

## IMPACT OF GOVERNMENT EXPENDITURE ON INCOME DISTRIBUTION A THEROTICLE ANALYSIS IN THE CASE PAKISTAN

**Dr. Masood Mashkoor Siddiqui <sup>1</sup>, Dr. Abdul Malik <sup>2</sup>**

<sup>1</sup> Department of Commerce, Federal Urdu University of, Karachi, Pakistan. E-mail [drmasoodmashkoor@yahoo.com](mailto:drmasoodmashkoor@yahoo.com)

<sup>2</sup> Department of social Work, Federal Urdu University of Karachi

### **ABSTRACT**

*The purpose of this study is to find out whether the fiscal policy measures – especially public expenditure – have been able to fulfill the envisaged objective set by the Government. Although several other policy changes have taken place in the economy – exchange rate devaluation, import liberalization, changes in minimum wages, money supply and price reform, it is assumed that the pre-fiscal income distribution has captured these changes and an estimation of the fiscal incidence should be able to indicate the extent to which the government has been able to effect redistribution of income through the tax-expenditure apparatus alone and in what direction. It is fully realized that taxes and public expenditure do alter the market prices of output and factors through inter-relationships of various economic agents and markets in the long run which feed back into the pre-fiscal income distribution pattern but if one is concerned with short-run first order gross effects of the fiscal policy then the proposed study can be illuminating. These effects are spelled out in the section on theoretical and conceptual issues.*

**Keywords:** Income Distribution

### **INTRODUCTION**

Pakistan was characterized in the sixties by high rates of growth and it was widely believed that this exclusive preoccupation with growth had resulted in concentration of income in a few rich families. It has been argued that the manufacturing sector received favorable treatment at the hands of government policy thereby redistributing income from agriculture to industrial sector through over-valued exchange rate for industrial sector, provision of cheap credit, liberal import of capital goods at below equilibrium cost of capital. Since 70%-80% of the country's population depended on agriculture for its source of income and industrial sector was relatively more capital intensive, the resulting size distribution of income became skewed in favor of the rich families who had interlocking interests of ownership in industrial, banking and insurance assets.

### **THEORETICAL BACKGROUND**

The new Government which came to power in 1971 was committed to correcting this situation and reducing these inter-personal and inter-regional inequities in income. In this search for a strategy of improving the lot of poor, it used the public sector as its main instrument of redistribution. Besides nationalizing 31 basic manufacturing industries, banking, insurance, shipping and redistributing land for redistributive purposes, the budgetary resources for public sector for both investment as well as social services also increased substantially. These resources, in turn, was raised through liberal and generous foreign assistance and deficit financing and not through increased public savings. An explicit statement of the objectives of the new Government can be found in the Draft Fifth Five Year Plan (1976-81) of Pakistan, which states: "The impact of the improvement in private consumption and public services on the welfare of the population will depend considerably on how these benefits are distributed. Expansion of health and education facilities to the extent envisaged will undoubtedly have a powerful impact. Further improvement in urban transport, programs of slum clearance, water supply, drainage and rural electrification will reach the poor."<sup>6</sup> The public sector's planned investment was Rs. 112 billion out of the total planned investment of Rs. 153.7 billion

## METHODOLOGY

Who consider that there is an inherent conflict between growth and equity at least in the initial stages of development. The pioneering work of Professor Kuznets<sup>1</sup> on size distribution of income and his inverted U hypothesis have become a corner-stone of theoretical and empirical work. It was believed by many analysts that growth-oriented strategies in the less developed countries were not having a “trickle-down” effect on the poor and despite high rates of growth the reduction in the number of the absolute poor and also in the relative proportion of poor in the total production was insignificant.

Griffin and Khan; Adelman and Morris; Owen and Shaw; ODC).<sup>2</sup> The second stream of thinking emphasized that there was no trade-off involved between growth and equity and a set of carefully designed policies and programs would result in both higher growth and lower inequalities. (Chenery, Ahluwalia et al; Ranis and Fei; Papanek).<sup>3</sup> Cline<sup>4</sup> has empirically shown at least in the context of Latin American countries that the saving and growth sacrificing cost of an income redistribution policy are small and more than offset by the benefits accruing to the immediate and future income of the majority of the people.

In welfare-theoretic context both the average level and the distribution of income should be considered simultaneously. An increase in the level of income with neutral distributional effects signifies a general increase in total social welfare if welfare is considered a monotonically increasing function of income. But if such an increase in aggregate income is accompanied by concentration of incremental income in hands of a small proportion of the upper income groups, the total social welfare may in fact decline if it is assumed that social welfare is simply the sum of identical and separate individual welfare functions. On the other hand a decrease in the level of income even accompanied by reduction in total income inequalities may lead to decline of total social welfare if the welfare loss from the general decrease in income is not offset by the positive effect of welfare gains from a more egalitarian distribution

### Why Study Government Expenditure?

Taxation has been traditionally considered to have the potential of reducing the income of wealthy but can do little to raise the income of the poor. Even its impact on income of wealthy is being questioned on empirical grounds. Bird and Dewulf (1975) in their survey of empirical studies on redistribution through taxation in Latin America came to conclude that taxation could not effect distribution of income but only distribution of wealth and through affecting factor prices, the mix of factors employed. They found that Latin American tax system was proportional or even regressive due to its heavy reliance on indirect rather than direct taxes. In Pakistan the share of indirect taxes in the total taxes is 66% in 1977-78 and may therefore have a more pronounced regressive effect.

Due to apparent ‘Failure’ of taxation as an effective instrument, Government expenditure studies for various developing countries suggest the specific, allocable expenditure are distributed to the poor. Tanzi (1972), however, argues that Government expenditure amount to transfers from the richest to the upper middle class because the characteristics of the ‘marginalized’ poor prevent their taking advantage of public expenditure. As there has been no systematic study of expenditure incidence in Pakistan, The second reason for studying Government expenditure is its connection with human Capital approach. If one believes that human Capital constitutes an important asset and the distribution of assets, in turn, is one of the major determinants of size distribution of income, then the importance of studying the impact of Government expenditure on education and health services becomes obvious. It should be interesting to find out whether the share of poor class in this type of expenditure is proportionately higher, equal or lower than the average expenditure on these services or is it that the children of rich families get most of these benefits. Adelman and Morris (1971) found in their cross section study of 44 less developed countries that the index of equality of access of Secondary and University education was found to be one of the important determinants of equality in income distribution.

Associated with the above point is the recent emphasis on basic minimum needs for the poor segments of the population and physical quality of life. Pakistan is still characterized by widespread communicable diseases, malnutrition and high fertility rates. Less than 60% of the population has access to potable water and only 15% has access to basic sewerage facilities. Illiteracy rate is as high as 80% and more than one half of the primary school age children are out of school. Drop out rates, especially in rural areas are quite high. The quality of education is believed to be deteriorating over time.<sup>7</sup> One of the by-products of this study will be able to provide some broad guidance about the direction in which public expenditure is in practice moving.

The green revolution technology is widely believed to be scale neutral as it consists of perfectly divisible – inputs – seeds, fertilizers, and water --- yet it has argued<sup>8</sup> that the gains from this technology have accrued to big landlords thereby accentuating intra-rural disparities in income. As these inputs are provided at below the

market or subsidized prices by the Government it is quite likely that the access to this type of expenditure may have been predominantly enjoyed by the rich land owners. The results of benefit incidence of expenditure on agriculture should be able to throw some light on this proportion.

### Objective of the study

The main objective of this study can be divided into three distinct parts:-

1. To make a quantitative estimate of this impact of the tax burden and of Government expenditure on rural and urban income in the province of Sindh and within each sector among various income classes. The present research also looks at the tax incidence afresh and compares its findings with an earlier study carried out by Azfar (1972). The earlier study was limited to the Federal taxes only, but the present study also examines the incidence of provincial taxes across income groups and rural-urban sectors.
2. On the basis of the estimate derived in (1) to determine whether fiscal policy is in fact acting as an equalizer of income distribution across the urban-rural sectors and among various income classes.
3. Although the exercise is net fiscal incidence is presented in this study, the policy focus is to trace the distributional implications of four specific expenditure programs – education, health, agriculture, public utilities. This is likely to enhance the policy value of this study by sharply focusing on the variables whose impact is often cited<sup>9</sup> to be desirable from distributional point of view.

### Scope and limitations of the study

Unlike many aggregate studies on the national level, the present study focuses on Sub-national level and uses highly disaggregated variables. The province of Sindh has the highest per capita income among all the provinces of Pakistan with a share in population of 22.5% and contribution to GNP of 27.5% Karachi, the principal metropolis of the country is located in the province. As the only seaport, the major international airport and the center of financial and business activities of the country it plays a pivotal role in the national economy. This peculiar position of Karachi has at the same time given rise to grave inequalities in intra-personal and intra-regional distribution of income and wealth.<sup>10</sup> the public policy response to this situation, in recent years, has been an increased emphasis on fiscal instruments of taxation and public expenditure. It is argued by the planners the progressive rates of taxation on urban rich regressive (pro-poor) expenditures on public services in rural areas will be able to reduce the gap and minimize the differentials in income at personal and regional levels.

In attempt to qualify the impact of these fiscal measures for the year 1977-78, and suggest the implications of this policy, this study disaggregates the Federal Government budget and combines it with the Provincial Government budget of Sindh. The allocation of Federal budget among the province does not follow any identifiable basis. Some of these allocations are clearly inter-provincial or national in nature and their benefits cannot be easily subdivided or clearly appropriated within the confines of any geographical territory. The disaggregation is therefore based on the simplifying assumptions. It is also possible that some of the benefits arising from the expenditure incurred in Sindh by the Federal and Sindh Governments could have leaked out to the residents of the other provinces. Equally likely is the possibility that some of the benefits from the expenditures incurred in other provinces --- especially Punjab and Baluchistan (N.W.F.P) might have accrued to the residents of Sindh. In absence of evidence of the magnitudes of these leakages in either direction it is simply assumed that these leakages and accruals offset each other and the net effect if insignificant.

One of the major problems arises in the allocation of federal taxes. A sub-division of the federal taxes collected from the residents of each province separately is not available. Furthermore, all international trade taxes and corporate taxes are collected in Karachi because of its location as the only seaport and center of corporate headquarters. These taxes could not possibly be conceived as being borne by the residents of Sindh province along. Some allocation criteria must be used as the basis of the regional incidence of Federal taxes in the province.<sup>11</sup> similarly the benefits of the Federal expenditure are assigned to the residents of Sindh province on some alternative assumptions. To the extent that this basis of allocation does not fall within the range of 'realism' the quantitative results presented in this study must be interpreted with the usual caveats of caution and skepticism.

As noted in the introductory section, but it is worth repeating at this juncture also, a number of policies have been instituted in Pakistan in the post 1971 years – exchange rate devaluation, liberalization of import policy; socialization of 31 basic industries, banking and insurance; redistribution of agricultural land; minimum wages and associated benefits of labor in formal sector; banking reforms; agriculture credit to small farmers and increase in the cost of capital. These policies are likely to affect income distribution and the cross sectional observations of our 1978 survey<sup>12</sup> may have captured some of the effects of these policies. As the major focus of this study is limited to the impact of the fiscal policies only, an analysis of these other instrument of public intervention is outside its scope. Thus is making comparisons between the pattern of income distribution

existing prior to 1971 and the present findings and drawing any inferences based on them one should be aware of likely entanglement of the effects of other instruments.

As will be shown later, the literature on Government expenditure incidence is riddled with a number of unsettled, controversial issues. These problems are even acute in the context of developed countries but if one is looking at a region of a less developed country, they get further magnified. Dewulf (1975) in his excellent survey of fiscal incidence studies in less developed countries has forcefully argued that “the present state of incidence theory is such that no clear conclusions can be reached with respect to overall budget incidence. Their use as a basis for policy formulation is thus rather dubious.”<sup>13</sup> DeWulf feels that these studies presented in the quantitative format conveyed an unwarranted impression of precision that could not possibly be removed by customary introductory notes of caution. DeWulf, however, thinks that once the political determination exists to influence income distribution, incidence studies covering different aspects of public policy would become more relevant. As has been pointed out earlier, this study is being undertaken to verify whether the political determination of influencing income distribution has, in fact, been realized or not. Unlike other studies where economists analyze the impact of tax-expenditure apparatus on income distribution and then recommend corrective policy measures this study starts from the other end. Once a political decision has been taken to use this apparatus for alternating income distribution, it is interesting to find out whether the envisaged objective has been achieved or not. The normative objective function is accepted as given.

DeWulf makes three important specific proposals to improve the usefulness of fiscal incidence studies. Two of his proposals are incorporated in the present work, but there is some doubt about the efficacy of the third proposal.

Firstly, the present study traces the distributional implications of four specific expenditure programs separately -- education, health, agriculture and public utilities. This approach will perhaps circumvent the objection that the aggregation of results obtained from static partial analysis makes it a conceptually invalid exercise to estimate total budget incidence. In carrying out the specific program impact exercise it is assumed that for most parts the changes in income distribution arising from the benefits of each of these programs are marginal in nature and hence do not affect the present income distribution in any significant manner. Their long term development impact is, however, quite important.

Secondly, this study uses three alternative concepts of income; base-money income, broad income and adjusted broad income and also providing several estimates for some of the taxes and expenditure whose allocation presents some conceptual problems. Such effective tax or benefit rates provide a band within which the real incidence is expected to fall. The width of this band may perhaps indicate how helpful incidence research can be in providing assistance in forming the policy decisions about income distribution and budget policy.”<sup>14</sup>

The third proposal of DeWulf for valuing benefits received from Government expenditure according to ‘behavioral’ approach rather than on cost of producing is impracticable to implement in a less developed country like Pakistan. The application of this principle of benefits as perceived by the recipients in Detroit (Neenan (1970) or other developed countries may not raise serious problems but in a politically backward, predominately illiterate client-patron oriented, feudal bound society with centralized elitist decision making process the “perceptions” of benefits even if they can be revealed in any possible manner would not lead very far and would fail to generate any meaningful input for assigning ‘benefits weights’. In the rural areas of Pakistan, the landlords or ‘Zamindars’ divide the area and population as their spheres of influence and control. All decisions, pertaining to this sphere are taken by the concerned landlord who also acts as the informal channel of communication with the Government functionaries. These views of these landlords as to which particular Government programs should be carried out or what kind of Government services should be provided in that particular area ultimately prevail. Given such as authoritarian and paternalistic power structure in the rural society of Pakistan it is doubtful if the behavioral approach can have any meaningful impact at the present time. Finally, despite its shortcomings, an incidence study like the present is still useful and it is worthwhile to quote what Musgrave has to say on this subject.

“This state of affairs is far from perfect and subject to much improvement. Yet no apology is required. This kind of analysis is needed for the simple reason that distributional considerations are and should be an important factor in tax policy and that the economists informed guess, based on explicit and reasoned hypothesis is to be preferred to the implicit and haphazard assumptions of the practical man.”<sup>15</sup>

To sum up, the study presented in the following pages remains limited in its scope and deals with the first order, short run, direct and partial impact of Government taxes and spending on the residents of the province of the Sindh ignoring the leakages to and from other provinces.

### Advancement on Existing Work

1. This is the first study for Pakistan to quantitatively estimate the benefits of Government expenditure and look at its impact on income distribution.
2. This is also the first study to look at the impact of benefit incidence on income distribution at a disaggregated level, i.e. income at provincial level for both rural and urban sectors separately. In this study three alternatives estimates of income base-money income; adjusted income (including income-in-kind) and broad income (taking into account the tax burdens and benefits of Government expenditures) – will be used.<sup>16</sup>
3. The present study will prepare new tax incidence estimates<sup>17</sup> and include, for the first time, the incidence of the Provincial taxes.
4. Most of the previous studies on income distribution in Pakistan<sup>18</sup> except the Bergan study for 1963/64 used the tabulated group data. This study will be based on primary responding households which are likely to improve the quality of data by taking into account the intra-group variations concealed by the tabulated data. To illustrate this point, a hypothetical example can be given to show the different results emanating from these two different approaches. In tabulated data, the income class of 20 households (Rs 100-300) may have an average rate of 0.5 university students per household. Assume that the mean pre fiscal income of this group is Rs. 200 per month, and the unit subsidy per primary student is Rs.1000 per month. The mean post-fiscal income of this group then rises to Rs. 700 per month. If on the other hand the primary data is used for the same group, and any 5 households out of these 20 have 10 students enrolled at the University the mean post-fiscal income of this sub-group of 5 household rises to Rs. 2,200 per month which falls under a different income group while the other 15 households will continue to be classified under the previous income group of Rs. 200 per month.

1. Although comparisons with earlier studies will not be totally valid or accurate, some indirect inference will be drawn about the extent of inequality in the richest and fastest growing province of Pakistan relative to the national magnitudes and also the direction of changes that have taken place since 1971-72.

2. Most of the studies on Government expenditure impact in developing countries have been arbitrary assumptions about how the various Government services are utilized by the households.<sup>19</sup> considering the fact that the methodological foundations of Government expenditure impact studies are themselves not yet very strong, further introduction of a set of arbitrary assumptions reduces the usefulness of the end results. The level of confidence in these results by both academic world and policy makers is usually quite low and the degree of skepticism is high. To safeguard against this danger, the present study draws on actual survey data and uses the information provided by different households across urban and rural sectors as to how they are utilizing the various Government services. The later sections also show that unit public costs and unit public subsidies are developed in this study for specific programs rather than sectors or sub sectors as is usually the case.

### CONCLUSION

Most unlike of the fiscal incidence studies for the developing countries this study is based on highly disaggregated data and wide coverage of taxes and expenditures. The distributional impact is analyses for particular components of Government expenditure like primary, secondary, university educational programs separately and particular taxes like import duties broken down by various commodities. Similarly, the coverage extends to both the Federal as well as the Provincial levels of Government. The information has not been pieced together from diverse sources covering different years and employing different concepts. In this study the household consumption data for the attribution of indirect taxes to various income classes is derived from the same survey as income distribution and pertains to the same households. Another distinguishing feature is that the base income includes income in kind and consumption by subsistence farmers as well as housing, transport, meals, telephone and other perks supplied by employees in the urban areas. The rural income is carefully derived from the farm production data for the whole year and includes income from share cropping, wage, labor and other non-farm activities – during the slack agriculture seasons. Finally, three alternative income concepts are used in this study to avoid any systematic bias which may be introduced by relying on any single income concept.

### REFERENCES

- Kuznets, S., 1963. Quantitative aspects of the economic growth of nations. *Econ. Dev. Cult. Change* 11  
 Griffin, K. and Khan, A. R. "Growth and Inequality in Pakistan". Macmillan, London.

- Owens, E. and R. Shaw. (1972). *Development Reconsidered*. Lexington, mass.: D.C. Heath and Company
- Adelman and Morris (1971); ODC (various monographs and papers published after 1972).
- Chenery, Hellis, M.S. Ahiuwalia, C.G. Bell et al., 1974, *Redistribution with growth* (Oxford University Press, New York).
- Government of Pakistan, Planning Commission, *The Fifth Five Year Plan (1978-82)*, Islamabad, July 1980.
- Sindh household Income and Expenditure Survey (1978).
- Studies on tax incidence estimates For Pakistan see Azfar (1972)
- Azfar, Jawaid (1972) *The Income Distribution in Pakistan, Before and After Taxes, 1966-67*. Unpublished Doctoral Thesis
- Fri, John C.H and Gustav Ranis, 1964, *Development of the labor surplus economy* (Irwin, Homewood, 11.
- Papanek, Gustav F., 1978, *Economic growth, income distribution and the political process in less developed countries* (Campus, Frankfurt and Wiley, New York).
- Kuznets, S., 1955, *Economic growth and income inequality*, American Economic Review 45, no.1
- White, L. J. "Industrial Concentration and Economic Power in Pakistan". Princeton university Press
- Owens, E. and R. Shaw. (1972). *Development Reconsidered*. Lexington, mass.: D.C. Heath and Company
- Azfar, Jawaid (1972) *The Income Distribution in Pakistan, Before and After Taxes*,
- Bishop, G. A. (1966) *Income Redistribution in the Framework of National Income Accounts*. *National Tax Journal* 19, 378-390.
- Navaco, R. (1975) *Anger control: The development and evaluation of an experimental treatment* (Lexington Mass., Lexington Books).
- Baran, P., (1957), *The Political Economy of Growth*, Monthly Review Press, New York,.
- Baran, P., (1969), *The Longer View: Essays Toward a Critique of Political Economy*, Monthly Review Press, New York.
- Bronfenbrenner, M., (1966), "Monopoly Capitalism: A Revised Revisionism", *Journal of Political Economy*, 74, 5, 500-505.
- Foster, J. B., (1986), *The Theory of Monopoly Capitalism: An Elaboration of Marxian Political Economy*, Monthly Review Press, New York.
- Frank, G., (1969), *Latin America: Underdevelopment or Revolution?*, Monthly Review Press, New York.
- Keller, R., (1975), "Monopoly Capital and the Great Depression: Testing Baran and Sweezy's Hypothesis", *Review of Radical Political Economics*, 7, 4, 65-75
- Reich, M., (1972), "Does the U.S. Economy Require Military Spending?," *The American Economic Review*, 62, 1-2, 206-30.
- Briggs, J.E (1973) "Unemployment statistics and what they mean". *Monthly Labor Bulletin*, Washington DC; US Department of Labor.
- Schultz, T.W 1961. "Investment in Human Capital." *American Economic Review* 51, pp.1-17.
- Ram, R 1986. "Government Size and Economic Growth: A New Framework and Some Evidence from cross-section and Time-Series Data." *American Economic Review*, March, pp.191-203.
- Psacharopoulos, G. 1984. "The Contribution of Education to Economic Growth." In *International Comparisons of Productivity and Causes of Slowdown*, edited by J.W. Kendrick. Cambridge: Ballinger Press.
- Phillips P.C.B, 1986. "Understanding spurious regressions in Econometrics", *Journal of Econometrics*, 33, pp.311-340.
- Landau, D. 1986. "Government and Economic Growth in the Less Developed Countries: An Empirical Study for 1960-1980", *Economic Development and Cultural Change*, Vol-35, No. 1, pp.35-75.
- Landau, D. 1983 "Government Expenditure and Economic Growth: A Cross Country Study" *Southern Economic Journal* 49, pp. 783-792.
- Asian Development Bank (various issues). "Key Indicators of Asian and Pacific Countries".
- Chenery, H.B and M.Syrquin, 1975. "Patterns of development: 1950-1970." Oxford University Press London.