IMF WORKING PAPER

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WP/89/95

Subject: The Flow-of-Funds Accounts, the United Nations' System of National Accounts, and the Developing Countries

CORRIGENDUM

Incorrect Tables 1 and 2 were inadvertently included in WP/89/95 (11/6/89). The correct versions of the Tables (pages 2 and 3) are attached.

Att: (2)

I. Introduction

Our purpose is to survey flow-of-funds or national financial accounting in the context of the forthcoming revision of the United Nation's System of National Accounts (SNA) and with special emphasis on the potential of flow-of-funds analysis for developing countries. The task has been divided into three main sections.

We begin in Section II with a consideration of the analytical uses of the flow-of-funds accounts, utilizing simple data matrices of the sort that could be available in most of the countries of the world. A key scheme for the analysis of financial fluctuations is presented, the saving-investment process, and this scheme is related to the data matrix. The data are also related both to financial policy problems that are commonly faced by developing countries and to more sophisticated types of projections and programming. In all, we emphasize the substantial usefulness of flow-of-funds data in the formation and execution of public policies in the financial area.

In Section III we examine the conceptual relations between the flow-of-funds accounts and the SNA. This is done by examining the evolution of certain key features of the SNA standard accounts as these features have evolved in the successive revisions of the SNA, and, in particular, the representation of finance in the SNA. This latter evolution is pushed ahead to envision how financial data should be portrayed in the forthcoming SNA revision--labeled SNA 1990. Section III also considers the closely related matter of the harmonization of the statistical systems of the Fund with the SNA as well as the technical problem of relating financial flows and balances in the accounts.

Finally, Section IV considers the procedures to be used in the estimation of flow-of-funds accounts in the developing countries. It is demonstrated that an effective flow-of-funds system can now be implemented quickly and easily by most of these countries. However, the data problems these countries face are seen to have implications for the design of SNA 1990.

II. Analytical Uses of the Flow-of-Funds Accounts

The broad purpose of the flow-of-funds accounts, or the sector capital finance accounts as they appear in the UN's System of National Accounts (SNA), is to facilitate analysis of the operations of the financial system. That is, these accounts aim at interpreting the transactions in financial markets carried out by the various economic sectors and at relating these transactions to the behavior of the nonfinancial economy. To this end the sector accounts record for each sector its capital formation, its gross saving (that is, its operating surplus), and its acquisitions of various types of claims (financial uses of funds) and the incurrence of various types of liabilities (financial sources of funds). In the sectoring scheme, financial institutions are separated out in order to distinguish their functional role. Finally, the whole can be presented as a technically interlocking matrix with balancing cross and down totals. Tables 1 and 2 present simple examples of this

Table 1. Financial Flow Matrix I

	Central Gov't		Central Bank		Comm'l Banks		Other Domestic Sector		Rest of World		Discrep.		Total	
	U	S	U	S	U	S	U	S	U	S	U	S	U	S
Gross Capital Formation	27		—		1		304		—				332	
Gross Saving		-24		5		3		251		97				332
Net Lending (+), Borr'g (-)	-51		5		2		-53		97			—	0	
Currency & Deposits	*			77	12	93	144					-14	156	156
Bills, Bonds, & Loans:														
Central Gov't Debt		159	92		14		16		54			17	176	176
Central Gov't Loans	109							109				—	109	109
Central Bank Advances			27			23		6				-2	27	27
Other Loans & Advances					80			80				—	80	80
Other Domestic Debt		1	*	4	10			38	33			—	43	43
Foreign Assets	6		-27		*					-12		-9	-21	-21
Other Claims & Discrep, net		6		6		-2		-20		2		8		0
Total Sources, Uses	142	142	92	92	117	117	464	464	87	87		0	902	902

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Table 2. Financial Flow Matrix II

	Central Gov't		Provincial Gov'ts		Gov't Enterprises		Central Bank		Comm'l Banks		Nonbank Fin. Insti.		Other Domestic Sector		Rest of World		Discrep.		Total	
	U	S	U	S	U	S	U	S	U	S	U	S	U	S	U	S	U	S	U	S
Gross Capital Formation	27		33		120		—		1		*		151		—				332	
Gross Saving		-24		-14		21		5		3		1		243		97				332
Net Lending (+), Borr'g (-)	-51		-47		-99		5		2		1		92		97			—	0	
Currency & Deposits	*		-1		6			77	12	93	1		138					-14	156	156
Bills, Bonds, & Loans:																				
Central Gov't Debt		159	—				92		14		3		13		54			17	176	176
Central Gov't Loans	109			19		88						1						1	109	109
Central Bank Advances							27			23		6						-2	27	27
Other Loans & Advances				13		9			80		8	*		66				—	88	88
Other Domestic Debt		1	7	1	*	-2	*	4	10		2	3		45	33			—	52	52
Foreign Assets	6						-27		*							-12		-9	-21	-21
Other Claims & Discrep, net		6		20		10		6		-2		3		-52		2		7		0
Total Sources, Uses	142	142	39	39	126	126	92	92	117	117	14	14	302	302	87	87		0	919	919

type of matrix format that could be currently produced by most of the nations of the world.

The analytical power of the flow-of-funds system of accounts--like that of the income and product accounts--stems fundamentally from the interlocking character of the system--from the cross and down totals that balance for every period. Social accounting consistency requires that a flow change in any matrix cell be accompanied by corresponding changes in at least three other cells. For example, if increased government capital formation is to be financed by government debt issues, some sector must absorb the issues. To do so that sector must have larger sources of funds or must reduce other acquisitions. By making use of this feature in various forms, it is often possible to trace the impact of each sector's financial behavior on the others and eventually on the nonfinancial economy, or vice versa.

In the following four parts of Section II, we shall try to indicate the range of different forms of flow-of-funds analysis. The level of detail would naturally depend on the sector and transaction detail available in the accounts, but we shall focus here on quite condensed matrices of the sort that many countries would be able to construct. It should also be borne in mind that, although our descriptions will focus on structures which are best revealed by the matrices, substantive work would be largely expressed as time series analysis.

1. <u>Saving-investment process analysis</u>

Perhaps the most pervasive structure used by flow-of-funds analysts is the saving-investment process. This is the process by which saving is transformed into ultimate lending, whence it passes through various financial channels to ultimate borrowing, and then into real investment. An important feature of the scheme is the insertion of financial institutions in the center between ultimate lending and ultimate borrowing in order to portray their role as financial intermediaries.

The way in which the details of the process are worked into the scheme will vary with the analyst. One such scheme is shown in Chart 1, which is designed to reveal the domestic financing process. 1/ Private saving appears at the right of the chart and as the arrows indicate is either placed internally into real investment or is placed into ultimate lending (that is, used to acquire claims). This claims acquisition may take any of three major forms. They can be claims of financial institutions, thus placing funds with these institutions; they can be private credit instruments, thus passing funds directly through these markets to finance private ultimate borrowing; they can be federal securities, thus advancing funds in this market. In turn, financial

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1/ Rest-of-world saving, lending, and borrowing could easily be shown separately in another variant.