

**RELATIVE FISCAL EFFORT
BY PROVINCIAL GOVERNMENTS
IN PAKISTAN**

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By

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Abstract

This study is based on comparative analysis of the fiscal efforts made by the provincial governments during the period 1989-90 to 1994-95. The representative tax system approach is used for making inter-provincial comparison. Magnitudes of tax bases by province is measured and the index is constructed as the ratio of actual to potential tax revenue. The results indicates area where some slack exists in the fiscal effort in a particular province. In terms of the strategy of exploitation of revenue potential, the analysis reveals that the focus needs to vary among provinces, with Punjab concentrating on income related taxes, Sindh and NWFP on property related taxes while Balochistan can develop most of its taxes, excluding property tax.

Introduction

Within the existing constitutional structure of Pakistan, provincial governments are responsible for providing basic services like health, education, irrigation, roads, etc. Fulfillment of these obligations requires adequate resources. In the pre 1990 National Finance Commission Award (NFC) era, the federal government facilitated the provincial governments in eliminating their revenue deficits by making non-obligatory grants and in financing their Annual Development Plans through development grants and loans. The 1990 NFC award increased federal revenue transfers to the provinces [see Ghaus and Pasha (1994)]. Simultaneously, however, some structural reforms were also made in the pattern of inter-governmental fiscal relations. These

include, first, the elimination of ad hoc revenue deficit grants and reduction in development grants. Provincial governments are now obliged to self-finance deficits that they incur. Consequently, provincial governments are under greater pressure to mobilise resources from their own revenue sources and self-finance a large proportion of their development program.

A quick glance at the financial position of provincial governments, particularly in the post 1990 NFC period, indicates, however, that their own revenues as percentage of recurring expenditure are decreasing over time (see Table 1). Also, there is a visible increase in federal transfers. This has led to a general perception that the revenue generation effort of provincial governments is inadequate [see Ghaus and Pasha (1994)]. This is further illustrated by the fact that provincial tax to GDP ratio has shown a declining trend, from 1.2 percent during the decade of 70's to 0.6 percent currently. The objective of this paper is to examine whether the problem of relatively low fiscal effort is common to all four provincial governments or there exists significant variation in the rate of resource mobilisation among these governments. For this purpose, we adopt the representative tax system approach first proposed by Bahl (1972). Results of the research will indicate areas where slack exists some slack in the fiscal effort in individual provinces.

The paper is organised as follows: section 2 briefly describes the representative tax system approach. Section 3 indicates the choice of tax bases for different provincial taxes. Section 4 describes the results of the analysis of the relative level of fiscal effort and the policy implications emanating from these. Finally, in Section 5 we present the conclusion.

TABLE 1
KEY FINANCIAL RATIOS OF THE PROVINCES

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
PUNJAB						
<i>As a Percentage of Recurring Expenditure</i>						
Provincial Own Revenue	24	25.7	24	200	22.9	17.8
Provincial Tax Revenue	12.6	14.8	14.4	11	11.6	9.6
Federal Tax Revenue	675	59.5	77.5	75.2	84.3	89.7
Revenue Surplus/Deficit	-2.6	-6.3	4.7	-0	83	7.6
<i>As a Percentage of Total Expenditure</i>						
Development Expenditure	22.5	24.8	23.5	21.3	13.7	18.7
General Revenue Receipts	75.4	70.5	80.1	78.6	93.5	87.4
SINDH						
<i>As a Percentage of Recurring Expenditure</i>						
Provincial Own Revenue	22.1	20.6	19	16.9	14.8	13.2
Provincial Tax Revenue	10.3	9.6	10	9.3	9.2	10.1
Federal Tax Revenue	552	48.6	78.4	77.1	81.7	79.7
Revenue Surplus/Deficit	-12.2	-20.7	11	0.4	-8	2.3
<i>As a Percentage of Total Expenditure</i>						
Development Expenditure	22.8	28.1	23.5	20.4	200	29.9
General Revenue Receipts	67.8	57.1	77.3	79.9	79.4	71.7
NWFP						
<i>As a Percentage of Recurring Expenditure</i>						
Provincial Own Revenue	16.4	11.6	10.2	10.4	10.1	9.3
Provincial Tax Revenue	4.3	4.2	3.4	3.7	3.8	3.7
Federal Tax Revenue	41.9	41.8	978	98.1	95.5	99.2
Revenue Surplus/Deficit	-2.1	-0.7	11.1	10	6.9	9.6
<i>As a Percentage of Total Expenditure</i>						
Development Expenditure	25.4	27.2	33.7	31.4	240	288
General Revenue Receipts	73	72.3	73.7	75.5	81.2	78
BALUCHISTAN						
<i>As a Percentage of Recurring Expenditure</i>						
Provincial Own Revenue	7.9	6.2	5.2	4.9	5.3	5
Provincial Tax Revenue	2.5	2.3	2	1.6	1.6	1.6
Federal Tax Revenue	56.9	49.6	120	111	111.1	1125
Revenue Surplus/Deficit	-93	-155	28	17.8	17.6	18.1
<i>As a Percentage of Total Expenditure</i>						
Development Expenditure	34.6	33.9	39.6	34.3	33.1	33
General Revenue Receipts	59.3	55.9	77.4	77.3	78.7	79.1
<i>Source: Derived on the bases of figures reported in the Annual Budget Statements of the Provincials Governments</i>						

2. The Representative Tax System Approach

Fiscal effort is defined as the ratio of actual tax performance to taxable capacity as a whole. It includes reforms in existing taxes, enhancement in tax rates, improvement in tax administration and the introduction of new taxes. To estimate fiscal effort two techniques are generally used, i.e, econometric modelling approach and the representative tax system approach. In the former the level of tax revenue is explained via statistical regression with the help of economic and social variables. However, statistical difficulties limit the choice of variables: some of the variables have to be excluded - for reasons of collinearity or overlapping - even though it is believed that they are determinants of revenues from particular tax components. Also, it does not permit the examination of the relationship between particular taxes and the relevant tax base. In the representative tax system approach of Bahl (1972), however, the actual tax yield can be compared with the potential yield for each country/ province. This approach has also been used in various countries to determine the quantum of revenue equalization grants and to estimate fiscal capacity and tax effort for each of the states in U.S.A. (see dark [1969]). Thus, for our analysis the representative tax system approach (RTS) appears more suited for making inter-provincial comparison of fiscal effort in Pakistan.

Implementation of the RTS approach requires, first, estimation of the taxable capacity, which involves identification of the magnitude of the tax base e.g. taxable property values for property tax, etc. After construction of the tax bases, which are discussed in detail in the next section, the national tax ratio is derived for each tax; as follows:

$$T_{it} = \frac{\sum_{j=1}^n TR_{ijt}}{\sum_{j=1}^n TB_{ijt}} \quad [1]$$

Where i refers to the tax, t to the year and j to the taxing unit. TR is the actual tax revenue and TB is the tax base.

In the second step, the average potential tax revenue, PTR , is obtained for a particular tax source by multiplying the ratio with the tax base of the individual tax in particular province, as follows:

$$PTR_{ijt} = \left(\frac{TR_{ijt}}{TB_{ijt}} \right) (TB_{ijt}) \quad [2]$$

We are now in a position to calculate the index of fiscal effort, IFE , for a particular tax in each province, as follows:

$$IFE_{ijt} = \frac{TR_{ijt}}{PTR_{ijt}} \quad [3]$$

The methodology used for constructing the overall fiscal effort index (OFI) is:

$$OFI_{jt} = \frac{\sum_{i=1}^m TR_{ijt}}{\sum_{i=1}^m PTR_{ijt}} \quad [4]$$

where m is the number of taxes included in the analysis.

The overall index defined in equation 4 represents the actual collection as a percentage of potential taxation capacity, with an index of unity denoting an average tax effort. However, if this index is significantly below unity it implies that there is a relatively low level of fiscal effort in that province in comparison with the national average.

3. Choice of Tax Bases

One of the important ingredients of RTS analysis is the tax base for a particular tax source. For our analysis we have chosen seven major provincial taxes which contribute more than eighty percent of the total provincial tax revenue. These taxes are stamp duty, property tax, motor vehicle tax, tax on transfer of property, tax on professions, trades and callings, electricity duty and land revenue. Although the information regarding tax revenue was available in the budget documents, there are data limitations as far as the relevant tax bases are concerned. To overcome this difficulty we have taken appropriate proxies for tax bases for each tax source, which are outlined below in Table 2.

TABLE 2
TAX BASES FOR PROVINCIAL TAXES

PROVINCIAL TAXES	TAX BASE ^{i i i}
Stamp Duties	Value Added ⁱ in Urban ⁱ Ownership of Dwelling, Banking and Insurance and Gross Regional Product
Motor Vehicle - Commercial ⁱ	Value Added in Road Transport (Mechanised)
Motor Vehicle - Private ⁱ	Registered Motor Vehicles (Private)
Land Revenue	Value Added in Agriculture
Electricity Duty	Electricity consumption ^{i i}
Tax on Transfer of Property	Valued Added in Ownership of Dwelling ⁱ
Urban Immovable Property Tax	Value Added in Urban Ownership of Dwelling ⁱ
Tax on Professions, Trade and Callings	Value Added in Services, Public Administration and Wholesale and Retail Trade ⁱ

ⁱ Weighted

^{i i} Deflated with the Electricity and Gas deflator.

^{i i i} Value Added are derived on the basis of sectoral shares given by Bengaliwala (1995).

Stamp Duty This is the single largest source of revenue for the provincial governments. It is imposed on the documentary evidence of a particular transaction. There are mainly three types of transactions, namely, property, financial and legal or administrative transactions.

Therefore, the base used should cover all types of transactions mentioned above. Accordingly, the base has been constructed as follows:

$$TB_{sd} = \beta_1 VA_{uod} + \beta_2 VA_{bi} + \beta_3 GRP \quad (a)$$

Where;

TB_{sd} = Tax base for stamp duty

VA_{uod} = Value added in urban ownership of dwelling

VA_{bi} = Value added in banking and insurance

GRP = Gross Regional Product

Value added in urban ownership of dwellings acts as a proxy for the tax base for property related transactions, value added in banking and insurance for financial transactions and the gross regional product for administrative transactions.

To calculate the co-efficient β_1 , β_2 and β_3 we assume that the share of property related and financial transactions is 40 per cent each and 20 per cent for the administrative transactions.²

Motor Vehicle Tax (Private and Commercial): Number of registered private vehicles are taken as base for private motor vehicle tax and value added for mechanised road transport as base for tax on commercial motor vehicles. However, as the data for revenues from private and public motor cars is not available separately we have estimated the tax revenue under certain assumptions.³

Land Revenue: The base used for this tax is the value added in agriculture. The tax is collected on the basis of production in the case of irrigated land.

Electricity Duty: The value of electricity consumption is taken as the base for electricity duty.

Immovable Property Tax: Ideally the base for this tax should be the existing rental value of industrial, residential and commercial immovable properties. In the absence of information on rental values, we have taken, value added as the relevant proxy in large scale manufacturing as the relevant property for individual properties, urban ownership of dwelling for residential properties and value added in wholesale and retail trade for commercial properties. The base has been constructed as follows:

$$TB_{pt} = \alpha_1 VA_{uod} + \alpha_2 VA_{lsm} + \alpha_3 [VA_{ser} + VA_{wrt}] \quad (b)$$

Where;

- TB_{pt} = Tax base for property tax
- VA_{lsm} = Value added in large scale manufacturing
- VA_{uod} = Value added in urban ownership of dwelling
- VA_{ser} = Value added in services sector
- VA_{wrt} = Value added in wholesale and retail trade

The coefficients α_1 , α_2 and α_3 are calculated on the assumption that the share of revenues from residential property is 50 per cent, from commercial property, 40 per cent, and from industrial property, 10 per cent.⁴

Tax on Professions, Trades and Callings: This is one of the few direct taxes imposed by the provincial governments. Therefore, the base must cover all categories. For this purpose, we have adopted a combination of sectoral value added as follows:

$$TB_{pct} = VA_{ser} + VA_{pad} \% VA_{wrt}$$

Where;

TB_{pct} = Tax base for Professionals, Trade and Callings

VA_{ser} = Valued added in services

VA_{pad} = Value added in public administration

VA_{wrt} = Value added in wholesale and retail trade

Data Sources: Statistics regarding the sectoral value added by province are given in Bengali [1995].⁵ Tax revenues have been obtained from the “Annual Budget Statement” of the provincial governments. “National Accounts of Pakistan, 1992-93” and “Economic Survey, 1994-95” are used to calculate the nominal values of the value added on the bases of the given sectoral shares.

On the basis of above defined criteria the tax bases constructed are presented in Table 3. Table 4 presents the tax revenue collected and Table 5 shows the tax ratios calculated from these tax bases and revenue.

TABLE 3
MAGNITUDE OF THE TAX BASES

(Rs in Million)

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
TAX BASE FOR STAMP DUTY						
Punjab	17457	22947	29297	37526	43702	50072
Sindh	9638	12618	16043	20465	23735	27083
NWFP	4449	6001	7862	10334	12350	14521
Balochistan	2157	2942	3897	5179	6257	7439
TAX BASE FOR COMMERCIAL - MOTOR VEHICLE TAX						
Punjab	152689	164559	177352	191139	205998	222012
Sindh	185214	196706	230929	250847	272483	295985
NWFP	75353	79858	84633	89693	95055	100738
Balochistan	23853	26234	28211	30680	33365	36285
TAX BASE FOR PRIVATE - MOTOR VEHICLE TAX						
Punjab	119452	141575	172117	182192	216936	266052
Sindh	45609	53129	63484	66048	77296	93171
NWFP	21719	25768	31359	33229	39607	48625
Balochistan	10662	12658	15415	16345	19495	23949
TAX BASE FOR ELECTRICITY DUTY**						
Punjab	16909	20924	25191	28248	34940	39741
Sindh	7875	9610	11409	12616	15388	17259
NWFP	3444	4349	5342	6113	7715	8954
Balochistan	967	1208	1468	1662	2075	2383
TAX BASE FOR TAX ON TRANSFER OF PROPERTY						
Punjab	150691	177752	208601	239765	281049	332212
Sindh	111671	132095	155450	178359	209886	249244
NWFP	26434	30938	35854	40007	46568	54811
Balochistan	8331	9696	11263	12943	15040	17648
TAX BASE FOR TAX ON URBAN IMMOVABLE PROPERTY						
Punjab	150691	177752	208601	239765	281049	332212
Sindh	111671	132095	155450	178359	209886	249244
NWFP	26434	30938	35854	40007	46568	54811
Balochistan	8331	9696	11263	12943	15040	17648
TAX BASE FOR TAX ON PROFESSION, TRADES AND CALLINGS						
Punjab	132674	155003	179852	201628	234535	282506
Sindh	78859	91856	106401	118065	136927	163351
NWFP	35113	40544	46520	51295	58900	70009
Balochistan	8462	9509	10644	11629	13035	15521

* Number of private cars

** Electricity consumption in million KWH

Source: i) National Income Accounts of Pakistan, 1992-93
 ii) Economic Survey, 1994-95
 ii) Temporal & Regional Decomposition of National Accounts of Pakistan by Kaiser Bengaliwala

TABLE 4
TRENDS IN PROVINCIAL TAX REVENUE

(Rs in Million)

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
STAMP DUTIES						
Punjab	1266	1903	2897	2157	2561	1909
Sindh	416	502	512	675	930	1200
NWFP	91	98	99	107	180	241
Balochistan	17	16	18	20	22	24
MOTOR VEHICLE TAX - COMMERCIAL						
Punjab	391	463	484	496	543	786
Sindh	186	241	215	267	356	325
NWFP	107	126	135	143	155	168
Balochistan	52	67	49	45	61	63
MOTOR VEHICLE TAX - PRIVATE						
Punjab	105	113	122	132	142	153
Sindh	94	101	136	133	202	241
NWFP	40	42	45	48	50	53
Balochistan	10	11	12	13	14	16
LAND REVENUE						
Punjab	415	501	587	672	898	957
Sindh	30	30	35	41	43	55
NWFP	35	60	60	62	78	70
Balochistan	7	4	22	10	10	12
ELECTRICITY DUTY						
Punjab	244	839	304	346	482	498
Sindh	104	150	425	174	104	288
NWFP	108	69	60	127	125	146
Balochistan	6	6	6	2	8	9
TAX ON TRANSFER OF PROPERTY						
Punjab	122	150	170	172	214	135
Sindh	78	91	91	98	84	130
NWFP	4	8	9	10	12	10
Balochistan	6	5	7	7	6	7
URBAN IMMOVABLE PROPERTY TAX						
Punjab	90	99	125	137	148	176
Sindh	50	60	70	42	50	63
NWFP	9	9	8	10	10	10
Balochistan	8	8	10	12	12	13
TAX ON PROFESSION, TRADE AND CALLINGS						
Punjab	38	40	44	52	57	62
Sindh	52	54	61	64	88	111
NWFP	0.0	0.0	3.5	3.7	4.0	5.0
Balochistan	0.1	0.2	0.2	0.2	0.2	0.2
OVERALL INDEX						
Punjab	2671	4109	4733	4165	5046	4675
Sindh	1009	1229	1543	1494	1857	2412
NWFP	394	411	419	511	614	703
Balochistan	106	118	123	109	133	142

Source: Annual Budget Statements of the Provincial Governments

TABLE 5
TAX REVENUE AS PERCENTAGE OF TAX BASE
(TAX RATIOS)

(Rs in Million)

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
STAMP DUTIES						
Punjab	0.33	0.41	0.54	0.35	0.34	0.22
Sindh	0.13	0.13	0.11	0.13	0.14	0.16
NWFP	0.16	0.14	0.12	0.12	0.16	0.18
Balochistan	0.08	0.06	0.06	0.05	0.05	0.05
MOTOR VEHICLE TAX - COMMERCIAL						
Punjab	2.24	2.02	1.65	1.32	1.24	1.57
Sindh	1.93	1.91	1.34	1.30	1.50	1.20
NWFP	2.40	2.09	1.71	1.38	1.26	1.15
Balochistan	2.40	2.28	1.25	0.88	0.97	0.84
MOTOR VEHICLE TAX - PRIVATE*						
Punjab	689	689	689	689	689	689
Sindh	509	514	587	531	740	815
NWFP	531	531	531	531	531	531
Balochistan	433	432	425	428	428	428
LAND REVENUE						
Punjab	0.35	0.35	0.34	0.37	0.41	0.36
Sindh	0.06	0.06	0.06	0.06	0.06	0.06
NWFP	0.16	0.23	0.19	0.19	0.20	0.14
Balochistan	0.06	0.03	0.14	0.06	0.05	0.05
ELECTRICITY DUTY**						
Punjab	1.44	4.01	1.21	1.23	1.38	1.25
Sindh	1.32	1.56	3.72	1.38	0.68	1.67
NWFP	3.15	1.58	1.12	2.08	1.62	1.63
Balochistan	0.62	0.48	0.44	0.10	0.38	0.37
TAX ON TRANSFER OF PROPERTY						
Punjab	0.08	0.08	0.08	0.07	0.08	0.04
Sindh	0.07	0.07	0.06	0.05	0.04	0.05
NWFP	0.02	0.02	0.03	0.02	0.03	0.02
Balochistan	0.07	0.06	0.06	0.05	0.04	0.04
URBAN IMMOVABLE PROPERTY TAX						
Punjab	0.06	0.06	0.06	0.06	0.05	0.04
Sindh	0.04	0.05	0.05	0.02	0.04	0.05
NWFP	0.03	0.03	0.02	0.02	0.03	0.02
Balochistan	0.09	0.08	0.09	0.09	0.04	0.04
TAX ON PROFESSION, TRADE AND CALLINGS						
Punjab	0.03	0.03	0.02	0.03	0.02	0.02
Sindh	0.07	0.06	0.06	0.05	0.06	0.07
NWFP	0.00	0.00	0.01	0.01	0.01	0.01
Balochistan	0.00	0.00	0.00	0.00	0.00	0.00

*Rupees per car

** Paisa per KWH

*** Provincial share only

4. Results and Policy Implications

Table 6 presents the index of fiscal effort derived on the basis of the above mentioned methodology. While making an inter-provincial comparison of the fiscal effort it is noticeable that the performance of Punjab is comparatively better than that of the other provinces, followed by Sindh, NWFP and Balochistan. It is interesting to note that NWFP performed better than Sindh upto 1993-94. But, in 1994-95 the overall index of NWFP fell marginally below that of Sindh . Balochistan's tax performance stands well below the national average at 0.43 only in 1994-95.

As far as individual taxes are concerned the relative provincial performance is as follows: In stamp duty Punjab's fiscal effort is the best, followed by NWFP, Sindh and Balochistan. As much as 40 percent of the collection under the stamp duty head is through property related transaction so, the performance of tax on transfer of property should also be similar. However, the standing of provinces under the tax on transfer of property is different, Sindh, having the highest index followed by Punjab and NWFP.

The motor vehicle tax is also classified into two categories i.e. private and commercial. The position of Punjab and Sindh in the case of commercial vehicles has improved over the years. The performance of NWFP and Balochistan has, decreased from 1.10 in 1989-90 to 0.85 and 0.62 respectively in 1994-95. In the case of private cars, Sindh stands in a better position as compared to the other three provinces.

The performance of Punjab is better in the case of land revenue. The index for the other three

TABLE 6
INDEX OF FISCAL EFFORT

(Rs in Million)

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
STAMP DUTIES						
Punjab	1.46	1.56	1.69	1.50	1.43	1.16
Sindh	0.56	0.48	0.35	0.55	0.61	0.86
NWFP	0.72	0.55	0.39	0.51	0.68	0.99
Balochistan	0.34	0.23	0.18	0.23	0.21	0.25
MOTOR VEHICLE TAX - COMMERCIAL						
Punjab	1.03	1.00	1.07	1.02	0.96	1.16
Sindh	0.88	0.95	0.87	1.01	1.16	0.89
NWFP	1.10	1.04	1.11	1.07	0.97	0.85
Balochistan	1.10	1.13	0.81	0.68	0.75	0.62
MOTOR VEHICLE TAX - PRIVATE						
Punjab	1.21	1.20	1.14	1.19	1.02	0.97
Sindh	0.89	0.90	0.97	0.92	1.10	1.15
NWFP	0.93	0.93	0.88	0.92	0.79	0.75
Balochistan	0.76	0.75	0.70	0.74	0.64	0.61
LAND REVENUE						
Punjab	1.41	1.39	1.37	1.40	1.42	1.42
Sindh	0.26	0.22	0.22	0.24	0.19	0.23
NWFP	0.65	0.91	0.77	0.71	0.67	0.57
Balochistan	0.25	0.13	0.57	0.24	0.18	0.19
ELECTRICITY DUTY						
Punjab	0.91	1.36	0.66	0.92	1.15	0.91
Sindh	0.83	0.53	2.03	1.04	0.57	1.21
NWFP	1.99	0.53	0.61	1.56	1.35	1.19
Balochistan	0.39	0.16	0.24	0.08	0.32	0.27
TAX ON TRANSFER OF PROPERTY						
Punjab	1.15	1.17	1.21	1.18	1.33	0.94
Sindh	0.99	0.95	0.87	0.90	0.70	1.21
NWFP	0.22	0.34	0.37	0.41	0.45	0.42
Balochistan	0.97	0.76	0.87	0.86	0.68	0.92
URBAN IMMOVABLE PROPERTY TAX						
Punjab	1.13	1.11	1.16	1.34	1.33	1.32
Sindh	0.85	0.91	0.87	0.55	0.60	0.63
NWFP	0.64	0.55	0.44	0.58	0.54	0.46
Balochistan	1.76	1.69	1.70	2.10	1.92	1.84
TAX ON PROFESSION, TRADE AND CALLINGS						
Punjab	0.80	0.81	0.78	0.82	0.73	0.65
Sindh	1.88	1.86	1.81	1.73	1.90	2.03
NWFP	0.00	0.00	0.24	0.23	0.20	0.21
Balochistan	0.04	0.07	0.05	0.60	0.05	0.04
OVERALL INDEX						
Punjab	1.25	1.36	1.36	1.30	1.29	1.15
Sindh	0.69	0.61	0.63	0.68	0.69	0.89
NWFP	0.94	0.69	0.64	0.82	0.81	0.85
Balochistan	0.63	0.52	0.47	0.43	0.43	0.43

Source: Annual Budget Statements of the Provincial Governments

provinces has shown a declining trend. This overall declining trend may be attributed to the collection of ushr, which has significantly eroded the land revenue base. However, in the case of electricity duty, the performance of Sindh and NWFP is above national average, while Punjab stand at 0.91. However, Balochistan remains far behind at only 0.27 in the terminal year. Urban immovable tax is the only tax in which Balochistan has a higher index of fiscal effort. NWFP shows the poorest performance followed by Sindh. Sindh, on the other hand, performs better than the national average as far as the tax on professions, trade & callings is concerned.

In terms of strategy of exploitation of revenue potential, the analysis reveals that the focus needs to vary among the provinces. Punjab ought to improve its collection from the tax on professions, trades and callings, Sindh from land revenue and property tax, NWFP from land revenue, property related taxes and the tax on professions, trades and callings, while Balochistan can improve its revenues through most of the taxes.

5. Conclusion

The objective of this paper is to examine if the problem of relatively low fiscal effort is common to all four provincial governments or if there exists significant variation in the rate of resource mobilisation among these governments. For this purpose, we adopt the representative tax system approach first proposed by Bahl (1972). Results of the research indicate areas where there exists some slack in the fiscal effort in individual provinces. It appears that the performance of Punjab is comparatively better than the other provinces, with the highest overall index of fiscal effort being at 1.15, followed by Sindh, NWFP and

Balochistan. In terms of exploitation of revenue potential, the analysis reveals that the focus needs to vary among the provinces with Punjab concentrating on income related taxes, Sindh and NWFP on property related taxes while Balochistan can develop most of its taxes, excluding the property tax.

FOOTNOTES

1. As the information available was only on ownership of dwelling for the province as a whole, we have derived the urban share.

$$R_j = \frac{(PCUOD) (UPOP_j)}{(PCUOD) (UPOP_j) + (PCROD) (RPOP_j)}$$

Where;

PCUDO = Per capita urban ownership of dwelling at national level.

PCROD = Per capita rural ownership of dwelling at national level.

UPOP_j = Urban population of “jth” province

RPOP_j = Rural population of “jth” province

R_j = The share of urban ownership in the total ownership of dwelling for the “jth” province.

Now with the help of share denoted as “R_j” we can easily obtain the urban component of ownership of dwelling in the particular province simply by multiplying it by the total ownership of dwelling.

2. This yields the following magnitudes

$$\beta_1 VA_{uod} = 0.4(GRP \% VA_{uod} \% VA_{bi}) \text{ A } \beta_1 = \frac{0.4 (GRP \% VA_{uod} \% VA_{bi})}{VA_{uod}}$$

Similarly;

$$\beta_2 = \frac{0.4 (GRP \% VA_{uod} \% VA_{bi})}{VA_{bi}}$$

$$\beta_3 = \frac{0.2 (GRP \% VA_{uod} \% VA_{bi})}{GRP}$$

and

$\$_1$, $\$_2$ and $\$_3$ have been computed for 1990-91 and held constant for the period. The estimate magnitudes are $\$_1 = 21.32$, $\$_2 = 14.14$ and $\$_3 = 0.21$.

3. Adjustment made is based on the following criteria:

$$TR_{MVTTP} = (NPC) (AMVTR) \% (INPC) (ARF) \quad (a)$$

and,

Where,

TR_{MVTTP}	=	Total revenue from tax on private cars
TR_{MVTTC}	=	Total revenue from tax on commercial vehicles
NPC	=	Number of private cars
AMVTR	=	Average motor vehicle tax rate
INPC	=	Incremental number of motor cars
ARF	=	Average registration fees of private car

4. This yields the following magnitudes:

$$\alpha_1 VA_{lsm} = (VA_{lsm} \% VA_{uod} \% VA_{[wrt \% ser]}) A \quad \alpha_1 = \frac{0.1 (VA_{lsm} \% VA_{uod} \% VA_{[wrt \% ser]})}{VA_{lsm}}$$

Similarly;

$$\alpha_2 = \frac{0.4 (VA_{lsm} \% VA_{uod} \% VA_{[wrt \% ser]})}{VA_{lsm}}$$

and

$$\alpha_3 = \frac{0.4 (VA_{lsm} \% VA_{uod} \% VA_{lsm})}{VA_{[wrt \% ser]}}$$

" α_1 ", " α_2 " and " α_3 " are estimated for 1990-91 and held constant for the period. The estimated magnitudes are " $\alpha_1 = 0.31$ ", " $\alpha_2 = 9.80$ " and " $\alpha_3 = 0.64$ ".

5. The sectoral shares are projected on the basis of annual compound growth rate from 1971-72 to 1989-90.

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