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Intersectoral Financial Transactions in Pakistan

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I. INTRODUCTION

The impact of the external shocks on Pakistan's development and on the accumulation balances of institutional sectors during the past two decades is quite well known. The shifts in the accumulation balances of institutions are invariably accompanied by changes in the nature and the magnitude of the claims placed with the financial system and with the rest of the world. At present, little is known about the nature of these changes, during this period, nor about the financial interdependence and the interaction among the private, the public and the external sectors of the economy. The growing financial problems of the country require a proper appreciation of the changing importance of different instruments in the debt portfolio of the government and other institutions and of the way capital formation is financed.

A number of studies have used the flow-of-funds accounts framework to analyse the financial problems of developing countries, for example, [Jansen (1989); Roe (1985) and Bhatt (1972)]. In Pakistan, however, this subject has not received much attention. This paper is an attempt to fill this vacuum. It describes sectoral interactions within a flow-of-funds accounts framework, and distinguishes various channels through which sectoral accumulation balances come to an equilibrium by financial flows: intermediation through the formal banking system, direct capital transfers between institutions, government deficit financing from borrowing etc. Within this framework the impact of the changes in investment or in the federal deficit are traced to changes in the financial behaviour of the other sectors. The paper gives a presentation of the flow-of-funds accounts designed to understand the mechanics of financing investment and the government deficit. And helps to answer questions like what are the components of the federal deficit and how has its

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financing change over time? How are the public enterprises financed? What is the role of the external sector in domestic financing? and has the private sector been crowded-out as a result of federal deficit financing?

The analysis in this paper is based on flow diagrams compiled from the flow-of-funds accounts for the years 1975-76, 1980-81 and 1984-85.[1] The flow-of-funds accounts suffer from a number of problems reflected in large internal and external discrepancies; and the reported figures do not necessarily match with the figures in the other (official) publications. In view of these problems the focus in this paper is on the analysis of the main trends in sectoral financial interactions. The analysis of Pakistan's adjustment experience elsewhere see Sarmad (1992) suggests that the first two years may be representative of relatively more stable conditions as compared with 1984-85 when external payments problems became serious, and the government had to finance a deteriorating fiscal balance. A comparison of the financial interactions in 1984-85 with those in the previous years will thus show how the government coped with the situation and how this affected the financial asset and liability positions of the other institutions.

The layout of the paper is as follows: Section 2 describes the framework and methodology of the flow-of-funds accounts; Section 3 presents the consolidated accounts in the format of flow diagrams and discusses the distinguishing features of the financing process; the final section presents the summary and conclusions.

II. THE FRAMEWORK OF THE FLOW-OF-FUNDS ACCOUNTS

The flow-of-funds accounts show how savings are allocated to investment within a sector, and how the surplus is transferred to other sectors directly or through the intermediation of financial institutions. The accounts help to trace the impact of the changes in each sector's financial behaviour on the other sectors and eventually on the real economy by following the transformation of saving from lending and financial intermediation into borrowing and real investment.

The institutional sectors raise funds by issuing claims or lend surplus funds by accepting claims. The flow-of-funds accounts show for each sector its gross savings and the net incurrence of liabilities on the one hand, and investment and the net acquisition of assets on the other.

[1]The figures are derived from *Pakistan Flow-of-funds* 1975-76–1984-85, of the Statistics Department of the State Bank of Pakistan.

The basic flow-of-funds identity comprises the sources of funds of the sector and its uses. It can be written as:

$$S_i \quad + \quad \sum \Delta L_{ij} \quad = \quad I_i \quad + \quad \sum \Delta A_{ij}$$

where, S and I are the saving and the investment, ΔA and ΔL are the newt changes in the assets and the liabilities of the ith sector with the jth sector. The left-hand side represents the sources of the funds – i.e. own savings and the net acquisition of liabilities; and the right-hand side represents the uses of funds – i.e. the sectoral investment and the net acquisition of financial assets.

The way the above identity is disaggregated depends on the nature of the problem to be analysed. In this paper, it has been elaborated by putting into the system the sector and counterpart details of each transaction and transforming the flow-of-funds into a scheme of interlocking accounts, presented in Figures 1 to 3, which show the relationship of the real sectors, which generate the saving and the investment, with the lending and borrowing activities of the financial markets. Eight institutional sectors are distinguished: the federal government, the provincial and local governments and other public institutions, the non-financial public enterprises, the private corporate sector, the households and unincorporated business sectors, the rest of the world, the financial enterprises and the State Bank.[2]

Algebraically, the accounts are described by the equations given below, where the changes in the net incurrence of liabilities and the net acquisition of assets are consolidated to derive the net flows from a sector to its counterpart. Thus, for any sector, the savings plus the net incurrence of the liabilities minus the net acquisition of financial assets equals the real investment of the sector:

$$S_h + \Delta L_{hf} + (\Delta L_{hg} - \Delta A_{hg}) + (\Delta L_{hpe} - \Delta A_{hpe}) + (\Delta L_{ho} - \Delta A_{ho}) = I_h + \Delta A_{hf}$$

$$S_f + (\Delta L_{fh} + \Delta A_{fh}) + (\Delta L_{fg} - \Delta A_{fg}) + (\Delta L_{fpe} - \Delta A_{fpe}) + (\Delta L_{fo} - \Delta A_{fo}) = I_f$$

$$S_g + \Delta L_{gf} + (\Delta L_{gh} - \Delta A_{gh}) + (\Delta L_{gpe} - \Delta A_{gpe}) + (\Delta L_{go} - \Delta A_{go}) = I_g + \Delta A_{gf}$$

$$S_{pe} + \Delta L_{pef} + (\Delta L_{peh} - \Delta A_{peh}) + (\Delta L_{peg} - \Delta A_{peg}) + (\Delta L_{peo} - \Delta A_{peo}) = I_{pe} + \Delta A_{pef}$$

$$S_c + \Delta L_{cf} + (\Delta L_{ch} - \Delta A_{ch}) + (\Delta L_{cpe} - \Delta A_{cpe}) + (\Delta L_{co} - \Delta A_{co}) = I_c + \Delta A_{cf}$$

[2] The banks, other monetary and credit institutions and insurance enterprises have been grouped together into a single sector–financial enterprises–to highlight their distinct role in the economy as financial intermediaries between the lending and the borrowing institutions. The financial institutions also accumulate savings but their magnitude is small as compared to the savings generated by the households and the unincorporated businesses.

where the sub-scripts h, g, f, pe, c and o refer to the households and unincorporated enterprises, government sectors, financial enterprises, public enterprises, corporate sector and other.

In the Figures 1–3 the arrows indicate the movement of surplus funds between the sectors and the link between the saving and the investment through the financial markets. Savings of institutional sectors, shown in the bottom right-hand corner, are utilised either for financing own-investment, for acquiring claims on financial intermediaries, shown in the top right hand corner, or acquiring claims on the government and corporate sectors, shown in the second (from the top) block on the left.

The assets acquired by the lenders may take the following forms: the claims on financial institutions (shown in the top right-hand corner), which in turn, lend out the funds to the borrowing sectors (shown in the top left-hand block); claims on the government through the acquisition of federal securities, claims on the public enterprises, the private corporate sector and the households and unincorporated enterprises sector (shown on the left in the first and second block from the top). The net borrowing of the sectors together with the savings provides the funds to finance real sectoral investment (shown in the bottom left hand corner) or the government deficit. The third and fourth (from the top) blocks on the left present the 'second-order' lending by the government, showing that the government borrows funds not just to finance its deficit but also to provide funds to the provincial government and the public enterprises.

Generally, the causation proceeds from the investment and the federal government blocks backwards to the saving block directly or via the financial intermediation block to the saving block.

The analysis in the following sections focuses on the extent of self-financing and the debt dependence of the institutional sectors and the way this has changed over time.

III. THE INTERSECTORAL FLOW OF FINANCIAL RESOURCES

The Figures 1–3 show the direction and the magnitude of the net flows between the various sectors as well as of the net flows routed through the financial sectors. The figures show that the intersectoral financial transactions changed significantly in 1984-85. The main source of this disturbance is the deterioration in the fiscal balance of the federal government. While the federal government savings were positive in 1975-76 and 1980-81 they turned negative in 1984-85 to the extent

Fig. 1. Saving Investment and Financial Intermediation 1975-76 (Rs Millions).

Borrowing

		Federal	Prov.	Pub Ent	Corp Sec	Househ
Financial Institutions	Financial Enterp.	1233	863	- 182	939	2626
	State Bank	1728	- 46	160	3	17
Other Institutional Agents	Households	846	370	65		
	Rest of the World	6491	75	812	205	
	Statistical Disc.	458	- 229	- 1044	- 581	2512
Other Borrowing		- 8653	2950	5703		
		- 16	- 389	389	16	
		- 29	- 20	- 142	14	177

Net Borrowing

2058	3574	5761	595	5337

Investment

23284 = 5959 + 17325

Financial Intermediation

Fin Ent		S. Bank
6040	Households	1969
948	Rest of World	-233
134	Financial Ent	748
- 749	State Bank	178
- 894	Statistical Dis	-802

Net Outflow

	Federal Govt.	
	Provincial Govt.	
	Public Ent.	
	Financial Ent.	134
	State Bank	178
	Corporate Sec.	
1281	Households	8009
7535	Rest of World	715

Internal Financing

1175
1094
1885
115
24
559
1107

Fig. 2. Saving Investment and Financial Intermediation 1980-81 (Rs Millions).

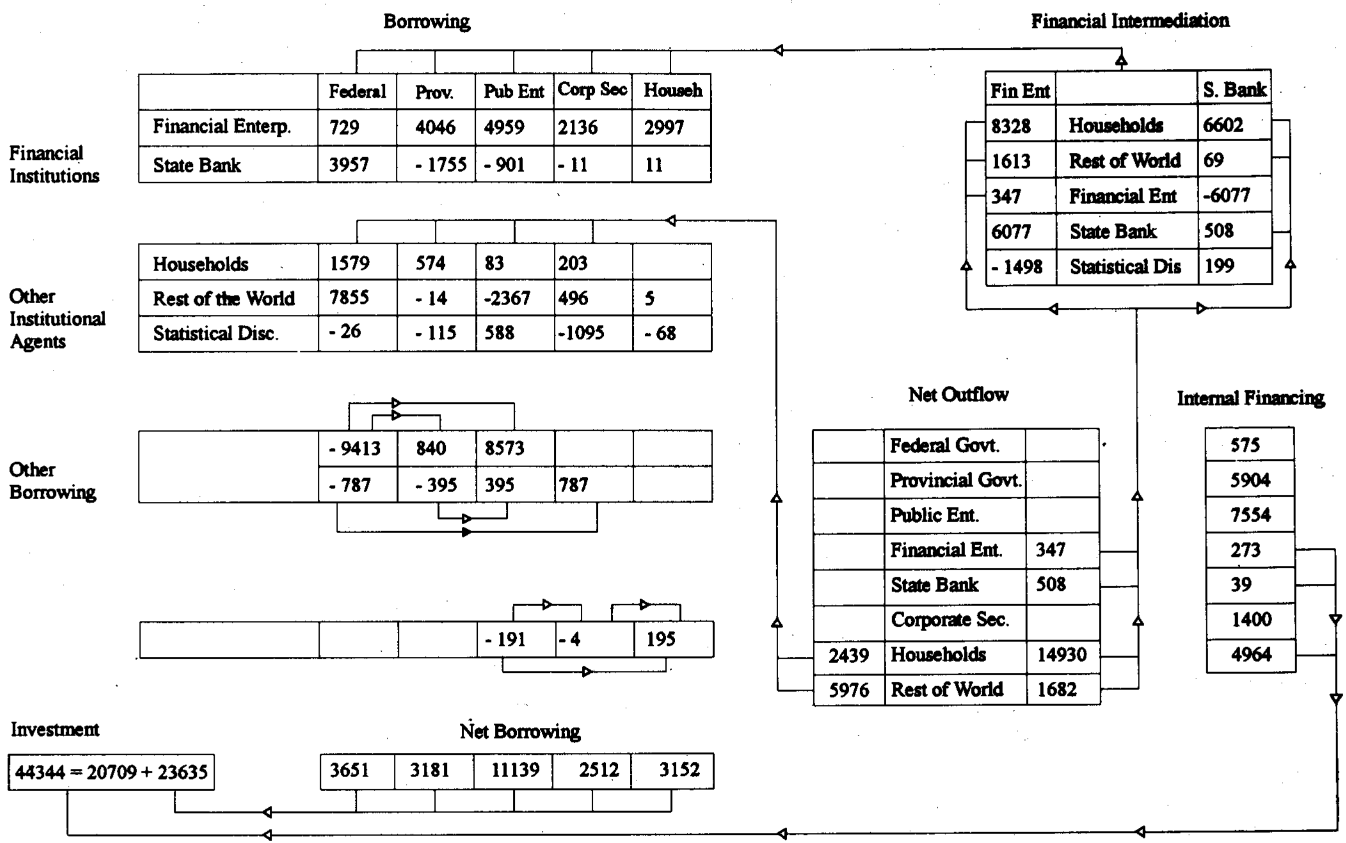

Fig. 3. Saving Investment and Financial Intermediation 1984-85 (Rs Millions).

Borrowing

		Federal	Prov.	Pub Ent	Corp Sec	Househ
Financial Institutions	Financial Enterp.	972	- 2649	4415	9079	7245
	State Bank	16825	587	- 879	3	84
Other Institutional Agents	Households	13521	264	62		
	Rest of the World	3442	- 9	1886	1255	
	Statistical Disc.	- 3794	3287	- 2272	- 5622	3755
Other Borrowing		-18991	6398	12593		
		48	- 496	496	- 48	
				- 5	- 483	- 488

Net Borrowing

12023	7382	16296	4184	11572

Investment

74359 = 22902 + 51457

Financial Intermediation

Fin Ent		S. Bank
15931	Households	4067
-1516	Rest of World	13832
1524	Financial Ent	- 1363
1363	State Bank	1051
-546	Statistical Dis	- 967

Net Outflow

	Federal Govt.	
	Provincial Govt.	
	Public Ent.	
	Financial Ent.	1524
	State Bank	1051
	Corporate Sec.	
13847	Households	19998
6529	Rest of World	12316

Internal Financing

-5236
909
11925
607
45
1983
12669

of Rupees 5.2 billion. On the other hand, the federal investment more than doubled from Rupees 3.2 billion in 1974-75 to Rupees 6.8 billion in 1984-85.

The federal deficit (the difference between capital formation and savings) and lending is financed by the issue of government debt, which is placed with the banking system, the rest of the world and with the households. The change in the fiscal balance in 1984-85 implied that the federal claims placed with these institutions, as well as their interaction with other institutions underwent significant changes. The more important changes were the following:

(a) Government total borrowing, which was less than Rupees 15 billion till the early eighties more than doubled to Rupees 34 billion in 1984-85. A large part (Rupees 5.2 billion) was utilised to meet the shortfall in the current account; but an overwhelming proportion was capital transfers to the provincial governments (Rupees 6.4 billion) and the public enterprises (Rupees 12.6 billion) reflecting a peculiar feature of the financing process in Pakistan i.e. the federal government borrows funds to finance its deficit as well as to on-lend funds to the provincial governments and to the public enterprises. Thus, in a sense, performing the role of a financial intermediary. Consequently, most of the federal deficit is attributable to the capital requirements of the public enterprises.[3]

    The main source of funds for the public enterprises is the federal government. The volume of such funds has increased steadily over time, though public enterprise savings have financed an increasingly larger share of total investment i.e. from 25 percent of the total in 1975-76 to 40 percent in 1980-81 and to 58 percent in 1984-85. In contrast, loans from the rest of the world and from the commercial banks play a much smaller role in public enterprise finance.

(b) Traditionally, federal government investment and lending have been financed, in large part, by external capital, while the financial enterprises and households made smaller contributions. In 1984-85, the federal deficit increased substantially and its domestic debt portfolio changed profoundly with more public debt issues held by households. Two developments–the increase in external capital inflow and the rise in households savings–provided the resources for financing the federal deficit and lending in 1984-85. External capital inflow more than doubled in 1984-85 to Rupees 18 billion as compared with the earlier years, though external finance was routed via the State Bank and not provided to the federal government directly, as earlier. At the same time households savings increased to Rupees 13.5 billion from Rupees 0.8 billion in 1974-75 and Rupees 1.6 billion in 1980-81, reflecting the spread of small-saver instruments for the sake of mobilising non-bank savings. Elsewhere see Sarmad (1993) this flow is explained in terms of the positive response of the households to the high yielding instruments offered by the government. But the flow diagram in Figure 3 also shows that the high-yielding T-bills attracted households savings without a substitution effect on bank savings, which would have led to crowding-out through the reduction of the credit creating capacity of the banks. Rather, households savings increased significantly, which facilitated the flow of funds to the government and provided an even larger amount for financial intermediation. Domestic bond financing to cover fiscal deficits avoided the inflationary and the crowding-out effects but it had a limit since it is done at positive real interest rates. In subsequent years, the continued reliance on this source of financing multiplied the interest cost, and the resulting debt service burden became the main reason for the expanding fiscal deficit.

(c) The flow-of-funds for 1984-85 clearly show the increased level of interaction between the households and the financial sector not only did the share of households savings placed with the banking system increase significantly, despite the large transfer of funds from the households to the government, the bank credits to the households and unincorporated enterprises sector also expanded. The increase in the level of households savings and the growth of the financial superstructure in the economy appear to be the main reasons for the rise in the volume of households savings placed with the financial sectors for intermediation.

A large part of the households savings is routed to the corporate sector via the financial institutions. In 1984-85, the total amount thus obtained was Rupees 9 billion. Though there are large discrepancies in the measurement of this flow the trend is clearly towards a higher gearing of the private corporate sector; in 1974-75 and 1980-81 it relied on external funds for 52 percent and 64 percent for its investment requirements, by 1980-81 this had increased to 68 percent of the total requirements.

IV. SUMMARY

Using the flow-of-funds framework this paper has provided a description of how sectoral accumulation balances, and, in particular, the fiscal balance have attained equilibrium through changing asset and liability positions of institutions. Despite the limitations of the data, the analysis has provided useful insights into the changes in the flow-of-funds that accompanied the shift in the sectoral accumulation balances in 1984-85.

The paper has shown that the distinct aspect of the flow-of-funds for 1984-85 is the large federal deficit, stemming from the shortfall in its current account, and more importantly, from the capital transfers to the provincial governments and the public enterprises. A peculiar feature of the domestic financing process is that the federal government borrows funds to finance its own deficit as well as that of the provincial governments and of the public enterprises. However, as public enterprises savings have increased over time the importance of this form of financing has declined. Yet, the federal deficit is due mainly to the capital requirements of the public enterprises financed from federal funds.

The federal deficit and lending have, traditionally, been met from external finance, but in 1984-85 households' savings have assumed equal importance. Domestic bond financing of the fiscal deficit avoided the inflationary effects but led, in subsequent years, to a large debt service burden. The higher level of households savings provided the resources for financing the federal deficit and allowed a much higher volume of households savings to be placed with the financial system for ultimate lending to deficit sectors.

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Comments on
"Intersectoral Financial Transactions in Pakistan"

The paper provides a presentation of the flow of funds accounts already compiled by the State Bank of Pakistan for FY 76, 81 and 85. The authors' main observations in the presentation have been (a) increased fiscal deficit of the Federal Govt. in 84-85 and thereby larger borrowing, and (b) increased household saving in 84-85, thanks to high yielding T-bills.

Several observations can be made on the paper. First of all, the paper is limited to a description of the flow of funds and is devoid of any flow of fund-based substantive analysis. Practically, the flow of fund is an instrument having wide-spectrum applications for economic and financial analyses. To quote a few, it can be used to check the complementarity between domestic resource mobilisation and foreign aid; or the crowding out private sector credit availability by larger borrowing of the public sector for budget financing. No such application has been attempted in the paper.

Second, the observation made by the authors that the Federal Govt. performs the role of a financial intermediary is misleading. In fact, the expenditures of Provincial Govts. and public sector enterprises are a part of the budget with its financing being the responsibility of the Federal Govt. The Federal Govt. has been picking up the revenue deficit of the Provincial Govts. in the form of non-obligatory grants as well as providing development assistance to Provinces in the form of domestic and foreign exchange loans and grants for financing development expenditure.

Third, the observations made and conclusion drawn by the authors on the overtime behaviour of the flows is based on absolute (nominal) values. In this sense, they convey wrong messages and come in conflict with the general impression about these flows at macro level. Two examples are worth citing:

(i) The paper points out that Federal deficit increased substantially in 1984-85. Of course, in absolute figures, the deficit rose from Rs 12.5 billion in 75-76 to Rs 36.7 billion in 1984-85. But as a percent of GDP– the usual indicator of fiscal deficit–it fell from 9.6 percent to 7.8 percent.

(ii) The paper observes that household savings increased significantly in 1984-85. It may be true in nominal terms, but in real terms or in terms of saving rate, there is hardly any such evidence. In fact, household saving as percent of GNP fell to 11.2 percent in 1984-85 from 13.5 percent in 1982-83.[1]

Finally, the increase in household saving has been explained by citing the high interest rate elasticity of saving and high yielding instruments offered by the Govt. In this context, the authors fail to document any authentic empirical evidence for high elasticity and non-existence of substitution. In fact, the persistence of low private saving rates in Pakistan despite introduction of high yielding National Saving Schemes is generally explained by a high substitution elasticity wherein savings rapidly move from a less attractive to a more attractive portfolio. Incidently, the authors argue that high yielding T. bills attracted household savings. In reality, there have never been T. bills open to general public at attractive rates. The yield per annum carried by *ad hoc* Treasury Bills for Way and Means was 0.5 percent, T. Bills on TAP 6 percent, and *ad hoc* T. Bill for Capital Investment in Railways 5.25 percent.

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[1]Mohammad Nishat (1993) Importance of Financial Markets, Micro, Applied Economics Research Centre. University of Karachi, Karachi, p. 41.