or controls during the whole process.

4 Winkler, Donald. 2005. "Increasing Accountability in Education in Paraná State, Brazil." EQUIP2 Policy Brief, U.S. Agency for International Development, Washington, DC. Winkler, Donald, and Maribel Sevilla. 2004. "Report Cards and Accountability in Decentralized Education Systems." EQUIP2 Policy Brief, U.S. Agency for International Development, Washington, DC.

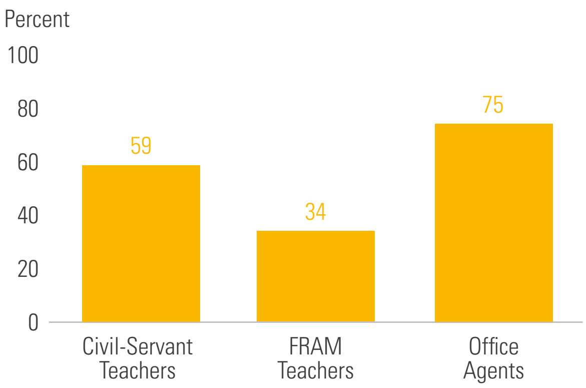
5 Barr, A., Mugisha, F., Serneels, P., & Zeitlin, A. (2012). Information and collective action in community-based monitoring of schools: Field and lab experimental evidence from Uganda. Unpubl. Pap.

6 Bauhr, M., & Carlitz, R. (2020). When does transparency improve public services? Street-level discretion, information, and targeting. Public Administration.

7 Districts, schools, and individual respondents were selected using a stratified random sampling technique. The data was collected over the phone in Malagasy and by highly trained enumerators hired by a consortium led by an international firm and supported by a local firm.

8 Out of the 466 teachers surveyed, 239 (51 percent) were FRAM teachers. FRAM teachers are hired directly by the community.

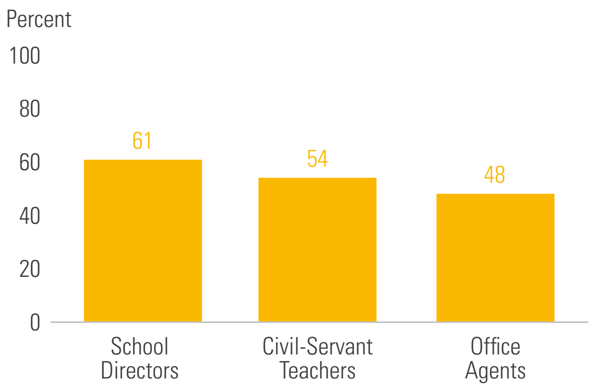
FIGURE 2.3 Share of teachers recruited through competition



Source: World Bank survey

Note: Measured in TIMMS-equivalent units, where 300 is minimal attainment and 625 is advanced attainment.

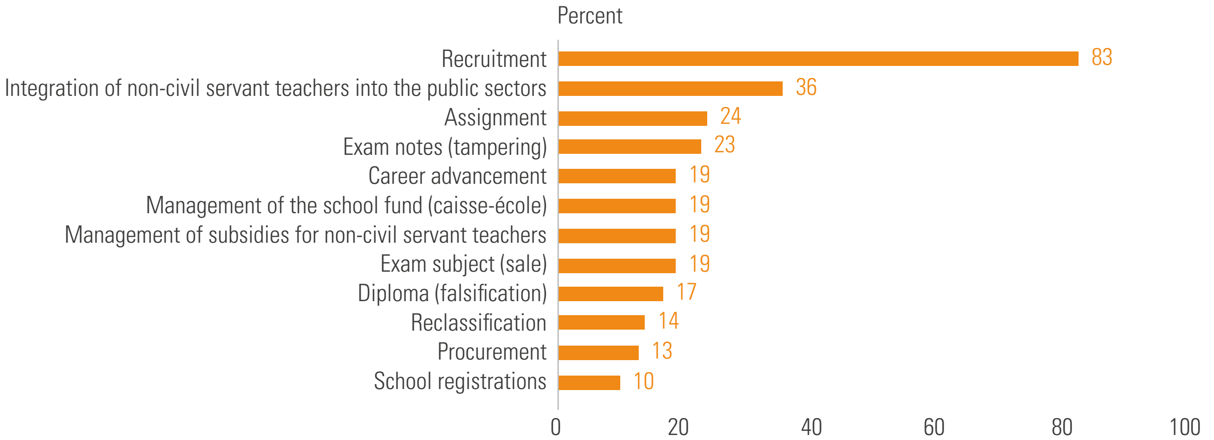
FIGURE 2.4 Share of respondents agreeing that recruitment is transparent



Source: World Bank survey

Note: Measured in TIMMS-equivalent units, where 300 is minimal attainment and 625 is advanced attainment.

FIGURE 2.5 Area most at risk of corruption

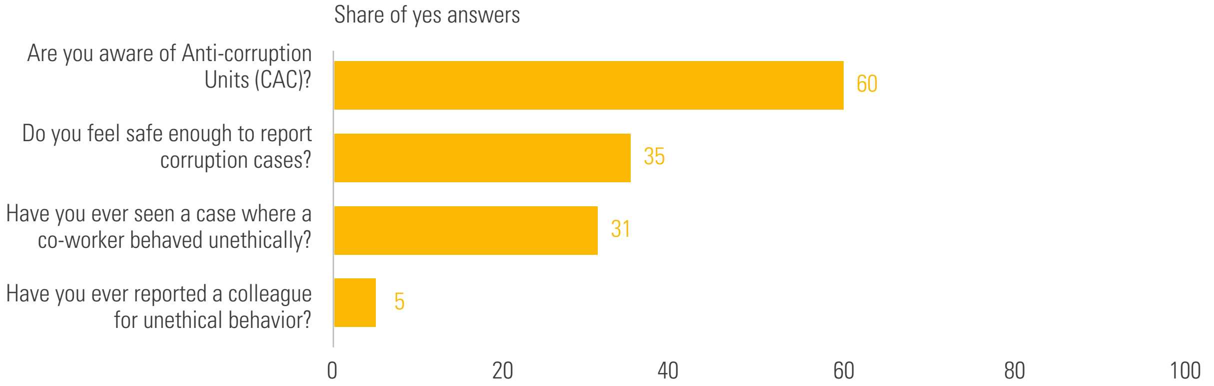


Source: World Bank survey.

Note: Sum exceeds 100 percent since respondents were free to select multiple options.

Recruitment is considered the most vulnerable process to corruption. An overwhelming majority of respondents (83 percent) believe that recruitment presents the greatest risk of corruption (Figure 2.5). A third of respondents (36 percent) believed the same regarding the process of integration of FRAM teachers into the civil service stream. This is an important finding given that the government plans to recruit 10,000 new civil servant teachers from among the existing population of community teachers by end-2022. Since 2014, approximately 30 percent of FRAM teachers have become contract teachers without any specific quality controls, highlighting the magnitude of the challenge in improving qualifications.

FIGURE 2.6 Reporting of corruption cases



Source: World Bank survey.
Note: Sum exceeds 100 percent since respondents were free to select multiple options.

Channels to report cases of corruption are not widely used. The awareness of the existence, or role, of anti-corruption systems does not seem widespread; over 40 percent of respondents are not aware of the mission and role of Anti-Corruption Units in the education sector (Figure 2.6). These units have a monitoring and reporting role on corrupt practices, particularly on issues regarding management of FRAM teachers. Moreover, the majority of respondents (64 percent) do not feel comfortable reporting cases of corruption through official channels. Interestingly, similar patterns emerge in other citizen surveys showing that the vast majority of respondents, regardless of gender, place of residence, education, standard of living and age, are afraid to report corruption because of the risk of reprisals or other negative consequences (Afrobarometer 2018). The Ministry of Education has established a new grievance redress mechanism to handle the 2020-2021 recruitment process but delineation of responsibilities between national and district level does not seem clear and the complaints register is also not accessible to the public.

Teacher Motivation

Job satisfaction appears low among public education sector staff, particularly among FRAM teachers. In Madagascar, existing research shows that primary school teachers tend to have low job satisfaction for the following reasons: (i) low wages and problems getting paid; (ii) job insecurity; (iii) lack of in-service training; (iv) high pupil-teacher ratios; and (v) lack of basic infrastructure and teaching materials. The high rates of teacher and school director absenteeism also suggest low job satisfaction, as well as weak systems of accountability for attendance and performance (World Bank 2020, Lassibille and Buron 2016).

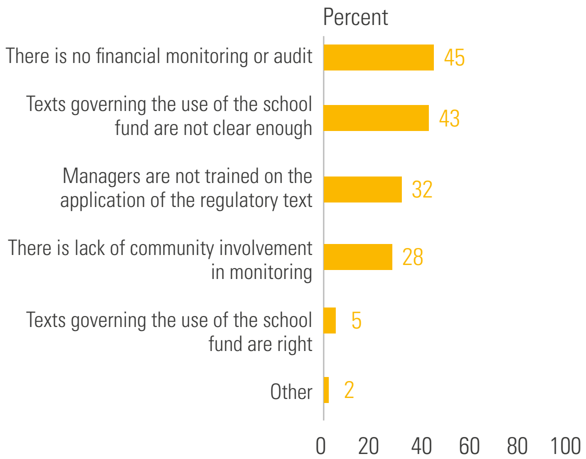
The lack of on-the-job resources (e.g. teaching materials) and perception of low wages contribute to low job satisfaction. The majority of school directors and teachers (over 75 percent) mention that a lack of resources is the greatest obstacle to job effectiveness. And a large number of respondents report that their income is not sufficient to meet their needs and report having another source of income (67 percent and 33 percent respectively). Overall, 30 percent of teachers and 21 percent of school directors consider that they are poorly motivated.

Delays in salary payment are hampering motivation and job satisfaction. More than 80 percent of FRAM teachers have received their salary late more than once in the past two years, compared to more than 40 percent for civil servant teachers. This is particularly the case for teachers in rural areas; and for FRAM teachers who receive state-subsidies with delays that can spread over several months. In addition, bonuses and allowances are sometimes not paid to teachers, especially those working in rural areas. Lastly, due to lack of use of digital and mobile payment channels, teacher working in remote areas regularly travel long distances to collect their salary which contributed to absenteeism rates.

School management

Poor organization, control and leadership reduce teachers' accountability. The management capacity of school principals correlates with student performance—even after controlling for a variety of student and school characteristics (WDR 2018). The lack of accountability at the school level manifests in teacher absenteeism, which can reach nearly 50 percent when the school director is also absent (which is 37 percent of the time).[9] According to the survey, factors adversely impacting teachers' ability to complete tasks are poor communication and teamwork (17 percent), a lack of organization (13 percent), inadequate leadership (9 percent), and the absence of clearly defined deadlines (8 percent). All these indicate that improving school management could significantly boost teachers' performance.

FIGURE 2.7 Corruption risks and school fund management



Source: World Bank survey.

Financial management arrangements of school grants also appear inadequate. The vast majority of respondents (78 percent) said that the school grants are not sufficient; including 73 percent of school directors. In terms of information gaps, while most school directors (90 percent) have knowledge about how school grants are allocated, more than 40 percent teachers do not. In terms of delays in transfers, about 40 percent of respondents said that schools did not receive funds on time and experienced delays. Respondents also identified the absence of financial monitoring or audit of the fund, lack of clear regulations, lack of training, and lack of community involvement as major sources of corruption risks (Figure 2.7).

Determinants of Unethical Behavior and Motivation

Weaknesses in school management systems encourage unethical behavior and reduce motivation. To assess factors determining unethical behavior[10] and motivation,[11] a panel regression was estimated, controlling for various demographic characteristics including age, gender, experience, education, and salary satisfaction. Results indicate that the quality of performance evaluations, delays in salary payments and merit-based recruitment all significantly influence the probability of unethical behavior. The impact of salary delays on the likelihood of unethical behavior has a particularly significant impact, notably

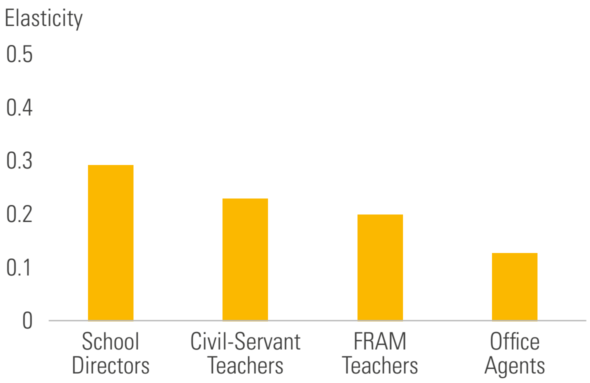
9 World Bank 2020, Lassibille and Buron 2016.

10 The variable unethical behavior score measures the extent to which unethical behavior is acceptable to a person (or a person's tendency to behave unethically). To construct the unethical behavior score, we use responses from two survey questions. The first question provides a list of questionable actions and asks respondents to indicate if they think any of them are acceptable for public officials. The more options that an individual selects, the higher score he or she gets. Thus, someone who checks none of these would have a score of 0, whereas someone who checks all six would have a score of 6. The second question B asks respondents how they feel about reporting unethical behavior. Those who are discouraged are given a higher score. Specifically, everyone is assigned a value that corresponds to their response. Someone who strongly feels that unethical behavior should be reported is assigned a value of 0, while someone who strongly disagrees with that is assigned a value of 4. This value is added to their score, resulting in a final score that can take a minimum value of 0 and a maximum value of 10. No one received a score of 10. The mean score was 2.33, and the highest observed score was 8.

11 The variable motivation measures the intrinsic motivation of an individual. To construct the motivation variable, we used a survey question which asks school directors and teachers to mark three factors, in order of importance, that most encouraged them to pursue a career in public education. Some of these factors are intrinsic, while others are extrinsic. The greater the number of intrinsic factors chosen, the more intrinsically motivated that person is. Someone whose most crucial reason was intrinsic is given a motivation score of 3, someone whose second-most important reason was intrinsic is given a score of 2, and someone whose third-most important reason was intrinsic is given a score of 1. Therefore, the maximum score a person can get is six, while the minimum score is 0.

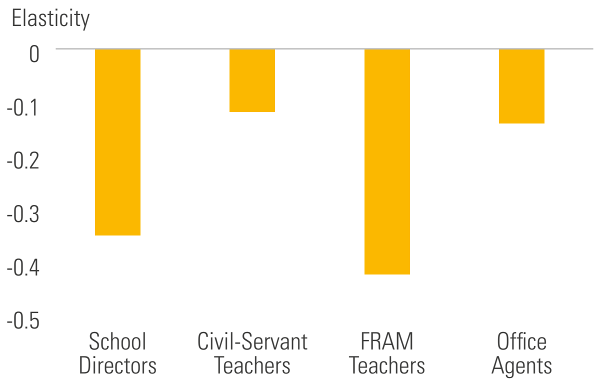
for school directors and teachers (Figure 2.7), while the lack of merit-based assessment has a detrimental effect on school directors and FRAM teachers (Figure 2.8). In addition, results indicate that delays in school grant transfers and quality of performance evaluations influence motivation of teachers and school directors while the lack of merit-based recruitment tends to have a significant impact on motivation of FRAM teachers.

FIGURE 2.8 Impact of delayed salary payment on the likelihood of unethical behavior



Source: World Bank
Note: results from OLS regression with the dependent variable being the indicator of unethical behavior derived from the survey.

FIGURE 2.9 Impact of merit–based assessments on unethical behavior



Source: World Bank
Note: results from OLS regression with the dependent variable being the indicator of unethical behavior derived from the survey.

Policy recommendations

An overall lack of transparency and merit-based recruitment, weak management quality, and delays in salary payment and school grant transfers have adverse effects on education service delivery and school performance. Findings from the survey, combined with the existing literature, suggest the adoption of a strategic approach that combines transparency, citizen engagement, and public sector reforms to bolster the performance of the education sector. Recommendations to strengthen transparency, teacher recruitment and selection, teacher incentives, and school management are identified over short- and medium-term horizons.

Short term objectives:

- **Develop and implement a national package of transparency policies for the education sector.** These policies should support the disclosure of information for both inputs (e.g., budgets) and outputs (e.g., performance) in the education sector. Given the proximity of citizens to local leaders who can exert pressure to improve performance, particular attention should be given to data provided at the school level. The results of the latest national evaluation have already been shared through newspapers and the website of the Ministry of Education and should be disseminated to school committees and parents, and through multiple channels, including local radios and mobile-phone message campaigns. In order to make transparency actionable, content must be accompanied by guidance on potential actions that can be taken, including information on school committee attendance or safe channels to anonymously report incidents of corruption.

Establish transparent and merit-based recruitment procedures and advertise all vacant staffing positions through multiple channels. The government recently adopted a national teacher job and skills framework which establishes and specifies the professional competencies, qualifications and duties of the teacher. In addition to this, the government may consider additional elements in the design of the recruitment procedures to increase the number and quality of candidate teachers that apply into the civil stream. This may include, for instance, the systematic publication of vacancies through an online platform, combined with newspapers and SMS-alerts for job seekers. In a similar vein, the process of the competitive selections should be widely disseminated within the school areas to ensure early community monitoring and oversight of the hiring process (when done locally). In addition, a competency test, that can be conducted by an independent agency for all types of teachers, may help to filter the pool of candidates by establishing a minimum score to award contracts for teachers entering civil service.[12]

- **Establish transparent, digital and mobile-based financial arrangements for teacher salary payments and school grants transfers.** The government has recently established a single harmonized school fund with a new distribution formula that takes into account additional criteria such as equity and performance. It also intends to increase the amount of school grants to better support basic school operational needs and improve timeliness of transfers. Introducing digital and mobile payment methods could be particularly effective at reducing delays, information asymmetries, and petty corruption by making payment data more transparent. Tailored communication campaigns should be rolled out for teachers in rural areas where mobile payments can significantly reduce travel time and interruption of school where there are no banks in close vicinity.

Medium-term objectives:

- **Build a functional grievance redress mechanism on the recruitment process.** The grievance redress mechanism should have built-in provisions to ensure follow-up from competent authorities. Specific campaigns should be carried out to ensure that the mechanism is well-known and whistleblower protection should be put in place. In the medium-term, these should be complemented by comprehensive legislation that address intimidation and retaliation issues, including national whistleblower protection and effective plea-bargain arrangements at the judiciary level.

- **Strengthen the role of performance evaluation in the career management of teachers and school directors.** The survey findings suggest that performance of teachers can be enhanced by clearer expression of performance goals and feedback. The design of performance evaluations should include transparent performance objectives; and should close the feedback loop by providing information on how to improve individual performance including by linking it to the national teacher training strategy and regional training plans.

- **Support synergies between top-down and bottom-up accountability efforts.** Strengthen existing government oversight activities (e.g., audits), combining them with grassroots-community monitoring. Opportunities for coordinated oversight involving supreme audit institutions, frontline service providers, and citizens should also be explored.

- **Compile and regularly track key performance indicators for evidence-based education workforce management.** The survey provides a baseline against which the impact of human resource management and other reforms can be measured through follow-on surveys. Subsequent surveys should be complemented by administrative data, particularly payroll data, to measure inefficiencies in staffing and inequities and distortions in compensation, and to identify staffing needs and gaps.

Efforts to implement some of the listed recommendations are ongoing. The World Bank has supported the government in adopting key policy reforms on teacher qualifications through the Investing in Human Capital development policy operation, as well as in

12 The government implemented a quality control filter to improve selection of community teachers in eight pilot districts in 2018-2019; however expansion of the pilot has not yet taken place.

financing initiatives such as school grants and digital payments through the Basic Education Support project. In order to achieve positive change and outcomes, it will be critical that steps are taken to ensure that these initial reforms are institutionalized and sustained.

These recommendations should be accompanied by other reforms aimed at improving learning outcomes. The immediate priority is to establish a national merit-based selection process for civil service teacher candidates, increase school grants and implement key elements of the Education Sector Plan, particularly the reform on curriculum, the use of mother tongue as a language of instruction at the basic cycle and the increase in teaching hours. Challenges pertaining to the management of community hired teachers also presents a somewhat unique predicament to the education sector in Madagascar and requires a global approach that encompasses both public finance and human resource management improvements.