LAUNCHING OF

THE SOCIAL POLICY AND DEVELOPMENT CENTRE PROJECT

OVERVIEW OF INTEGRATED REVENUE AND EXPENDITURE PLANNING MODEL FOR SOCIAL SECTORS

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OVERVIEW OF THE MODEL

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The Integrated Social Sector Revenue and Expenditure Planning Model has been developed for Pakistan with the assistance and support of the Canadian International Development Agency (CIDA). It represents the culmination of over two years of effort in data collection and research by a team of twelve economists, statisticians and computer specialists. * We wish to place on record our thanks to CIDA for all the assistance and encouragement given to us in this effort.

Why was this major effort undertaken?

The primary motivation for this exercise ha come from the launching of the Social Action Program (SAP) by the Government of Pakistan in 1991-92 with support from donor agencies. Traditionally, Pakistan had given a relatively low priority to the social sectors as demonstrated by the poor human development indicators of the country. However, Pakistan had recorded a respectable economic growth rate of about 6 percent per annum during the decade of the 80s. Apparently, low levels of literacy and poor health standards had not acted as a constraint to growth. In fact, the view had sometimes been put forward that because Pakistan had placed higher priority on public investment in economic and physical infrastructure as opposed to larger development outlays in the social sectors it had been able to accelerate its growth rate. However, it was argued that while this was a successful development strategy in the short run it was bound to fail eventually because of lack of human capital development to sustain the process of economic growth. Clearly, it was essential to develop a deeper understanding of the operation of the economy of a developing country like Pakistan and to analyse in a long-term macro economic setting the consequence of public investments in different sectors. Since SAP potentially represented a big push forward in the social sectors with some diversion of resources from traditional priorities of government it was important to project the implications of this program not only on the process of social development but also on the overall rate of economic growth in a long-run perspective. This has provided the impetus for building the

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model with a special focus on the link between public investments in social and economic infrastructure and directly productive activities.

Also, in the aftermath of the launching of the SAP, concerns have been voiced by the provincial governments about the financial sustainability of this program. Provincial governments in Pakistan are primarily responsible for the delivery of basic social services like education, health, water supply and sanitation, etc. These governments rapidly realised that while accelerated development funding could potentially become available through SAP there was no obvious source of revenue for financing the downstream operations and maintenance expenditures of the facilities created, especially since some of the social sectors like education and health are highly recurring expenditure intensive. The lack of recurrent funding could, therefore, adversely affect the fiscal position of provincial governments and require either larger intergovernmental revenue transfers or higher resource mobilisation. It is essential to develop a planning framework which clearly highlights the future implications of expanded development outlays in the social sectors on recurring expenditures. This is one of the principal objectives behind the construction of the model. It quantifies the implications of programs like the SAP on the budgetary position of provincial governments and derives thereby the need for additional resources with provincial governments.

What is the Salient Feature of the Model?

Given the above concerns the principal feature of the model is that it fully characterizes the process of interaction between the macro economy, public finance of all levels of government (federal, provincial and local) and social sector development. The principal links can be traced as follows (see Chart I):

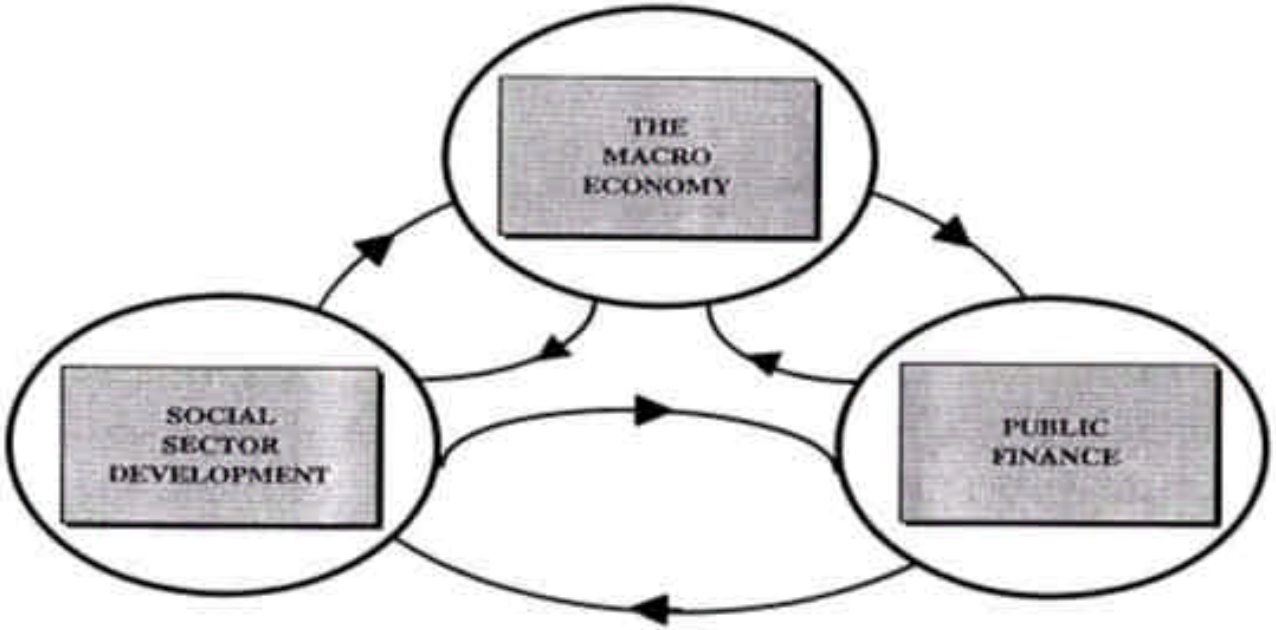
Macro Economy —— Public Finances:

The key link here is that developments in the macro economy influence the growth of tax bases of taxes (including divisible pool taxes) and thereby affect the fiscal status of different governments. Also, the overall rate of inflation in the economy affects the growth of public expenditure.

Public Finance —— Social Sector Development:

The availability of resources, both external and internal, determines the level of development and recurring outlays to social sectors by different levels of government, especially the provincial and local governments.

BASIC STRUCTURE OF THE MODEL



Social Sector Development —— Macro Economy:

Higher output of educated workers and their entry into the labor force raises the human capital stock and could contribute to improvements in productivity and higher growth rate of output in the economy. Similarly, an improvement in public health standards may also have a favourable impact on production.

Public Finances —— Macro Economy:

The level of government expenditure could exert a demand side effect on national income while the size of the overall budget deficit of the federal and provincial governments combined influences the rate of monetary expansion and consequently the rate of inflation in the economy.

Social Sector Development —— Public Finances:

A vital link in the model is between the rate of social sector development and the state of public finances, especially of provincial governments, in terms of the implications on the level of debt servicing and recurring expenditures.

Macro Economy —— Social Sector Development:

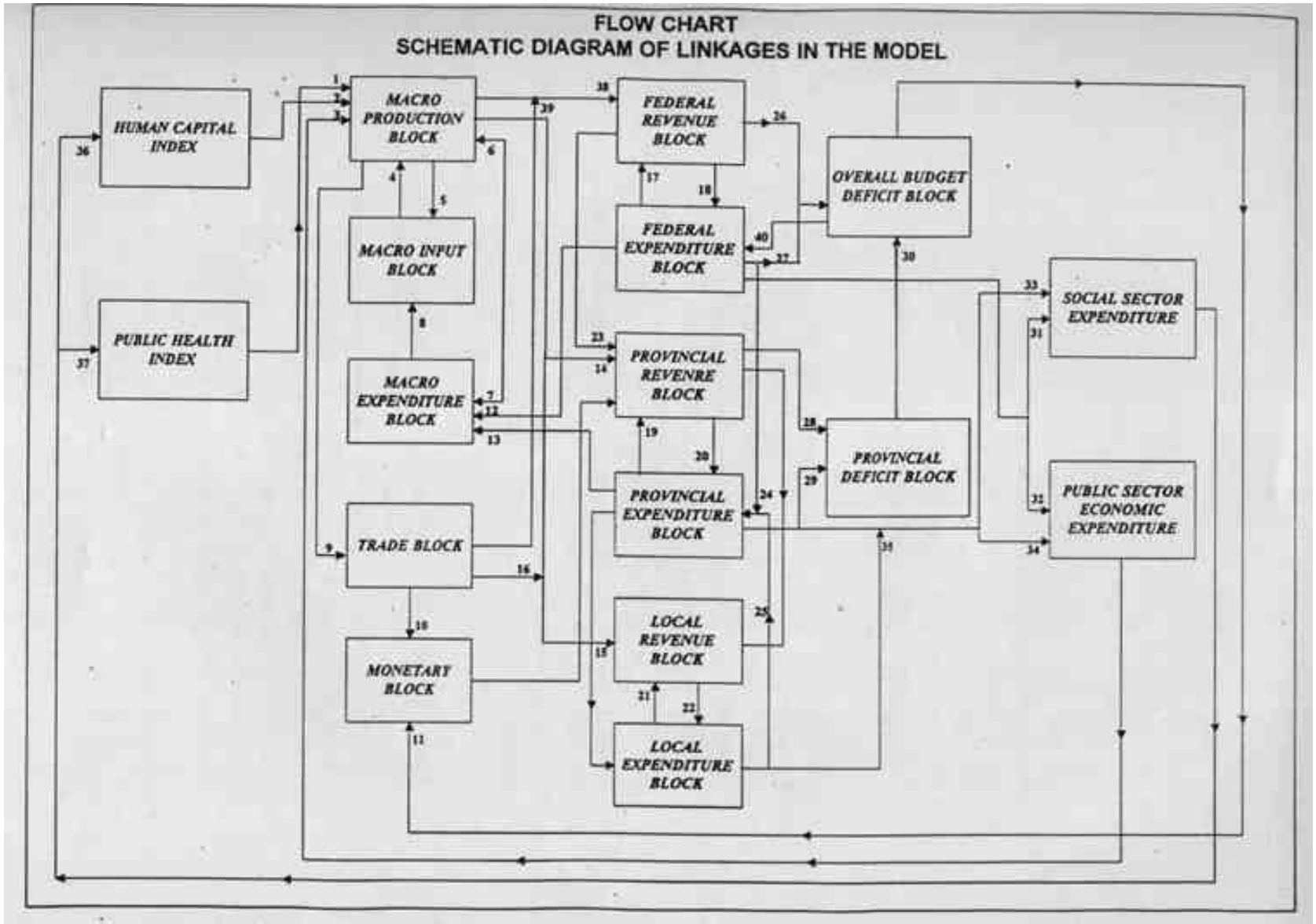
Demographic and other social-economic changes impact on the demand for social sector facilities like schools, hospitals, etc., and thereby influence the level of social sector outputs.

Therefore, the model is very rich in character and captures a large number of complex interactions and relationships.

How Does the Model See Provincial Governments in the National Perspective?

Based on the above linkages, it is possible to get a more comprehensive understanding of how provincial governments fit into the national context both in terms of the major elements of the environment that impact upon them and in terms of how their actions in turn affect the macro economy (see Chart 2).

Provincial governments are affected by changes in the level of output in the productive sectors of the economy, viz., agriculture, manufacturing and services. These changes influence the growth of tax revenues directly and indirectly via the impact on revenues from federal divisible pool taxes like income tax, sales tax and excise duties. Since bulk of the revenues of the provincial governments are in the form of fiscal transfers from the federation, developments in the national economy have a vital bearing on the budgetary position of


FLOW CHART
SCHEMATIC DIAGRAM OF LINKAGES IN THE MODEL
HUMAN CAPITAL INDEX
PUBLIC HEALTH INDEX
MACRO PRODUCTION BLOCK
MACRO INPUT BLOCK
MACRO EXPENDITURE BLOCK
TRADE BLOCK
MONETARY BLOCK
FEDERAL REVENUE BLOCK
FEDERAL EXPENDITURE BLOCK
PROVINCIAL REVENRE BLOCK
PROVINCIAL EXPENDITURE BLOCK
LOCAL REVENUE BLOCK
LOCAL EXPENDITURE BLOCK
OVERALL BUDGET DEFICIT BLOCK
PROVINCIAL DEFICIT BLOCK
SOCIAL SECTOR EXPENDITURE
PUBLIC SECTOR ECONOMIC EXPENDITURE

provincial governments. Similarly, developments on the monetary front are of direct concern to provincial governments as they influence the rate of inflation in unit costs and wage rates while changes in interest rates have consequences on debt servicing liabilities.

Provincial governments influence the macro economy in a number of ways. First, via their expenditure which affects the level of national income and through investments in economic and social infrastructure which contribute to the rate of economic growth on a more long-term basis. Second, their combined revenue surplus or deficit influences the overall national budget deficit and the resulting monetary expansion and inflation in the economy. Provincial governments also influence behaviour of local governments via fiscal transfers and provision of competing services.

In particular, the model carefully depicts the pattern of inter-governmental fiscal relations in the country (see Chart 3). It allows for various types of flows of funds from the federal government to the provincial governments including divisible pool transfers, special transfers (like hydro-electricity profits), grants and cash development loans and for the reverse flow from the provincial governments to the federal government of debt servicing. Similarly, flows of funds between provincial and local governments are also modelled.

The basic conclusion is that projections of the future fiscal status of provincial governments. collectively or individually, and assessment of the fiscal consequences of the level and composition of annual development program can only be made in the context of a model which captures all the above mentioned links. The model developed by us is a major step forward in achieving this objective.

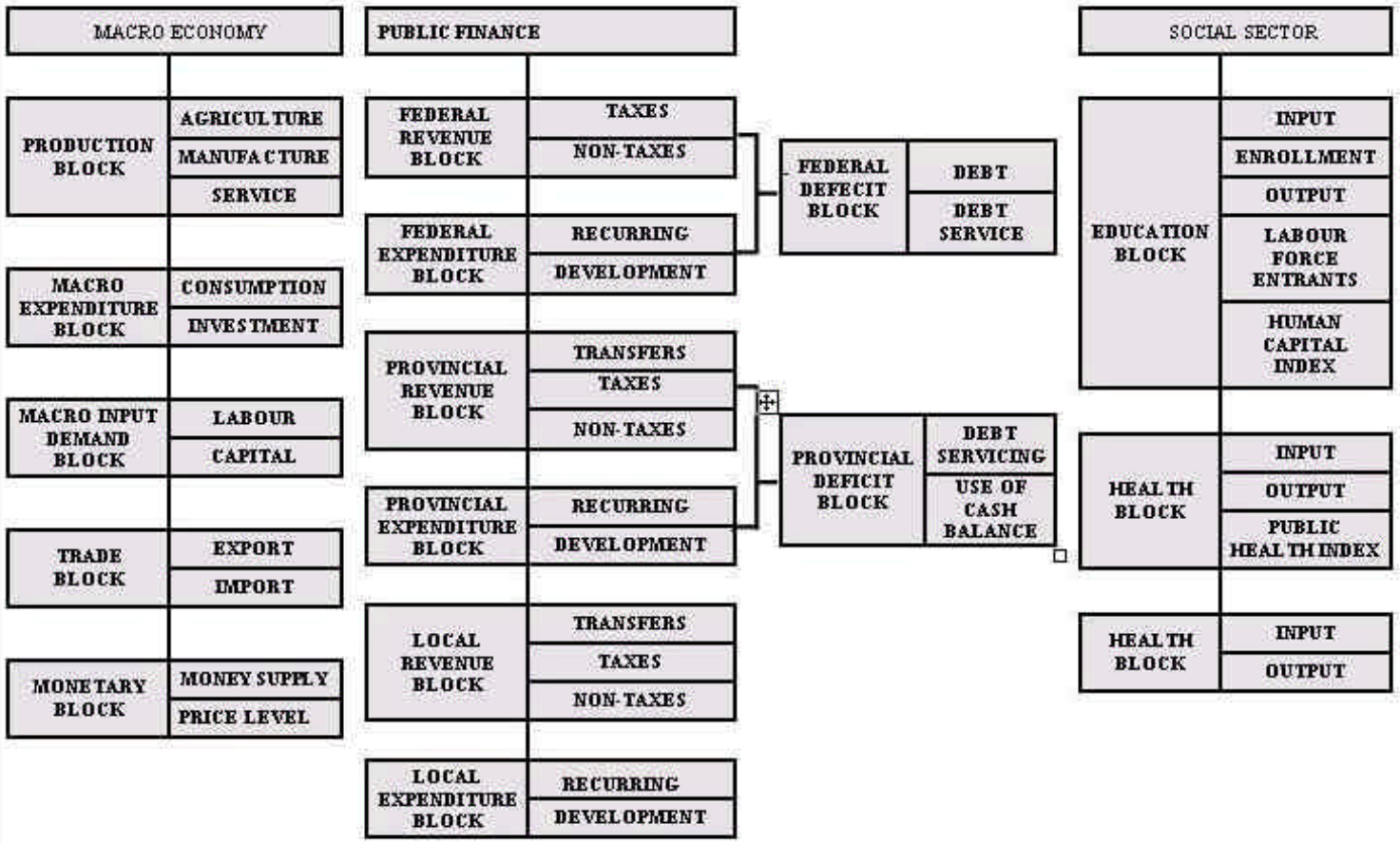
What is the Structure of the Model?

As described above, there are three parts of the model relating to the macro economy, public finance and the social sectors respectively. Included in the macro economy are five blocks (see Chart 4) relating to production, macro expenditure, input demand, trade and money and prices. Within public finances there are six blocks for federal revenue, federal expenditure, provincial revenue, provincial expenditure, local revenue and local expenditure respectively. There are essentially three blocks within the social sectors, one relating to education, one to health and one for other social sectors.

How can the Model be Used?

Given the complex web of interrelationships and interactions embodied in the model it can be used, first as a forecasting tool, both for the med

CHART 4
STRUCTURE OF THE MODEL



long-run purposes, and, second, for undertaking policy simulations to analyse the consequences of particular policy actions by the provincial or other levels of government. Some of the potential uses are as follows:

? Projections of the quantum of revenue transfers to the provincial governments by the federal government, both short-term and medium-term, under different scenarios

? Impact of different rates and patterns of economic growth on provincial tax bases and revenues

? Impact of changes in provincial expenditure priorities on fiscal status, levels of service provision and the overall macro economy

? Impact of education expenditures by provincial governments on sector inputs (schools, teachers), enrollment, output, entry into labor force and literacy rate

? Impact of health expenditures by provincial governments on sector inputs (beds, rhcs, doctors, nurses, etc.) and on health status of population

? Impact of higher level of resource mobilisation by provincial governments on federal transfers, sectoral levels of expenditure and fiscal status

? Impact of SAP type programs on level and quality of service provision and on financial position of provincial governments

? And so on