Topic: **The Effect of Corruption and Governance on Tax Revenues**

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Abstract

Developing countries face a number of institutional problems in the process of revenue generation. One of the main problems is corruption in tax administration. The second main problem of low revenue generation is low quality of governance. The study analyzes the effect of institutional and structural variables (corruption and governance) on tax revenues using panel data set for 25 developing countries during 1990-2005. The GMM regression results show that institutional variables have significant effect on all taxes. The results show that corruption has adverse effect on tax collection, while good governance contributes to better performance in tax collection.

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1. Introduction

The primary function of a tax system is to raise enough revenue to finance essential expenditures on the goods and services provided by government. According to Kaldore (1963) if a country wants to develop, it requires to collect tax revenue an amount greater than 10-15 percent found in many developing countries. Taxation is one of the best instruments to boost the potential for public sector performance, to finance the social insurance program and for the repayment of public debt. A country's revenue generation primarily depends upon its sufficient capacity to tax more in both economic and administrative term.

Developing countries receive a very low amount of revenue from taxation because these countries face a number of institutional problems in the process of revenue generation. One of the main problems is corruption in tax administration. The two important components of revenue generation are tax administration and tax system reforms (Brondolo *et al* (2008)). The main objective of these is to increase the efficiency of tax administrations, specifically by reducing corruption and evasion. The second main problem of low revenue generation is political instabilities in developing countries. One of the important characteristics of the political instability is unstable and shifting behaviors of government, which hinders the process of long-term reforms in the system.

The quality of governance as a whole is also relevant in the context. It is widely agreed that the presence of tax evasion and corruption of public officials is social phenomenon

that can significantly reduce tax revenue and seriously hurts economic growth and economic development.

Corruption should not be viewed in isolation, as it is a part of the broader issue of governance and public management. The quality of a country's governance is a critical factor for its development process. It is thus surprising how very little attention is given to one of the most fundamental drivers in the way that public revenues are raised. Bird *et al.* (2008) indicate that tax structure is highly responsive to governance structure; high income countries can improve their tax performance through improving their governance structure

Various studies try to investigate the determinants of tax revenues (e.g., Teera (2003); Weiss (1969); Tanzi and Zee (2000) and Imam and Jacobs (2007)). Imam and Jacobs (2007) explain that real per capita income, share of agriculture in GDP, trade openness, inflation and corruption are the most important determinants of a tax collection. Gupta (2007) finds that several structural factors like per capita GDP, share of agriculture in GDP, trade openness foreign aid, foreign debt and some new institutional variable like corruption and political stability are statistically significant and strong determinants of revenue performance. The main difference between these studies and the analysis undertaken in the present study is that we consider some additional variable that can potentially affect tax revenues. The new variable is governance.

In this study we analyze the effect of institutional and structural variable (corruption and governance) on tax revenues in selected developing countries, using panel data set for 25 developing countries during 1990-2005. The most important contribution of this study is that it extends the model presented by Imam and Jacobs (2007) by employing other institutional variable which may have significant effect on tax revenues. Imam and Jacobs (2007) considers corruption as a potential institutional variable that can affect tax revenues, but the present study also considers governance as an additional factor that may have affect tax revenues. We carry out a system GMM estimation technique for the 1990-2005 periods for 25 developing countries: Argentina, Bolivia, Brazil, China, Columbia, Cote-devorie, Ecuador, Egypt, Hungry, India, Indonesia, Jordon, Lebanon, Mexico, Nigeria, Pakistan, Peru, Philippines, Russian Federations, South Africa, Thailand, Turkey, Ukraine, Uruguay and Venezuela.

The rest of the study is organized as follows. In Chapter 2 we review a few studies that provide a theoretical and empirical background of the present study. In Chapter 3 we explain the methodology. Chapter 4 explains the data and variable construction and estimation technique. Chapter 5 comprises of the results and discussion of this study. In Chapter 6 we conclude the whole study.

2. Literature Review

In the area of public service, the incentives of being engaged in corrupt behavior are high for both officials those who can enrich themselves by taking bribe and bribe payers who

want to obtain undue benefits such as tax evasion, winning of contracts, etc. evade taxes. The area of taxation, regulations are often so complex that tax payers have great incentives to indulge in corruption. The complexity of tax system also allows official to use their flexible powers and mount corruption in the system.

Sandmo (2004) defines the concept of tax evasion in the following words." Tax evasion is a violation of the law: When the taxpayer refrains from reporting income from labour or capital which is in principal taxable, he engages in an illegal activity that makes him liable to administrative or legal action from the authorities".

Various studies explain that collection of tax revenue is one of the important areas where corruption is most likely to arise (Galtung (1995); Li (1997); Toye and Moore (1998); Tanzi (2000); Fjeldstad and Tungodden (2003)). Some of the factors that contribute to corruption in tax system are as follows.

- A complex and fragmented tax system increases the demand for corruption. Tax auditors and tax payers get advantages through complex rule, unclear laws, regulations and procedures of tax system. Complexity of regulation allows to the official to use their flexible powers and mount corruption in the system.
- Complexity in paying tax leads to corruption (tax payer save their time and reduce uncertainty).
- Another factor that fosters corruption is high tax rates, it increases the incentive for tax payer to evade tax

- To indulge in corrupt behavior individuals compare their benefits with the risk of detection and punishment, they engage in corrupt activities if they feel that the expected punishment is low.

- Low wages of tax administrator and tax payers also foster corruption.

Fjeldstad (2005) examines the experiences of the Uganda Revenue Authority (URA) in controlling fiscal corruption. There are many explanatory factors involved in fiscal corruption. The study concludes that several factors have contributed to the unsatisfactory results of the URA. The study also explains that pay level of employees in URA is one of the several factors affecting the behavior of tax officers.

Recent literature shows that in case of poor countries inducing more fiscal corruption may paradoxically lead to lower level of tax evasion and higher level of tax revenues, but Fjeldstad and Bertil (2001) explain that this paradox does not justify policies to stimulate corruption. It analyzes that in the short run corruption may raise tax revenue but in the long run the opposite will be the case.

The impact of corruption and of tax evasion on tax revenue is not new in the field of public finance .In a series of paper, Tanzi and Dvoodi (1997) have provided evidence that countries with high level of corruption tend to have lower collection of tax revenues in relation to GDP .The implication is that some of the taxes paid by taxpayers are diverted away from public accounts. Tanzi (1999) argues that a distinction needs to be made between taxes collected by the tax administrators and taxes received by the treasury.

When corruption becomes prevalent then higher tax rate leads to smaller net revenues. Sanyal *et al*. (1998) investigates the relationship between corruption, tax evasion and laffer curve. The study explains that a corrupt tax administration leads to laffer curve behavior (a higher tax rate leads to a smaller net revenue). The study explains that "net revenue earned from a truth revealing audit probability always exceeds net revenue through audits, taxes, and penalties in the cheating region".

In case of developing countries corruption is widespread and its consequences for the tax system are destructive.[3] It shrinks the state revenues and thus reduces the ability of state to fulfill its obligations to society. This is something alarming as many studies regarding tax system in developing countries show that more than 50 percent of tax revenue goes uncollected because of fiscal corruption and tax evasion (Richupan (1984); Alm *et a.l* (1991)*;* Bird (1990), (1992) and Krugman, *et al.* (1992)).The losses in revenues and thus subsequently in public spending are high as compared to the proportion of the amounts paid as bribes. Another undesirable consequence of corruption is that it reduces the distributive function of tax collection and hence contributes to increase income inequality.

The problem of tax evasion and corruption have been addressed separately, less attention has been paid to their combined effect. Hadi.S (2006) has taken an effort to see the relationship between corruption and tax evasion. This study analyzes that how bribery affects tax evasion. It also explains how tax-payers would be tending to pay bribes to

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[3] Novartis Foundation - Sustainable Development Programme

maximize their expected income. The study used three different groups of people, individual taxpayers, tax collectors, and inspectors. The results shows that size of bribe negatively affect the tax evasion.

There are a number of studies available on the behavior of the taxpayer less attention has been paid to the behavior of the fiscal officers, their service situation, and their incentives. Chand and Karl (1999) examined the issue to control fiscal corruption by providing incentives to fiscal officers. A model is developed to expose the incentive effect. This study explains the importance of organizational setup and conditions of service of fiscal officers. The study concludes that corruption has to be done due to low wages and other social circumstances.

Good governance brings good tax system. There are three main elements in order to build a good tax system, which includes state legitimacy, taxpayers' willingness to pay tax, and the effectiveness of tax administration. Phillips & Sandall (2008) explain the relationship between governance and tax reforms. The study explains that three key dynamics reflects the relationship between governance, taxation and investment climate. Firstly good tax system positively depends on good governance. Secondly a fair domestic taxation system promotes good governance because efficient tax system allows population to pay fairly.

Revenue collection depends positively on well organized administration; trust in government, and political stability. Theoretical considerations suggest that greater political instability and polarization reduce the efficiency of the tax collection system.

Aizenman and Yothin (2005) explain that collection efficiency is determined by the penalty on underpaying and probability of audit. Their main purpose is to prove the dependence of VAT collection efficiency on some key structural and political economy factor. The study shows that collection efficiency of the value added is affected by economic structure that increases the cost of enforcement. The collection efficiency reduces with less urbanization, less trade openness and higher share of agriculture.

3.   Methodology

A number of empirical studies have explored the factors that can affect tax revenue in developing or developed countries and several factors have been identified. Weiss (1969) explains that the general level of economic development, the administrative and political constraints on the fiscal system, social-political values, indigenous institutions, popular desires for government spending, and other factors are involved in determining the magnitudes of tax revenues in a country.

Teera (2003), Tanzi and Zee (2000) explained that the revenue generating capacity of different taxes in an economy can be determined by using per capita income, share of agriculture output in GDP, share of mineral exports in GDP, openness of the economy and the ratio of money to GDP. Imam and Jacobs (2007) explained that real per capita income, share of agriculture in an economy, openness, inflation and corruption were the most important determinants of a tax.

Gupta (2007) investigates the revenue performance of a set of developing countries over the past 25 years. The study finds that several structural factors like per capita GDP, share of agriculture in GDP and trade openness are statistically significant and strong determinants of revenue performance. The study also analyzes the impact of foreign aid, foreign debt and the institutional variable like corruption and political stability on tax revenue.

The present study mainly follows the framework of Gupta (2007) but it also considers some additional variables that can potentially affect tax revenues. The main difference between the present study and Gupta (2007) is that we analyze the effect of institutional variable on individual taxes while in later study taxes are taken in total revenue form. Following is the list of variables considered in this study.

The level of economic development

Theoretical consideration explains that the tax revenue share rises with the level of economic development.[4] Per capita income is used as a measure of development. The literature on tax revenue system reveals a positive relationship of total tax revenue and income tax as a percent of GDP with per capita income. A higher per capita income leads to a higher level of development, which ultimately generates a higher capacity to pay taxes as well as a greater capacity to levy and to collect them (Chelliah,1971). Most of the studies show that it is expected to be positively correlated with tax share.

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[4] Tanzi (1992).

Trade Openness

Trade openness reflects the degree of exposure of an economy to external economic influences. Rodrik (1998) and Gupta (2004) explains that there is a strong positive correlation between trade openness and the size of the government, as societies demand an expanded role for the government in providing social insurance in more open economies subject to external risks.

Sector-wise Composition of GDP

In an economy sector-wise composition of output matters because certain sectors of the economy are easier to tax than others. The agriculture sector may be difficult to tax, especially if it is dominated by a large number of subsistence farmers. Share of agriculture and industrial sectors in GDP are considered to be two good indicators of the structure of an economy. Tanzi (1992) asserts that a country's economic structure is one of the factors that could be expected to influence the level of taxation. The study also explains that in the case of developing countries agriculture sector has an important influence on tax revenue from both demand and supply sides. A higher agriculture share lowers the revenue performance.

Inflation

Changes in macroeconomic policies environment plays an important role in raising tax revenue, inflation is a good proxy used to measure the economic policy environment. It captures the effect of macroeconomic policy. The literature regarding the impact of inflation on taxation is extensive and it may be difficult to describe this phenomenon.

Some past literature shows that high inflation increases the rate of tax, but recent literature shows that this dilemma depends on collection lags. Tanzi (1977) explains that the combination of high inflation, a relatively long average lag in tax collection, and a low elasticity of the tax system leads to a drastic fall in real revenues when inflation occurs.

Corruption

Recently, some studies have attempted to look at the importance of institutional factors in determining revenue performance. Bird *et al* (2004) finds that factors such as corruption, rule of law, entry regulations play key role in tax revenue determination. Gupta (2007) explains that corruption has a significantly negative effect on revenue performance.

Governance

"Governance is the method of "governing" that is proposed for obtaining lasting economic, social and institutional development, promoting healthy equilibrium amongst the State, civil society and the economic market, and generating expressly for this purpose active involvement by citizens".[5]

 Revenue collection depends on efficiency of government. Good governance brings good tax system; governance has positive relation with tax system. An improved tax to GDP ratio can be achieved by using a combination of good governance, improved tax administration, best macroeconomic policies and other discretionary tax measures. One serious concern for governance is the interactions between tax policy and the legitimacy

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[5] definition of Governance provided by the Royal Academy for the Spanish Language

of governments and the policies they pursue. Benno (2003) suggests that direct democratic rights, local autonomy, trust in government and courts and the legal system have a significantly positive effect on tax morale.

3.1. Econometric Model

In light of above discussion we now propose the following econometric model describing the tax to GDP ratio as a function of a number of variables. The model is given by:

$$\frac{Tax_{ij}}{GDP_{it}} = \alpha_0 + \beta_{1j}CORR_{it} + \beta_{2j}GOV_{tt} + \beta_{3j}OPEN_{it} + \beta_{4j}CPI_{it} + \beta_{5j}\ln PCI_{it}$$

$$+ \beta_{6j}AGR_{it} + \beta_7 IND_{it} + \beta_8 \frac{Tax_{it-1}}{GDP_{it-1}} + \mu_i + \varepsilon_{itj}$$

(3.1)

The notations used in the above equation are defined as follows.

In the equation i refers to a country, t refers to a year and j refers to the coefficient which can differ between different categories of taxes.

$\dfrac{Tax_{ij}}{GDP_{it}}$ is a tax revenue to GDP ratio

$CORR_{it}$ represents the corruption index

Gov_{it} represent the Governance index

$OPEN_{it}$ defined as export plus imports as ratio to GDP

lnY_{it} represents the natural logarithm of real per capita income

AGR_{it} stands for share of agriculture in a country

CPI_{it} is consumer price index, μ_t stands for country effect and ε_{itj} is an error term

4.   Data and Estimation Procedure

This section explains the list of variable that are included in our analysis and also the construction of these variables. First we explain the list of independent variable, in which both structural and institutional variables are included and the construction of theses variables that influence the level of tax revenues.

4.1   Structural factors

Agriculture plays a central role in any economy development, it contribute a large share to the GDP. Share of Agriculture is determined by overall value added in agricultural sector divided by GDP.

Per capita income is known as a good indicator for the overall development of the economy. Real per capita is measured by the ratio of GDP at constant prices in local currency to population.

We use the outcome measure of trade openness, that is export plus imports divided by GDP, all measured at current prices in local currency.

Inflation is used as a proxy for expansionary monetary and fiscal policy. It captures the effect of macroeconomic policy. Inflation is measured by taking the annual growth rate GDP price deflator.

4.2   Institutional Factors

Corruption is defined as the abuse of public power for private benefit. It is captured by an

index that measure the extent to which bribes are generally expected by government officials in relation to, inter alia, tax assessments, trade licenses, and exchange controls (Tanzi (1998)).

The Corruption Perception Index (CPI) compares every year the levels of corruption among public officials and politicians in a wide range of countries around the world. The index is based on the perception of business people and country analysts. The CPI is an index of indices which is composed of nine different indicators that all provide ranking of countries based on expert assessments and opinion surveys. Changes in the scores or ranking may be attributing to factors others than changes in actual levels of corruption.

The Worldwide Governance Indicators (WGI) is formed by the World Bank Research Institute. There consist of six aggregate indicators of governance covering 200 countries, with cross country data from 30 organizations including the sources used for the CPI. The data on Governance are constructed by using six variables 1) voice and external accountability; 2) political stability and lack of violence; 3) government effectiveness; 4) lack of regulatory burden; 5) rule of law; and 6) control of corruption.

Dependent variable is tax revenue ratio to GDP: as an adequate volume of government revenue is essential for public expenditure and economic growth, the ratio of tax revenue to GDP has been used to measure and judge the success of a country's fiscal management.

To see the effects of corruption and governance and the other variables on tax revenue, as explained in Chapter 3, we require cross-sectional as well as time series data. We use a panel data in order to have sufficient number of observation in econometric exercise.

The study uses a panel dataset that covers 25 developing countries over a 16 years period: 1990-2005. The countries are chosen on the basis availability of data, are Argentina, Bolivia, Brazil, China, Columbia, Cote-devorie, Ecuador, Egypt, Hungry, India, Indonesia, Jordon, Lebanon, Mexico, Nigeria, Pakistan, Peru, Philippines, Russian Federations, South Africa, Thailand, Turkey, Ukraine, Uruguay and Venezuela. The data on different variables are taken from a variety of sources, the detail of different sources is explained below.

Data on total tax revenues are taken from *World Development Indicator* (1990-2005). *International Country Risk Guide* (ICRG) provides data on political risk indicators for 140 countries for the period 1984-2007. In our analysis we use the index on political risk and corruption. Data on corruption are taken from *International Country Risk Guide* (1990-2005). Data on governance are taken from *Worldwide Governance Indicators* (1990-2005). The *World Development Indicators* provides comprehensive dataset about macroeconomic variables. WDI is the main source of data on different economic variables like per capita income, agricultural share, Industrial share, CPI and openness.

4.3   Estimation Technique

We use Generalized Method of Moments (GMM) for the estimation of equation 3.1. GMM estimation technique controls the endogenity of regressors and the country specific effect. GMM also helps to controls for possible specification bias when variables are highly persistent over time.

Endogenity arises when right hand side variable are correlated with the random error term of the equation. Model uncertainty arises when we cannot fully capture the determinants of tax revenues.

In Equation 3.1 the primary reason for endogenity is that the lagged dependent variable appearing on right hand side of the equation is correlated with the country specific random effect μ_i. One way to handle this problem is to estimate equation 3.1 by GMM using lagged first differences of all potentially endogenous variables along with exogenous variables as instruments. Another approach is to estimate equation 3.1 in first difference form by GMM using lagged level of variables as instruments. The third approach, which is considered superior to the first two approaches, is to combine the first two approaches by stacking the level equation with the first difference equation, thus using twice as many observations as used in each of the first two approaches. These details are available in Greene (2004).

5.   Results and Discussion

According to the objective of our study, we examine whether across-country and over time variation in the taxes can be explained by institutional and structural factors. We use GMM technique as explained in chapter 3.

The regression result for total tax is presented in table 5.1. Before going to the detail of the result, it is essential to establish the overall credibility of the results. Since R^2 is not a valid statistic as it does not necessarily lie in the [0,1] range, we use χ^2 statistic for Wald test on the null hypothesis that all the slope coefficients are equal to zero, The value of χ^2 statistics are highly significant in all the six equations, confirming that the overall fit of the equations is quite satisfactory.

We also apply Hanson test to confirm validity of the restriction. The test is based on Chi-square statistic with degree of freedom equal to the number of excess instruments (i.e., the number of instruments minus the number of parameter to be estimated). The value of this Chi-square statistic is statistically insignificant, conforming acceptance of the null hypothesis.

Finally, we report Durban Watson statistic for the regression equation in first difference form. The table shows that the value of DW statistic is somewhat on the higher side, indicating presence of mild negative autocorrelation. This is the typical result of estimating the equation in first difference form. In first difference form first order autocorrelation coefficient can be equal to zero only when the first order autocorrelation coefficient in the level equation is exactly equal to one. Since in the level form

autocorrelation will typically be positive and high but not perfect, this will translate into mild negative autocorrelation in the first difference form.

We now discuss the result in some detail for the regression results reported in the table. Table 6.1 shows that for total taxes the regression coefficient of per capita income is very small and highly insignificant. This means that, other things held constant, total taxes are proportional to GDP. Another interpretation is that contrary to a prior expectation, the tax to GDP ratio does not seem to increase with economic development as indicated by per capita income. The reason could be that the level of development experienced in the sampled countries in the given short period of time may not have been enough to exert any effect on the tax generating capacity.

The regression coefficient of the share of industrial sector in GDP is positive and significant, indicating that the composition GDP matters and industrial sector contributes relatively more to taxes. The value of regression coefficient shows that, for example, as a share of industrial sector in GDP increases by 10 percentage points, tax collection as a percentage of GDP increases by 3.15 percentage point.

The regression coefficient of corruption variable is negative and significant, while that of governance variable is positive and significant. Both these results are in conformity with our a prior expectation that corruption cause significant leakages in tax revenue and good governance can plug-in some of these leakages by contributing to better administration

and management in public sector department including the ones responsible for tax collection.

The AR (1) coefficient is positive and significant, meaning that the first order autoregressive process successfully remove autocorrelation form the regression residuals.

Table6. 1:   GMM estimates of total tax revenue equation

Explanatory variable	Coefficient	t-value
Constant	-0.052	-0.790
Log (PCI)	-0.001	-0.277
Share of industrial output in GDP	0.315	2.696*
Corruption	-0.007	-2.252*
Governance	0.002	5.366*
AR(1) coefficient	0.397	3.780*
Chi-Square statistic for Wald test	59.872*	
Chi-Square statistic for Hanson test	11.196*	
DW statistic	2.077	

Note: Statistics significant at 5% and 10% level are indicated by * and ** respectively.
The Wald test is applied on the restriction that all regression coefficients other than the intercept are equal to zero.

7.   Conclusion and Policy Implication

In this study we have analyzed the effects of institutional variables (corruption and governance) and structural variables (per capita income, share of industrial output in GDP, share of agriculture in GDP, inflation and trade openness) on total tax revenues in selected developing countries, using panel data set for 25 developing countries over the period 1990-2005. All estimates are based on GMM applied to dynamic panel model in level and in first difference form.

The main contribution of this study is that it extends the model presented by Imam and Jacobs (2007) by including the institutional variable governance, which is found to have significant effect on tax revenues.

The GMM regression results show that institutional variables have significant effect on tax revenues. The study concludes that governance and corruption are two main determinant of tax revenue. Corruption has adverse effect on tax collection, while good governance contributes to better performance in tax collection. The study concludes that corruption has negative and significant effect. Governance has positive and significant effect on tax revenues, this shows that good governance brings good tax system; governance has positive relation with tax system.

In developing countries tax revenue collection depends on efficiency of government. Thus the voice and accountability, political stability, government effectiveness, regulatory quality, rule of law and control of corruption and are important factors in determining tax revenues in developing countries. An improved tax to GDP ratio can be

achieved by using a combination of good governance, improved tax administration, good macroeconomic policies and other discretionary tax measures.

Although structural variables like per capita income, trade openness, industrial share and inflation also play important role but different variables have different effects.

The results may have implications for governments internationally when consideration is given to the issue of effective tax administrations. Efforts should be made by governments to make improvements to the governance (voice and accountability, political stability, government effectiveness, regulatory quality, rule of law and control of corruption) as a starting point. Fiscal corruption in the tax administration is reduced by required laws, which are vigorously enforced by independent and efficient judicial system. Also, when democratic political institutions are in place, taxpayers are allowed to freely express their opinion about the tax system, so tax administrations should become more transparent and publicly accountable, hence fiscal corruption is more easily exposed. Developing countries need actively to strive to reduce the opportunities of corruption in tax administration and change the incentive structure for tax officials.

References

Acconcia, A., M. D'Amato, and R. Martina (2003)," Tax Evasion and Corruption in Tax Administration" *Journal of Public Economics* vol. 105(1-2), pages 61-78.

Aizenman, J. and Jinjarak, Y. (2005), "The collection efficiency of the value added tax: theory and international evidence" New York Times April 6, 2005, Bruce Bartlett

Allimgham,M .G. and A.Sandmo (1972) 'Income Tax Evasion: A Theoratical Analysis.' *Journal of Public Economics,* Vol. 1. No.3-4.pp. 323-338

Alm, J. Bahl, R.W. and Murrey, M.N. (1991). "Tax Base Erosion in Developing Countries". *Journal of Economic Development and Cultural Change*, vol. 39, issue 4, pages 849-72

Besley. T and John, M. (1993), "Taxes and Bribery: The Role of Wage Incentives". *The Economic Journal*, Vol. 103, No. 416 (Jan., 1993), pp. 119-141

Benno, T. (2003), "To Evade or Not to Evade: That is the Question", *Journal of Socio-Economics*, 283–302 World Bank (1988), "*World Development Report*, 1988", Washington DC

Bird, R. (1990), Expenditures, administration and tax reform in developing countries. *Bulletin for International Tax Documentation*, 44, 263-267.

Bird, Richard M., Jorge Martinez-Vazquez, and B. Torgler, (2004), "Societal Institutions and Tax Effort in Developing Countries," International Studies Program Working Paper 04–06.

Bird, R. M. and Zolt, E. M. (2008) "Technology and Taxation in Developing Countries: From Hand to Mouse" UCLA Law Review 52 No. 6 (2008):1627-95.

Bird, Richard M. (1992)."Tax Policy and Economic Development". Baltimore and London: The Johns Hopkins University Press.

Bird, R.M. (1996). "Why Tax Corporations"? Working paper 96-2.Ottawa: Finance Canada, online: Department of Finance Canada <www.fin.gc.ca/taxstudy/wp96-2e.pdf>.

Bornhorst, F. Gupta,S. and Thornton,j. (2008), "Natural Resource Endowments, Governance and the Domestic Revenue Effort: Evidence from a Panel of Countries" IMF Working Paper WP/08/170 Fiscal Affairs Department

*Brondolo,*J. *Silvani,C. Borgne*, E. and *Bosch*, F. (2008), "Tax Administration Reform andFiscal Adjustment": The Case of Indonesia (2001-07) IMF Working Paper No. 08/129

Chelliah, Raja J., (1971), "Trends in Taxation in Developing Countries," *Staff Papers, International Monetary Fund*, Vol. 18, pp. 254–0331.

Chand, S. Karl O. M (1997), "Controlling Fiscal Corruption"IMF Working Paper No. 97/100.
Cheibub,J.A. (1998)."Political Regime and Extractive Capacity of Government: Taxation in Democracies and Dictatorships" *World Politics* 50:349-376.

Fjeldstad, O.H. (2005), "Corruption in Tax Administration: Lessons from Institutional Reforms in Uganda" CMI Working Paper WP 2005: 10

Fjeldstad,O.H. and Rakner,R.(2003). "Taxation and Tax reforms in Developing Countries": Illustrations from Sub-Saharan Africa CMI Report No. (2003:6)

Fjeldstad, O.H. and Tungodden, B. (2001). "Fiscal corruption: a Vice or Virtue?" *World Development Report*, 31, 1459-1467.

Galtung, F. (1995). "Current strategies for Combating Corruption: a study of Corruption in the Tax Administration". Occasional Working Paper 8:95. Berlin: Transparency International.

Gupta, Sanjeev, Benedict, C., Alexender P, and Erwin R. Tiongson, (2004), "Foreign Aid and Revenue Response: Does the Composition of Aid Matter?" in Helping Countries Develop: The Role of Fiscal Policy, Working Paper, Washington: International Monetary Fund

Gupta, S.A (2007), "Determinants of Tax Revenue Efforts in Developing Countries" IMF Working Paper No.07/184 Washington, DC: The International Monetary Fund

Hadi,S.(2006), "Corruption and Tax Evasion" Published by Dogus University

Imam, P. A. and Jacobs, D. F.(2007) "Effect of Corruption on Tax Revenues in the Middle East" IMF Working Paper No.07/270. IMF Institute and Fiscal Affairs Department

Kaldor,N.(1963) . "Will Underdeveloped Countries learn to Tax?" Foreign Affairs. 41:410-19

Krugman, P.R., Alm, J., Collins, S.M., & Remolina, E. (1992). "Transforming the Philippine Economy" Quezon City: APO Production Unit, Inc

Li, J. (1997). "Counteracting Corruption in the Tax Administration in Transitional Economies: a Case study of China". Bulletin of the International Bureau of Tax Documentation, 51, 474-492.

Linn F.J. and Weitzel D. (1990), "Public Finance, Trade and Development: What Have We Learned?" in *Fiscal Policy in Open Developing Economies*, ed. pp. 9-28.

Phillips, M. and Sandall, R. (2008) "Linking Business Tax Reform with Governance: How to Measure Success" A Working Paper produced in conjunction with FIAS of the World Bank Group

Richardson, G. (2007) "The Impact of Economic, Legal and Political Factors on Fiscal Corruption: a Cross-Country Investigation" 22(4) *Australian Tax Forum,* Vol. 22.

Richupan,S. (1984). "Income tax evasion: a review of the measurement of techniques and some estimates for the developing countries". Department Memorandum No. DM/84/46. Washington, DC: The International Monetary Fund.

Rodrik, Dani, 1998, "Why do More Open Economies have Bigger Governments?" *Journal of Political Economy,* Vol. 106, pp. 997-1032

Sandmo, A. (2004). "The Theory of Tax Evasion: A Retrospective View" Discussion Paper 31/04, Norwegian School of Economics and Business Administration

Sanyal,, A. Gang, I. N. and Goswami,Omkar.(2000), " Corruption, Tax Evasion and the Laffer Curve," Public Choice, Springer, vol. 105(1-2), pages 61-78, October

Tanzi, V. (1992), "Fiscal Policies in Economies in Transition" Edited Edition. IMF, Washington DC: International Monetory Fund.

Tanzi, V. (1997). "Inflation, Lags in Collection, and the Real Value of Tax Revenue" Staff Papers - *International Monetary Fund*, Vol. 24, No. 1, pp. 154-167

Tanzi, V. (1998), "Corruption around the World: Causes Consequences, Scope and Cures", Working Paper No. 98/63, IMF Fiscal Affairs Department, Washington DC: International Monetary Fund.

Tanzi, Vito. (1999). "Uses and Abuses of Estimates of the Underground Economy." *The Economic Journal* 109, 388.

Tanzi,Vito. (2000). "Taxation in Latin America in the Last Decade" Working Paper No. 76. Center for Research on Economic Development and Policy Reforms. Stanford University. December 2000

Tanzi, V.and Zee, H. (2000). "Tax policy for Emerging Markets: Developing Countries." IMF Working Paper WP/00/35. Washington DC: International Monetary Fund.

Tanzi, V. and Zee, H. (2001). "Tax Policy for Developing Countries". Working Paper, Economic Issues No. 27.

Teera, Joweria M[2003]. "Could Do Better: An appraisal of Uganda's Tax Performance Relative to Sub Saharan Africa," Working Paper University of Bath:

Toye, J., and Moore, M. (1998). "Taxation, Corruption and Reform". *European Journal of Development Research*, 10, 60-84.

Transparency International. (2006). Transparency International Corruption Perceptions Index 2002. Berlin: Transparency International.

World Bank. (2006). World Development Indicators. Washington, DC: World Bank