Financing the weak nation-state: Inadequate public finance in Latin America

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ABSTRACT

This paper presents empirical evidence on the relationship between governmental effectiveness and the ability to collect sufficient tax revenues. All governments need sufficient revenue in order to properly function. Governments of developing nations need additional revenue in order to build needed infrastructure. The governments of Latin American countries are almost without exception chronically and materially underfunded. Significantly less tax revenue is collected by countries in the region compared to the rest of the world. This leads to a vicious circle in that an underfunded government is a weak government and a weak government has less ability to enforce its own laws including the collection of tax revenues. Less tax revenue in turn leads to greater weakness. The objective of this paper is to test the hypothesis that strength and capacity of a state impacts its ability to collect adequate tax revenue. In other words, do stronger states collect more tax revenue than do weaker states? Many possible causes of Latin America's high level of low tax effort have been advanced by researchers and theorists. Utilizing cross country data drawn from the Inter-American Development Bank as well as other sources, a model is developed to test the theory that the principle cause of low tax effort in Latin America is the result of weakness in the governmental sector. The model finds that a country's strength and capacity are correlated with its ability to collect tax revenue.

Keywords: Latin America, public finance, taxation

SECTION ONE: INTRODUCTION

All governments need sufficient revenue in order to properly function. Governments of developing nations need additional revenue in order to build much needed infrastructure. The governments of Latin American countries are almost without exception chronically and materially underfunded (Bird, Martinez-Vazquez, and Togler, 2008). Indeed, Bird, Martinez-Vazquez, and Togler, (2008) contend the situation has persisted for at least four decades. Significantly less tax revenue is collected by countries in the region compared to the rest of the world. This leads to a vicious circle in that an underfunded government is a weak government and a weak government has less ability to enforce its own laws including the collection of tax revenues. Less tax revenue in turn leads to greater weakness. The objective of this paper is to test the hypothesis that strength and capacity of a state impacts its ability to collect adequate tax revenue. In other words, do stronger states collect more tax revenue than do weaker states?

The problem can also be viewed as a chicken and egg issue. A strong nation-state is required in order to implement and enforce its own tax laws in order to collect sufficient tax revenue to finance its operations. However, a government needs to be adequately financed by collecting a sufficient amount of revenue in order to be a strong nation-state. This is in essence the quandary most Latin American governments find themselves in.

A tax system is inherently political. Indeed few things are more political than a nation's system of public finance. The most important and fundamental issues of politics and governance are either directly or indirectly related to taxation and public finance. Such issues as: how expansive should the government be, how should the government be financed, who should pay for governmental services, how should they pay, should income or wealth be redistributed from rich to poor and if so to what extent, who or what should be subsidized, which activities should be encouraged and which discouraged - are all political questions and all are directly or indirectly related to public finance. Indeed, according to Schumpeter (1991) "The budget is the skeleton of the state stripped of all misleading ideology." In other words, a state's budget and its public finances are in reality the very essence of the state. The budget reflects a state's priorities, its objectives, its capabilities, and its values.

This paper is organized as follows; following the Introduction, Section Two consists of a review of the related literature. Section Three summarizes the theories utilized in this paper. Section Four describes the data, variables, and hypothesis utilized in this analysis. Section Five reports the statistical methods used and results of the analysis. Finally, Section Six is a brief Conclusion.

SECTION TWO: REVIEW OF THE RELATED LITERATURE

This paper draws on the resources of two very distinct bodies of literature: the first body of literature relates to nation-state building. This body of literature also includes a discussion of weak as well as failed states. Particular emphasis is placed on the financing of weak states in Latin America. The second body of literature relates to Fiscal Sociology. Fiscal Sociology is sometimes known as Economic Sociology or Public Finance. Included in this body of literature are several academic works focusing on various political, social, and economic matters in Latin America today.

Nation-State Building

Although some theorists define the terms differently, this paper considers nation building, state building, and nation-state building to be synonyms and they will be used interchangeably. Nation-state building theory has gained considerably in importance as a result of recent American efforts in Iraq and Afghanistan. Francis Fukuyama (2004a, 2004b) provides a theoretical foundation for state building. Fukuyama contends that the West's state building efforts in the developing world have been failures largely as a result of weak institutional capacity. The west can transfer many things to the developing world but thus far has been unable to successfully transfer institutions. Institutions are, according to Fukuyama and Marwah (2000) as vital as the proper economic policies when it comes to developing countries.

North agrees with Fukuyama about the necessity and importance of institutions (North, 1991). North, Summerhill, and Weingast (2000) contend that establishing institutions which create order is the central obligation of the state. Economic as well as political and social development is dependent upon order according to the authors. Others contend that poorly functioning institutions are at the heart of many of the worlds' problems (Fukuyama, 2004b) and even in Latin America that there is a strong correlation between weak institutions and terrorism (Feldman and Perala, 2004). Garcia-Zamor (2003) speculates that many of the modern day shortcomings of Latin America's institutions can be traced all the way back to the Aztec, Maya, and Inca empires. Even strong economic growth may not create better institutions in Latin America, as Kaufmann and Kraay (2002) contend that the correlation between growth and good institutions only works in the other direction – good institutions create growth. The authors go on to contend that in developing countries the benefits of growth are often claimed exclusively by the elite at the expense of society at large.

Fukuyama's state building theory utilizes a matrix of two factors, state scope and state strength (Fukuyama, 2004a, 2004b). State scope relates to the size and range of activities undertaken by the state while state strength relates to the governments' ability to formulate and enforce its own laws and policies (Fukuyama, 2004b). In general, states should limit the range of their activities they engage in, but perform well in those areas. In other words, Fukuyama contends states should be strong but limited in scope. He points to the United States (Fukuyama, 2004b) as being an example of a state which is extraordinarily strong in terms of enforcing its own laws, while at the same time having a number of built in mechanisms which limit the scope of the state. Fukuyama (2004b) goes on to contend that the rule of law in the United States should be the envy of the world.

Dobbins, Jones, Crane, and DeGrasse (2007) provide a blueprint for nation state building. The monograph is a no nonsense practical "how to" manual more than a theoretical work. Such areas as governance, establishing the rule of law, installing democracy, and promoting development are covered. The role and importance of establishing a workable tax system so that the state is not dependent on the international community, is also covered.

Ottaway (2002) provides an historical perspective on nation-state building in Europe. She contends that there are not many success stories in modern day nation building and that it is not possible to build a state without coercion. Others including Call (2003) disagree, pointing to El Salvador as an example where successful state building is possible even in a poverty stricken war torn country. One reason nation-state building is difficult may be that institutions are difficult to reform (Azaruadis and Stachurski, 2005). Azaruadis and Stachurski (2005) also argue that corrupt institutions tend to perpetuate themselves by providing incentives for more corruption and that well-functioning institutions in Europe evolved over a period of several centuries.

Goldstone and Ulfelder (2004) look at state building from the perspective of building sustainable democracies. Liberal democracies, the authors contend, are much more stable than other forms of government. Their empirical analysis led them to conclude that a small number of factors consistently preceded political upheaval. Concurring with Fukuyama and Mahwah (2000) as well as with North (1991), Goldstone and Ulfelder (2004) also point to the importance of properly functioning institutions. The authors also provide grounds for qualified optimism in their finding that all nations, no matter how underdeveloped or autocratic are ready for democracy. The need for higher levels of tax revenue may all by itself compel autocratic nations to become democratic (Ross, 2004).

Weber (2003) supplies a pertinent definition of what a state actually is. He defines a state as a community which has a monopoly on the use of force within its boundaries to enforce its laws. Weber's definition is especially applicable in Latin America where in many respects states are unable to enforce their own laws. That fact is exemplified by the quote from former Brazilian Congressman Antonio Ferreira Vianna, as quoted by Oppenheimer (2007, 243) "Brazil needs only one [new] law, a law that says all other laws should be obeyed." Weber (2003) also provides a theoretical perspective on certain cultural attributes which may lend themselves to successful states.

Fiscal Sociology

Schumpeter (1991) contributes an early seminal work covering public finance. Although better known for his work on economic growth and his theory of creative destruction, Schumpeter actually held a professorship in public finance. Slemrod (1990, 1995) provides a perspective from the optimal school of taxation. Moore (2004) and Ross (2004) both address the relationship between how a state provides for its financing and that state's behavior. Moore contends that there are autocratic predatory states and there are tax states, while Ross concludes that there is a relationship between taxation and democracy.

A number of scholars have pointed to an historical basis as an explanation of Latin America's poor economic performance. In comparison with East Asia, Fukuyama and Marwah (2000) point to Latin America's poor bureaucratic quality and weak enforcement of the rule of law. The authors contend that East Asia's relative superiority in such areas is the result of a three thousand year legacy of Imperial Chinese administration. Kay (2002) also compares Latin America and East Asia and concludes that East Asia's materially better economic performance is largely the result of comprehensive land reform which preceded industrialization. Edwards (2007) has also addressed Latin America's economic history while Tanzi (2000) provides a comprehensive account of taxation in the region.

Countries with high levels of income inequality also tend to be weak states which oscillate between dictatorship and fragile democracy (Acemoglu and Robinson, 2001). The authors cite Argentina as an example which shifted 7 times from dictatorship to democracy or vice versa in the twentieth century. The authors also speculate that low tax effort may result in such countries as a safeguard against coup (Acemoglu and Robinson, 2001). Surprisingly, even the revolutionary Sandinistas, upon taking control in Nicaragua, did not raise taxes on the wealthy; rather they relied upon regressive taxation (Bird, Martinez-Vazquez, and Togler, 2008).

Low tax effort is by no means a recent phenomenon in Latin America. Rather it has persisted in the region for decades (Bird, Martinez-Vazquez, and Togler, 2008). Bird, Martinez-Vazquez, and Togler, (2008) theorize that Latin American countries lack a social contract between the state and its citizens. Such a social contract is the foundation of a properly functioning tax system. The authors also speculate that political will is necessary for tax reform in Latin America, a view shared by Stein, Tommasi, Echebarria, Lara, and Payne (2005). Bowler and Donovan (1995) provide empirical evidence of voters linking dissatisfaction with government with dissatisfaction with taxation. Accordingly, better government may result in better tax collection. Low tax effort may also be the result of excessive regulation, greater corruption, and a weak legal environment all of which have the effect of forcing business into the informal economy (Friedman, Johnson, Kaufmann, and Zoido-Lobaton, 2000). Figure 1 (Appendix) compares Latin America's tax effort with that of Eastern and Central Europe as well as with the wealthy industrialized countries.

There is some evidence that there is a correlation between crises and increased tax effort. Both Mahon (2004) and Besley and Persson (2007) make such an argument. Mahon (2004) points out that all the way back to Aristotle it has been recognized that emergencies tend to expand state power. Expanded state power in turn leads to greater governmental tax revenues. Likewise, Besley and Persson (2007) contend that war and the threat of war have historically been the cause of significant increases in tax effort. Moore (2004) contends that the source of governmental revenue has a dramatic effect on state behavior. In other words, the quality of governance is better when the state is dependent upon its citizens for revenue. Moore (2004) points to historical examples as well as the modern day examples of Poland and Russia. Upon the fall of communism, Poland instituted a broadly based tax system while Russia has relied upon the taxation of natural resources for its revenue. That Poland's government is much more responsive to its citizens is not coincidental according to Moore (2004). Responsive government according to Bird, Martinez-Vazques, and Togler, (2008, 68) is "an essential precondition for a more adequate level of tax effort."

Sebastian Edwards (2007) provides an historical analysis of economic performance in Latin America. He contends that economic performance of late has been unspectacular in Latin America especially during the so called lost decade of the 1980's. Putting Latin America's economic performance in historical perspective are North, Summerhill, and Weingast (2000) who maintain that long before Latin America's lost decade it experienced a lost century as it fell well behind North America in the 19th century.

SECTION THREE: THEORY DESCRIPTION

Considering the enormous stakes involved in Afghanistan as well as in Iraq for the United States, nation-state building has become a timely and vitally important topic. Nation-state building is by no means an easy task. Indeed few things a government undertakes are more difficult or entail greater cost. Any number of challenges await the would be nation builder and every nation-state building effort presents its own unique challenges and problems. Recent American efforts at nation-state building have met with, at best mixed results. Other than in Iraq and Afghanistan, mixed results have followed recent interventions in Kuwait, Somalia, Haiti, Bosnia, and Kosovo (Dobbins, Jones, Crane, and DeGrasse, 2007).

Nation-State Building theory is best exemplified by Fukuyama (2004a, 2004b). Fukuyama sees state building as being vitally important given that many of the world's most pressing problems originate in weak states. Fukuyama (2004a) has formulated a theory of state capacity utilizing state scope as well as state strength. State scope relates to the size and range of activities undertaken by the state. Fukuyama contends that all nations, especially democracies, spend time and effort debating state scope. His contention certainly seems valid considering the world's current financial crises and even more importantly the federal government's extensive role in the economic rescue plan. Experiments in large scale government (large state scope) have ended in failure according to Fukuyama (2004a). Accordingly, limited state scope is preferable.

State strength relates to the governments' ability to formulate and enforce its own laws and policies (Fukuyama, 2004b). Fukuyama and Marwah (2000) have joined a chorus of others, including such luminaries as Douglas North (1991) and Milton Friedman (Fukuyama, 2004b), in recognizing the vital importance of institutions. Institutional effectiveness is especially important in Latin America where there is the appearance of strong states but whose strength is undermined by weak institutions (Fukuyama and Marwah, 2000). Ideally, according to Fukuyama (2004a, 2004b), for a state to be successful it ought to have limited scope along with strong institutional capacity. Large and extensive states are not needed, but effective ones are.

If Latin America were prosperous like the West or growing like China or some of the other rapidly developing East Asian countries, then its chronic low tax effort would not be an issue. Indeed, the region would in all probability be applauded for its light touch on commerce and on its citizens. But the reality is Latin America is not prosperous and although it is growing, it is growing very slowly in comparison with the rest of the world.

High rates of taxation placed on commerce could be a contributing factor in Latin America's low savings rates. Indeed as a region Latin America has the highest statutory tax rates on business profits and is a close second to Africa in total taxes expressed as a percentage of business profits (World Bank, 2008). The total tax rate in Latin America at 56.6% of business profits is some twenty percent higher than the OECD average (World Bank, 2008). Total tax rates expressed as a percentage of total business profits ranges from a low of about 28 % in Chile to a high of over 112 % in Argentina (World Bank, 2008). It is probably no coincidence that Chile has averaged a robust 3.40 % annual growth in real GDP per capita over the last 10 years while Argentina has languished at an annual growth rate of a miniscule 0.14 % (Hestion, Summers, and Aten, 2006).

Latin America fares no better when it comes to the non-pecuniary or non-monetary costs of taxation – compliance with tax laws is burdensome. The total time in hours for the average business to comply with all applicable tax laws each year is just over twice as high in Latin America than it is in OECD countries (World Bank, 2008). The range of annual tax compliance time in Latin America ranges from the 70's in some of the smaller Caribbean islands to a staggering 2,600 hours in Brazil (World Bank, 2008). By way of comparison, in the United States the comparable number is 325 hours (World Bank, 2008). Tax compliance in Brazil is complicated by the requirement of filing monthly corporate tax returns (Muniz, 2006) as compared to the world wide norm of annual income tax returns. Unfortunately the monthly income tax return requirement in Brazil is not an outlier in that it is symptomatic of the generally excessive compliance burdens placed on businesses operating in Latin America. High compliance burdens encourage businesses, especially small businesses to remain in the informal sector and beyond the reach of taxation.

SECTION FOUR: DATA, VARIABLES, AND HYPOTHESIS

Data was collected from a number of sources, described below, on the countries of Latin America. Countries involved in the analysis include: Argentina, Bahamas, Belize, Barbados, Bolivia, Brazil, Chile, Columbia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Vincent, Trinidad and Tobago, Uruguay, and Venezuela. Excluded from this study because of a lack of data are Ecuador, Cuba, and Haiti, as well as a number of small Caribbean islands.

The dependent variable used in this analysis, tax effort, is formally defined as the total amount of tax revenue collected from compulsory transfers to the government divided by Gross Domestic Product of the country. Information on tax effort was taken from the Inter-American Development Bank's Governance Indicators Database. The database is also known as DataGov (2008). DataGov compiles data from a number of different sources. Data on tax effort was derived from the World Bank: World Development Indicators or WDI.

The main independent variable, government effectiveness, is used as a measure of the strength of the state. It was taken from the World Bank's World Governance Indicators (Kaufmann, Kraay, and Mastruzzi, 2006). The construction of the indicator is fully described by its principle creators Kaufmann, Kraay, and Mastruzzi (2006). It combines in one aggregate index a number of indicators and measures of a government's effectiveness. Such things as governmental stability, bureaucratic quality, the burden of governmental regulation, and governmental wastefulness are included in the government effectiveness variable.

Another of the independent variables, political stability is also taken from the World Bank's World Governance Indicators (Kaufmann, Kraay, and Mastruzzi, 2006). Political stability is an aggregate measure of the political stability and absence of domestic violence within a country. It is derived from a number of related measures, including such things as the presence of violent conflict, the degree of ethnic tension, and the probability of dramatic or unconstitutional changes to the government. As with Government Effectiveness, Political Stability is fully described by its principle creators Kaufmann, Kraay, and Mastruzzi (2006).

The Rule of Law, another of the independent variables was also obtained from the World Bank's World Governance Indicators (Kaufmann, Kraay, and Mastruzzi, 2006). The Rule of Law is an aggregate index of such law related measures as property rights, the enforceability of contracts, and the effectiveness of the legal system and the independence of the judiciary.

The Informal Sector is another independent variable. It is an estimate of the size of a countries informal or underground economy. The size and extent of an informal sector is by its very nature difficult to measure. This variable was obtained from the Inter-American Development Bank's DataGov (2008) database. DataGov in turn obtained the data from the World Economic Forum's Executive Opinion Survey which was carried out as part of the Global Competitiveness Report. The informal sector was used as a variable in this analysis as a proxy for the magnitude of tax evasion which occurs in a country.

Another independent variable, Tax Corruption, was obtained from Transparency International's Global Corruption Barometer (Transparency International, 2006). Although a number of measures of corruption exist and could have been used in this analysis, tax corruption was thought to be the most applicable. Tax corruption is a measure of the extent to which corruption affects a government's tax revenue system. The tax corruption variable is based on responses to public opinion surveys conducted by Gallop International on behalf of Transparency International.

Tax Efficiency is the final independent variable utilized in this analysis. Tax efficiency is an estimate of the overall efficiency of a country's tax revenue system. This variable was obtained from the Inter-American Development Bank's DataGov (2008) database. DataGov in turn obtained the data from the World Economic Forum's Executive Opinion Survey which was carried out as part of the Global Competitiveness Report. This variable measures the complexity of a country's tax system as well as the extent to which the tax system distorts the economy.

The objective of this paper is to test the hypothesis that strength and capacity of a state impacts its ability to collect adequate tax revenue. In other words, do stronger states collect more tax revenue than do weaker states? It is expected that stronger states will in fact collect greater amounts of tax revenue than do weaker states. Such a finding will be in support of state building theory and fiscal sociological theory, as outlined in this paper.

HYPOTHESIS

Statement of Null and Research (Alternative) Hypotheses:

> H_0: There is not a relationship (no correlation) in Latin America between the strength and capacity of the state and its ability to secure governmental revenue.
>
> H_1: There is a relationship (positive correlation) in Latin America between the strength and capacity of the state and its ability to secure governmental revenue.

Dependent variable: Tax effort, total tax revenue divided by GDP
Main Independent variable: Government effectiveness
Other Independent variables:

> Political stability and absence of violence
> Rule of law
> Informal sector
> Tax corruption
> Efficiency of the tax system

The basic econometric model which tests the relationship between governmental strength and tax effort is as follows:

$$\text{Tax Effort} = \beta_0 + \beta_1\text{GovEff} + \beta_2\text{PolStab} + \beta_3\text{Law} + \beta_4\text{InfSec} + \beta_5\text{TaxCor} + \beta_6\text{TaxEff} + u$$

Where:
Tax Effort is the size of the government expressed as a percentage of gross domestic product
GovEff is governmental effectiveness
PolStab is political stability and the absence of violence
Law is the rule of law
InfSec is the size of the informal sector of the economy
TaxCor is corruption in the tax system
TaxEff is the effectiveness of the tax system
u represents unobserved factors which affect tax effort. u also includes the error term.

SECTION FIVE: STATISTICAL METHODS AND RESULTS OF ANALYSIS

A Bivariate regression was run to determine the correlation between government effectiveness, the main independent variable and tax effort, the dependent variable. Bivariate regressions were also run comparing all of the other independent variables to the dependent variable tax effort. Table 1 (Appendix) shows the results of the regressions.

Scatter graphs of the correlations between the dependent variable and each of the independent variables are displayed in Figure 2 through Figure 7 (Appendix).

A statistically significant correlation was found between the main independent variable and the dependent variable. In other words, the level of tax effort of a country, as indicated by total amount of tax revenue collected divided by the country's gross domestic product is dependent upon the effectiveness of the government. This result is not only statistically significant at the .01 level, but meaningful as well. Indeed the main independent variable has at .571 the largest correlation of any of the independent variables. The obtained result is also in accordance with the prediction of the theories utilized in the paper. Several of the other independent variables achieved the level of statistical significance when compared with the dependent variable as well.

Additionally, an ordinary least squares (OLS) regression analysis was performed in order to test the hypothesis that there is a relationship between the strength and capacity of the state and its ability to collect sufficient tax revenue. The results of the regression analysis are displayed in Table 2 (Appendix). Overall the independent variables explain sixty-eight (68) percent of the variation in the level of tax effort. Table 2 shows the coefficient, standard error, t value, and p value for each of the independent variables. As the results clearly indicate there is a strong correlation between the various measures of the state's strength and capacity and its ability to collect sufficient tax revenue. The result is consistent with and supports the theories as outlined in the paper. Considering the robust statistical significance as well as the meaningfulness of the results, the Null Hypotheses must be rejected and the alternative or research Hypotheses accepted.

SECTION SIX: CONCLUSION

The results of this analysis indicate that there is a strong correlation between the strength of a state and its ability to generate sufficient tax revenue. Strong states appear to have the ability to generate as much tax revenue as they desire while weak states, especially those in Latin America, remain chronically underfunded.

Clearly much needs to be done to reform public finance throughout Latin America. It will not be easy, neither however will it be impossible. Many other nations throughout the world have undertaken such reforms and done so successfully. McLeish and Ramalho (2007) point to the countries of Eastern Europe and Central Asia as a region of the world which has collectively reformed and modernized their tax systems. Russia's comprehensive tax reform in the early 2000's is a prime example. Tax rates were reduced by nearly a third and a simplified tax scheme for small businesses was implemented. The reforms resulted in a subsequent surge in tax revenues in three years of nearly 50 percent (McLeish and Ramalho 2007). Similar results were also obtained in Albania, Moldavia, Latvia, and Romania as a result of successful tax reforms (McLeish and Ramalho 2007).

To mend what ails Latin American tax policy Tanzi (2000) advocates: professionalizing tax administration, depoliticizing tax policy, a strong political commitment to reform, a reduction in corruption, and increased penalties for non-compliance. Those measures along with reductions in marginal tax rates and a reduction in compliance burdens would go a long way toward modernizing and improving the tax systems of Latin America.

It is prudent to be suspicious of cure all's; however, it certainly appears as if modernizing Latin America's tax laws and improving public finances will provide a great many benefits. Better tax systems will encourage savings, as well as force completion and spur innovation in the economy. Savings, competition, and innovation are all significant determinates of income and increasing them will have the effect of increasing economic growth and development. Further, improved public finance will increase governmental revenue, allowing the governments of Latin America to invest in much needed infrastructure as well as education and health care. Better public finance will clearly be of great benefit to Latin America and its people. Better public finance will also strengthen the weak and chronically underfunded nations of Latin America.

In certain respects, this analysis does no more than state the obvious: weak states do a poor job collecting governmental revenue. They are after all weak states; they do not perform governmental functions very well. It should also be noted that this analysis is no stronger than the quality of data upon which it is based. The quality and sufficiency of data in the developing world is not always up to developed world standards. Finally, further research in this area is needed in order to resolve the fundamental question: can a weak state become strong by increasing the amount of revenue it collects?

APPENDIX

Table 1
Bivariate Regressions of the Impact of the Independent Variables on the Level of Tax Effort.

Independent Variable	Pearson Correlation	Sig. (2 – tailed)
Government Effectiveness	0.571	0.004
Political Stability	0.500	0.150
Rule of Law	0.521	0.011
Informal Sector	0.390	0.089
Tax Corruption	-0.839	0.002
Tax Efficiency	0.348	0.144

Table 2
Multivariate Analysis of the Strength of the State and the Level of Tax Effort.

Independent Variable	Coef.	Std. Err.	T	p values	
Government Effectiveness	3.437	0.043	2.769	0.0097	**
Political Stability	0.073	0.006	0.342	0.7348	
Rule of Law	2.665	0.034	2.556	0.0161	**
Informal Sector	-1.362	0.014	2.151	0.0399	**
Tax Corruption	-0.956	0.015	4.372	0.0001	*
Tax Efficiency	0.944	0.008	3.941	0.0005	*
Intercept	0.357	0.073			
N	23				
Adjusted R^2	0.683				

*Statistically Significant at the 0.01 level.
**Statistically Significant at the 0.05 level.

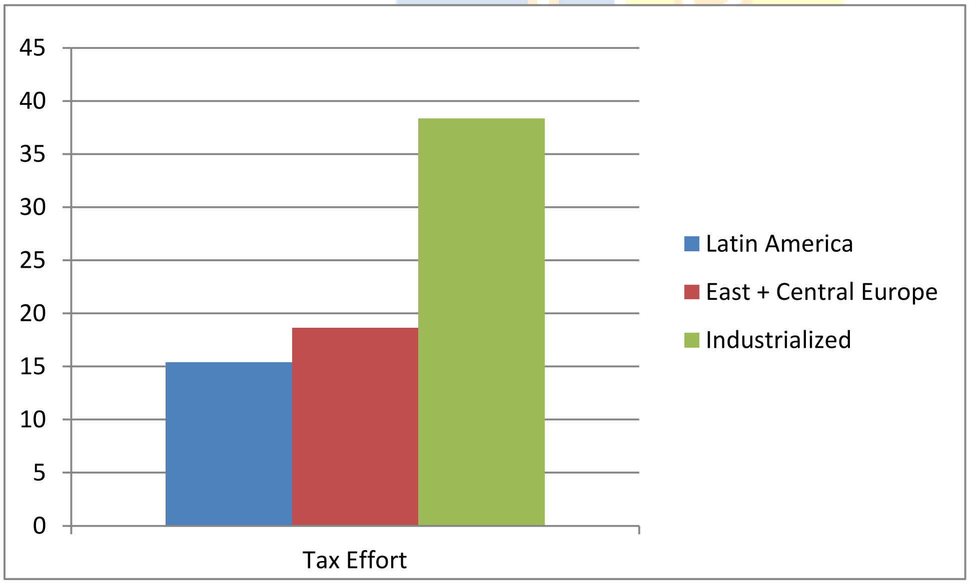


Figure 1 - Source: Author's calculation from International Monetary Fund data (IMF 2008).

Figure 2: Scatter graph of the relationship between Tax Effort and Government Effectiveness for Latin American countries.

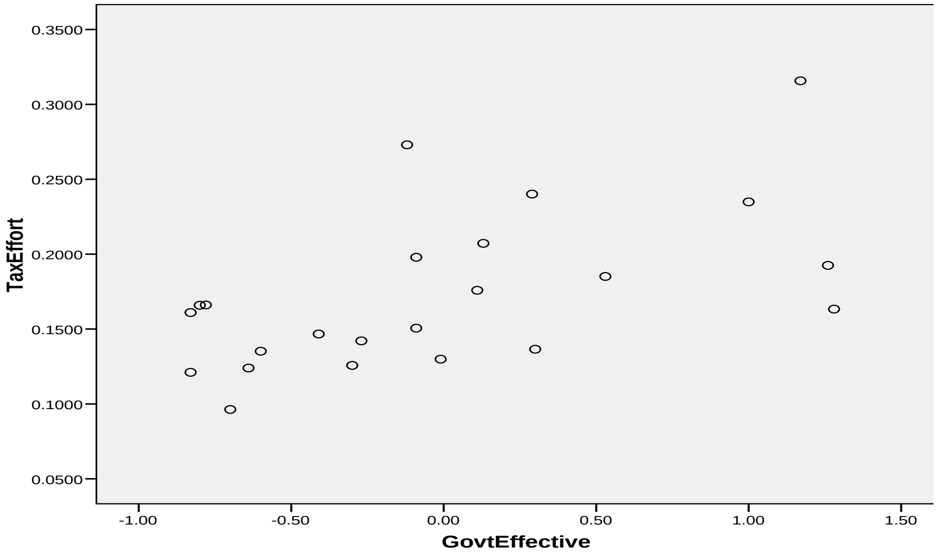


Figure 3: Scatter graph of the relationship between Tax Effort and Political Stability for Latin American countries.

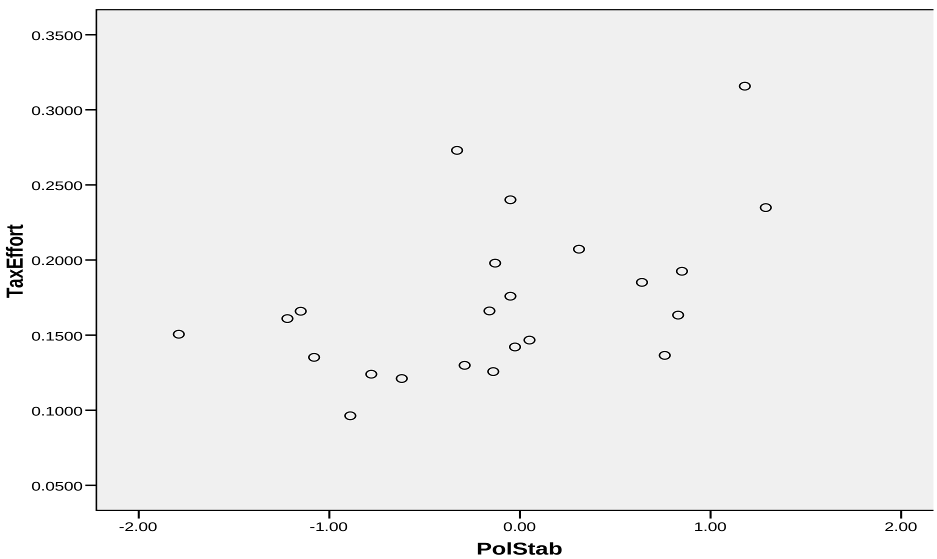


Figure 4: Scatter graph of the relationship between Tax Effort and Rule of Law for Latin American countries.

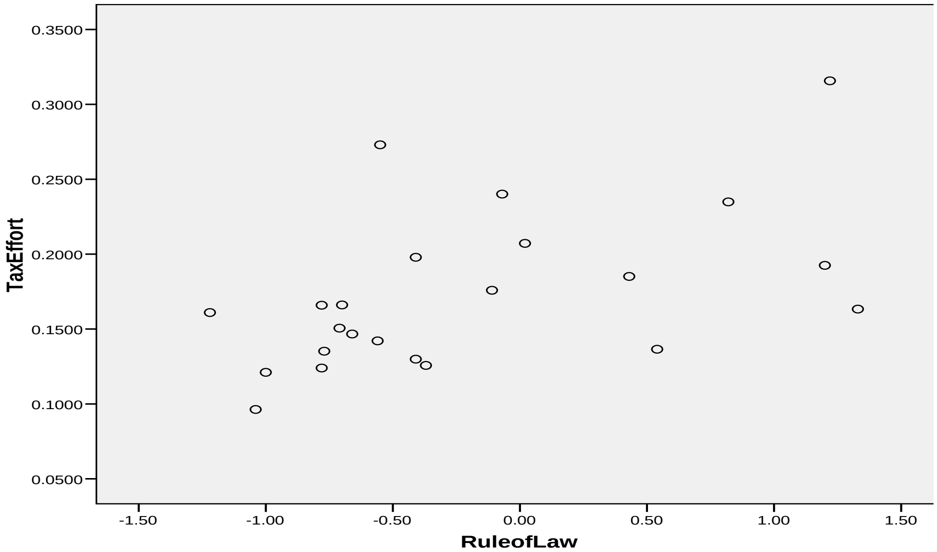


Figure 5: Scatter graph of the relationship between Tax Effort and Informal Sector for Latin American countries.

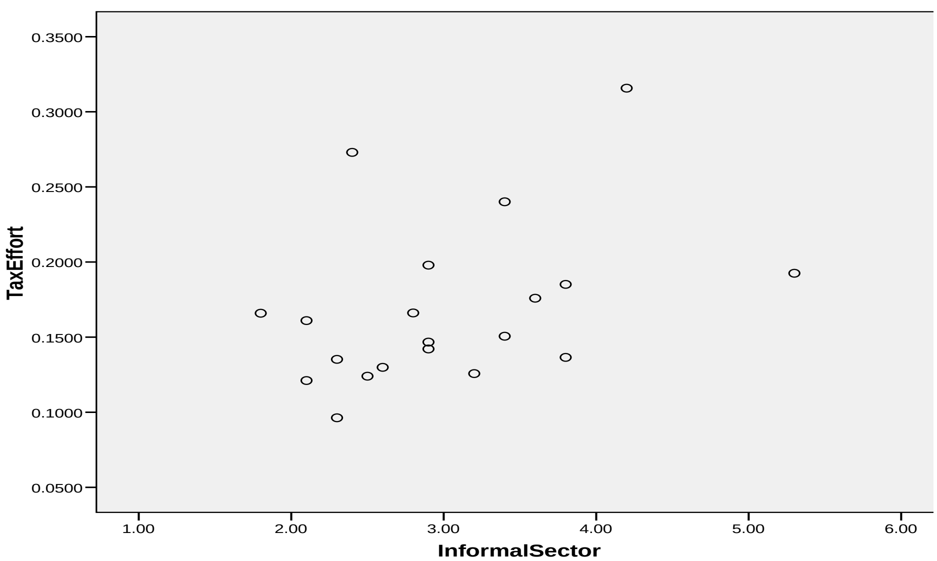


Figure 6: Scatter graph of the relationship between Tax Effort and Tax Corruption for Latin American countries.

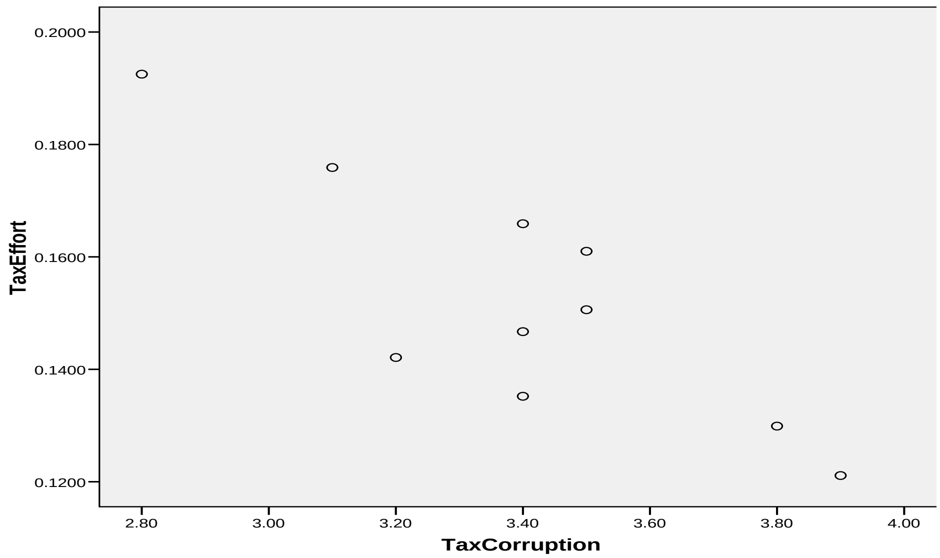
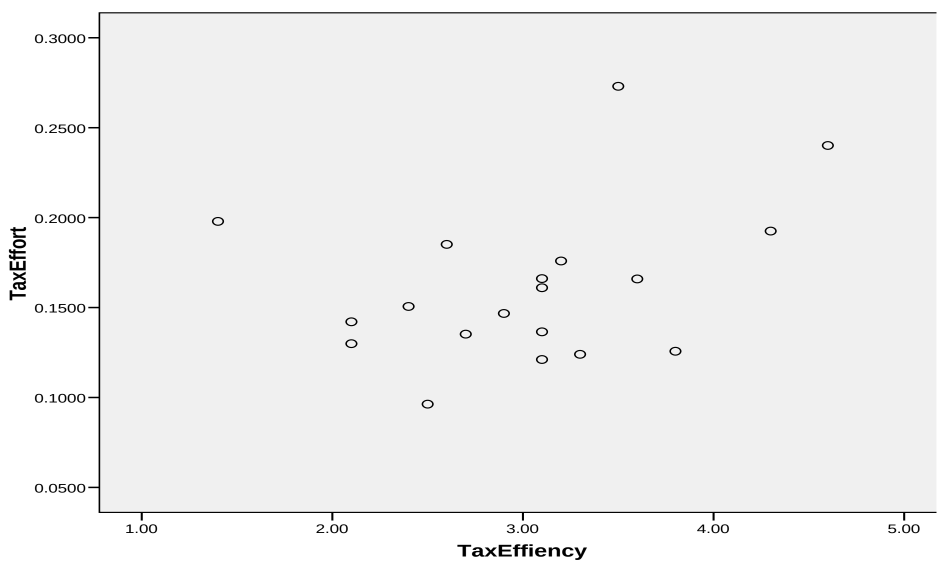


Figure 7: Scatter graph of the relationship between Tax Effort and Tax Efficiency for Latin American countries.



REFERENCES

Acemoglu, D., & Robinson, J. A. (2001). A Theory of Political Transitions. *The American Economic Review*, 91 (4) (Sep., 2001), 938-963.

Azariadis, C., & Stachurski, J. (2005). Poverty Traps? *Handbook of Economic Growth*,

Besley, T., & Persson, T. (2007). The Origins of State Capacity: Property Rights, Taxation, and Politics. *CEPR Discussion Paper No. DP6370*. June 2007. pg. 1-41.

Bird, R. M., Martinez-Vazquez, J., & Torgler, B. (2008). Tax Effort in Developing Countries and High Income Countries: The Impact of Corruption, Voice and Accountability. *Economic Analysis & Policy*, 38(1), March 2008. 55-72.

Bowler, S., & Donovan, T. (1995). Popular Responsiveness to Taxation. *Political Research Quarterly*, 48(1). (Mar., 1995), 79-99.

Call, C. T. (2003). Democratization, War and State-Building: Constructing the Rule of Law in El Salvador. *Journal of Latin American Studies.* 35, 827–862

DataGov (2008). *DataGov Governance Indicators Database*. Inter-American Development Bank. Retrieved on October 18, 2008 from: http://www.iadb.org/datagob/index.html.

Dobbins, J., Jones, S., Crane, K., & DeGrasse, B. C. (2007). *The Beginner's Guide To Nation-Building.* Santa Monica, California: Rand Corporation.

Edwards, S. (2007). Crises and Growth: A Latin American Perspective Working Paper 13019 http://www.nber.org/papers/w13019 *National Bureau of Economic Research.* Cambridge, MA April 2007. pg. 1-41.

Feldmann, A. E., & Perälä, M. (2004). Reassessing the Causes of Nongovernmental Terrorism in Latin America. *Latin American Politics and Society*, Vol. 46, No. 2 (Summer, 2004), pp. 101-132.

Friedman, E., Johnson, S., Kaufmann, D., & Zoido-Lobaton, P. (2000, June). Dodging the grabbing hand: the determinants of unofficial activity in 69 countries. *Journal of Public Economics.* Volume 76, Issue 3, 459-493.

Fukuyama, F. (2004a). *State – Building: Governance and World Order In The 21st Century*. Ithaca, New York: Cornell University Press.

Fukuyama, F. (2004b). The Imperative of State-Building. *Journal of Democracy* Volume 15, Number 2. April 2004. pg. 17-31.

Fukuyama, F., & Marwah, S. (2000). Comparing East Asia and Latin America: Dimensions Of Development. *Journal of Democracy* Volume 11, Number 4, 80-94.

Garcia-Zamor, J.C. (2003). Latin American Ancient Civilizations and Their Administrative Legacies. *Public Administration Quarterly;* Spring 2003; 27, 1/2; ABI/INFORM Global pg 65 – 86.

Goldstone, J. A., & Ulfelder, J. (2004). How to Construct Stable Democracies. *The Washington Quarterly.* 28:1 pp. 9 -20.

Heston, A., Summers, R. and Aten, B. (2006). Penn World Table Version 6.2, Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania, September 2006.

IMF (2008). *Government Finance Statistics Yearbook 2007.* Washington, D.C.: International Monetary Fund.

Kay, C. (2002). Why East Asia overtook Latin America. *Third World Quarterly*, Vol 23, No 6, pp1073-1102, 2002.

Kaufmann, D. & Kraay, A. (2002). Growth Without Governance. *World* Bank *Policy Research Working Paper 2928*, November 2002. pg. 1-60.

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2006) *Governance Matters V: Governance Indicators for 1996 - 2005*, The World Bank, WPS3630.

Mahon, J. E. Jr. (2004). Causes of Tax Reform in Latin America, 1977-95. *Latin American Research Review.* Vol. 39, No. 1 (2004), pp. 3-30.

McLiesh, C., & Ramalho, R. (2007). Is There a Need for Tax Reform? *Paying Taxes the Global Picture. Doing Business Project.* The World Bank. 2007, 13-15.

Moore, M. (2004). Revenues, State Formation, and the Quality of Governance in Developing Countries. *International Political Science Review.* 2004, Vol 25, No. 3, 297 – 319.

Muniz, N. J. (2006). Recent Trends in Latin American Tax Policy. *Journal of International Taxation.* 17(5), 20-27.

North, D. C. (1991). Institutions. *Journal* of *Economic Perspectives*- Volume 5, Number 1 - Winter 1991 -Pages 97-1 12.

North, D. C., Summerhill, W., & Weingast, B. R. (2000). Order, Disorder and Economic Change: Latin America vs. North America. *Governing for Prosperity.* Bruce Bueno de Mesquita and Hilton Root, eds. New Haven: Yale University Press, 2000. pg. 1-54.

Oppenheimer, A. (2007). *Saving the Americas: The Dangerous Decline of Latin America and What the U.S. Must Do.* Mexico DF, Mexico: Random House.

Ottaway, M. (2002). Nation Building. *Foreign Policy* March/April 2002. pg. 16-24.

Ross, M. L. (2004). Does Taxation Lead to Representation? *The British Journal of Political Science.* 34, 229 – 249.

Schumpeter, P., & Swedberg, R. editor (2001). *The Economics and Sociology of Capitalism.*

Slemrod, J. (1990). Optimal Taxation and Optimal Tax Systems. *Journal of Economic Perspectives- Volume 4, Number I -Winter 1990- Pages 157-178*

Slemrod, J. (1995). What Do Cross-Country Studies Teach about Government Involvement, Prosperity, and Economic Growth? *Brookings Papers on Economic Activity,* Vol. 1995, No. 2. (1995), pp. 373-431.

Stein, E., Tommasi, M., Echebarria, K., Lora, E., & Payne, M. (2005). *The Politics of Policies: Economic and Social Progress in Latin America.* Inter-American Development Bank.

Tanzi, V. (2000). Taxation in Latin America in the Last Decade. Paper prepared for the conference on "Fiscal and Financial Reforms in Latin America," held at Stanford University, on November 9-10, 2000. pg. 1-40.

Transparency International (2006). *Report on the Transparency International Global Corruption Barometer 2006*. December 7, 2006. Policy and Research Department Transparency International – International Secretariat. Berlin, Germany. pg. 1-29.

Weber, M. (2003). *The Protestant Ethic And The Spirit Of Capitalism.* Mineola, New York: Dover Publications, Inc.

World Bank (2008). *Paying Taxes 2008: The Global Picture.* Washington, D.C.: The World Bank.