Chapter 4
Tax Revenues and Tax Efforts across the World

Nihal Bayraktar
Pennsylvania State University, USA

Tuan Minh Le
The World Bank, USA

Blanca Moreno-Dodson
The World Bank, USA

ABSTRACT
This chapter focuses on the concept and empirical estimation of tax effort around the world. It employs a cross-country study from a sample of 121, developing and developed countries during 1994-2012. Predicted tax revenue of a country is estimated empirically taking into account its specific economic, demographic, and institutional features and is considered as an approximation of its taxable capacity. Tax effort is then defined as the ratio between the share of the actual tax collection and the predicted tax revenue. The use of tax effort and actual tax revenue collection allows us to rank countries into four different groups. The results vary per country and region but, overall, tax revenue collection appears to be in line with its predicted value. This could reflect many efforts undertaken in the last decades to improve tax policy and tax administration. It also suggests that further improvements in domestic revenue mobilization may require other non-tax reforms aimed at removing economic, demographic and institutional constraints hindering tax revenue performance.

INTRODUCTION

The international development community is increasingly recognizing the centrality of effective taxation to development.¹ The G-20, multilateral institutions, and the donor community want to ensure that their assistance to developing countries to reinforce their tax systems is effective, coherent, and well harmonized (OECD, 2011), and that their own domestic resource mobilization increases over time.

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On the one hand, tax revenues constitute a much better alternative, for financing public spending, than money printing and/or debt, and contribute to macroeconomic stability, therefore exerting a significant importance for private investment decisions and growth. On the other hand, adequate tax revenue collections to meet the needs of society are associated with good governance, strengthened state-building and higher government accountability to its citizens. Finally, higher domestic tax revenues are conducive to lower the dependency from foreign aid.

Effective tax systems are as essential for developing countries as they are for developed ones. Most recently, given that budget deficits have been increasing in some countries, following the introduction of large stimulus packages to promote economic growth after the 2008-2009 financial and economic crises, and subsequent regional crises, many governments throughout the world have been searching for possible ways of increasing tax revenues to finance public expenditures and narrow the budget deficit while minimizing distortions to economic activity.

The first step to understanding tax revenue systems is to establish some commonly agreed upon performance measurements and benchmarks. In this regard this chapter deals with the concept and empirical estimation of countries’ taxable capacity and tax effort, defines countries’ tax effort typologies and draws some general policy implications for tax reforms.

Measuring tax revenue performance of countries is both theoretically and practically challenging. The actual tax collection-to-gross domestic product (GDP) ratio is generally interpreted as a measure of tax effort and used as the basis for cross country comparison. This ratio is reasonable if one attempts to establish trends or to compare tax revenue performance across countries with similar economic structures and the same level of income per capita. However, when used to compare revenue mobilization performance across countries in different income groups and with different characteristics, the tax-to-GDP ratio could provide a “completely distorted” picture due to a range of diverse economic structures, institutional arrangements, and demographic trends affecting them. A number of tax economists have attempted to deal with this issue by applying an empirical approach to estimate the determinants of tax revenue collection and identify the impact of such variables on each country’s taxable capacity. The development of a tax effort index, relating the actual tax revenues of a country to its estimated taxable capacity, provides us a useful measure which takes into account country specific fiscal, demographic, and institutional characteristics.

In this paper, the empirical methodology applied by Tanzi and Davoodi (1997), and Bird, Vazquez, and Torgler (2004) is extended. A cross-country analysis for a sample of 121, developing and developed countries during 1994-2012, and the two sub-periods of 1994-2003 and 2004-12 are undertaken. Taxable capacity refers to the predicted tax revenues that can be estimated with regression analyses, taking into account a country’s specific economic, demographic, and institutional features. Tax effort is defined as the ratio between a country’s actual tax collection and its taxable capacity. The concepts of taxable capacity and tax effort are also extended to measure total fiscal revenue capacity and fiscal revenue effort (including tax and non-tax fiscal revenues).

Estimating actual tax collection benchmarks and tax effort ratios allows us to rank countries into four different groups: (i) low tax collection, low tax effort; (ii) high tax collection, high tax effort; (iii) low tax collection, high tax effort; and (iv) high tax collection, low tax effort. This classification is based on the global average of tax revenue collection and a reference tax effort index of 1, corresponding to the case where the actual tax revenue collection is exactly the same as the predicted one.

The results show that while developed countries are in the high-tax collection group, the level of their tax efforts differs country by country, indicating that while some are collecting according to their
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