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REPUBLIC OF MADAGASCAR

FINANCIAL SYSTEM STABILITY ASSESSMENT

December 2016

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FINANCIAL SYSTEM STABILITY ASSESSMENT

July 2016

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This report is based on the work of the Financial Sector Assessment Program (FSAP) mission that visited Madagascar in October 2015. The FSAP findings were discussed with the authorities during the First Review Under the Staff-Monitored Program mission in June 2016.

- The FSAP team was led by Daniel Hardy (IMF) and Cedric Mousset (World Bank), and comprised Ivan Guérra, Thierry Bayle, Lars Engstrom, Patrick Imam, Rachid Awad (IMF), Dorothée Delort, Nathalie Assouline, Sophie Dong, Laurent Gonnet, Anthony Randle, and Alain Tardif (World Bank). The mission met with the Central Bank of Madagascar (BCM), the Commission for the Supervision of Banks and Finance (CSBF), the Ministry of Finance and Budget (MFB), other relevant government agencies, and representatives of financial institutions and the legal profession.

- FSAPs assess the stability of the financial system as a whole and not that of individual institutions. They are intended to help countries identify key sources of systemic risk in the financial sector and implement policies to enhance its resilience to shocks and contagion. Certain categories of risk affecting financial institutions, such as operational or legal risk, or risk related to fraud, are not covered in FSAPs.

- This report was prepared by Daniel Hardy, with contributions from the FSAP team. The report draws on several Technical Notes and a Detailed Assessment Report on compliance with the Basel Core Principles for Effective Banking Supervision (BCP).

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Glossary

AML/CFT	Anti-money laundering/combating the financing of terrorism
BCM	Central Bank of Madagascar
BCP	Basel Core Principles for Effective Banking Supervision
CEM	Caisse d'Epargne de Madagascar
CNAPS	Caisse Nationale de Prévoyance Sociale
CRB	Centrale des risques bancaire
CRM	Centrale des risques microfinance
CSBF	Commission for the Supervision of Banks and Finance
DGS	Deposit guarantee scheme
EMI	Electronic Money Institution
FATF	Financial Action Task Force
FSAP	Financial Sector Assessment Program
FSI	Financial soundness indicator
IMF	International Monetary Fund
MCM	Monetary and Capital Markets
MFI	Microfinance institution
MGA	Madagascar ariary
MFB	Ministry of Finance and Budget
NBFI	Nonbank financial Institution
NPL	Nonperforming loan
RTGS	Real Time Gross Settlement
Samifin	Financial Intelligence Unit of Madagascar
SME	Small and medium-sized enterprise
SOE	State-owned enterprise

EXECUTIVE SUMMARY

The Malagasy authorities face the challenge of developing the financial system while preserving financial stability. The financial sector survived relatively well the economic and political turmoil of the last decade on the basis of a conservative strategy, albeit with little progress in financial deepening or inclusion. A move to a more dynamic and open regime could bring with it severe risks unless prudential regulations and practice is strengthened very substantially.

The banking sector is exposed to significant risks, though it has certain buffers, such as high profitability and a stable deposit base. Madagascar's macroeconomic performance has been characterized by relatively poor trend growth interspaced with adverse shocks related to falls in commodity prices and political instability. Currently the economy is recovering, and enjoys the prospect of a resumption in inflows of foreign aid and investment; inflation is coming down and the balance of payments has strengthened. Yet, the recovery is fragile. Stability analysis carried out as part of the FSAP identified plausible scenarios that would lead to sharply increased credit losses in a context of difficult loan recovery. Vulnerabilities—especially in some of the smaller, less well-funded banks—might grow rapidly if a sustained lending boom were to emerge. The authorities' recent initiation of macroprudential analyses is welcome in this regard. Certain banks display disconcertingly concentrated portfolios and large exposures to parent institutions.

Banking supervision is not yet able to proactively detect and address emerging risks; doing so will require additional resources and political will. The work of the Commission for the Supervision of Banks and Finance (CSBF) was too often compliance oriented. Onsite supervision activities are not as frequent as needed and are not prioritized according to risks. Effective supervision will require transitioning to a risk-based approach; a significant increase in trained staff, especially for on-site supervision; and a reinforcement of supervisory independence. Moreover, certain regulatory gaps need to be filled, for example, regarding related-party lending and loan classification. Similarly, the supervision of microfinance institutions (MFIs) needs to become more risk based and pro-active.

Addressing problem banks and MFIs requires more decisive, early intervention, and an orderly recovery and resolution framework. Recent experience shows that current arrangements lead to drawn-out resolution that is costly to depositors, government, the Central Bank of Madagascar (BCM), and legitimate borrowers. A law establishing a special resolution mechanism for credit institutions is needed. Even before the passage of such a law, preparations should start to ensure rapid decision making and a ladder of responses to infractions. Once a resolution mechanism is operational and prudential supervision strengthened considerably, it may be worthwhile to develop a deposit guarantee scheme aimed to protect small depositors.

Public nonbank financial institutions (NBFIs) are too frequently used to finance government policies, without sufficient attention to the security of their investments. Unlike the banking sector, the NBFIs (mostly in insurance and pensions) are largely controlled by government. Their

governing bodies are not sufficiently independent and their asset valuation is often unreliable. Some also display operational weaknesses. Moreover, insurers are subject to prudential supervision by the Ministry of Finance and Budget (MFB)—which owns the largest undertakings, leading to a conflict of interest—and other NBFIs are not subject to any prudential oversight. Hence, these institutions are not in a position to play the roles they should in financial inclusion, yet create a large contingent liability for government. Early steps in the reform process would involve independent audits (based on internationally accepted standards) of the financial situation of main public sector NBFIs, and subjecting them to independent prudential supervision.

Efforts are needed to promote financial deepening and inclusion, consistent with the maintenance of stability and consumer protection. The poor functioning of the judicial system, and concomitant difficulties in enforcing property rights, are major hindrances to financial deepening. With a better legal environment, bank lending but also leasing and factoring might become important in financing small and medium enterprises (SMEs).

Considerable and rapid progress in payment infrastructure and credit reporting seems possible. The authorities are advancing with a law on electronic money. The adoption of a law on the national payment system would lay the legal foundation for developing the payment system. In conjunction to this, the BCM should be given oversight powers. The two existing credit risk registries, which now do not provide reliable and up-to-date information, should be unified, streamlined, and subject to careful quality control.

As in other areas, strengthening the system for anti-money laundering and combating the financing of terrorism (AML/CFT) will require more human resources and more effective implementation. Some legislative changes are in train, and a full assessment of the system is scheduled for later this year.

The authorities have already begun to implement reforms in line with the recommendations summarized in the following table. A high level committee is coordinating implementation and mobilizing assistance to this end.

Table 1. Madagascar: Key FSAP Recommendations

Action	**Time horizon for completion[1]**
Increase the quantity and quality of the CSBF's human resources.	Medium-term
Intensify on-site supervision of banks and MFIs.	Short-term
Begin to implement risk-based supervision.	Short-term
Regularly conduct stress tests and use results to inform banking supervision.	Short-term
Give the BCM all needed powers to promote financial stability, in cooperation with the CSBF and MFB.	Short-term
Enhance the powers and independence of financial supervisors.	Medium-term
Expand the definition of related parties, and intensify supervision of concentration risks.	Short-term
Improve asset classification and provisioning rules.	Short-term
Increase minimum capital requirements for credit institutions and MFIs.	Medium-term
Enhance the banks' internal control regulation and introduce detailed corporate governance requirements.	Medium-term
Strengthen the legal framework for the resolution of credit institutions and MFIs.	Medium-term
Implement a graduated intervention system for problem institutions.	Longer-term
Explore setting up a deposit guarantee mechanism once banking supervision and the resolution framework are strengthened.	Longer-term
Intensify and enhance supervision of insurers and reinforce supervisory independence.	Medium-term
Institute independent, well-resourced prudential supervision of pension, savings and investment funds.	Medium -term
Conduct independent financial audits of the National Savings Fund (CEM) and the savings network of the postal service, and then define restructuring/resolution strategies.	Medium-term
Establish the legal framework for issuing and using electronic money, and implement a supervision and oversight mechanism.	Medium-term
Adopt a draft law governing the national payment system.	Medium-term
Unify and enhance credit risk registries.	Longer-term
Modernize the security registers.	Longer-term
Improve mechanisms to freeze assets in cases of suspected money laundering and recovering goods acquired illegally.	Longer-term

[1] Short-term: to 6 months; Medium-term: 6 to 24 months; Longer-term: over 24 months.

BACKGROUND

A. Macroeconomic Environment and Business Climate

1. Madagascar has faced major economic and institutional disruptions since the last FSAP in 2005–06.[1] Political turmoil has resulted in repeated episodes of sharp reversals in economic activity, and recovery has often been slow (Figure 2). These episodes have provoked reductions in aid and investment inflows, with negative feedback effects. There have been periods of rapid, mining-driven growth, but the relatively large tradable goods sector is exposed to fluctuations in international prices. Madagascar is also prone to costly natural disasters. The sizeable tourism sector is affected by the economic situation in the tourists' home countries and operational challenges in Madagascar.

2. Economic performance is improving but GDP growth is still barely above the rate of population growth (Table 1); sustained, higher and more inclusive growth will require structural reforms and an improvement in the business climate.[2] Some recovery is in prospect as certain financial and structural impediments are eased. However, the persistent prevalence of corruption (especially in the judicial system) and the lack of legal security undermine the enforceability of contractual rights, increase costs, and favor "rent seeking" over value creation. The accounting and audit framework, and practice are weak.

[1] Analysis and recommendations are found in IMF Country Report No. 06/305.

[2] The accompanying Staff Report outlines the reform agenda and the necessary economic adjustment.

Table 2: Madagascar: Selected Economic Indicators

	2012	2013	2014	2015	2016	2017	2018
	Actuals			Prel. Est.	Projections		
	(Percent change; unless otherwise indicated)						
National account and prices							
GDP at constant prices	3.0	2.3	3.3	3.1	4.1	4.5	4.8
GDP deflator	5.5	5.1	6.6	7.6	6.7	6.9	6.4
Consumer prices (end of period)	5.8	6.3	6.0	7.6	7.1	7.1	6.3
Money and credit							
Reserve money	9.8	-6.1	14.1	9.6	16.0	11.2	11.9
Broad money (M3)	6.0	5.3	11.1	14.6	17.9	12.7	12.5
	(Growth in percent of beginning of period money stock (M3))						
Net foreign assets	-2.0	-13.5	5.4	6.9	7.7	3.3	2.6
Net domestic assets	9.7	18.7	5.7	7.7	10.2	9.4	9.9
of which: Credit to the private sector	2.3	6.9	8.6	8.2	4.6	6.6	7.8
	(Percent of GDP)						
Public finance							
Total revenue (excluding grants)	9.6	9.6	10.1	10.4	11.0	11.2	11.7
of which: Tax revenue	9.1	9.3	9.9	10.1	10.8	11.0	11.5
Grants	1.2	1.3	2.3	1.5	2.0	2.7	1.5
Total expenditures	13.4	14.9	14.7	15.1	16.2	18.3	17.6
Current expenditure	10.7	11.8	10.8	11.7	11.0	10.3	10.0
Capital expenditure	2.7	3.1	3.9	3.5	5.3	8.0	7.6
Domestic financed	0.8	0.6	1.2	1.0	1.5	1.9	2.4
Foreign financed	2.0	2.5	2.8	2.5	3.7	6.1	5.2
Overall balance (commitment basis)	-2.6	-4.0	-2.3	-3.3	-3.2	-4.4	-4.4
Overall balance (cash basis)	-1.4	-2.0	-2.4	-3.7	-4.5	-5.1	-5.0
Total financing	1.4	2.0	2.4	3.7	4.5	4.7	4.0
Foreign borrowing (net)	0.5	1.0	1.2	2.2	2.9	3.6	3.2
Domestic financing	0.9	1.0	1.2	2.0	1.5	1.1	0.8
Excess financing after prospective financing (+)	0.0	0.0	0.0	0.0	0.0	-0.4	-0.5
Savings and investment							
Investment	17.6	15.9	15.6	13.1	15.3	18.2	18.2
Gross national savings	10.7	10.0	15.3	11.2	13.0	14.5	14.0
External sector							
Exports of goods, f.o.b.	15.3	18.1	20.6	21.0	21.5	20.8	20.7
Imports of goods, c.i.f.	32.2	31.7	31.2	29.7	31.2	32.2	32.5
Current account balance (exc. grants)	-7.6	-6.5	-1.5	-3.4	-4.3	-6.4	-5.6
Current account balance (inc. grants)	-6.9	-5.9	-0.3	-1.9	-2.3	-3.7	-4.2
Public debt	33.0	33.9	35.8	41.0	41.8	42.9	43.7
External	23.5	22.8	24.4	28.4	30.5	32.7	34.6
Domestic	9.5	11.1	11.4	12.6	11.3	10.2	9.1
	(Units as indicated)						
Gross official reserves (millions of SDRs)	682	502	535	600	704	785	863
Months of imports of goods and services	3.3	2.2	2.5	2.9	3.3	3.4	3.5
Real effective exchange rate (period average,	-1.1	3.6	-3.4	-0.5	…	…	…
Terms of trade (percent change, deterioration -)	-3.9	0.0	0.8	6.6	6.6	-4.6	-2.1
GDP per capita (U.S. dollars)	445	462	453	402	391	405	419
Nominal GDP at market prices (billions of ariary)	21,774	23,397	25,775	28,585	31,773	35,507	39,609

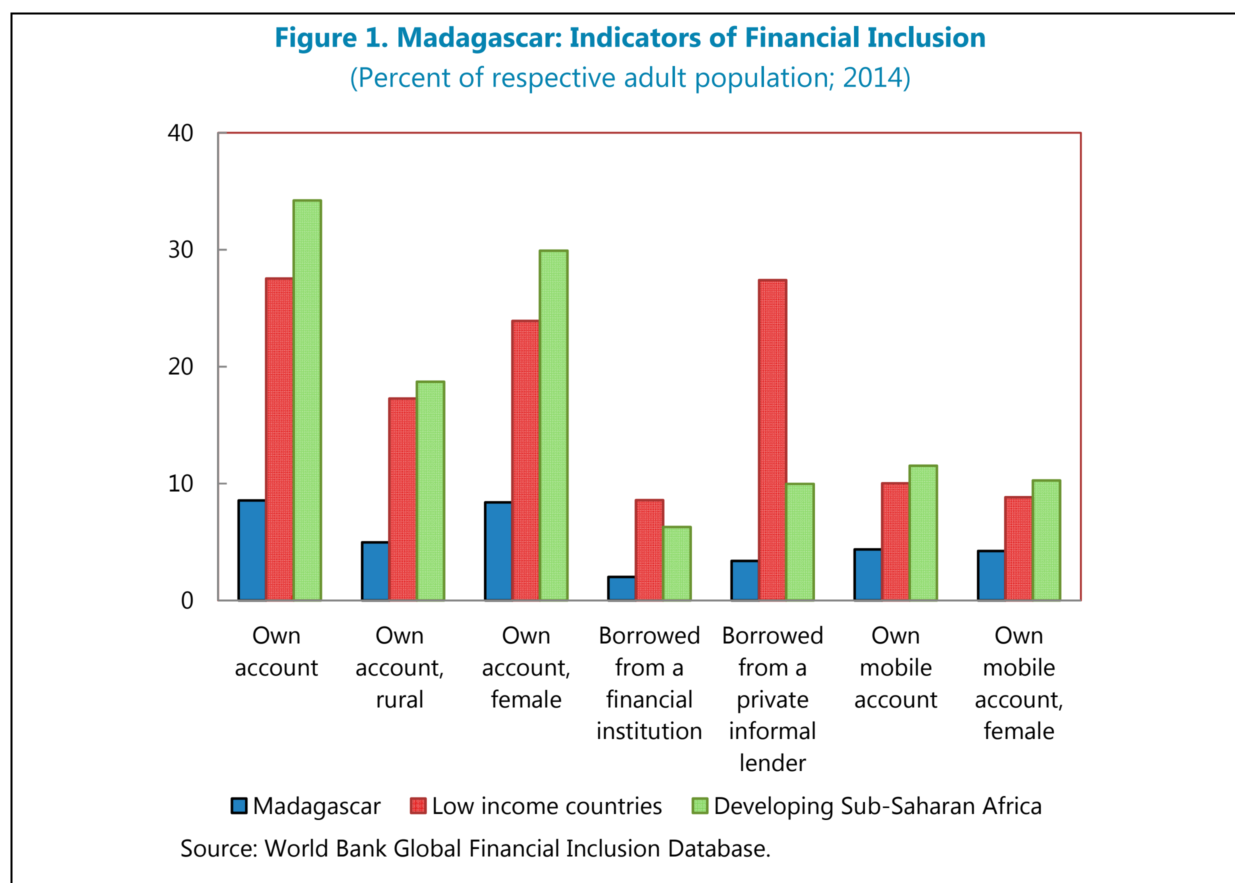
Sources: Malagasy authorities; and IMF staff estimates and projections.

B. Structure and Performance of the Financial Sector

3. Financial intermediation is dominated by banking; financial depth remains low (Table 2). The ratios to GDP of deposit taking (19 percent) and lending (10 percent) have barely changed over the past decade; indicators of financial inclusion are well below those of comparable countries (Figure 1). More positively, banks have recently expanded their regional branch networks, and cell phone based payment systems have become popular.

Figure 1. Madagascar: Indicators of Financial Inclusion

(Percent of respective adult population; 2014)



Source: World Bank Global Financial Inclusion Database.

4. Four banks, all subsidiaries of foreign banking groups until 2014, predominate.[3] The top four banks hold over four fifths of deposits and loans. The government retains a minority stake in three of these banks.[4] The other seven licensed banks are majority foreign owned with the exception of one small bank, which was until recently a microfinance institution (MFI). One locally-capitalized bank was placed in liquidation in 2014.

[3] One large bank has been controlled by a group of national and regional investors since 2015.

[4] The banks were privatized more than a decade ago.

Table 3. Madagascar: Structure of the Financial System

	2004			2010			2015		
	Number 1/	Billion MGA	Percent of GDP	Number 1/	Billion MGA	Percent of GDP	Number 1/	Billion MGA	Percent of GDP
Deposit collecting institutions	**14**	**2,399**	**29.0**	**38**	**5,173**	**28.3**	**38**	**8091**	**28.3**
Banks	7	1,994	25.0	10	4,523	24.8	11	7,010	24.5
Microfinance institutions	5	165	1.0	26	184	1.0	25	401	1.4
Savings fund	1	135	1.7	1	245	1.3	1	329	1.2
Post	1	105	1.3	1	221	1.2	1	351 2/	1.2
Other financial institutions 3/	**5**	**267**	**3.3**	**12**	**961**	**5.2**	**16**	**1,800**	**6.5**
Financial establishments	1	3	0.0	7	36	0.1	3	32	0.1
Insurance	2	159	2.0	4	508	2.8	5	705	2.5
Pension funds	2	105	1.3	1	417	2.3	1	728	2.5
Investment funds	...	...	...	...	...	...	7	335 4/	1.4
Total 5/	**19**	**2,666**	**32.3**	**50**	**6134**	**33.5**	**54**	**9891**	**34.8**

Sources: Malagasy authorities and Fund staff estimates.

1/ Number of licences ; certain microfinance networks hold a collective licence for all network institutions.

2/ Latest available (2014).

3/ In addition, 24 currency exchange bureaus operated in 2015; their financial assets are understood to be minor.

4/ Latest available (2013).

5/ Assuming that the share of investment funds has been constant, the ratio of total financial sector assets to GDP can be estimated at 34.9 percent in 2010 and 33.7 percent in 2014.

5. The microfinance sector provides financial services to numerous poorer households, but is not large in financial terms. Activity is concentrated in five MFIs, which account for three fourths of the credit portfolio and half of the sector's deposits. Much of the sector operates on a cooperative basis and is organized into networks. Two MFIs are currently being resolved.

6. The government remains the dominant operator in the nonbank financial institution (NBFI) sector. It controls the two main insurance companies, the savings network provided through the postal service, the CEM, and, to a large extent, the National Insurance and Social Security Fund (CNAPS), which manages the main pension scheme for private sector retirees and other benefits.[5] The structure of the NBFI sector has been stable except for the establishment of certain investment funds, which are outside the regulatory perimeter.

FINANCIAL SECTOR STABILITY

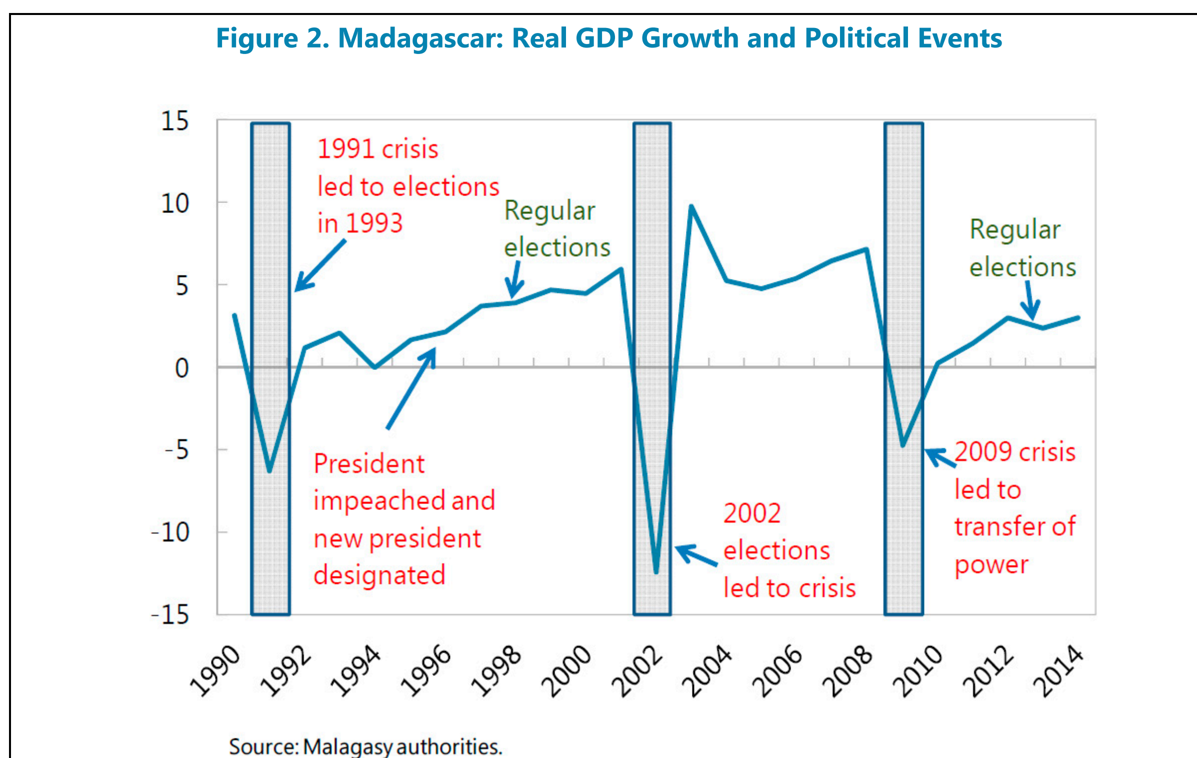
A. Risk Factors[6]

7. Madagascar has a history of sharp contractions in output and real GDP affecting especially the tradable goods sector (Figure 2). External events such as slow growth in advanced economies and commodity price fluctuations have affected export earnings and the cost of imported inputs. These fluctuations have sometimes led to large swings in foreign direct investment and, on occasion, a reduction in production capacity and related infrastructure. In addition, bouts of political turmoil and concerns about persistent corruption have disrupted economic activity and discouraged capital formation and led to reductions in foreign aid and concessional financing. In these circumstances, the government has run arrears and cut expenditure on infrastructure, with knock-on effects on suppliers and the purchasing capacity of public-sector workers. Moreover, quantitative rationing of foreign exchange has sometimes intensified the economic dislocation. Such a shock may rapidly lead to a substantial deterioration in banks' loan portfolio, and also reduce their fee income on transaction services.

[5] CNAPS is the only pension fund with significant assets.

[6] Risk factors and the possible consequences of their realization are summarized in the Risk Assessment Matrix (Appendix I).

Figure 2. Madagascar: Real GDP Growth and Political Events



Source: Malagasy authorities.

8. The concentrated nature of the economy is a source of vulnerability. Both the banking sector and the corporate sector are concentrated.[7] As a result, individual banks' loan portfolios often lack diversification, and a few large corporate have borrowed substantially from several banks. Any impairment to the ability of a few large firms to service their loans, or doubts about the soundness of an individual significant firm, may have a major effect.[8] In this connection, Madagascar is subject to natural catastrophe that might affect a large part of the formal sector (especially if infrastructure is disrupted) and destroy banks' fixed assets and equipment.

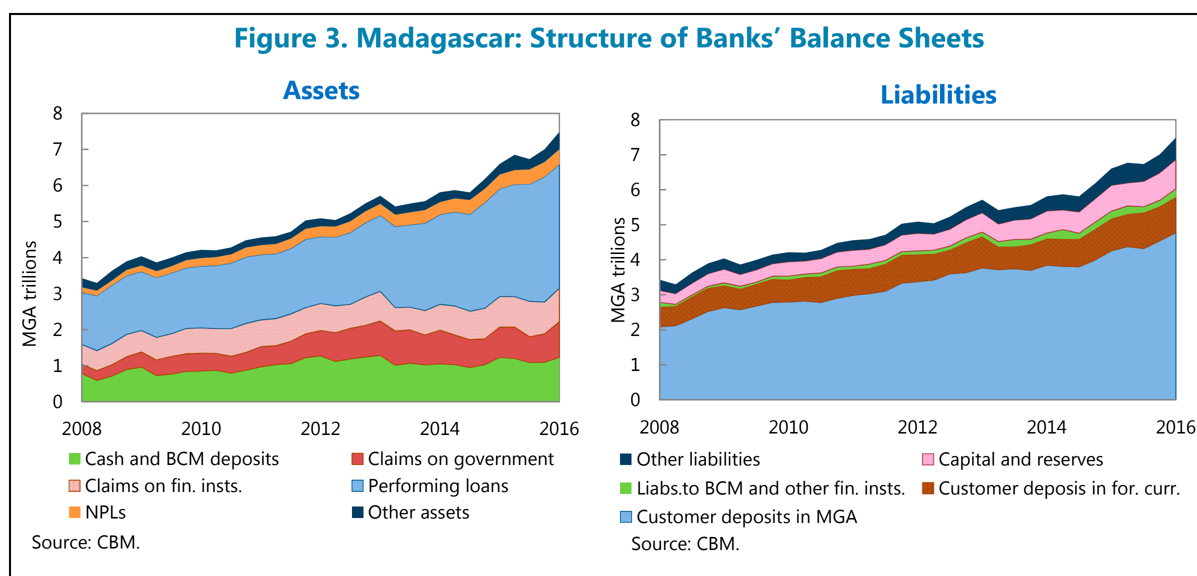
9. Despite a comfortable deposit base (Figure 3), shocks may be amplified through effects on funding costs and liquidity. If policy rates have to rise sharply in the context of a balance of payments crisis, or if confidence in the soundness of a bank or banks comes into question, then banks may have to increase deposit rates;[9] higher costs could not be passed to borrowers without incurring substantial credit risk. An individual bank may suffer a deposit "run," or the system may lose liquidity through the balance of payments.

[7] Some of the largest corporate are troubled state-owned enterprises (SOEs).

[8] The disruption caused by such a hypothetical failure would be less, the better is the resolution framework and crisis preparedness (see below).

[9] While the segmentation of the interbank market may limit the direct transmission of financial shocks, a generalized shock to confidence is possible.

Figure 3. Madagascar: Structure of Banks' Balance Sheets



Source: CBM.

Source: CBM.

10. Foreign ownership of banks is usually a source of strength, yet could expose a local bank to exceptional losses if the parent bank were to get into difficulties.[10] Parents can normally be counted on to support their subsidiaries when they come under strain due to a deterioration in local economic conditions. Meanwhile, many Malagasy banks have excess resources that they place with their parents. Hence, they are not vulnerable to a sudden withdrawal of external funding. However, if a parent is intervened, the corresponding bank in Madagascar could suffer large losses; this vulnerability, though, would likely be idiosyncratic rather than sector-wide.

11. The banks have traditionally behaved in a prudent manner, but systemic macroprudential issues could become important if economic growth and financial activity accelerate. Banks seem mostly to have been conservative in lending practices and profit retention, and traditionally favored a business model based on charging high real interest rates and fees on loans to a limited clientele. None of the banks is complex, direct linkages among financial institutions are weak, and there are currently no signs of a dangerous feedback loop between the financial and nonfinancial sectors. For the future, though, one eventuality would involve a burst of optimism about economic prospects, leading to excessively rapid growth in credit and real estate activity, and likely in due course to translate into higher NPLs. A second, not inconsistent, eventuality would involve a relaxation of the foreign exchange constraint and an intensification of dollarization of bank lending provoked by high ariary interest rates, leading to widespread borrower exposure to hitherto unfamiliar exchange rate risk.

12. Risk mitigants are weak. Prudential supervision has been uneven at best, and governance problems in the judicial system make the enforcement of contracts and loan

[10] Following the global financial crisis, the next time a major bank fails, the "home" country authorities are likely to try to "bail in" a wide range of creditors.

recovery difficult. Hence, it could be that some banks have poor credit risk management and would suffer an abrupt increase in loan losses should the environment deteriorate. The current profitability of banking may lead to a relaxation of lending standards and over-expansion. In the event of widespread strain, the BCM and government have few means to support financial system stability or deal quickly with deterioration in the situation of a bank (see below).

13. Some data gaps raise concerns that some risk factors may be overlooked or under-estimated. Due to weak supervision and loan classification rules, some banks and MFIs may be under-estimating problem loans. Accounting practices in some major NBFIs (and the nonfinancial corporate sector) are questionable, and external audit standards and practices are reportedly weak.

B. Bank Soundness

Soundness indicators

14. Financial soundness indicators (FSIs) suggest that the banking sector as a whole should be robust against normal economic fluctuations (Table 3). The capital adequacy ratio (CAR) is adequate in absolute terms—although declining recently in the context of relatively rapid credit growth—and capital appears to be mostly of high quality. Almost all non-government domestic assets carry high risk weights, so leverage is satisfactory. The banking sector reports good profitability due to high spreads between loan and deposit rates, comfortable fee income, and revaluation gains on long foreign currency positions, but some individual banks barely break even and have occasionally made losses.

15. The nonperforming loan ratio (NPLs) is declining from relatively high levels, and while many of these bad loans are legacy items, the riskiness of the loan portfolio may be understated. Banks are reportedly able to rapidly move restructured loans to performing status. Moreover, enforcing creditor rights and realizing collateral is very difficult. As a result, loss given default rates are high, and even a provisioning rate of around 60 percent may be inadequate if the economic environment becomes more difficult. The high rate of credit growth in recent years, especially in certain smaller banks, may signal looser lending conditions.

16. Liquidity in aggregate has been ample at most times but unevenly distributed and subject to strong seasonality. Bank liquidity management is hindered by the lack of an effective secondary market in government securities and a segmented interbank market (exposures among domestic financial institutions are minor). Rather, most banks retain buffers of treasury bills that give them access to BCM refinancing facilities in case of need. The larger banks hold most of the excess reserve money, whereas some of the smaller ones rely on central bank refinancing from time to time. For the banking system as a whole, bank resources are very largely composed of deposits, which exceed loans. Dollarization of deposits (let alone credits) is not pronounced and banks generally maintain a long foreign currency position.[11]

[11] Reportedly, however, many contracts are denominated in euros.

Table 4. Madagascar: Bank FSIs
(percent)

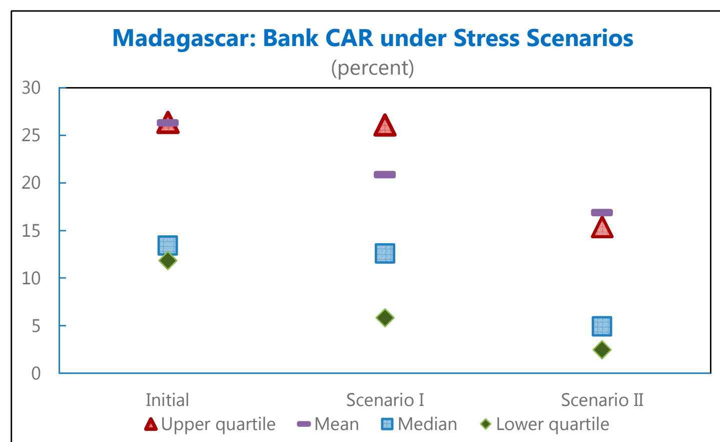
	2008	2009	2010	2011	2012	2013	2014	2015	2015 1/ Standard deviation
Capital Adequacy									
Tier 1 capital adequacy ratio	12.7	14.5	15.4	16.2	16.3	15.0	13.2	13.1	25.9
Tier 1 capital/total assets	6.5	7.0	7.8	7.6	7.8	8.0	7.7	7.7	12.7
Asset Quality									
NPLs/total loans	8.9	11.3	12.5	13.3	13.4	13.0	11.6	10.5	6.3
Loan loss reserve/NPLs (coverage)	55.7	55.1	59.9	63.0	66.6	62.1	62.2	61.3	21.2
Loan loss reserve/total loans	4.9	6.2	7.5	8.4	8.9	8.1	7.2	6.4	2.9
Annualized loan growth	25.6	3.1	9.7	2.9	8.7	17.9	20.7	18.5	44.5
Foreign currency loans/total loans	7.7	4.9	4.8	7.4	5.9	6.3	5.3	5.6	6.1
Profitability									
Net interest margin	5.5	4.9	5.0	5.2	5.1	5.5	5.9	6.0	9.3
Efficiency (cost/income)	48.5	58.9	58.9	57.1	59.4	54.6	49.4	48.7	32.1
Return on average assets	2.9	1.6	1.7	1.9	1.8	2.4	3.3	3.7	2.3
Return on average Tier 1 capital	34.9	20.7	21.0	22.0	20.3	26.1	34.0	47.6	31.2
Liquidity and Funding									
Loan to deposit ratio	55.9	54.8	57.0	52.8	52.9	63.0	68.0	70.3	38.1
Liquid assets/total assets	45.5	46.8	46.0	49.8	50.5	43.4	39.9	37.8	15.1
Liquid assets/short term liabilities	67.6	69.3	67.6	71.4	74.1	63.9	59.2	55.3	70.6
Foreign currency liabilities/total liabilities	19.6	18.0	19.5	18.4	17.6	16.4	17.6	16.7	10.0
Foreign currency deposits/total deposits	21.0	19.4	21.5	19.5	19.2	16.6	18.1	17.7	9.9
Claims on BCM/short term liabilities	29.6	25.2	23.9	30.8	28.9	21.3	19.1	17.9	26.1
Nonbank deposits/total liabilities	82.0	83.3	82.4	82.3	81.6	79.7	78.8	78.8	11.6
Interconnectedness									
Claims on other credit institutions/total assets 2/	15.9	16.9	17.9	14.5	14.3	12.1	13.7	12.6	8.5
Claims on NBFIs/total assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Liabilities to other credit institutions/total liabs.	0.8	1.4	1.3	0.8	1.1	1.6	2.3	1.6	7.0
Liabilities to NBFIs/total liabilities	0.4	0.4	0.8	1.1	1.3	1.1	0.9	0.9	7.0
Net Open For. Curr. Position to Capital	10.6	15.4	15.1	14.5	11.9	17.1	8.9	9.3	...

Source: BCM.
1/ Some indicators for 2015 are preliminary.
2/ Including non-resident credit institutions.

Stress tests and results

17. The bank stress testing exercise conducted as part of the FSAP reflects the risk factors described here and the current situation of the banking system.[12] Two stress scenarios were designed: Scenario I is severe, being based on the possibility of another episode of output contraction similar to those seen in 2008–10, leading to higher NPLs and higher provisioning needs on existing and new NPLs. Scenario II is more extreme, involving feedback through constrained foreign currency availability and government operations, leading to an output collapse and deterioration in loan quality concentrated in affected sectors; a rise in funding costs; and falling fee income.[13] In addition, the exercise included several sensitivity tests regarding loan quality (capturing also the possibility of under-recognition of problem loans); exposure to foreign correspondents; exchange rate and interest rate risks; risk from natural catastrophes; and a range of liquidity shocks. Besides these "top down" tests, banks were asked to estimate the effects of non-performance of loans to their two largest borrowers.[14]

18. The test results suggest that credit risk remains dominant, but other risk factors are significant. Banks' resilience is helped by often high initial capitalization and, especially, strong earnings (Table 4 and text figure). More specifically:



- Under the severe scenario, several banks would become under-capitalized, but all banks would remain solvent. However, retaining all earnings for a year would allow capitalization levels to be restored;

- Under the more extreme economic shock scenario, much of the banking system (including some of the large banks) would become under-capitalized, in some cases substantially, but not insolvent;

- A deterioration in the performance of loans now classified as performing, or tighter classification rules that reveal their true quality, may have a somewhat larger effect than would an increase in provisioning on loans already classified as nonperforming;

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[12] The tests covered all 11 commercial banks.

[13] Given limitations on the scope for analyzing financial dynamics in Madagascar, the tests focus on one year effects and static balance sheets.

[14] These were the first "bottom-up" stress tests conducted in Madagascar.

- Possible losses on exposures to (parent) banks abroad constitutes a substantial risk for individual banks;

- The possibility of a large rise in funding costs that cannot be passed on to borrowers or the direct costs of natural disasters are significant, but in isolation they do not appear to constitute systemic threats; and

- The level of interest rates, the slope of the yield curve, and the nominal exchange rate do not in themselves constitute important risk factors. These variables may matter mainly because of their link to credit risk.

Table 5. Madagascar: Top-Down Bank Solvency Stress Testing Results

	Banks with CAR						Banking system average	
	4 to 8 percent	0 to 4 percent	under 0 percent	4 to 8 percent	0 to 4 percent	under 0 percent	CAR	Losses/Avg. 2014-15 Net Income
	(Number of banks)			(percent of system)			(percent)	
Scenarios								
Initial state	0	0	0	0	0	0	13	...
Historic - severe	4	1	0	67	...	0	8	99
External crisis - extreme	1	5	0	...	73	0	4	165
Sensitivities								
Stocks								
Loan quality migration	1	0	0	...	0	0	11	41
Provisioning of performing loans	1	0	0	...	0	0	12	24
Provisioning of non-performing loans	0	0	0	0	0	0	12	18
Provisionining of non-resident claims	3	0	1	60	0	...	7	114
Exchange rate appreciation	0	0	0	0	0	0	13	9
Natural catastrophe (destruction of nonfinancial assets)	0	0	0	0	0	0	12	41
Flows								
Increase of financing costs	2	0	0	20	0	0	11	32
Increase in all long term rates	0	0	0	0	0	0	14	-8
Increase in all rates	0	0	0	0	0	0	13	7
Drop in commission revenues	0	0	0	0	0	0	12	22
Natural catastrophe (loss of revenue)	0	0	0	0	0	0	12	19

Source: IMF staff calculations.

19. The bottom-up stress test identified significant but not overwhelming vulnerabilities vis- à-vis the two most important exposures for each bank (Table 5). Some banks would have to double provisioning, at a cost of more than one third of capital, if exposures to their two largest borrowers became impaired. However, the vulnerability is reduced insofar as banks were able to take realizable collateral.

Table 6. Madagascar: Impact of Additional Provisioning on Two Largest Exposures

	(Number of banks)			(Percent)
	With respect to capital			
	less than 10 percent	10 to 30 percent	more than 30 percent	Average
Excluding collateral	4	3	3	23
Including collateral	5	5	0	11

Source: IMF staff calculations.

20. Short-term liquidity risk does not appear to be a major vulnerability for the system as a whole, but results vary greatly across banks (Table 6). A few banks appear to have above-average exposure to both credit risk and liquidity risk; in the event of an extreme shock to solvency, they would have few buffers to withstand a liquidity outflow unless they received help from a foreign parent.[15]

Table 7. Madagascar: Liquidity Stress Testing Results

(percent)

	Baseline	Deposit Outflows		Short Term Liabilities Outflows	
		10 percent	25 percent	10 percent	25 percent
Liquid Assets / Total assets	38	32	23	33	25
Liquid Assets / Short term liabilities	55	49	37	50	40
Liquid assets less mandatory reserves / Total assets	28	21	12	22	14
Liquid assets less mandatory reserves / Short term liabilities	40	32	19	33	22

Source: IMF staff calculations.

21. The authorities are encouraged to continue to undertake stress testing exercises regularly and to refine them. The authorities have initiated their own stress testing exercise since the time of the FSAP mission, and intend to use the results to inform supervisory prioritization. One useful extension would be to undertake a quantitative evaluation of common exposures to large borrowers, including SOEs.[16] A further refinement would be to develop liquidity measures that better reflect the true ability of banks to dispose of assets quickly, and, differentiate between liquidity by currency.

[15] Solvency and liquidity indicators are positively correlated across banks, both before and after shocks.

[16] Data limitations precluded the running of a stress test on common exposures as part of the FSAP.

C. Nonbank Financial Institutions

MFIs

22. The MFI sector in aggregate is liquid and adequately capitalized and provisioned, despite the presence of some weaker institutions (Table 7).[17] The situation of several MFIs has deteriorated but does not present a systemic risk due to their small size and very limited deposit base. Some MFIs enjoy backing from foreign partners. Profitability is modest despite high interest spreads because of high operating costs and the need for provisioning.

Table 8. Madagascar: MFI Financial Soundness Indicators

(percent except where indicated)

	2010	2011	2012	2013	2014	2015
Asset Quality						
NPLs/total loans	7.7	3.8	3.9	4.4	5.9	7.1
Loan loss reserve/NPLs	81.6	74.5	78.5	74.6	80.7	85.3
Annualized loan growth	10.0	45.1	29.2	20.8	8.6	-6.3
Profitability						
Net interest margin	17.3	15.9	17.5	18.4	17.3	17.1
Efficiency (cost/income)	83.7	83.8	88.1	88.4	86.6	82.5
Return on assets	2.8	1.8	2.0	2.0	1.8	1.7
Return on capital	11.6	7.8	8.6	9.0	8.4	8.4
Liquidity and Funding						
Loan to deposit ratio	128.3	131.4	133.7	125.6	115.0	92.5
Liquid assets/total assets	26.1	21.5	20.8	19.7	23.1	27.3
Liquid assets/short term liabilities	77.8	64.0	65.3	56.3	67.4	63.0
Capital Adequacy						
Capital to risk-weighted assets	15.5	14.6	39.5	36.3	34.2	31.6
Memoranum items:						
Number of MFIs	26	28	31	31	29	25
Total assets (MGA billions)	184	252	315	363	417	401

Sources: Malagasy authorities and Fund staff estimates.

[17] Because one MFI obtained a bank license in 2015 and two institutions are being intervened, there is a structure break in 2015.

Insurance

23. Insurance undertakings' accounts display high solvency margins, but the valuation of some investments is questionable, profitability is weak, and operational efficiency is low (Table 8). Many investments in real property seem to be over-valued, and even some claims on the public sector (notably SOEs) may be questionable. Indeed, investment choices of the dominant state-owned insurers suggest that they have succumbed to pressures from special interests. Provisioning on assets appears to be inadequate. Insurers seem to have difficulty both in collecting premiums on a timely basis and in paying out on claims, despite substantial operating expenses. While these weaknesses are unlikely to cause systemic financial instability, they do imply that the sector is not contributing as much as it could to overall economic efficiency and development. External audits of the main companies and a change in governance, leading to privatization, is recommended.

Table 9. Madagascar: Insurance Sector Indicators

(percent)

	2012	2013	2014
Non-life premiums/GDP	0.5	0.5	0.5
Life premiums/GDP	0.1	0.2	0.2
Non-life premiums/total premiums	77.0	76.1	78.0
Claims/premiums	45.0	41.4	41.4
Operating expenses/premiums	30.2	28.5	25.4
Net revenue/premiums	11.8	10.4	10.5
Provisions on claims due/claims paid out	104.3	96.0	105.7
Investments/technical provisions	118.0	139.9	142.1
Own funds/technical provisions	86.9	80.8	84.4
Profits/own funds	5.7	5.7	6.0

Sources: Malagasy authorities and Fund staff estimates.

Savings institutions

24. The major savings institutions—CNAPS, CEM, and the post office saving scheme—display to various degree unsound investment decisions, under-provisioning, and operational weaknesses. The institutions are entrusted with the savings of millions of households, amounting to almost five percent of GDP. Yet, investment processes seem not to pay due regard to risk and lack independence, as evidenced by disproportionate investment in troubled SOEs. Valuation of assets is often questionable, and provisioning for non-performance

is sporadic. Savers are presumably assured by their government backing, but by the same token they represent a contingent government liability. Reportedly, these institutions often provide very poor services, and some have difficulty maintaining timely and accurate accounts.

25. The true situation of these institutions must, as a matter of urgency, be assessed on the basis of independent financial and operational audits (conducted in accordance with internationally accepted standards). To continue in business, they will need to have substantial financial resources, improved and independent governance, and effective risk management systems. A possibility for some of these institutions would be to follow a narrow mandate, investing only in assets of the highest quality available and leaving credit risk assessment to commercial banks. As resources permit, they will need to be brought under the aegis of prudential supervision by the CSBF.

MACRO- AND MICROPRUDENTIAL FRAMEWORK

A. Cross-Cutting Issues

26. Responsibility for financial sector oversight is divided among several institutions, and displays major gaps. The CSBF, which is closely linked to the BCM, undertakes the prudential regulation and supervision of banks and MFIs. The BCM has started macroprudential surveillance, and has a leading role in the functioning of the payment system. The Insurance Supervision Service (SCA in French) in the MFB is responsible for the prudential supervision of insurance undertakings and brokers. CEM and the post office are under the financial oversight of the MFB, but they and CNAPS are not subject to prudential regulations. There is a dedicated consumer protection mandate for the financial sector.

27. The supervisory agencies' lack full independence and satisfactory governance needs to be addressed. Government has opportunities to intervene in supervisory decisions and control budgets, most obviously in the case of the SCA but also in that of the CSBF.[18] Moreover, the government faces an acute conflict of interest as owner or part-owner of financial institutions over which it has regulatory oversight responsibilities and from which it borrows substantially. Especially so long as major NBFIs are in public ownership, supervisory responsibility need to be placed with a strong and independent agency. A code of ethics would help manage conflicts of interest at the staff level. All supervisory agencies need budgetary autonomy, perhaps based mainly on contributions from industry.[19] As the counterpart to independence, the agencies would be accountable to parliament and the public.

28. Across all institutions responsible for financial sector policy, more and more well-trained staff are needed. The few staff now available are often engaged in mundane tasks such

[18] The revisions to the BCM statutes that are currently in train should reinforce its independence and give it a broad mandate to pursue financial stability.

[19] It is worth considering integrating all supervision in the CSBF in order to use limited expertise as efficiently as possible and to build on the CSBF's relative independence.

as data entry, or dealing with immediate localized crises. Lack of suitable staff seems to be one of the main hindrances to the effective operation of the current system, and making progress in its modernization.

29. The formulation and on-going implementation of a strategy of pro-active communication on financial sector issues would contribute to policy effectiveness and building consensus on reform measures. Some recent efforts, such as the publication of the first Financial Stability Report, show what can be done. The BCM should consider establishing a communications division, possibly jointly with the CSBF.

B. Macroprudential Framework

30. The BCM has established a financial stability unit charged with monitoring risks to the financial system as a whole, and analyzing macrofinancial linkages. The unit cooperates with regional and multilateral partners, and its recent financial stability report is comprehensive, carefully argued, and direct in its conclusions.

31. Given that macroprudential concerns are currently limited, for now the authorities should develop further the institutional framework to track and react to systemic risks; pro-active policy is not needed. Legislation should be amended to give the BCM a mandate in this area, and the right to obtain relevant information (including from credit registries) and use available instruments for the purpose of supporting systemic stability, in coordination with the CSBF. The authorities should begin to identify and fill data gaps, and upgrade their capacity to analyze related issues.[20] These efforts will need to take into account cross-border and external aspects, such as developments in the "home" countries of banks active in Madagascar; commodity and energy prices; and the effects on domestic liquidity of events in the interbank market in foreign exchange.

C. Banks

32. The detailed assessment of compliance with the Basel Core Principles for Effective Banking Supervision that was undertaken in the context of the FSAP identified a range of challenges.[21] [22] The relatively low level of compliance reflects legislative gaps and above all weaknesses in supervisory practice.

[20] Especially if the economy accelerates, more information may be needed, for example, related to lending for construction and consumption, and foreign currency lending.

[21] The assessment covers mainly the prudential regulation and supervision of banks, but it covers also the supervision of MFIs.

[22] More detail is provided in the attached Report on Observance of Standards and Codes.

Functions of the supervisory authorities

33. Supervision and especially on-site supervision needs to become more pro-active and intrusive. Resources must be mobilized to conduct regular on-site supervision by institution and by theme, in particular where system-wide risks arise. Short-term measures would include on-site inspection of the quality of the large loan portfolios of the four major banks, a process that has already begun.[23] The CSBF must adopt risk-based tools and procedures and integrate them into the entire chain of supervision. A modernized and extended rating system (covering banks and MFIs, and incorporating stress testing results) is needed to guide the planning and framing of on-site missions, and the close monitoring of problem institutions. In return, on-site missions will be able to update credit institutions ratings. An automated prudential reporting system should be introduced to free up staff time for analysis of individual institutions and of the banking system as a whole.

34. As most large credit institutions are subsidiaries of foreign banks, the CSBF should continue to deepen its relationships with supervisory counterparts. Cooperation agreements have recently been signed with some foreign counterparts, and the CSBF has taken part in supervisory colleges; now an effort is needed to sign cooperation agreements with other counterparts, in particular in Europe.

35. A framework for corrective measures must be established. Regulations and procedural manuals should be drafted specifying the triggers, responsibilities, and time limits for an effective response to bank violations and vulnerabilities.

Prudential regulations and requirements

36. Although improving supervision is a priority, prudential regulations and requirements too need to be strengthened. The definition of parties related to a bank must be broadened, and the regulation of large exposures reviewed in light of the concentrated nature of the Malagasy economy and corporate interconnectedness.[24] Given the difficult judicial context, guidelines for the conservative assessment of guarantees should be applied. For the same reason, the prudential treatment of restructured loans should be tightened. The CSBF should update its instructions on internal controls, and reinforce provisions on compliance and governance. In due course, capital requirements should take other risk factors into consideration, such as exchange rate risk and operational risk, while the 8-percent minimum should be raised to reflect Madagascar’s macroeconomic volatility. Lastly, guidelines on liquidity risk management (including separately foreign currency liquidity), and prudential liquidity ratio needs to be implemented.

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[23] These institutions have not been inspected for several years before the FSAP.

[24] These regulatory changes will need to be followed up with changes in supervisory practice, for example, through the collection and analysis of information on related party and large exposures, including SOEs.

D. Microfinance

37. MFI regulations need to be amended with a view to establish stricter rules for loan classification and provisioning, and to support the supervision of networks of mutual institutions. The regime was revised in 2005–08, with the adoption of the microfinance law and a series of instructions, but MFIs are given too much leeway in classification and provisioning. Also worthwhile would be regulations setting minimum liquidity levels, and higher capital requirements (including revised risk-weightings) for MFIs with more extensive operations.

38. MFI supervision, including intervention, must be more proactive and decisive. To this end, onsite inspections need to be prioritized on the basis of risk. Improved offsite supervision is also necessary, to which end at least the larger MFIs and the networks should report half yearly through an automated process, rather than annual as at present. Decision-making with respect to problem MFIs (restructuring/liquidation) has been a slow and difficult process, which reflects not only legal and practical constraints on crisis management and also a lack of willingness to act.

39. A stronger prudential system would allow the lifting of certain constraints on MFI activity. Constraints related to credit ceilings (these are low and have not been raised since 2007), portfolio composition, and provision of certain services (for example, involvement with electronic money and debit cards) unduly limit the scope for microfinance activities for those without a full banking license.

E. Other Financial Sectors

40. Efforts to effectively supervise the insurance sector have been stymied by a lack of capacity and, more fundamentally, a lack of independence. The SCA does have a program of inspection of the insurance undertakings, on which basis it makes demands for corrective measures according to a fixed timetable, and analyzes the strength and weaknesses of different institutions. However, expertise is limited, regulations are in part outdated, and supervisors rely on undertakings accounting statements, which seem to contain questionable valuations.

41. The transfer of supervision of the insurance sector to an independent agency (possibly the CSBF) should be seriously considered. Such “arm’s length” supervision is especially important while the major insurers are in the public sector, and will remain important when privatization is achieved.[25]

42. In view of the large amount of customer resources collected by the CNAPS, CEM and the postal service, effective supervision is critical. Some of these institutions face serious

[25] Privatization of the dominant state-owned insurers should be on the agenda. The process of privatization would force them to upgrade their management, financial performance, and customer service, and privatization would pave the way for greater competition and the provision of more and better products. There is no strong argument for public-sector ownership of insurers.

difficulties, but their true situation is obscure due to non-transparent accounting. Therefore, they should undergo external audits to international standards, and then be subject to independent supervision. They do not need to be treated as commercial banks, but they do need to comply with licensing, reporting and supervision requirements commensurate with their fiduciary responsibilities towards very many retail clients. The investment funds too need to be subject to regulation and supervision, starting with an investigation of the nature of their business and governance, lest they put savers' resources at undue risk.

F. Anti-Money Laundering and Combating the Financing of Terrorism

43. The threat of money laundering is significant, in particular in the context of smuggling activities, tax offenses, and corruption, and could have an impact on the stability and development of the financial system. Confidence in the financial system could be undermined by suspicions of widespread complicity in criminal acts, and Madagascar's reputation would be at stake if the country is not seen to be contributing to international AML/CFT efforts.

44. A number of elements of the AML/CFT legal, regulatory, and institutional framework are in place, but it is incomplete. AML legislation was adopted in 2004 when the financial intelligence unit (SAMIFIN) was established; in 2007, regulations on the establishment of internal procedures, know-your-customer requirements, and the detection and reporting of suspicious transactions were promulgated; criminal sanctions were detailed in 2012; and a law against the financing of terrorism and transnationally organized crime was adopted in 2014. Madagascar is in the process of joining the Egmont group and the Eastern and Southern Africa Anti-Money Laundering Group.

45. Legislation is in preparation to close some of the remaining gaps. Examples of deficiencies to be addressed include: the coverage of designated nonfinancial enterprises and professions; the criminalization of FT; provisions for freezing assets of persons designated by Madagascar pursuant to the United Nations Security Council Resolutions, and in cases where ML/FT is suspected; the subsequent management of those assets; and customer due diligence provisions for politically exposed persons. It is recommended that the proposed amendments to the AML/CFT legislation comply with FATF recommendations.

46. Implementation is lagging owing to the scarcity of resources and the lack of follow-up. SAMIFIN seems to diligently process suspicious transaction reports (STRs) but does not have the resources to process other information received (bank declarations of large value cash operations, for example, and MFB reports on tax offenses). Even more worrisome is the fact that the public prosecutor does not seem to make full use of STRs passed to it by SAMIFIN, and that there have been no convictions for ML or FT.

47. The World Bank is expected to conduct a detailed assessment of the implementation of the recommendations of the Financial Action Task force, with a view to providing a detailed program of measures in this area. In the meantime, an assessment of the

risks of money laundering and terrorism financing is to be prepared with help from the World Bank.

CRISIS MANAGEMENT AND SAFETY NETS

A. Lender of Last Resort

48. The lender of last resort provisions in the current BCM law lacks flexibility and efficiency, and has not been used in recent years, but some deficiencies may be addressed in the forthcoming revisions to the BCM statutes. The draft revisions available at the time of writing list conditions for granting exceptional assistance, including, for example, that the beneficiary institution be solvent and provide adequate collateral; that a recovery plan accepted by the CSBF be in place; and that the provision of liquidity by the BCM serve to preserve financial system stability. These provisions should be complemented by an explicit requirement that no alternative financing be available, including from shareholders. The BCM will need to develop and test operational procedures for implementing this framework, for example, with regard to determining a suitable penal interest rate and the valuation and securing of collateral under a tight deadline.

B. Bank Intervention, Crisis Management, and Resolution

49. The system for bank intervention is limited to a few instruments of questionable legal robustness and operational efficacy. The banking law authorizes the CSBF to take administrative or disciplinary measures, but the range of these measures is very limited and they can only be adopted when the institution's problems have reached an advanced stage. Furthermore, decision making on the adoption of disciplinary sanctions has proven to be cumbersome. The CSBF may appoint a provisional administrator, but this power can be exercised only late in the process, is limited in scope and duration, and may even be costly for the authorities, which sometimes has to assume the associated financial burden.

50. The current system is characterized by the lack of: (i) operational preparedness on the part of different agents; (ii) available resources for financing possible resolution measures; and (iii) mechanisms to speed the recovery of assets. The CSBF has not developed internal processes for prompt intervention, nor have credit institutions drawn up recovery plans. Given the fiscal situation, public resources for financing possible resolution actions are very scarce. Legal proceedings related to seizing and liquidating assets are typically long, drawn out, and subject to much legal uncertainty. Recent cases of resolving MFIs and a bank highlight the damaging results of the delay in taking corrective measures and appointing provisional administrators; omissions in the certification work of the statutory auditors; conflicts of interest in the choice of provisional administrators or liquidation trustees; and legal risks.

51. The banking law therefore needs to be amended to introduce a comprehensive and legally robust bank recovery and resolution system. A revised law should give the CSBF a specific mandate for resolution, whereby it would have broad powers related to capital

transactions; making transfers to a third party; limiting or temporarily prohibiting certain operations; or temporarily suspending of creditors' rights to take legal action. These powers would be designed to resolve the institution's problems and preserve its capacity to fulfill any critical functions, without using public funds or undermining the public's confidence in the banking system as a whole. Given the special nature of credit institutions, the bank resolution legislation should supersede ordinary commercial law: some shareholders' or creditors' rights may be overridden, and decisions made by the CSBF, in its capacity as the resolution authority, may not be suspended.

52. The rollout of such a system would require plans for a dedicated decision-making process in the CSBF and the means of implementing these decisions. At the operational level, procedures need to be established and tested for taking the required steps at key stages (identification of vulnerable institutions, trigger thresholds and criteria for choosing recovery or resolution options, verification of prior conditions, communications policy, preparations for securing assets, etc.). Coordination among the relevant Malagasy institutions (BCM, CSBF, MFB) should be formalized and include a dedicated decision-making process, for both crisis prevention and crisis management. The considerable foreign bank penetration of the Malagasy banking sector implies that cooperation with the home country authorities of these banks is required. To that end, the existing agreements, which are centered on supervision, need to be amended, and practical preparations undertaken. Moreover, legal provisions must anticipate such cooperation, for example, in terms of information sharing, and non-discrimination against creditors based on their nationality or the location of their claim.

C. Protecting Depositors

53. Applying the principle of "depositor preference" would establish a first line of defense for depositors. Notwithstanding ordinary liquidation law, which gives them equal ranking with other unsecured creditors, depositors would be assigned preferential status, which would limit the losses they ultimately incur during liquidation.

54. Once prudential supervision and the resolution mechanism have been strengthened substantially, and to preempt ad hoc recourse to public funds to resolve bank defaults, the establishment of a deposit guarantee scheme should be explored. Such a scheme would mainly serve to provide social protection for the underprivileged, and to protect the public sector from providing ex post support to failed institutions, as has been seen in the past. An explicit guarantee that is limited in terms of amounts and the scope of its beneficiaries (small depositors) could be funded largely or even entirely by the banks. The mandate of the scheme might be broadened to include involvement in financing bank resolution where that would be in the interest of insured depositors.

FINANCIAL DEVELOPMENT

A. Judicial System and Credit and Bankruptcy Law

55. Improvement in the effectiveness and integrity of the judicial system is crucial to the development of financial intermediation and financial stability.[26] The legislation on credit and bankruptcy is broadly acceptable. However, implementation is slow and erratic. Court decisions have been so inconsistent and ill-founded that many stakeholders have become distrustful of the justice system. Lenders cannot know the time frame, cost, or outcome of proceedings to enforce a claim.[27] Lenders therefore, largely restrict the provision of credit to those with whom they have on-going relationships (often foreign corporations).

56. Guarantees and collateral are not as widely used in Madagascar as in the rest of the region because they are difficult to enforce. Lenders face high recording costs, a lack of marketable securities, and sizeable difficulties in realizing guarantees, even in the simplest of cases. There is no provision for forfeiture, that is, the directly transfer ownership of property to a creditor for the payment of a debt, without the intervention of the court, if the principal debtor fails to perform.

57. The personal and real security registers are incomplete, difficult to access, and therefore in urgent need of modernization. The process of obtaining title to real property is long, difficult, and costly, partly because of the failure to complete recording efforts.[28] Also, the fees required for entering and removing mortgages from the register (2 percent of the amount of the loan for each recording, with no ceiling) should be brought into line with marginal costs.

B. Credit Reporting

58. The credit reporting system is affected by poor data reliability, which limits its benefit for supervision and credit distribution. The Credit Registry for Banks (CRB) is managed by the BCM's Credit Directorate, and the Credit Registry for MFIs (CRM) is managed by the CSBF. The credit registries are interconnected but the data collected are not harmonized; uploading information to the databases is difficult; and limited and possibly inaccurate information is available.

59. Priority must be given to making the credit registry reliable and usable, in particular by unifying the management of the two databases, and harmonizing and integrating the data transmitted by the banks and the MFIs. This task will involve better

[26] The BCM Financial Stability Report acknowledges that corruption in the judiciary contributes to vulnerabilities.

[27] In the simple scenario analyzed in Doing Business 2015, it takes 871 days for a debt to be paid (650 days on average in Sub-Saharan Africa), at a cost of 42 percent of the debt (including 20 percent in attorneys' fees and 16 percent in court costs) (See www.doingbusiness.org/methodology/enforcing-contracts).

[28] For example, a process of land registration for certain areas that was started in 1935 has not yet been completed.

observance of deadlines, accuracy of data, and possible sanctions for non-compliance. Consulting the credit information system could become a prerequisite for credit distribution. Moreover, the current legal framework for the credit reporting system has to be completed. The authorities have indicated their commitment to the unification and modernization of these systems, and a draft law on the BCM's Integrated Information System is being prepared.

C. Other Financing Instruments

60. A more beneficial tax regime would promote leasing, which can be a vital financing mechanism for SMEs. Leasing is not developed in Madagascar due to a disadvantageous tax regime and problems with repossessing leased items in the context of poorly-defined rights of sureties and creditors, and unpredictable court judgments.

61. The substantial internal financing in value chains (such as textiles and agriculture) suggests that there is significant potential for factoring for both the export and the SME sectors. Enabling factoring would require the establishment of a legal framework for assigning accounts receivable.

FINANCIAL INFRASTRUCTURE

A. Payment Systems and Instruments

62. The implementation of automated payment systems in Madagascar (RTGS and ACH) represents a significant advance over the last decade. The RTGS processes large value transactions, on a gross basis, in real time, and the automated clearing house processes retail transactions (checks, credit transfers, bills of exchange, promissory notes).[29]

63. The legal framework for payments is still incomplete and gives rise to legal and financial risk. A draft law on payment systems is being prepared, but its scope should be expanded to cover not only automated systems, but also securities settlement systems and retail payments. Furthermore, it should include netting, protection against bankruptcy proceedings, dematerialization of securities, and direct debits. The draft revisions of the statutes of the BCM provide for oversight over automated payment systems, but its oversight should extend over the entire national payment system, whereby the BCM can guide the stability and modernization of all payments.

64. The retail payments market is seriously underdeveloped; a proactive effort will be needed to reduce the predominance of cash. Checks are not crossed, so they can be endorsed by several successive beneficiaries and eventually paid in cash. Payment cards lack interoperability. Besides addressing these issues, cash usage can be discouraged, for example, by

[29] The RTGS processed 75,510 operations in 2014, totaling MGA 38,507 billion, which is equivalent to the country's GDP, and the remote clearing system processed 8.9 million transactions, totaling MGA 13,342 billion, equivalent to about ⅓ of GDP.

paying higher-level government salaries directly into bank accounts and by allowing MFI networks to issue debit cards.

65. With respect to securities transactions, the processing of the securities leg is manual, with no mechanism to ensure simultaneous cash settlement. The introduction of a delivery versus payment mechanism is recommended, whereby securities would be delivered only upon receipt of the confirmation, through the RTGS, that the cash settlement has been executed.

B. Electronic Money

66. Since 2010, three banks have been authorized to issue electronic money, in partnership with mobile telephony operators, who have the status of operational intermediaries. Demand for these services is steadily increasing, with the number of active subscribers reaching about 10 percent of the adult population.

67. A law on electronic money is at an advanced stage of preparation. This law should create statutes for electronic money institutions (EMIs) and provide for effective supervision. The draft law covers the general legal framework establishing the rules for accessing and practicing the business of issuing electronic money, and the prudential supervision of EMIs. The BCM has an important role to play in structuring and developing electronic money. For example, at the technical level, the BCM should supervise the implementation of the interoperability project between operators, particularly with respect to rates.

Appendix I. Risk Assessment Matrix

Madagascar	**Overall Level of Concern**	
Nature/source of main threats	**Likelihood of severer realization of threat in the next 3 years**	**Expected impact on financial stability if threat is realized**
Sharp contraction in output, possibly associated with a foreign exchange crisis	***Staff assessment: medium*** • Trade and direct investment is highly dependent on commodity and energy prices, and conjectural conditions in partner countries. • Madagascar has a history of political turbulence affecting output and investment. • Failure to tackle corruption may lead to a reduced flow of donor aid and direct investment. • Under such conditions, the availability of foreign exchange may be severely restricted, hurting in particular the tradables sector. • The government may then resort increasingly to arrears (directly and via SOEs) and expenditure cuts. • Madagascar is prone to cyclones, floods, and droughts, leading to loss of output and destruction of infrastructure. • The systems for dealing with impaired loans and with problem banks are not well developed.	***Staff assessment: medium*** • The quality of loans to the tradables sector, suppliers to government, and state-owned enterprises may be most immediately affected. Rates of loss given default tend to be high. In an extreme case, the government may run arrears on the servicing of treasury bills. • Banks may suffer a decline in fee income and higher funding costs. • However, the banking system has survived similar episodes in the past, and appears adequately capitalized and highly profitable. Systemic linkages are limited.
Failure of a major borrower	***Staff assessment: medium*** • Many individual banks have relatively large exposures to one or two major nonfinancial groups. These groups may be subject to commercial, operational, governance, and political risks. • In some cases, large corporates may have borrowed substantially from several banks.	***Staff assessment: medium-low*** • The effect would be large for the bank or NBFIs concerned. Loan recovery may be protracted and yield little. • If the failure occurs for idiosyncratic reasons, spill-overs to others would probably be well contained given the near absence of interbank lending. Nonetheless, there is concern that multiple

	• Prudential limits on large exposures are in place, but they are sometimes breached. Loan classification and provisioning may be questionable (especially in NBFIs). Verification of compliance through on-site inspection is weak.	banks have large exposures to the same borrower.
Failure of a parent institution	***Staff assessment: low*** • Banks are very largely foreign owned, and typically keep substantial balances with the respective parent. If a parent gets into difficulties, it may demand more financing from its subsidiaries. • Recent reforms in home countries have reduced the scope for government bail-outs and increased requirements to bail-in creditors. Therefore, in the event of a failure, it is more likely that a subsidiary in Madagascar will bear costs. • The parents of most large banks have been strengthening their financial soundness following the global financial crisis. Some are of such systemic importance that they are unlikely to be allowed to fail outright. Malagasy operations may be so small relative to that of the group that it is not worthwhile to repatriate resources from Madagascar.	***Staff assessment: medium*** • The net loss to an individual bank could be substantial. Failure of the parent would have an immediate effect on the value of the Malagasy bank's claim, reduce the liquidity of its foreign currency assets, and preclude future valuation gains on its (previously) long foreign currency position. • The realization that parent banks do not necessarily stand behind Malagasy subsidiaries may lead to an increase in funding costs and possibly even deposit runs across the system. • Banks do not receive substantial funding from their parents, so a parent's failure would not cause an immediate liquidity outflow.

Appendix II. Report on the Observance of Standards and Codes—Basel Core Principles for Effective Banking Supervision

A. Introduction

1. **This assessment of compliance with Basel Core Principles (BCP) for effective banking supervision in Madagascar was carried out as a part of the update of the Madagascar FSAP undertaken jointly by the IMF and the World Bank in 2015.** It reflects the supervisory and regulatory framework in place as of the date of the completion of the assessment (October 2015) and practices observed in the lead-up to that date. Thus, subsequent actions are not taken in to account. The assessment is not intended to represent an analysis of the state of the financial sector or the crisis management framework, which have been addressed in the broader FSAP exercise.

B. Background Information and Methodology

2. **An assessment of the effectiveness of banking supervision requires a review of the legal framework, and a detailed examination of the policies and practices of the institution(s) responsible for banking regulation and supervision.** In line with the BCP methodology, the scope of the assessment covered entities subject to supervision of the Commission for the Supervision of Banks and Financial (CSBF), mainly credit institutions (CIs), i.e. banks and financial companies, and micro-finance institutions (MFIs).

3. **This assessment is not directly comparable to previous assessments.** This assessment was performed according to the Revised Core Principles Methodology issued by the Basel Committee of Banking Supervision (BCBS) in September 2012. It was therefore, performed according to a significantly revised content and methodology as compared with the previous BCP assessment carried out during the 2005 FSAP. That assessment was based on former BCP methodology, and the bar has been raised to strengthen supervisory requirements and approaches. The new BCPs heightened focus on risk management practices by supervised institutions and its assessment by the supervisory authority.

4. **The standards were evaluated in the context of Madagascar's financial system structure.** The BCPs are applicable to a wide range of jurisdictions whose banking sectors inevitably include a broad spectrum of banks. To accommodate this breadth of application, according to the methodology, a proportionate approach is adopted, both in terms of the expectations of supervisors for the discharge of their own functions and in terms of the standards that supervisors impose on banks. An assessment of a jurisdiction against the BCPs must, therefore, recognize that its supervisory practices should be commensurate with the complexity, interconnectedness, size, risk profile, and cross-border operations of supervised banks. The concept of proportionality underpins all assessment criteria. For these reasons, an assessment of one jurisdiction will not be directly comparable to that of another.

5. **The authorities chose to be assessed against both the Essential and Additional BCP criteria but rated against the Essential Criteria only.** In order to assess compliance, the BCP methodology uses a set of essential and additional assessment criteria for each principle. Only the essential criteria (EC) were used to gauge full compliance with a BCP. The additional criteria (AC) are recommended best practices against which Malagasy authorities have agreed to be assessed but not rated.

6. **The assessment of compliance with each BCP is made on a qualitative basis to allow a judgment on whether the criteria are fulfilled in practice**. Effective application of relevant laws and regulations is essential to provide indication that the criteria are met. The assessors reviewed the framework of laws, rules, and other materials provided and held extensive meetings with officials of the Secretariat General of the CSBF (SG-CSBF), senior management of some CIs, the Professional Banking Association, and external auditors. The authorities provided a self-assessment of the BCPs, answers to a supplementary questionnaire, as well as access to supervisory documents and files.

7. **An assessment of compliance with the BCPs is not, nor intended to be, an exact science.** Reaching conclusions required judgments by the assessment team. Nevertheless, by adhering to a common, agreed methodology, the assessment should provide Malagasy authorities with an internationally consistent measure of the quality of their banking supervision in relation to the BCPs, which are internationally acknowledged as minimum standards.

8. **The assessors appreciate the excellent cooperation shown by the authorities.** The team extends its thanks to staff of the authorities who provided good cooperation, including provision of documentation and access to files.

C. Overview of the Institutional Setting and Market Structure

9. **The CSBF is the main body responsible for regulating and supervising CIs and MFIs.** Based on banking law no. 95-030 (February 1996), the CSBF is the competent authority for issuing banking regulations and enforcing them. It is also responsible for oversight of MFIs pursuant to the Law no. 2005-016 (September 2005). CSBF operational activities are performed by its General Secretariat (SG-CSBF) that is composed of staff from Central Bank of Madagascar (BCM). SG-CSBF is composed of three main functional departments: Offsite control department (DCP), Onsite inspection department (DIE), and regulation and studies department (DRE); it also includes a support department responsible for supervisory methods, procedures and database (DMP).

10. **CSBF is chaired by the governor of the Central Bank of Madagascar (Banque Central de Madagascar, BCM), and comprises eight members in total.** These members include the BCM General Director, the Director of Treasury, a member nominated by the ministry of finance, a member nominated by the Head of the Supreme Court, and three members nominated by the government (for their professional competence).

11. The financial system in Madagascar is dominated by commercial banks, with foreign banks controlling a major part of total banking sector assets. The four largest banks account for over four fifth of the system. Three are subsidiaries of foreign banking groups, and the fourth owned since 2014 by foreign and local investors. The other eight licensed banks comprise five subsidiaries of Mauritian, French, and Gabonese banks and three banks specialized in micro-finance (one with local ownership). The government maintains minority stakes in several banks. Twenty-five MFIs were in operation at end-2015.

12. Financial intermediation in Madagascar is very shallow, with no real progress in financial deepening since 2005. By the end of 2015, total financial assets represented 35 percent of GDP, three-quarters of which consist of banking system assets. Deposit accounts (19 percent of GDP) and credit operations (10 percent of GDP) have not significantly evolved since 2005. These ratios are still much lower than comparative peers. In absolute terms, banking assets slightly exceed US$2 billion.

D. Preconditions for Effective Banking Supervision

13. Trends in Madagascar's macroeconomic performance have been disappointing, in large part due to episodes of domestic political turmoil. There have been periods of rapid growth driven by mining and tourism, but these sectors are exposed to fluctuations in international prices and conjunctural conditions. Episodes of political disruption has led restricted donor funding, government arrears, monetarization of fiscal deficits, and deteriorating infrastructure, leading to severe output contractions.

14. The legal and business environment constitutes one of the challenges for developing financial and banking activities in Madagascar. While bankruptcy and insolvency laws appear adequate, their enforcement is deficient due to lack in the skills and competence of the involved actors and due to interaction with various types of pressure and influence. This makes the judiciary process very slow, and complicates asset and business recovery. According to "Doing Business," Madagascar suffers from a very cumbersome and slow dispute resolution process. It is ranked as 146th (out of 189 countries) in respect of the smoothness of contract execution. Thus, banks' credit adjudication processes are severely impeded by difficulties in foreclosure of collateral and guarantees.

15. Financial reporting and accounting of business enterprises is not well developed. Based on the 2003 code related to commercial enterprises, companies are required to keep their annuals accounts with the commercial registry in line with the 2005 general accounting framework. However, these documents are effectively not well maintained due to the lack of human resources and other necessary tools in that respect.

16. While BCM has created a financial stability unit (FSU), there is no clear established financial stability framework. The current legal texts (Statutes) assign the BCM the responsibility of maintaining price stability without any mention of a financial stability mandate. However, the banking law empowers the BCM to ensure the soundness of banks and their

compliance with applicable regulations. A financial stability committee (FSC) was created in October 2014 by an internal decision of BCM governor, but is still not functional. A first financial stability report was published for the year 2013. This report was primarily prepared by the FSU, with input from SG-CSBF on banking data. However, there is no framework governing interactions between BCM and other competent authorities for financial stability purposes. No institution has a legal mandate specifically for consumer protection in the financial sector.

17. The bank crisis management framework is limited to a few measures which lack the required legal robustness and operational effectiveness. The banking law empowers the CSBF to take administrative and disciplinary actions against banks, but the range of these actions is limited and ill-suite to early and progressive intervention. The decision on disciplinary sanctions requires the agreement of six CSBF members, which may prove difficult in case of vacant members. The CSBF has the power to put a bank under temporary administration. However, this measure is usually adopted late, is limited in terms of assumed powers and tenure of the administrator, and has proven costly to the BCM, which has sometimes to assume the associated financial costs.

18. There is no adequate financial safety net system in Madagascar. Given the absence of a robust legal framework as well as adequate tools and methodologies to detect and prevent the risk of bank failures, the Malagasy authorities do not have an effective system to address and manage a potential banking crisis. CSBF has limited resolution powers. In addition, there is no deposit guarantee system in place; the government has sometimes provided ad hoc compensation to depositors of failed institutions.

19. The absence of financial markets and the weak financial disclosure requirements pose obstacles to an effective market discipline in Madagascar. There are currently no requirements to publish consolidated statements, interim financial statements and other qualitative information related to banks' risk management and governance. Annual reports of CIs and MFIs are not generally available on their webpages.

E. Key Findings

20. The supervisory and regulatory framework in Madagascar shows a low level of compliance with the BCPs. This is due to wide-ranging weaknesses with respect to the powers and responsibilities of the CSBF, the functions and processes employed by SG-CSBF, and limitations in the existing prudential framework and its enforcement.

21. Powers and independence of CSBF should be strengthened. Decision-making on sanctions and disciplinary measures should be simplified. CSBF board nomination and composition should be reinforced by: (i) putting minimum criteria of competence and professional experience, (ii) making the selection process more transparent and objective, (iii) increasing the number of independent members, (iv) considering terminating the ministry of finance right in nominating two of CSBF board members, and (v) establishing a code of ethics for CSBF board and its General Secretariat. CSBF intervention and resolution powers should be

enhanced to include an expanded range of tools like purchase and assumption, asset sales and mergers.

22. The functioning of the CSBF should be enhanced by better monitoring the stability of the banking sector. CSBF board meetings are more dedicated to discussing sanctions on specific banks. With an average of two meetings a year over the course of the last year (with the last meeting dating back to more than a year), CSBF is not sufficiently agile in responding to emerging risks in the banking system and in conducting close follow-up of problem banks. CSBF should hold more regular meetings to discuss banking risks and stability issues, and to focus on other changes in the banking system, notably licensing conditions, major changes in shareholders and significant acquisition operations.

23. Supervisory resourcing and staffing should be increased, particularly for onsite inspection. Due to staffing shortage, the inspection department (DIE) is overwhelmed with the follow-up of weak banks and problematic MFIs. It does not properly follow up with other banks, particularly those that may pose systemic risks. This impacts the ability of SG-CSBF to assume its responsibilities of monitoring emerging banking risks and developing its regulatory framework and supervisory practices to promote the soundness of banks.

24. While some elements of the supervisory approach are risk-oriented, the SG-CSBF should adopt tools and procedures that are more risk-based, and integrate them in the whole supervisory process. A bank rating system has been in use for ten years, but it is not sufficiently risk-sensitive, comprehensive, and integrated in offsite and onsite supervisory processes. This system should be overhauled (including through the incorporation of findings from stress testing exercises and other elements of overall stability analysis), and a similar system applied for MFIs. These systems could serve as a basis for assessing banking risks, elaborating supervisory plans, scoping inspection missions, and closely monitoring weak and problem banks. An automated prudential reporting system should be introduced in order to facilitate the supervisory analysis and assessment process.

25. In order to make up for the shortfall in supervisory and inspection activities to date, short-term measures should be taken, including conducting a thematic inspection of the credit portfolio quality of the four largest banks. The activities of these banks have evolved significantly over the last years without them being subject to adequate inspection activities. The proposed thematic inspections would allow an assessment of these banks' main credit risks and the adequacy of their loan classification and provisioning. This should be accompanied by more regular contacts with banks to follow closely the evolution of their risk models and activities. In addition, cross-border supervision should be enhanced, particularly given that most of the large banks are subsidiaries of foreign banking groups.

26. A prompt corrective action framework should be established in line with CSBF powers. Due to the absence of formalized procedures and processes, the corrective measures taken by SG-CSBF do not follow a systematic approach based on a range of gradually applied measures. This necessitates new regulations and procedure manuals to better define triggers for

corrective supervisory actions, the main responsibilities, and the respective deadlines to address banking vulnerabilities. CSBF should be also involved in a much earlier way in discussing and taking actions on problematic institutions.

27. Regulations on internal controls and external audits should be strengthened. The internal control regulation that dates back to the year 2000 should be updated and strengthened through the introduction of new requirements on governance and compliance. The quality of the external audit work should be also enhanced by developing qualification requirements for banks' external auditors, minimum requirements related to their work and the contents of their reports, and a process for evaluating their work and taking adequate corrective measures as needed.

28. Other regulations should be developed or enhanced to better assess banking risks, starting with related party lending. The related party definition should be expanded to be in line with Basel guidelines. Large exposures deserve a closer follow-up and supervisory actions by authorities, especially in light of the concentrated structure of the Malagasy economy. Capital adequacy ratio should take into consideration other risk factors such as operational and foreign currency risks, and the eight percent minimum should be increased. Given the difficult legal and business environment, a stricter treatment of guarantees and collateral is warranted, and the prudential framework for restructured loans should be strengthened. Finally, new regulations and prudential limits should be developed on banks' minimum liquidity ratio and liquidity risk management (in ariary and foreign currency).

F. Authorities' Response

29. We welcome the review of the regulatory and supervisory framework for the Malagasy banking system carried out by the joint IMF-World Bank team as part of the Financial Sector Assessment Program (FSAP) for Madagascar. This assessment was intended, among other things, to measure the degree of compliance of the Malagasy banking supervision system with the Basel Core Principles for Effective Banking Supervision, in order to better understand the risks to which the banking system is exposed.

30. We general concur with the remarks and recommendations in this assessment.

31. The evaluation has already provided useful direction to our efforts to develop key reform measures and to determine a schedule for their implement, which has already started. We have already taken measures, including the commencement of a program of on-site inspection of the credit portfolios of the major banks, recruiting more supervisors, and making appointments to the CSBF Board, which meets more regularly. We intend to implement a comprehensive reform program in keeping with the findings and recommendation of the FSAP, which effort will, however, require technical and financial support.

Table 1. Summary of Compliance with the BCPs

Core Principle	Overall Comments
1. Responsibilities, objectives, and powers	• CSBF regulations are not updated regularly and miss certain essential elements for an effective banking supervision. The escalation of corrective actions is not taken adequately and on timely basis. CSBF has inadequate powers to require banks to comply with stricter prudential requirements.
2. Independence, accountability, resourcing and legal protection for supervisors	• CSBF does not have sufficient independence given the current composition of its board members (two members appointed by the finance ministry), budgetary constraints, and the absence of legal protection for its members and the SG-CSBF staff. There are no criteria or formalized processes for nomination of independent members.
3. Cooperation and collaboration	• The actions of cooperation and information sharing with other domestic supervisors are neither regular nor formalized. The banking law does not foresee such relations. Meetings and discussions take place with other BCM departments including the FSU. Exchange of information has taken place with finance and budget ministries on problem banks. However, there is no clear framework that governs this process, which may cause confidentiality-related risks to CSBF. • Besides the memoranda of understanding signed with supervisory authorities in Mauritius and Morocco, there is no exchange of information with other authorities or a clear framework governing such interactions in the absence of formalized understandings.
4. Permissible activities	• The banking law does not explicitly prohibit the use of the word "bank" by nonbanks.
5. Licensing criteria	• Assessment of banking licenses is not very thorough and detailed. The responsibilities related to withdrawal of banking licenses are not clear in all regards. There is insufficient post-licensing follow-up to ensure licensing conditions were met.
6. Transfer of significant ownership	• Ownership levels requiring the prior approval of CSBF are very high. The CSBF cannot cancel or reverse a change in significant ownership that was done improperly without its prior approval. The regulation does not involve the assessment of effective shareholders or beneficiaries in assessing changes in significant ownership.
7. Major acquisitions	• Acquisition of participations in other banks and financial institutions is not subject to notification or prior approval by CSBF. The quantitative thresholds for acquisitions of non-financial companies are applied mechanically with proper notification to CSBF and without being subject to specific prudential criteria. The relevant regulation does not set objective criteria to assess or approve major acquisitions.

8. Supervisory approach	• The rating system of banks does not currently serve as an effective tool for risk-based supervision. It contains many limitations in its design and application. It is not well integrated in the overall supervisory process. Similarly, there is no well-defined prudential approach for MFIs. In the offsite department, more time is spent on the manual treatment of prudential reports with minimal time left to analysis of these reports. The SG-CSBF does not prepare regular reports on risk tendencies and performance of the banking system. There is no framework to decide and follow-up on corrective actions and disciplinary sanctions.
9. Supervisory techniques and tools	• Due to staff shortage, banks and MFIs are not subject to sufficiently regular inspections. The most recent inspection of the largest four banks dates to more than 10 years ago. Inspection planning and work are not always coherent and are not based on well-integrated risk assessment approach. Information sharing and collaboration between different SG-CSBF functions are not systematic and well structured. Procedures manuals sometimes exist but are not updated. There is no regular contact with banks' management and senior staff. There is no adequate information system for prudential reporting.
10. Supervisory reporting	• Supervisory reports contain serious deficiencies (regarding liquidity risk, stable funding risk, concentration risk, interest rate risk, etc.), their frequency is not well adapted, and lack of automation leads to administrative burdens. The penalties system in case of late report transmission is not sufficiently flexible.
11. Corrective and sanctioning powers of supervisors	• The SG-CSBF does not have a clear prompt action framework that allows acting timely and in a systematic and gradual way in case of problems or non-prudent practices at banks. CSBF is often informed late about banking problems. The range of possible corrective measures is limited and follow-up of these measures is not being done systematically. However, the CSBF is diligent in requesting corrective action in response to deficiencies detected in off-site reports.
12. Consolidated supervision	• Supervision is based on the stand-alone situation of banks, without consideration to their consolidated positions. Although there are currently no banking groups, this principle remains applicable since the regulation does not prohibit establishing banking group structure. The only required consolidated reporting is for MFI operating under a network structure. Existing regulations do not require information and periodic reporting on parent companies, their activities and their subsidiaries.
13. Home-host relationships	• Progress was made on information exchange with home supervisory authorities of foreign banking subsidiaries established in Madagascar, including signing MOUs with

	Mauritian and Moroccan supervisory authorities and participating in supervisory colleges they organized for the respective banking groups. Other issues need to be addressed: absence of cooperation framework with the home supervisor of French banking subsidiaries, and the absence of any legal provisions governing information sharing requirements with other supervisory authorities when there is no formal cooperation agreement.
14. Corporate governance	• There are no detailed regulatory requirements related to bank governance. Bank governance practices and associated risks are not well assessed by supervisors. There are no well-defined qualification requirements for members of banks' board of directors, their management and heads of control functions.
15. Risk management process	• The regulatory requirements related to risk management are very limited and have not been updated since almost 15 years. Due to shortage of staffing, SG-CSBF is not currently assessing banks' risk management systems and their effectiveness.
16. Capital adequacy	• The definition of capital and the computation of risk-weighted assets are not in line with international requirements. Operational and market risks are not taken into consideration in the computation of the ratio.
17. Credit risk	• Besides a partial coverage of credit risk issues in the internal control instruction, there are no regulations or guidelines treating specifically credit risk management requirements. The examinations related to credit risk conducted by SG-CSBF during onsite inspections lack adequate depth and coverage despite this being the main banking risk in Madagascar.
18. Problem assets, provisions, and reserves	• The regulation on problem asset classification for banks is broadly satisfactory. However, there are no guidelines ensuring the good application of these requirements (particularly on issues related to collateral valuation, and treatment of restructured credit). The regulation is lacking in respect to the treatment of, and provisioning for problem assets. Problem assets classification and provisioning for FMI is not regulated.
19. Concentration risk and large exposure limits	• SG-CSBF inspectors do not check if banks have adequate systems to identify and aggregate a group of connected exposures. The management of risk concentration by banks is still compliance –oriented without internal policies and limits and proper follow-up by the banks' board of directors. Banks do not communicate any information to SG-CSBF in relation to their sectoral and geographic credit risk concentration.
20. Transactions with related parties	• The definition of related parties is not in line with international norms. The respective prudential limit applies only to a partial set of related parties. The current regulatory texts do not give the CSBF the latitude to designate a party as related. The regulations in effect do not subject transactions with related parties and their cessation to the prior approval of banks' boards.

21. Country and transfer risks	• There are no regulation or supervisory activities covering this risk.
22. Market risk	• While banks are subject to market risk due to their exposure to exchange rate risk and interest rate risk (as many banks account their treasury bond portfolio as held for trading valued at fair value), there are no respective regulations requiring banks to have in place a strategy, policy and procedures related to this risk. In addition, CSBF does not require fair value positions to be assessed by an independent function.
23. Interest rate risk in the banking book	• There are no regulation or supervisory activities covering this risk.
24. Liquidity risk	• CSBF has not yet developed any regulation related to a minimum short-term prudential liquidity ratio or stable funding requirements. There are no regulations or guidelines on liquidity risk management.
25. Operational risk	• While being a significant source of risks for banks in Madagascar, operational risk is not subject to any regulation or supervisory activities by the CSBF.
26. Internal control and audit	• The CSBF instruction on internal control is deficient. The respective supervisory and inspection activities conducted by SG-CSBF lack adequate depth and substance.
27. Financial reporting and external audit	• The current regulations do not set qualification criteria for nomination of external auditors, do not determine their scope of work, and do not require them to communicate material risks to SG-CSBF. The SG-CSBF does not have a framework to assess the work of external auditors and to take corrective measures if needed. There are no regular contacts with external auditors to discuss issues of common interest.
28. Disclosure and transparency	• The current regulations do not require banks to publish annual reports containing quantitative information as well as qualitative disclosures related to risk management, corporate governance, risk exposures and main group entities. CSBF publishes its periodic reports (including its annual reports) with significant delays.
29. Abuse of financial services	• Despite certain deficiencies, the regulations in effect related to abuse of financial services are broadly satisfactory. However, the effective implementation of the regulatory framework is very minimal due to lack of adequate capacity and depth of supervisory activities.

Table 2. Summary of Key Recommended Actions

Core Principle	Key Recommended Action(s)
1. Responsibilities, objectives, and powers	• Incorporate, within the new draft banking law, the CSBF objective of promotion of financial stability and the power to require stricter prudential limits for individual banks. • Develop a prompt corrective action framework setting clear responsibilities and sufficient range of measures. • Ensure the continuous updating of CSBF regulations and instructions.
2. Independence, accountability, resourcing and legal protection for supervisors	• Amend the existing legal texts in order to: (i) increase CSBF independent members; (ii) ensure CSBF budgetary autonomy; and (iii) provide legal protection to CSBF members and SG-CSBF staff. • Develop well-defined criteria and a transparent process for selection of CSBF (independent) members that are chosen on the basis of their professional competence. • Increase the staffing of SG-CSBF, particularly for onsite inspection. • Increase the frequency of CSBF meetings and ensure that CSBF discusses and follows-up broader banking stability issues.
3. Cooperation and collaboration	• Strengthen and frame the information exchange relationships with other authorities involved in overseeing the financial system stability, including the financial stability committee and the financial intelligence unit (SAMIFIN). • Develop a general framework and an internal policy for information sharing and for treatment of confidential information exchanged with foreign counterparts in case of absence of specific cooperation agreements.
5. Licensing criteria	• Strengthen the assessment of banking licenses through the elaboration of a procedural manual and building the capacity of SG-CSBF staff in this respect.
6. Transfer of significant ownership	• Revise downward the ownership threshold requiring CSBF prior approval. • Strengthen the assessment of transfer requests and CSBF respective powers so it can reverse or cancel any operation that was not approved in line with regulations and to follow-up effective beneficiaries where applicable.
7. Major acquisitions	• Revise the instructions on major acquisition to: (i) significantly reduce the quantitative thresholds for requiring prior approval or notification to CSBF; (ii) subject other major acquisitions, including acquisitions in foreign banking entities, to CSBF prior approval and clearly define the criteria for CSBF decisions on these operations; and (iii) require periodic information and reports on participations to assess their effect on banks' positions. • Effectively enforce the proposed instruction and develop an internal procedural guide to assess applications related to major acquisitions.

8. Supervisory approach	• Launch an overhaul of the rating system so that it can be more risk-sensitive and better integrated in the supervisory process. • Develop an appropriate prudential approach to supervise MFI, including establishing a tailored rating system. • Improve the monitoring of the banking system to analyze risk trends and vulnerabilities and take appropriate preventive actions. • Develop a supervisory framework for dealing with problem banks and MFIs.
9. Supervisory techniques and tools	• Develop a risk-based supervisory approach that mainly includes: (i) a risk assessment process that is better integrated within the overall supervisory process; (ii) supervisory and inspection planning based on risk profile and systemic importance of institutions; (iii) better information sharing among all departments of SG-CSBF; (iv) more frequent contacts with banks' board and senior management; (v) an adequate information system that allows more structured and comparative analysis of banks' situations; and (vi) adapted risk-based procedural manuals. • Take short-term measures to make up for the long absence of inspection missions, particularly at the four largest banks (like for example conducting thematic inspections on credit risk).
10. Supervisory reporting	• Develop a more comprehensive set of prudential reports, enhance the quality of internal control reports, and reassess the frequency of reports to better take into consideration the importance of the information in a risk-based context.
11. Corrective and sanctioning powers of supervisors	• Revise the banking law in order to expand the array of possible corrective measures that can be employed by CSBF. • Develop a robust prompt corrective action framework.
12. Consolidated supervision	• Draft regulations on consolidated supervision requiring financial statements and prudential reports on standalone and consolidated bases, and defining prudential requirements to be observed on consolidated basis.
13. Home-host relationships	• Continue to enhance information sharing with foreign supervisory authorities in the context of the already signed cooperation agreements. • Reinitiate the call for cooperation and information sharing agreements with home supervisors of French and Gabonese banking groups.
14. Corporate governance	• Introduce new detailed requirements on corporate governance by developing a new instruction or modifying the current instruction on internal control.
15. Risk management process	• Introduce new detailed requirements on risk management by developing a new instruction or modifying the current instruction on internal control.
16. Capital adequacy	• Revise the regulations on capital definition and capital adequacy ratio in line with international standards, mainly through: (i) tightening some credit risk weights and risk mitigation techniques; (ii) introducing a capital charge for operational risk; (iii) introducing a

	capital charge for market risk (particularly) foreign exchange risk; (iv) possibly increasing minimum capital adequacy ratio to 10 percent; and (v) requiring the ratio to be observed on consolidated and standalone bases.
17. Credit Risk	• Develop a regulation on credit risk management and conduct thematic credit-related targeted inspections for the most systemically important banks.
18. Problem assets, provisions, and reserves	• Develop guidelines for the effective application of loans classification and provisioning rules, collateral valuation, and dealing with restructured loans. • Develop specific rules for asset classification and problem asset provisioning of MFIs.
19. Concentration risk and large exposure limits	• Enhance the large exposure regime by: (i) developing guidelines on credit concentration and checking if banks have adequate systems to properly identify connected group of borrowers; (ii) developing prudential reporting requirements on sectoral and geographic concentration and use it in the routine bank assessment and analysis; and (iii) considering a reduction in large exposure threshold (in line with Basel guidelines) to 10 percent of capital, for exposure considered as large, and 25 percent of capital, as a maximum limit for single or group of connected exposure(s).
20. Transactions with connected parties	• Revise the regulations on related party lending by: (i) aligning the definition of related parties with international standards; (ii) apply the prudential limit on the total of related party exposures; (iii) empower the CSBF with the latitude of designating parties as related; (iv) require that related party transactions be approved by the banks' board of directors; and (v) prohibit preferential treatment of related parties.
23. Interest rate risk in the banking book	• Develop a regulation on interest rate risk in the banking book to better report and monitor banks' risks in this respect.
24. Liquidity risk	• Introduce liquidity prudential limits, including short-term liquidity as well as stable funding requirements, for banks and MFIs. • Develop liquidity risk management guidelines for banks and MFIs.
25. Operational risk	• Revise the current regulatory framework to provide more guidelines on operational risk definition, identification, monitoring, control and management.
27. Financial reporting and external audit	• Develop new requirements for external auditors' work that: (i) set clear and objective qualification criteria for appointment of external auditors; (ii) determine the scope of external audit work; and (iii) oblige external auditors to communicate material risks that may signal serious shortcomings in banks' situation. • Develop an adequate process related to external auditors that will allow SG-CSBF to assess external auditors' nomination, evaluate their work in banks and take adequate corrective actions, and conduct regular contacts with external auditors to discuss issues of common interest.

28. Disclosure and transparency	• Develop regulations requiring banks to publish annual reports containing not only quantitative information but also qualitative disclosures on corporate governance and risk management. • Ensure timely preparation and publication of CSBF periodic reports (including its annual report).
29. Abuse of financial services	• Better implement and enforce the existing AML/CFT regulations.