The assessment of the experiences of implementing the government finance statistics in some selected countries

Osman Mohammed Abaker Omer and Mustafa Najem Elbashary
Sudan University of Science and Technology

ABSTRACT:
This study is intended to investigate and explore the Government Finance Statistics (GFS), since it considered as an essential improvement of government budget preparation. It aimed at revealing some foreign countries practical experiences of GFS implementation, so as to define its most important advantage and criteria, which can then be applied in Sudan. The study is based on the descriptive method through reviewing of various documents obtained from local and international institutions which adopted the GFS. The most important results of this study indicated that the system of accrual GFS provides details of revenues, expenses cash flows, assets and liabilities of public sector. Moreover, the application of accrual GFS consolidate methodology nets out all relevant flows and stocks for the sector for which the statistics are prepared.

المستخلص:
اهتمت هذه الدراسة بالبحث والتقصي عن نظام إحصاءات مالية الحكومة باعتبارها إحدى أوجه التطور في إعداد الموازنة العامة، حيث عملت الدراسة على إظهار تجارب بعض الدول الأجنبية المختارة كنموذج لتطبيق نظام إحصاءات مالية الحكومة بغرض التعرف على أهم المعايير والميزات التي يمكن اقتباسها لتجربة السودان. وقد أعتمدت الدراسة على أساليب النهج الوصفي من خلال استعراض بعض الوثائق والإصدارات الخاصة بعض المنظمات الدولية والمحلية والمتعلقة بتطوير إحصاءات مالية الحكومة.

أمثلة النتائج التي توصلت إليها الدراسة تتمثل في أن تطبيق نظام إحصاءات مالية الحكومة على أسس الاستحقاق يساعد في إيضاح بيانات وتفاصيل الإيرادات، المصروفات والتدفقات النقدية الأصول والخصوم، كما أن تطبيق إحصاءات مالية الحكومة على أسس الاستحقاق وفق نهج التوحيد يساهم في اشتقاق التدفقات والأرصدة الملائمة للقطاعات المعنية بإعداد الإحصاءات.

Keywords: Government Finance Statistics (GFS), accrual GFS, Sudan Experience.
circumstances of the country involved, like Sudan which will need to revise their underlying accounting systems.

**Definition of the problem of the study:**
According to the (IMF, 2001: 2) definition, the GFS system is designed to provide statistics that enable policy makers and analysts to study development in the financial operation, financial position, and liquidity situation of the general government sector in a consistent and systematic manner.

This study examines the experience of certain countries which adopted the GFS system, to highlighting the positive and negative impact of its implementations. Moreover, the positive aspect of the implementation of GFS by these countries, will be added to Sudan experience negatives, the adaptation of GFS which started in 2008.

**Objectives of the study:**
This study is trying to attain the following objectives:
1. To define the concept of GFS
2. To examine the experiences of certain countries regarding the practical implementation of GFS
3. To benefit from the implementation of GFS by some countries, since their experience highlight the positive and negative aspect of GFS, which Sudan might evade.

**Importance of the study:**
The importance of this study is resulting from the implementation of the GFS system as part of worldwide trend toward greater accountability and transparency in government finance, operation and oversight.

**Study methodology and tools:**
The study attempts to adopt exploratory research through the uses of historical and descriptive methodology. While using secondary source of data which will be obtained from books, scientific journals, previous studies and reports

**Organization of the study:**
In addition to this introduction, other parts consist of the following:
- **Part one:** is concerned with drawing a theoretical framework under which the necessary terminologies, concepts and the idea of GFS is defined.
- **Part Two:** is concerned with the some foreign countries experiences regarding the implementation of GFS.
- **Part three:** is concerned with the current practice of GFS in Sudan and a summary of the overall recommendations of the study.

**Theoretical framework**

**Definition of the term “GFS”:**
To conduct this study, certain terms and concepts should be defined and explained. These include the term government finance statistics (GFS) and their accounting application.

Many attempts were made to formulate a universal definition for the term “GFS” and the conceptual definition of “GFS”. Harper (2005: 1, 2) suggested that “The term government finance statistics refers to statistics that measure the financial activities of government and reflects the impact of those activities on other sectors of the economy”. Moreover, Kholer (2002) argued “it depends on economic reasoning and principles that should be valid universally regardless of the circumstances in which they are applied. Therefore, the GFS system is applicable to all types of economies regardless of the institutional or legal structure of a country’s.
The primary purpose of the GFS system according to Carson (2001: 1) is that “to provide a comprehensive conceptual and accounting framework suitable for analyzing and evaluating fiscal policy especially the performance of the general government sector and the broader public sector of any country”.

Accordingly, GFS are designed to provide statistical data for macroeconomic analysis. Although, the principal source of the statistical data is administrative accounts mentions from the European Central Bank and international monetary fund (2009) shows that “GFS are not designed to provide a set of financial statements for auditing purposes. There is considerable consistency between accounting and statistical standards for the public sector, but there are differences that should be reconciled and explained to users along with the dissemination of “GFS”.

Implementation of the GFS system:
Some countries may be able at least initially to compile only a small part of the GFS system it is not appropriate to lay down general priorities for data collection when economic circumstances may vary so much from one country to another.

Coverage of the GFS system:
It has been argued Oconner (2001: 6), the GFS system covers all entities that materially affect fiscal policies. Normally, fiscal policies are implemented by entities wholly devoted to the economic functions of government such as a government ministry. In addition to those entities, however, fiscal policy may be carried out by government owned or controlled enterprises that engage primarily in commercial activities. These enterprises which are referred to as public corporations, are not considered part of government, but statistics should be collected on them.

It has been suggested by IMF (2013: 19), “to produce timely quarterly GFS, data based on accounting classifications must be transformed into the GFS classifications. There are two broad approaches to achieve this. The first is to build the classification required to compile GFS into the accounting codes used by all government units. This is the preferred approach as the adoption of a single, common classification will greatly simplify the compilation task and facilitate the production of timely statistics. The second approach is to produce a correspondence that maps the various accounting codes used by units across the government sector to the classification used in GFS compilation”.

Accordingly, the main benefit of compiling quarterly GFS is to provide more timely information for surveillance, and analysis of the financial operations, financial position, and liquidity situation of the general government sector. The lack of timely information hinders the ability of policy-makers and market participants to develop effective responses.

Accounting rules:
Some information from the department of statistics of IMF (2007) show that “All of the data recorded in the GFS system are either flows or stocks. Flows are monetary expressions of economic actions engaged in by units and other events affecting the economic status of units that occur within an accounting period. Stocks refer to units holdings of assets and liabilities at a specific time and units resulting net worth, equal to total assets less total liabilities”.

Accounting rules for recording flows and stocks in the GFS system are designed to ensure that the data generated by the system conform with accepted standards for the compilation of economic statistics also double-entry accounting is used in
determining the timing of transaction is the frequent existence of a long period between the initiation of an action and its final completion. Broadly, the time of recording could be determined on four bases as IMF indicated (2012):

1. Accrual basis: With the accrual basis, flows are recording at the time economic value is created, transformed, exchanged, transferred, or extinguished in other words, the effects of economic events are recorded in the period in which they occur.
2. Due-for-payment basis: flows that give rise to cash can be paid without incurring additional charges or penalties or, if sooner, when the cash payment is made.
3. Commitments basis: flows are recorded when a general government unit has committed itself to a transaction. Normally, this basis applies only to purchases of assets, goods and services, including compensation of employees.
4. Cash basis: with the cash basis, flows are recorded when cash is received or disbursed.

Thus, through comparing the basis of accounting record, we find that some countries using the cash basis do not record nonmonetary flows because they focus on cash management rather than on resource flows. Attentively, the countries using the accrual basis, record transaction with its resource flows. As a result, the accrual basis provides the best estimate of the macroeconomic impact of government fiscal policy. Since with the cash basis the time of recording may diverge significantly from the time of the economic activities and transaction to which they relate.

In general, all flows and stock, FEE (2003) “should be valued at the amounts for which goods, assets other than cash, services, labour, or the provision of capital are in fact exchanged or could be exchanged for cash. These values are referred to as current market prices or values.

Part Three

In recent years, most countries have introduced important reforms into their public finance and budgetary systems with the objective of both improving public services management and increasing the transparency and accountability of governments. Reforms of government public finance share a common direction towards the implementation of GFS system. This part is involved in whole of foreign countries experience regarding the implementation of GFS system.

[1] Brazilian experience:

Dziobek et al., (2011) suggests that “Brazil is a federal republic composed of a central government, 26 States, one federal district, and 5,564 local governments (municipalities). GFS revenue and expenditure data for central government are compiled by the Brazilian national treasury on monthly basis and released within one month of reference period. Financing transactions data for central government are compiled by the central bank of Brazil based on information collected from the financial system. These data are compiled on cash accounting, based on the GFSM 1986 standard, but they are subsequently converted into the GFSM 2001 classifications.

The Brazilian National Treasury initiated a project to improve the quality of GFS data by adopting the GFSM 2001 standard and introducing accrual, as well as cash based accounting. As for the public sector accounting reform in 2011, the translations of the
IPSASs into Portuguese were submitted for public comments, and the new standard chart of accounts (COA) was harmonized up to its fifth level for public sector consolidation purposes. In 2012, the new COA applies to all general government units on an optional basis in 2012 and mandatory starting in 2013. The collection of harmonized data from 2013 onward will have a positive impact on the improvement of GFS dissemination.

Finally, the Brazilian National Treasury is developing a new technological system to collect and process accounting data from states and municipalities, on a monthly basis. This system is based on Australian experience.

[2] **Australian experience:**
The Australian system for producing GFS according to Davies (1999) “was changed in the 1990s from a cash basis to an accrual basis of recording”. This followed the adoption of accrual accounting by a majority of Australian State governments and the concurrent revision of international statistical standards to incorporate accrual recording. As a result, a new conceptual framework was introduced, in the form of an integrated statement of stocks and flows. This new framework allows a more comprehensive assessment of the economic impact of government activity and the sustainability of fiscal policy. It also provides an improved basis for monitoring efficiency in the allocation and use of government resources.

[3] **Canadian experience:**
It was reportedly IMF (2013) that GFS are produced by statistics Canada on quarterly basis, and released approximately 90 days after the end of the reference period. In scope, the GFS cover all general government (federal, provincial, territorial, and local), and the Canada pension plan and Quebec pension plans. These data are used as the bench mark for the quarterly estimates of the government sector in the Canada system of national accounts.

Estimates are derived from the compilation of data obtained from the data sources for each institutional unit in the population of interest the practice is to first obtain the published financial information and then to approach individual governments and solicit the additional detail required to accurately apply the classification. Once published, financial information is obtained and combined with supplementary information these raw data into CSNA and GFS estimates-strict quality control is maintained on all of these transactions, such as historical continuity data validation, and confrontation.

Statistics Canada is in the process of changing its GFS compilation practices to enable derivation of detailed GFS-based statistics directly from government financial information. In May 2014, statistics Canada will begin publishing public sector statistics based on the GFSM 2001, replacing the current process of mapping Canadian system of National Accounts data, as described above government data contained in the Canadian system of National Accounts will then be consistent with GFS concepts.

[4] **Georgia experience:**
According to Diego Jand Pere Z (2008) “Georgia Government decided to perform a GFS reform within the framework of the public expenditure management reform. The main objectives of the GFS reform were:

i. Simplification of the GFS compilation process

ii. Improvement of data quality

iii. Increase of data frequency
iv. Alignment with international standards
v. Reduction of time and material resources for the compilation of statistics.

One of the main aspects of the GFS reform was the revision of the national budget classifications based on the GFSM 2001 classifications. The central and local governments use the GFSM 2001 classification for the projection, execution, and reporting of their budgets. Furthermore, all levels of government use the GFSM 2001 methodology for the recording and accounting of all transactions on a cash basis. The task of the GFS compilers is therefore limited to the consolidation of intergovernmental grants and other payments, which reduced considerably the time and resources used in the compilation of statistics.

[5] Ireland experience:
Depended on the Eurostate (1997) report which showed that “Quarterly and annual GFS for general government are produced by the central statistics office of Ireland, in an ESA 95 presentation”. Under European Union regulations, quarterly GFS data in a prescribed format must be transmitted to Eurostate every quarter, with the data provided three months after the end of the reference period. As with many countries in the European Union, Eurostate then reformates these data into the IMF GFSM 2001 format, and transmits the result to IMF for publication in the GFS year book. GFS in Ireland are produced by a team within the national accounts division of the central statistics office, the same team also produces the government-related inputs to the compilation of the national accounts. Quarterly reporting for local government units commenced in 2011, GFS data in end-2011. A survey of other extra budgetary units was introduced in 2012. With these quality improvements, GFS data covering the general government (transactions and stock) are published.

[6] United Kingdom experience:
In the UK, referred to Michaela and Michael (2011) “the office for national statistics, is responsible for the compilation and publication of quarterly and annual national accounts and GFS. The office for national statistics is legally bound to follow the European system of accounts (ESA 95) to produce the UK national accounts and the GFS. These statistical accounts are required to be reported to the European statistical agency, Eurostate every quarter, with the data provided three months after the end of the reference period. These data are subsequently converted to the GFSM 2001 classifications and reported to the IMS’s statistics department for publication in the international finance statistics.

The origins of the monthly UK public sector finances publication go back to 1997/98 when the UK government chose to base its fiscal policy on ESA 95, and at the same time adopted resource accounting and budgeting, which aimed to align accounts and budgets more closely with government policy priorities. Government departments began the move to accruals accounting in 1997/98 with full implementation of accruals completed in 1999/2000. Departmental resource accounts after this shift were based initially on UK generally accepted accounting practice (UK GAAP), as modified for the public sector, before moving to an international financial reporting standards (IFRS) basis in 2009/2010.

Current Practice of GFS in Sudan
Sudan has implemented a range of macroeconomic and structural reforms over the past decade under successive IMF staff monitored programmes (SMPS). These reforms included the adoption of banking sector reforms, liberalization of the exchange system and other structural measures. They contributed to restoring

**Statistical Presentation in Sudan:**
According to the IMF (2008) report “the accounts chamber prepares the official annual accounts of the federal government and a detail analytical presentation of the accounts is prepared for publication in the IMF government finance statistics year book”. The Ministry of Finance and National Economy (MOFNE) organizes its budget classification and data presentation broadly according to the statistical framework set out in the IMF on GFS of 1986. Data on the operations of the federal government of Sudan are compiled and disseminated by the general administration for finance and budget and the general administration for macroeconomic policy, both administrations at the ministry of finance. The bank of Sudan also disseminated data on central government operations as part of the annual report of the bank of Sudan. The definitions of aggregates broadly follow the recommendation of the IMF manual on GFS 1986, except that:

(i) Foreign grants are classified as financing items.
(ii) All foreign debt service payments are classified as current expenditure and,
(iii) All domestic debts service payments are classified as domestic financing.

The units covered by the general budget include the units of the general government which consist of:
1. Council of ministers, ministries and departments, national assembly, presidency and various government agencies.
2. States subsidies fund.
3. 23 National universities.
4. Social subsidies programs.

Badowi (2013) described “the data that are discriminated cover item “1” and “2” above. There are 19 state governments which prepare their own budgets and accounts. The federal budget data includes only the amounts transferred to the assets. They also include the budget operations of public enterprises.

The GFS system pertains to the general government and public sectors as defined in the SNA (1993). “These sectors are defined in terms of institutional units, which are economic entities that are capable of owning assets, incurring liabilities, and engaging in economic activities and transactions with other entities in their own right. These characteristics render institutional units a subject of economic and satisfied by compilation of a full set of accounts for them, including balance sheets”.

Depending on the administrative and legal arrangements, the researcher argued that there may be more than one level of government within a country, and statistics should be compiles for each level. In Sudan the GFS, provision is made for three level of government: Central; state and local. Not all countries will have all three levels; some may have only a central government or a central government and one lower level. Other countries may have more than three levels in that case, the various units should all be classified as one of three levels suggested here.

In addition to subsectors based on the level of government, IMF (2001) argue that “classification problems may arise when government operations are carried out by a general government unit jointly to two levels of government. This classification decision may be especially difficult if the agency has its own source of fundings”.
Recording basis:
In Sudan, Mohamed (2014) explained that “Budget data were compiled on cash basis, revenue data recorded which receipts are credited to the government revenue account at the BOS”. Expenditure recorded when checks are paid i.e. the government received debit advice from the BOS that funds have been paid.
As a general rule for GFS system, IMF (2001) suggest that “a flow is recorded under accrual basis when the economic benefit associated with an event has flowed to or from the unit involved or it is probable that future benefit will flow to or from the unit, and the monetary value of the event can be measured reliably.
The annual accounts are subject to a two month complementary period during which correction are made and suspense accounts cleaned. No new transactions are recorded during the complementary period.
According to the basis of recording system (cash basis) used in Sudan, and comparing it with the accrual basis which is used in GFS manual 2001, designed by IMF, the researcher argued that, the accrual basis provides the most comprehensive information, because all resource flows are recorded, including internal transactions, in-kind transactions, and other economic flows with changes in the balance sheet in general, accounts using the due-for payment, commitments, or cash basis are restricted to monetary transaction.
The main sets of accounts in the GFS system are the current accounts, the accumulation accounts, and the balance sheet. The following are summary of implementing GFS on the public budget of the government of Sudan starting on financial year 2008 (first implementing) to the year ended 2012.
Data are presented in millions of Sudanese bounds:

<table>
<thead>
<tr>
<th>Particulars</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total revenue</td>
<td>21,502</td>
<td>20,045,7</td>
<td>20,737,8</td>
<td>22,767</td>
<td>22,168</td>
</tr>
<tr>
<td>Total expenses</td>
<td>22,440</td>
<td>20,696,1</td>
<td>24,162</td>
<td>28,573</td>
<td>26,272</td>
</tr>
<tr>
<td>Net operating balance</td>
<td>(938)</td>
<td>(650,8)</td>
<td>(3,424,2)</td>
<td>(5,806,4)</td>
<td>(4,104)</td>
</tr>
<tr>
<td>Net acquisition of non financial assets (development)</td>
<td>398,2</td>
<td>3569</td>
<td>3899,7</td>
<td>3030</td>
<td>3,333</td>
</tr>
<tr>
<td>Financial assets (contribution of capital)</td>
<td>(166)</td>
<td>2,574</td>
<td>262,2</td>
<td>284</td>
<td>217</td>
</tr>
<tr>
<td>Net lending/ borrowing (surplus/ deficit)</td>
<td>(662,5)</td>
<td>(3,873,5)</td>
<td>(7586,1)</td>
<td>(9121,0)</td>
<td>7653</td>
</tr>
<tr>
<td>O/ W loan from corporation (finance):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Foreign finance</td>
<td>___</td>
<td>4477,2</td>
<td>3064,3</td>
<td>2783</td>
<td>3653</td>
</tr>
<tr>
<td>- Domestic finance</td>
<td>___</td>
<td>3048</td>
<td>315</td>
<td>1500</td>
<td>2000</td>
</tr>
<tr>
<td>Borrowing (loan) from central bank of Sudan</td>
<td>___</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drawing from petroleum concentration (others)</td>
<td>___</td>
<td>2696,3</td>
<td>4206,8</td>
<td>4838</td>
<td>2000</td>
</tr>
</tbody>
</table>

Source: Sudan – Ministry of Finance and National Economy, General Administration of Planning Political Study.

Referring to the implementation of GFS in Sudan we find that the implementation process “takes several years (2008 – 2012), and it is crucial to retain the data collection and compilation of the current accounting system to maintain the continuity of government financial information. The statement of government operations (above table) presents details of transactions in revenue, expense, the net
acquisition of nonfinancial assets, the net acquisition of financial assets, and the net incurrence of liabilities. IFAC, (2011: 167, 171) defined revenue as the increase in net worth resulting from transactions, and expense as the decrease in net worth resulting from transaction the net acquisition of nonfinancial assets equals gross fixed capital formation less consumption of fixed capital plus changes in inventories and transactions in other nonfinancial assets.

In addition the net lending (borrowing) according to IMF (2001: 38 – 39) definition “is a summary measure indicating the extent to which government is either putting financial resources at the disposal of other sector in the economy or utilizing the financial resources generated by other sectors.

As described in the table of summary of financial performance of Sudan in page (14), the researcher note that the coverage of events in the system 1986 GFS is differ from the system 2001 GFS that is used by the most countries covered in this study, the main difference of the two system is that, the revised GFS system includes other economic flows, which are all flows other than transactions that affect a units stock of assets, liabilities, and net worth. Additionally IMF (2001: 157) argued that “The revised GFS system is a fully integrated system in which the stock data at the end of an accounting period can be derived from the stock data at the beginning of the accounting period and the flows occurring during the period. As a result of this integration, all events that affect the financial performance, financial position, or liquidity situation of the general government sector are included, in the 1986 GFS system which is used in the Sudan, Abderlahman (2014) argued that the stock data included are limited to debt liabilities. The changes in the stocks of debt liabilities normally cannot be reconciled with the flows recorded. But before using available accounting data, GFS compilers need to understands the properties, of the data to assess its quality.

As a result of Sudan experience, the researcher argued that, the implementation of GFS system in Sudan faced some practical difficulties which may be summarizing as followed:

1. The applied method (GRP) which used by Sudan to implement the GFS system failed to provide the effacing tool for the measurement of both flows and stock positions in the governments sectors.
2. Statistical techniques such as (GRP) which is used by Ministry of Finance to design GFS are not appropriate to produced a set of administrative accounts for electronic auditing needs.
3. There are some difficulties facing the GFS compilers to use data from variety of data sources and to analyze these data in a timely manner.
4. Some compliers use register of external loans received or extend by the government sector. These data, often collected for exchange control purpose, and should not be complementarily for accounting full disclosure.

Conclusion:
In relation with some foreign countries experiences, we note that, these countries did some adjustments to the data made for the annual accounts which were assigned to the last quarter because the government accounts are focused on getting the annual data right. However, they don’t properly reflect events in the quarter in which they occurred, and so could distort quarterly trends and introduce inconsistency with counterpart reporting, such as financing these adjustments may be for items missed or
reported incorrectly through the years or reflect various techniques to account for items such as vacation provisions for government employees.

Based on the previous studies and researches on the experiences of many world countries including Sudan concerning the implementation of a government financial statistics (GFS), the study reached the following results:

1. Most of the countries reviewed by this study have encountered real problems at the beginning of implementing the system of government financial statistics with regard to the process of unifying and collecting data from the government units.
2. The countries governed by a federal system like the Sudan, Brazil, Australia and Canada have encountered various difficulties in preparing financial data from the federal and state governments.
3. Most of the countries reviewed by this study follow specific accounting standards in accounting registration except for Sudan which follows some financial and accounting regulations and procedures.
4. The countries that applied the GFS system based on the full accrual base have better financial statements in terms of accounting declaration compared to countries applying the monetary basis for accounting registration.
5. The lack of human resources capacities particularly in the transition from the 1986 model for government (financial) statistics to the 2001 model.

Based on the study results, we can come up with the following results:

1. The use of the accounting and administrative data bases to handle the problem of unification and collection of financial data for different government units.
2. It is essential to seek the assistance of and benefit from the expertise of international organizations and institutions in the process of implementing the government financial system.
3. It is important to encourage countries to adopt and follow the international accounting standards in the public sector for the purpose of handling its financial data.
4. The importance of transition in implementing the government finance statistical model and to follow the basis of full accrual basis.
5. The importance of training and qualification of the human cadres who are assigned to implement and apply the GFS system.

As has been mentioned there is a strong need to improve accounting and reporting procedures to introduce. GFS classification according to guide lines provided of this system. The concept of migration path in this context describes the development stage that countries may go through in adopting a statistical system that is capable of reporting GFS data on accrual basis.

In any case, the researcher appreciate that the elaboration of GFS system is without doubt, very difficult task and may need a long time, as has been seen in the most countries. The specific benefits to the entities concerned should be compared with a reasonable estimated of the likely costs. This will allow a review to be undertaken at a future date, comparing estimates of the actual costs and benefits with those which were expected.

Bibliography

[A] Books:


6. [B] Articles, Journals & Papers:

10. [C] Reports:

16. [D] Conferences and Interviews: