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WORLD BANK GROUP

MADAGASCAR ECONOMIC UPDATE

Fostering Financial Inclusion

June 2018





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ACRONYMS

AGOA	African Growth and Opportunities Act
ATM	Automated-teller machine
CBM	Central Bank of Madagascar
CGAP	Consultative Group to Assist the Poor
CPI	Consumer Price Index
DPO	Development Policy Operation
DSA	Debt Sustainability Analysis
FAS	Financial Access Survey
G2P	Government to Person
GDP	Gross Domestic Products
IMF	International Monetary Fund
INSTAT	National Institute of Statistics (Institut National de la Statistique)
JIRAMA	State-Owned Electricity and Water Company (Jiro sy Rano Malagasy)
MEP	Ministry of Economy and Planning
MFB	Ministry of Finances and Budget
MFI	Microfinance Institutions
MIS	Management Information System
MSME	Micro, Small and Medium Enterprises
PASEF	Projet D'Appui aux Services Financiers
P2G	Person to Government
PPCG	Partial Portfolio Guarantee for Credits
PPP	Public Private Partnership
SMS	Short Message Services
SSA	Sub-Saharan Africa
WB	World Bank
WBG	World Bank Group
WEO	World Economic Outlook

FOREWORD

Welcome to the June 2018 edition of the World Bank's Madagascar Economic Update, which reports on recent economic developments and presents our medium-term outlook.¹ Overall, the economy has been performing well, with growth estimated at 4.2 percent in 2017 and projected at 5.0 percent in 2018. There are numerous drivers of growth, including increased demand for transport services, a profitable banking sector and strong performance of goods and services produced in *economic processing zones*, contributing to solid export earnings and the accumulation of reserves.

However, despite this rather robust macro-economic performance, the poor especially in Madagascar were hit by unfavorable weather conditions which resulted in a contraction in the agriculture sector, where the production of domestically produced rice fell, and prices soared. These events contributed to an increase in food inflation, directly eroding the purchasing power of the poor, and those who rely on subsistence farming for their food security. These developments underscore the importance of bringing the spoils of growth closer to the poor, so that improved living conditions are felt more broadly across a wide range of the population.

And here I turn to the Special Focus Section of this Economic Update, which discusses Financial Inclusion. Over the past years, a quiet success story has been developing, where mobile money has been expanding to increase access to financial services for individuals and firms. These opportunities provide a means for safely storing money, as well as increasing access to other services such as credit in times of crisis and insurance to prepare for bad days.

Over the medium-term we maintain a positive economic growth forecast. We project growth at 5.4 percent in 2019 and at an average of 5.1 percent over the medium-term. This growth outlook hinges on advanced economies realizing projected growth rates of around 3.0 percent of GDP over the medium-term, which should support steady demand for Malagasy goods and services. The outlook also assumes that the economy benefits from the realization of the government's ambitious investment plan and that the political environment remains stable.

We hope that this edition of the Madagascar Economic Update will help inform the public debate on the country's current economic performance, and the types of policies that could stimulate inclusive growth to the benefit of all parts of the Malagasy society.

Coralie Gevers
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World Bank

¹ The cut-off date for all data in this document is May 2018.

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PART ONE

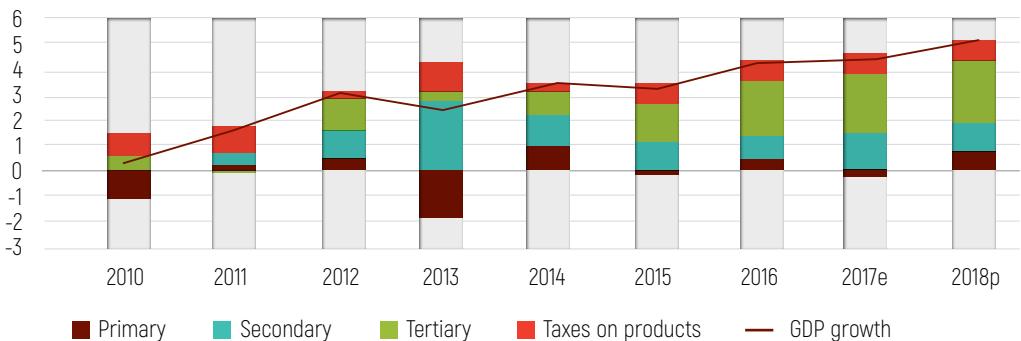
RECENT ECONOMIC
DEVELOPMENTS

The Real Sector

1. Economic growth over the last four years has been consistently improving. GDP accelerated from 2.3 percent in 2013 to an estimated 4.2 percent in 2017, and is further projected at 5.0 percent in 2018.² Since 2015, the most important driver of growth has been the services sector, which is characterized by a small but dynamic private sector. Manufacturing related activities have been bolstered by the production of goods and

services in *economic processing zones*, where investors are taking advantage of generous tax incentives as well as affordable labor. However, the performance of the primary sector continues to be disappointing, where output contracted by one percentage point in 2017. The following sections consider developments in each of the major sectors in the economy.

Figure 1: The services sector was the most important contributor to growth in 2017³
Contribution to growth by sector, 2010-2018



Source: INSTAT, MEP, and WB staff calculations, May 2018

2. The consistently poor performance of the agriculture sector means that the gains from economic growth have not been felt by most of the population. Approximately 80 percent of the population are engaged in agricultural activities, largely in rural areas where subsistence farming is the main source of livelihoods. Between 2001 and 2012 [latest available data], 77 percent of the rural population lived below the national poverty line – a figure that remained unchanged. And between 2014 and 2017, the agricultural sector contracted by an average of 0.8 percent, suggesting that the rural population are unlikely to see significant improvements to their well-being from economic growth in recent years. The agricultural sector is constrained by low productivity due to the minimal

use of modern farming techniques, lack of connectivity to markets to facilitate the transportation of goods, and high vulnerability to climatic fluctuations. Rural households have minimal off-farm income generating activities to help buffer the impact of weather shocks.

3. Madagascar's climatic conditions can be both a blessing and a curse for agricultural performance. The country's unique climate has led certain cash crops such as vanilla, cloves and other spices to thrive, which is supporting the livelihoods of farmers engaged in these agri-businesses. Despite the effect of cyclones Ava and Eliakim in early 2018, receipts from vanilla production remained strong as prices continue to be high, which is

² The government have recently re-based their GDP figures, which are being reviewed. The new calculations are expected to be incorporated in late 2018.

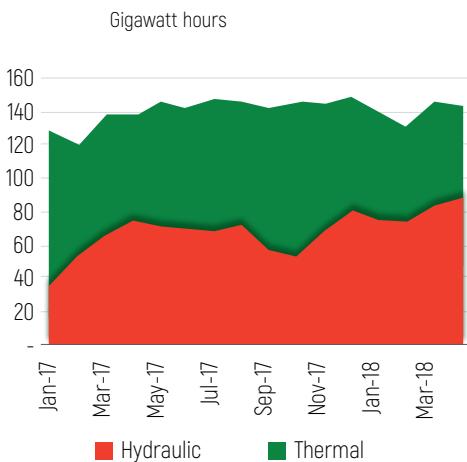
³ The most common indicator used to measure economic activity is Gross Domestic Product (GDP). GDP can be estimated in three ways: the production approach, the expenditure approach or the income approach. The chart above shows GDP estimated through the production approach, which is concerned with value of all goods and services produced in the economy. The first step is to calculate the generation of value added on a production basis in basic prices. To convert this estimate into market prices taxes on products need to be added and subsidies on products need to be subtracted.

likely to attract new farmers seeking to also benefit from high prices. However, the severe drought in 2017 combined with cyclones reduced the supply of locally produced rice (the country's main staple) by an estimated 20 percent. Consequently, the agriculture sector (as a subset of the primary sector) contracted by an estimated 6.6 percent in 2017. More favorable rainfall in 2018 is expected to result in improved performance of rice production, where a better harvest should improve food security for the most vulnerable. Overall, the agriculture sector is expected to experience year-on-year growth of 4.5 percent in 2018.

4. Industrial activities are performing well. Growth in secondary sector activities is estimated at 8.9 percent in 2017 and projected at 6.7 percent in 2018. The production of goods for export, and offshore services such as

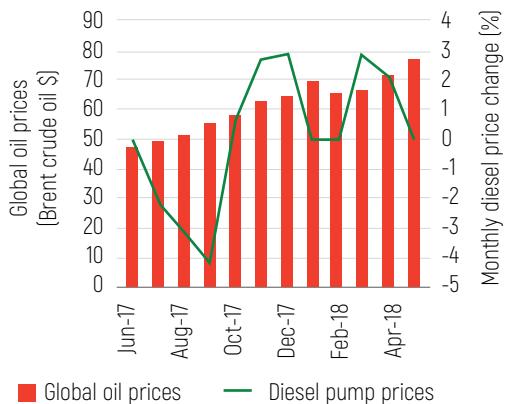
telecommunications undertaken in *export processing zones* continues to realize steady growth. Favorable rainfall is also boding well for hydro-electric production, where the ratio of hydro to total energy generation in the first four months of 2018 rose to 57.6 percent on average, compared with 44.2 percent during the same period in 2017. However, as there is still overall reliance on thermal energy, particularly through expensive diesel-based generators, the global increase in fuel prices is contributing to rising production costs, which is increasing costs of production for industry. A shift to increasingly renewable sources of energy that take advantage of Madagascar's significant hydro resources will help in the long run to reduce reliance on thermal energy and increase supply in an environmentally sustainable manner.

Figure 2: Improved rainfall is boosting hydroelectric production



Source: INSTAT (TBE) and JIRAMA

Figure 3: Global oil prices have been rising since June 2017, but changes to pump prices have been sporadic



Source: World Bank, Madagascar Hydrocarbons Agency and World Bank staff calculations

5. A steady demand for services such as commerce and transport have contributed to a moderate expansion of tertiary sector activities. Year-on-year growth of the services sector was estimated at 5.2 percent in 2017, and is projected at 5.4 percent in 2018. Rising demand for transport-related services is most likely explained by developing domestic tourism. One component of the services sector that is performing particularly well is

commerce, which expanded by 4.1 percent in 2017 and is projected to grow by 4.5 percent in 2018. Value added in the highly profitable banking sector continues to grow (see box 1), with the banking sector contributing to an estimated 0.43 percent of GDP in tax revenues in 2017. However, most of the population do not have access to banking services, and largely rely on alternative means of financial services (see Part 3).

□ Box 1: Madagascar's Highly Profitable Banking Sector

Going back centuries, banks have always played an important role in the economy. Banks can help to look after your money, by keeping cash stored safely in an account, to reduce the risk of having your money get lost or stolen. Banks lend money to customers such as private individuals and businesses, which comes at a cost known as interest rates (see Box 3). And banks can help to pay for goods and services, for example, by providing their customers with cash or a credit or debit card. However, in Madagascar the use of banking services is low: less than ten percent of the population have a deposit account; a figure comparable with South Sudan and Guinea (see part 3 on financial inclusion).

Despite the limited reach of the banking services, the sector is highly profitable. Between 2013 and 2017, the return on equity increased from 30 percent to close to 42 percent, meaning that the amount of profit generated as a percentage of shareholder's equity increased by close to 30 percent. This level of profitability compares favorably with other countries in the region, but may also reflect the risk adverseness to lend to new clients. Similarly, the return to assets in Madagascar also performs well compared with other countries.

High profitability means that the government has been able to capture sizeable dividends. The state has shares ranging from 9.4 to 32.5 percent of the bank's capital. Dividends from all financial sector institutions comprised 52 percent of total dividends in 2016 and 34.2 percent of total dividends in 2017. The falling share of the financial sector's contribution to government dividends in 2017 was due to non-financial sector companies paying dividends to the government and an insurance company failing to pay dividends on time. Banks also contributed 0.43 percent of GDP in tax revenues in 2017.

The banking sector is highly concentrated. While there are eleven banks operating in the country, the sector is highly concentrated around four banks, which own 87 percent of total banking sector assets, 88 percent of total deposits and share between them 94 percent of

profits. Ten out of eleven banks are foreign owned, where the state has shareholdings in three major banks. This concentration can be a source of vulnerability, because if a few large firms are unable to service their loans there could be major consequences. However, strong foreign ownership is generally considered as a source of strength since the parent company can usually support a subsidiary in case of difficulties.

Overall, the banking sector is financially sound. During the global financial crisis, the vulnerabilities of the financial sector created significant costs to governments worldwide, which is why it is essential to regularly assess performance and potential areas of weakness. In Madagascar, all banks fulfill the minimum capital adequacy requirement, with an overall capital to risk-assets ratio of 13.6 percent on aggregate, well above the required minimum of 8 percent. Subject to seasonal fluctuations, liquidity is generally ample, with banks' aggregate deposits exceeding loans, although some banks are more exposed than others to liquidity risks. While the risk of insolvency is low, the capital adequacy ratio (which is based on a risk assessment for each type of bank asset) is at the lower end compared with other countries in the region. The ratio of nonperforming loans to overall loans stands at about 8 percent, and is at a similar level to other countries in the region.

Potential vulnerabilities in the banking sector could arise from credit risks and a sharp deterioration of the macroeconomic situation. In June 2017 stress test undertaken by the Central Bank to assess possible pressure points showed that the financial indicators remained above the minimum requirements. Credit risk is the most dominant source of risk, which could lead to banks being under-capitalized but still remaining solvent. A significant fall in economic performance could also affect the performance of local banks, where for example borrowers may not be able to service their loans or make regular deposits. As part of its mandate to maintain financial stability and inform supervision decisions, the Central Bank regularly updates and publishes the financial soundness assessment.

Figure 4: The return on equity compares favorably with other countries in the region (%in 2017)

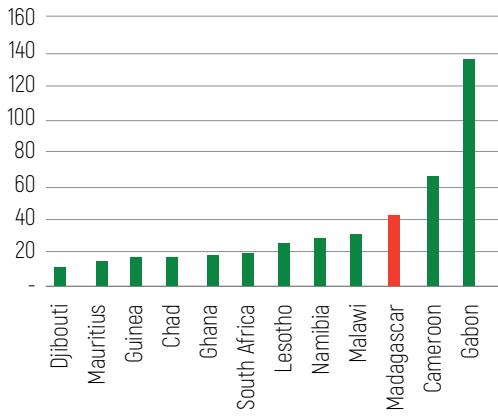


Figure 5: The return on assets is also one of the best performing in the region (%in 2017)

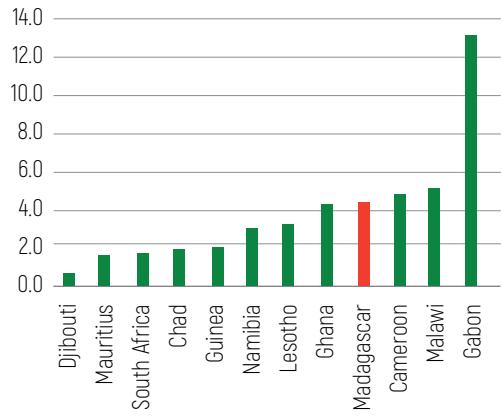


Figure 6: The capital adequacy ratio is at the lower end compared with peers (%in 2016)

Defined as the capital-to-risk weighted assets ratio [%]

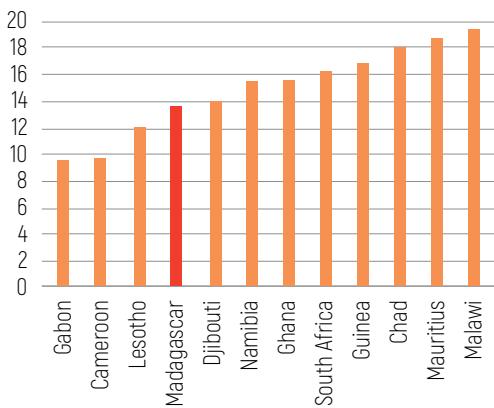
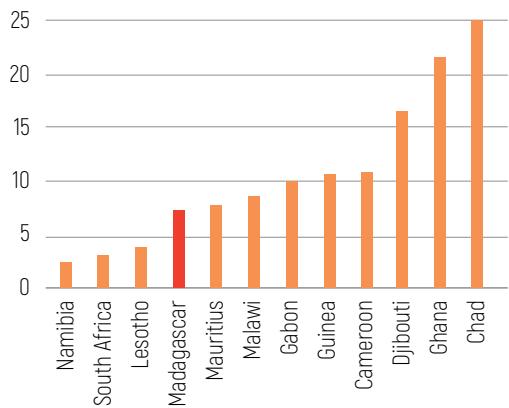


Figure 7: While the ratio of nonperforming loans is similar to comparator countries (%in 2016)

Value of nonperforming loans divided by the total value of the loan portfolio [%]



Source: IMF Financial Soundness Indicators, extracted in 2018

Sources: Financial System Stability Assessment, IMF 2016 and Report on Financial Sector Stability, Central Bank of Madagascar 2016

While the economy is growing, the agriculture sector which engages **80%** of the population, continues to fall behind.

 **Table 1: Selected Macroeconomic Data**

	2013	2014	2015	2016	2017	2018*	2019	2020	2021	2022
	Actuals				Est	Projections				
Real sector										
GDP (billions of ariary)	23,397	25,775	28,585	31,769	35,835	40,548	45,809	51,251	56,857	62,717
Real GDP growth	2.3	3.3	3.1	4.2	4.2	5.0	5.4	5.3	5.2	4.9
GDP per capita (USD)	462	453	402	401	449	475	501	525	547	566
GDP per capita growth	-0.5	0.6	0.4	1.4	1.4	2.2	2.6	2.6	2.4	2.2
Unemployment rate (ILO definition)	0.9	1.2	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9
GDP deflator (annual % change)	5.1	6.6	7.6	6.7	8.3	7.8	7.2	6.3	5.5	5.2
Inflation, consumer prices (annual %, end of year)	6.3	6.0	7.6	7.0	9.0	7.7	6.4	6.0	5.4	5.0
Public Finance (%GDP)										
Revenues, excluding Grants	9.6	10.1	10.4	11.2	11.8	12.2	12.5	13.0	13.4	13.6
o/w: Tax Revenues	9.3	9.9	10.1	10.9	11.5	12.0	12.3	12.8	13.2	13.4
Grants	1.3	2.3	1.5	3.5	2.9	3.4	2.7	1.4	1.4	1.4
Total spending (commitment basis)	14.9	14.7	15.1	16.0	17.1	18.0	19.6	19.8	20.0	19.8
o/w: Capital spending	3.1	3.9	3.5	5.2	5.5	7.3	9.8	9.8	9.9	9.5
Overall balance (cash basis)	-2.0	-2.4	-3.7	-2.0	-2.3	-3.3	-4.6	-5.5	-5.2	-4.8
Total public debt	33.9	34.7	41.3	38.4	36.0	35.1	36.5	39.0	41.3	43.4
Monetary accounts (annual % change)										
Money Supply (M2)	9.0	9.8	15.8	21.3	19.3	13.4	13.7	17.3	16.8	14.2
Net Foreign Assets	-12.7	17.3	20.9	37.4	23.2	9.5	8.8	17.1	16.3	12.3
Net Domestic Assets	8.0	8.3	11.4	10.8	14.1	15.1	15.7	15.4	15.5	14.2
o/w: Credit to the Private Sector	16.7	18.4	16.5	8.2	18.4	14.0	15.4	15.0	14.4	14.0
External sector (%GDP)										
Exports of goods	18.1	20.6	21.0	21.6	24.4	23.6	23.1	23.1	23.2	23.3
Imports of goods	30.7	30.2	28.7	28.6	31.4	32.1	31.5	32.2	32.6	32.6
Current account balance	-5.9	-0.3	-1.9	0.6	-0.3	-2.2	-3.4	-4.3	-4.6	-4.8
Foreign Direct Investment	5.2	2.9	4.5	4.5	3.1	3.1	3.2	3.3	3.4	3.4
Overall Balance	0.7	0.2	1.0	2.9	2.0	0.4	0.3	1.0	1.0	0.6
Foreign Reserves (months of imports)	2.2	2.5	2.9	3.9	4.0	4.1	4.1	4.2	4.3	4.3
External debt	22.8	24.4	28.4	26.7	25.3	25.5	27.8	30.7	33.3	35.5
Terms of Trade (percent change)	-0.1	-0.7	1.2	22.3	17.7	-1.8	0.7	0.9	0.6	0.3
Exchange Rate LCU/USD(average)	2,207.0	2,414.8	2,933.5	3,176.5	3,116.0

*Projections based on the rectified budget law draft, published on the MFB website

Source: Malagasy authorities, IMF and WB staff calculations, May 2018

The External Sector

6. The current account deficit has remained at a low level. Significantly higher vanilla prices and growing exports of labor-intensive manufactured goods boosted export revenues in 2017. Imports also grew for food (in particular, for rice to make up for the shortfall in domestic production) and capital items for investment projects. Overall, the current account deficit is estimated at 0.3 percent of GDP in 2017. The same trend is observed over the first quarter of 2018, with export earnings continuing to benefit from high vanilla prices. External financing from project loans and grants have financed the modest deficit. In 2018, the deficit is projected at 2.2 percent, as imports are expected to increase for capital investment projects.

7. Strong export earnings have enabled the central bank to accumulate more foreign exchange reserves than originally projected. Madagascar has a floating exchange rate, where the central bank only intervenes to manage undue volatility in exchange rates and to ensure adequate levels of liquidity. In line with those objectives, the central bank purchased foreign exchange in the second half of 2017 to moderate the exchange rate fluctuations, which increased the import coverage of foreign exchange reserves to four months at the end of the year.

8. Exports are increasingly concentrated around a limited number of goods. Export performance has been improving in recent years, where the export-to-GDP ratio has increased from 30 percent in 2013 to 35 percent in 2017, also reflecting higher vanilla prices. This upward trend indicates that the economy is increasingly open, access to external markets is widening and that export earnings have improved. However, the export concentration index is trending upward, which means that fewer goods dominate the export basket.⁴ Over the past five years, 58 percent on average of the country's total exports have been dominated by vanilla, nickel, and garments, which have also been the main drivers of export growth.

9. This export concentration can be a source of vulnerability. An unexpected fall in demand or a sharp change in prices could have a significant impact on export receipts. To mitigate potential risks, measures could be undertaken to diversify exports and strengthen domestic demand. The development in service exports observed recently, including in business process outsourcing, for example through call centers and telecommunications activities, as well as tourism is encouraging.⁵

Figure 8: The current account deficit remains low
Current account balance, 2009-18 (US\$ millions)

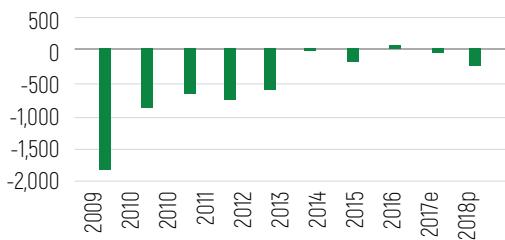
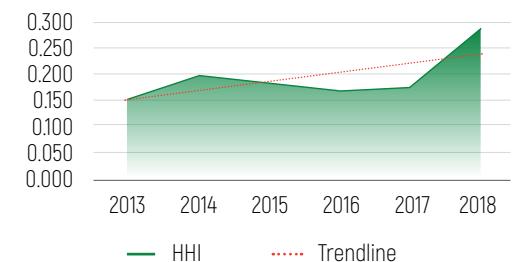


Figure 9: Exports are becoming increasingly concentrated
Export Concentration Index (Herfindahl-Hirschmann)

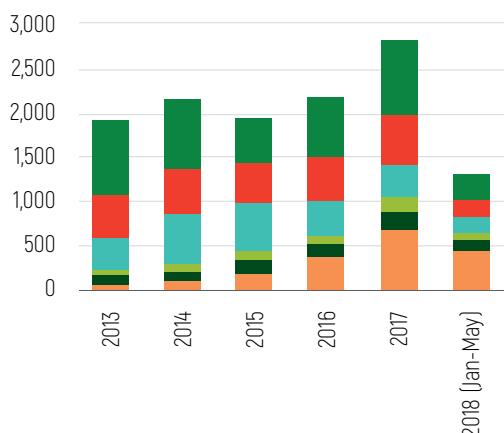


Exports are performing well, but are dominated by a small number of goods: nickel, garments and vanilla.

⁴ The export concentration is measured here by the Herfindahl-Hirschmann Index. An index closer to 1 indicates a country's exports are highly concentrated on a few products. Calculations were made based on the value of exports.

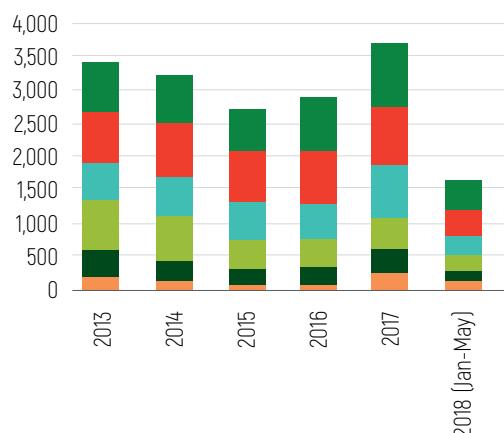
⁵ Between 2014 and 2016, more than 70 new ICT firms were created in Madagascar, most of which operating in off-shore activities (Source: Economic Development Board of Madagascar).

Figure 10: Exports are dominated by vanilla, garments and nickel
Exports Goods, 2013-2018 (US\$ millions)



Vanilla Cloves Cobalt Nickel
Garments Others

Figure 11: Imports increased in 2017 compared with previous years
Imports Goods, 2013-2018 (US\$ millions)



Rice Foods (Other than rice)
Petroleum products Equipment
Raw materials Other

Source: MFB, CBM, IMF and WB staff calculations

Table 2: Balance of Payments (in US\$ millions)⁶

	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
1 – Current transactions	60.5	-141.2	-99.7	230.8	119.9	-54.8	-249.1	146.4	105.7
1.1 Goods and services	-12.6	-144.7	-158.9	85.8	27.0	-98.9	-327.0	-21.6	-58.1
Trade balance	-9.6	-107.3	-141.9	-74	-10.9	-135.3	-314.2	10.3	-47.0
Exports FOB	524.6	501.5	483.2	651.2	670.9	628.0	588.5	917.9	752.8
Imports FOB	524.6	501.5	483.2	651.2	670.9	628.0	588.5	917.9	752.8
Services nets	-534.2	-608.8	-625.0	-658.5	-681.8	-763.3	-902.6	-907.6	-799.7
1.2 Income	-3.0	-374	-17.0	93.1	37.9	36.4	-12.9	-31.9	-11.1
1.3 Current transfers	-70.5	-145.7	-88.4	-103.2	-69.7	-98.0	-84.3	-102.4	-37.9
	143.6	149.3	147.7	248.2	162.6	142.1	162.2	270.4	201.7
2 – Capital and financial account	-38.8	168.3	202.5	-55.2	-135.9	2.4	349.7	83.0	-57.6
2.1 Capital account	55.7	29.7	73.0	117.8	40.4	52.5	55.8	85.6	34.8
2.2 Financial account	-94.6	138.6	129.5	-173.0	-176.4	-50.1	293.9	-2.7	-92.4
3 – Errors and omissions	9.9	-40.8	-22.0	15.5	-2.7	-17.7	14.1	-14.6	-58.0
4 – Overall balance	31.6	-13.7	80.8	191.1	-18.8	-70.0	114.7	214.8	-10.0

Source: Central Bank, May 2018

⁶ FOB refers to 'free on board,' a trade term that indicates whether the seller or the buyer has liability for goods that are damaged or destroyed during shipment between the two parties.

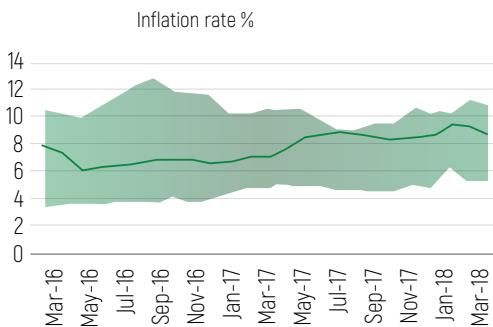
Monetary Sector

10. Rising inflation in 2017 has strained the purchasing power of many households. Year-on-year inflation peaked at 9 percent at end 2017. Inflation in 2017 has been associated with higher food prices, particularly for rice, and more expensive gas, utilities and housing. The index of fuel and lubricant price rose sharply in the second quarter of 2017 with an average monthly increase of 16.2 percent, compared to a monthly decline of 2 percent in the previous 12 months. Higher fuel prices on the domestic market coincides with the global rise in fuel prices, which has been reflected in some adjustments to pump prices. Higher prices for these products have been mostly hurtful for the poor given the high share of spending on fuel compared to the household budget and limited measures to protect the

poor from higher prices. Prices have evolved at different rates between the main cities in Madagascar, with the inflation differential narrowing in times of higher inflation as observed in 2017.

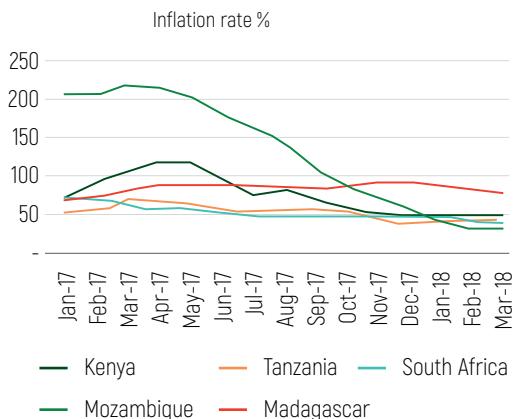
11. While inflationary pressures have started to ease in the first quarter of 2018, prices are still high compared with neighboring countries. Inflationary pressures have started to ease in the first quarter of 2018, largely due to improvements in the supply of domestically produced rice. In the first semester of 2017, inflation in Madagascar was comparable to countries such as Kenya. While inflation has started to ease in several neighboring countries, it still remains relatively high in Madagascar.

Figure 12: Inflation spread within main towns narrowed down in 2017



Sources: INSTAT and WB staff calculation

Figure 13: Inflation rate in neighboring countries eased from the 3rd quarter of 2017



Box 2: Rice: What Lies Behind the Price Surge?

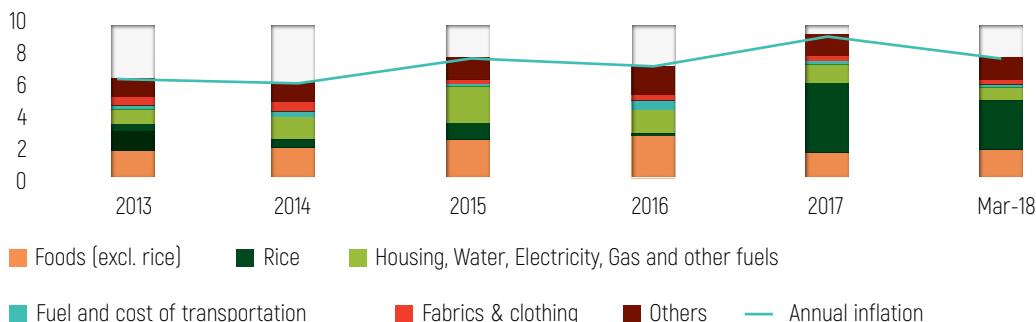
In a nation where rice is the dominant staple for each major meal, the effects of a near 30 percent increase in rice prices in 2017 has been acutely felt following the reduction in local supply due to climatic shocks. In rural areas, the high poverty gap rate of 36.7 percent, means that even small changes in the purchasing price of key consumer goods can lead a family to fall into poverty

(World Bank, 2016). And in urban areas, where rice is largely purchased rather than produced, an increase in prices has significantly reduced households' purchasing power. While the first three months of 2018 have seen overall inflation decrease by 7.6 percent compared with the same period the previous year, higher rice prices still prevail, and accounts for half of the increase in overall inflation.⁷

⁷ Inflation is calculated by measuring changes in the prices of a basket of goods and services over two periods in time, where each item in the basket is weighted according to its importance. In Madagascar, locally produced goods account for 76 percent of the total basket. Rice comprises 15 percent of the basket of goods, of which 90 percent is produced locally.

Figure 14: Higher rice prices have been the largest contributor to inflation

Contribution to Inflation (Major Items in the Consumption Basket) %



Source : INSTAT

While the rice market has been liberalized since the 1980s, there are still only a limited number of net rice sellers. Some rice-producing households sell their produce to meet urgent needs for cash or because they cannot afford to store rice during the harvest period, and then buy rice later at a higher cost during the lean season. The establishment of a Rice Observatory to share market information is a welcomed measure, but the use of the information could be improved. Poor productivity of rice is affected by low use of fertilizers, as well as lack of access to irrigated farms and input markets.

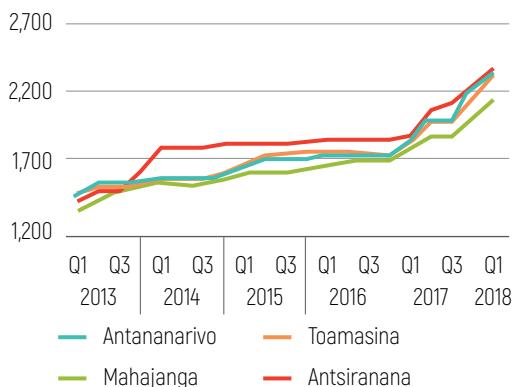
While Madagascar is a rice producing country, it is a net rice importer since domestic production cannot keep up with population growth. The price of imported rice is cheaper than local rice in all regions, where the reduction in local supply in mid-2017 led the gap in prices to widen.

Imported rice is mainly consumed by urban households, whereas in times of reduced local supply, rural households are more likely to decrease consumption. Both local and imported rice benefit from tax expenditures, which effectively act as a transfer from the rural poor to urban households.

Carefully targeted policies could help in bringing the benefits of higher rice prices to smallholder farmers. Presently, more than half of the retail price is captured by market intermediaries, where high costs of logistics resulting from poor transport infrastructure exacerbates costs. Other measures to improve productivity through the targeted use of fertilizers, mitigating the effects of climate related hazards, and eliminating the tax expenditure for imported rice to incentivize domestic production could also be considered.

Figure 15: The price of locally produced rice accelerated throughout the country

Ariary



Sources: Food and Agricultural Organization, INSTAT, WB staff calculations

Figure 16: The price of imported rice is higher in the capital and in the north of the country

Ariary

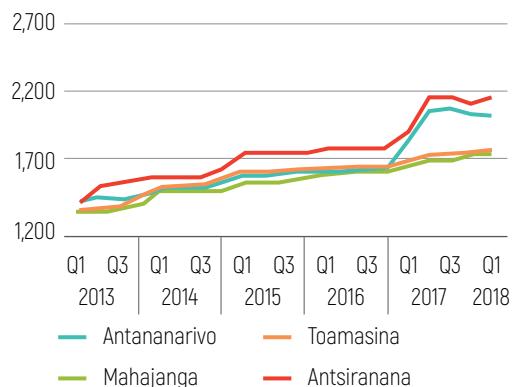




Figure 17: Market intermediaries capture more than half of profits along the value chain

Paddy and milled rice - MGA/kg



Source: Rice Observatory, prices available from May 14th to 20th, 2018

Sources: FAO, 2017; World Bank, 2016; World Bank, 2018; Rice Observatory, 2018; Ministry of Finance, 2017; INSTAT, 2018.

12. Monetary policy formulation has been reinforced in recent years.

The central bank act that was updated in 2016 (i) includes a tighter limit on the access to statutory advances for fiscal deficit financing and (ii) established a monetary policy committee that is in charge of reviewing the monetary policy every six months to ensure consistency with the government’s macroeconomic targets and manage liquidity in the banking system. In line with those reforms, the central bank’s lending to the government progressively retracted as statutory advances are being reimbursed (Figure 19). As of the decision of the monetary policy committee in May 2018, the level of policy rate and mandatory reserves rate remain unchanged.⁸

13. The ariary has been on a depreciating trend.

There are multiple factors affecting the exchange rate in Madagascar. In general, end-of-year festivities are marked with an increase in imports which contributes to a weakening of the ariary. The opening of the vanilla season in May and June, usually sees the ariary following an appreciating trend as demand for the local currency increases to purchase locally produced goods. To manage volatility in the market, the central bank may intervene to a limited extent either to buy or sell foreign currency. The recent depreciating trend of the ariary in nominal terms continues to bode well for the competitiveness of exporters.

Inflation has started to ease in the first quarter of 2018, supported by improvements in the supply of domestically produced rice.

⁸ Central bank of Madagascar. Decision on monetary policy on May 4th, 2018.

Figure 18: The ariary has been following a largely depreciating trend



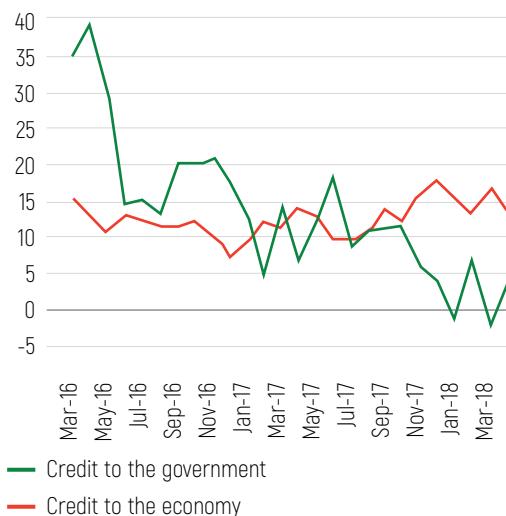
Source: CBM, and WB staff calculations, May 2018

14. Lending to the private sector has picked up, driven mainly by short-term credits. Lending to the private sector increased on average by 15 percent on y-o-y basis between September 2017 to March 2018, compared with the previous six months. New loans were largely short-term in nature, for the overdraft facility and advances on merchandise

stocks, mainly related to vanilla transactions. There was a fall in the average interest rates at the beginning of the year, but this has since reversed. Several factors influence commercial banking rates including risk levels, cost of operations and cost of financing [see Box 3].

Figure 19: Lending to the private sector has picked up

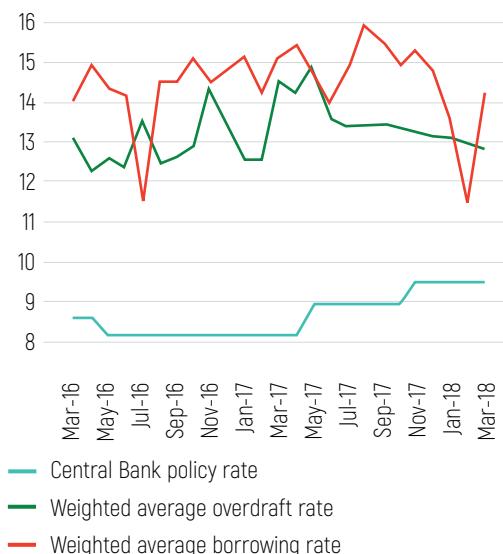
Credit to the government and to the economy [%change y-o-y]



— Credit to the government
— Credit to the economy

Figure 20: After a fall in commercial banks' interest rates at the beginning of the year, there is now an increase

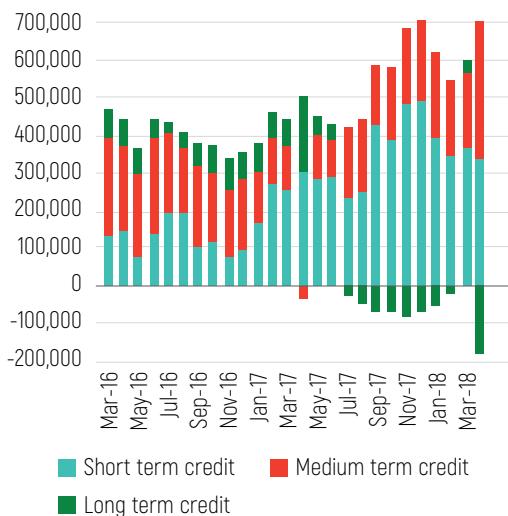
Rate (in percent)



— Central Bank policy rate
— Weighted average overdraft rate
— Weighted average borrowing rate

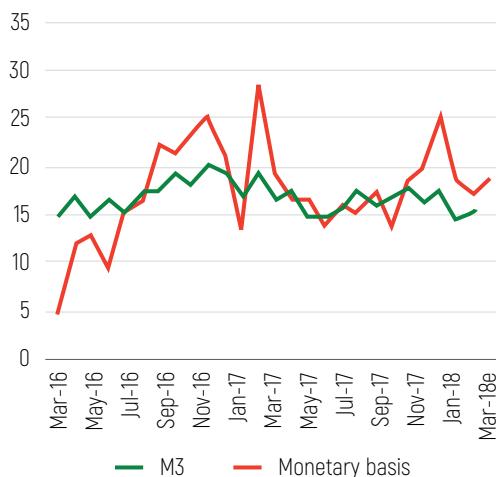
Source: CBM

Figure 21: Long term lending has been declining
Annual variation (millions of MGA)



Source: CBM

Figure 22: The pre-export season is associated with an increase of money in circulation⁹
Annual variation in percentage



Box 3: Buy now... and pay later: What determines interest rates in Madagascar?

Interest rates are referred to as the privilege of borrowing money that has to be repaid later. In Madagascar, effective interest rates vary from 11 to 127 percent, depending on the type of financial institution that is lending money. At the very top end, the highest interest rates are charged by micro finance institutions, followed by micro finance

banks and then conventional banks (Figure 23). However, high interest rates are by no means unique to Madagascar. Financial institutions in countries such as Zambia, Ghana, Malawi and Tanzania charge higher rates than in Madagascar (Figure 24).

Figure 23: Type of institution and average effective interest rates in Madagascar

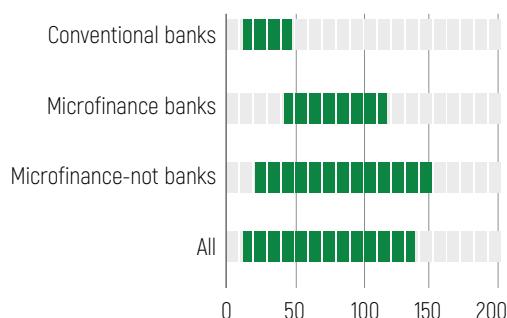
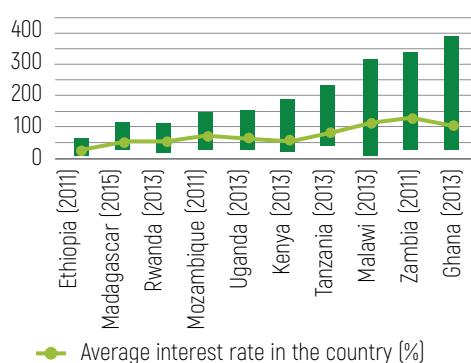


Figure 24: Interest rates in comparator countries
Range of effective interest rates on products (%)



⁹ Broad money is a measure of money supply that includes more than just physical money such as currency and coins but also demand deposits at commercial banks, and any monies held in easily accessible accounts.

Interest rates are largely determined by the cost of operations, the level of risk and the cost of financing. Microfinance institutions charge higher interest rates because small loans are costlier to manage and are covered by little or no guarantees, thereby increasing operating costs and risk levels. Banks on the other hand, largely offer credit to a smaller segment of the population. Nevertheless, risks are still high due to institutional weaknesses related to recovering credit losses and insolvency, which means that in the case of default, collection procedures are considered slow, uncertain and costly to the creditor. The cost of using bailiffs to collect debts in Madagascar is considered high by financial institutions. Other credit risks arise due to the unreliability of financial statements for small and medium enterprises, the lack of information provided by the Central Risk Office, portfolio concentration and the ability of credit institutions to assess risk.

Setting interest rates at the right level is important for financial institutions to maintain profits and be sustainable. However, by improving the operational and institutional environment, there are other ways that interest rates could be lowered. Key measures to reduce operational and financial costs include:

- Using technology for electronic transactions to follow up on credits;
- Improving productivity through training staff and using more efficient ways to provide credit;
- Increase control over administrative costs; and

- Mobilizing larger volumes of savings that could be channeled to banks as liquidity.

Reducing risks can be supported by:

- Improving the justice system;
- Establishing a centralized system for registering guarantees;
- Strengthening the power of land certificates as collateral for accessing credit;
- Improving and integrating the Central Banking Risk Unit and the Microfinance Risk Unit; and
- Improving credit risk management (analysis, monitoring, recovery).

Improving competition and transparency could also help to reduce interest rates by increasing the power of consumers to make comparisons and exert pressure to lower rates. Banks are generally more competitive than microfinance institutions and provide greater transparency on the rates offered.

Finally, there is scope to improve the institutional framework for determining commercial interest rates. Currently, Instruction No. 001 - CR / 08 of 28 April 2008 gives banks the freedom to set lending rates. Further, Ordinance No. 62-016 of 10 August 1962 fixes the legal interest rate and the maximum conventional interest rates, as well as the regulation of loans. However, this Ordinance has not been implemented due to a lack of application decrees, as well as challenges in interpretation and weaknesses in supervisory capacity and should be eliminated.

Source: Study on the Determinants of Interest Rates in Madagascar, Project for the Support of Financial Services, World Bank, May 2017

Fiscal Policy

15. Tax collection performed well in the first quarter of the year, with revenues exceeding targets by approximately 0.3 percent of GDP. All major taxes (VAT and income taxes), contributed to this good performance, largely due to improvements in tax administration. The revised taxation effective since January 2018 on petroleum products also contributed to higher revenue earnings. Overall, tax revenue collection reached 11.5 percent of GDP in 2017, an estimated increase of 0.6 percentage point of GDP compared with the previous year. Provided the reform momentum stays on track, tax revenue collection could reach 12.0 percent of

the GDP in 2018, which is still low compared to the average for Sub-Saharan Africa (15.8 percent of GDP¹⁰) but shows nonetheless a steady improvement.

16. Overall, expenditures are expected to increase from 17.1 percent of GDP in 2017 to 18.0 percent of GDP in 2018.

The composition of expenditures is expected to change, with a reduction in current expenditures and higher capital spending. Current expenditures are expected to reduce from 11.7 percent of GDP in 2017 to 10.7 percent of GDP in 2018, largely due to a fall in the transfer provided to

¹⁰ World Development Indicators, latest data available.

JIRAMA, which has benefited from increased hydro-power generation. Capital expenditures are expected to increase from 5.5 percent of GDP in 2017 to 7.3 percent of GDP in 2018, where externally financed projects accounts for 4.8 percent of GDP. These expenditure trends are consistent with the government's policy to scale-up publicly financed investments and reduce transfers to state-owned enterprises. However, there has been minimal progress in improving expenditures on social priority expenditures which has stayed consistently at around 1 percent of GDP.

17. The fiscal deficit in 2017 is estimated at 2.3 percent of GDP, and is expected to widen to 3.2 percent of GDP in 2018. The deficit is largely financed through foreign borrowing, which is projected at 2.5 percent of GDP in 2018. These loans are for externally financed investment projects. Domestic borrowing is estimated at 0.7 percent of GDP in 2018, which is a slight reduction from 0.9 percent of GDP the previous year. Domestic borrowing is largely through the issuance of government bonds, which are mostly subscribed to by commercial banks.

Figure 25: There has been a steady improvement in tax revenue collection

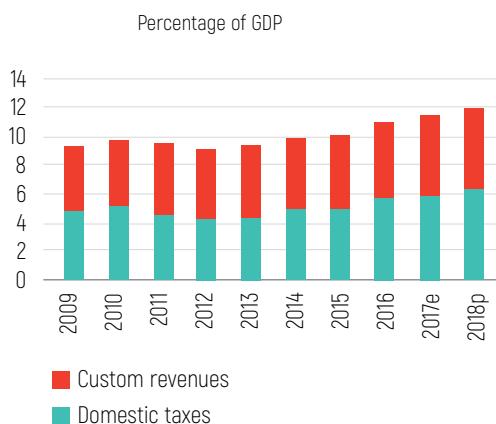
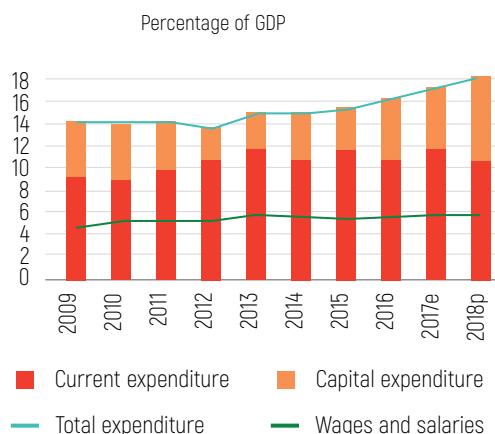


Figure 26: In 2018, capital expenditures are expected to increase, and current spending decline



Source : MFB, IMF and WB staff calculation and projection

Tax collection performed well in the first quarter of the year.

Table 3: Fiscal Operations of the Central Government (% GDP)

	2014	2015	2016	2017	2018	2018
	Actuals			Estimations	LFI	Projections*
Total revenue and grants	12.4	11.8	14.7	14.7	15.1	15.7
Total revenue	10.1	10.4	11.2	11.8	12.1	12.2
Tax revenue	9.9	10.1	10.9	11.5	11.9	12.0
Non-tax revenue	0.2	0.3	0.3	0.3	0.2	0.2
Grants	2.3	1.5	3.5	2.9	3.0	3.4
Total expenditure	14.7	15.1	16.0	17.1	18.0	18.0
Current expenditure	10.8	11.7	10.8	11.7	9.9	10.7
Wages and salaries	5.6	5.5	5.6	5.8	5.7	5.8
Interest payments	0.6	0.8	0.9	0.8	1.0	0.9
Goods and services	0.9	0.5	0.6	0.8	0.9	0.9

	2014	2015	2016	2017	2018	2018
	Actuals			Estimations	LFI	Projections*
Transfers and subsidies	3.2	3.4	3.1	4.1	2.2	2.6
Treasury operations (net)	0.6	1.4	0.6	0.2	0.1	0.4
Capital expenditure	3.9	3.5	5.2	5.5	8.1	7.3
Domestic financed	1.2	1.0	1.2	2.0	2.4	2.5
Foreign financed	2.8	2.5	4.0	3.5	5.7	4.8
Overall balance (commitment basis)	-2.3	-3.3	-1.3	-2.4	-3.0	-2.3
Float (variation of accounts payable, + = increase)	0.6	0.1	0.5	0.7
Variation of domestic arrears (+ = increase)	-0.7	-0.5	-1.2	-0.6	-0.6	-0.6
Overall balance (including grants, cash basis)	-2.4	-3.7	-2.0	-2.3	-3.5	-3.2
Total financing	2.4	3.7	2.0	2.3	3.5	3.2
Foreign borrowing (residency principle)	1.2	2.2	0.7	1.4	3.1	2.5
Domestic borrowing (residency principle)	1.2	2.0	1.4	0.9	0.4	0.7

* Projections based on the rectified budget law draft, published on the MFB website
Source: Malagasy authorities, IMF and WB staff projections, May 2018

18. Overall, the level of debt distress remains moderate.

Madagascar's risk of external debt distress is moderate, which means that while overall levels of debt are currently manageable if there is a shock to the economy, such as reduction in growth, the capacity of the country to repay its debt services is under moderate risk. The latest assessment of Madagascar's debt was undertaken in March 2018, and shows that the ratio of public debt to GDP fell from 38.4 percent of GDP in 2016 to an estimated 36.0 percent of GDP in 2017. The main sources of vulnerabilities to the debt outlook could arise from slower than expected economic growth and unexpected debt arising from the materialization of contingent liabilities from under-performing SOEs.

19. In contrast, a number of other countries in Sub-Saharan

Africa are experiencing risks to their debt sustainability.

In 2013, eight countries in SSA had a high risk of debt distress, compared with 18 countries in 2018. Looking at the continent as a whole, public debt increased from an average of 37 percent of GDP in 2013 to 56 percent in 2016, with more than two-thirds of the countries experiencing an increase of more than 20 percentage points.¹¹ A number of countries are using alternative sources of debt financing, moving away from concessional financing to market-based external debt, which has higher rates of interest. While Madagascar has a moderate risk of debt distress, as the country prepares to scale-up public investments, it is important to learn from these regional trends by carefully considering the implications of debt financing in line with the Medium-Term Debt Strategy, and prioritizing concessional borrowing.

While Madagascar's risk of debt distress remains moderate, high levels of debt for certain state-owned enterprises continue to present a risk, highlighting the need to improve their financial performance.

¹¹ Africa Pulse, World Bank, April 2018.



PART TWO

ECONOMIC OUTLOOK

20. The overall medium-term economic growth outlook is positive. Favorable global growth prospects are expected to maintain strong demand for Malagasy goods and services, contributing to an increase in export earnings and international reserves. Positive weather conditions are expected to bode well for rice production and hydro-power generation. The current boom in vanilla prices is expected to encourage new smallholder farmers to the vanilla growing industry, which can boost local incomes. Ongoing reforms aiming to improve connectivity of rural zones are also expected to contribute to increasing off-farm activities, where secondary income generated could act as a buffer to variations in agricultural output, which are subject to changing weather conditions. The tertiary sector is projected to continue being a source of growth, with services to companies and commerce expected to follow a positive trend. Growth is projected at 5.4 percent in 2019 and to average 5.1 percent over the medium-term.

21. Reflecting the country's significant external financing needs, the pressure on the current account deficit is expected to heighten over the medium-term. The deficit is projected at 3.4 percent in 2019, and then average 4.6 percent of GDP over the period 2020 to 2022, as a scale-up in public investments should drive the demand for imports. The current account deficit will be offset by the related surpluses in the capital and financial accounts from public sector loans and foreign direct investment.

22. Monetary policy is expected to maintain its focus on controlling inflation. Inflation is estimated at 6.4 percent in 2019, and is projected to average around 5.4 to 6.0 percent over the 2020 to 2022 period. Assumptions are based on an increase in the supply of domestically produced rice, following favorable climatic conditions, and moderate increases in energy prices. While international supply conditions for oil remain uncertain, overall a reduction in Brent crude oil prices is projected in 2019, provided that the US shale industry develops as expected.

23. Over the medium-term, public expenditures are expected to remain steady, but with a changing composition toward lower current spending and higher capital expenditures. Public spending is projected to increase from 18.0 percent of GDP in 2018 to 19.6 percent of GDP in 2019, and then average 19.9 percent of GDP over the period 2020 to 2022. Public expenditures are expected to be supported by both an increase in tax revenues and higher external borrowing for projects that have already been identified. Current expenditures are projected to decline from 10.7 percent of GDP in 2018 to 9.8 percent of GDP in 2019, based on the assumption that the transfer to JIRAMA falls as the utility's operational performance improves and commitment to avoiding fuel subsidies is maintained. On the other hand, capital expenditures are projected to increase from an estimated 7.3 percent of GDP in 2018 to a projected 9.8 percent of GDP in 2019, as the government plans to scale-up investment expenditures.

24. This positive macroeconomic outlook provides opportunities to reduce poverty. The projected growth of the economy means that the proportion of the Malagasy population living under the poverty line is likely to decrease. The poverty headcount, based on US\$1.90 a day line is projected to lower from 75 percent in 2018 to 73 percent in 2020.¹² Higher fiscal revenues and a reduction in transfers to poorly performing SOEs mean that there are more resources available to deliver public services such as education, health and public infrastructures. However, the evidence shows that while growth is important, it must be inclusive to have an impact on poverty reduction, supported by sound public institutions. Addressing the constraints to rice productivity identified in the part one of this report figures among one of the channels that could contribute to more inclusive growth in Madagascar. The third part explores how increasing access to financial services can also bring the benefits of growth closer to the poor.

While the economy is projected to continue expanding over the medium-term, focusing on *inclusive growth* is essential for poverty reduction.

¹² Poverty Outlook, 2018 (with updated growth projections).

PART THREE

LEVERAGING TECHNOLOGY TO PROMOTE FINANCIAL INCLUSION

- Penetration levels for banks in Madagascar are amongst the lowest in Africa. Increasing access to the financial system for 41 percent of the population who are currently unbanked will allow individuals to store and send money more safely in the future. It will also open opportunities for accessing credit to start or grow a business for those who were formerly not able to access this type of financial service.
- The newly released Findex data show that the percentage of adults with an account at a financial institution or mobile money service in Madagascar doubled over the past 3 years (from 9 percent in 2014 to 18 percent in 2017) but it is still far below the SSA average of 43 percent.
- A rapid expansion in mobile money is offering opportunities to increase financial inclusion. Growth of the sector is being facilitated by a new e-money regulation which allows financial institutions other than banks to issue e-money.
- Digital partnerships between the growing market segment of microfinance institutions and mobile money operators will be an opportunity for increasing the outreach of mobile network operators.

- One of the current obstacles for those trying to access credit is that banks find it hard to assess the creditworthiness of prospective clients due a lack of information on these future borrowers. Credit bureaus play an important role in collecting data on the repayment behavior of the population, to provide insights on how likely a person is to repay a loan. A newly enacted Credit Bureau Law provides the foundation for private credit bureaus to enter the market in Madagascar. These credit bureaus will be an important source of information for banks seeking to expand their client base.
- **A new National Strategy for Financial Inclusion (2018-2022) has been adopted to support current changes in the financial services landscape of Madagascar.** It prioritizes reforms around increasing financial education, promoting the use of financial services and strengthening the infrastructure for financial services.

Why does financial inclusion matter?

Meet Tantely, a 28-year-old school teacher working in Tsihombe, in Madagascar's deep South. Each month, Tantely is obliged to travel for two days to retrieve her salary. As a result, she cannot fulfill her obligation of teaching in the local school, has to spend money on transportation, and turns to her mother for childcare support during her absence, reducing the family's time for farming activities. Mobile banking is about to change this. Through a new pilot initiative, Tantely will soon receive her salary through her mobile phone, increasing her time in the classroom, and her availability to engage in productive activities.

And Tantely is not alone. Despite being one of the poorest countries in the world, the use of mobile money has increased dramatically in Madagascar – a near 5 times increase in just three years – although from a very low base.¹³ Through the rise of mobile banking access

to services such as transaction accounts, credit, and insurance among others is creating opportunities for individuals and businesses that have been left out of the formal banking system.

Nevertheless, the 2016 Finscope¹⁴ survey data indicated that 41 percent of Malagasy households are completely disconnected from the financial system, suggesting that there is still a long way to go before the benefits of digital innovations become more broad-based and inclusive. Improving access to financial services for women remains a priority, where female entrepreneurs are more likely to report access to credit as a constraint. This piece explores the role that technology and innovation are playing to increase financial inclusion, particularly through mobile banking, and how other segments of the market such as microfinance institutions (MFIs) and banks can catch up.

Increasing access to financial services for **41%** of the population who are currently left behind is essential for storing, saving and sending money safely, as well as accessing credit and other services.

¹³ In 2016 there were 54.2 active mobile money accounts per 1,000 adults compared with 10.7 in 2013 (Financial Access Survey, IMF, 2017).

¹⁴ Finscope is a survey methodology developed by FinMark Trust, an independent trust, for analyzing the financial aspects of the life of the population.

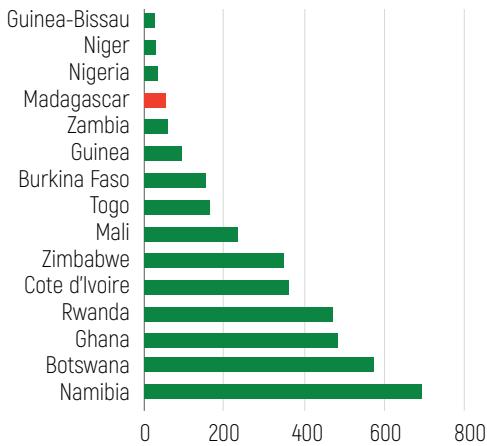
What is driving the growth in mobile money?

Around 40 percent of the Malagasy population currently have access to a mobile phone, while only 4 percent of the population are active internet users. As the country grows, the demand for mobile phones and the potential customer base to be served by the financial system also increases. In 2010, three mobile operators, Airtel Money,

Orange Money and Mvola, were authorized to operate as intermediaries in banking. A range of services started to become available such as deposits and withdrawals through electronic money (e-money), transfer of money, mainly between people, purchase of communication credit, and the payment of invoices.

Figure 27: While the number of mobile money accounts in Madagascar is still below peer countries...

Mobile accounts active per 1,000 adults (2016)



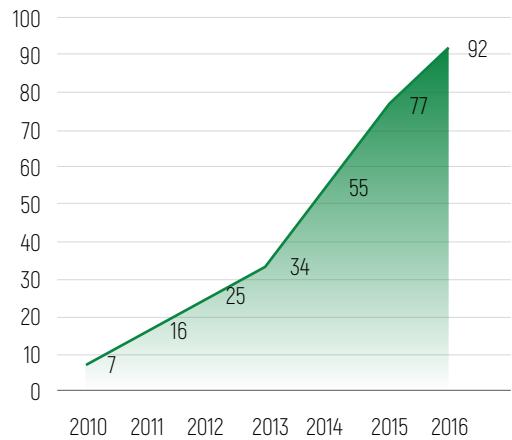
Source: IMF, Financial Access Survey, 2017

A lack of available income to purchase a mobile phone does not necessarily present a barrier to using mobile money. Meet Andry, a 17-year-old student who helps his mother sell merchandise to supplement the family income. Andry's goal is to save for his college education. He realizes that storing cash is risky, but opening a bank account is not an option as the nearest bank is too far away, costly to open, and requires identification documents that are cumbersome to acquire. In response, mobile phone operators have adapted their business model to offer services to a range of clientele. By purchasing a SIM card, customers can use cash-in-cash-out services, through using the mobile phone of a mobile money agent. For most of the population who do not have access to electricity, mobile solar panels are increasingly being used as an alternative source of recharging mobile phones.

Developing access to and usage of e-money accounts is a first step toward using more advanced financial

Figure 28: There has been exponential growth in the number of mobile money outlets over the last few years

Mobile money agent outlets registered in Madagascar per 100,000 adults



services, including credit, because they require lower screening costs and are therefore more affordable than banks. Furthermore, e-money accounts can act as a type of insurance mechanism by providing a safe method of storing money, and by presenting a mechanism to receive remittances in times of need.

Following the rapid rise of mobile banking, in December 2016 Parliament adopted a new law to govern e-money and related institutions. The enactment of this law allows mobile network operators to issue e-money without partnering with a formal financial institution such as a bank or microfinance network, thereby increasing opportunities for new market entrants and encouraging competition. The e-money law has put the sector on a solid legal footing, providing the foundation for further expansion of the sector (see Box 5 on changes to the regulatory framework).

The ease of opening an e-money account is contributing to a rise in mobile banking services.

How can other financial services get on the digital bandwagon?

i Opportunities for Microfinance Institutions

Microfinance institutions (MFIs) are increasingly providing financial services to low-income entrepreneurs to access services such as group lending schemes, micro and short-maturity credit, reinforced by financial education programs to stimulate consumer demand. In just five years, the number of households utilizing services of MFIs grew by 55 percent.¹⁵ The outstanding loan-to-GDP ratio in the MFI sector stands at 1.9 percent, higher than the sub-Saharan African average of 0.55 percent.¹⁶ The reach of the MFI subsector is particularly important for women, whose membership has been steadily increasing from 46 percent in 2011 to close to 50 percent of the total outstanding portfolio of MFIs in 2017.

The potential for MFIs in Madagascar to serve a broader customer base remains significant, particularly in more rural and remote areas, where the number of people who do not have access to financial services is much higher. The 2016 financial access survey showed that 46 percent of the rural population are fully excluded from the financial system, compared with 31 percent of the urban population. Moreover, a mere 7 percent of the rural population use formal banking services, far lower than urban population where over 25 percent are banked [see Figure 29]. And while similar number of males and females are financially excluded, the number of female entrepreneurs using formal financial services is lower than males, indicating another potential area for growth.

Figure 29: Financial exclusion is particularly prevalent in rural areas

Percentage of the population with access to financial services

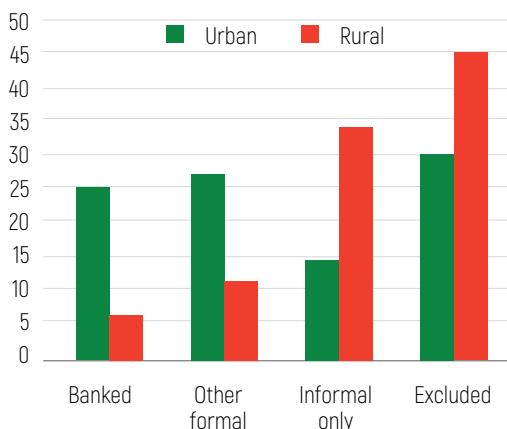
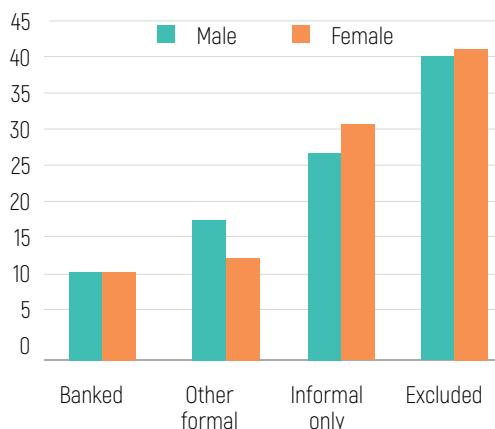


Figure 30: Females are more likely to use informal financial services compared with males

Percentage of the population with access to financial services



Source: Finscope 2016

¹⁵ The household penetration rate of MFIs increased from 19.5 percent in 2011 to 31.6 percent by 2016, National Commission for Financial Inclusion, 2016.

¹⁶ Convergences (2016) Baromètre de la Microfinance 2016.

Table 4: The Microfinance Sector – Fast Facts

	2011	2012	2013	2014	2015	2016
Number of points of service	739	784	820	890	937	949
Household Penetration rate (%)	19.50	22.69	24.60	28.10	29.60	30.40
Women clients/members (%)	45.91	45.92	47.03	48.33	48.51	48.88
Outstanding loans (million Ar)	246,925	314,791	387,682	444,144	506,946	562,322
Credit (% of GDP)	0.84	1.07	1.23	1.40	1.75	1.90
Outstanding savings (million Ar)	195,492	233,530	309,434	382,182	487,462	510,473
Savings (% of GDP)	0.666	0.794	0.98	1.21	1.69	1.72

Source: National Commission for Financial Inclusion (2016), WDI and WB staff estimates

Experience in other countries shows that the expansion of MFIs to more rural areas can provide significant benefits. For instance, the availability of financial services in rural areas in India was associated with an increase in savings and credit provision and a 17 percent reduction in the poverty headcount ratio.¹⁷ The development of an extensive rural branch network, in turn, allowed rural households to accumulate more capital and to obtain loans for longer-term productive investments.

One of the key barriers to the expansion of MFIs in Madagascar is a business model based on physical branches, as the basis for undertaking financial transactions. Since two-thirds of the population live in rural areas, combined with low population density (an average of 42 people per squared kilometer),¹⁸ poor transport connections and insecurity, it remains challenging for the rural population to access MFIs. A large number of 'inactive' deposit accounts are reported by MFIs, which they attribute to high transport fees and insecurity. Seven of the 21 regions in the country

that are mostly located in the center of the island near the capital and in the area connecting the capital to the port of Tamatave, with access to road infrastructure (Analamanga, Vakinankaratra, Alaotra Mangoro, Analanjirofo, Atsinanana, Sava and Itasy) host more than 65 percent of microfinance points of service.

Understanding the potential of e-money, three MFIs have established digital partnerships with mobile network operators, focusing initially on the reimbursement of loans. SMS is used by some MFIs to remind customers of their credit repayment terms, communicate new products, and encourage savings. A study in Tanzania showed that clients who received messages encouraging savings are five times more likely to save compared to those who do not receive such messages.¹⁹ Using e-money also presents opportunities for MFIs to broaden their reach and limit the potential for fraud, potentially saving 80 to 90 percent of operating costs²⁰ (see Box 4 on how digital solutions are being utilized by MFIs in Kenya and Malawi).

Increasing the presence of microfinance institutions in rural areas can be facilitated through leveraging digital partnerships with mobile network providers.

¹⁷ Robin Burgess and Rohini Pande, 2005. Do rural Banks matter? Evidence from the Indian Social Banking Experiment. The American Economic Review, Vol.95, no.3.

¹⁸ World Bank, World Development Indicators, 2015.

¹⁹ <http://www.cgap.org/blog/interactive-sms-drives-digital-savings-and-borrowing-tanzania>

²⁰ McKinsey & Company, 2016.

Box 4: Microfinance institutions harnessing digital technology in Kenya and Malawi



KENYA

Launched in 2009 in Kenya, Musoni Microfinance institution pioneered early in 2012 the use of mobile applications as tools to replace its brick and mortar branches. Musoni has used two models in its digital finance journey: a) Partnering with the two Mobile Network Operators, Safaricom & Airtel, to go “cash-less” allowing

its clients to receive and repay their loans using M-PESA and Airtel Money; b) an SMS Module which enables sending payment re-minders. In addition, Musoni equipped its staff with tablets and the Musoni App replacing paper forms. As of 2015, 75,000 loans were disbursed by Musoni for a total amount of 23 million US\$.



MALAWI

To deepen outreach to rural areas and mobilize low-cost deposits, NBS Bank developed the Pafupi product, a mobile savings account designed to remove the barriers to formal savings for low-income people in rural areas, especially women. Accounts can be opened

in under ten minutes at the clients' doorstep, and no paperwork is required, enabling female clients to bank in their own neighborhoods. Clients can withdraw or deposit cash at any shop that serves as an NBS Bank agent.

Source: Getting Digital Toolkit 1, United Nations Capital Development Fund, 2016 (Kenya) and MicroLead Handout VSLA, United Nations Capital Development Fund, 2017 (Malawi)

One of the key factors holding back the expansion of MFI digital finance services in Madagascar is the lack of a well-developed Management Information System (MIS), which can monitor payments in real time. The lack of an automated MIS limits the ability of MFIs to integrate mobile services and contributes to the limited reach of internal controls. For certain MFIs an upgrade to an existing MIS is required with minor adaptation to allow integration with mobile network operators. However, for other MFIs, the MIS is not automated and requires a complete overhaul. However, without external support, most MFIs cannot afford to upgrade their MIS. As the sector is currently undergoing a restructuring, many MFIs are also dissuaded from committing to significant investments in infrastructure as long as there is no clarity on the future of their institution.

A further constraint to undertaking a loan is the requirement to provide collateral, which is estimated to apply to 82 percent of the clients, and for the first credit can reach up to 120 percent of the value of the loan. Collateral can include materials constituted by the non-possessory²¹ of inventory (cereal bank credit), professional equipment, land titles and non-material possessions such as deposits of 10 to 30 percent

of the loan value, and group caution, which may be complicated to demonstrate. Under these circumstances, an individual's past repayment history can serve as “reputational collateral” to induce financial institutions to accept loan applications. To increase the availability of information to creditors, a law has recently been enacted on Credit Bureaus to digitally collect and share information on credit and payment history among participating financial institutions. This new law could increase the potential for the largely rural population to gain visibility to financial institutions (see Box 5 for more information.)

While the growth of the MFI subsector has undoubtedly created opportunities, the pace at which services have expanded has come at the expense of a deterioration of credit portfolio quality at some MFIs. The sector has recently seen the failure of one important MFI network while another one is under temporary administration. A consolidation of the sector is expected as well as the introduction of risk-based supervision. A new microfinance law approved by Parliament in December 2017 is expected to lead to a more stable and better supervised financial sector, with higher levels of trust of microfinance clients in the system particularly for the safety of their deposits (see Box 5 for more information).

²¹ Non-possessory pledge of the inventories: in this situation the borrower retains the ownership and possession of the collateral securing a loan during the repayment period.

Box 5: Key Regulatory Changes in the Financial Sector

Since 2016, three new laws in the financial sector have been enacted by Parliament, helping to bring stability and clarity, which is expected to set the foundation for further expansion. A summary of the regulatory changes is set out below.

E-money law (*Loi n°2016-056 sur la monnaie électronique et les établissements de monnaie électronique*) was approved by Parliament on February 2, 2017, and the secondary regulation (decrets d'application) were published in September 2017.

- **Objective of the law:** defines e-money, how it can be used, how the user is protected, who can issue e-money, and how e-money issuers are regulated.
- **Key innovative features:** creates a framework to allow non-banks to issue e-money, in order to open the market and promote competition.
- **Impact on financial inclusion:** contributes to financial inclusion by using technology to give access to a transaction account.

Credit Bureau Law (Loi N 045-2017: Loi regissant l'activité et le contrôle des bureaux d'information sur le crédit) was put into effect on February 2018.

- **Objective of the law:** regulates the full life cycle of Private Credit Bureaus (PCB) (licensing, establishment, operations, management, governance, supervision, liquidation, etc.) and gives special consideration to consumers' rights in respect of the privacy of personal data.
- **Key features:** the law fully echoes the WBG Credit Reporting General Principles (for example, data accuracy and comprehensiveness; rigorous system security and reliability; sound governance of the private credit bureau through transparency and supervision; ample clear and non-discriminatory borrowers' rights, possibility of cross-border sharing, as well as multiple licensing to create a

healthy credit reporting market). Furthermore, the law text is perfectly harmonized with the existing Data Privacy law enforced in Madagascar and related jurisprudence.

- **Impact on financial inclusion:** The law has been conceived to support the fast change imposed by new data technologies and typologies, and to anticipate the participation to the PCB mechanism of every sector (financial and commercial, supervised and non-supervised, traditional lenders and new fintech lenders), therefore exponentially increasing the opportunities to access credit and become visible for the informal economy.

Micro finance law *Loi No. 025/2017 du 27 septembre 2017* was promulgated on February 2018 and approved by Parliament on December 7, 2017.

- **Objective of the law:** improve supervision of MFIs by strengthening the powers of the regulator and defining a new licensing strategy.
- **Key innovative features:** reviews the process of dealing with MFIs in difficulty, through introducing restructuring, resolution, and forced closure. Supported by accompanying decrees the law reinforces risk based management, improved governance through reporting to the supervisor and shareholders, and improve internal controls within MFIs. Finally, the law introduces a Deposit Insurance Fund in the event that resources are needed to pay back money resulting from the failure of a financial institution.
- **Impact on financial inclusion:** MFIs provide financial services to those who are excluded by formal banks. Strengthening the regulation and supervision of MFIs, the law (and accompanying texts) will contribute to improve the quality and durability of MFIs and the services they offer to an unserved or underserved population.

Source: Central Bank of Madagascar

Regulatory changes with the passing of the e-money law, credit bureau law and micro finance law are helping to bring stability and clarity to the financial sector.

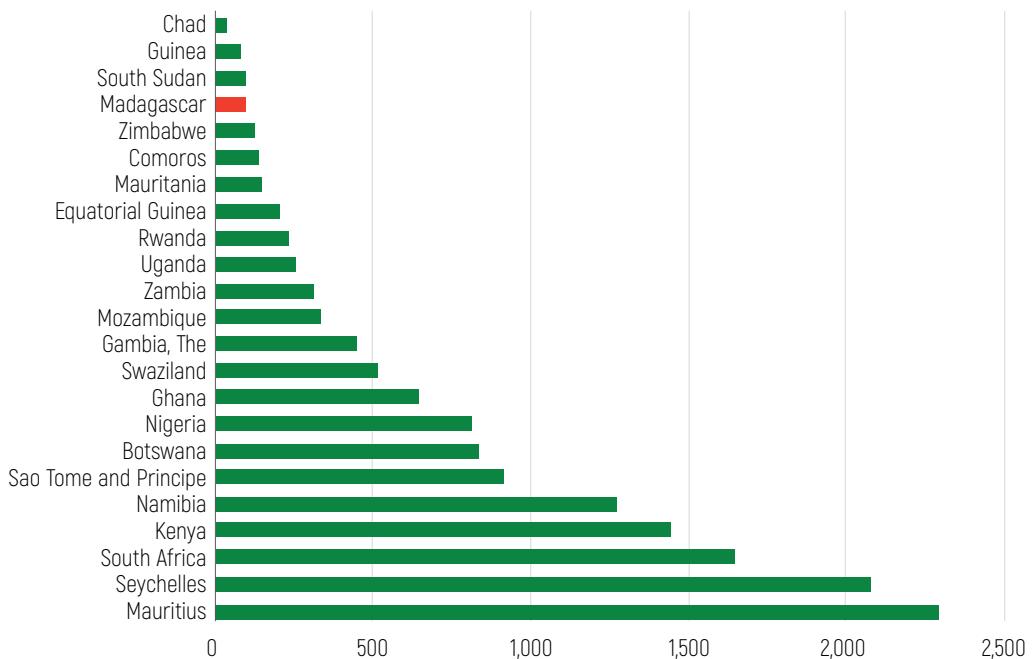
ii Opportunities for Banks

Banks can play an important role in promoting financial inclusion, particularly through providing financial and credit services to medium and large enterprises, which can further spur growth and generate employment. At present, Madagascar's banking sector is characterized by high levels of profitability but low levels of banking

penetration. For example, compared to peer countries in Africa, there are only an estimated 97.3 deposit accounts for every 1,000 adults, a level comparable with countries such as South Sudan and Chad. And less than 3 percent of the population have access to bank credit (IMF FAS 2017).

Figure 31: Less than 10 percent of Malagasy have a deposit account – one of the lowest levels in Africa

Deposit accounts at commercial banks per 1,000 adults



IMF FAS 2017

Several factors contribute to low banking penetration. Banks in Madagascar charge high account fees, which acts as a deterrent for potential depositors, particularly given pervasive poverty levels. The requirements for opening an account also present a barrier, such as the need to present identification documents that can be costly. Similar to MFIs, the business model for banks is also based on physical branches, which are clustered in urban areas. The cost of expanding to rural areas is high for banks, particularly since the potential customer base is low.

The factors affecting penetration have a knock-on effect on bank credit. First, because banks have a hard time attracting deposits, the cost of funding for banks is high and lending is risky, banks - in turn - offer credit only at high interest rates.²² Second, banks are deterred from offering credit to applicants that lack a formal credit history and who cannot offer financial statements of sufficient quality, a situation that the Private Credit Bureau should help to address. Third, many Malagasy cannot offer sufficient collateral or - if they do - enforceability of this collateral in

²² A 2016 interest rate study in Madagascar found spreads for effective loan interest rates between 11% and 127%. Spreads were even higher and more variable among MFIs. The financial sector supervisor has not put in place interest rate caps or restrictions. Interest rates are set at market-determined rates

the courts is in doubt. Concerns about collateral have been heightened by the lack of a centralized collateral registry. Fourth, credit demand is limited, given that many micro enterprises either do not have a business model that can be scaled profitably or do not have the entrepreneurial mindset to move forward with expansion.

Experience in other countries shows that banks can adapt their business model, and utilize technology to promote financial inclusion. For example, by investing in interoperability (which refers to information exchange

between banks through linked software platforms) funds could be withdrawn through the branch or Automated-teller machine (ATM) of another bank, which would help to overcome the challenge of a sparse banking network. In countries such as Kenya, banks have found new ways to compete and collaborate in an increasingly digital and mobile financial services market, working closely with mobile network operators (see Box 6). Banks can also be instrumental in promoting a savings culture by providing access to transaction accounts as a first step to the provision of other financial services.

Box 6: How Banks in Kenya are Innovating to Increase Financial Inclusion

The rapid growth of mobile money has been a key feature of the financial sector in Kenya, with a large part of the population using their phones to send, receive and store money. Building on this success, banks have adapted their business models, where the number of bank accounts now exceed mobile money accounts.

The Kenya Banker Association introduced a small dollar interoperability scheme through the roll-out of PesaLink, a real-time payments system that enables small-value transfers between institutions. The scheme is now managed by a newly created, bank-owned entity called Integrated Payment Systems Limited, which operates the payments switch that supports the transactions.

The new scheme allows customers with accounts at participating banks to send money to each other easily

and instantly. A sender simply designates a recipient by entering his or her phone number (or account number if the recipient doesn't have a registered phone). This intuitive payment system moves the business of interbank payments one step closer to the world of M-PESA and Kenya's increasingly mobile-native, low-income population.

The PesaLink system is part of a broader effort to improve coordination between banks, such as improved ATM connectivity and fraud services. By working with M-PESA, the PesaLink system is able to increase its reach (banks in Kenya have around 15,000 access points compared with 65,000 mobile money agents). While PesaLink is still in its early days, a clear lesson is emerging on how mobile money can incentivize innovation in the banking sector, to increasingly serve lower-income customers.

Source: Consultative Group to Assist the Poor, World Bank, 2017

Banking penetration in Madagascar is low, but learning from other countries, technology can help to adapt business practices to overcome the challenge of a sparse banking network.

The recently enacted law on the Private Credit Bureau should help to reduce risk for banks lending to new customers through providing information on potential customers. A partial portfolio guarantee for credits (PPCG) by banks and MFIs to MSMEs in operation now for over three years has been successful in increasing bank and MFI lending to MSME.²³ Under the scheme, the

PPCG Fund guarantees 50 percent of credits extended to eligible borrowers. The eligibility criteria are agreed upon between the lender and the Fund. A portfolio guarantee is characterized by automaticity as each credit meeting eligibility criteria must be registered on the guarantee. Eligible claims on the guarantee for delinquent loans are paid by the Fund within thirty days.

Where next for financial inclusion in Madagascar?

The National Strategy for Financial Inclusion, 2018-2022 has been adopted with the objective of increasing the number of adults with access to formal financial services from 29 percent in 2016 to 45 percent in 2022.²⁴ The strategy is based on three strategic pillars, centered around (i)

financial education and consumer protection; (ii) access and use of financial services; and (iii) strengthening the regulatory and institutional framework. (See Box 7 for further information on the strategy).

Box 7: Madagascar – National Strategy for Financial Inclusion (2018-2022)

The financial inclusion strategy is based on three strategic pillars, to prioritize reforms around a shared vision.

- 1 *Financial Education and Consumer Protection:* through an (i) improved financial education of all categories of the population for better financial inclusion; (ii) information and communication campaign to promote financial inclusion; and (iii) protection of consumers service to create a climate of trust between the population and suppliers.
- 2 *Access and use of financial services:* (i) savings mobilization to deal with shocks and build productive capital; (ii) develop niche of insurance opportunities for resilience and productivity; (iii) optimize the use of a payment system to promote trade and resilience and (iv) offer targeted credit to expand economic opportunities.
- 3 *Strengthening policies, legal and institutional framework:* (i) enabling environment conducive to financial inclusion; (ii) strengthening the institutional capacity of the National Commission for Financial Inclusion and the Financial Sector Regulator; and (iii) establishing a climate of trust between financial service providers and the judiciary system.

The implementation of the NFIS is coordinated by the National Commission of Financial Inclusion, which holds the secretariat of the steering committee and ensures the coordination of different technical and strategic working groups, including the monitoring and evaluation framework on financial inclusion.

Source: National Strategy for Financial Inclusion (2018-2022)

²³ This Fund has been introduced and supported by the World Bank through the 'Projet d'Appui aux Services Financiers (PASEF)' project with a 4 million US dollars which supported credits of over 46 million US dollars to MSMEs. The new World Bank financial inclusion project added 8 million US dollars to the endowment.

²⁴ This figure refers to the percentage of the total population that have access to banks and other formal financial institutions.

The rise of mobile banking offers great opportunities for increasing financial inclusion and sets an example for how microfinance institutions and banks can also use technology to promote access.

The strategy seeks to improve both the supply of financial services, and demand for financial products. Improved provision of financial services is envisaged through the use of new and existing sources of data to appraise borrowers in innovative ways, making it possible to manage the credit risk of MSMEs that may otherwise be un-bankable. The use of an automated management information system is also expected to improve the transparency and governance of financial institutions, especially for MFIs. Digital payments are envisaged for government payments to enhance financial inclusion through both Government to Person and Person to Government payments. Demand for financial services is expected to improve by investing in financial education, so that individuals and businesses can make informed decisions on financial services. Promoting financial consumer protection is expected to further increase trust in formal financial services and encourage financial inclusion.

Conclusion

While 41 percent of the population are excluded from the financial system, there have nevertheless been important developments in the sector to increase access. Notably, mobile network operators have successfully been able to increase mobile banking, including for those individuals who cannot afford a mobile phone and do not have access to electricity. A 55 percent increase in mobile money market penetration in just five years is a remarkable achievement

And finally, improvements to the overall financial system infrastructure are expected through modernizing the existing Automated Clearing House and large-value payment systems, as well as implementing a national SWITCH for cards and e-money transactions to enhance interoperability. The national payment system is expected to facilitate transactions between accounts at different financial institutions. The financial sector infrastructure is also expected to be enhanced through the establishment of a collateral registry. There is currently no structured secured transaction system in Madagascar, which creates uncertainty about the enforceability of collateral rights in case of default and acts as a deterrent to lending. To develop a collateral registry a broad based secured transactions reform should be established, followed by a centralized electronic web based registry.

and a reflection of innovation in practice when companies are willing to adapt and there is a supporting enabling environment. Key opportunities include scaling up mobile banking, encouraging MFIs and banks to also leverage technology, and increasing financial literacy to support the uptake of financial services to promote entrepreneurship and growth.

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