South African Reserve Bank

South Africa Integrated Economic Accounts Project: Process, Challenges and Outcome

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Preliminaries…1

- The Project is about the development and implementation of quarterly sector accounts and balance sheets - the integrated economic accounts (IEA), in line with Recommendation 15 of the Data Gaps Initiative (DGI) of the G-20
- Recommendation 15 requires countries to prepare a full set of quarterly data for the five sectors of the national accounts.
- Purpose: to improve the availability and comparability of economics and financial data, following the financial crisis in 2007-2008 – which highlighted the need of broader datasets for policy makers and supervisors

Preliminaries…2

- In November 2012, the International Monetary Fund (IMF) conducted a mission to South Africa to advise the SARB on how it could implement Recommendation 15 of the DGI.
- The mission set out a timetable and provided a number of recommendations on how the SARB could meet the deadlines of that timetable.
- The goal was that a complete set of IEA would be prepared and reported to the IMF by June 2015.
- Project only started around May 2015 after a period of planning

Planning…1

- Who should carry out this project given the timelines?

Divisions of ERSD

- Public Finance
- Balance of Payments
- National Accounts
- Capital Markets and Flow of Funds
- Money and Banking
- Methodology and Special Projects (MSP) Division
  - In May 2015, a MSP was tasked with the responsibility of overseeing the implementation
  - New target date of end 2016 was set.

Planning…2
Data Processing Infrastructure

- The whole database IT infrastructure at the Bank was under review
- The MSPU created an Excel processing system to take the raw data provided by the supplying divisions into the IEA framework.
- This processing system provides, inter alia, the MSPU with a mechanism for matching the raw data to the sector and instrument breakdown in the IEA.
- The complexity of the IEA and the very large number of data points that need to be processed each quarter, it was realized that Excel would prove insufficient within the foreseeable future.
- Thus it is important that Excel be replaced by a database, and an associated database processing system, within the next two years.

Planning…3

- The human resource capacity
  - Expert advice was sought.
  - Electronic communication with the Expert and annual physical visit to the SARB.
- Various Working Groups were established
- Additional training on SNA 2008
- MSP developed a project plan with specific dates and timelines
- Meta data - The project plan also requires data supplying divisions to prepare metadata on their sources and methods. Ensuring completeness and up-to-date

Then work begins: Institutional sector delineation

- SNA 2008 provides the starting point for compilation of IEA

Main institutional sectors	Subsectors		
Non-financial corporations	Public		
	Private		
Financial corporations	Monetary financial institutions	Monetary authority	Central bank
			Corporation for Public Deposits
		Other monetary financial institutions	Deposit-taking corporations (banks)
			Money-market funds
	Other financial corporations*	Non-money-market investment funds	
		Other financial intermediaries**	
		Financial auxiliaries	
		Captive financial institutions and money lenders	
	Insurance corporations and pension funds	Insurance corporations	
		Pension funds	
General government	Central and provincial government		
	Local government		
Households***			
Rest of the world			

* Except monetary financial institutions as well as insurance corporations and pension funds
** Except insurance corporations and pension funds
*** Including non-profit institutions serving households

Source: System of National Accounts 2008

Main Financial Assets and Liabilities

Financial instrument	Description
Monetary gold and special drawing rights	Monetary gold is gold to which monetary authorities have title and which is held as reserve assets. Special drawing rights are international reserve assets created by the International Monetary Fund which are allocated to its members to supplement existing reserve assets.
Currency and deposits	Currency and deposits refer to currency in circulation and deposits, both in national currency and in foreign currencies.
Debt securities	Debt securities are negotiable financial instruments serving as evidence of debt.
Loans	Loans are created when creditors lend funds to debtors.
Equity and investment fund shares or units	Equity and investment fund shares or units are residual claims on the assets of the institutional units that issued the shares or units.
Insurance, pension and standardised guarantee schemes	Insurance, pension and standardised guarantee schemes items include: a) non-life insurance technical reserves; b) life insurance and annuity entitlements; c) pension entitlements, claims of pension funds on pension managers, and entitlements to non-pension funds; and d) provisions for calls under standardised guarantees.
Financial derivatives and employee stock options	Financial derivatives are financial instruments linked to a specified financial instrument, indicator or commodity through which specific financial risks can be traded in financial markets in their own right. Employee stock options are agreements made on a given date under which an employee has the right to purchase a given number of shares of the employer's stock at a stated price either at a stated time or within a period of time immediately following the vesting date.
Other accounts receivable and/or payable	Other accounts receivable and/or payable are financial assets and liabilities created as counterparts to transactions where there is a timing difference between these transactions and the corresponding payments.

Source: System of National Accounts 2008

Challenges…1

- Currently SARB disseminate some current and capital accounts, however do not satisfy minimum requirements
- Identification of short, medium and long term data gaps
- Various Divisions experience same data gaps problem – though the nature of these problems may differ from one division to the other
- Critical institutions not surveyed or have very low survey response rate
- Some data not available quarterly and number have to be estimated
- Misclassification

Challenges : The Capital Markets and Flow of Funds Division - Example

- The CMFF Division is responsible for the provision of data on all the sub-sectors of the financial sector that are not covered by MBD. These subsectors include ; insurance companies (both life and nonlife), public and private pension funds, etc.
- There is a big problem for private pension funds: there is a low, and falling, response rate.
- Why? Partly because the SARB has no legal mandate to collect these data. It rely on goodwill. FSB may have some of these data but not in the correct format.
- Private pension funds are a major destination of household saving and it is very important for the success of the IEA project

Challenges : Public Finance- Example 1

Cash versus accrual accounting

- The national and provincial governments use modified cash accounting; local governments, and all public enterprises at all levels of government use accrual accounting.
- Making the adjustment from cash to accrual is very difficult without the underlying, detailed, data, and can only be done in a limited way.
- One areas of difficulty is with respect to transactions and positions between local government and the other levels of government.
- The PFD works on the assumption that the local government (accrual accounting) data are correct and adjusts the other levels of government accordingly.

Challenges : Public Finance – Example 2

Classification of Local Government Entities (LGEs)

- Data on LGEs' income statements are available separately from their parent municipality, but some local government have consolidated their balance sheets with those of the LGEs. In that situation, it is usually not possible to deconsolidate without considerably more information
- Until such time that a separation of the balance sheet of the parent local government from those of its LGEs is available; the decision is to leave these LGEs in the general government sector. But such an interim outcome is unsatisfactory.
- It not only mixes up institutional units that should be in separate sectors but it also poses problems for data reported by counterparties.
- These latter are likely to report any financial asset or liability that they may have with LGEs as such and not as general government, thereby causing a mismatch between counterparties.

Challenges : Public Finance – Example 3

TVET excluded from PFD datasets

- Omission of Technical and Vocational Education and Training (TVETs) from any datasets used by the PFD is a concern.
- There are approximately 50 TVETs and their absence from the PFD data, and, by extension, the national accounts, represent a significant data gap.
- The plan is that TVETs' current and capital account data be obtained as soon as possible. (It is probable that the TVETs' financial assets and liabilities are not large.)

Challenges : Public Finance – Example 4

Land values of the national government

- The Property Management Trading Equity, a part of the Department of Public Works of the national government, has prepared an extensive asset inventory, attributing values to all the national government's land holdings. These estimates approximate market value.
- These estimates could be used as part of the national balance sheet when non-produced, nonfinancial assets are included, possibly by the end of 2019.
- Whatever asset inventory clearly estimating the value of government land is hard – e.g. estimating the value of Kruger National Park, Road infrastructure networks
- Recently we learn of some stock of cattle owned by government

Challenges : Public Finance – further examples

- Discontinuation of survey covering balance sheet data for local government by Stats SA - Data from National Treasury to be used
- Low survey response rate from extra budgetary institutions, especially Universities
  - This relate to quarterly data as annual data are available from “mandatory” financial statements.
- Again lack of legal mandate to collect data is the primary factor behind low response rate.
- B/S data available for local authorities, social security, public financial corporations, public non-financial corporations and national government (liabilities). However at insufficient item detail and not integrated
- Data gaps: B/S data only available from 2013 for Extra Budgetary institutions, Provincial Gov. and limited scope of financial assets in case of National Gov. assets

Preliminary and Experimental Results

Table 1 Summary balance sheet by institutional sector at market prices, 31 December 2011

R trillions

	Non-financial corporations		Financial corporations		General government		House-holds		Total domestic economy		Rest of the world	
	A	L	A	L	A	L	A	L	A	L	A	L
Non-financial assets*	4,2		0,3		2,2		2,7		9,4			
Financial assets and liabilities	2,0	5,6	10,7	10,7	0,9	1,6	5,4	1,4	18,9	19,3	3,1	2,7
Net worth**		0,6		0,3		1,5		6,7		9,0		
Total assets and liabilities	6,2	6,2	11,0	11,0	3,1	3,1	8,1	8,1	28,3	28,3	3,1	2,7

A = assets
L = liabilities
* Total produced assets, including underlying land
** Total assets minus financial liabilities

Non-financial asset stock positions at market prices, 31 December 2011

R millions

	Non-financial corporations	Financial corporations	General government	House-holds	Total domestic economy
Total produced assets	3,673,489	294,319	1,660,095	1,905,073	7,532,976
Total fixed assets	3,112,793	278,497	1,656,494	1,872,662	6,920,446
Dwellings	243,334	10,070	237,628	1,660,831	2,151,863
Buildings other than dwellings	733,769	113,287	312,168	66,309	1,225,533
Other structures	983,612	7,198	938,444	68,365	1,997,619
Machinery and equipment	1,042,563	119,189	141,076	62,126	1,364,954
Cultivated biological resources	8,781	-	-	14,659	23,440
Intellectual property	100,734	28,753	27,178	372	157,037
Inventories	560,696	15,822	3,601	32,411	612,530
Non-produced assets					
Total underlying land	563,191	33,113	525,811	760,363	1,882,478
Dwellings	85,424	5,331	114,941	744,668	950,364
Buildings other than dwellings and other structures	477,767	27,782	410,870	15,695	932,114
Total real estate*	2,523,906	163,668	2,014,051	2,555,868	7,257,493
Dwellings	328,758	15,401	352,569	2,405,499	3,102,227
Buildings other than dwellings and other structures	2,195,148	148,267	1,661,482	150,369	4,155,266
Total produced assets, including underlying land	4,236,680	327,432	2,185,906	2,665,436	9,415,454

* Fixed assets and underlying land

Positive externalities of the project

- Project helped to break the “silo” mentality: there is more cooperation between division now than before the project.
- It has assisted in focusing, not only on compiling the data but also on data quality, data sources, data gaps, some classification issue, i.e. it helped in reassessing the data set we already have and was clear we had more gaps than we previously thought.
- Survey form need some refinement in order to capture data in the detail and format required for this project
- Assisted in underscoring human resource issues - training and rotation.