Corruption and Taxation in the New European Union Member States

M. Peter van der Hoek
Erasmus University, Rotterdam, Netherlands
and
Academy of Economic Studies, Bucharest, Romania

ABSTRACT

This paper analyzes tax capacity and tax effort in new European Union member countries and (potential) candidate member countries. In addition, the paper explores the hypotheses of negative relationships between corruption and tax effort and between corruption and foreign direct investments. However likely these hypotheses are, the paper finds only very weak empirical evidence supporting them.

Keywords: corruption, tax effort, foreign direct investments, European Union

1. INTRODUCTION

In December 2002, the European Council closed negotiations with ten candidate member countries. As a result, they joined the European Union on May 1, 2004 and the European Union's membership increased from 15 to 25 countries. Eight of the new member countries are former East Bloc states including three former Soviet Republics (Estonia, Latvia and Lithuania) and five countries in Central and Eastern Europe (Hungary, Poland, Slovenia, Slovakia, and the Czech Republic). The other two countries that joined the European Union are mini-states in the Mediterranean (Cyprus[1] and Malta).

Accession negotiations with Bulgaria and Romania continued and resulted in their accession on January 1, 2007. In addition, there are three candidate member countries (Croatia, Macedonia and Turkey). Two of them (Croatia and Turkey) have already begun accession negotiations.

2. ACCESSION AND ECONOMIC CONDITIONS

Approximately half of the new member states cope with budget deficits that exceed 3% of GDP (the Maastricht criterion). Figure 1 shows the budget deficits in the period 1991-2007 in the three regions that the European Bank for Reconstruction and Development (EBRD) discerns: Central and Eastern Europe and the Baltic States, South Eastern Europe, and the Commonwealth of Independent States.[2]

In the first years after the collapse of the Soviet Union budget deficits increased to high levels. The highest level was reached in the Commonwealth of Independent States, it was somewhat less high in South Eastern Europe and the relatively lowest level was reached in Central and Eastern Europe and the Baltic States. From the mid-1990s, deficits came more and more under control. Notably, from 2000 a kind of role reversal emerged. Deficits are now at the highest level in Central and Eastern Europe and the Baltic States and at the lowest level in the Commonwealth of Independent. However, the average deficit

---

[1] Since Turkey occupied the north of the island in 1974, Cyprus is divided in Turkish Cypriot and Greek Cypriot communities. The Turkish Republic of Northern Cyprus is only recognized by Turkey. Officially, Cyprus joined the European Union as one country. Effectively, however, only the Greek Cypriot community joined.

[3] Central and Eastern Europe: Czech Republic, Hungary, Poland, Slovakia and Slovenia.
South Eastern Europe: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Montenegro, Romania and Serbia.
Baltic States: Estonia, Latvia and Lithuania.
Commonwealth of Independent States: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, the Kyrgyz Republic, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

in the Commonwealth of Independent States is heavily influenced by the large surpluses in oil-rich countries like Russia (8.1% in 2005) and Kazakhstan (5.3% in 2005).

There are also considerable differences in attractiveness of the new member states for foreign investors. Table 1 displays the cumulative inflows of foreign direct investments since the fall of the Berlin Wall in each of the new member states in Central and Eastern Europe and the Baltic States as well as in the candidate member countries in South Eastern Europe. Given the differences in population size the table does not contain the total amounts of foreign direct investments, but rather the amounts per capita. Obviously, the Czech Republic is the foreign investors' darling. Contrary to Poland's image this country has attracted a mediocre amount of foreign direct investments in the period 1989-2006. On average, Central and Eastern Europe and the Baltic States have attracted $3,030 per capita in the period 1989-2006, which is nearly two times as much as South East Europe's average ($1,658).

3. TAX CAPACITY AND TAX EFFORT

Since most countries in the region cope with continued budget deficits, as Figure 1 illustrates, the question arises as to how these countries can tackle their deficit problems. In principle, governments have a choice between two strategies: increasing revenues or cutting expenditure. It goes without saying that a combination of both strategies is also possible. The question arises on what basis a government can make a choice. In other words, at what point should the emphasis be placed on cutting expenditure rather than raising revenues?

Answering this question involves evaluating a country's tax capacity and tax effort. *Tax capacity* is defined as the ability of a government to raise tax revenues based on structural factors including the level of economic development, the number of "tax handles" available, and the ability of the population to pay taxes (Chelliah, 1971, p. 293). *Tax effort* is defined as a measure of how well a country is using its taxable capacity, that is tax effort is the ratio of actual tax revenues to taxable capacity (Bahl, 1971, p. 582). Indices of tax effort provide a tool for measuring differences between countries in how effectively they are using their potential tax bases. These indices may indicate the appropriate policy for dealing with budget deficits. For example, countries with a high tax effort index may need to look at reducing expenditure rather than raising taxes (Stotsky and WoldeMariam, 1997).

Figure 2 shows general government revenue as a percentage of GDP over the period 1996-2004 in the three regions, while it includes as benchmarks the USA and the EU-15 (the European Union of 15 member states as it existed before May 1, 2004). In Central and Eastern Europe and the Baltic States, the tax burden is comparable to that of the EU-15 and, thus, well above the level of the USA. In the mid-1990s, South Eastern Europe's tax burden was well below the level of the EU-15 and even lower than the level of the USA, but it increased in the late 1990s. From the turn of the century tax levels in Central and Eastern Europe and the Baltic States and South Eastern Europe are on average within the range of European Union countries, which is roughly 30-55% of GDP (van der Hoek, 2003, p. 22).

In the Commonwealth of Independent States the situation with regard to the tax burden is the reverse. As can be expected, these countries face the greatest taxation problems. They have been under communist rule for over sixty years. The state financed itself through state-owned companies rather than taxation, so the countries in this region have little experience with taxation and markets. No wonder that they are the only of the three regions where the total tax level is clearly below the range of tax burdens in the member states of the European Union.

4. APPROACHES TO TAX CAPACITY

It seems relevant to know how well the new European Union member states are utilizing their tax capacity. Musgrave (2000) identifies three factors that determine a country's taxable capacity:

- The stage of development, often measured by per capita income.
- The existence and extent of "tax handles".
- Efficacy of tax administration.

Each of these factors contributes either to a country's potential taxable base (for example the greater the level of economic development the higher the income tax base) or contributes to the accessibility to that tax base by the government. For example, an economy with a sizeable and established manufacturing sector has more easily identifiable and accessible taxpayers than an economy that is largely agricultural or comprised of many small traders. A well-developed manufacturing sector points to the existence of a "tax handle."

A simple measure of tax effort across countries might compare countries' tax/GDP ratios, but such comparisons would ignore differences in tax capacity across countries. Countries differ with respect to their economic situations, for example per capita income, economic structure, resources, and other factors. These differences must be accounted for when measuring tax effort. Another approach, therefore, is using regression analysis across countries to predict a country's tax/GDP ratio (Bahl, 1971; Chelliah, 1971; Stotsky and WoldeMariam, 1997; Tait, Gratz, and Eichengreen, 1979; Tanzi 1968; Tanzi, 1992).

A tax effort index can be developed as the ratio of actual tax share to the predicted tax share. An index of 1 means the country's tax effort is at the "expected" level, given the structural factors of that country. In other words, the country is using its taxable capacity at a level consistent with the average of the other countries in the sample. By comparing tax effort across similar countries, it may be possible to identify countries that have the potential to increase tax revenues through increased tax effort. Alternatively, countries may be identified where tax effort is already relatively high and it would be more obvious to closely examine the expenditure side of the budget in order to reduce the budget deficit.

- A study by Mertens (2003) uses a regression approach covering the period 1992-2000 and including data for ten countries in Central and Eastern Europe and South Eastern Europe: Albania, Bulgaria, Croatia, the Czech Republic, Hungary, Macedonia, Poland, Romania, the Slovak Republic, and Slovenia. A very interesting dimension of this study is that it presents a ranking based on each country's deviation between its actual and predicted tax/GDP ratio. Table 2 summarizes the results. The value of –14.9% for Romania in 2000 means that the country's actual revenue share was 14.9 percent lower than that predicted by the model. To my knowledge there are no comparable data available for the "old" member states of the European Union. To obtain them would require a separate research study because they will have to be calculated on the basis of a regression analysis.

The results of the Mertens study suggest that in several Central and Eastern European and South Eastern European countries - especially Bulgaria, Poland, Romania and Slovakia - deficit reduction is possible through increasing tax effort. The European Commission may use this kind of information to assess to what extent these countries prepare themselves for membership of Economic and Monetary Union.

5. FUTURE RESEARCH

The study cited above (Mertens, 2003) points out some possible avenues for further research. Countries in Central and Eastern Europe and South Eastern Europe have had myriad tax law changes as well as major tax reform efforts during the 1990s. Reviewing these events may shed light on what is happening with tax effort in Central and Eastern Europe and South Eastern Europe. For example, Slovenia and Croatia consistently have tax effort indices above one, while both have positive deviations from predicted tax shares for each year. These two countries have many factors in common, including a steady approach to tax reform. Because tax administration is an important component of tax effort, further examination of these relationships is warranted.

However, there is another factor that warrants further examination: corruption. Though it is a phenomenon that is not easy to study, data are available about perceived corruption levels in a large and growing number of countries. Transparency International, a Berlin based institution, publishes an annual Corruption Perceptions Index for a growing number of countries. Table 3 shows the amount of perceived corruption over time in selected countries. In 2006, Finland was perceived as the cleanest country and Haiti as the most corrupt. Table 3 includes new European Union member states (Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia) as well as two candidate member countries (Croatia and Macedonia). In addition, it includes Russia, several large western countries (Australia, Germany, UK and USA), the two most corrupt “old” European Union member states (Greece and Italy) and a potential candidate member state (Albania).

The low scores for countries in Central and Eastern Europe, the Baltic States and South Eastern Europe – with Estonia and Slovenia as notable exceptions - indicate that doing business in these countries is not only subject to normal business risks, but also to additional risks resulting from corruption. Negative relationships seem plausible between corruption and tax effort on the one hand and corruption and foreign direct investments on the other hand. Corrupt tax inspectors fill their private pockets rather than the public purse, while corrupt officials make foreign direct investments more risky.

However plausible these hypotheses are, I have found only very weak empirical evidence supporting the hypotheses of negative relationships between corruption and tax effort and between corruption and foreign direct investments. Figure 3 displays how the data pertaining to the Corruption Perceptions Index and tax effort were related in 1998/1999. This figure suggests there is no relationship at all. Figure 4 shows how the averages of the data pertaining to the Corruption Perceptions Index in the period 1996-2006 relate to the average foreign direct investments data in the period 1989-2006. This figure suggests there might be some weak relationship between the two variables. Therefore, it seems worth doing more research in this area in future to unravel a possible relationship between foreign direct investments and the extent of corruption.

REFERENCES

[1] Bahl, R.W. (1971). "**A Regression Approach to Tax Effort and Tax Ratio Analysis**," *IMF Staff Papers*, 18(3): 570-612.

[2] Chelliah, R.J. (1971). "**Trends in Taxation in Developing Countries**," *IMF Staff Papers*, 18(2): 254-331.

[3] European Bank for Reconstruction and Development. (Various years). *Annual Transition Report*, London: EBRD.

[4] Mertens, J.B. (2003). "Measuring Tax Effort in Central and Eastern Europe," *Public Finance and Management*, 3(4): 530-563.

[5] Musgrave, R. (2000). "**Tax Reform in Developing Countries**." In: *Public finance in a democratic society. Volume 3. The foundations of taxation and expenditure*, Cheltenham en Northampton: Elgar, pp. 467-490.

[6] Organisation for Economic Co-operation and Development. (2006). *Revenue Statistics 1965-2005*, Paris: OECD.

[7] Stotsky, J.G. en WoldeMariam, A. (1997). *Tax Effort in Sub-Saharan Africa*, Washington: IMF.

[8] Tait, A.A., Gratz, W.L.M. en Eichengreen, B.J. (1979) "International Comparisons of Taxation for Selected Developing Countries, 1972-76," *IMF Staff Papers*, 26(1): 123-156.

[9] Tanzi, V. (1968). "**Comparing International Tax ‘Burdens’: A Suggested Method**," *Journal of Political Economy*, 76(5): 1078-1084.

[10] Tanzi, V. (1992) "**Structural Factors and Tax Revenue in Developing Countries: A Decade of Evidence**." In: I. Goldin and L.A. Winters (eds.) *Open Economies: Structural Adjustment and Agriculture*, Cambridge, New York en Melbourne: Cambridge University Press.

[11] Transparency International. (Various years). *Corruption Perceptions Index*, Berlin: Transparency International.

van der Hoek, M.P. (2003). "**Tax Harmonization and Competition in the European Union**," *eJournal of Tax Research*, 1(1): 19-36.