



# REPUBLIC OF MADAGASCAR

## REPORT ON TECHNICAL ASSISTANCE MISSION IN EXTERNAL SECTOR STATISTICS (JULY 2–13, 2018)

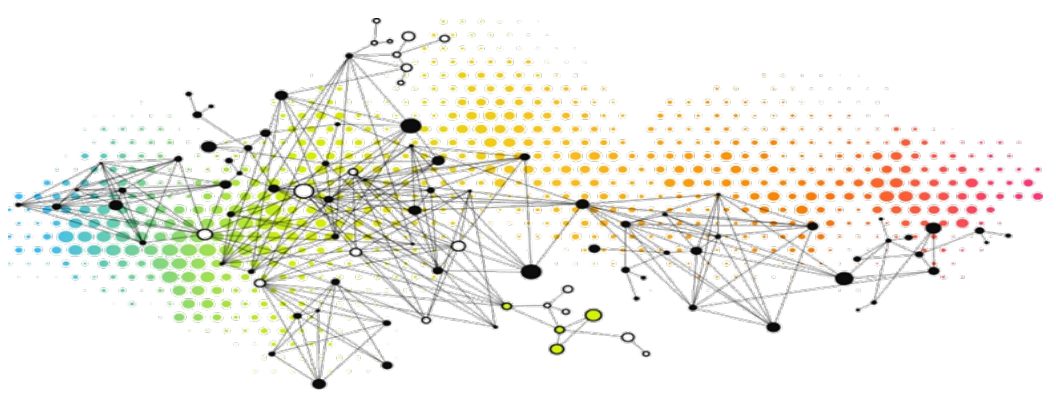
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## REPORT ON TECHNICAL ASSISTANCE MISSION IN EXTERNAL SECTOR STATISTICS (JULY 2–13, 2018)

Prepared by Tamara Razin

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## Glossary

BFM	Banky Foiben'i Madagasikara (Central Bank of Madagascar)
<i>BPM6</i>	<i>Balance of Payments and International Investment Position Manual, sixth edition</i>
BSA	Balance sheet approach
CDIS	Coordinated Direct Investment Survey
c.i.f.	Cost – insurance – freight
CNPS	National Social Security Fund ( <i>Caisse Nationale de Prévoyance Sociale</i> )
DDP	Public Debt Directorate ( <i>Direction de la dette publique</i> )
DGD	Directorate General of Customs ( <i>Direction générale des douanes</i> )
EDS	External debt statistics
ESRI	Statistical Statement of International Settlements ( <i>État statistique des règlements internationaux</i> )
ESS	External sector statistics
FDIS	Foreign Direct Investment Survey
f.o.b.	Free on board
FSSF	Financial Sector Stability Fund
IIP	International investment position
IMF	International Monetary Fund
INSTAT	National Statistics Institute ( <i>Institut national de la statistique</i> )
MFB	Ministry of Finance and Budget ( <i>Ministère des Finances et du Budget</i> )
MFS	Monetary and financial statistics
SBP	Balance of Payments Unit ( <i>Service de la Balance des Paiements</i> )
SCC	Foreign Exchange Management Unit ( <i>Service de Contrôle des Changes</i> )
SIGOC	Integrated System for the Management of Foreign Exchange Transactions ( <i>Système intégré de gestion des opérations de change</i> )
SNA	System of national accounts
TA	Technical assistance

## SUMMARY OF MISSION OUTCOMES AND PRIORITY RECOMMENDATIONS

- 1. A technical assistance (TA) mission visited Antananarivo, Madagascar, from July 2–13, 2018, to provide assistance in the external sector statistics (ESS), including the balance of payments and international investment position (IIP).** The mission was conducted in the context of an initiative financed by the Financial Sector Stability Fund (FSSF) – Balance Sheet Approach (BSA) submodule, which involves intersectoral work for the production of more reliable BSA matrices to support macroprudential policy, analysis of the country’s financial stability, and International Monetary Fund (IMF) surveillance.
- 2. The Banky Foiben’i Madagasikara (BFM) has made commendable progress in the improvement of ESS data collection and compilation, and in the implementation of the recommendations of previous missions (January 2016 and February 2017).** The most important achievements noted by the mission were the revision of the legal mandate of the BFM to give it the responsibility for compilation of the balance of payments and IIP, the revision of the international settlements statistical statement (ESRI), which was brought into line with the newest methodological standards, the signing of a memorandum of understanding with public institutions, which are the main data suppliers, and the initiation of work on a compilation framework for the IIP. Despite the progress made, there are still important issues that should be addressed.
- 3. A more sustained effort must be applied to the collection system to ensure the timelier submission of data of adequate quality.** The main source of the financial part of the balance of payments, and consequently the IIP, is the direct business investment survey conducted by the National Statistics Institute (INSTAT), with which the BFM signed a partnership agreement and the costs of which it covers. However, the survey results have been published with a considerable lag (INSTAT is currently preparing to publish the 2015 data). A plan to launch a new survey in a new format that will cover the data for 2016 and 2017 was announced for August 2018, targeting businesses with substantial cross-border activities, including trade in goods and services and/or financial investment. The survey concept is ambitious and will require considerable effort to educate respondents to ensure a high response rate and a certain level of quality in the responses. The mission provided comments on how to streamline and simplify the questions to facilitate reporting.
- 4. Given that the main objective of the FSSF project is to introduce the balance sheet approach in the target countries, the mission focused specifically on assistance in setting up a robust compilation system for the IIP.** This was done in conjunction with the assessment of the balance of payments data that have a direct impact on the compilation of the IIP. The BFM began compilation of a preliminary IIP. Its assessment revealed major gaps, particularly in the construction of the initial positions for components such as trade credit and advances, currency and deposits of other sectors, and other accounts receivable/payable. The positions for these components were calculated as an accumulation of transactions. This exercise generated

unreliable results, mainly because of gaps in the estimate of balance of payments transactions. The mission provided assistance in the development of more robust estimation techniques for transactions by identifying new data sources currently omitted from the balance of payments that could have a significant impact on coverage. The goal of the compilers should be to compile an updated IIP with better coverage and using better estimation techniques.<sup>1</sup>

**5. Optimization of the resources assigned to the compilation of the ESS is another important prerequisite for the sustainable implementation of the mission recommendations.**

The number of economists currently in the Balance of Payments Unit (SBP) is at a critical level—only two employees out of three are assigned to compilation of the external statistics on a full-time basis (the third having been transferred to another BFM directorate in the middle of the mission). Another staff member assists the team and works on a part-time basis on the compilation of the ESS, as she is officially assigned to the International Relations Unit in the same department. It is imperative to begin recruiting new staff to fill the vacant positions as soon as possible. The mission also underscored the importance of increasing the number of staff assigned to the compilation of the ESS to ensure a sustainable improvement. This would be in line with the increasing workload generated by the compilation of new ESS datasets (including the IIP and external debt statistics) and the increased periodicity (compilation of quarterly balance of payments and other ESS datasets) and would also make it possible to tackle the multiplicity and complexity of the transactions generated by changes resulting from globalization.

**6. The data collection and compilation strategy for the ESS should be revised.**

The compilation of the quarterly ESS, which is one of the main ESS objectives, requires both an increase in the number of compilers and a change of approach in the collection of source data. The quarterly data are compiled on the basis of the ESRI and should be supplemented by the collection of quarterly data using a simple survey of major public and private enterprises. The annual surveys, which have much broader coverage and detail, will be used to revise the quarterly data.

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<sup>1</sup> The updated quarterly IIP covering the period 2006–2018 was submitted to the IMF in November 2018 and published on the IMF website for the first time.

**Table 1. Priority Recommendations**

Target Date	Priority Recommendation	Responsible Institutions
<b>Completed</b>	<i>Assess the results of the foreign direct investment survey (FDIS) of businesses conducted by INSTAT for 2015 and use the results to estimate the balance of payments components for 2015–2017.</i>	<b>BFM in collaboration with INSTAT</b>
<b>February 2019</b>	<i>Launch the annual ESS survey to collect the data for 2016 and 2017.</i>	<b>BFM in collaboration with INSTAT</b>
<b>Completed</b>	<i>Compile the preliminary version of the IIP for all institutional sectors for end-2016 and 2017, based on BPM6 and using broader data sources.</i>	<b>BFM</b>
<b>March 2019</b>	<i>Correct the deficiencies in the balance of payments data identified by the mission.</i>	<b>BFM</b>

7. **The mission would like to thank all of the BFM staff for their time and effort in making this mission a success.** It would also like to thank all of the government officials that it had the pleasure of meeting during the mission. The list of the officials is attached in the Annex of this report.

8. **Further details on the priority recommendations and the related actions/milestones can be found in the action plan under *Detailed Technical Assessment and Recommendations*.**

## DETAILED TECHNICAL ASSESSMENT AND RECOMMENDATIONS

### A. Action Plan

9. To support progress in the above work areas, the mission recommended a detailed one-year action plan with the following priority recommendations carrying particular weight to make headway in improving the ESS.

Priority	Action/Milestone	Actual Completion Date
<b>Outcome: The capacity of the staff is enhanced through training, particularly in the development of data sources, data compilation methods and dissemination.</b>		
High	Increase the human resources assigned to the SBP by at least two qualified officials to carry out a number of supplementary activities in the work program resulting from new developments in the economy and to compile the IIP and external debt using the <i>BPM6</i> methodology.	September 2019
Medium	Train the SBP officials in the ESS (balance of payments, IIP, external debt); nominate officials to attend the training sessions organized by the IMF at headquarters and in the regional training centers.	Ongoing
<b>Outcome: Data sources are adequate to compile the ESS</b>		
High	Assess the results of the FDIS of businesses conducted by INSTAT for the year 2015 and use the results to estimate some balance of payments components for 2015–2017.	Completed
High	Finalize the questionnaires for the collection of ESS data, bearing in mind the mission's recommendations.	February 2019
High	Launch the annual ESS survey to collect the data for 2016 and 2017.	February 2019
High	Launch the collection of data from the National Social Security Fund (Caisse Nationale de Prévoyance Sociale—CNPS) on the pension fund's foreign investments and on current transactions with diplomatic missions and international organizations in Madagascar.	August 2019
Medium	Assess the possibility of launching a survey of international points of departure (ports and airports) to estimate spending by tourists in Madagascar and to refine the current method of estimating travel service exports.	Mai 2019
High	Follow-up with the Ministry of Finance and Budget (MFB) on the sharing of data from businesses' financial statements.	August 2019
Medium	Organize regular tripartite meetings of the BFM, INSTAT, and Directorate General of Customs (DGD) to correct inadequacies and inconsistencies identified in the foreign trade statistics.	Regularly
<b>Outcome: Data are compiled and/or disseminated using appropriate statistics techniques, particularly for data sources and/or the evaluation and validation of intermediate data and statistics results.</b>		
High	Correct the deficiencies in the balance of payments data identified by the mission.	June 2019
High	Compare the FDIS results with the data from the ESRI to increase the size of the sample and eliminate double counting.	On a regular basis
High	Compile data on assistance and investment projects based on information from the Primature (Prime Minister's Office), taking into	Completed



Priority	Action/Milestone	Actual Completion Date
	account the project destination, to improve the classification of current and capital transfers.	
High	Improve the method of estimating counterparties for assistance and investment projects based on the mission's recommendations.	Completed
High	Establish a method of estimating balance of payments transactions by excluding the effect of exchange rate and price variations for all components concerned (currency and deposits, loans, reserve assets), based on the information from the Foreign Exchange Management Unit (SCC) on the breakdown of imports and exports of goods by invoice currency.	Completed
High	Establish a method of estimating trade credit and advances: (i) for assets, based on the information from the SCC on changes in the data on the repatriation of proceeds from exports of goods; and (ii) for liabilities, by comparing data on imports of goods held by the DGD with information from the ESRI on payments for imports.	Completed
<b>Outcome: A new data set is prepared and/or disseminated internally and/or to the public.</b>		
High	Compile the preliminary version of the IIP for all institutional sectors for end-2016 and 2017, based on <i>BPM6</i> and using broader data sources.	Completed
Medium	Publish the IIP statistics on the BFM and IMF websites.	Completed
Medium	In cooperation with the Public Debt Directorate (DDP) establish a preliminary version of the external debt statistics (EDS) for all institutional sectors consistent with the IIP.	September 2019
Medium	Submit the EDS for all institutional sectors to the World Bank for inclusion in the database of quarterly external debt statistics.	December 2019

## B. Building the IIP Data Collection and Compilation Framework

10. **The compilation of IIP is one of the major prerequisites for the development of the balance sheet analysis framework for Madagascar.** The 2017 mission took stock of data sources that could be the basis for compiling IIP and suggested some improvements to the data collection framework. Following the 2017 mission's recommendations, the BFM succeeded in employing a number of data sources for collecting position data and also compiled the first draft of the IIP for end-2015–end-2017 for mission's review.

11. **The analysis of draft IIP revealed a number of shortcomings in the compilation framework.** Among them were inconsistency between position data in IIP and transactions registered in balance of payments; undercoverage of data for some public institutions and

private sector; instances of deviation from *BPM6* requirements; and scarce techniques for estimating starting position data.<sup>2</sup>

12. **Currently, the choice of data sources is based on the availability principle, no comprehensive overview is applied to ensure that composition of data sources for the IIP purpose provides for sufficient IIP scope and coverage.** The main data source for the compilation of the financial account of balance of payments, as well as for IIP, was the foreign direct investment survey (FDIS) conducted by the INSTAT who signed a collaboration agreement with the BFM for conducting the survey. The survey results have been aggregated and disseminated with a considerable delay—at the time of the mission, INSTAT was preparing the publication of data for 2015. Consequently, the survey results could be used as a basis for estimates for previous periods; however, the data for recent and current periods can only be estimated using the trend on FDIS. Another shortcoming of FDIS was that it collected data only on direct investment and only targeting the entities with foreign direct investment. Consequently, companies that did not fall under this category were omitted from the survey.

13. **The BFM developed a plan for improving the data collection from resident companies involved in cross-border transactions.** A considerably improved survey form was designed that (i) includes questions on both current and financial transactions; (ii) provides for collection of data for financial part in an integrated format which is data on positions, transactions, and other flows; (iii) includes annexes designed to collect data from enterprises involved in specific types of activities (e.g., construction, manufacturing, transport, travel, and other); and (iv) is aimed on surveying all entities with significant cross-border transactions—with and without foreign investment in equity capital. The mission provided comments on the survey form aimed at aligning them to *BPM6* requirements and to business accounting wording.

14. **The launch of the survey in the new format is an ambitious project.** It would require significant efforts for identifying the relevant survey population, for sensitizing the respondents, and to assure an adequate response rate and a good quality of answers. The BFM launched the tender for selecting the institution that will conduct the survey in the new format covering data for 2016 and 2017. If the survey brings adequate results, it will be an important source for improving the quality and coverage of both balance of payments and IIP statistics.

15. **The mission focused on assisting improving the coverage of IIP by better using the administrative sources or by identifying new data sources for private sector.** For this purpose, meetings were held with some public institutions and private companies with foreign investment and/or significant cross-border transactions. The meetings' focus was on identifying

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<sup>2</sup> By the time the report was finalized, the BFM submitted to the IMF quarterly IIP for 2006-Q2 2018 where some of the mission's recommendations were taken into consideration. The Madagascar IIP was published by the IMF for the first time in November 2018. The analysis of the compiled data revealed considerable improvements in coverage and methodological soundness, compare to the first draft analyzed during the mission. However, many shortcomings remain, the most important being (i) inconsistency of position data with balance of payments transactions, (ii) estimation of positions for some components as accumulation of transactions without taking into consideration exchange rate and price changes, and (iii) limited coverage. Addressing some of the shortcomings would require follow-up TA.

the type of cross-border transactions conducted by companies, including their financing, and securing their agreement for reporting data to the BFM for ESS purpose.

16. **The Caisse Nationale de Prevoyance Sociale (CNPS) is the institution in charge of managing the social and private pension funds.** Reserve funds of CNPS are invested in different financial instruments; 15 percent of those funds are invested abroad. The CNPS assets abroad are currently omitted from the balance of payments and IIP. Following the agreement with the CNPS during the mission, the BFM will adjust the report form for collecting quarterly data on CNPS investment abroad.

17. **The Foreign Exchange Control Unit (Service du Controle des Changes – SCC) of the Ministry of Finance and Budget (MFB) is in charge of supervising and monitoring the export/import transactions of the residents of Madagascar.** It also monitors the repatriation of proceeds from export of goods and authorizes residents' investment abroad. For exports of services, the monitoring is done primarily for VAT reimbursement purpose.<sup>3</sup> Starting with July 2017, the SCC implemented an integrated system for monitoring the repatriation (system intégrée de gestions des opérations des changes – SIGOC) which is linked also to the Customs system. SIGOC allows for generating time series reports with different breakdowns, including those needed for the balance of payments and IIP compilation such as total export of goods and services and the repatriated amount by currency and period. This information would constitute a comprehensive source for calculating the position and flows of trade credit and advances, including identifying the changes due to exchange rate fluctuations.

18. **The SCC indicated certain causes of differences between data on export of goods and services and those on repatriation of export proceeds.** Apart from de-facto non-repatriation, the differences are caused by cases when exports of goods are compensated by imports of goods, or when proceeds are repatriated but the information was not provided by banks to SCC, or when payments are executed by affiliated parts in a consolidated manner and, as so, cannot be linked to specific export invoices. In addition, big companies are allowed do not repatriate up to 40 percent of their proceeds and mining companies are obliged to repatriate only the proceeds for funding three months of their domestic expenses. If compilers start estimating trade credit and advances based on data from SCC, the estimates should be adjusted taking into consideration the above-listed caused.

19. **In important source of data for IIP is the financial statements of enterprises.** They could be used in assessing the position data for different financial components as well as for cross checking data reporting by companies through the enterprise survey. The financial statements are available at the MFB; the BFM should initiate the discussion with the MFB for obtaining access to available financial statements.

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<sup>3</sup> The repatriation period for proceed from export of services is one month while for goods is three months up to 190 days.

20. **During a meeting with Air Madagascar, important information has been gathered related to foreign investment in the company, its operational revenue, as well as related to transactions for supplementing its aircrafts park.** Air Madagascar—a state owned enterprise—went through the privatization process in 2017 when Air Austral (France) acquired 32 percent of its share capital (USD 10 million).<sup>4</sup> Air Austral provided working capital to the company and committed to invest additional USD 7 million in company’s development. For upgrading its airplanes, Air Madagascar purchased in 2012 two aircrafts at high cost; the purchase was financed by contracting loans at a high interest rate. Starting with 2013, Air Madagascar accumulated arrears due to inability to serve the debt; arrears were rescheduled in 2016. In 2015, Air Madagascar acquired under financial lease four additional aircrafts. All these transactions are cross-border and should be covered in balance of payments and IIP. It was agreed that BFM will submit a report form that would cover all identified cross-border activities for quarterly reporting by Air Madagascar.

21. **Meetings have been held with four private companies—residents of special zones—for gathering information on their transactions with nonresidents, and possible reporting to the BFM for the ESS purpose.** The four companies activate in car sales (Materauto), cement production (Holcim), shrimps farming (OSO Farma), and water and electricity distribution (JIRAMA). The first three companies have foreign investment in equity capital, sale their production mainly abroad, and have loan liabilities to nonresidents. JIRAMA is resident-owned and operates only domestically; however, it benefited from a grant from World Bank. It was agreed during the meetings that regular reports will be submitted to the BFM for the ESS purpose, using the BFM survey forms.

22. **The mission held a meeting with the insurance company ARO—the biggest insurance company in Madagascar—for exploring the company’s cross-border activity.** ARO is a public company with about 70 percent of share capital held by the government; it provides life and non-life insurance services. While direct insurance if mainly provided to residents, more than 50 percent of risks are reinsured abroad. In addition, the company invests abroad a part of its assets and holds accounts with foreign banks. Currently, ARO’s cross-border reinsurance activity, as well as investment abroad, are not captured in balance of payments and IIP statistics. To cover this gap, the BFM will require regular reporting by ARO based on survey form.

**Recommendations:**

- Assess the results of the foreign direct investment survey (FDIS) of businesses conducted by INSTAT for the year 2015 and use the results to estimate some balance of payments components for 2015–2017;

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<sup>4</sup> Air Austral has the option of increasing its share up to 49 percent for additional USD 4 million.

- Finalize questionnaires for ESS data collection bearing in mind the mission's recommendations;
- Launch the annual ESS survey to collect the data for 2016 and 2017;
- Compare the FDIS results with the data from the statistical statement of international settlements (ESRI) to increase the size of the sample and eliminate double counting;
- Launch the collection of data from the CNPS on the pension fund's foreign investments and on current transactions with diplomatic missions and international organizations in Madagascar;
- Collect data from the SCC on the repatriation of export revenue in the format agreed during the mission, with separate identification for repatriation from mining companies;
- Collect data from Air Madagascar on current and financial account transactions, financial stocks, with particular focus on debt commitments, including financial leases;
- Follow-up with the MFB on the sharing of data from businesses' financial statements;
- Compile the preliminary version of the IIP for all institutional sectors for end-2016 and 2017, based on *BPM6* and using broader data sources;
- Publish the IIP statistics on the BFM and IMF websites.

### C. The Balance of Payments Data as Input to IIP

23. **The mission commended authorities on recent improvements in the balance of payments compilation.** These consist of enhancing the ESRI and aligning it to the *BPM6* framework; refining statistical techniques for estimations of selected components; expanding the data sources used for the balance of payments compilation. However, much more is to be done to improve accuracy and reliability of the reported data and to implement sound statistics techniques.

24. **The balance of payments data are among the main contributors to the IIP compilation in an integrated format.** The mission conducted a detailed assessment of compiled balance of payments, focusing particularly on the financial account. The analysis revealed some misclassifications, underestimations/overstatements, and omissions. Additionally, transactions for several items on financial account (e.g., reserve assets, currency and deposits, portfolio investments, etc.) were derived as difference in stocks, without exclusion of exchange rate effect.

25. **Goods are compiled based on Customs data, with several adjustments to accommodate the balance of payments requirements.** Among them are re-evaluation of imported goods from c.i.f. to f.o.b. prices, exclusion of personal effects brought by migrants, and

time adjustments for recording imports when entering the custom warehouses. Due to these adjustments, data included in balance of payments differ from international merchandise trade statistics (IMTS) compiled and disseminated by INSTAT using the same customs declarations database. The mission stressed the need to accompany the published balance of payments data with an explanatory table that would disclose the adjustments made to Customs data. However, it was recommended that for the analysis of trade in goods data by country and group of commodities (that the BFM disseminates together with the balance of payments data) the IMTS data should be used as the BFM's adjustments to goods are done only in aggregated format and, as such, do not permit their breakdown by country and commodity. Another issue identified in balance of payments' goods data is that they include goods imported for/exported after processing (according to *BPM6*, only the processing fee should be included in services account).

26. **During a meeting with the DGD representatives it was found out that the DGD data used for balance of payments include also imports by foreign embassies located in Madagascar.** It was agreed that the DGD will identify such data by introducing a special customs procedure code that will permit their exclusion from import of goods data.

27. **The services account is compiled based on ESRI data supplemented with freight and insurances services estimated within the c.i.f.-f.o.b. re-evaluation.** Considering the variety of services covered in this account, their diverse characteristics and treatment in balance of payments, the mission recommended several enhancements for improving the coverage and quality:

- (i) Update the coefficients used for c.i.f.-f.o.b. reevaluation based on data available in customs declarations;
- (ii) Consider launching a separate survey of enterprises involved in manufacturing activity for collecting data on manufacturing fees. For this purpose, the model survey form 7 – Manufacturing Services presented in Appendix 8 of the *BPM6 Compilation Guide* can be used;
- (iii) Supplement data on services (by type) with estimates of services imported within the technical assistance projects.

28. **Primary income account is compiled using data from different sources:** the ESRI data for all components, where applicable; FDIS results for dividends and reinvested earning; and the MFB data on interest on public external debt. The mission recommended to (i) supplement the primary income with data on income on investment abroad by CNPS and insurance companies, and (ii) launch a survey of telecommunication companies on cross-border mobile money remittances using the form recommended by the mission (see Appendix 2) for estimating compensation of employees through mobile money.

29. **Secondary income and capital accounts include data from ESRI on personal transfers, international cooperation projects, and other current transfers.** The mission's view

is that it might be a misclassification of transfers between secondary income and capital account. The Primature maintains a comprehensive database covering all technical assistance and investment projects, and other assistance received by the government and some private entities. It is recommended to review the classification of projects in balance of payments based on the information from Primature database on projects' purpose. In addition, compilers should assure that counter entry are registered in relevant balance of payments components for projects registered under secondary income and capital accounts. Also, an analysis of data registered under "other current transfers" should be performed for addressing possible misclassifications.

30. **Data on direct investment are estimated based on FDIS results.** Due to the significant delay in the release of the FDIS results (the results for 2015 were release at the end of 2018) the total direct investment data for latest periods (2016–2018) were estimated based on information from sectoral ministries on expected investment adjusted by compilers' estimates. The split between equity capital and debt instruments was done in the proportion 10:90. The ratio should be revised when 2015 FDIS results become available. Also, for assessing the quality of data collected through FDIS, compilers may cross-check FDIS with the information gathered during the meetings with four private companies, if those companies were included in survey population.

31. **The BFM does not participate in the IMF's Coordinated Direct Investment Survey (CDIS); however derived data for Madagascar on inward and outward investment as reported by partner countries participating in CDIS are available on the IMF website.**<sup>5</sup> A comparison of mirror CDIS data for Madagascar with data in IIP leads to the following conclusions: (i) the IIP data could be overstated and (ii) CDIS data do not support the ratio applied by the BFM for distribution between equity capital and debt instruments. When enterprise survey results for 2016–2017 become available, compilers should review the direct investment data in both balance of payments and IIP. The review can be conducted with the assistance of a follow-up TA mission.

32. **The portfolio investment data cover only investment of deposit-taking corporations from monetary and financial statistics (MFS).** The meetings with CNPS and ARO revealed that those institutions invest abroad a significant part of their assets. The BFM should establish a regular data collection from these institutions on their investment abroad, including income earnings on that investment.

33. **Data on currency and deposits need to be revised.** For central bank and other deposit-taking corporations, balance of payments transactions are calculated as difference in stocks from MFS. Data on currency and deposits assets for other sectors are compiled based on Bank for International Settlements' banking statistics. When calculated as differences of stocks, transactions include also the effect of the exchange rate fluctuation. For excluding the exchange rate changes from transactions (calculation of "pure" transactions), the stock data should be converted to the original currency and transactions to be calculated as difference in stocks in

<sup>5</sup> See <http://data.imf.org/?sk=40313609-F037-48C1-84B1-E1F1CE54D6D5>



original currency. Transactions should be converted to the currency in which the balance of payments is compiled by applying the average exchange rate for month/quarter. For converting the stocks to the original currency, the currency composition of exports and imports of goods from the CNPS could be used as a proxy for ratio of each currency in total stocks. The split between “pure” transactions and exchange rate changes will contribute to the compilation of an integrated IIP.

34. **The primary data sources for loans are the Public Debt Department (Direction de la Dette Publique) (DDP) of the MFB and the MFS.** Similar to transactions on currency and deposits, transactions on loans are calculated as difference of stocks and, consequently, include the exchange rate changes. The DDP agreed to provide the information for the balance of payments purpose broken down by currency of denomination of debt liability which will be used to calculate “pure” transactions and exchange rate changes.

35. **Trade credit and advances are estimated as difference between Customs data on import/export of goods and ESRI data on payments for import and export of goods.** Because of different factors that generate inconsistencies between the two datasets, this method of estimating trade credit does not provide for the best results (for reliable results the comparison should be done on a discrete basis, analyzing data for each import/export contract). The CNPS maintains a detailed database on repatriation of proceed from export of goods; compilers should make use of this database as it is one of the most comprehensive and reliable source as it allows to estimate not only the accumulation of trade credit but also their repayment. The repayment should be estimated by comparing the stock of nonrepatriated proceeds for previous periods (e.g., for t-3, t-2, t-1, and t) that were reported, for instance, in period t, with data for the same periods reported in period t+1. The difference between these data reported in different periods would equal the repayment of trade credit (late repatriation).

36. **Other accounts receivable/payable are estimated as residual for smoothening the errors and omissions.** For this, the errors and omissions is kept at a level that is considered suitable by compilers and the remaining imbalance is included under accounts receivable/payable of other sectors. The mission strongly recommended to discontinue this practice as it is a way of hiding the omissions or imbalances. Some possible causes of errors and omissions are (i) absence of counter entries for some transactions (e.g., for TA and investment projects registered as current or capital transfers), (ii) errors in estimating other balance of payments components (e.g., overstatement of direct investment), or (iii) inclusion of exchange rate changes in transactions. Compilers should conduct a detailed assessment of possible causes of errors and omissions and address them instead of hiding the imbalances under other accounts receivable/payable.

37. **Reserve assets transactions are calculated as difference in stocks that leads to the inclusion of exchange rate and price changes in transactions.** Considering that the full information on transactions and positions in reserve assets is available at the BFM, compilers should start separating “pure” transactions from exchange rate and price changes; the latter should be registered in IIP under other changes in financial assets and liabilities account.



38. **Data for some balance of payments components are adjusted by compilers for aligning them to Madagascar economic reality.** Such estimates are subjective as they are not based on documented trends. For instance, one of main reasons in adjusting the trade credit and advances and other sectors' currency and deposits assets is the assumption that the mining companies do not repatriate their proceeds. During the mission, the CNPS provided the information for two mining companies regarding their exports and repatriated proceeds (see Annex 2) that show an opposite trend. When FDIS results became available and BFM starts collecting data from additional sources discussed during the mission, the above-mentioned adjustments should be reassessed and, if proved to be unjustifiable, should be discontinued.

**Recommendations:**

- Organize regular tripartite meetings of the BFM, INSTAT, and DGD to correct inadequacies and inconsistencies identified in the foreign trade statistics;
- Assess the possibility of launching a survey of international points of departure (ports and airports) to estimate spending by tourists in Madagascar and to refine the current method of estimating travel service exports;
- Correct the deficiencies in the balance of payments data identified by the mission;
- Compile data on assistance and investment projects based on information from the Primature (Prime Minister's Office), taking into account the project destination, to improve the classification of current and capital transfers;
- Improve the method of estimating counterparties for assistance and investment projects based on the mission's recommendations;
- Establish a method of estimating balance of payments transactions by excluding the effect of exchange rate and price variations for all components concerned (currency and deposits, loans, reserve assets), based on the information from the Foreign Exchange Management Unit (SCC) on the breakdown of imports and exports of goods by invoice currency;
- Establish a method of estimating trade credit and advances (i) for assets, based on the information from the SCC on changes in the data on the repatriation of proceeds from exports of goods; and (ii) for liabilities, by comparing data on imports of goods held by the DGD with information from the ESRI on payments for imports.

## D. Other Issues

39. **The optimization of resources allocated to ESS compilation is an important prerequisite for the sustainable implementation of mission recommendations.** The current number of economists within the SBP is at a critical level—only two out of the three employees are dedicated full time to the compilation of external statistics, the third having been seconded to another BFM directorate in the middle of the mission. Another staff member assists them and

works on ESS compilation on a part-time basis, as that person is officially assigned to the International Relations Unit (Service des Relations Internationales) in the same department. It is imperative to begin recruiting new staff to fill the vacant positions as soon as possible. The mission also stressed the importance of increasing the number of staff dedicated to ESS compilation to ensure a sustainable improvement. This would be in line with the growing workload generated by the compilation of all new ESS data (including IIP and external debt statistics) and increasing periodicity (start of quarterly compilation of balance of payments and other ESS data sets), in addition to addressing the large number and complexity of transactions generated by changes as a result of globalization.

40. **The ESS data collection and compilation strategy should be revised.** At present, aside from the monthly ESRI, data are collected through annual surveys not suitable for quarterly balance of payments and IIP compilation. Quarterly ESS compilation, one of the key ESS objectives, requires not only a greater number of compilers, but also a change in approach to baseline data collection. Quarterly data are compiled based on ESRI and should be supplemented by quarterly data collection based on simple surveys of large private and public enterprises. The annual surveys, which have broader coverage and details, will serve to revise quarterly data.

41. **With the implementation of IIP compilation, the BFM needs to develop a strategy for the compilation and dissemination of gross external debt statistics (EDS).** The starting point in the EDS compilation could be deriving debt liabilities from the IIP, when the latter achieves an adequate coverage and quality. The data available in IIP would be sufficient for compiling the main tables required for reporting data to the World Bank's Quarterly External Debt Statistics database. The compilation of EDS could be started with the assistance of a follow-up TA mission.

**Recommendations:**

- Increase the human resources assigned to the SBP by at least two qualified officials to carry out a number of supplementary activities in the work program resulting from new developments in the economy and to compile the IIP and external debt using the *BPM6* methodology;
- In cooperation with the DDP, establish a preliminary version of the EDS for all institutional sectors consistent with the IIP;
- Submit the EDS for all institutional sectors to the World Bank for inclusion in the database of quarterly external debt statistics.

## Annex I. Officials Met During the Mission

Name	Institution
<b>Banky Foiben'i Madagasikara (BFM)</b>	
Alain Hervé Rasolofondraibe	Governor
RABEANTOANDRO Joé	Research and Market Unit Head
Aubin BELALAHY	Director of Research and International Relations Directorate (DET)
Valerie Rabeson	Research and International Relations Directorate ( <i>Direction des Etudes et des Relations Internationales</i> – DET) Unit Head
Herilanto Andriamarison RAZAFINDRAKOTO	Research and International Relations Directorate (DET) Unit Head
Oniharilanto RABESOA RAOBIVÉLO	Research and International Relations Directorate (DET) Directorate Attaché
RANDRIANARISON Haja	Documentation and Information Directorate ( <i>Direction de la Documentation et de l'Information</i> – DDI) Department Head
<b>Caisse Nationale de Prévoyance Sociale</b>	
RAKOTOARISON Haja	Director of Finance
RASAHONDRATIANA Blanche	Large Accounts Coordinator
<b>Customs</b>	
RAKOTOARISOA Antsa	CSSAE
<b>Air Madagascar</b>	
RASETARINERA Hanitra	Director of Finance
MARCHAL François	Deputy CEO, Finance
<b>Société d'Assurances et de Réassurances ARO</b>	
Mr. ANNETTE Ando	Accounting and Finance Department Head
RASAMOELY Tovo	Tax Unit Head
<b>Ministry of Finance et Budget (MFB)</b> <b>Directorate General of the Treasury (<i>Direction Générale du Trésor</i> – DGT)</b> <b>Public Debt Directorate (DDP)</b>	
RAKOTONDRA SOA Toky	Assistance and External Debt Operations and Database Division Head
ANDRIANARY Lova Mireille	Debt Statistics and Analyses Research Manager Database and Statistics Division

Name	Institution
CHUK Mio Tin	External Finance Unit Head
RAKOTOARISON Heritiana	Research and Regulation Division Head
RAMANAMBONONA Ambinintsoa	Current Operations Division Head
RAVELOARSON Herindrainy	Information System Division Head
<b>JIRAMA</b>	
GIZY Doria	Director of Finance
<b>INSTAT</b>	
RAJAobelina Jimmy	Director of Economic Statistics
<b>HOLCIM MADAGASCAR</b>	
Tony RAKOTONINDRAINA	Strategic Analyses and Development Unit Head
<b>OSO (Agriculture Biologique)</b>	
Maryse ANDRIAMAMPIANINA	Associate Director

## Annex II. Revenue Repatriation by Mining Companies

DYNATEC			USD	MGA
<b>2015</b>	Q1	Commitment	207,573,035.60	550,242,146,051.85
		Repatriation	207,573,035.60	549,711,163,631.86
	Q2	Commitment	171,982,262.03	496,344,370,610.22
		Repatriation	171,982,262.03	494,930,523,461.39
	Q3	Commitment	131,838,497.16	391,994,327,423.96
		Repatriation	131,838,497.16	386,454,345,577.34
	Q4	Commitment	121,317,184.39	394,421,093,329.33
		Repatriation	115,310,228.11	374,897,019,003.78
<b>2016</b>	Q1	Commitment	113,166,283.79	357,883,501,311.28
		Repatriation	107,383,309.92	343,122,185,376.78
	Q2	Commitment	118,994,345.75	380,156,178,957.66
		Repatriation	118,994,345.75	380,156,178,957.66
	Q3	Commitment	80,951,872.73	246,454,185,384.39
		Repatriation	68,255,135.00	207,982,796,070.76
	Q4	Commitment	165,894,158.51	539,925,157,221.04
		Repatriation	164,466,537.98	537,177,575,834.45
<b>2017</b>	Q1	Commitment	134,809,024.14	431,357,752,090.64
		Repatriation	138,293,345.96	443,426,558,675.52
	Q2	Commitment	95,051,466.25	294,436,186,472.79
		Repatriation	106,019,800.28	334,199,792,851.93
	Q3	Commitment	148,605,372.11	444,455,066,991.76
		Repatriation	31,739,723.65	98,288,758,353.21
	Q4	Commitment	129,208,833.32	409,791,610,434.38
		Repatriation	1,231,269.25	3,910,658,890.31

QMM			USD	MGA
2015	Q1	Commitment	122,809,146.28	329,750,659,032.24
		Repatriation	117,154,606.52	314,989,921,783.80
	Q2	Commitment	15,081,556.23	43,425,915,920.65
		Repatriation	15,151,317.77	43,626,755,109.58
	Q3	Commitment	10,629,114.89	32,407,153,305.56
		Repatriation	10,629,114.89	32,407,153,305.56
	Q4	Commitment	9,262,135.70	29,828,410,064.89
		Repatriation	9,262,135.70	29,828,410,064.89
2016	Q1	Commitment	10,447,781.00	33,275,456,336.32
		Repatriation	10,447,781.00	33,275,456,336.32
	Q2	Commitment	15,980,980.90	50,778,969,192.45
		Repatriation	15,980,980.90	50,778,969,192.45
	Q3	Commitment	7,859,875.00	24,009,812,893.75
		Repatriation	974,860.00	2,960,876,185.00
	Q4	Commitment	18,935,250.45	61,373,150,931.39
		Repatriation	18,928,200.43	61,350,171,640.74
2017	Q1	Commitment	18,876,880.00	59,883,354,366.76
		Repatriation	16,026,404.15	50,829,945,766.16
	Q2	Commitment	25,263,715.80	79,568,707,843.50
		Repatriation	25,263,715.80	79,568,707,843.50
	Q3	Commitment	31,708,020.17	94,357,457,565.43
		Repatriation	13,876,497.25	41,880,737,073.27
	Q4	Commitment	26,832,549.70	84,974,508,311.90
		Repatriation	11,315,239.90	36,348,700,886.40

## Annex III. Payments and Receipts for International Mobile Money Transfer Services

Report for the quarter ending \_\_\_\_\_

No.	Particular of Services	Amount (Ariary)
A.	Value of international transfers to nonresidents	
B.1	Gross revenues from residents for international transfers to nonresidents	
	i. Payments out of gross revenues to resident mobile money agents	
	ii. Payments out of gross revenues to nonresident integration partners	
	iii. Payments out of gross revenues to nonresident telecom partners	
	iv. Foreign exchange margin	
B.2	Value of International transfers from non-residents	
B.3	Gross revenues from nonresident telecom partners for international transfers to residents	
C.	Value of telecommunication services provided to nonresidents	
C.1	Roaming	
C.2	Telecommunication (e.g., airtime)	
C.3	Other (please specify)	
D.	Value of telecommunication services received from nonresidents	
D.1	Roaming	
D.2	Telecommunication (e.g., airtime)	
D.3	Other (please specify)	
E.	Receipts for other services provided to nonresidents (please specify the type of services)	
F.	Payments for other services received from nonresidents (please specify the type of services)	

## Annex IV. Implementation of Action Plan Recommended by the 2017 Mission

Priority	Action/Outcome	Observable Indicators	Completion Date	Implementation Status
<b>I. Institutional cooperation</b>				
<b>H</b>	<b>Benchmark action:</b> Signing memoranda of understanding (MoUs) <i>(recommendation of January 2016, carried forward)</i>	- BFM and MFB - BFM and Primature - BFM and MRHP - BFM and MMP	December 2017	Agreement signed between BFM and MFB. Sharing of administrative information, including requests for authorization for loans, repatriated proceeds, and corporate financial statements. Foreign exchange control information is obtained upon request, but financial statements have delayed implementation.
<b>H</b>	Work with MFB staff responsible for monitoring foreign exchange transactions	Share, on quarterly basis, available data on investments held abroad, including externally contracted debt	June 2017	Completed
<b>H</b>	Work with the CNAPS on primary and secondary income items	Share available data on a quarterly basis	June 2017	Ongoing Information obtained upon request
<b>II. Improve data sources and quality</b>				
<b>H</b>	Send out the questionnaire intended for all companies operating in the field of cross-border transport for recovery on a quarterly basis	Data on cross-border transport services	September 2017	To be carried out with the annual balance of payments survey that will be launched this year
<b>H</b>	Work jointly with INSTAT to ensure good quality data on trade in goods by including the informal trade estimate	Goods exports should be adjusted	Continuous	Ongoing



Priority	Action/Outcome	Observable Indicators	Completion Date	Implementation Status
<b>M</b>	Ensure consistency in data on external trade in goods recorded in the SNA and the balance of payments	SNA and balance of payments figures should be consistent	December 2017	Ongoing
<b>H</b>	Add the new percentage obtained from the Customs Directorate for conversion from c.i.f. to f.o.b. (from 15 to 10 percent)	A new series starting from the first quarter of 2017	June 2017 for the first quarter of 2017	Completed as of January 2017
<b>H</b>	Work with MFB staff responsible for monitoring foreign exchange transactions to improve the quality of data to be received and the timeframe for their transition	Obtain information regarding authorizations for performing investment operations abroad and external resident financing	Continuous	Completed
<b>M</b>	Increase the reliability of information received by combining MFB foreign exchange transactions with other information sources (ESRI, etc.)	More reliable data for foreign direct investment	Continuous	Completed
<b>H</b>	Strengthen coordination with the BFM Banking Supervision Directorate ( <i>Direction de la supervision bancaire</i> )	External assets and liabilities of banks broken down by financial instruments to meet IIP and balance of payments needs so as to avoid their transmission from the questionnaire on foreign direct investment (end of each quarter)	June 2017	Completed
<b>H</b>	<b>Benchmark action:</b> From now on, compile balance of payments data using an expanded and enriched format for current account (services and income) and financial account	The distinction between the various instruments and institutional sectors, providing the highest level of detail for both assets and liabilities. The analytic	June 2017	Carried out internally and for dissemination to the IMF

Priority	Action/Outcome	Observable Indicators	Completion Date	Implementation Status
	(functional categories, financial instruments, and institutional sectors) components	presentation will be derived from the standard.		
<b>H</b>	<b>Benchmark action:</b> Finalize the changes proposed in the foreign investment survey questionnaire	Financial flows (debt and equity) should be added	July 2017	Complete overhaul of the questionnaire to incorporate it into the annual balance of payments survey
<b>H</b>	Improve the current survey's coverage by broadening the scope to include entities with investments abroad	Add items on foreign investments and reinvested earnings to the questionnaire	June 2017	To be carried out with the annual balance of payments survey
<b>M</b>	Include and analyze trade credit, flow, and stock estimates	The trend in estimated trade credits should be consistent with export and import volumes	Continuous	Completed, but methodology constantly reviewed following remarks from the IMF review mission and from BFM authorities
<b>M</b>	Use the proposed survey to gather statistics on grants received from abroad (current and capital grants)	Better statistics	December 2017	To be carried forward to 2019
<b>M</b>	Work with INSTAT to conduct a survey of large goods and services exporting companies	Survey data would be used instead of estimated trade credits	September 2018	To be incorporated into the annual survey soon
<b>H</b>	Expand public external debt coverage by approaching the National Accounts Directorate ( <i>Direction de la Comptabilité Nationale</i> ) with regard to public enterprises and institutions	External debt of public institutions (other sectors) should be collected	June 2017	Ongoing

Priority	Action/Outcome	Observable Indicators	Completion Date	Implementation Status
<b>H</b>	Propose a new unit responsible for data collection on external debt of the central government to facilitate the breakdown by drawdown and repayment of principal	Availability of quarterly balance of payments flows. Retrieve information on arrear amounts.	June 2017	Completed
<b>M</b>	Try to coordinate with the DDP regarding corporate and public institution debt	Availability of flows and stocks as well as government-guaranteed debt	December 2017	Completed
<b>M</b>	Review the macroeconomic model parameters	The adjustments used should be reviewed	December 2018	Completed
<b>III. Improve the timelines of balance of payments and IIP data dissemination</b>				
<b>H</b>	Adhere to the advance release calendar	High-frequency data are disseminated on a timely and regular basis		Ongoing
<b>IV. Data dissemination</b>				
<b>H</b>	Transmission of quarterly balance of payments data to the IMF Statistics Department	Transmission of quarterly balance of payments data ( <i>BPM6</i> ) for first time	February 2017	Completed
<b>H</b>	<b>Benchmark:</b> Transmission of annual IIP data to the IMF Statistics Department	Transmission of ( <i>BPM6</i> ) 2014, 2015, 2016 IIP data for first time	September 2017	Completed
<b>H</b>	Participation in CDIS, an IMF initiative	Transmission of data for first time	September 2017	To be carried forward to 2019

Priority: H – High; M – Medium