

TAX SIMPLIFICATION AND TAX EFFICIENCY

December 6, 2015

Dr. Nihal Bayraktar

Associate Professor of Economics,

Penn State University-Harrisburg. Middletown, PA 20814, USA

(Phone: +1240-461-0978; Email: nxb23@psu.edu)

Abstract:

Tax simplification has always been in the agenda of policymakers to increase the efficiency of the tax system and tax compliance burdens for taxpayers. At the same time, less complex tax systems can contribute to higher tax revenues with minimum negative distortions to economies. The link between tax simplification and tax efficiency is especially important for policymakers in the era of high government budget deficits, which require collecting higher tax revenues. In the literature, empirical studies on this link between simpler tax systems and tax efficiency are considerably limited. The aim of this paper is the empirical study of the impact of tax simplification on the efficiency of tax systems in a cross-country setting. Simpler tax laws contribute to more efficient administration with less discretion leading to greater efficiencies in tax collection. Similarly, lower corruption associated with simpler tax systems is also expected to yield higher tax efficiency and revenues.

The main statistical tools will be regression analyses in addition to graphical and tabular analyses. In the regression specification, tax efficiency will be a function of tax simplification indicators and control variables. The control variables will be selected from macroeconomic, demographic, or institutional variables which can determine the tax effort of countries. Possible control variables can be trade openness, growth, the size of shadow economy, the quality of governance and institutions, population, and macroeconomic stability. A panel dataset will be used in the paper. Around 100 developed and developing countries from different regions of the world will be included in the study. The dataset will cover the years from 2002 to 2012. Tax efficiency (tax effort) will be introduced using two alternative measures: a traditional regression approach and stochastic frontier analysis. Tax simplification will be measured by *Time to Comply* and *Number of Payments* from the Doing Business Indicators Database, and tax corruption will be generated from the Enterprise Surveys Database.

The paper will help us better understand the overall impact of tax simplification on taxes through the tax corruption mechanism. We expect that the outcomes of the proposed paper can have useful policy

implications. The expected outcomes can place numerical values on the possible impact of tax simplification on effectiveness of tax collection systems.

JEL codes: D73, H2, H20, E62, O23

Key words: Tax efficiency, tax policies, tax corruption, tax simplification

Extended Abstract

Aim of the proposed paper: Tax simplification has always been in the agenda of policymakers to increase the efficiency of the tax system and tax compliance burdens for taxpayers. Now, interestingly, there is also a thinking that less complex tax systems might even contribute to higher tax revenues. This makes it ever more important, in this era of high government budget deficits. Secondly, policymakers have been searching for ways of increasing tax revenues with the minimum negative distortions to their economies. One of the ways of accomplishing this aim would be again having less complex tax systems.

In the literature the impact of tax simplification on the tax system has been extensively investigated. But one missing point in the literature is that most of these papers are theoretical.¹ Empirical studies, especially on cross-country analysis, are considerably limited. In our best knowledge, there is no cross-country empirical study, investigating the impact of tax simplification on the efficiency of tax systems. The aim of this proposed paper is going to be the empirical investigation of the impact of tax simplification on the efficiency of tax systems in a cross-country setting. Simpler tax laws and administration contribute to more efficient administration with less discretion leading to greater efficiencies in tax collection. Lower corruption associated with simpler tax systems are also expected to yield higher revenues. Both these aspects taken together lead to higher efficiencies of tax systems.

A section of this proposed paper will be also devoted to the possible transmission mechanism of the impact of tax simplification on tax efficiency or effectiveness in tax collection through tax corruption. Awasthi and Bayraktar (2014) find empirical evidence of a link between tax simplification and corruption in tax administration. A less complex tax system is shown to be associated with lower corruption in tax

¹ Some studies examine the negative significant impact of complex tax structures on tax costs. Quandt (1983), Alm, Jackson, and Mckee (1992), Heyndels and Smolders (1995), Golab (1996), Bardsley (1997), Paul (1997), Alm (1999), Cuccia and Carnes (2001), Evans (2003), Dean (2005), Oliver and Bartley (2005), Picciotto (2007), Mulder, Verboon, and De Cremer (2009), and Saad (2009). There are papers specifically focusing on the issue of how complex taxes can lower tax revenues. The examples of such studies are Milliron (1985), Mills (1996), Spilker, Worsham, and Prawitt (1999), Forest and Sheffrin (2002), Kirchler, Niemirowski, and Wearing (2006), Richardson (2006), and Slemrod (2007), and Marcuss et al. (2013). In the literature there are also controversial studies, claiming that tax complexity can lead to higher taxes, especially in the advanced economies (Scotchmer, 1989; White, Curatola, and Samson, 1990).

administration.² The new proposed paper can help understanding the overall impact of tax simplification on taxes through the tax corruption mechanism.

We expect that the outcomes of the proposed paper can have useful policy implications. It is expected that tax complexity has important impacts on the efficiency of tax systems of countries, but the empirical evidence on this issue is very limited in the literature. The expected outcomes can place numerical values on the possible impact of tax simplification on effectiveness of tax collection systems.

Methodology: The main statistical tool will be regression analyses in addition to graphical and tabular analyses. In the regression specification, tax effort will be a function tax simplification indicators and control variables. The control variables will be selected from macroeconomic, demographic, or institutional variables which can determine tax effort of countries. Possible control variables can be trade openness, growth, the size of shadow economy, the quality of governance and institutions, population, and macroeconomic stability.

Data: A panel dataset will be used in the paper. Around 100 developed and developing countries from different regions of the World will be included in the study. The dataset will cover the years from 2002 to 2012.

How to measure tax efficiency: Tax efficiency of countries can be calculated using *economic measure* (tax space) of taxes. Alternative *economic measures* of tax effort will be used in the paper for robustness checks. The first measure will be the traditional regression approach. Some examples of the papers used this approach are: Bayraktar, Le, and Moreno-Dodson (2014), Tanzi and Davoodi (1997), and Bird, Vazquez, and Torgler (2004). In these papers, predicted tax revenue of a country is estimated empirically taking into account its specific economic, demographic, and institutional features, which all change through time, and is considered as an approximation of its taxable capacity. Tax effort is then defined as an index of the ratio between the share of the actual tax collection and the predicted tax revenue.

In addition to the traditional regression approach, a stochastic frontier analysis will be conducted to calculate alternative measures of tax effort series. This methodology have been also used in the literature (Pitt & Lee, 1981; Battese, 1992; Battese & Coelli, 1992; Alfirman, 2003; Pessino & Fenochietto, 2010).

It should be noted that Cyan, Martinez-Vazquez, and Vulovic (2012) compare these two different methodologies available in the literature to compute the tax effort series of countries. After comprehensive comparison analysis, Cyan et al. (2012) conclude that the results obtained from these two methodologies produce highly-correlated, similar tax effort series.

How to measure tax complexity: One important reason for limited number of empirical studies is the difficulty of measuring tax complexity (Tran-Nam and Evans, 2014). It is important define tax simplicity in a way that would allow comparisons on an international level and across a time period. The only

² It is predicted that the combined effect of a 10 percent reduction in both the number of payments and the time to comply with tax requirements can lower tax corruption by 9.64 percent.

viable option available is to use the Doing Business reports produced by the World Bank Group. The Doing Business reports measure the ease of doing business as reflected in 10 indicators, including one on complying with the tax system: Paying Taxes. 2 sub-indicators of the Paying Taxes indicator are: *Time to Comply* and *Number of Payments*. The premise is that the lower the time taken to comply with the tax system and the fewer the number of payments, the easier it is for businesses to comply with their tax paying obligations. Based on the definitions of the sub-indicators and the methodology of collecting data around them, it appears that for the purposes of this paper, the sub-indicators, Time to Comply (TAXTIME) and Number of Payments (TAXPAY), are the best suited measures of “tax simplicity”. It may be noted that these two variables are also used to measure the complexity of tax systems by Lawless (2013) and Awasthi and Bayraktar (2014).

The Doing Business indicators have been criticized as they are not considered the most robust of measures. However, it should be noted that they are the only available data that provide an objective, world-wide comparison of indicators of the complexity or simplicity of tax regimes. The Doing Business report has recently been reviewed by an independent panel constituted by the President of the World Bank (Independent Panel Report, 2013 page 40). Even though the independent panel report criticizes Time to Comply (TAXTIME) due to its subjectivity, they agree (as does the ITD) that this indicator is a good, useful measure of the compliance burden of a tax system. The Panel has recommended that the Number of Payments (TAXPAY) measure be dropped or modified, as the number of times a firm needs to make payments may not represent simplicity or lower compliance burdens, in their view. On this, our view is a bit different. We believe that the indicator is a useful measure of simplicity.

How to measure tax corruption: Tax corruption has been empirically generated in Awasthi and Bayraktar (2014). In the questionnaire administered by the Enterprise Surveys, the following questions are asked about corruption in tax administration:

- “J3 question” from the survey: over the last 12 months, was this establishment visited or inspected by tax officials?
- “J5 question” from the survey: in any of these inspections or meetings was a gift or informal payment expected or requested?

Based on the response, the measure of percent of firms giving gifts to tax officials is computed. More specifically, for each country, the tax corruption indicator is defined as the ratio of the number of "yes" answers to “J5 question” to the total number of "yes" answers to “J3 question”. This is a direct measure of corruption in tax administrations.

Implications: The paper will help us better understand the overall impact of tax simplification on taxes through the tax corruption mechanism. We expect that the outcomes of the proposed paper can have useful policy implications. The expected outcomes can place numerical values on the possible impact of tax simplification on effectiveness of tax collection systems.

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