Determinants of Low Tax Revenue in Pakistan

Zaib-un-nisa
Znisa5214@gmail.com

Bahauddin Zakariya University, Multan, Pakistan

Abstract:

Low tax-to-GDP ratio has always been a problem for economic development and a major explanation for high budget deficits in Pakistan. In the present study, we attempt to empirically analyze the determinants of low tax revenue in Pakistan by employing time series econometric techniques during the period 1973-2009. This study investigates whether economic policies, external variables and social indicators together with elements of the tax base can explain some of the variations in tax revenue trends in Pakistan. The empirical findings suggest that openness, ample money, external debt, foreign aid and political stability are the significant determinants of fiscal efforts in Pakistan with expected signals. The findings also indicate that the determinants of low tax revenue in Pakistan are a narrow tax base, greater dependence on the agricultural sector, foreign aid and low level of literacy. Finally, it is concluded that Pakistan's economy can generate a high tax-to-GDP ratio by increasing openness, literacy level, political stability, broadening the tax base and controlling income inequality, tax evasion and exemptions tax.
Keywords: income Taxes; Tax determinants; Political Economics; External variables; Social variables; autoregressive model; Pakistan

I. Introduction

Tax revenue collection is, among other things, an important issue for economic development. It has been said that "what the government gives you, it must take away first." The economic resources available to society are limited, so an increase in public spending normally means a reduction in private spending. Taxation is one method of transferring resources from the private to the public sector, but there are others, such as creating more money, charging for goods and services provided, or borrowing. Taxation also has its limits, but they significantly exceed the amounts that can be collected by using the printing press, charging consumers directly, or going into debt. So while governments often use all four methods to raise resources, taxes are often by far the most important source of government revenue

Pakistan's economic performance since its inception in 1947 has remained unstable across sectors and provinces, and its structure has also changed over time. Since 1971, the year of the breakup of East Pakistan (now Bangladesh), the

440 Pakistan Journal of Social Sciences Vol. 30, number 2

The public budget has always been in deficit. Each time this deficit has been large, the growth rate has faltered, inflation has risen further and, most importantly, the economy has faced a growing current account deficit that has often culminated in a currency crisis and

the balance of payments. Tax efficiency in Pakistan's tax system has remained in focus for the last 25 years. However, despite all efforts, the tax-to-GDP ratio remained constant during this period. This period is a very active political period for Pakistan, which had a strong impact on the Pakistani economy. For example, the 1980s were the peak period of the war in Afghanistan against the USSR and Pakistan was a frontier state. Due to this critical position, the government of Pakistan received large amounts of aid, which negatively affected the fiscal efforts of the Pakistani government during this period. This was a military government and to avoid public anger the government avoided new taxes and these huge revenues provided a well justified basis for this. The 1990s were also full of events such as the drastic reduction of customs duties due to the WTO regime, the drastic increase in sales taxes and duties to income, due to IMF conditions and the economic recession, the ratio of taxes to GDP has remained constant. However, during this period pressure was put on tax authorities to increase tax revenues through greater efficiency. Then, in the 1990s, the fiscal problem worsened again, with a budget deficit fluctuating around 6% of GDP. Not surprisingly, this has been accompanied by a disappointing economic performance, characterized by a slowdown in growth to an average of 4% per year, compared to an average annual rate of 6% in the 1980s. Inflation has also slowed to levels double digits, with an average of 12% per year.

Pakistan's tax-to-GDP ratio today stands at just under 10% and is steadily declining. The decline in the tax-to-GDP ratio in recent years has come at a time when government efforts have increasingly focused on macroeconomic stabilization, driven by several ongoing IMF programs. Greater emphasis was placed on reducing the budget deficit in order to contain the inflation rate and restore a certain degree of fiscal sustainability by halting the increase in the debt/GDP ratio. But the decline in the tax-to-GDP ratio has made this task increasingly difficult, requiring sharp cuts in public spending, especially for development, thus affecting the growth momentum of the economy. There are a number of reasons for the declining tax-to-GDP ratio. The first is the loss of growth momentum of the economy, especially large-scale manufacturing and imports, which constitute the economy's main tax bases. This resulted in a decrease marginal rate of taxes on GDP, which over time has led to a decrease in the average rate of taxes on GDP. The second explanation is related to revenue losses resulting from the tax reforms underway in the country in the 1990s, in particular from the trade liberalization process which resulted in significant reductions in the legal rates of import tariffs. Finally, there is a strong perception that there has been a systemic deterioration in the quality of tax administration in the face of growing evasion and corruption; It is argued that the incidence of taxes has actually decreased

The main objective of this study is to empirically examine the determinants of low tax revenues in Pakistan over time. To capture the observed variations in tax revenue trends in Pakistan, this study takes economic policy variables, external variables and social indicators along with elements of the tax base. Therefore the rest of the study is organized as follows. The following section presents a brief overview of Pakistan's economy in relation to tax

structure. Section 3 provides a brief overview of the theoretical concepts and review of the empirical literature on the determinants of tax revenue. The econometric model and estimation methodology are explained in section 4. Section 5 describes the construction of the variables, the data sources and the descriptive analysis of the selected variables. Section 6 presents empirical results using time series regression analysis. Finally, Section 7 concludes the study.

Determinants of Tax Revenue Collection: Review of Literature

Numerous empirical studies have been conducted to evaluate fiscal performance in different countries. Most studies have used the share of taxes in GNP/GDP or the tax rate as the dependent variable with different combinations of explanatory variables.

Lotz and Morss (1967) used data from developed and developing countries to find the relationship between tax revenue and GNP. To do this, he used GNP per capita and openness. Their results showed a positive and statistically significant effect for both GNP per capita and openness. Tanzi (1987) found that only the effect of per capita income was positive and significant when taking data only from developing countries. Chelliah et al. (1975), taking data from 47 countries during the period 1969-1971, regressed the share of taxes in GNP on the share of agriculture, the share of mining and the share of exports. The results showed the negative and significant effect for agriculture participation, the positive and significant effect for mining participation and export participation. Tait et al. (1979) took data from 47 countries for the period 1972-1976 and found the same results.

Bird (1976); Ahmad and Stern (1991) concluded that an economy with a large share of agricultural value added in GDP should generate low tax revenues. For political reasons, it is often difficult to directly tax the agricultural sector in Pakistan, although it is often heavily taxed in many implicit ways, such as through import quotas, tariffs, controlled production prices and overvalued exchange rates.

Leuhold (1991) and Stotsky and WoldeMariam (1997) examined the tax share of African countries taking as determinants the share of agriculture in income, the share of mining, per capita income and the share of exports. Their results showed that agricultural participation is negative; the share of mining has a positive relationship, while the share of foreign trade and the share of foreign grants and loans also have a positive and statistically significant relationship.

Teera (2002) examined the tax system and tax structure of Uganda to investigate the factors that influence tax revenues in the country. He used time series data from 1970 to 2000 and estimated a model. Their results showed that the proportion of agriculture, population density and tax evasion affect all types of taxes. GDP per capita showed a surprising negative sign. Tax evasion and openness (measured by share of imports) showed a significant negative impact. The aid variable showed a positive sign, since aid in Uganda has always supported import.

Bahl (2003), using data from the OECD and less developed economies, explained the determinants of tax revenue. It used the non-agricultural share of GDP, openness and population growth rate, all of which showed a positive and statistically significant result. The simple correlation between the fiscal effort and the size of the shadow economy showed a negative but statistically significant result.

Alm et al. (2004) considered agriculture/GNP, mining/GNP, GNP per capita, international trade taxes/GNP, and the shadow economy/GNP as determinants of the ratio of total taxes to GDP, using data from developed and developing countries. Their results showed a negative but non-significant relationship with agriculture/GNP and international trade/GNP, a positive and statistically significant relationship with mining GNP and a negative but statistically significant relationship with GDP per capita and shadow economy.

Bilquees (2004) measured the dynamism and elasticity of the tax revenue system in Pakistan during the period from 1974 to 2003 using the divisia index method and analyzed the factors responsible for the resulting size of the elasticity coefficients. Their stability estimates suggested that the tax changes did not lead to a significant increase in revenues. However, the high ratio of sales tax to GDP base reflects the inclusion of the utilities and services sector in the net sales tax, which has serious implications for the poor.

Ahsan and Wu (2005) examined the share of taxes in GDP of developed and developing countries during the period 1979–2002 and found a negative and significant relationship between the share of agriculture, GDP per capita and growth of the population with the tax rate, while the share of trade in GDP has a positive relationship and a significant relationship but corruption has a negative and insignificant relationship.

Lutfunnahar (2007) identified the determinants of tax share and revenue performance of Bangladesh along with 10 other developing countries over 15 years through panel data analysis. The obtained results suggest that international trade, ample money, external debt and population growth are significant determinants of fiscal efforts. The study concluded that Bangladesh and other countries have a low fiscal effort (below the unit rate) and are not utilizing their full fiscal revenue capacity and therefore have the potential to finance the budget imbalance by increasing inflow revenues

Kemal (2007) explored the long-term relationship between the shadow economy and the formal economy. The results showed that the shadow economy is causing the formal economy, but not the other way around. He suggested increasing the number of legal documentation, strengthening institutions, improving governance, decreasing the number of regulations and limiting smuggling through tariff rationalization to reduce tax evasion.

Mahdavi (2008) used advanced estimation techniques with unbalanced panel data for 43 developing countries during the period 1973–2002, including Pakistan. The results showed that aid had a negative effect,non-tax revenue also had a negative effect, while the share of the agricultural sector had a positive but insignificant coefficient.

The share of the commercial sector had a positive effect and the economically active female variable had a more insignificant net negative effect, while the share of the elderly population showed a negative association as well as for the net income tax which pertains to its property. Population density, monetization and inflation rates have not maintained a negative correlation. The inverse of GDP per capita was strongly and negatively related to the level of taxes. The net effect of political rights and civil liberties is a significant status

. Ehrhart (2009) estimated, using a sample of 66 developing countries in the period 1990-2005, that democracy influences national tax revenues, appropriately correcting the endogeneity of democracy with an original instrument. Find compelling evidence that a country's political regime influences the degree to which domestic fiscal reforms are implemented and increased domestic revenues are raised.

Ahmad and Mohammad (2010) examined the determinants of fiscal stability of 25 developing countries using cross-sectional data for the year 1998-2008 and combined the least squares method for analyzing the results. For the agricultural sector it showed an insignificant effect and for the service sector it showed a positive and significant effect instead of the previous insignificant result of many researches. Monetization and budget deficit showed positive influence, while subsidy growth had a negative impact on fiscal vitality

In summary, internationally most of the studies have identified the determinants of tax revenue for developed and developing countries using panel data methodology, whereas in Pakistan there is no comprehensive study available to find the determinants of tax revenue in Pakistan. The present study fills the gap in the literature and addresses this topic in depth by considering relevant control variables and time series econometric methodology.

Econometric Model and Estimation Methodology

The study considers GDP as the tax base based on the same argument advanced by Stotsky and WoldeMariam (1997), i.e. that GDP includes income earned locally by non-residents and excludes income received from abroad by residents. On the other hand, GNP excludes the former and includes the latter. Typically, the local income of non-residents is taxable, while remittances from abroad are not, and GDP therefore produces a more accurate measure of taxable capacity. Considering the economic characteristics of the sample countries, the following model is undertaken based on previous studies: We often find that the values of a series of financial data at particular points in time are highly correlated with the value that precedes and follows them. A lagged dependent variable in an OLS regression is often used as a means of capturing dynamic effects in political processes and as a method of removing autocorrelation from the model.

 For example, let's consider the regression equation:

$$Y_t = \alpha + \beta X_t + \gamma Y_{t-1} + \mu_t \text{ for } t = 2,. ,T$$

Since this equation contains a lagged dependent variable as an explanatory variable. This is called an autoregressive model or dynamic model. In the present study we used the

autoregressive model to capture the effects of previous fiscal efforts on current fiscal efforts and also to eliminate autocorrelation.

Descriptive Analysis

Summary statistics of taxes and some tax determinants are provided, including mean, maximum value, minimum value, and standard deviation. Table shows the descriptive view of the dataset which consists of 37 observations of each variable. The first column shows the variables and the second column shows the average values of all the variables, which shows the average values. For example, the average share of the agricultural sector in GDP is 27.23%; For the manufacturing industry the average contribution is 16.35%; The average value for the services sector is 48.02%. The average value of the services sector is higher than that of other sectors, which demonstrates a greater contribution of this sector to the GDP. The average opening value is 0.37 (or 37%), while the per capita income has an average value of 0.017 (in million rupees), which is approximately 18,000 (in rupees).

Table 1 Summary Statistics of Taxes and Determinants of Taxes,

	Mean	Maximum	Minimum	S.D	Observations
Agri	27.23	35.60	21.40	3.64	37
Manf	16.35	19.10	14.70	1.11	37
Service	48.02	53.30	42.10	2.85	37
Openess	0.265	0.7429	0.2721	0.11	37
PCI	0.026	0.0688	0.002	0.01	37
Exrate	30.22	78.03	9.03	21.3	37
M_2	1059157	5126117	27057.00	1270385	37
Inf	9.468	26.55	3.20	5.43	37
Exdebt	785520.2	3857610	35200.15	936252	37
Remit	103628.4	560307.6	1255.68	135208	37
Faid	71438.71	293117.3	3103.01	60180	37
Litr	36.72	56.00	18.50	12.48	37
Urban	30.81	34.47	24.60	3.054	37
Political	0.53	1	0	0.37	37
TaxGDP	0.1307	0.16	0.083	0.01	37
DirectGDP	0.0274	0.0682	0.0171	0.01	37
IndirectGDP	0.1012	0.1184	0.0527	0.01	37

The maximum and minimum values of these variables give the range; For example, the minimum value of agriculture's share in GDP is 21.40% and the maximum value is 35.60%. So the range is 14.7. The prevalence of a notable band shows wide fluctuations in its proportion. The standard deviation also reports the dispersion (or dispersion) of the values and can also be used for comparative purposes, for example, as the data shows that M2 has comparatively greater dispersion than other variables. The share of agriculture has a standard deviation of 3.64; manufacturing has 1.11; service has 2.85; the aperture is 0.11.

Empirical Results and Discussion

The results of the regression are given in box 3. Following the traditional empirical literature, regression 1 includes only variables related to the income and the tax base (this is considered the regression of the base); regression 2 includes variables related to macroeconomic policies as well as income variables and tax base; Regression 3 includes the external surrounding variables as well as the variables of regression 2, while regression 4 includes all the variables, including the social indicators

The basic regression results are essentially consistent with those available in the empirical literature. The results indicate that agriculture is negatively correlated with the tax/GDP ratio. Since in developing countries there are normally small farmers and subsistence agriculture, which does not generate large taxable surpluses. Many countries are unwilling to tax major foods used for subsistence.

Throughout this agricultural sector it is difficult to tax because it is largely informal. In the case of Pakistan, this is also negatively correlated, but is statistically insignificant at the conventional 5 and 10% level, indicating that the agricultural sector is not correlated in our basic equation as a determinant of the tax-to-GDP ratio. Stotsky and WoldeMariam (1997), Ghura (1998), Leothold (1991), and Gupta (2007) also found the relationship to be negative.

The manufacturing sector in our regression equation is positively correlated, as expected in theory: manufacturing businesses tend to be easier to tax than agricultural businesses, as entrepreneurs tend to keep better books and records, but it is statistically insignificant in the case of Pakistan. The reason could be that more tax incentives are given to large companies in Pakistan, which is also the main cause of low tax revenues. Ahmad (2010) also found a positive impact on fiscal stability

The service sector in our regression has the negative sign, which is not uncommon in the literature because in the case of many developing countries, the service sector is part of the informal sector. Although tax revenues are expected to increase, due to the informal sector, the degree of tax evasion is also high. Since its coefficient is statistically insignificant, it is not related to the increase in tax collection in Pakistan.

.

Table 2 Estimates of the Tax Equation

Explanatory variables	Regression on			
	(1)	(2)		(4)
Income				
Per capita income(PCI)	-0.8598***	-1.0421***	-3.87***	-3.779***
	(0.1469)	(0.2719)	(0.819)	(0.849)
	[-2.93]	[-2.64]	[-4.18]	[-4.14]
Tax base				
Share of agriculture in GDP ratioAGRI)	-0.0017	-0.0002	0.0013	0.0021
	(0.001)	(0.002)	(0.002)	(0.002)
	[-0.73]	[-0.073]	[0.77]	[1.18]
Share of manufacturing in	0.0001	0.0005	0.003	0.0017
GDP ratio(MANF)	(0.002)	(0.003)	(0.003)	(0.002)
	[0.054]	[0.148]	[1.07]	[0.43]
Share of service sector	-0.0006	0.0023	0.002	0.0038
In GDP(SERVICE)	(0.0016)	(0.002)	(0.002)	(0.0014)
	[-0.138]	[0.112]	[1.06]	[1.50]
Openness	0.0503*	0.028	0.106**	0.124***
	(0.025)	(0.031)	(0.043)	(0.083)
	[1.58]	[0.580]	[1.87]	[2.66]
Economic policies				
Log Exchange rate (LEXRATE)		-0.024*	-0.023**	-0.018
		(0.022)	(0.013)	(0.012)
		[-1.81]	[-2.24]	[-1.13]
Log Monetization		0.013*	0.012***	0.060***
(LM$_2$)		(0.007)	(0.006)	(0.012)
		[1.73]	[2.88]	[3.31]
Log Inflation		0.0046	0.0063	0.006
(LINF)		(0.004)	(0.004)	(0.004)
		[1.04]	[1.47]	[1.35]
External Variables				
External Debt (EXDEBT)			4.95E-0***	5.40E-07***
			(1.54E-07)	(1.877E-08)
			[2.01]	[2.83]
Foreign Remittances			2.07E-09	1.97E-08
(REMIT)			(4.46E-08)	(4.12E-08)
			[0.04]	[0.37]

Foreign Aid			-1.00E-06	-1.13E-07*
(FAID)			(7.25E-07)	(6.38E-08)
			[-1.25]	[-1.64]
Social Variables				
Literacy Rate				-0.0014
(LITR)				(0.00165)
				[-0.83]
Urbanization				-0.012*
(URBAN)				(0.012)
				[-1.65]
Political Stability				0.006*
(POLITICAL)				(0.003)
				[1.68
TAXGDP(-1)	0.508***	0.231*	0.161	-0.102
	(0.12)	(0.167)	(0.162)	(0.183)
	[3.04]	[1.77]	[0.984]	[-0.43]
R-Squared	0.79	0.81	0.84	0.96
F-Statistics	39.42	26.80	28.03	30.81
No. of observation	36	36	36	36
Breusch-Godfrey Serial Correlation LM Test				
F-statistic	0.163275	0.513776	0.722666	0.116871
Probability	0.731003	0.587223	0.33198	0.778403
Obs*R-squared	0.347711	1.507365	2.566439	0.355680
Probability	0.784006	0.460395	0.251181	0.781141

Note: The numbers in parenthesis below the estimated coefficients are the absolute values of the t-ratios and standard errors respectively.

The results also indicate that the degree of openness exerts the greatest impact on the tax rate in Pakistan, followed by the income variable, the existence of agricultural participation, the manufacturing sector and the service sector, as the coefficient is positively correlated and is statistically significant. The literature also suggests that some characteristics of international trade make it more susceptible to taxation than domestic activities and, furthermore, in many developing countries, the international trade sector is often the most monetized sector of the economy because revenue and exiting the country requires placing in specific locations. . Farhadian-Lorie and Katz (1989) noted that business taxes have historically been the primary source of government revenue during the early stages of economic development because they are easier to collect. Ghura (1998) and Gupta (2007) also found a positive effect.

Income per capita has a negative sign in our regression, indicating that the tax/GDP ratio decreases as income increases. It is normally expected to have a positive correlation, as the government's ability to collect taxes and citizens' ability to pay them increases with economic development, but the theory also suggests that the impact of an increase in income is also different. tax categories. Given that in the case of Pakistan the proportion of direct taxes is lower than that of indirect taxes and the

degree of tax evasion is also high and also because Pakistan's political leadership is not willing to impose more income taxes, this sign is not surprising. The lag dependent variable is positively correlated and is also statistically significant, indicating that the current tax revenue collection depends on the previous tax collection effort in Pakistan in the base regression. When the base regression is augmented to include macroeconomic policy variables, the results for income and tax base elements do not change much

The agricultural sector and the manufacturing sector show earlier signs and statistically insignificant as before. However, the service sector has changed sign, but it is still statistically insignificant, so it does not change our results. Since the theory suggests an ambiguous effect of the service sector on tax collection, this is not surprising. The results support the theoretical view provided by Tanzi (1989) and some existing empirical evidence that the macroeconomic policy environment matters for tax revenue performance. In it, the exchange rate is negatively related to tax collection. In theory, it is not uncommon because the theory suggests that exchange rate devaluation, typically caused by restrictive financial policies, should have a favorable effect on overall economic activity.

Therefore, tax revenues will increase, as will the overvaluation of the exchange rate. The interest rate typically caused by expansionary financial policies would be expected to negatively affect overall economic activity and therefore reduce tax revenues. The monetization of the economy captured by the M2 variable is positively related to tax revenue collection and is statistically significant. The theory also suggests that documenting the economy increases formal transaction activity and increases tax revenues. In the case of Pakistan, an increase in inflation (an indicator of expansionary financial policy) is not related to tax revenue collection as it is statistically insignificant. It has a positive sign, which is surprising, since the theory suggests a negative sign. The lag dependent variable is positively correlated with the tax ratio, indicating that current tax revenue efforts depend on past tax revenue efforts when we include tax bases and macroeconomic policy variables in our model.

Regarding the inclusion of external environmental variables in the second regression, the results relating to income, elements of the tax base and elements of macroeconomic policy variables do not change much. Agriculture sector remains insignificant, so it is not important because it indicates that agriculture sector is not related to fiscal effort in Pakistan. The manufacturing sector and service sector are positively correlated as before and are statistically insignificant and show the same relationship. The degree of openness, measured by the ratio of exports plus imports to GDP, also has the same relationship

It is statistically significant and equal to per capita income. All macroeconomic policy variables have the same prior signs and both the exchange rate and M2 are statistically significant, but the inflation rate is not. In the external environment variables, external debt in this regression is positively related to tax revenue collection and is also statistically significant, which is also consistent with the theory that with high debt, the government needs more taxes to raise the income needed to pay for it. Tanzi (1987) also found a positive relationship with it. Worker remittances are positively related to tax revenue collection, since remittances from abroad increase recipients' ability to pay taxes, and since remittances also increase recipients' income and wealth, which are important components of direct taxes, so their positive sign is not surprising. but this is statistically insignificant and shows that it does not contribute to tax collection in Pakistan. In this regression, foreign aid is negatively related to the tax rate.

The reason for this is that the increase in the inflow of foreign resources causes the governments of developing countries to relax and, fearing any political reaction, do not make decisions for the mobilization of domestic resources, so there is a worry. There is a general trend for aid to reduce tax revenue in recipient countries, but this variable is not related to tax revenue collection in Pakistan as it is statistically insignificant. Delay dependent variable is insignificant in this regression, which shows that when we include external environment variables it becomes insignificant, it might be due to high correlation with these variables

Considering regression, which includes social indicators such as literacy rate, urbanization and political stability, the elements of tax base, income, macroeconomic policy variables and external environment variables do not change except the exchange rate. The literacy rate in this main regression is negatively correlated, showing that as the literacy rate increases, tax revenues decrease. Although a positive relationship is expected between literacy rate and tax revenue collection, in case of Pakistan it is different due to high tax evasion in Pakistan. Urbanization measured by the percentage of urban population in total population has a negative sign. A positive signal is also expected to the extent that greater demand for public services cetris peribus requires greater tax revenues, again due to the large informal sector and high tax evasion in Pakistan. The dummy variable for political stability shows that as democracy increases,

Tax to GDP ratio also increases in Pakistan as compliance of people in paying taxes increases due to political stability. This variable is also statistically significant. The coefficient of the lagged dependent variable is positive but not significant. which implies that the explanatory variables significantly explain the dependent variable. Since the values of both the LM statistic and the F statistic are quite low, it is suggested not to reject the null value of any serial correlation. It is also clear that this is because the p-values are very large (greater than 0.10 for a 90% confidence interval), so there is no serial correlation

Conclusion and Policy Implications

Pakistan's self-sufficiency depends on the Pakistani government's ability to increase tax revenues. This study attempted to identify the determinants of low tax participation and revenue trends over the last 37 years in Pakistan through analysis of time series data. The econometric analysis considers a relatively broad set of factors that can potentially influence the trend of tax revenues (income, main sectors of the economy, macroeconomic policies, external environment and degree of provision of public goods by the government).

The obtained results suggest that openness, ample money, external debt, foreign aid and political stability are the important determinants of fiscal efforts, with the expected signs of the estimated coefficients. The share of agriculture, the share of manufacturing and the share of service sector are found to be insignificant and the sign of the coefficient of the share of agriculture deviates from expectations and is equal to the sign of GDP per capita and urbanization. But both of the latter are very significant. In addition to the traditional explanatory variables used in previous studies, this study addresses the possible impact of monetization on revenue performance and finds that broad money is a significant determinant of tax participation in Pakistan
.The drivers of low tax revenue in Pakistan are cited as a narrow tax base, greater dependence on the agricultural sector, devaluation, foreign aid, informal economy and low level of literacy. It is a very difficult task for Pakistan to design and implement an adequate tax system as Pakistan has a large traditional agricultural sector and other "hard to tax" sectors such as small businesses and shadow economy. The results suggest so by increasing openness, M2 and political stability, there is the possibility of increasing the level of taxes

The literacy rate is by far the most important element for successful tax collection, while the backbone of an effective tax system is the documentation of the economy. The documentation comes from a literate tax base.In today's world, literacy not only involves the ability to keep records in books, but also includes knowledge of information technology and its use. Taxes generate less revenue in less literate economies. Low per capita income reflects unequal income distribution and high unemployment. Indirect taxes have a negative effect in a country where there is unequal distribution of income, so in case of Pakistan direct tax base should be increased instead of indirect tax base as there is higher income inequality in Pakistan.Like the tax breaks given to agricultural income, the agricultural sector has become a legal, and sometimes illegal, tax haven for other forms of income. To avoid income taxes, transfers from other sectors of the

economy to agriculture are common. Therefore, it is estimated that applying the same tax to agricultural income as for other sectors would generate income substantial in the medium term. It is clear that tax exemption of agriculture imposes a heavy burden on the rest of the economy, as well as a significant loss of revenue for the budget

Tax collection requires consistency in implementation, and consistency in implementation is accompanied by political stability. Taxes and the law and order situation are indirectly related. A country with a stable legal and regulatory situation would mean attracting more investments and creating more jobs, resulting in greater purchasing power on the part of consumers who actually have to pay taxes.

References

Achen, C.H. (2002). Why lagged Dependent Variables can suppress the Explanatory Power of other Independent Variables. *Presented at the Annual Meeting of the Political Methodology*, Los Angeles.

Ahmed, Q.M. (2010). Determinants of Tax Buoancy: Empirical Evidence from Developing Countries. *European Journal of Social Sciences*. 13(3), 408-414

Ahsan, S.M. and Wu, S. (2005). Tax Structure and Reform in China, 1979-2002. Mimeo Department of Economics, Concordia University, Canada.

Azhar, B.A. (1996). Tax Pilferage—Causes and Cures. *Pakistan Development Review*, 35(4), 657-667

Bahl, R.W. (2003). Reaching the Hardest to Tax: Consequences and Possibilities, paper presented at the "Hard to Tax: An International Perspective" conference, *Andrew Young School of Policy Studies, Georgia State University*, May 15-16

Bilquees, F. (2004). Elasticity and Buoyancy of the Tax system in Pakistan. *The Pakistan Development Review*, 43 (1), 73-93

Bird, R.M.(1976), Assessing Tax Performance in Developing Countries: A Critical Review of the Literature. *Finanzarchiv*, 34, 244-65

Cheeseman, N. and Griffiths, R. (2005). Increasing Tax Revenue in Sub-Saharan Africa: The Case of Kenya. *OCGG Economy Analysis* No. 6

Chelliah, R.J., Baas, H.J., and Kelly, M.R.(1975). Tax Ratios and Tax Effort in Developing Countries, 1969-71. *IMF Staff Papers,* 22(1), 187-205

Ehrhart, H. (2009). Assessing the relationship between Democracy and Domestic taxes in developing countries. *CERDI, Etudes et Documents*, E.30

Federal Board of Revenue, Government of Pakistan, Assessed at http://www.fbr.gov.pk/ on August 26, 2010

Government of Pakistan. (1987-88 to 2008-09). Pakistan Economic Survey, Federal Bureau of Statistics, Islamabad, Pakistan

Gupta, A.S. (2007). Determinants of Tax Revenue Efforts in Developing Countries. Working Paper 184: *International Monetary Fund*, Washington, DC.

Jayasinghe, M. (2007). Pakistan: A Preliminary Evaluation of the Tax Gap. Georgia State University

Kemal, M.A. (2007). A Fresh Assessment of the Underground Economy and Tax Evasion in Pakistan: Causes, Consequences and Linkages with the Formal Economy. Working Paper 13: *Pakistan Institute of Development Economics*

Leuthold, J.H. (1991). Tax Shares in Developing Economies: A Panel Study, *Journal of Development Economics*, 35,173-185

Lotz, J.R. and Morss, E.R. (1967). Measuring 'Tax Effort' in Developing Countries. *International Monetary Staff Papers*, 14, 479-497

Lutfunnahar, B. (2007). A Panel Study on Tax Effort and Tax Buoyancy with Special Reference to Bangladesh. Working Paper 715: *Policy Analysis Unit (PAU) Research Department Bangladesh Bank*

Mahdavi, S. (2008). The Level and Composition of Tax Revenue in Developing Countries: Evidence from unbalanced panel data. *International review of Economics and Finance,* 17,607-617

Malik, M.H. and Saqib, N. (1989). Tax Incidence by Income Classes in Pakistan. *Pakistan Development Review*, 28(1), 13-26

Mashkoor, M., Yahya, S. and Ali, S.A. (2010). Tax Revenue and Economic Growth. *World Applied Science Journal,* 10(11), 1283-1289

Pasha, H.A. (1995). Political Economy of Tax Reforms: The Pakistan Experience. *Pakistan Journal of Applied Economics*, 11(1-2), 129-154

Stotsky, J.G. and Wolde Mariam, A. (1997). Tax Effort in Sub-Saharan Africa. Working Paper 107: *International Monetary Fund*, Washington, DC

Tait, A., Gratz, L.M. and Eichengreen, B.J. (1979). International Comparisons of Taxation for Selected Developing Countries, 1972-76. *IMF Staff Papers*. 26, 123-156

Tanzi, V. (1987). Quantitative Characteristics of the Tax System of Developing Countries. *The Theory of Taxation for Developing Countries*, New York: Oxford University Press

Teera, J.M. (2002). Determinants of Tax Revenue Share in Uganda(unpublished) WDI (2008). World Development Indicators. Washington, DC, World Bank WDI (2009). World Development Indicators. Washington, DC, World Bank

Wikipedia. Taxation, http// en.wikipedia.org/wiki/ Taxation (accessed March, 21,2010)