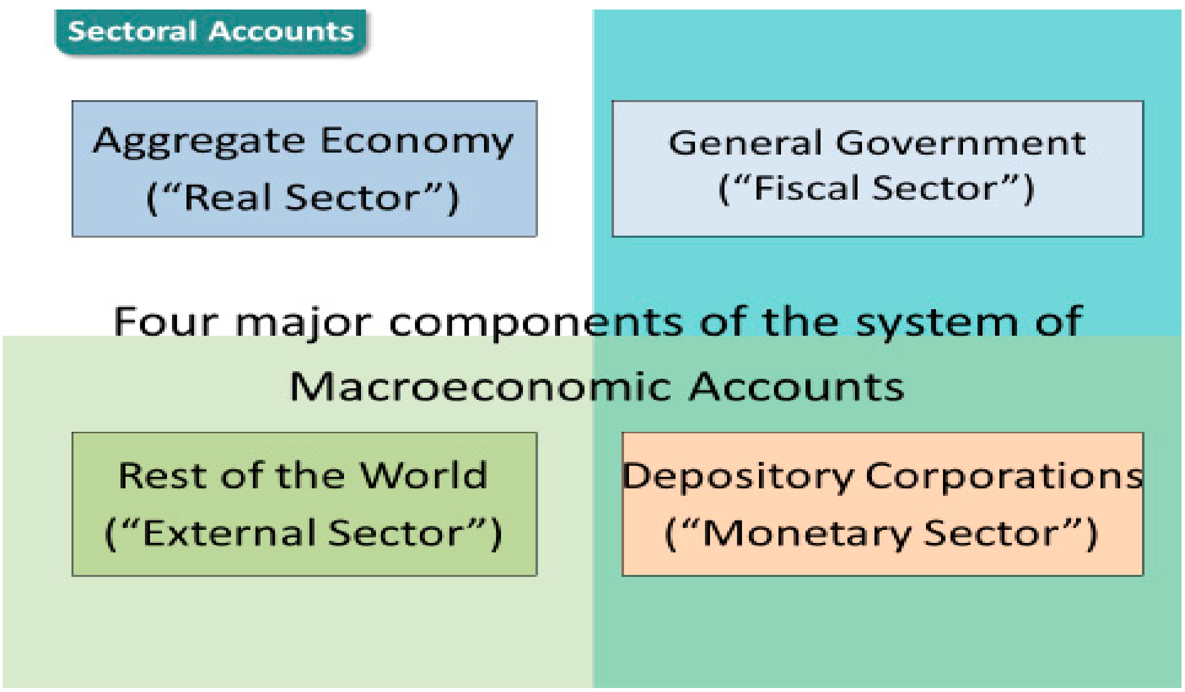
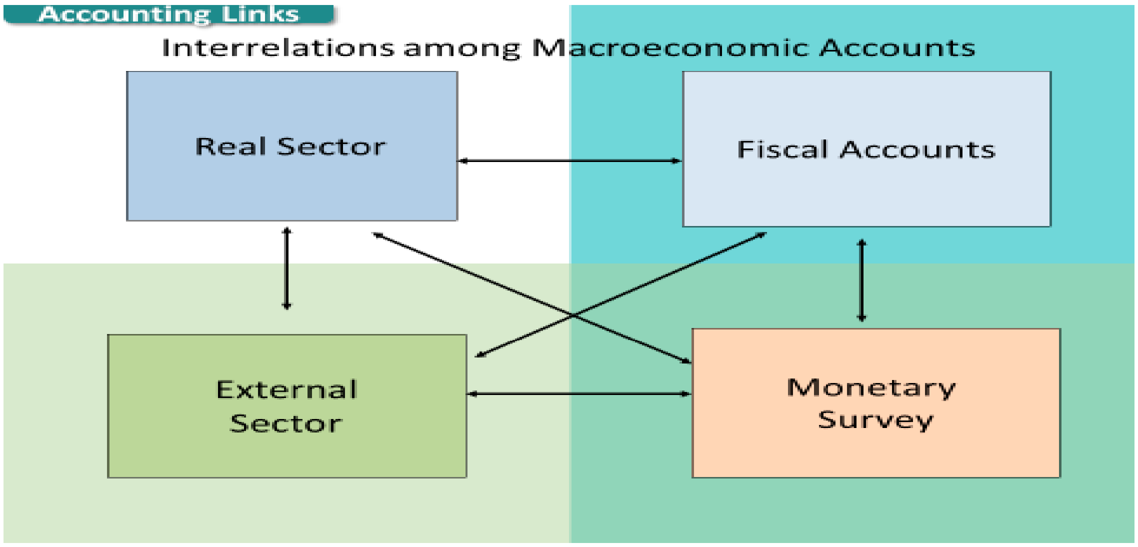
A Look at the Macro Accounts

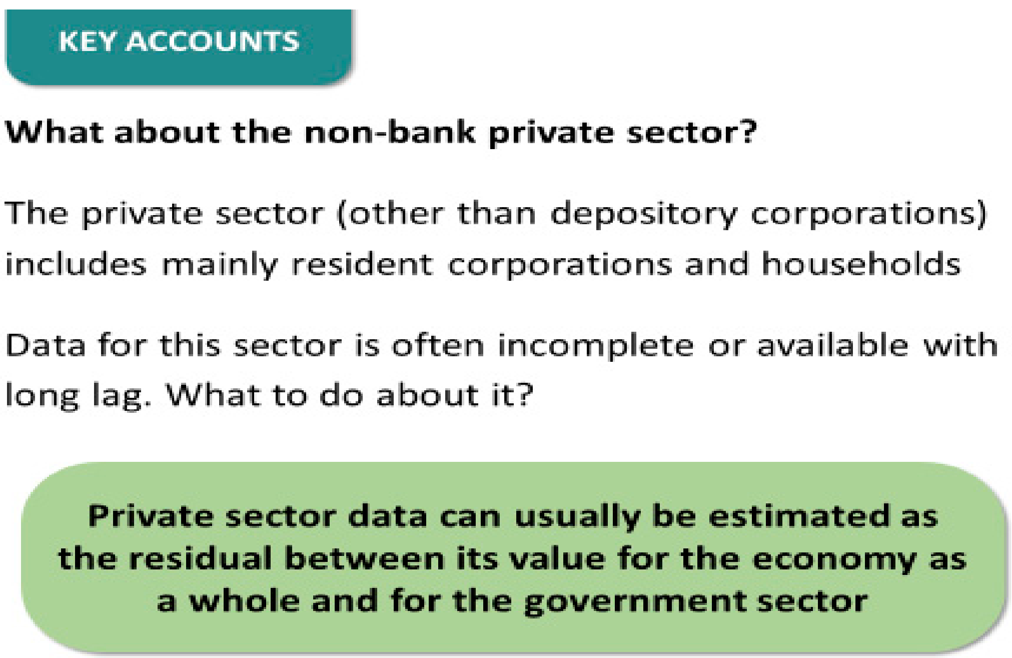
The MTDS aims at analyzing how to cover the government financing needs given the legacy debt and the new funding needs going forward. The medium-term fiscal accounts give a sense of the projected future overall fiscal balances. These balances will be impacted by developments in the economy at large. Fiscal projections will be on firmer ground when they are based on consistent projections for the main macroeconomic variables. It is therefore important to understand the interrelations between the operations of the various sectors of the economy, measured by macroeconomic *sectoral accounts*.

An economy can be described as a composite of four major building blocks: (1) a Real Sector, say growth and inflation; (2) an External Sector –BOP, the Balance of Payments—that includes current account balances, exchange rate, reserves; (3) a Government Sector-- the fiscal accounts, the fiscal deficit, primary balance; and (4) a Monetary Sector.



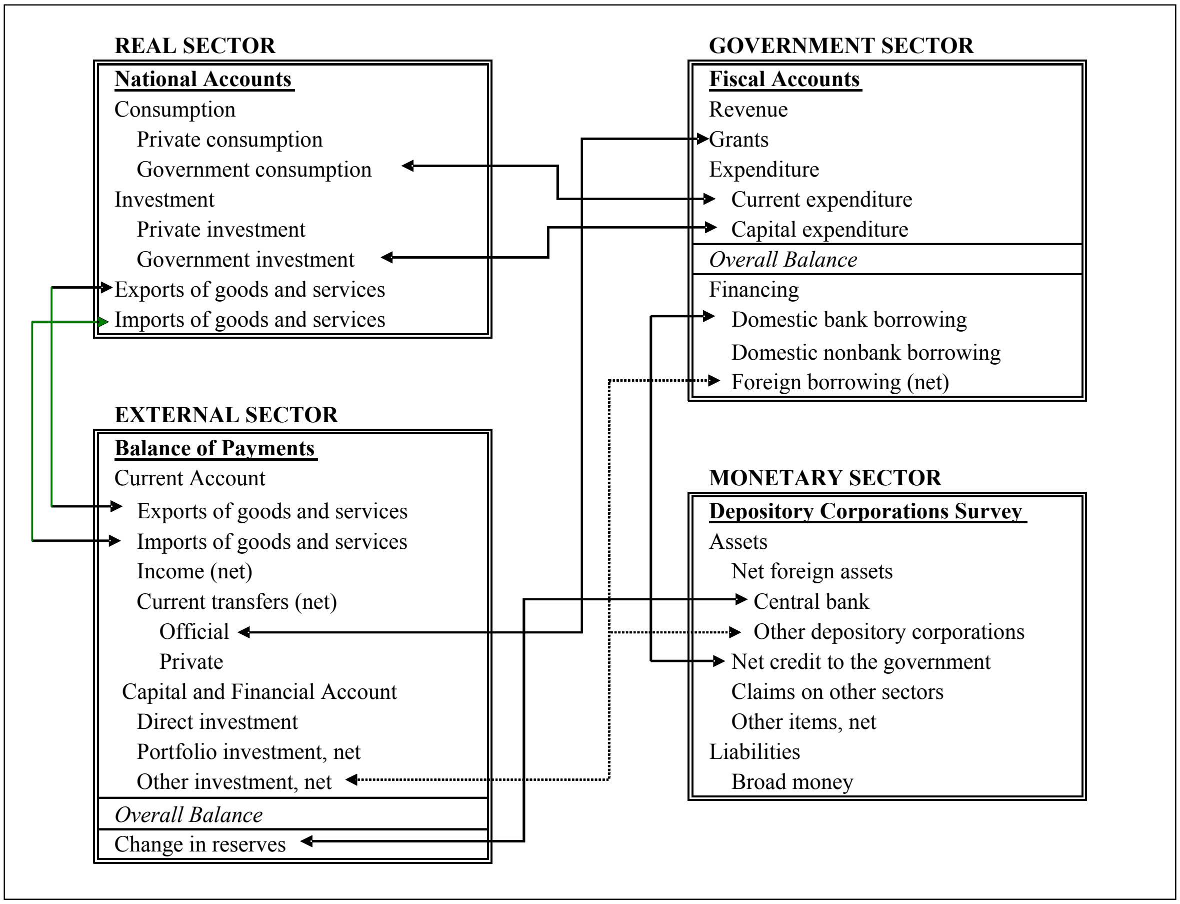
Data from these four sectors form the building blocks of macroeconomic analysis. The accounts of these sectors are linked in an accounting and behavioral sense because agents engage in economic transactions with each other in the markets for goods and services, factors of production, and financial assets.





In this way, key macroeconomic aggregates are derived from an interconnected network of macroeconomic accounts. Understanding the links between the various accounts (which encompass both accounting and behavioral relationships) is fundamental to constructing a consistent overall macroeconomic picture: the *macroeconomic framework.*

The **main** accounting interrelations among the sectors are shown in the simplified figure below:



A macro framework is consistent when the different accounts reflect the transactions among the sectors in the same way. In reality statistical discrepancies do often arise in the published data, for a variety of reasons. The *accounts reconciliation process* implies reducing or eliminating measurement discrepancies between the same or related items compiled from different sources. If there is no valid explanation for apparent inconsistencies, they may reflect errors. Errors in the data should be corrected.

DATA CONSISTENCY CHECKS

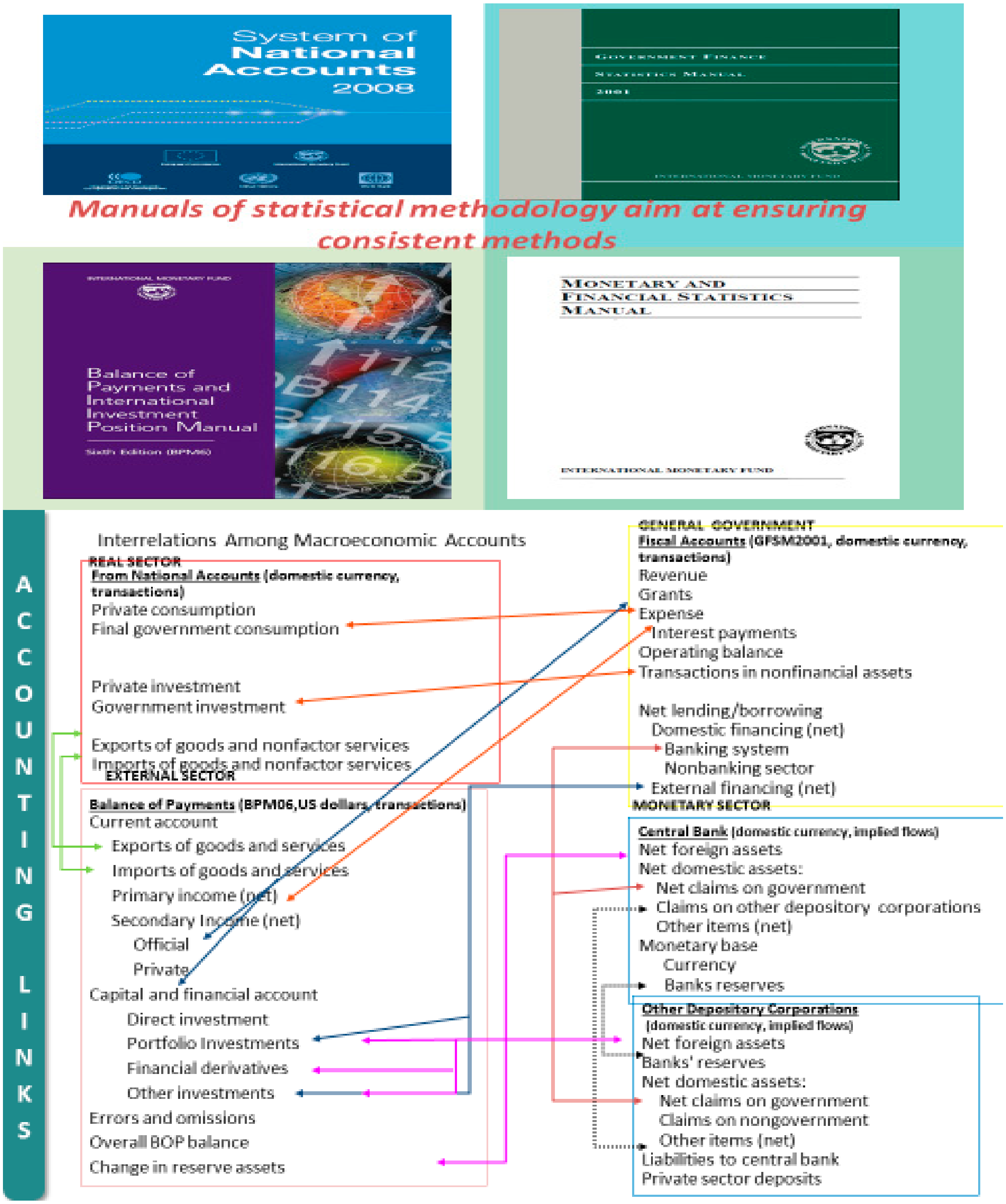
Often differences arise because

- The data come from different sources…
- which may use different definitions…
- or differ in their coverage

Differences in the statistics may also be due to the use of different recording methods

For example, one data set may record transactions on a cash basis, and another on an accrual basis

The next figure (below) provides a detailed map of the sectoral accounting interrelations as a base for commenting on these links and the sources of statistical discrepancies that may need to be resolved to ensure a reasonable degree of *data consistency.* Note that the presentation of the accounts below is harmonized with the vintages of the statistical methodology manuals listed hereunder. These manuals of statistical methodology– published in many languages- are to a large extent, if not yet fully, harmonized.



As noted above, it is not enough for accounts to be consistent in an accounting sense. Understanding both accounting and behavioral relationships between the accounts is fundamental to constructing a consistent overall macroeconomic "storyline". Nevertheless ensuring consistency of the accounts is the *first test* of accuracy and reliability of a framework. Let us look at this in some details.

DATA CONSISTENCY CHECKS

<u>From National Accounts</u> (domestic currency, transactions)

Absorption

Exports of goods and nonfactor services

Imports of goods and nonfactor services

<u>Balance of Payments</u> (US dollars, transactions)

Current account

- Exports of goods and services
- Imports of goods and services
- Primary income (net)
- Secondary Income (net)

...

- *<u>Consistency test</u>: Exports and imports in the national accounts should correspond to exports and imports in the BOP converted to domestic currency*
- <u>Discrepancies</u> may occur owing to the average exchange rates used and other accounting differences

<u>Explanation</u>*: Exports and imports in the national accounts should, in principle, correspond to the figures for exports and imports of goods and services recorded in the BOP, with the conversion to domestic currency taking place at average exchange rates.* Small discrepancies may occur owing to the averaging process and other differences between accounting procedures in the national accounts versus those in the BOP.

DATA CONSISTENCY CHECKS

<u>From National Accounts</u> (domestic currency, transactions)

Private consumption

Final government consumption

Private investment

Government investment

...

<u>Fiscal Accounts</u> (GFSM2001, domestic currency, transactions)

Revenue

Grants

Expense

- Interest payments

...

- *<u>Consistency test</u>: Final government consumption can be reconciled with expenses on "wages and salaries", "use of goods and services" and some other expenses*
- <u>Discrepancies</u> may arise from
  - ✓ the breakdown of fiscal accounts not showing exactly the two expenses named above; and
  - ✓ fiscal accounts often reported on a cash basis, when the national accounts are on an accrual basis

Explanation*: Government consumption in the national accounts should be consistent with current expenditures in "wages and salaries" and "other goods and services" reported in the fiscal accounts.* Potential discrepancies may arise from (i) the breakdown of fiscal accounts not showing exactly the two expenses named above, perhaps by reporting some of them lumped in a broader category such as "other expenses;" and (ii) the fact that the fiscal accounts are normally reported on a cash basis, when the national accounts should be reported on an accrual basis.

DATA CONSISTENCY CHECKS

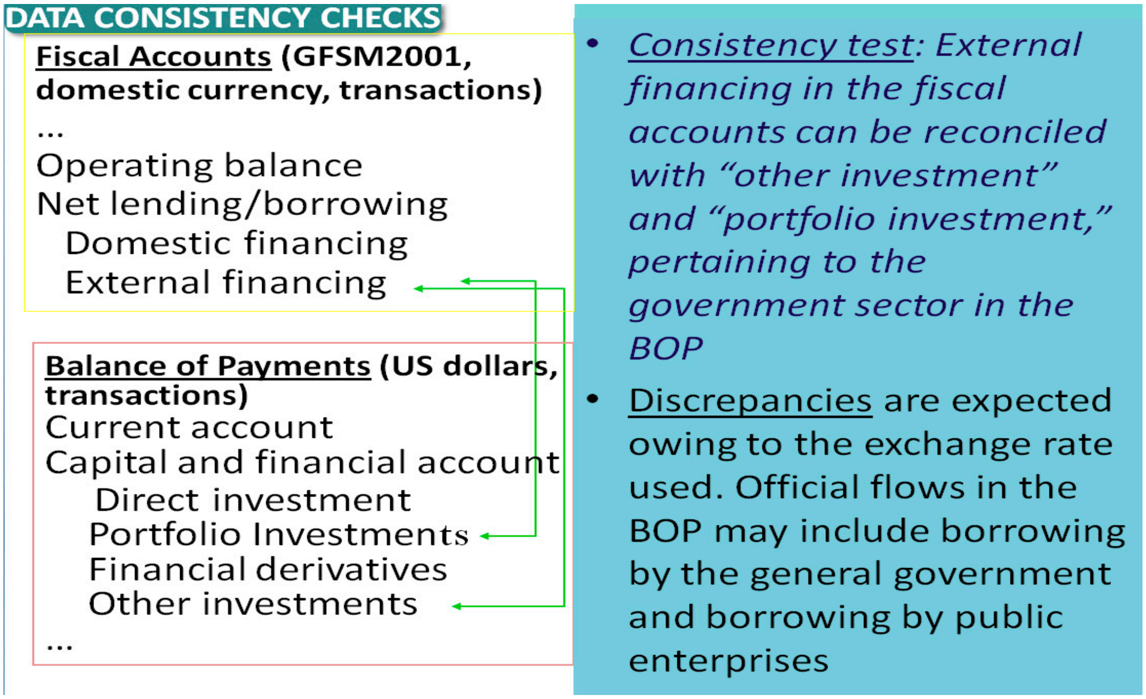
From National Accounts
(domestic currency, transactions)

...
Private investment
Government investment
...

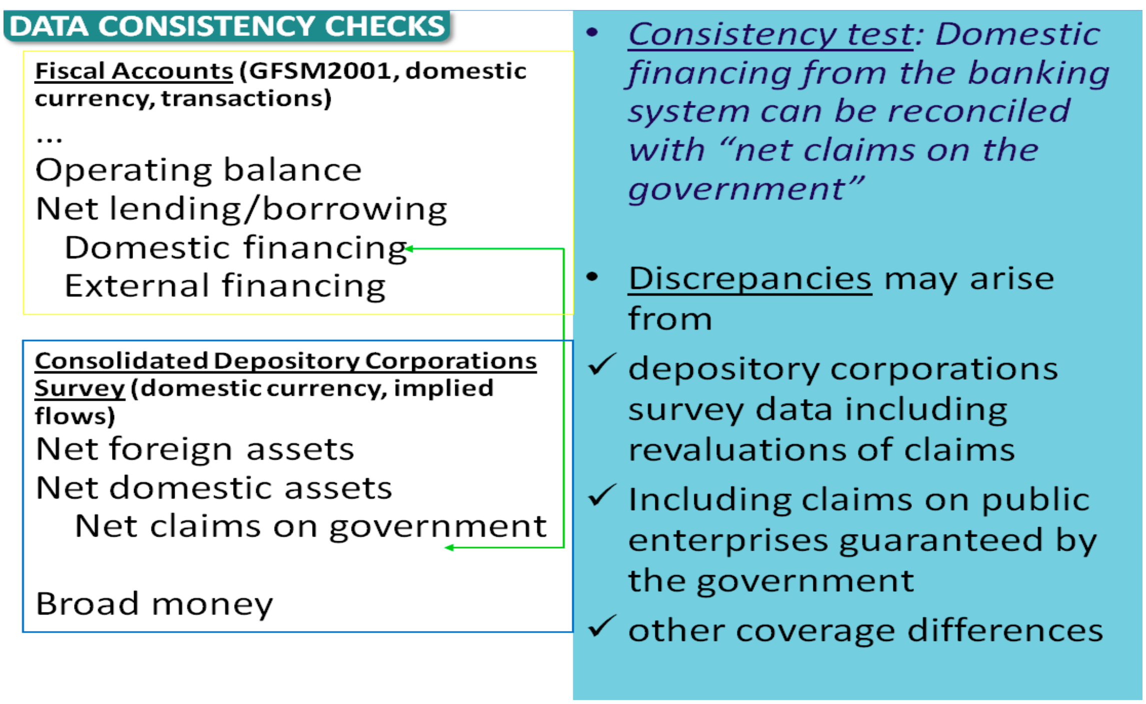
Fiscal Accounts (GFSM2001, domestic currency, transactions)
Revenues
Grants
Expenses
...
Transactions in nonfinancial assets

- *Consistency test: Government investment can be reconciled with to transactions in nonfinancial assets*
- Discrepancies may arise from the coverage of the fiscal tables and the use of cash versus accrual accounting.
- Note that capital expenditures by public enterprises are considered "private sector investment" in the national accounts

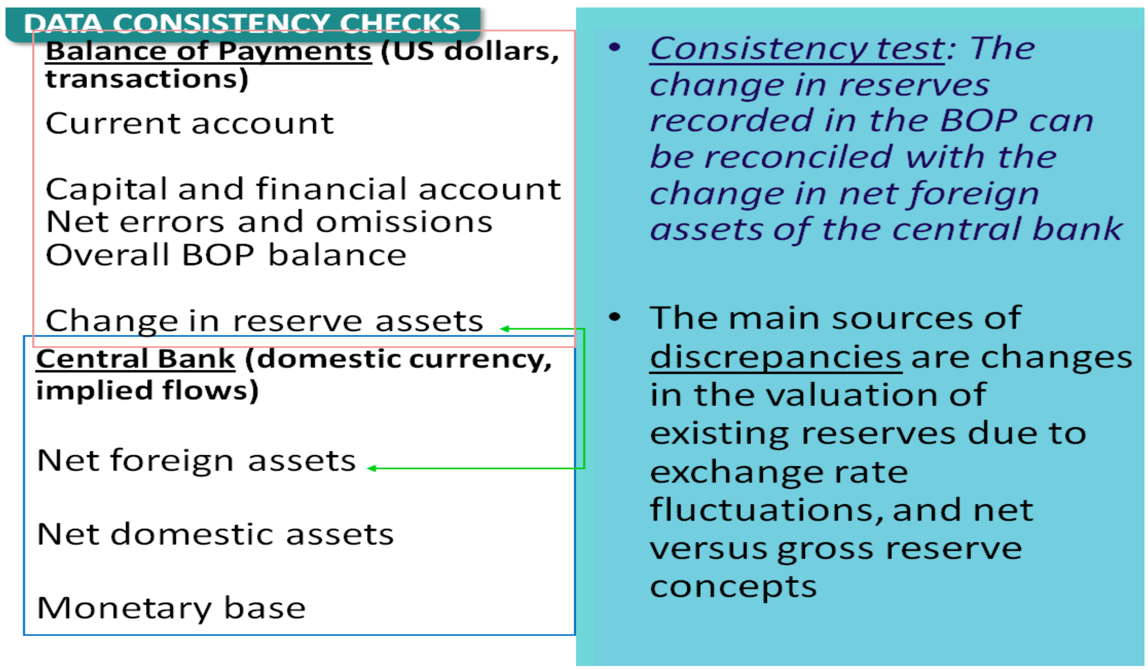
Explanation*: Government investment in the national accounts should correspond to capital expenditures in the fiscal accounts.* Notice the coverage of the fiscal tables (central government and other decentralized government agencies) and the use of cash versus accrual accounting to verify consistency. Remember that capital expenditures by public enterprises are normally considered "private sector investment" in the national accounts.



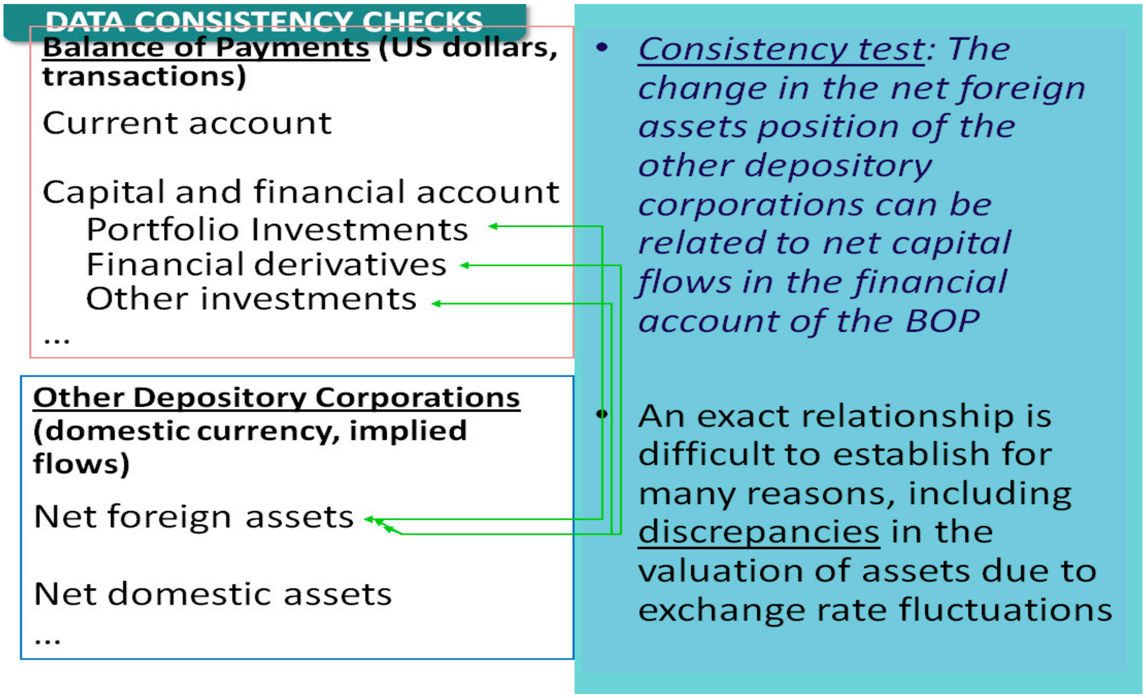
Explanation: *External financing or foreign borrowing in the fiscal accounts should relate to "other investment, net" and "portfolio investment, net" in the BOP.* Within these categories loans to the public sector and net issuance of public sector securities, respectively, are usually recorded separately and should be consistent with flows recorded in the fiscal accounts. The coverage of the BOP may differ from that of the fiscal accounts, however: official flows in the BOP may include both borrowing by the central government and borrowing by public enterprises. In addition, small discrepancies are expected owing to fluctuations of the exchange rate: if we convert the BOP figures at the annual average or even monthly average exchange rates, these rates are likely to differ from the exact exchange rate prevailing on the day of the loan disbursement and recording in the government accounts.



Explanation*: Bank financing or domestic financing from the banking system in the fiscal accounts should have its counterpart in "net claims on the central government" of the monetary survey*. Remember that the monetary accounts record stocks. Once the flow data are obtained from the monetary accounts by subtracting the respective stocks, they should correspond exactly to the amount listed in the fiscal accounts, since bonds and other securities are normally recorded at face value (rather than at market value) in the monetary tables.



Explanation*: The change in reserves recorded in the BOP should relate to the change in net foreign assets recorded in the monetary accounts.* The main sources of discrepancies are changes in the valuation of existing reserves. For instance, if a country holds some of its reserves in euros, and the euro appreciates relative to the U.S. dollar and the domestic currency, the stock of reserves expressed in U.S. dollars in domestic currency will increase even if there are no new flows of reserves from the BOP perspective. Other than that, and some smaller discrepancies due to the averaging of exchange rates, the change in reserves implied by the depository corporations survey (DCS) and the central bank balance sheet should move together with the change in reserves recorded in the BOP.



<u>Explanation</u>: *The change in the net foreign assets position of the banking system implied by the monetary accounts should be related to net capital flows in the financial account of the BOP*. A direct, exact relationship is difficult to establish for many reasons, notably: (i) it is often difficult to separate all private capital flows in the financial account of the BOP into flows to private companies, banks, and other financial institutions; and (ii) it is even more difficult to estimate changes in valuation of existing assets and liabilities of the banking system.