

HARMONISATION OF MACROECONOMIC STATISTICS IN THE SADC REGION

Based on a paper co-authored with Sydney Mabika for the SADC Secretariat

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1. Getting data for business statistics

The Southern African Development Community (SADC) has established goals in the finance and investment sectors guided by the Finance and Investment Protocol (FIP), which was signed by Heads of State and Government in August 2006, and entered into force from April 2010. The targets espoused in the FIP are drawn from the SADC integration programme as outlined in the Regional Indicative Strategic Development Plan (RISDP).

Article 2 of Annex 2 of the FIP provides for the maintenance of macroeconomic stability in the region, whereby Member States (MS) are required to converge on stability-oriented economic policies through the implementation of a sound institutional structure and framework. Member States agreed that stability-orientated economic policies include, but are not limited to:

- i) Restricting inflation to low and stable levels;
- ii) Maintaining a prudent fiscal policy stance based on the avoidance of large fiscal deficits, monetization of deficits and high or rising ratios of public debt to gross domestic product (GDP);
- iii) Avoiding large financial imbalances in the economy; and
- iv) Minimizing market distortions.

The achievement of greater co-ordination of economic policies depends, to a large extent, on the availability, among all member countries, of high quality financial and economic data, in order to obtain an accurate evaluation of national economic performance with regard to convergence criteria. Furthermore, the information needed for multilateral surveillance must be comparable between countries and hence the urgent need for statistical harmonization.

This paper is structured as follows: section 2 highlights the SADC macroeconomic convergence (MEC) program, which is followed by a section on macroeconomic surveillance in SADC. Section 4 and 5 look at challenges and the status of macroeconomic statistics in the region, respectively. Objectives of macroeconomic statistics harmonisation are presented in section 6 while section 7 discusses the SADC macroeconomic database. Section 8 reviews existing international macroeconomic statistical standards to identify the preferred/reliable standards for definition, production and publication. IMF data dissemination standards, IMF Data Quality Assessment Framework and the conclusion are given in sections 9, 10, and 11.

2. The SADC macroeconomic convergence (MEC) program

Macro-economic convergence is one of the critical pillars and prerequisite for successful regional economic integration. It entails the reduction of divergences in economic objectives and policies among Member States as well a harmonization of operational frameworks across the region.

The objective of macro-economic convergence is to facilitate monetary harmonization by setting an evolutionary process that will create an enabling environment for economic co-operation. This will in turn facilitate free movement of goods, services, capital and labour across national frontiers and eventually culminate into fully fledged regional economic integration with a monetary union and a single currency.

The SADC macro-economic convergence (MEC) program is aimed at achieving the ultimate objective of a single monetary zone with a single currency and common Central Bank for the region by 2018. In this vein, the MEC envisages the harmonization of the monetary

programmes and includes, among other things, the harmonization of statistical concepts, definitions and methodology for comparability of data and making more accurate, well informed assessments of macroeconomic performance of Member States.

A common feature of the MEC is the existence of time bound convergence criteria used for assessing individual country performance. The MEC program is based on specific targets for specific indicators as defined under the SADC Regional Indicative Strategic Development Plan (RISDP)¹.

The targets are categorized into primary and secondary indicators. The primary indicators comprise of inflation, budget deficit to GDP ratio, and public and publicly guaranteed debt to GDP ratio. The secondary indicators are the current account balance as percentage of GDP; real GDP growth; foreign exchange reserves; savings and investment; and per capita income.

Extract of RISDP targets

Target 1: Free Trade Area – 2008

Target 2: Completion of negotiations of the SADC Customs Union – 2010

Target 3: Completion of negotiations of the SADC Common Market – 2015

Target 4: Diversification of industrial structure and exports with more emphasis on value addition across all economic sectors – 2015 taking into account the following indicators:

- Diversify (increase of non-traditional exports) and sustain exports growth rate of at least 5% annually;
- Increase in intra-regional trade to at least 35% by 2008;
- Increase in manufacturing as a percentage of GDP to 25% by 2015.

Target 5: Macroeconomic convergence on:

- **Inflation rate** - single digit by 2008, 5% by 2012, and 3% by 2018;
- **Ratio of budget deficit to GDP** - not exceeding 5% by 2008 and 3% as an anchor within a band of 1% by 2012 and be maintained at the 2012 level up to 2018;
- **Nominal Value of public and publicly guaranteed debt** - should be less than 60% of Gross Domestic Product by 2008; and this be maintained through out the plan period (2018).

Target 6: Other Financial indicators:

- External reserves/import cover of at least 3 months by 2008 and more than 6 months by 2012;
- Central bank credit to Government of less than 10% of previous year's tax revenue by 2008; less than 5% by 2015;
- Increase the level of savings to at least 25% of GDP by 2008 and to 30% by 2012;
- Increase domestic investment levels to at least 30% of GDP by 2008;
- Gradual interconnection of payments and clearing system in SADC by 2008;
- Achieve currency convertibility by 2008;
- Finalise the legal and regulatory framework for dual and cross listing on the regional stock exchanges by 2008;
- Liberalising exchange controls: Current account transactions between Member States by 2006 and the capital account by 2010;
- Increase the share of credit accessed by women and SMEs to at least 5% of total private sector credit by 2008.

Target 7: The establishment of a SADC monetary union by 2016

¹ The Regional Indicative Strategic Development Plan (RISDP) is a major operational tool for the activities of the SADC regional cooperation initiative. It provides a clear direction for SADC policies and programmes.

- Finalise preparation of institutional, administrative and legal framework for setting up a SADC Central Bank by 2016;
- Launch a regional currency for the SADC Monetary Union by 2018.

All these indicators would be rendered meaningless without appropriate and reliable statistical data and information.

It is important to note that some of the initial targeted dates for some indicators have passed and the RISDP is in the process of being reviewed to set new timeframes. For instance, while the SADC FTA was achieved as scheduled in 2008, the establishment of a customs union by 2010 was not observed. Liberalisation of the capital account by 2010 was also not observed by most SADC Member States.

3. Macroeconomic surveillance in SADC

The progress or otherwise of Member States (MS) with regards to the attainment of the targets for macroeconomic convergence and macroeconomic stability in general is to be monitored through a peer review based surveillance process. *Article 7 of Annex2* to the FIP provides for the establishment of a collective surveillance procedure to monitor macroeconomic convergence.

The Peer Review Panel (PRP), as established by *Article 20* of the FIP, is to meet once a year to effect the provisions of the macroeconomic monitoring and surveillance process. When fully operational, the SADC Macroeconomic Surveillance Process (SMSP) is designed to monitor the region's macroeconomic and financial developments as well as implementing a peer review process.

The monitoring process is to be carried out by the Macroeconomic Surveillance and Performance Unit (MSPU) of the SADC Secretariat in conjunction with Member States. The peer review process will be undertaken by a panel that will consist of the Committee of Ministers responsible for Finance and Investment, and the Central Bank Governors from MS.

4. Challenges with macroeconomic statistics in SADC

Data deficiencies and statistical gaps exist in some of the SADC Member States. A number of countries in the region still face challenges in the generation, analysis, usage and dissemination of statistics, thus impairing decision making processes. There is also the problem of lack of comparability among data sets from countries in the region due to different methodologies employed to collect and compile data.

In order to address some of these challenges at regional level, SADC has embarked on a program to strengthen capacities for statistical development, including the promotion of the development of harmonized and integrated statistical databases in support of decision-making, policy formulation, monitoring and evaluation.

The challenges relate to the quality, accuracy, timeliness, reliability and comparability of the data used for management of the FIP processes.

To ensure comparability of statistics, some MS need to undertake some statistical reforms and the SADC Secretariat will provide technical and financial support to build statistical capacity to countries that require capacity building.

5. Status of macroeconomic statistics in SADC

A recent assessment of the 15 MS indicated that 8 have national coverage for their Consumer Price Index (CPI); and 5 rebase their CPI every 5 years while 4 rebase every 10 years. A total of 11 MS report CPI figures on a monthly basis. From this assessment it is clear that although comparison of inflation performance among Member States is made, it is not based on comparable data.

Government Finance Statistics (GFS)

The variations in the standards followed by Member States in compiling Government Finance Statistics are reflected in the differences in the manuals used, as obtained from their central banks (see Table 1). A total of 9 are on GFS 2001 while 6 are either on GFS 1986 or in the process of migrating to GFS 2001. In addition, it is noted that the fiscal years are not the same in MS. Further, definitions of central government change from country to country, probably reflecting different manuals used. However, periods for compilation of GDP are comparable in the region (see Table 1).

Table 1: Government Finance Statistics (GFS) Manual, Fiscal Year, Definition of Central Government, and Capacity Building Requirements in SADC

Central Bank	Manual Used	Fiscal Year	Is GDP also compiled as per same fiscal year	Definition of Central Government	Capacity building needed?
Angola	GFSM 2001	Jan to Dec	Yes	Angolan headquarters state and provincial governments	Yes
Botswana	GFSM 1986	Apr to Mar	No, As per calendar year	Line Ministries	Yes, to implement GFSM 2001
DRC	GFSM 2001	Jan to Dec	Yes	Government and units that exercise the functions of Government	Yes
Lesotho	GFSM 1986 (in process of migrating to GFSM2001)	Apr to Mar	No, according to the calendar year	General Government and other entities implementing public policy	Yes, training to implement GFSM2001
Madagascar	GFSM 2001*			Includes the budgetary central government and the national social security fund	Yes
Malawi	GFSM 2001	Jul to Jun	No, according to the calendar year	Government ministries and departments	Yes
Mauritius	GFSM 2001 (from 2008)	Jan to Dec	No, according to the calendar year	Includes budgetary central government, extra budgetary accounts and social security schemes	
Mozambique	GFSM 2001	Jan to Dec	Yes	Line Ministries	Yes
Namibia	GFSM 1986 & GFSM 2001	Apr to Mar	No, according to the calendar year	The Central Government consists of (i) Budgetary central Government comprising 31 Votes, (ii) About 32 Extra-budgetary funds and 3 social security funds. The criterion of economically significant prices determines the institutional coverage	Yes
Seychelles	GFSM 2001	Jan to Dec	Yes	All Ministries and Departments plus budget dependant agencies	No

Central Bank	Manual Used	Fiscal Year	Is GDP also compiled as per same fiscal year	Definition of Central Government	Capacity building needed?
South Africa	GFSM 2001	Apr to Mar	Both calendar and fiscal years	Budgetary central government includes the accounts of all national departments	No
Swaziland	Revenue items on GFSM 1986 Expenditure items on GFSM 2001	Apr to Mar	No, according to the calendar year	According to statistical framework set in the IMF's manual on GFS	Data is compiled by the Ministry for Finance so difficult for central bank to respond
Tanzania	GFSM 1986 and 2001	Jul to Jun	No, according to calendar year	Line ministries, departments and agencies, including extra-budgetary units funded by government	Yes
Zambia	GFSM 2001	Jan to Dec	Yes	Government ministries, excluding Local Government and Parastatal organisations	Yes
Zimbabwe	GFSM 1986 Migrating to GFSM 2001	Jan to Dec	Yes	Government departments and ministries. Excludes local government, public enterprises, the National Social Security Authority	Yes

Source: SADC Central Banks

NB: *Details in red not confirmed by the Member State.

Monetary and Financial Statistics (MFS)

For monetary and financial statistics, there is general uniformity in the region in terms of their compilation, since all the countries use Monetary and Financial Statistics (MFS) 2000 manual. However, one country is yet to migrate to the Standardised Reporting Format (SRF) and two countries produce a financial corporation's survey while the rest are still compiling other depository corporations survey (see Table 2).

Table 2: Monetary and Financial Statistics in SADC Member States

Central Bank	Manual Used	SRF's?	Compile a financial corporation's survey?	Capacity building needed?
Angola	MFS 2000	Yes, but not published	No	Yes
Botswana	MFS 2000	Yes	Yes	No
DRC	MFS 2000	Yes	No	Yes
Lesotho	MFS 2000	Yes	No	Yes
Madagascar	Guide	No	No	Yes
Malawi	MFS 2000	To be fully compliant by March 2011	No	Yes, especially in the areas of compiling financial corporations survey and FSI
Mauritius	MFS 2000	Yes	No	Yes
Mozambique	MSS2000	Yes	Yes, but not published	Yes
Namibia	MFS 2000	Yes	Work in progress. Data for Other Financial Corporations has been collected but not yet at the disseminated stage.	Yes
Seychelles	MFS 2000	Yes	Yes, but not published	No
South Africa	MFS 2000	Yes	Yes	No
Swaziland	MFS 2000	Yes	No, in next 5 years	Yes
Tanzania	MFS 2000	Yes	no	Yes
Zambia	MFS 2000	Yes	No	Yes
Zimbabwe	MFS 2000 (migrating)	Yes, but not published	No	Yes

Source: SADC Central Banks

National Income Accounts

In terms of national accounting standards, 7 MS are on SNA 1993 and 4 are on SNA 2001. Furthermore, those implementing recent standards are not implementing all of the provisions of such standards due to varying capacity constraints. With regard to the compilation of GDP, a total of 9 report on annual basis and 4 are able to report on quarterly basis. Most of the MS (8) use simple spreadsheets for analysis and forecasting of macroeconomic indicators while only 6 use econometric models.

Balance of Payments Statistics (BoP)

With respect to Balance of Payments, 12 Member States are on Balance of Payments Manual (BPM) 5, and 2 are migrating from BPM 4 (see Table 3). However, only 8 countries produce the International Investment Position regularly. Several countries indicated their need for capacity building in the area of balance of payments statistics.

Table 3: Balance of Payments Statistics in SADC Member States

Central Bank	Manual Used	Do you compile IIP?	Capacity building needed?	Do you compile core inflation?
Angola	BPM5	Yes	Yes to implement BPM6	No
Botswana	BPM5	Yes	Yes	Yes
DRC	BPM5	No	Yes	Yes
Lesotho	BPM5	Yes, partially. Private sector not incorporated	Yes	No
Madagascar	BPM5	No	Yes	No
Malawi	Migrating to BPM5	No	Yes	Yes
Mauritius	BPM5	Yes	Yes	Yes
Mozambique	BPM5	Yes	Yes	Yes
Namibia	BPM5	Yes	Yes	No, not yet
Seychelles	BPM6	No	No	No
South Africa	BPM5	Yes	No	No, Stats SA compile inflation. New measure of inflation introduced in Jan 2009
Swaziland	BPM5	Yes	Yes, to implement BPM6	No, Central Statistical Offices compiles headline inflation
Tanzania	BPM5	Yes	Yes	No
Zambia	BPM5	No	Yes	No
Zimbabwe	In transition from BPM4 TO BPM5	No	Yes	Yes

Source: SADC Central Banks

The assessment also revealed that 14 Member States participate in the IMF's General Data Dissemination Standards (GDDS) and 1 participates in the Specialized Data Dissemination Standards (SDDS).

From the foregoing, it is clearly evident that the challenges facing MS around the quality, timeliness, reliability and comparability of the data used for management of the FIP processes differ from one MS to another, hence the need for harmonization of standards to ensure consistency and meaningful comparability

6. Objectives of harmonising statistics in SADC

In view of the data deficiencies identified, SADC has initiated a program to harmonise real, external, fiscal, monetary and financial sector statistics in the region. Clearly some changes need to be introduced to national statistical programs to align them with internationally recognized standards to facilitate comparison between countries and to produce valid aggregate data which is reliable.

Harmonisation will help to identify and develop common macroeconomic performance indicators computed using common methodologies. This will facilitate the use of the common convergence criteria to which a macroeconomic surveillance information system has been developed to monitor the performance of Member States.

The harmonisation program aims at enhancing the availability of timely, reliable, comprehensive and comparable statistics among member states that contribute to the pursuit of sound macroeconomic policies and ultimately achievement of macroeconomic convergence in the region. Macroeconomic convergence is a key prerequisite for attaining a monetary union and single currency, which is are some of the advanced stages of economic integration.

The macroeconomic statistics harmonisation programme is expected to achieve the following:

- a) Facilitate production of harmonised statistics that will support the implementation of a Monetary Union by 2016 and a single currency by 2018;
- b) Address capacity constraints in the generation, analysis and dissemination of statistical data across the region;
- c) Enhance data comparison among Member States by adopting common methodologies in the compilation of statistics;
- d) Strengthen statistical capacities to produce macroeconomic data;
- e) Lay a foundation for broadening the SADC macroeconomic statistics database; and
- f) Facilitate the peer review based surveillance processes.

7. The SADC macroeconomic data base

Development of the SADC Macroeconomic statistics database is one of the key aspects of the thrust towards a harmonized regional core data set. The CCBG data base, housed at the South African Reserve Bank (SARB), has been adopted as the core data set for the SADC region. The existence of a comprehensive data base in the region facilitates objective analysis, guides policy intervention and enables policy makers to take appropriate timely measures to avert crisis in the region.

It is against this background that the CCBG statistical data base has been reviewed with a view to:

- i. Improve the composition and elements of the data base;
- ii. Clearly define the macroeconomic variables in line with international standards;
- iii. Improve data quality, frequency and dissemination, and
- iv. To align the compilation and dissemination of statistics to international standards.

8. Review of international macroeconomic statistical systems

As SADC Member States implement programs to achieve macroeconomic convergence, they should adopt international macroeconomic statistical systems. Macroeconomic statistical systems are a set of comparable and interrelated macroeconomic accounts, based on internationally accepted and agreed concepts, definitions, classifications and accounting rules. According to the UN, IMF and other international bodies, they ensure integrity of accounting rules that promote collection, compilation and presentation of macroeconomic statistics in an appropriate manner.

Basic macroeconomic statistical systems are divided into the following categories, namely: National Accounts and Other Real Sector Statistics; External Sector Statistics; Government Finance Statistics; and Monetary and Financial Statistics.

National Accounts and Other Real Sector Statistics

The "System of national accounts" SNA 1993 was adopted as an international standard for the compilation of national accounts statistics. It is a set of interrelated, consecutive and integrated accounts based on internationally agreed concepts, definitions, classifications, and accounting rules (IMF 2001). Accounts of the system include data on production of goods and services; generation, distribution and re-distribution of income, consumption, savings and investments. The accounts also include national and sectoral balance sheets and financial flows. The national income accounts also include industrial statistics, price statistics and statistics on population income, expenditures and employment.

External Sector Statistics

External sector statistics includes data on transactions between resident¹ entities of the economy and the rest of the world (BPM5, IMF 2003). The fifth edition of the "Balance of Payments Manual" is the effective international standard in use in most countries. The manual contains a set of internationally agreed methodological principles for compilation and presentation of data in the context of external economic activity. However, recently, there has been an upgrade of the manual to BPM6. Only a few countries across the world are using this new balance of payments manual.

External statistics estimate external economic flows and financial assets and liabilities. The manual reviews the relation between the stocks and flows of foreign financial assets and liabilities over a specific period of time.

Government Finance Statistics

Government finance statistics includes data on operations of the general government sector and the stock of assets and liabilities. The data shows the share of the government sector in the economy, in generation of aggregate demand, investments and savings; tax burden and role in income redistribution. The Manual on "Government Finance Statistics" published by the IMF in 2001 (GFS 2001) is the standard for this area of statistics. The manual defines accounting and other principles for collection, compilation and presentation of fiscal statistics.

Monetary and Financial Statistics

The monetary and financial statistics provides a broad overview of resource flows in the financial sector of the economy. The IMF's "Monetary and Financial Statistics Manual" (MFSM 2000) is the minimum standard used in the compilation of monetary and financial statistics.

The international standards are harmonized such that the macroeconomic statistical systems use, in principle, same definitions, classification criteria and accounting rules. Classification of statistical macroeconomic systems is based on the principle of sectorization of the economy.

9. The IMF data dissemination standards

Special Data Dissemination Standard (SDDS) and General Data Dissemination System (GDDS) of the IMF are important steps for integration of statistical systems of different countries.

The GDDS was founded in December 1997 and currently the system has 66 participants. The main goal of GDDS is to assist member-countries in developing national statistical systems. In the framework of the system the data quality and dissemination issues focus on five groups of the economic statistics: real, financial, fiscal, external sectors and socio-demographic statistics.

The SDDS was founded in March 1996 and currently the system has 56 subscribers. The main goal of SDDS is to guide member countries that have or might seek access to international capital markets in the provision of their economic and financial data to the public.

10. IMF data quality assessment framework

In developing statistical programs for a monetary union, actual statistical programs in member countries should be stress tested against the IMF'S Data Quality Assessments Framework which hinges on the following dimensions:

- *Methodological Soundness*: This reflects the actual application in each relevant economy of international statistical standards, possibly commonly interpreted or complemented by specific agreements on compilation methods.
- *Accuracy and Reliability*: Accuracy relates to a measure of deviation between the underlying reality and the statistics that are assumed to reflect it. In practice, it consists in assessing the data collection methods applied and the work performed on the data. *Reliability* reflects the gap between the initial and later assessments of any statistics; it refers to the size, sign and magnitude of revisions.
- *Assurance of Integrity*: The rules to be met by institutions involved in the production of convergence indicators should be taken into account.
- *Accessibility*: The availability of the data and related metadata also play a crucial role to allow for a transparent assessment.

11. Conclusion

As SADC Member States work towards the attainment of a Monetary Union, the way forward is that countries should adopt the minimum international accepted standards as prescribed by the IMF in the compilation of statistics to ensure comparability of statistical data in assessing performance on the MEC by Member States. Adoption of international standards will lay the framework for the development of Statistics for monetary union and facilitate convergence. Specifically, the following minimum standards are recommended for compilation and publication and sending of the of the respective macroeconomic statistics data to the SADC Secretariat:

- (i) Prices and national accounts – 1993 SNA, Prices: monthly and GDP data: quarterly;
- (ii) Monetary and Financial statistics – Standardised Reporting Format (SRF): monthly;
- (iii) Balance of Payments – Balance of Payments Manual 5: quarterly; and
- (iv) Government Finance Statistics – GFSM 2001: annually.

To further strengthen national statistical systems, promote greater use of statistics, and ensure sustainability in information systems, SADC Member States should:

- i. Strengthen the legal and regulatory framework for the collection, compilation and dissemination of statistics;
- ii. Develop the human capital base in the region;
- iii. Foster co-ordination, collaboration and partnerships to achieve cost effective synergies;
- iv. Develop a common statistical infrastructure;
- v. Harness information and communication technology;
- vi. Improve data dissemination for surveillance and analysis; and
- vii. Source funding for sustained statistical programs.

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