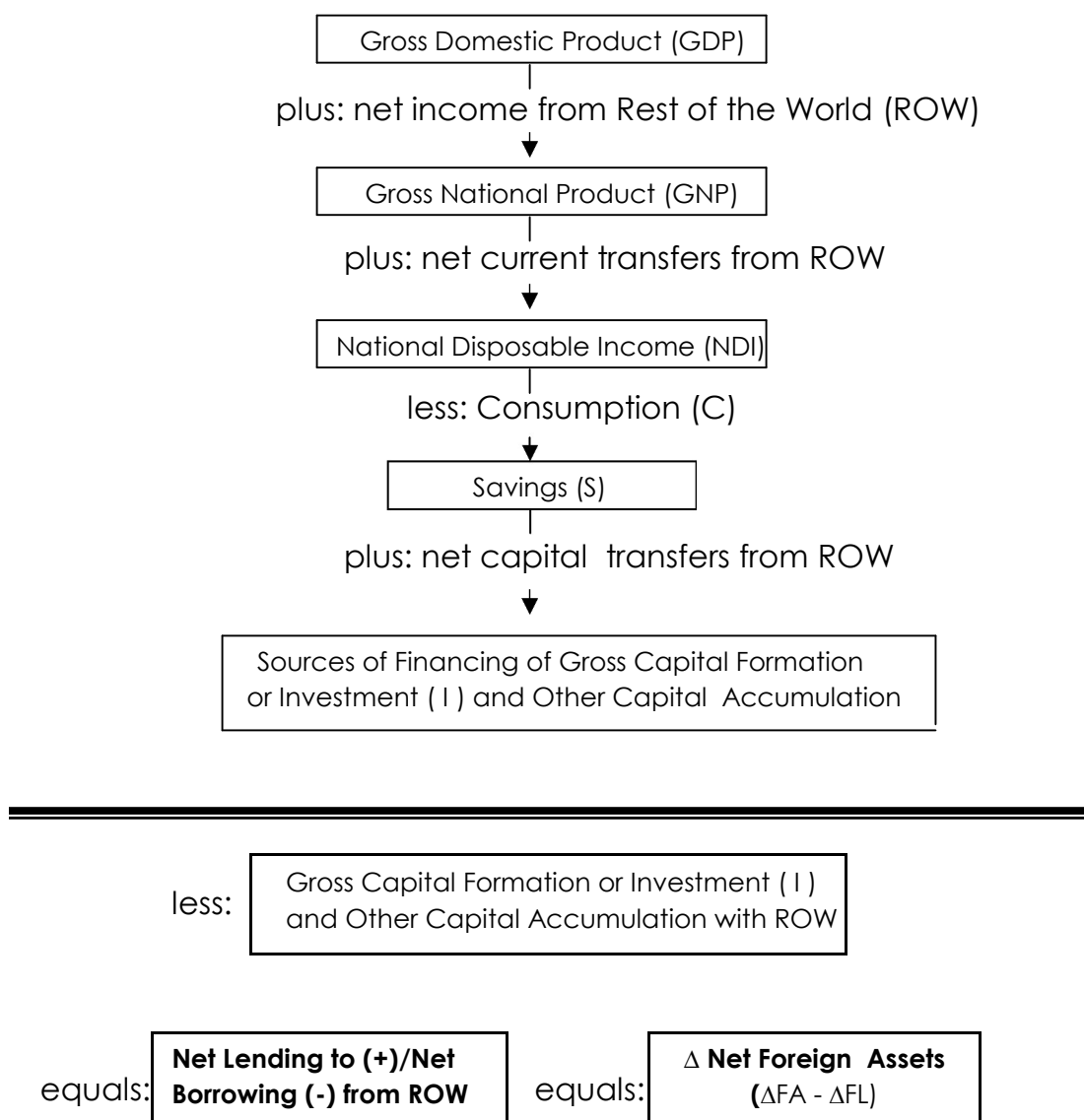


Revised Technical Notes on the Philippine Flow of Funds:

I. Conceptual Framework

FOF is part of the whole System of National Accounts (SNA) that deals with financial transactions among all institutions of the economy, and between these institutions and the rest of the world. Specifically, the FOF articulates the various financial instruments in which institutions transact with each other. More importantly, FOF identifies which institutions end up as *net borrowers (users of funds)* and *net lenders (sources of funds)* in the series of transactions. The following diagram illustrates how FOF links with the other economic aggregates of the SNA.



II. Operational Framework

A. Alternative Measure of S-I gap and Net Lending

From the above diagram, it may be noted that if net capital transfers and other capital accumulation are nil, S-I is equal to net lending.¹ The macro account relationships shown above can be expanded which would lead to an alternative measure of the S-I gap as shown in the following equations:

1. $NDI = GNP + \text{net current transfers}_{row}$
2. $GNP = C + I + (X-M)_{gsi}$; where $(X-M)_{gsi}$ represents net exports of goods, services and income

Substituting

$$\begin{aligned} NDI &= C + I + (X-M)_{gsi} + \text{net current transfers}_{row} \\ &= C + I + (X - M)_{gsit} \text{ ; where } gsit \text{ represents goods, services} \\ &\quad \text{income and current transfers} \end{aligned}$$

Transposing

$$\mathbf{NDI - C = I + (X-M)_{gsit}}$$

3. $NDI - C = S$ (Savings)

Substituting this identity to the above equation

$$S = I + (X-M)_{gsit}$$

Transposing

$$\mathbf{S - I = (X - M)_{gsit}}$$

4. $(X - M)_{gsit} = CAB_{bop}$; where CAB_{bop} represents Current Account Balance of the BOP

Substituting this identity to the above equation

$$\mathbf{S - I = CAB_{bop}}$$

¹ Other capital accumulation includes purchase and sale of patents, copyrights, trademarks, and franchises. Purchase and sale of land are also included but will only be covered in transactions among the domestic sectors and will cancel out in the process of national consolidation.

Referring to the flow diagram, working backwards gives us:

$$\text{Net Lending} + \text{capital accumulation} = \text{S} + \text{net capital transfers}_{\text{row}} ;$$

where capital accumulation = I + other capital accumulation_{row}

Substituting:

$$\text{Net Lending} + \text{I} + \text{other capital accumulation}_{\text{row}} = \text{S} + \text{net capital transfers}_{\text{row}}$$

Transposing:

$$\text{Net Lending} = \text{S} - \text{I} + \text{net capital transfers}_{\text{row}} - \text{other capital accumulation}_{\text{row}}$$

Thus,

$$\text{Net Lending} = \text{CAB}_{\text{bop}} + \text{net capital transfers}_{\text{row}} - \text{other capital accumulation transactions}_{\text{row}}$$

Since net capital transfers less other capital accumulation transactions with ROW comprise the capital account balance of the BOP, therefore

$$\text{Net Lending} = \text{CAB}_{\text{bop}} + \text{capital account balance}_{\text{bop}}$$

B. Philippine FOF framework of S-I gap and Net lending

The following describe the sources and methods adopted in the Philippine FOF compilation:

1. Domestic Economy: Consolidated

- a. FOF's measure of the S-I gap in the total economy is based on the BOP's CAB. For consistency of database, estimates of net capital transactions with the rest of the world (ROW) are also based on the BOP's capital account. Data from the Philippine System of National Accounts (PSNA) on these variables were not used because of the following:
 - i. Break in the PSNA series; and
 - ii. Large statistical discrepancies (SD) particularly for the latter years.

- b. With the adoption of the BOP's CAB as the measure of the S-I gap, the FOF compilation assumes that all errors and omissions in the BOP emanate from the financial account. Attachment 1 provides the link between the BOP and FOF.
- c. While it can be argued that with the above assumption, CAB or S-I gap would be overstated (in cases when errors in the BOP are negative), it must be noted that the S-I gap based on the BOP is way below the level derived from National Accounts, even if the total SD is to be subsumed in the estimates of consumption.

Therefore, the S-I gap based on the BOP is relatively the more conservative level. However, since BOP's CAB cannot be decomposed into S and I components, the I data derived from PSNA were adopted, with S as a residual measure.

2. Institutional Breakdown of S-I and Net Lending

Classification of Transactors

i. Resident Institutions

- o Non-Financial consists of corporations and quasi-corporations engaged in the production of goods and non-financial services.² Government Owned-and Controlled Corporations (GOCCs) engaged in these activities are also covered.
- o Financial consists of corporations quasi-corporations engaged in financial intermediation and in auxiliary financial services, and covers the BSP, Commercial Banks, Thrift Banks, Rural Banks, Insurance and Pension Fund Companies and other financial corporations like Financing Companies, Lending Investors and Stock Dealers and Brokers. Government Financial Institutions (GFIs) are covered in this sector.
- o General Government consists of the National Government (NG), Local Government Units (LGUs) and the Social Security Agencies (SSAs). This also covers the Central Bank Board of Liquidators (CB-BOL).
- o Households consist of all resident households. This sector includes household operated activities.

² Covered are those entities in the agriculture, manufacturing, construction, utilities, trade, transport and communications, hotels and restaurants, education, health, business, real estate and personal services.

ii. ROW

One basic feature of the FOF is that its external account takes the point of view of the ROW while the BOP takes the point of view of the compiling economy. Thus, if the CAB in the BOP is in surplus, the S-I in the FOF is in deficit. If the BOP reflects net lending, the FOF's ROW will show net borrowing. Transactions in assets in the BOP are transactions in liabilities in the FOF. This is designed to close the system in which one party to a transaction borrows while the other party lends.

b. Classification by Financial Instruments

- i. Monetary Gold and Special Drawing Rights (SDR)
- ii. Currency and deposits, broken down into currency, transferable deposits and other deposits and by national and foreign currency
- iii. Securities other than shares
- iv. Derivatives
- v. Loans
- vi. Shares and other equity
- vii. Insurance technical reserves sub-classified into net equity of households in life insurance and pension funds, and prepayment of premiums and reserves against outstanding claims
- viii. Accounts receivable/payable broken down into trade credits and advances, and others accounts receivable/payable

Attachment 2 provides the link between the BOP and FOF by type of financial instruments.

3. Sources and Methods

a. Basic Strategies to Compilation

- i. In transforming *net* positions to *gross* assets and *gross* liabilities, it is the latter which is deemed as the firmer number

and thus taken as the control number. Consequently, necessary adjustments are made in the asset side.³

- ii. In the intra-sectoral consolidation, transactions between institutions belonging to the same sector are aggregated, instead of netted out. For example, banks' deposits with the BSP are presented in both asset and liability sides of the Financial Sector to which the two institutions belong. This is done to preserve the data on claims and liabilities between the units in that sector. However, in the case of the CB-BOL, which is included with the NG, transactions between these two institutions are netted out.
- iii. The overall consolidation process involves the summing up of the financial transactions of all resident sectors. However due to imperfect data, the result may not be equal to the national total set by the BOP, giving rise to errors and omissions. However, these errors and omissions are eventually absorbed by the household sector. (Details on the independent estimation of households are discussed in item b.ii) ⁴

b. Estimation Methodology

- i. General Government and Corporate Sectors Data are sourced from the following:
 - o COA annual reports of NG, LGUs and Government-Owned-and-Controlled Corporations (GOCCs);
 - o annual report of the BSP, financial statement of CB-BOL and the consolidated financial statements of banks and other financial institutions submitted to the BSP;
 - o annual reports of Insurance Commission, Government Service Insurance System (GSIS) and Social Security System (SSS);

³ Except for loans, it is assumed that data on liabilities are firmer for currency and deposits, securities other than shares, shares and other equity and technical reserves. This is in contrast with the approach of the Monetary and Financial Statistics Manual (MFSM) which takes asset data as the control number. The PFOF deviated from this approach since data support for liabilities are considered more reliable.

⁴ While eventually errors and omissions are absorbed in the households sector, the process enables the analysis to determine the extent of under/over coverage and thus do further validation and refinements of estimates. A positive errors and omissions indicate that recorded total liabilities of both domestic institutions and ROW exceed recorded assets and vice-versa. However, for loans where total assets were considered as the control, a positive errors and omissions would mean that recorded assets exceed recorded liabilities.

- o structured financial statements of private corporations and the Philippines 8000 Corporations, from the Securities and Exchange Commission (SEC); and
- o Budget of Expenditures and Sources of Financing from the Department of Budget and Management, Bloomberg and Philippine Stock Exchange.

In general, transactions in capital accumulation and financial assets are derived as the change between two periods' balance sheets. Wherever data are available, changes due to revaluations are excluded.

Savings is estimated directly from income and expense statements or is derived from balance sheets, as applicable. As defined in economic accounts, savings refers to net income after tax, after dividend, and exclusive of gains/losses due to price movements. Attachment 3 provides a sample derivation table of the FOF account category from the COA account category.

ii. Households ⁵

Savings is mainly based on the PSNA estimates with the results of the Family Income and Expenditure Surveys for 2000 and 2003 as bases for adjustments. Household capital accumulation for 2000 was estimated using benchmark parameters from the 1990 Social Accounting Matrix, coupled with aggregate private sector data on inventories and capital formation as well as growth indicators.

Sources and methods for financial transactions are described below:

- o Deposits are based on bank reports on deposit liabilities by type of depositor;
- o Loans are provided by reports of banks, GSIS, SSS, and life insurance companies, Philippine Crop Insurance and Home Development Mutual Fund, Small Business Guarantee and Finance Corporation and National Home Mortgage and Finance Corporation;

⁵ Includes entrepreneurial activities of households as well as all other unaccounted transactions in the domestic economy initially estimated as errors and omissions; also covers non-profit institutions serving households (NPISH).

- o Net equity of households in life insurances reserves and in pension funds are transactions between the financial sector and the households so that total liabilities on this financial asset are entered as assets of the households;
- o Currency holdings of the household are estimated as a residual item with the assumption that the other unaccounted sectors' holdings of cash was minimal and more of deposits; and
- o Household's other accounts payable is derived as a residual (the difference between the net lending from the capital account and net financing) and is recorded under others in this category.

III. Limitations of the FOF data series

A. Coverage

- o Database for private non-financial corporations is limited only to those aggregates covered in the Top 5000 corporations, with indicators on details provided by the sample corporations that complied with the prescribed structured forms.⁶

B. Classification

- o The lack of necessary details in most of the data source documents to properly map transactions to the classification required by the framework may have resulted to misclassification of some transactions.

C. Revaluation and other volume changes

- o Details on revaluation and other volume changes are not currently available from most of the data sources, thus these variables get included in the FOF estimates, which conceptually should cover only transactions. The flows derived from the change between two periods' balance sheets, include changes that are not only due to transactions but also those due to revaluation or price changes and other volume changes.

⁶ The structured report forms of the financial statements (FS) required to be submitted with the audited FS are designed to incorporate details for the National Accounts, BOP and the FOF compilation. This requirement was implemented in 2003 for the 2002 FS submissions but has low compliance rate.

