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Tax Systems in Transition

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Abstract

How have tax systems, whose primary role is to raise resources to finance public expenditures, evolved in the transition countries of Eastern Europe and the former Soviet Union? Mitra and Stern find that: (1) the ratio of tax revenue-to-GDP decreased largely due to a fall in revenue from corporate income tax; (2) the fall in revenue from the corporate income tax led to a decline in the importance of income taxes, notwithstanding a rise in the share of individual income tax; (3) social security contributions together with payroll taxes became less important in the Commonwealth of Independent States; and (4) domestic indirect taxes gained in importance in overall tax revenues.

Apart from the increased role of personal income taxation, these developments go in a direction opposite to those observed in poor countries as they get richer. They show a key aspect of transition, namely a movement from a system where the government exercised a preeminent claim on output and income

before citizens had access to the remainder, to one with a greatly diminished role for the public sector, as reflected in a lower ratio of public expenditure to GDP, where the government needs to collect revenue in order to spend.

Can expected levels of public expenditure be financed by the basic instruments of a modern tax system without creating significant distortions in the private sector? The authors suggest that transition countries, depending on their stage of development, should aim for a tax revenue-to-GDP ratio in the range of 22 to 31 percent, comprising value-added tax (6 to 7 percent), excises (2 to 3 percent), income tax (6 to 9 percent), social security contribution together with payroll tax (6 to 10 percent), and other taxes such as on trade and on property (2 percent).

The authors' analysis also sheds light on the links between tax policy, tax administration, and the investment climate in transition countries.

This paper—a joint product of the Office of the Regional Vice President, Europe and Central Asia Region and the Office of the Senior Vice President and Chief Economist, Development Economics—is part of a larger effort in the Bank on the subject of transition meets development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Sossena Tassew, room H12-220, telephone 202-458-8212, fax 202-522-2758, email address stassew@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at pmitra@worldbank.org or nsstern@worldbank.org. January 2003. (53 pages)

The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the view of the World Bank, its Executive Directors, or the countries they represent.

Tax Systems in Transition

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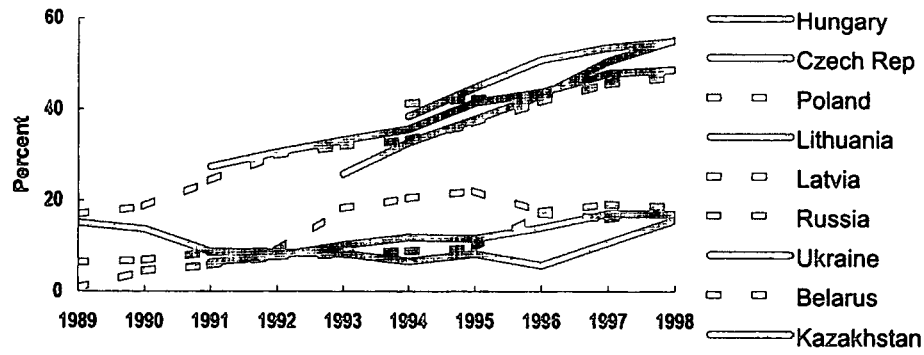
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1. INTRODUCTION

The transition economies of Eastern Europe and the former Soviet Union which most successfully resumed growth and made progress towards a market economy by the end of the first decade of transition (i) imposed market discipline on the enterprise sector and (ii) established an investment climate conducive to the creation of new firms. These firms became the most dynamic sector of the economy and they flourished without special favors dispensed by the State. Figures 1 and 2 show that countries such as Hungary, the Czech Republic, Poland, Lithuania and Latvia, which witnessed a quick return to growth, following the “transitional recession” which affected all countries, were those where small enterprises defined as those employing fewer than 50 workers provided—by the end of the 1990s— over half of all employment and value added generated in the economy. Moreover, imposition of market discipline and creation of an attractive investment climate must go hand in hand: Figure 3 shows that countries where budget constraints on enterprises were softened, usually through tax exemptions, fiscal and financial subsidies and tolerance of arrears on payments of taxes and energy bills to utility companies, and which thereby created barriers to exit, for unviable firms also saw a low share of aggregate employment in small enterprises¹.

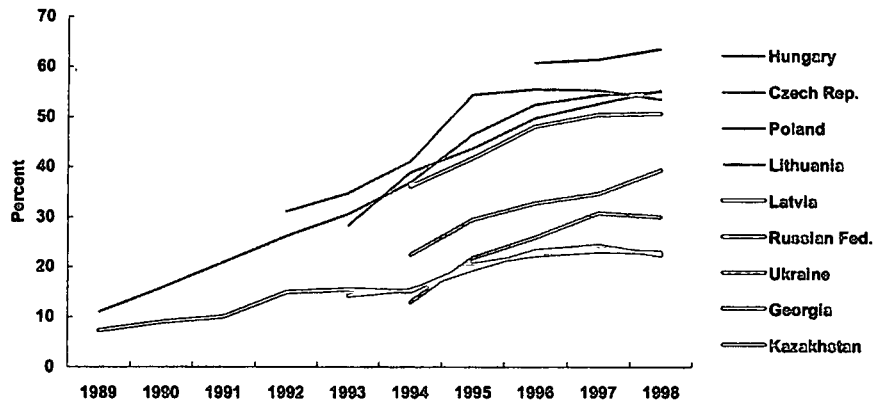
¹ For more details, see World Bank (2002a)

Figure 1. Share of Employment in Small Enterprises, 1989-98



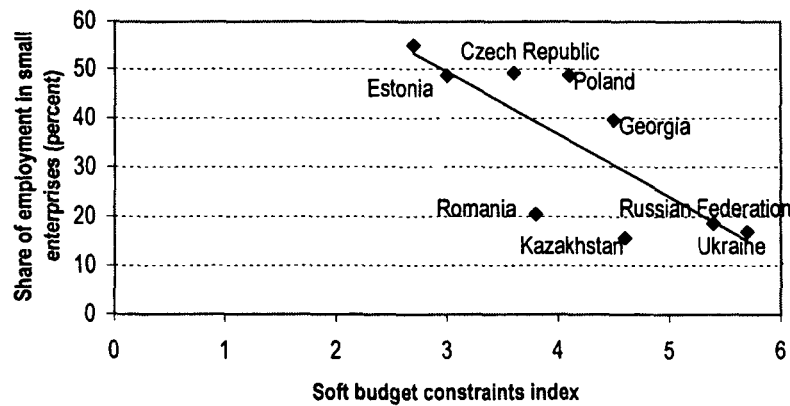
Note: Small enterprises are defined as those employing 50 or fewer workers
 Source: World Bank database on SMEs.

Figure 2. Share of Value Added in Small Enterprises, 1989-98



Note: Small enterprises are defined as those employing 50 or fewer workers
 Source: World Bank database on SMEs.

Figure 3. Soft Budget Constraints and Employment in Small Enterprises, 2000



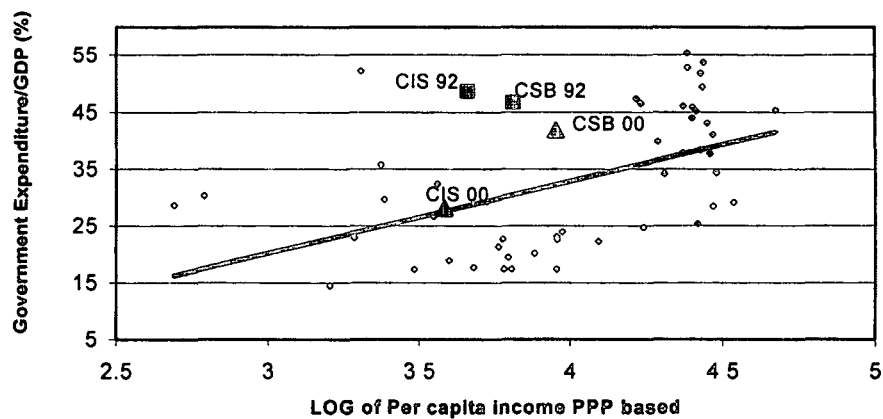
Source: EBRD (2000); World Bank database on SMEs.

What implications do these findings have for tax systems in the transition countries of Eastern Europe and the former Soviet Union? And, looking ahead, what are the reforms in tax policy and administration on which attention should be focused? These are the issues with which this paper is concerned. Section 2 outlines changes in levels of public expenditures and their current structure in order to provide a background for the tax analysis that follows. Section 3 sets out the stylized facts regarding tax systems in transition and relates them to the characteristics of public expenditures noted in Section 2. Section 4 appeals to comparative evidence to suggest in what combination different tax instruments might be used to finance public expenditure without introducing serious distortions in the private sector of the economy. Section 5 reviews the impact of tax systems on the investment climate in transition economies. Section 6 contains a brief review of outstanding issues in the reform of tax administration. Section 7 considers foreign direct investment. Section 8 concludes by bringing together the questions raised by the analysis of the paper and put to its commentators to stimulate discussion at the conference.

2. PUBLIC EXPENDITURE IN THE TRANSITION COUNTRIES

The purpose of taxation is to raise resources to finance government expenditures on key public goods (such as a stable macroeconomic environment and legal and judicial systems to secure property rights) and the provision of basic social services. Taxation and expenditures should ideally be analyzed together.

Figure 4: Public Expenditures and Income Level Per Capita, 2000



Trendline $Y=12.7 X - 18.0$, with $R^2=0.3$, Based on a sample of 49 developed and developing countries with comparable fiscal data

Source Alam and Sundberg (2002)

CSB refers to Central and Southeastern Europe and the Baltics and includes: Albania, Bosnia, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Macedonia, Poland, Romania, the Slovak Republic and Slovenia

CIS refers to the Commonwealth of Independent States and includes: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

Figure 4, reproduced from Alam and Sundberg (2002), plots countries' shares of government expenditure in GDP against the log of their per capita income (adjusted for purchasing power parity) across a sample of developed and developing countries for which comparable fiscal data were available in 2000. The figure allows the following two points to be made.

- The magnitude of expenditure adjustment during the 1990s was much greater in the CIS countries. Starting from levels of 50 percent or more in the pre-transition years [Tanzi (1991)] and between 45 to 50 percent in 1992, the latter comparable to those in the industrial countries, the share of government expenditure in the CIS countries, fell to levels comparable to those in countries at similar per capita income levels. In contrast, the share of government expenditure in the CSB countries was almost a third higher than that indicated by the figure for countries at similar per capita income levels. This does not necessarily imply, pending further analysis, that public spending in the CSB countries is excessive, since the size of government here, as elsewhere, is shaped, inter alia, by both views about the role of the state and the costs of the tax systems needed to support public expenditures at different levels.

- The size of government rises with level of income per capita. Public expenditure as a proportion of GDP is on average 29 percent in the CIS countries, a group of countries with a PPP-based per capita GDP of \$3,850 that have made limited progress with transition to a market economy, compared with just under 41 percent in the CSB countries, a group of countries with a PPP-based per capita GDP of \$9,350 that are further advanced in the transition. These may be compared with an average of 42 percent in the high-income OECD countries² ³.

However, it should be noted that these numbers do not include spending that was moved out of the budgetary arena in the form of implicit and contingent liabilities which softened

² Simple averages are used to arrive at figures for country groups

³ The high income OECD countries include Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Japan, Luxembourg, New Zealand, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom and the United States of America.

budget constraints⁴. But these do not affect the thrust of the conclusions about tax systems drawn in this paper.

Table 1 displays the functional structure of public expenditure both as a share of GDP and as a share of total public expenditure in these groups of countries: the high income OECD, the CSB and the CIS countries.

⁴ Examples are provided in World Bank (2000a)

Table 1 Functional Structure of Public Expenditures : Country Groups
(1999-2000 average; in percent of GDP)¹

	GDP per capita in 2000 (PPP US\$)	Total Expenditure ⁵	General Public Service	Defense	Public Order & Safety	Education	Health	Social Security & Welfare	Housing & Community Amenities	Recreational, Cultural, & Religious Affairs	Economic Affairs and Services					Interest	Other Expenditures
											Fuel & Energy	Agriculture, Forestry, & Hunting	Mining, Manufacturing, & Construction	Transportation & Communication	Other Economic Affairs & Services		
High-Income OECD ²	26,200	42.4	2.9	1.6	1.2	5.3	5.4	15.6	1.5	0.8	0.2	0.8	0.3	2.2	1.0	4.6	-0.9
CSB ³	9,300	41.9	2.9	1.9	2.3	4.8	5.2	14.0	1.8	1.0	0.2	1.2	0.3	2.3	1.2	2.7	0.0
CIS ⁴	3,850	29.1	1.8	1.7	1.5	4.3	2.2	7.8	1.3	0.6	0.5	1.5	0.6	1.5	0.5	1.9	1.3

Functional Structure of Public Expenditures : Country Groups
(1999-2000 average; in percent of total expenditures)¹

	GDP per capita in 2000 (PPP US\$)	Total Expenditure ⁵	General Public Service	Defense	Public Order & Safety	Education	Health	Social Security & Welfare	Housing & Community Amenities	Recreational, Cultural, & Religious Affairs	Economic Affairs and Services					Interest	Other Expenditures
											Fuel & Energy	Agriculture, Forestry, & Hunting	Mining, Manufacturing, & Construction	Transportation & Communication	Other Economic Affairs & Services		
High-Income OECD ²	26,200	100.0	6.8	3.9	2.7	12.5	12.7	36.7	3.4	1.9	0.5	2.0	0.7	5.1	2.3	10.8	-2.1
CSB ³	9,300	100.0	7.0	4.5	5.5	11.6	12.3	33.3	4.2	2.4	0.5	2.9	0.7	5.6	2.8	6.8	0.1
CIS ⁴	3,850	100.0	6.3	5.7	5.1	14.9	7.6	26.9	4.5	2.2	1.8	5.3	2.2	5.1	1.6	6.4	4.5

¹ Consolidated budgetary, extrabudgetary and social security accounts of central, state/provincial and local governments. For High-Income OECD countries years of observations vary.

² Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom, Australia, Canada, Iceland, Japan, New Zealand, Norway, Switzerland, United States.

³ Albania, Bosnia, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, Slovenia, Yugoslavia. For purposes of expenditure, the CSB excludes Macedonia where a comparable disaggregation into functions was not available and include Yugoslavia, for which the data pertains to 2001.

⁴ Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, Uzbekistan.

⁵ Excluding grants and transfers between budgets of different levels.

Source: GFS, IMF staff reports.

Social security and welfare account for over a third of public expenditure in the high income OECD and CSB countries and for roughly a quarter of public expenditures in the CIS countries. Public expenditures on health and education make up a quarter of public expenditure in the high income OECD and CSB countries and a little under 22 percent in the CIS countries. They are split roughly evenly between health and education in the OECD and EU accession countries , but health expenditures are around twice as much as those for education in the CIS countries. Altogether expenditures on education, health and social protection account for nearly 60 percent of public expenditures in the high income OECD and CSB countries and nearly a half in the CIS countries. It will be recollected however that both GDP and the share of public expenditures in GDP are significantly lower in the CIS countries, so that public expenditures on education and health, for example, have each fallen to \$10 per capita or less in the poorest CIS countries such as the Kyrgyz Republic and Tajikistan.

3. TAX SYSTEMS IN TRANSITION

What are the characteristics of the tax systems which raise resources to finance those public expenditures? This section sets tax systems in transition countries in comparative international perspective.

Cross sectional comparisons

We begin by comparing features of the tax systems in the CIS countries with those in the CSB countries and the high income OECD countries. The stylized facts emerging from

such a comparison at the end of the first decade of transition, 1999-2000, are as follows (see Table 2, Figure 5 and, for country details, Appendix tables 1-6).

- The share of tax revenue in GDP rises from 22 percent in the CIS countries through 33 percent in the CSB countries to 37 percent in the high income OECD countries.
- The share of direct taxes, viz., personal and corporate income taxes plus social security contributions-cum-payroll taxes, in total tax revenue rises from 43 percent in the CIS countries through 54 percent in the CSB countries to 63 percent in the high income OECD countries. While the share of personal income taxes in total tax revenue increases, that of corporate income taxes falls sharply reflecting in part the integration of personal and corporate taxes, with collection at the corporate level counting as advance payment for the personal income tax. It should also be noted that the share of social security contributions-cum-payroll taxes in total tax revenue is significantly higher in the CSB countries at the end of the decade compared, not only to the high income OECD countries but also to the European Union where, social security contributions are higher than in the non-EU countries of the high income OECD group⁵.

⁵ It may be noted that social security in the USA generally refers only to pensions whereas social security in Europe covers the area called social protection in the USA.

Table 2. Tax Structure of Industrial and Transition Countries ¹
(in percent of GDP)

	Total Revenue & Grants	Tax Revenue	Other Revenue & Grants	Taxes on Income, Profits, and Capital Gains			Social Security & Payroll tax	Domestic Taxes on Goods & Services of which			International Trade Taxes			Wealth & Property Taxes	Other Tax Revenue
				Total	Of which			Total	General sales, turnover		Total	Of which			
					Individual	Corporate			VAT	Excises		Import duties	Export duties		
High income OECD	42.9	36.6	6.3	14.4	10.1	2.6	8.9	10.7	6.1	3.1	0.1	0.1	0.0	1.8	0.7
European Union ²	45.2	39.4	5.8	14.3	9.6	2.6	10.8	11.9	6.7	3.7	0.0	0.0	0.0	1.5	0.9
CSB (early transition)	40.8	35.0	5.8	9.7	5.3	4.3	11.2	11.0	8.4	2.2	2.0	2.0	0.0	0.3	0.8
CSB (late transition)	37.7	33.0	4.7	7.4	5.2	2.1	10.6	12.4	8.7	3.4	1.3	1.3	0.0	0.4	0.7
CIS (early transition)	29.3	24.4	4.9	8.0	1.7	6.2	6.2	9.0	6.2	2.5	0.7	0.5	0.1	0.2	0.3
CIS (late transition)	25.5	22.2	3.2	5.3	2.0	3.1	4.5	9.7	6.1	2.5	1.2	1.1	0.1	0.8	0.6

Tax Structure of Industrial and Transition Countries ¹
(in percent of tax revenues)

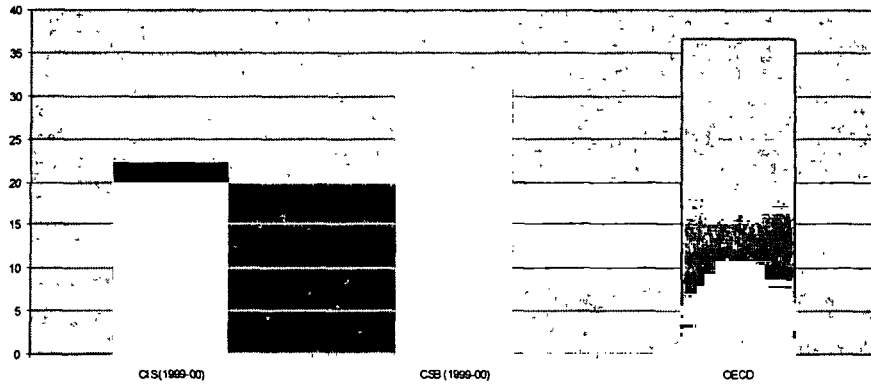
	Total Revenue & Grants	Tax Revenue	Other Revenue & Grants	Taxes on Income, Profits, and Capital Gains			Social Security & Payroll tax	Domestic Taxes on Goods & Services of which			International Trade Taxes			Wealth & Property Taxes	Other Tax Revenue
				Total	Of which			Total	General sales, turnover		Total	Of which			
					Individual	Corporate			VAT	Excises		Import duties	Export duties		
High income OECD	117.4	100.0	17.4	39.6	28.2	7.6	23.3	29.6	16.8	8.9	0.5	0.4	0.0	5.3	1.8
European Union ²	114.9	100.0	14.9	36.0	24.2	7.0	26.6	31.3	17.8	10.0	0.0	0.0	0.0	3.9	2.2
CSB (early transition)	117.7	100.0	17.7	27.5	14.7	12.6	31.5	31.7	24.0	6.5	6.2	6.2	0.0	0.7	2.4
CSB (late transition)	114.9	100.0	14.9	22.5	15.6	6.5	31.6	37.9	26.6	10.3	4.3	4.3	0.0	1.3	2.4
CIS (early transition)	126.8	100.0	26.8	33.1	7.7	24.6	23.9	37.0	28.1	9.7	3.2	2.4	0.3	0.8	2.1
CIS (late transition)	115.3	100.0	15.3	23.9	9.8	12.6	19.4	44.0	31.0	11.6	5.9	5.4	0.4	3.3	3.4

¹ Consolidated General Government unless indicated otherwise. For those latter indications, see Appendix Tables 1 to 6

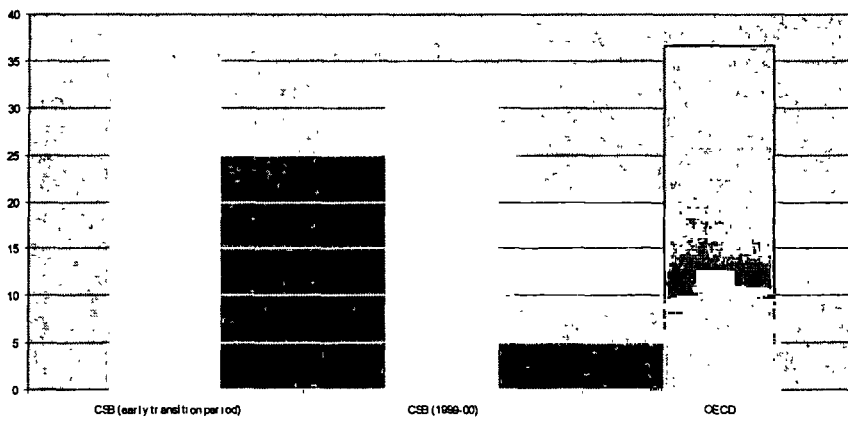
² Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, Netherlands, Portugal, Spain, Sweden, United Kingdom

Figure 5

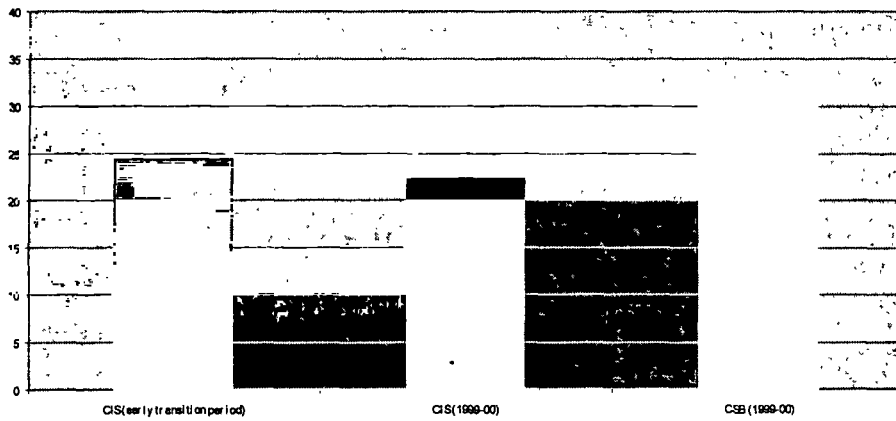
**Tax Revenues in High Income OECD and Transition Economies
(% of GDP)**



**Tax Revenues in High Income OECD and CSB Economies
(% of GDP)**



**Tax Revenues in CSB and CIS Economies
(% of GDP)**



- The share of domestic indirect taxes, viz., VAT/sales/turnover taxes and excises in total tax revenue decreases from 44 percent in the CIS countries through 38 percent in the CSB countries to 30 percent in the industrial countries. With the share of excises remaining broadly unchanged, this reflects a decline in VAT/sales/turnover taxes.
- Trade taxes are relatively unimportant in transition countries and their contribution to tax revenue is negligible in the industrial countries.

Comparisons over time

The stylized facts presented above, involving a comparison both in levels and in composition of tax systems in the CIS, CSB and industrial countries from the lowest to the highest levels of GDP per capita, are broadly similar to those observed in comparisons of developing with industrial countries.⁶ However, in understanding why tax systems in transition countries look the way they do now, it is also necessary to compare the evolution of tax structures of the CIS countries as well as those of the CSB countries from the early years of transition to those prevailing at the end of its first decade. The stylized facts emerging from this comparison may be summarized as follows (see Table 2, Figure 5 and for country details, Appendix tables 1-6)

- The share of tax revenue to GDP *fell* from 24 percent to 22 percent in the CIS countries and from 35 percent to 33 percent in the CSB countries between the beginning and end of the 1990s, paralleling the reduction in public expenditures noted

⁶ Burgess and Stern (1993)

in Section 2. This left the CSB countries and, a fortiori, the CIS countries in 1999-2000 with a *lower* tax revenue to GDP ratio than the 37 percent prevailing in the high income OECD countries.

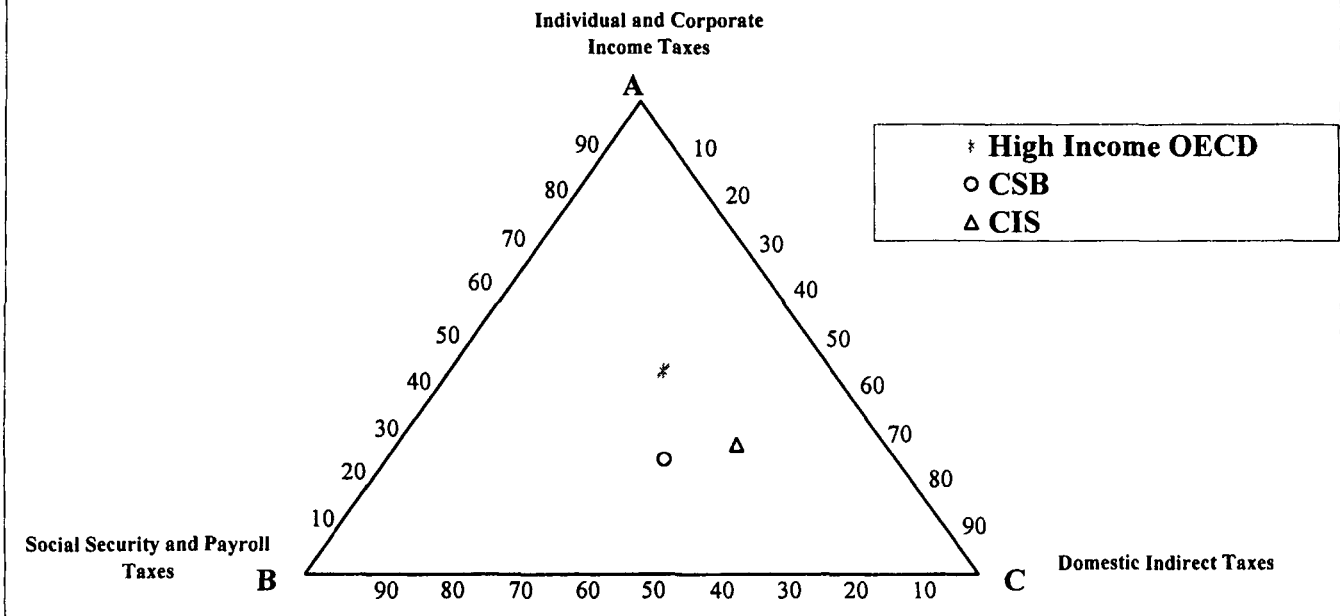
- The share of direct taxes, viz., personal and corporate income taxes plus social security contributions-cum-payroll taxes, to total tax revenue *fell* from 56 percent to 43 percent in the CIS countries and from 59 percent to 54 percent in the CSB countries. This left the transition countries with a share of direct taxes in total tax revenue in 1999-2000 much *lower* than the 63 percent obtaining in industrial countries. The decline was primarily due to a sharp fall in the share of the corporate income tax—from 25 percent to 13 percent in the CIS countries and 13 percent to 7 percent in the CSB countries—and reflected the elimination of a captive source of revenue, viz. taxes on profits of publicly owned enterprises. This more than offset an increase in the share of the individual income tax in total tax revenue in both groups of transition countries. The share of social security contributions-cum-payroll taxes to total tax revenue *fell* in the CIS countries to levels *below* that in the high income OECD economies but remained broadly unchanged in the CSB countries.
- The decline in the share of direct taxes is reflected in movements in the share of domestic indirect taxes, viz., VAT/sales/turnover taxes plus excises, which *rose* from 37 percent to 44 percent in the CIS countries and from 32 percent to 38 percent in the CSB countries. There was an increase in the share of both VAT/sales/turnover taxes as well as excises. This left the CIS and, a fortiori, the CSB countries in 1999-2000 with shares of domestic indirect taxation to GDP *higher* than the corresponding share

of 30 percent in the industrial countries. Moreover, this observation applied equally to the shares of both VAT/sales/turnover taxes and excises in total tax revenue.

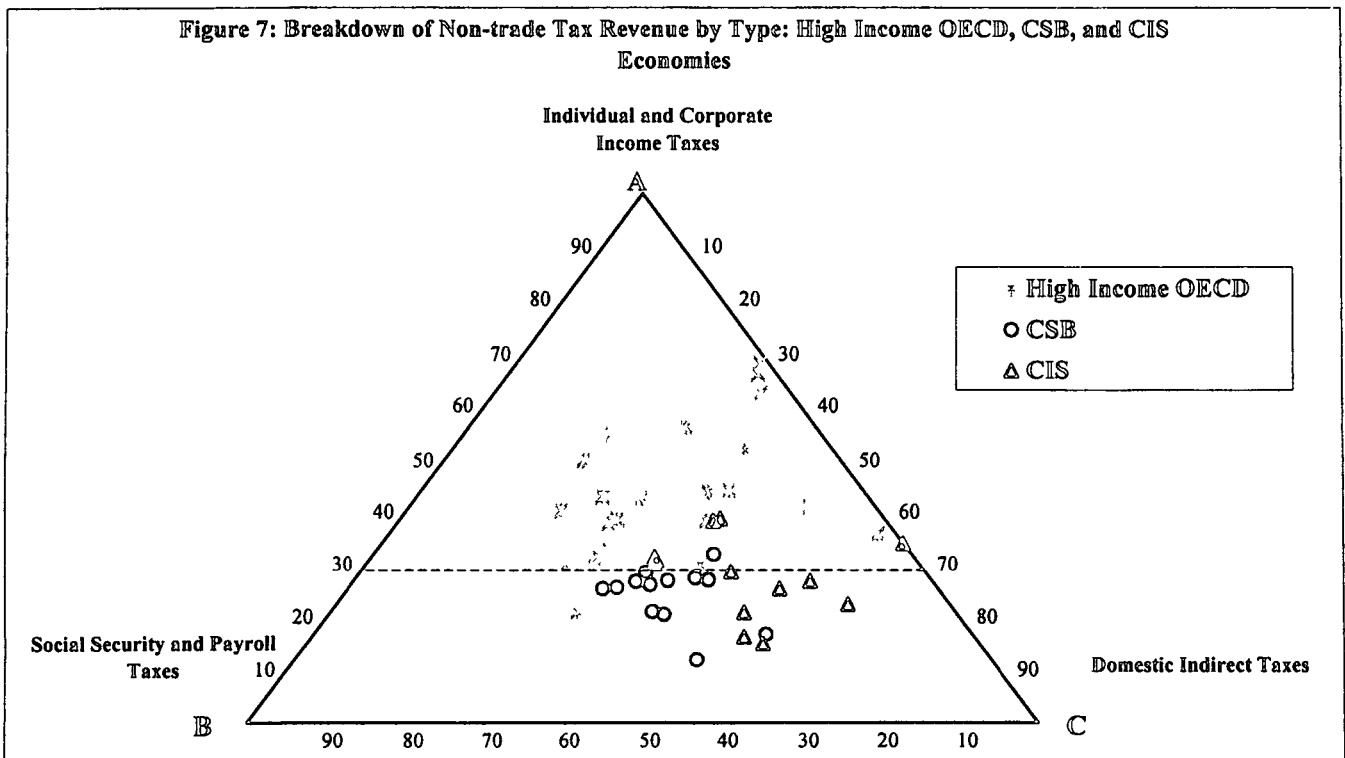
Graphing the tax transition

A visual perspective on how the composition of tax revenue varies between high income OECD, CSB and CIS countries in cross section and over time is provided, following Burgess and Stern (1993), by Figure 6. With trade taxes accounting for a very low proportion of total tax revenue, the figure focuses on the shares of income tax, social security contributions-cum-payroll taxes and domestic indirect taxes in non-trade tax revenue (total tax revenues less trade tax revenue). The points A, B, and C in the triangle represent 100 percent of (non-trade) tax revenue from personal and corporate income taxes, 100 percent from social security contributions cum-payroll taxes and 100 percent from domestic indirect taxes respectively. A point on the line BC corresponds to a zero level of income taxes, while a point on the line AC corresponds to a zero level of social security contributions-cum-payroll taxes and a point on the line AB corresponds to a zero level of domestic indirect taxes. Figure 6, where the three points show unweighted averages for the high income OECD, CSB and CIS country groups, allows the following points to be made.

Figure 6: Breakdown of Non-trade Tax Revenue by Type: High Income OECD, CSB, and CIS Economies (unweighted group averages)



The high income OECD countries are on average closer to the income tax corner and towards the axis AB compared to the transition countries. The CIS countries are on average closer to the domestic indirect tax corner and towards the axis AC compared to the industrial and CSB countries. The CSB countries are closer to the social security contribution - cum-payroll tax corner and towards the axis BC compared to the CIS countries. Figure 7 shows the scatter for the countries in each group.



- More than 95 percent of industrial countries derive 30 percent or more of (non-trade) tax revenue from income taxes, while more than 75 percent of transition countries derive less than 30 percent of tax revenue from income taxes.
- More than 80 percent of CIS countries derive 40 percent or more of (non-trade) tax revenue from domestic indirect taxes, while more than 80 percent of industrial countries derive less than 40 percent of tax revenue from domestic indirect taxes.
- More than 75 percent of CSB countries derive 30 percent or more of (non-trade) tax revenue from social security and payroll taxes, while more than 80 percent of CIS

countries derive less than 30 percent of tax revenue from social security and payroll taxes.

Figures 8 through 11 compare the characteristics of tax system in the CSB and CIS countries as between the early years of transition and the end of its first decade. Figures 8 and 9 show that, on average the CSB and CIS countries in 1999-2000 were further away from the income tax corner and closer to the domestic indirect tax corner than they were in early transition. This was a move *away* from the composition found in high income OECD countries. While the share of social security contributions- cum-payroll taxes (non-trade) tax revenue remained broadly unchanged in the CSB, so that the points representing the CSB countries in early transition and 1999-2000 are equally far away from the AC axis, the CIS countries moved away from the social security contributions-cum-payroll tax corner during the first decade of transition.

Figure 8: Breakdown of Tax Revenue by Type: High Income OECD and CSB Economies During Early Transition and in 1999-00 (unweighted group averages)

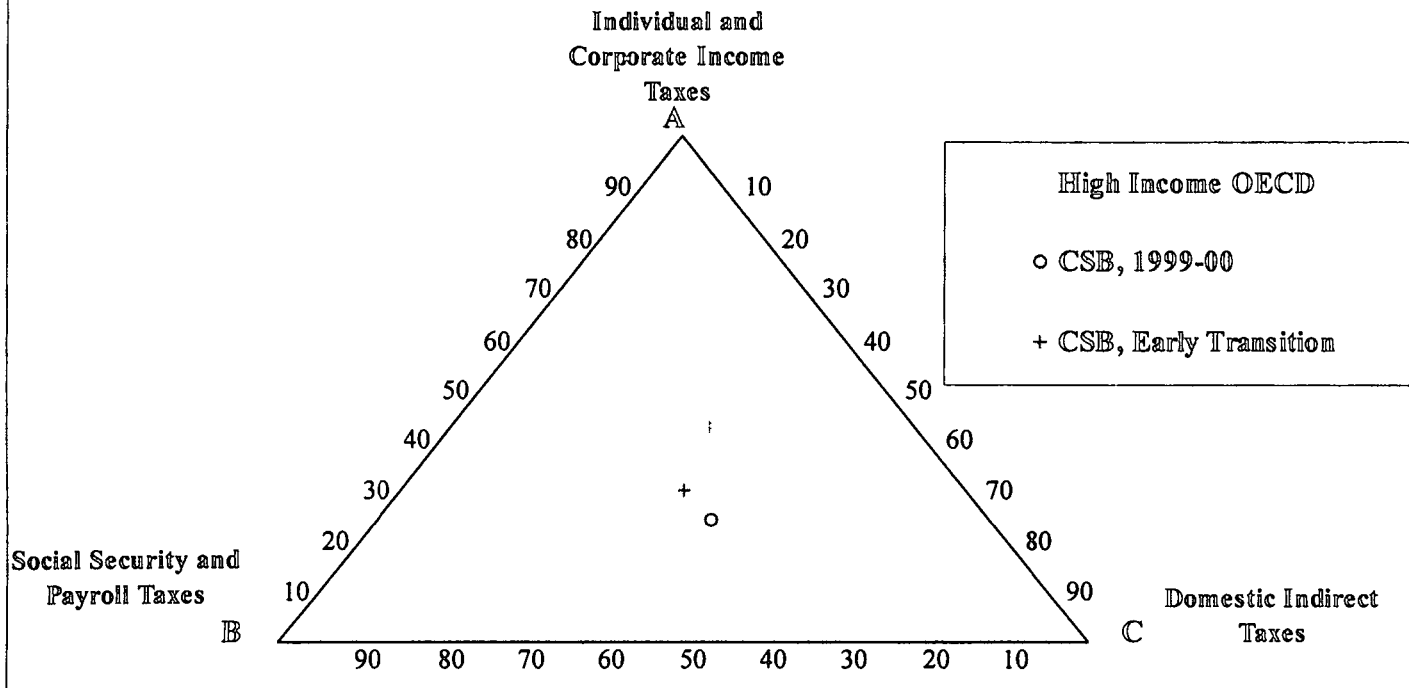


Figure 9: Breakdown of Non-trade Tax Revenue by Type: CSB and CIS Economies during Early Transition and in 1999-00 (unweighted group averages)

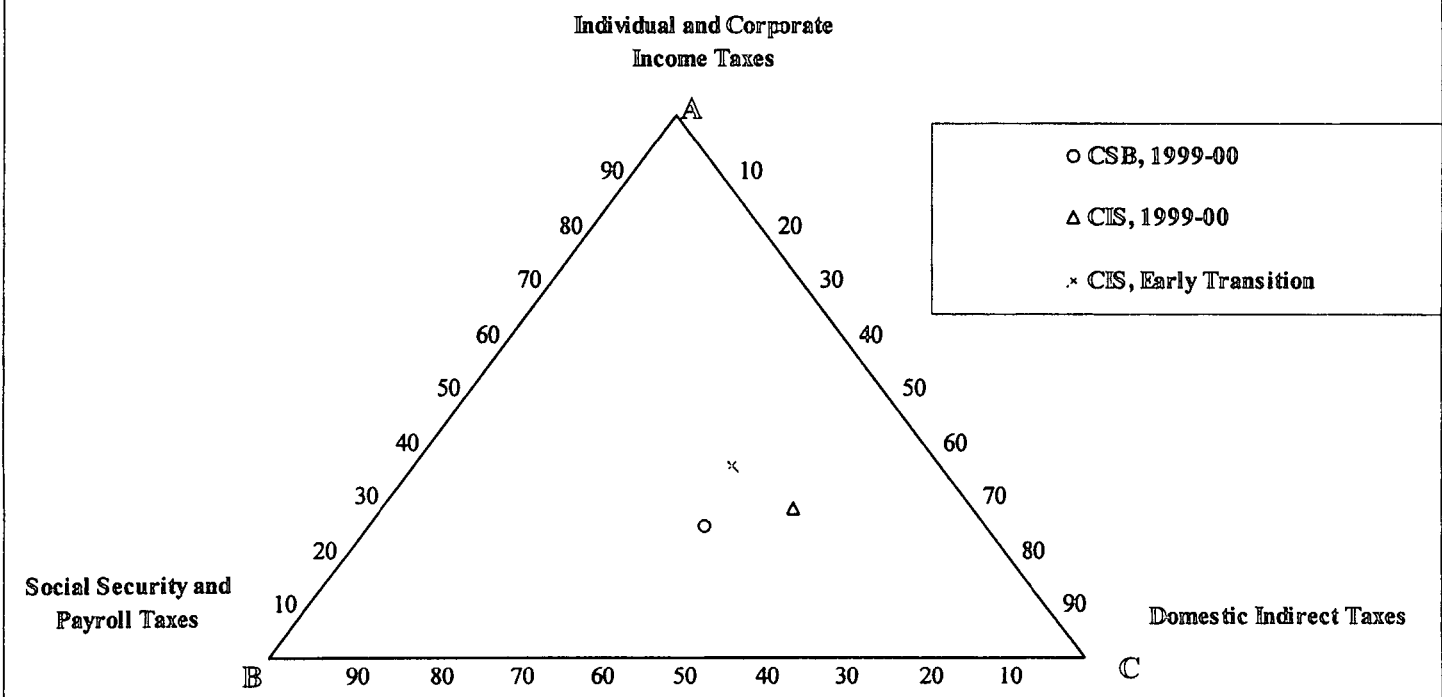


Figure 10: Breakdown of Non-trade Tax Revenue by Type: High Income OECD and CSB Economies during Early Transition and in 1999-2000

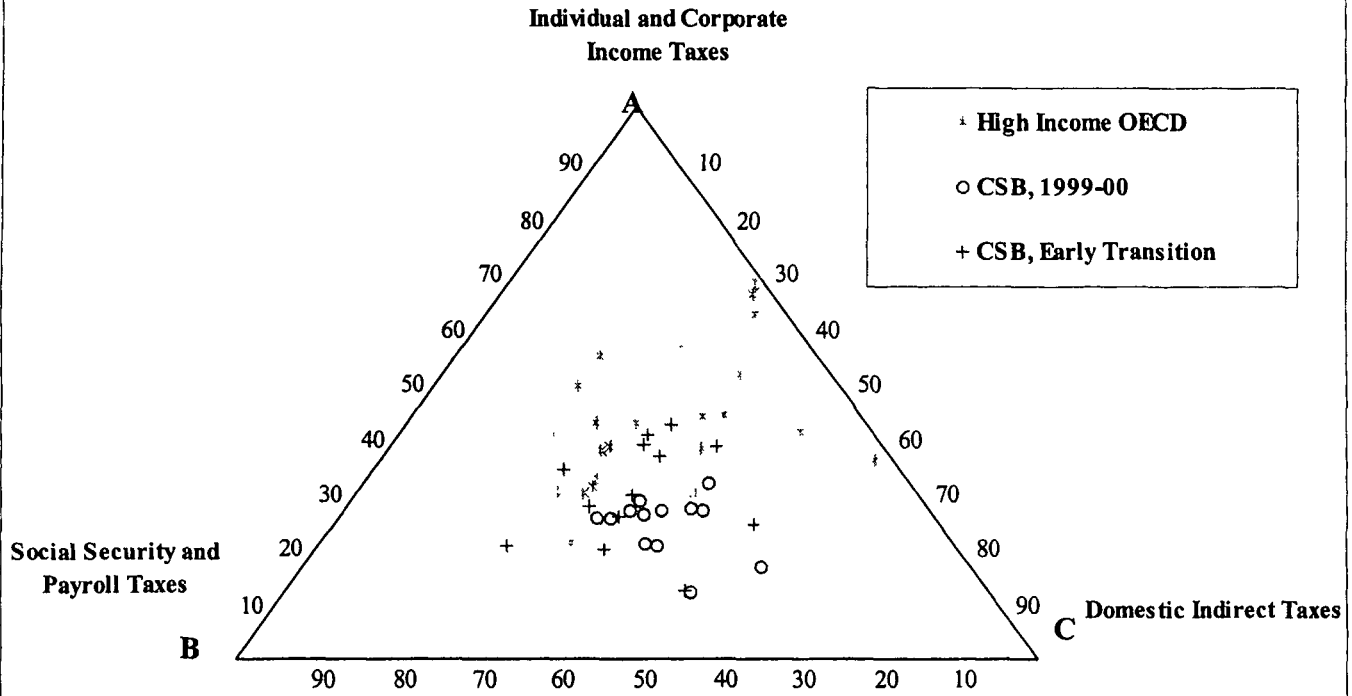
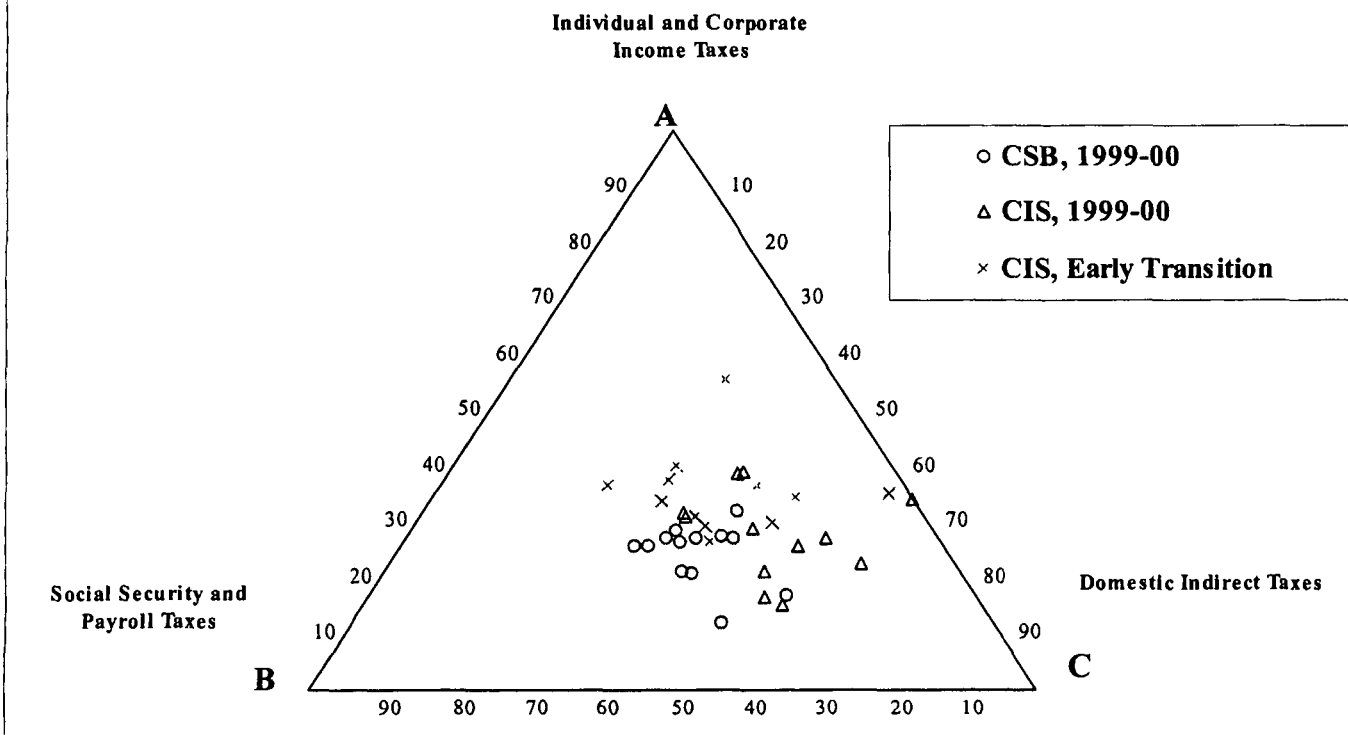


Figure 11: Breakdown of Non-trade Tax Revenue by Type: CSB, and CIS Economies during Early Transition and in 1999-2000



Figures 10 and 11 show the scatter for the individual countries.

- More than 50 percent of the CSB countries and more than 80 percent of the CIS countries in early transition derived 30 percent or more of (non-trade) tax revenue from income taxes, while more than 90 percent of the CSB countries and nearly 60 percent of the CIS countries in 1999-2000 derived less than 30 percent of non-trade tax revenue from income taxes.
- More than 75 percent of the CSB countries and more than 55 percent of the CIS countries in early transition derived 40 percent or less of (non-trade) tax revenue from domestic indirect taxes, while more than 60 percent of the CSB countries and more than 80 percent of the CIS countries in 1999-2000 derived 40 percent or more of (non-trade) tax revenue from domestic indirect taxes.

What happened and why ?

The results of these comparisons, in cross-section between the CIS, CSB and the high income OECD countries, and for two time periods between the CSB and itself as well as the CIS and itself, illustrate the challenges that transition countries have faced in developing a tax system appropriate for a market economy. The opposing movements in key ratios describing levels and composition of taxes (i) between the onset of transition and the end of its first decade in the transition countries and (ii) in cross-section compared to the industrial countries at end-decade suggest that the evolution of tax systems in transition countries is “U-shaped”, with regard both to the share of tax revenue to GDP as well as the shares of

major taxes in tax revenue. The comparison across the same subgroups of transition countries between the onset of transition and the end of its first decade, inter alia, reflect two sets of developments. First, the loss of traditional profit, turnover and payroll tax revenues from erstwhile captive State enterprises rendered uncompetitive by price liberalization and either downsized by hardening budget constraints or kept afloat by tax exemptions and a tolerance of tax and other arrears. And, second, the inability to institute quickly a well-administered tax system covering a broad base with low rates which would encourage tax compliance among new and restructured enterprises rather than driving them underground. Both considerations illustrate a key aspect of transition, viz. a movement from a system, where the government exercised a preemptive claim on output and income before citizens had access to the remainder to one with a greatly diminished role for the public sector, where the government needs to collect revenue in order to spend . These developments led to

- a fall in the tax revenue-to-GDP ratio, a significant part of which was accounted for by a decline in revenue from the corporate income tax, the latter arising from the loss of revenue from profits of publicly-owned enterprises;
- a fall in the public expenditures to GDP ratio caused by the need to reduce fiscal deficits in order to stabilize inflation;
- a decline in the importance of income taxes, mainly accounted for by the fall in the share of corporate income taxes;
- a decline in the importance of social security contributions-cum-payroll taxes in the CIS countries;

- a rise in the share of individual income taxes; and
- a sharp increase in the importance of domestic indirect taxes in tax revenue—both VAT/sales/turnover taxes and excises— reflecting in part the decline in the role of direct taxes.

What needs to be done

The cross-sectional and intertemporal comparisons between the CIS, the CSB and the high income OECD countries show, that viewed from the perspective of taxation, outcomes associated with an unraveling of the command economy in the early transition and those that occurred subsequently were different, the latter being analogous to those seen in the development of poor countries. With the exception of the increase in the importance of personal income taxation, the former set of developments needs to be reversed in order to move towards a market economy. However, this needs to be done, not by reclaiming the traditional bases and instruments of central planning but instead by accessing bases in the emerging private sector not under direct state control and using the apparatus of a modern tax system, viz., a personal income tax, a corporate income tax with deductions for the costs of generating those incomes, social security contributions and payroll taxes, a value added tax levied on consumption, excises on items such as tobacco, alcoholic beverages and petroleum and low customs tariffs and implemented by a rule-based tax administration. The developments to be brought about through tax reform are

- a rise in the share of tax revenue to GDP;
- an increase in the share of direct taxes in tax revenue;

- a continuing rise in the share of revenue from personal income taxes;
- a decline in the share of revenue from domestic indirect taxes; and
- a decline in the contribution of trade taxes to revenue to negligible levels.

4. BENCHMARK LEVELS AND COMPOSITION OF TAX REVENUE

Could the current levels of public expenditure in the transition countries arrived at in part through socio-political as well as economic judgments about the role of the state, be financed by these taxes without creating significant distortions in the private sector?

The following considerations are relevant in answering this question.

- The value added tax, a very successful innovation in tax practice, raises on average around 7 percent of GDP in the high income OECD countries. Empirical evidence based on those countries suggests that in all countries where the VAT collects more than 7 percent of GDP, there is a clear tradeoff between a higher tax rate and a broader tax base. Countries facing such a tradeoff have rates of 14 percent to 22 percent on bases between 60 percent and 40 percent of GDP. The evidence also suggests that the longer a VAT has been in place, allowing taxpayers and administrators more time for improved compliance and enforcement, the higher is the rate of compliance with the tax.⁷ It therefore seems reasonable to suppose that transition countries, which have limited experience with the VAT, could not, for the next few years, expect to raise more than around 6 to 7 percent of GDP, depending on the quality of their tax

⁷ Agha and Haughton (1996), IMF (2001)

administration, without encountering problems with compliance or introducing significant distortions into their economies. The other major item of indirect taxation, viz., excises, which are generally levied on alcohol, tobacco and petroleum, can be expected to yield around 2 to 3 percent or so of GDP. Given that these products are associated with 5% or so of total expenditure, this implies high rates of taxation. With trade taxes becoming less important, the share of indirect taxes in GDP can thus be expected to yield roughly 8 to 10 percent of GDP.

- Income taxes as a share of GDP, average around 15 percent of GDP in the high income OECD countries. Within the category of income taxes, personal taxes are usually about three to four times as important as corporate taxes in the industrial countries. Corporate taxes typically account for between 2 and 3 percent of GDP, partly reflecting the fact that, with a well-functioning tax administration, there is less need to use income taxes on corporations as a withholding device for collecting personal income taxes. Furthermore, a high corporate income tax rate has the potential for discouraging investment in a world where capital is very mobile across national boundaries. The base for income taxation is assumed to be roughly half of non-agricultural income. The latter as a share of GDP ranges from below 50 percent in Albania to over 90 percent in the Central European countries depending on the country's per capita income level, yielding a range of 25 percent to 45 percent for the tax base. With average rates of income tax in the range of 20 to 25 percent, and taking into account tradeoffs between a higher tax rate and a broader tax base, it may then be expected that the income tax could eventually raise between 6 and 9 percent of GDP depending on a country's per capita

income, with the relative share of personal taxes compared to corporate taxes increasing with the level of economic development and the quality of the tax administration.

- Social security contributions and payroll taxes as a share of GDP average 11 percent in the EU accession CSB countries which, despite the significantly lower per capita income in these countries, is comparable to the share prevailing in the European Union. This reflects in part their socialist legacy, and, in part, the successful use of social expenditures to cushion the impact on the poor of downsizing in the early years of transition⁸. In fact, payroll taxes in the EU accession countries range from 33 percent in Estonia to 50 percent in Slovakia, while Italy, Spain and Sweden have rates about 30 percent and in no case higher than 40 percent.⁹ Evidence from a recent empirical analysis of Slovakia, where the unemployment rate averaged 19 percent in 2001, suggests that while the unemployment insurance, social assistance and social support schemes have been effective in alleviating poverty, they have exerted significant disincentive effects on labor supply. Reforms of the benefit program designed to “make employment pay” rather than penalizing unemployment, have the potential to reduce double digit unemployment and lower social spending, thereby making possible an eventual reduction in payroll taxes¹⁰. This is also broadly consistent with the findings from other OECD countries and argues for reforms in social expenditures and a reduction of the distortions arising from payroll taxes. The situation is, however, quite different in the CIS countries where social security contributions

⁸ For a further discussion of this point, see World Bank (2000)

⁹ Riboud, Sanchez and Silva (2002)

¹⁰ The analysis is reported in World Bank (2001)

on average account for less than 5 percent of GDP. Turning to the role of these taxes in an overall revenue package, with the wage bill in the formal sector of the economy as a share of GDP ranging from 20 percent to 50 percent or more across countries of the region, and taking into account tradeoffs between a higher tax rate and a broader tax base, a payroll tax rate averaging 20 percent to 30 percent could yield between 6 percent and 10 percent of GDP.

Table 3: Benchmark Levels and Composition of Tax Revenue

	Base, % of GDP	Rate	Yield, % of GDP
VAT	40%-60%	12%-22%	6%-7% ^a
Income tax	25%-45%	20%-25%	6%-9%
Social Security contribution cum payroll tax	20%-50%	20%-30%	6%-10%
Subtotal			18%-26%
Excises (tobacco, alcohol, petroleum)			2%-3%
Other taxes (trade, property, etc.)			2%
Total tax revenue			22%-31%

^a Adjusted downward by one percentage point from 7%-8% for inexperience with the tax

On the basis of these broad efficiency considerations and consistency with comparative evidence on public expenditure shares for countries at comparable income levels, it is suggested that the transition countries, depending on their stage of development, aim for a tax revenue-to-GDP ratio in the range of 22 to 31 percent or so, comprising VAT (6 to 7 percent), excises (2 to 3 percent), income tax (6 to 9 percent), social security contribution-cum-payroll tax (6 to 10 percent), and other taxes such as on trade and on property (2 percent)¹¹.

- While the upper end of this suggested range is lower than the 33 percent of GDP that tax revenue represented in the CSB countries in 1999-2000, it is close enough to the

¹¹ A similar analysis for China is presented in Hussein and Stern (1993)

expenditure to GDP ratio of 33 percent, typical of countries at comparable per capita income levels, to be financeable with non tax revenue sources, which usually account for roughly 2 to 3 percent of GDP. In any event, most EU accession countries, as part of their 2000-2004 Pre-Accession Economic Program, are aiming to cut taxes on the order of 2 percent of GDP and incur incremental expenditures on the order of 3.5 percent of GDP to comply with the requirements of the EU's acquis communautaire, while at the same time improving budget balance by around 0.5 percent of GDP¹². These ambitious goals can only be accomplished through a sharp reduction in the share of regular public expenditures to GDP, together with a tight prioritization within that envelope, which requires a thorough going reappraisal of the role of the state in the economy.

- The lower end of the 22 to 31 percent range for tax revenue to GDP is equal to the average for the CIS countries. However, the average tax revenue to GDP ratio for the low income CIS countries which face the most acute development challenges (Armenia, Azerbaijan, Georgia, the Kyrgyz Republic, Moldova, Tajikistan and Uzbekistan) is only 18 percent. Raising this share in order to finance public expenditures, especially in the social sectors, where they have fallen to extremely low levels in those countries (for example, on education \$4 per capita in Tajikistan, \$9 per capita in the Kyrgyz Republic and \$11 per capita in Armenia in 1999, compared to \$180 per capita in the EU accession countries, and on health \$1 per capita in Tajikistan and \$7 per capita in the Kyrgyz Republic and Georgia in 1999, compared to \$176 per capita in the EU accession countries) together with appropriate prioritization of those expenditures, is an important policy priority.

¹² Funck (2002)

This motivates our first question for the commentators:

- What is the level and composition of tax revenue that raises enough resources to finance public expenditures without introducing excessive distortions in the private sector? Is tax revenue as a share of GDP “too high” in the CSB countries and “too low” in the CIS countries?

5. TAXATION AND THE INVESTMENT CLIMATE

As noted earlier, small enterprises employing fewer than 50 workers, many of them de novo but also some firms spun off from state enterprises, have been key to generating employment and creating wealth in transition economies. A major policy-cum-institutional challenge facing governments across the region has been the creation of an attractive and competitive investment climate in which restructured and new enterprises have incentives to absorb labor and assets, rendered inexpensive by the downsizing of old and unviable enterprises, and invest in expansion. This challenge includes reducing excessively high marginal tax rates, simplifying regulatory procedures, establishing security of property rights, and providing basic infrastructure, while maintaining a level playing field among old, restructured and new enterprises.

The Business Environment and Enterprise Performance Survey, covering a large number of enterprises in over 20 transition economies, and conducted jointly by the European Bank for Reconstruction and Development and the World Bank in 1999,

unbundled factors influencing the investment climate into microeconomic variables (including taxes and regulations), macroeconomic variables (including policy instability, inflation and exchange rates) and law and order (including functioning of the judiciary, corruption, street crime, disorder, organizational crime, and mafia)¹³. According to the respondents, taxes and regulations were consistently among the most important impediments to expansion by new enterprises.

Table 4 reports the number of taxes and the average rates that are imposed on businesses¹⁴. The number of national taxes—profit tax, VAT/sales tax, income tax and social security taxes (in the form of payroll taxes, the latter here consisted as one tax), together with turnover taxes to support various special funds—which is shown in column 5 of the table, is a rough indicator of the complexity of the tax system¹⁵. On this measure, Poland and Hungary have the least complex national tax systems, as contrasted with Belarus, Turkmenistan and Uzbekistan. However, the last four columns of Table 4 also report the extent to which countries attempt to relieve the burden on small firms through tax breaks or simplified arrangements^{16 17}.

Whatever the merits of rules and legislation, the arbitrary bureaucratic harassment to which the administration of taxes and business licensing gives rise continues to be a significant problem. For example, a survey of some 2000 predominantly small and medium

¹³ For details, see EBRD(1999)

¹⁴ We thank Kjetil Tvedt for producing Table 4, which updates Table 8.3 in EBRD (1999). Definitions on SMEs and micro businesses are those used in national tax codes.

¹⁵ Column (4) of the table also reports the maximum rate of personal income tax since businesses registered as sole proprietors and often subject to personal income tax.

¹⁶ The column for 'tax incentive for new start-ups/investments' emphasizes tax breaks either in favor or disfavor of SMEs. Incentives disfavoring SMEs would be all incentives promoting large investments. Tax breaks for FDIs are interpreted in disfavor of SMEs, based on the assumption that foreign investors normally faces some initial obstacles in form of administrative problems or lack of information, which are in the nature of fixed costs and which play a more significant role for small start-ups firms.

¹⁷ General SME tax break is here to be understood as cases when SMEs face a discount in the profit tax because of their size. Simplified tax in form of a gross turnover tax or lump sum tax may cause a reduced tax burden as well. However, the information is not clear on the tax burden following simplified arrangements, and such procedures are never interpreted as an SME tax discount.

enterprises (with a mean firm size of 22 workers and a median firm size of 10 workers) done in Russia in March-April 2002 by the Center for Economic and Financial Research (CEFIR) and the World Bank found that in 2001, between 5 and 21 percent of those who had been in business before and after the passing of legislation designed to improve the investment climate, were visited between 2 and 3 times each by sanitary, police and fire safety inspectors, which is in excess of that prescribed by the law ¹⁸.

¹⁸ CEFIR and World Bank (2002)

Table 4. SME Taxation

Country	GENERAL TAXATION					TAXATION RELATED TO SMES			
	Standard profit tax	Standard VAT	Max personal Income tax	Number of national taxes	VAT turnover threshold (US\$)	tax incentives for new start-ups/investments		General SME tax break	Simplified tax for SMEs and sole proprietors (lump sum or presumptive)
						Favouring SMEs	Favouring large firms		
Albania	25%	20%	25%	5	57000	No	No	No	Lump sum or gross turnover tax ⁱ
Armenia	20%	20%	20%	4	17200	No	Yes ⁱⁱ	No	Lump sum ⁱⁱⁱ
Azerbaijan	27%	18%	35%	4	6400	No	No	No	gross turnover tax ^{iv}
Belarus	30%	20%	30%	8 ^v	6000	No	No	Yes ^{vi}	Lump sum ^{vii}
Bosnia & Herzegovina (Federation)	30%	24% sales tax	50%	4	No	No	Yes ^{viii}	No	No
Bosnia & Herzegovina (Rep)	20%-10% (regressive)	18% sales tax	25%	5	No	No	Yes ^{ix}	No	No
Bulgaria	23,5%	20%	29%	4	33000	No	No	Yes ^x	Lump sum ^{xi}
Croatia	20%	22%	35%	4	6000	No	Yes ^{xii}	No	Lump sum
Czech Republic	31 %	22%	32%	4	91000	No	Yes ^{xiii}	No	Lump sum
Estonia	26%	18%	26%	4	No	No	No	No	No
Georgia	20%	20%	20%	5	11000	No	No	No	Lump sum ^{xiv}
Hungary	18%	25%	40%	4	No	Yes ^{xv}	No	No	No
Kazakhstan	30%	16%	30%	4	25000	No	No	No	Lump sum or gross turnover tax
Kosovo	20 ^a /a	15%	20%	4	92000	No	No	No	gross turnover tax ^{xvi}
Kyrgyzstan	20%	20%	20%	6	2100	No	No	No	gross turnover tax ^{xvii}
Latvia	22%	18%	25%	4	16000	No	Yes ^{xviii}	Yes ^{xix}	No
Lithuania	15%	18%	33%	4	2600	No	No	Yes ^{xx}	Presumptive tax ^{xxi}
(FYR) Macedonia	15%	19%	18%	4	76000	No	Yes ^{xxii}	No	Lump sum
Moldova	25%	20%	35%	4	No	Yes ^{xxiii}	Yes ^{xxiv}	No	Lump sum ^{xxv}
Poland	28%	22%	40%	4	9000	No	No	No	Lump sum
Romania	25%	19%	40%	6	1500	Yes ^{xxvi}	Yes ^{xxvii}	No	Gross turnover tax ^{xxviii}
Russia	20-24%	20%	13%	5 (4 from 2003)	No	No	No	No ^{xxix}	Gross turnover tax
Slovak Republic	25 ^a /a	23%	38%	4	16000	No	Yes ^{xxx}	No	Lump sum
Slovenia	25%	20%	50%	4	20000	No	No	No	No
Tajikistan	30%	20%	20%	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Turkmenistan	25%	20%	25%	6	Small-scale firms exempt.	No	Yes ^{xxxi}	Yes ^{xxxii}	Lump sum ^{xxxiii}
Ukraine	30%	20%	40%	5	11500	No	No	No	Gross turnover tax ^{xxxiv}
Uzbekistan	26%	20%	36%	6	Small firms are exempt	No	Yes ^{xxxv}	No	Gross turnover tax or lump sum ^{xxxvi}
FRY Montenegro	20%	8-17% Sale tax	40%	4	No	N A	N.A	N.A.	N A.
FRY Serbia	20%	20 ^a / sale tax	20%	4	No	Yes ^{xxxvii}	No	No	No

Albaniaⁱ Lump sum for *micro businesses* = annual turnover under 2 million leks (US\$14000).4% gross turnover tax for *small businesses* = annual turnover 2-8 million leks (US\$57000)

Armenia

¹ FDI over ADM 500 million (US\$ 860,000)

² Fixed payment for small scale activities such as hairdressers, gas stations, commercial fishing, and trading activities conducted in locals with trading area less than 30 square meters.

Azerbaijan

¹ 2% gross turnover tax when turnover less than 300 times the minimum tax-exempted wage (US\$ 6400).

Belarus

¹ In addition to the standard 4, there is Road tax, Chernobyl fund, Public housing fund, and R&D fund.

² 50% discount on profit tax for small enterprises = profit less than 5,000 MVM (5000*BYR3600=US\$10,000) and having number of staff as mentioned below; for industries - less than 200 people; in science and scientific services - less than 100 people, for construction and other productive sectors up to 50 people; for non-productive sectors up to 25 people.

³ Lump sum tax for stores that are single owned and total trading space less than 25 square meters, plus public catering enterprises, and at markets and sales exhibitions.

Bosnia & Herzegovina (Federation)

¹ profit generated by foreign capital

Bosnia & Herzegovina (Republic)

¹ profit generated by foreign capital

Bulgaria

¹ 20% profit tax for small businesses defined by taxable profit less than BGN 50,000 (US\$22,200)

² for sole traders.

Croatia

¹ Newly established companies qualify for reduced tax rates and the reduction is higher for larger investments.

Czech Republic

¹ for inv. Over CZK 350 million (US\$ 10 million)

Georgia

¹ for enterprises with turnover less than GEL 24,000 (US\$ 11,000)

Hungary

¹ SMEs can write off its tax by interest on loan used for investment in assets.

Kosovo

¹ 3% gross turnover tax for SMEs = turnover under 200,000 DEM (US\$ 92,000)

Kyrgyzstan

¹ SMEs (total revenue up to 3 million soms or approximately US\$63 000) may pay from 5 to 10% gross turnover tax instead of all national taxes above (apparently SMEs find this system unfavourable and rather use the general system). Individual entrepreneurs can optionally get a patent and pay a monthly gross turnover tax, i.e. in retail trade - 4%

Latvia

¹ For inv. over US\$ 16 million.

² 20% profit tax for SMEs meeting at least two of the following three conditions: book value of tangible assets – 70 000 lats (EUR 123 700); net turnover – 200 000 lats (EUR 353 400); average number of employees – 25 persons.

Lithuania

¹ 13% profit tax for small businesses with less than 11 employees and a gross annual income less than LTL 500,000 (US\$ 130,000).

² Optional for firms with gross income less than 100,000 LTL (US\$ 26,000)

Macedonia (FYR)

¹ tax holiday for tax generated by foreign capital

Moldova

¹ SMEs may benefit from a 35% discount on profit tax for two years

² 50% tax discount given the first five years if foreign investments exceeds US\$ 250,000

³ Individual entrepreneurs can buy patent which involve a monthly fee.

Romania

¹ for reinvested profit

² for large FDI

³ micro enterprises with less than 10 employees and an annual turnover less than Euro 100,000

Russia

¹ Planned from 2003; Small enterprises with annual turnover of 10 million roubles (US\$320,000) and up to 20 employees will be entitled to choose between 8% turnover tax or 20% profit tax (standard 24%).

Slovak Republic

¹ 5 years tax holiday for FDI over EUR 5 million

Turkmenistan

¹ Tax breaks subject to negotiations. It is assumed that large firms have more negotiation power.

² 20-24% profit tax, depending on nature of activity, for small legal entities defined by annual turnover less than TMM 72 million (US\$ 14,000), or less than 50 persons in producing firms, or less than 10 persons in trading firms, or less than 25 persons in all other types of firms.

³ Lump sum license for entrepreneur without a legal entity and with annual turnover less than 72 million manats (US\$14,000).

Ukraine

¹ Firms with up to 50 employees and turnover less than UAH 1 million (US\$ 190,000) can pay a 6% gross turnover tax which does not exempt actor from VAT, or 10% gross turnover tax which do exempt firms from VAT.

Uzbekistan

¹ for FDI

² Optionally, small trading enterprises can pay 25% and small production enterprises can pay 10% tax of gross turnover instead of entire set of national taxes. Lump sum tax for individual entrepreneurs without a legal entity.

FRY Serbia

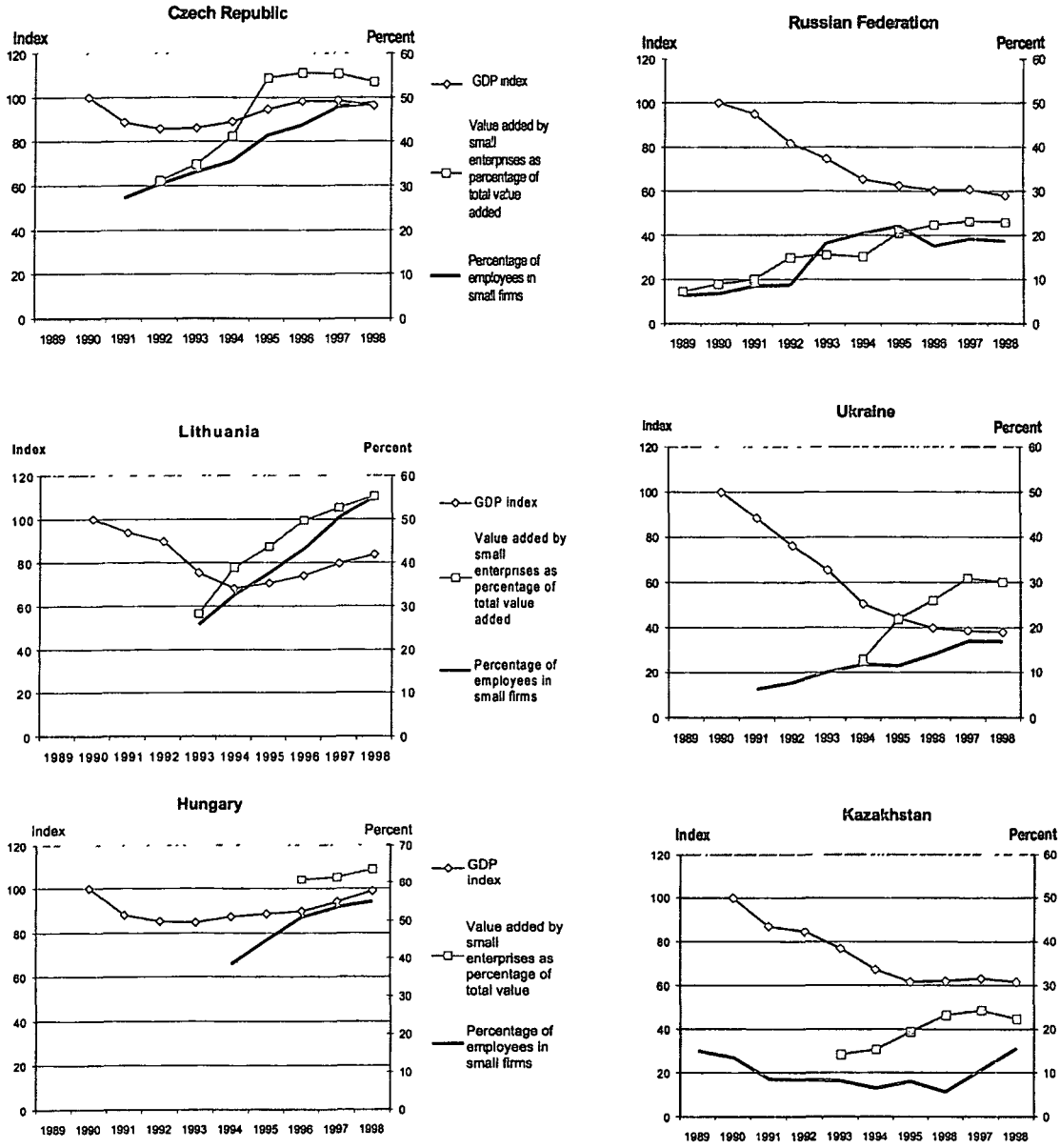
¹ tax discount amounting 30% of new investments for SMEs (in comparison to 10% of new investments for non-SMEs)

While steps to improve the investment climate are important, the hardening of budget constraints on all enterprises has also been key to the resumption and sustenance of growth in successful transition economies. The experience of the transition economies in the 1990s suggests that a sharp and early decline in aggregate employment preceded the rapid growth of new firms. This made assets cheaply available to new enterprises, which was useful when financing was not readily available and new investment was not forthcoming. When the proportion of employment in small firms reached a threshold of around 40 percent, the sector evolved from being a passive receptacle for absorbing resources into an active competitor, rapidly increasing its share of employment (see figure 12a). In countries where aggregate employment picked up, it did so after the recovery of aggregate output. When the threshold was not reached, people remained “unemployed on the job” as in the CIS and some countries in southeastern Europe. Aggregate employment started to fall only late in the process (see figure 12b). These observations suggest a sequence where hard budget constraints are imposed and the old sector declines before the new sector can grow. The complementarity between hardening budget constraints and improving the investment climate has been extremely important.

Our next question for the commentators is:

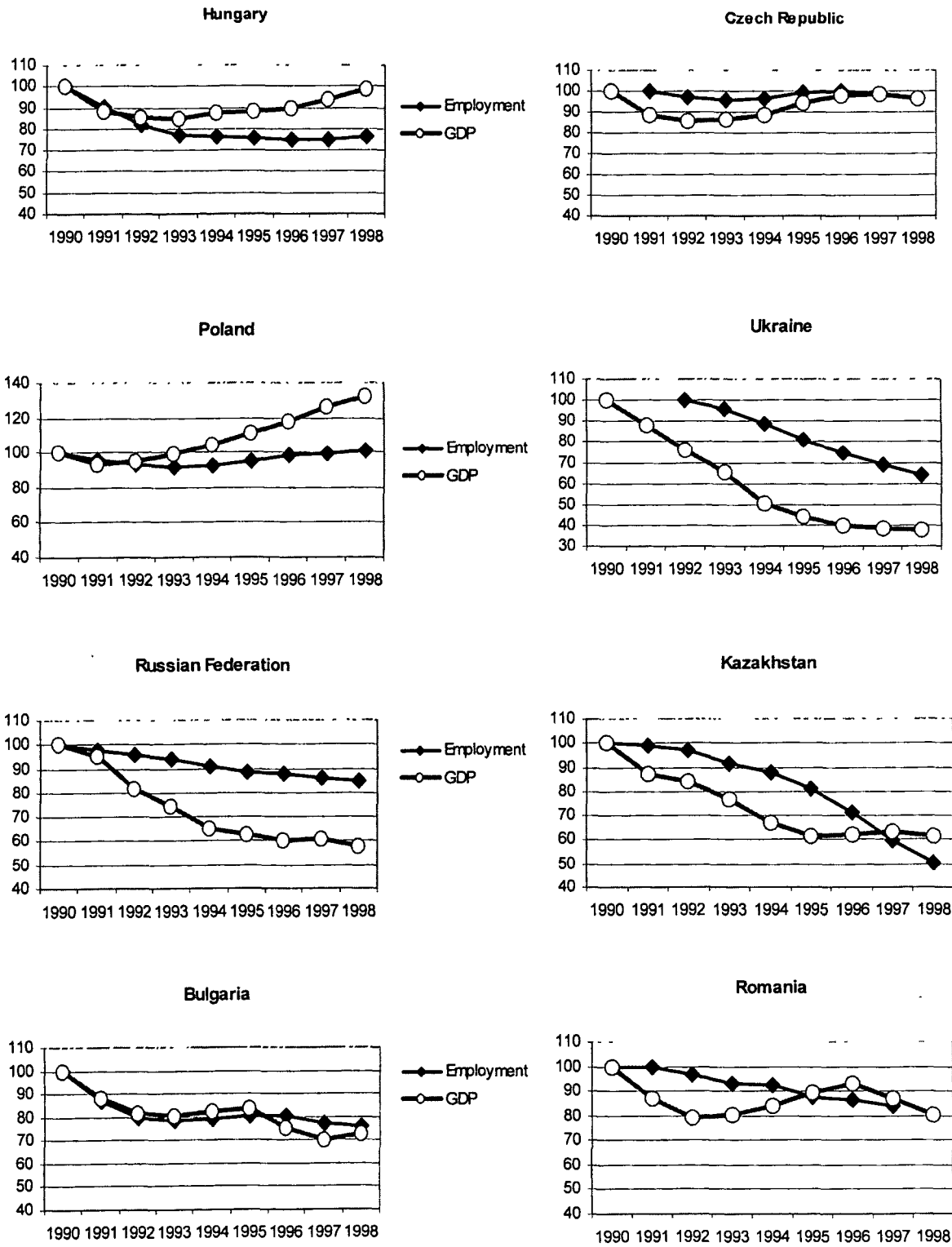
- **Is it generally understood that hardening budget constraints for all firms and improving the investment climate to create new firms and stimulate entrepreneurship without the state dispensing special favors to old or new firms must go hand in hand?**

Figure 12a. Index of GDP and Shares of Value Added and Employment Accounted for by Small Enterprises, 1989-98



Source: World Bank database on small and medium-size enterprises.

Table 12b. Employment and GDP, 1990-98



Source: World Bank database on small and medium-size enterprises.

In light of this discussion, a major element of the agenda of tax reform is therefore

- to eliminate tax exemptions which reflect governance problems in tax administration rather than being equity-enhancing, as is the case, for example, in Georgia where it is estimated that an additional 2 percent of GDP could be collected from excise taxes on petroleum products and cigarettes¹⁹, and

- to devise a simplified tax regime for small businesses which relieves the administrative and reporting burden on the taxpayer and minimizes contact between the tax authorities and the taxpayer. The use of tax exemptions and tax relief for such firms is, however, not recommended, in part because potentially 50 percent or more of value added that is generated by small firms in successful transition economies would then escape the tax net, significantly worsening the government's fiscal position without targeting the particular failure, for example, insecurity of property rights or inadequate infrastructure responsible for impeding the development of small firms.

This raises another question for the commentators:

- **What is the appropriate tax treatment of small firms, which have been the key to growth and generation of employment? What political strategies are available**

¹⁹ World Bank (2002b)

to eliminate tax exemptions that benefit powerful special interests and to lower tax rates and simplify tax administration that would benefit and encourage compliance by small firms?

6. ADMINISTERING THE TAX SYSTEM

The fundamental change which tax policy has undergone in transition as a result of changing bases and instruments has required the development of a tax administration capable of implementing those policies in countries where there was no such institution. While many countries now have modern tax legislation on their books, the development of the tax administration has lagged that of policy. This is due, not only to a greater focus on changes in policy rather than administration in the early years of transition, but also to the fact that demands on administration arising from changes in tax policy would usually precede development of supporting institutions. While tax administrations in transition countries share many problems with those in developing countries [Bird and Oldman (1990), Gillis (1989)], mention may be made of several unique features of the post-communist legacy, such as

- A culture of mutual mistrust between tax payers and the tax authorities;
- No tradition of voluntary compliance with tax legislation;
- No tradition of appeals to the courts against the decisions of the tax authorities which, by enhancing trust in the fairness of the tax administration, would encourage voluntary compliance;
- No tradition of self-assessment, which would shift the burden of appraisal to the private sector and reduce administrative demands placed on the tax authorities.

This implies that much attention has been paid, not only to strengthening enforcement, but also to developing taxpayer education and services in order to improve compliance and to maintain an appropriate balance between the two. The former has involved, inter alia, (i) making potential tax payers aware of the general concept of taxation and why they should pay their taxes; (ii) providing assistance, not readily available to any but large taxpayers in the private sector in transition countries, to taxpayers who wish to comply voluntarily; and (iii) reducing compliance costs through simplification of procedures. Strengthened enforcement is also an important factor in improving tax compliance. By way of example, the use of computer systems that can detect non-filers and those that have not paid the full amounts due, and notify them of the need to comply, sends a signal to delinquent taxpayers of the tax authorities' capacity to detect and punish evasion. Another example is the compilation of databases from third party information from multiple public sources (registrars of companies, land transactions etc.) and cross-checking of information between the VAT, income tax and excise tax authorities, as well as from private sources (sellers of luxury cars, banks and financial institutions etc.) about taxable transactions. These help provide independent checks on the veracity of tax returns and identify cases where tax may have been evaded. Yet another example is the selection of cases for auditing so as to target scarce auditing and investigation resources where they can be most effective. International constraints that impinge on tax administration require additional skills, such as implementation of tax treaties with other countries and the ability to detect transfer pricing which shifts income from high-tax to low-tax locations.

Most transition countries have set up large taxpayer units to focus on those taxpayers from whom the vast bulk of tax revenue would be derived. These units, which have the most

qualified staff, have proved to be important in maintaining revenue collections while the rest of the tax administration is being modernized.

Evidence from the first decade of transition shows that the most dynamic part of transition economies are new or restructured enterprises which employ fifty or fewer workers. As noted in Section 5, taxation is among the most prominent of the difficulties in the investment climate facing such firms. It is therefore extremely important that tax policy and its associated administrative requirements for such firms be simplified in order to improve the investment climate while minimizing interactions between them and the tax authorities.

While many weaknesses in tax administration may be addressed through technical solutions, the importance of both development of civil society and political will to the administration of tax policy is critical. On the former, tax compliance will grow pari passu with the development of civil society, which is much further along in the CSB compared to the CIS countries. On the latter, political will is required on two fronts. First, political support for hardening budget constraints is essential in order to allow large tax payer units to go after the most prominent tax debtors. Second, a strong political commitment to a level playing field for small enterprises is essential to simplify the tax regime applicable to small enterprises. This sends a clear signal to foreign and domestic investors that the authorities are serious about creating an attractive investment climate. Revenue-sharing rules with subnational governments should also be structured in a way that generates incentives for the latter to encourage the creation of small and new firms rather than focus on old enterprises which are kept afloat through tolerance of tax arrears with implications for how the tax administration operates at the subnational level. However, political commitment to effective implementation of tax policy should be distinguished from the use of the tax administration

for political ends, such as selectively enforcing tax discipline on large tax payers.

Politicization of the tax administration should be avoided.

Our questions for the commentators are:

- Is it generally understood that in many states the tax authorities are a major source of bureaucratic harassment and weakness in the investment climate?

What can be done to overcome these problems?

- Are the right partnerships in place or being constructed between the government, private sector and civil society in order to foster a culture of voluntary tax compliance in transition economies?

7. TAXATION AND FOREIGN DIRECT INVESTMENT

During 1996-1999 more than US\$70 billion in foreign direct investment flowed to the region, nearly 70 percent of it to the CSB countries (Table 5, which also presents gross domestic investment as a percent of GDP for comparison). In the CIS countries foreign direct investment has been largely confined to the energy-rich countries, with Azerbaijan, Kazakhstan and Russia receiving 75 percent of the total. Russia's share of FDI in GDP was even lower than that of several of the CIS countries, despite its considerable resource endowment.

Table 5. Main Recipients of Foreign Direct Investment, 1992–95 and 1996-1999

	1992–95			1996-99		
	\$ millions	Percent of GDP	Memo item Gross Domestic Investment as a percent of GDP	\$ millions	Percent of GDP	Memo item Gross Domestic Investment as a percent of GDP
CSB	21,091	0.5	19.3	50,558	3.3	24.7
Czech Republic	4,821	2.9	29.4	10,104	4.6	31.5
Estonia	647	3.9	26.9	1,050	5.2	28.2
Hungary	9,399	5.7	20.5	6,979	3.8	28.3
Poland	2,540	0.6	17.9	17,096	2.9	24.8
CIS	8,272	1.0	26.2	22,001	2.5	20.8
Azerbaijan	237	4.2	15.1	3,222	20.9	30.8
Kazakhstan	2,357	2.7	25.0	4,971	6.4	15.1
Russian Federation	3,965	0.3	28.1	8,412	0.7	19.6
Turkmenistan	427	3.5	-	334	3.0	43.5 ^a

^a Averages of 1997-1999

Note: Shares of GDP are period averages of medians for the group

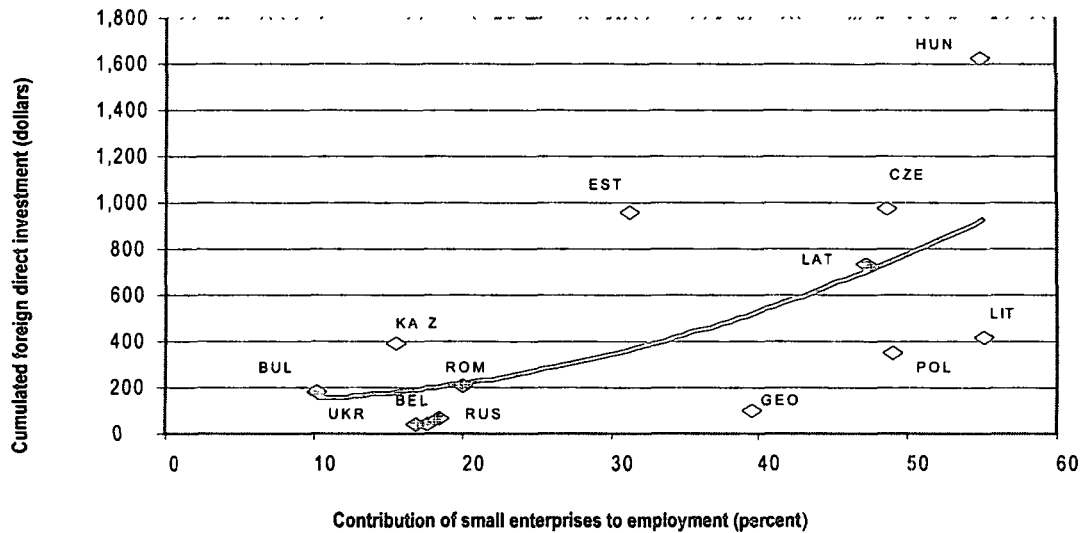
Source: World Bank staff estimates and country statistical offices.

Much foreign direct investment was driven by the sales of assets to strategic foreign investors; indeed, cumulative FDI is highly correlated with cumulative privatization revenues.²⁰ FDI brought with it two advantages: first, technology and skills and, in some cases, the governance capacity and standards of the home country and second, a source of foreign financing which, compared to bond and equity capital flows, was less prone to volatility in international capital markets.

Figure 13 shows that higher cumulative foreign direct investment, often a good proxy for a more attractive investment climate in the host country (see World Bank (2002c)), was associated with a higher share of aggregate employment in small enterprises.

²⁰ EBRD (2000)

Figure 13. Cumulative Foreign Direct Investment Per Capita and Employment in Small Enterprises, 1998



Source EBRD (2000); World Bank database on SMEs.

Improving the investment climate for domestic and foreign investment alike remains an important issue for the CIS countries and those in southeastern Europe. In the advanced reformers where few large privatizations are left, a major challenge facing policy makers is to devise an investment climate that can continue to attract inflows of FDI into greenfield ventures and cross-border acquisitions of private sector assets, together with the associated entrepreneurial experience, without undermining the country's fiscal position through the provision of tax incentives. Many countries—Bulgaria, Estonia, the Czech Republic, Hungary, Romania and Slovakia—have offered tax incentives, employment subsidies and special economic zones to attract foreign investment. In fact, the provision of generous investment incentives in the Czech and Slovak Republics in 1996 and 1997 respectively was associated with a doubling of non-privatization-related FDI in those countries.

Recent empirical studies in developed countries suggest that the location of investment, its modes of financing and associated tax avoidance respond more strongly to tax changes than had been previously thought to have been the case²¹. Moreover, candidate countries for EU accession—the Czech Republic, Hungary, Poland and Slovakia—and, indeed member countries of the EU, such as Ireland, have successfully engaged in tax competition to attract FDI within their borders. In such a situation, countries with high corporate tax rates face the potential for a reduction in FDI inflows and profit-shifting to lower tax locations through transfer pricing by multinationals, and may, therefore, be tempted to engage in a race to the bottom through competitive reductions in tax rates. Caution is, however, warranted here. It will be recollected that the tax system, although important, is but one ingredient of an attractive investment climate. Furthermore, the interaction of tax and nontax incentives on investment remains to be adequately explored in recent empirical work. Hence, if particular regions of a country experience stubbornly high double-digit unemployment as is the case in Central Europe, the solution may lie, not in a rush to tax holidays, accelerated depreciation and the like but instead in directly addressing the sources of the problem, which could include the provision of relevant education opportunities to match skills with labor demand, reducing disincentives to labor supply arising from overly generous social expenditures, cutting the cost of labor by lowering payroll taxes and removing impediments to labor mobility arising from infrastructure bottlenecks. This may still leave a role for tax policy but governments should avoid the temptation to pick winners and engage in activist industrial policy. That route can lead to poor choices, subsidized inefficiency and corrupt seeking after government favors.

²¹ Hines (1999) provides on useful survey

This discussion raises the following question for the commentators:

- How important is it to use corporate tax regimes in transition countries to compete for foreign direct investment as compared to harmonizing taxes and focusing on broader reform of the investment climate?

8. CONCLUSION

To summarize, the discussion in the paper raises the following questions for the commentators:

- What is the level and composition of tax revenue that raises enough resources to finance public expenditures without introducing excessive distortions in the private sector? Is tax revenue as a share of GDP “too high” in the CSB countries and “too low” in the CIS countries?
- Is it generally understood that hardening budget constraints for all firms and improving the investment climate to create new firms and stimulate entrepreneurship, without the state dispensing special favors, must go hand in hand?
- What is the appropriate tax treatment of small firms, which have been the key to growth and generation of employment? What political strategies are available to eliminate tax exemptions that benefit powerful special interests and to lower tax rates and simplify tax administration that would benefit and encourage compliance by small firms?

- **Is it generally understood that in many states the tax authorities are a major source of bureaucratic harassment and weakness in the investment climate? What can be done to overcome these problems?**
- **Are the right partnerships in place or being constructed between the government, private sector and civil society in order to foster a culture of voluntary tax compliance in transition economies?**
- **How important is it to use corporate tax regimes in transition countries to compete for foreign direct investment as compared to harmonizing taxes and focusing on broader reform of the investment climate?**

Appendix

Table 1. Tax structure of CSB and CIS countries during the Early Transition Period ¹
(average in percent of GDP)

Sample Size	2000 GDP per capita (US\$) ²	Total Revenue and Grants	Tax Revenue	Other Revenue and Grants	Taxes on Income, Profits, and Capital Gains			Social Security and Payroll Taxes	Domestic Taxes on Goods and Services: of which			International Trade Taxes			Wealth and Property Taxes	Other Revenues	
					Total	of which			Total	of which		Total	of which				
						Individual	Corporate			General Sales, Turnover, VAT	Excises		Import duties	Export duties			
Central and Eastern Europe and the Baltics																	
Albania	1992-93	1,100	24.6	17.6	7.1	3.4	0.1	3.3	3.1	7.2	4.2	3.0	2.9	2.9	0.0	0.0	1.0
Bulgaria	1992-93	1,470	37.8	31.0	6.8	9.7	5.2	4.5	11.9	6.8	3.6	3.2	2.5	2.5	0.0	0.0	0.2
Croatia ³	1994-95	4,180	42.5	40.8	1.8	4.5	3.7	0.9	13.7	18.1	14.0	4.1	4.0	4.0	0.0	0.1	0.4
Czech Republic	1994-95	4,940	44.4	40.3	4.1	10.3	5.0	5.3	15.8	11.5	7.3	4.2	1.4	1.4	0.0	0.0	1.3
Estonia	1991-92	3,510	37.2	34.4	2.7	14.1	7.1	7.0	8.1	11.1	6.9	0.7	0.4	0.4	0.0	0.0	0.8
Hungary	1991-92	4,550	53.9	42.1	11.8	11.4	7.0	3.5	13.5	13.2	6.0	5.6	3.0	3.0	0.0	0.4	0.8
Latvia	1994-95	3,010	36.7	33.7	3.0	7.8	5.0	2.8	12.0	10.6	9.0	1.6	1.0	1.0	0.0	1.1	1.2
Lithuania	1990-91	3,040	39.9	35.5	4.5	13.0	4.6	8.4	6.9	13.7	10.5	3.1	0.5	0.5	0.0	0.5	0.8
Macedonia	1991-92	1,760	38.1	37.1	0.9	7.0	5.8	1.2	19.2	8.2	8.2	0.0	2.6	2.6	0.0	0.1	0.0
Poland	1992-93	4,100	45.9	37.8	8.2	12.6	8.2	4.4	9.6	10.2	9.2	1.0	2.6	2.6	0.0	0.0	2.9
Romania	1990-91	1,640	40.8	34.4	6.5	13.3	7.2	6.1	9.1	10.1	10.1	0.0	0.6	0.6	0.0	0.0	1.2
Slovak Republic	1992-93	3,540	45.2	37.9	7.4	13.2	5.5	7.7	10.3	12.4	10.4	2.1	1.4	1.4	0.0	0.0	0.5
Slovenia	1991-92	9,160	43.5	32.4	11.1	5.6	5.0	0.7	12.5	10.4	10.1	0.0	3.4	3.4	0.0	0.0	0.5
Unweighted Average – Central and Eastern		3,540	40.8	35.0	5.8	9.7	5.3	4.3	11.2	11.0	8.4	2.2	2.0	2.0	0.0	0.3	0.8
CIS																	
Armenia	1994-95	500	23.8	12.9	10.9	6.4	1.3	5.2	1.8	3.5	3.0	0.5	0.5	0.5	0.0	0.3	0.5
Azerbaijan	1992-93	660	45.8	32.2	13.6	9.8	2.2	7.6	9.9	12.1	8.2	3.9	0.4	0.4	0.0	0.0	0.0
Belarus	1992-93	860	50.0	41.8	8.2	12.1	0.0	12.1	12.9	16.7	16.7	0.1	0.1	0.0	0.1	0.0	0.0
Georgia	1994-95	560	9.2	5.0	4.2	1.6	0.6	1.0	0.9	1.9	1.8	0.1	0.2	0.2	0.0	0.0	0.6
Kazakhstan ⁴	1994-95	1,230	18.2	17.7	0.6	5.6	0.6	6.3	6.3	3.6	3.6	1.4	1.4	1.4	0.0	0.0	0.9
Kyrgyz Republic	1994-95	270	24.7	20.2	4.5	4.9	1.9	3.1	5.9	7.8	5.1	1.6	0.6	0.6	0.0	0.5	0.5
Moldova	1992-93	360	21.7	19.8	1.9	6.4	1.7	4.6	2.9	9.3	5.5	3.8	0.4	0.0	0.0	0.0	0.8
Russian Federation ⁵	1992-93	1,730	37.7	33.8	3.9	11.4	2.3	9.1	9.7	9.3	8.5	0.8	2.9	0.7	1.1	0.0	0.5
Tajikistan	1991-92	160	34.2	32.4	1.8	12.4	2.6	6.8	9.2	9.5	4.2	5.3	0.1	0.0	0.1	0.3	1.0
Turkmenistan ⁶	1994-95	850	18.7	16.5	2.2	4.9	0.9	4.1	3.5	8.1	7.1	1.0	0.0	0.0	0.0	0.0	0.0
Ukraine	1991-92	640	34.1	33.0	1.1	11.1	3.2	7.9	11.4	10.6	10.0	0.6	0.0	0.0	0.0	0.0	0.0
Uzbekistan ⁷	1992-93	550	33.7	27.3	6.3	9.1	2.6	6.4	0.7	16.1	8.9	7.2	1.3	1.3	0.0	0.2	0.0
Unweighted Average – CIS		700	29.3	24.4	4.9	8.0	1.7	6.2	6.2	9.0	6.2	2.5	0.7	0.5	0.1	0.2	0.3
Overall Unweighted Average		2,180	35.3	29.9	5.4	8.8	3.7	5.1	8.8	10.1	7.5	2.3	1.4	1.3	0.1	0.2	0.5

¹ Consolidated General Government unless indicated otherwise

² At the official exchange rate

³ Consolidated Central Government

⁴ Government Budgetary Operations

⁵ Enlarged Government Budget

⁶ State Budget

⁷ Excluding extrabudgetary funds

Sources: IMF country documents, and IMF and World Bank staff estimates

Appendix

Table 2. Tax structure of CSB and CIS countries during the Early Transition Period ¹
(average in percent of tax revenue)

Sample Size	2000 GDP per capita (US\$) ²	Total Revenue and Grants	Tax Revenue	Other Revenue and Grants	Taxes on Income, Profits, and Capital Gains			Social Security and Payroll Taxes	Domestic Taxes on Goods and Service: of which:			International Trade Taxes			Wealth and Property Taxes	Other Tax Revenues	
					Total	of which			Total	of which:		Total	of which:				
						Individual	Corporate			General Sales, Turnover,	VAT		Excises	Import duties			Export duties
Central and Eastern Europe and the Baltics																	
Albania	1992-93	1,100	140.2	100.0	40.2	19.1	0.3	18.8	17.9	40.7	23.9	16.8	16.4	16.4	0.0	0.0	5.9
Bulgaria	1992-93	1,470	121.9	100.0	21.9	31.3	16.8	14.5	38.3	21.8	11.5	10.3	8.1	8.1	0.0	0.0	0.6
Croatia ³	1994-95	4,180	104.3	100.0	4.3	11.0	9.0	2.1	33.5	44.4	34.4	9.9	9.8	9.8	0.0	0.3	0.9
Czech Republic	1994-95	4,940	110.2	100.0	10.2	25.6	12.3	13.2	39.3	28.4	18.1	10.3	3.5	3.5	0.0	0.0	3.2
Estonia	1991-92	3,510	108.0	100.0	8.0	40.9	20.5	20.4	23.5	32.2	19.9	2.0	1.1	1.1	0.0	0.0	2.2
Hungary	1991-92	4,550	127.9	100.0	27.9	27.0	16.5	8.3	32.1	31.4	14.3	13.3	7.0	7.0	0.0	0.8	1.8
Latvia	1994-95	3,010	108.9	100.0	8.9	23.2	14.8	8.4	35.6	31.5	26.7	4.8	2.8	2.8	0.0	3.3	3.7
Lithuania	1990-91	3,040	112.5	100.0	12.5	36.7	13.1	23.5	19.6	38.6	29.5	8.6	1.5	1.5	0.0	1.4	2.3
Macedonia	1991-92	1,760	102.6	100.0	2.6	18.9	15.6	3.2	51.8	22.0	22.0	0.0	7.1	7.1	0.0	0.1	0.1
Poland	1992-93	4,100	121.6	100.0	21.6	33.2	21.7	11.5	25.3	27.0	24.4	2.6	6.8	6.8	0.0	0.0	7.7
Romania	1990-91	1,640	118.8	100.0	18.8	38.6	21.0	17.6	26.6	29.4	29.4	0.0	1.8	1.8	0.0	0.0	3.6
Slovak Republic	1992-93	3,540	119.4	100.0	19.4	34.7	14.4	20.3	27.3	32.8	27.3	5.4	3.7	3.7	0.0	0.0	1.4
Slovenia	1991-92	9,160	134.3	100.0	34.3	17.3	15.3	2.0	38.7	31.9	31.2	0.0	10.5	10.5	0.0	0.0	1.6
Unweighted Average -- Central and Eastern		3,540	117.7	100.0	17.7	27.5	14.7	12.6	31.5	31.7	24.0	6.5	6.2	6.2	0.0	0.7	2.4
CIS																	
Armenia	1994-95	500	184.8	100.0	84.8	49.8	9.7	40.1	13.6	26.8	23.3	3.5	3.7	3.7	0.0	2.0	4.0
Azerbaijan	1992-93	660	142.2	100.0	42.2	30.4	6.9	23.5	30.8	37.5	25.5	12.0	1.2	1.2	0.0	0.0	0.0
Belarus	1992-93	860	119.6	100.0	19.6	29.1	0.0	29.1	30.8	39.9	37.0	0.0	0.1	0.0	0.1	0.0	0.1
Georgia	1994-95	560	183.3	100.0	83.3	31.0	11.0	20.0	17.0	37.0	36.0	1.0	3.7	3.7	0.0	0.0	11.2
Kazakhstan ⁴	1994-95	1,230	103.1	100.0	3.1	31.7	0.0	0.0	35.4	20.1	0.0	0.0	7.8	7.8	0.0	0.0	4.9
Kyrgyz Republic	1994-95	270	122.0	100.0	22.0	24.3	9.2	15.1	29.2	38.7	25.0	7.9	3.0	3.0	0.0	2.4	2.4
Moldova	1992-93	360	109.3	100.0	9.3	32.1	8.7	23.2	14.6	47.0	27.5	19.2	2.2	0.0	0.0	0.0	4.1
Russian Federation ⁵	1992-93	1,730	111.4	100.0	11.4	33.8	6.9	26.9	28.6	27.6	25.2	2.4	8.5	2.1	3.3	0.0	1.6
Tajikistan	1991-92	160	105.5	100.0	5.5	38.1	8.0	20.8	28.3	29.3	13.0	16.3	0.2	0.0	0.2	1.0	3.0
Turkmenistan ⁶	1994-95	850	113.3	100.0	13.3	29.7	5.2	24.5	21.2	49.1	43.0	6.1	0.0	0.0	0.0	0.0	0.0
Ukraine	1991-92	640	103.3	100.0	3.3	33.5	9.7	23.8	34.4	32.0	30.2	1.8	0.0	0.0	0.0	0.0	0.0
Uzbekistan ⁷	1992-93	550	123.1	100.0	23.1	33.1	9.6	23.5	2.6	38.7	32.4	26.4	4.8	4.8	0.0	0.8	0.0
Unweighted Average -- CIS		700	126.8	100.0	26.8	33.1	7.7	24.6	23.9	37.0	28.1	9.7	3.2	2.4	0.3	0.8	2.1
Overall Unweighted Average		2,180	122.1	100.0	22.1	30.2	11.5	18.1	27.8	34.2	25.8	7.9	4.8	4.4	0.2	0.8	2.2

¹ Consolidated General Government unless indicated otherwise

² At the official exchange rate

³ Consolidated Central Government

⁴ Government Budgetary Operations

⁵ Enlarged Government Budget

⁶ State Budget

⁷ Excluding extrabudgetary funds

Source: IMF country documents, and IMF and World Bank staff estimates

Appendix

Table 3. Tax structure of CSB and CIS countries ¹
(1999-2000 average; in percent of GDP)

Sample Size	2000 GDP per capita (US\$) ²	Total Revenue and Grants	Tax Revenue	Other Revenue and Grants	Taxes on Income, Profits, and Capital Gains			Social Security and Payroll Taxes	Domestic Taxes on Goods and Services: of which:			International Trade Taxes		Wealth and Property Taxes	Other Tax Revenues			
					Total	of which			Total	VAT	Excises	Import duties	Export duties					
						Individual	Corporate									General Sales, Turnover,		
Central and Eastern Europe and the Baltics																		
Albania	1999-00	1,100	21.9	18.0	3.9	2.4	0.8	1.6	3.7	8.1	6.5	1.6	2.4	2.4	0.0	0.0	1.5	
Bulgaria	1999-00	1,470	41.3	30.5	10.8	7.6	4.5	3.1	7.9	12.6	9.0	3.6	1.0	1.0	0.0	0.0	1.6	
Croatia ³	1999-00	4,180	41.3	39.3	2.0	4.3	2.9	1.4	13.4	18.4	13.9	4.5	2.7	2.7	0.0	0.2	0.3	
Czech Republic	1999-00	4,940	41.1	37.2	3.8	9.0	5.2	3.8	14.9	11.4	7.6	3.9	0.7	0.7	0.0		1.3	
Estonia	1999-00	3,510	38.7	36.1	2.6	9.9	8.3	1.6	12.2	12.6	9.1	3.5	0.0	0.0	0.0	0.4	1.1	
Hungary	1999-00	4,550	44.0	36.1	7.9	9.3	7.0	2.3	10.0	14.6	8.6	4.0	1.2	1.2	0.0	0.9	0.3	
Latvia	1999-00	3,010	38.7	32.7	6.1	8.2	6.1	2.1	11.2	11.8	8.0	3.8	0.4	0.4	0.0	1.1	0.0	
Lithuania	1999-00	3,040	31.2	29.4	1.8	8.9	8.2	0.8	7.0	12.0	7.9	3.6	0.4	0.4	0.0	0.6	0.6	
Macedonia	1999-00	1,760	36.1	32.4	3.7	6.0	4.8	1.2	10.8	11.6	6.1	5.2	3.7	3.7	0.0	0.5	0.0	
Poland	1999-00	4,100	40.4	32.6	7.8	8.0	5.5	2.5	9.9	11.9	8.0	3.9	0.9	0.9	0.0		2.0	
Romania	1999-00	1,640	32.4	30.5	2.0	7.8	3.4	3.0	10.9	10.5	6.3	2.8	1.3	1.3	0.0		0.0	
Slovak Republic	1999-00	3,540	40.4	34.0	6.4	8.1	5.2	2.9	12.7	10.7	7.6	3.2	1.5	1.5	0.0		1.0	
Slovenia	1999-00	9,160	43.0	40.3	2.8	7.6	6.4	1.2	13.6	15.7	15.4	0.3	1.1	1.1	0.0		2.4	
Unweighted Average – Central and Eastern Europe and the Baltics			35.0	33.0	4.7	7.4	5.2	2.1	10.6	12.4	8.7	3.4	1.3	1.3	0.0	0.4	0.7	
CIS																		
Armenia	1999-00	500	21.2	18.5	2.7	4.2	1.7	2.1	2.4	9.1	6.7	2.4	0.8	0.8	0.0	0.4	1.7	
Azerbaijan	1999-00	660	19.9	14.4	5.5	4.5	2.2	2.3	2.4	4.7	4.2	0.6	1.9	1.9	0.0	0.5	0.4	
Belarus	1999-00	860	44.3	40.8	3.5	7.9	0.0	7.9	10.0	19.7			1.8	1.8	0.0	0.8	0.7	
Georgia	1999-00	560	15.4	14.1	1.3	3.0	1.9	1.2	2.4	6.5	4.7	1.8	0.8	0.8	0.0		1.5	
Kazakhstan ⁴	1999-00	1,230	19.6	18.1	1.5	6.6			3.8	6.9			0.7	0.7	0.0		0.2	
Kyrgyz Republic	1999-00	270	21.1	16.6	4.5	2.3	1.2	1.1	4.2	8.9	4.9	2.5	0.5	0.5	0.0	0.3	0.3	
Moldova	1999-00	360	27.5	22.3	5.2	3.2	1.5	1.6	5.6	10.6	7.2	3.4	1.5	1.5	0.0		1.3	
Russian Federation ⁵	1999-00	1,730	37.0	30.3	6.7	7.9	2.7	5.1	8.1	8.9	6.5	2.5	2.5	0.9	1.4	1.2	1.6	
Tajikistan	1999-00	160	13.6	12.9	0.7	2.2	1.2	1.0	1.3	6.4	5.8	0.6	1.4	1.4	0.0	0.5	1.2	
Turkmenistan ⁶	1999-00	850	23.4	20.8	2.7	5.8	2.6	3.2	5.0	9.5	7.3	2.2					0.5	
Ukraine	1999-00	640	34.2	30.6	3.6	8.8	3.5	4.9	9.3	10.4	6.6	1.4	0.9	0.9	0.0	0.8	0.5	
Uzbekistan ⁷	1999-00	550	28.7	28.0	0.7	7.9	3.9	4.0	0.0	15.3	7.4	7.9	0.6	0.6	0.0	2.0	2.3	
Unweighted Average – CIS			25.5	22.2	3.2	5.3	2.0	3.1	4.5	9.7	6.1	2.5	1.2	1.1	0.1	0.8	0.6	
Overall Unweighted Average			21.80	31.8	27.8	4.0	6.4	3.8	2.6	7.7	11.1	7.6	3.0	1.3	1.2	0.1	0.6	0.7

¹ Consolidated General Government unless indicated otherwise

² At the official exchange rate

³ Consolidated Central Government

⁴ Government Budgetary Operations

⁵ Enlarged Government Budget

⁶ State Budget

⁷ Excluding extrabudgetary funds

Sources: IMF country documents, and IMF and World Bank staff estimates

Appendix

Table 4. Tax structure of CSB and CIS countries ¹
(1999-2000 average, in percent of tax revenue)

	Sample Size	2000 GDP per capita (US\$) ²	Total Revenue and Grants	Tax Revenue	Other Revenue and Grants	Taxes on Income, Profits, and Capital Gains			Social Security and Payroll Taxes	Domestic Taxes on Goods and Services: of which			International Trade Taxes		Wealth and Property Taxes	Other Tax Revenues	
						Total	of which			General Sales, Turnover, VAT			of which				
							Individual	Corporate		Total	VAT	Excises	Total	Import duties			Export duties
Central and Eastern Europe and the Baltics																	
Albania	1999-00	1,100	121.7	100.0	21.7	13.1	4.2	8.9	20.3	44.8	36.2	8.6	13.4	13.4	0.0	0.0	8.4
Bulgaria	1999-00	1,470	135.4	100.0	35.4	24.8	14.8	10.0	25.7	41.1	29.3	11.8	3.3	3.3	0.0	0.0	5.1
Croatia ³	1999-00	4,180	105.1	100.0	5.1	10.9	7.4	3.5	34.1	46.9	35.5	11.4	6.9	6.9	0.0	0.5	0.8
Czech Republic	1999-00	4,940	110.3	100.0	10.3	24.1	13.8	10.1	40.1	30.6	20.3	10.3	1.9	1.9	0.0	0.0	3.4
Estonia	1999-00	3,510	107.1	100.0	7.1	27.3	22.9	4.4	33.8	34.8	25.2	9.6	0.0	0.0	0.0	1.1	3.0
Hungary	1999-00	4,550	121.7	100.0	21.7	25.6	19.4	6.2	27.7	40.3	23.7	11.1	3.2	3.2	0.0	2.4	0.8
Latvia	1999-00	3,010	118.5	100.0	18.5	25.0	18.7	6.3	34.3	36.2	24.5	11.7	1.1	1.1	0.0	3.4	0.0
Lithuania	1999-00	3,040	106.1	100.0	6.1	30.3	27.7	2.6	23.6	40.8	26.7	12.1	1.4	1.4	0.0	2.0	1.9
Macedonia	1999-00	1,760	111.3	100.0	11.3	18.4	14.7	3.7	33.3	35.6	18.8	15.9	11.3	11.3	0.0	1.4	0.0
Poland	1999-00	4,100	123.8	100.0	23.8	24.5	16.9	7.7	30.4	36.3	24.4	12.0	2.8	2.8	0.0	6.0	6.0
Romania	1999-00	1,640	106.4	100.0	6.4	25.6	11.2	9.7	35.8	34.3	20.5	9.2	4.3	4.3	0.0	0.0	0.0
Slovak Republic	1999-00	3,540	118.9	100.0	18.9	23.7	15.2	8.5	37.4	31.5	22.2	9.3	4.4	4.4	0.0	2.9	2.9
Slovenia	1999-00	9,160	106.8	100.0	6.8	18.8	15.8	3.0	33.8	38.9	38.1	0.7	2.7	2.7	0.0	5.8	5.8
Unweighted Average - Central and Eastern Europe and the Baltics		3,540	114.9	100.0	14.9	22.5	15.6	6.5	31.6	37.9	26.6	10.3	4.3	4.3	0.0	1.3	2.4
CIS																	
Armenia	1999-00	500	114.3	100.0	14.3	22.7	8.9	11.4	13.0	48.9	36.2	12.7	4.3	4.3	0.0	2.2	8.9
Azerbaijan	1999-00	660	138.3	100.0	38.3	31.4	15.3	16.0	16.7	32.8	28.9	3.8	13.2	13.2	0.0	3.1	2.8
Belarus	1999-00	860	108.6	100.0	8.6	19.2	0.0	19.2	24.5	48.2	4.3	4.3	0.0	0.0	2.0	1.8	1.8
Georgia	1999-00	560	109.3	100.0	9.3	21.4	13.2	8.2	16.7	45.9	33.1	12.8	5.3	5.3	0.0	10.7	10.7
Kazakhstan ⁴	1999-00	1,230	108.3	100.0	8.3	36.6	0.0	0.0	20.8	38.0	0.0	0.0	3.9	3.9	0.0	0.8	0.8
Kyrgyz Republic	1999-00	270	127.2	100.0	27.2	13.9	7.3	6.3	25.4	53.8	29.3	15.1	3.0	3.0	0.0	2.1	1.8
Moldova	1999-00	360	123.3	100.0	23.3	14.2	6.9	7.3	25.3	47.8	32.3	15.5	6.6	6.6	0.0	6.0	6.0
Russian Federation ⁵	1999-00	1,730	122.1	100.0	22.1	25.9	9.0	16.9	26.9	29.5	21.4	8.1	8.4	2.8	4.5	4.0	5.2
Tajikistan	1999-00	160	105.4	100.0	5.4	17.1	8.9	7.4	9.7	49.4	45.1	4.3	10.9	10.9	0.0	3.5	9.3
Turkmenistan ⁶	1999-00	850	112.8	100.0	12.8	28.0	12.5	15.4	23.9	45.8	35.2	10.6	0.0	0.0	0.0	2.4	2.4
Ukraine	1999-00	640	111.6	100.0	11.6	28.6	11.4	16.0	30.4	33.8	21.6	4.6	2.9	2.9	0.0	2.6	1.6
Uzbekistan ⁷	1999-00	550	102.5	100.0	2.5	28.3	13.8	14.3	0.0	54.7	26.5	28.3	2.0	2.0	0.0	7.0	8.1
Unweighted Average - CIS		700	115.3	100.0	15.3	23.9	9.8	12.6	19.4	44.0	31.0	11.6	5.9	5.4	0.4	3.3	3.4
Overall Unweighted Average		2,180	115.1	100.0	15.1	23.2	12.9	9.3	25.7	40.8	28.5	10.8	5.1	4.8	0.2	2.3	2.9

¹ Consolidated General Government unless indicated otherwise

² At the official exchange rate

³ Consolidated Central Government

⁴ Government Budgetary Operations

⁵ Enlarged Government Budget

⁶ State Budget

⁷ Excluding extrabudgetary funds

Sources: IMF country documents, and IMF and World Bank staff estimates

Appendix

Table 5. Tax Structure of High-Income OECD Countries¹
(average for the latest 5 years available; in percent of GDP)

	Fiscal Sample Size	2000 GDP per capita (US\$)	Total Revenue and Grants ²	Tax Revenue	Other Revenue and Grants	Taxes on Income, Profits, and Capital Gains		Social Security and Payroll Taxes	Domestic Taxes on Goods and Services of which			International Trade Taxes		Wealth and Property Taxes	Other Tax Revenues		
						Total ³	of which		Total ⁴	VAT	Excises	of which					
							Individual					Corporate	Import duties			Export duties	
Austria	1995-99	23,300	50.2	43.2	7.0	13.1		16.8	12.3			0.0	0.0	0.0	0.1	0.9	
Belgium	1994-98	22,300	46.8	45.0	1.8	16.9	13.8	2.8	14.8	12.1	7.3	2.4	0.0	0.0	0.0	1.3	0.0
Denmark	1995-99	30,100	57.2	49.2	8.0	29.4	25.7	2.2	1.8	15.9	9.6	3.8	0.0	0.0	0.0	1.7	0.4
Finland ⁵	1994-98	23,300	47.6	38.3	9.4	19.1	7.6	1.6	4.1	13.8	8.2	4.6	0.1	0.1	0.0	0.6	0.6
France	1993-97	22,000	47.2	42.2	5.0	8.0	6.3	1.7	18.0	11.9	7.7	2.7	0.0	0.0	0.0	2.3	2.0
Germany	1994-98	22,700	47.6	37.8	9.7	11.0	9.6	0.5	15.2	10.4	3.6	3.0	0.0	0.0	0.0	1.0	0.2
Greece ⁶	1994-98	10,800	24.4	22.5	2.0	7.4	3.8	2.2	0.5	12.8	7.6	4.7	0.0	0.0	0.0	0.9	0.8
Ireland	1993-97	25,200	37.8	31.9	5.9	13.6	10.5	3.1	5.2	12.0	6.2	5.0	0.0	0.0	0.0	1.1	0.0
Italy	1995-99	18,800	47.2	42.8	4.4	14.3	11.4	2.7	13.4	10.2	5.7	2.7	0.0	0.0	0.0	0.9	4.1
Luxembourg	1993-97	43,100	47.7	42.8	4.9	16.5	11.1	5.0	11.1	11.1	6.0	4.6	0.0	0.0	0.0	3.0	1.1
Netherlands	1993-97	23,200	50.0	43.4	6.6	12.0	8.4	3.6	18.0	10.2	6.6	2.8	0.0	0.0	0.0	1.8	1.5
Portugal	1994-98	10,600	41.7	33.3	8.4	9.4	5.9	2.9	8.7	13.3	7.4	4.7	0.0	0.0	0.0	0.6	1.3
Spain	1993-97	14,200	36.9	33.3	3.7	10.1	8.0	1.9	12.0	9.0	4.3	2.7	0.0	0.0	0.0	1.9	0.2
Sweden ⁵	1995-99	25,800	57.3	50.5	6.8	20.8	1.9	2.9	16.3	11.4	7.1	3.8	0.1	0.1	0.0	1.8	0.1
United Kingdom	1995-99	23,900	38.6	34.7	3.9	13.6	9.7	3.9	6.2	11.4	6.7	3.9	0.0	0.0	0.0	3.6	0.0
<u>EU unweighted average</u>		<u>22,600</u>	<u>45.2</u>	<u>39.4</u>	<u>5.8</u>	<u>14.3</u>	<u>9.6</u>	<u>2.6</u>	<u>10.8</u>	<u>11.2</u>	<u>6.7</u>	<u>3.7</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>1.5</u>	<u>0.2</u>
Australia	1995-99	20,300	36.0	28.9	7.2	15.9	11.7	4.0	0.6	7.6	2.4	2.5	0.6	0.6	0.0	4.1	0.0
Canada	1996-00	22,800	45.0	37.3	7.7	17.9	13.9	2.4	5.2	8.8	2.6	0.9	0.3	0.3	0.0	4.0	1.1
Iceland	1994-98	30,600	39.1	32.7	6.4	11.9	10.9	0.9	2.6	14.6	9.4	3.2	0.4	0.4	0.0	2.5	0.7
Japan ⁷	1991-93	37,600	21.1	17.8	3.4	8.2	5.1	3.0	5.4	2.9	1.4	1.3	0.3	0.2	0.0	0.7	0.3
New Zealand ⁸	1996-00	13,300	37.1	32.5	4.6	20.2	14.8	3.8	0.3	9.2	6.3	1.9	0.7	0.7	0.0	1.9	0.2
Norway	1994-98	36,000	52.9	41.1	11.8	15.2	11.0	3.6	9.1	15.5	8.8	5.4	0.2	0.2	0.0	1.1	0.0
Switzerland	1995-99	33,300	42.5	34.0	8.5	12.5	10.5	0.8	12.5	6.1	3.5	1.8	0.2	0.2	0.0	2.6	0.0
United States	1995-99	35,600	34.4	27.6	6.9	13.3	10.8	2.1	6.6	4.4		0.6	0.2	0.2	0.0	3.0	0.0
<u>Other OECD unweighted average</u>		<u>28,700</u>	<u>38.5</u>	<u>31.5</u>	<u>7.0</u>	<u>14.4</u>	<u>11.1</u>	<u>2.6</u>	<u>5.3</u>	<u>8.6</u>	<u>4.9</u>	<u>2.2</u>	<u>0.4</u>	<u>0.4</u>	<u>0.0</u>	<u>2.5</u>	<u>0.3</u>
Unweighted average:		24,700	42.9	36.6	6.3	14.4	10.1	2.6	8.9	10.7	6.1	3.1	0.1	0.1	0.0	1.8	0.7

¹ Consolidated budgetary, extrabudgetary and social security accounts of central, state/provincial and local governments

² Excluding grants and transfers between budgets of different levels

³ In addition to individual and corporate taxes on income, profit and capital gain, the total includes other unallocated taxes on income profit and capital

⁴ In addition to general sales, turnover, VAT taxes, and excises, the total includes profits of fiscal monopolies, taxes on specific services, taxes on activities and use/permission to use goods (business and professional licenses, motor vehicle taxes, etc), as well as other taxes on goods and services

⁵ Individual and corporate taxes on income, profits and capital gains are for consolidated central government only

⁶ Central government only Excluding adjustment to tax revenue

⁷ Central government only

⁸ Budgetary accounts only

Source: IMF, Government Financial Statistics, OECD, Labor Statistics and National Accounts of OECD Countries

Appendix

Table 6. Tax Structure of High-Income OECD Countries¹
(average for the latest 5 years available; in percent of tax revenues)

	Fiscal Sample Size	2000 GDP per capita (US\$)	Total Revenue and Grants ²	Tax Revenue	Other Revenue and Grants	Taxes on Income, Profits, and Capital Gains			Social Security and Payroll Taxes	Domestic Taxes on Goods and Services			International Trade Taxes		Wealth and Property Taxes	Other Tax Revenues	
						Total ³	of which			Total ⁴	of which		Total	of which			
							Individual	Corporate			VAT	Excises		Import duties			Export duties
Austria	1995-99	23,300	116.3	100.0	16.3	30.5			38.9	28.5			0.0	0.0	0.0	0.1	2.0
Belgium	1994-98	22,300	104.0	100.0	4.0	37.6	30.7	6.3	32.9	26.8	16.2	5.3	0.0	0.0	0.0	2.8	0.0
Denmark	1995-99	30,100	116.3	100.0	16.3	59.8	52.3	4.5	3.7	32.3	19.6	7.7	0.0	0.0	0.0	3.5	0.0
Finland ⁵	1994-98	23,300	124.5	100.0	24.5	49.8	19.9	4.2	10.8	36.0	21.5	12.1	0.2	0.2	0.0	1.7	1.4
France	1993-97	22,000	111.9	100.0	11.9	18.9	14.8	4.0	42.8	28.1	18.2	6.4	0.0	0.0	0.0	5.5	4.0
Germany	1994-98	22,700	125.8	100.0	25.8	29.0	25.4	1.3	40.2	27.6	9.6	7.9	0.0	0.0	0.0	2.7	0.0
Greece ⁶	1994-98	10,800	108.7	100.0	8.7	33.1	17.0	9.9	2.1	57.1	33.7	21.0	0.1	0.1	0.0	4.1	3.0
Ireland	1993-97	25,200	118.5	100.0	18.5	42.6	33.0	9.6	16.3	37.7	19.5	15.5	0.0	0.0	0.0	3.4	0.0
Italy	1995-99	18,800	110.4	100.0	10.4	33.4	26.6	6.3	31.3	23.8	13.3	6.2	0.0	0.0	0.0	2.0	9.0
Luxembourg	1993-97	43,100	111.4	100.0	11.4	38.6	26.0	11.7	25.9	25.9	14.0	10.8	0.0	0.0	0.0	7.0	2.0
Netherlands	1993-97	23,200	115.2	100.0	15.2	27.6	19.4	8.2	41.4	23.4	15.2	6.3	0.0	0.0	0.0	4.1	3.4
Portugal	1994-98	10,600	125.2	100.0	25.2	28.3	17.7	8.9	26.1	40.1	22.3	14.1	0.0	0.0	0.0	1.7	3.8
Spain	1993-97	14,200	111.1	100.0	11.1	30.5	24.1	5.8	36.1	27.2	12.8	8.1	0.0	0.0	0.0	5.7	0.0
Sweden ⁵	1995-99	25,800	113.5	100.0	13.5	41.2	3.9	5.7	32.2	22.7	14.1	7.5	0.3	0.3	0.0	3.5	0.1
United Kingdom	1995-99	23,900	111.2	100.0	11.2	39.2	28.0	11.2	17.7	32.7	19.3	11.4	0.0	0.0	0.0	10.2	0.0
<u>EU unweighted average</u>		<u>22,600</u>	<u>114.9</u>	<u>100.0</u>	<u>14.9</u>	<u>36.0</u>	<u>24.2</u>	<u>7.0</u>	<u>26.6</u>	<u>31.3</u>	<u>17.8</u>	<u>10.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>3.9</u>	<u>2.7</u>
Australia	1995-99	20,300	124.9	100.0	24.9	55.1	40.6	13.9	2.0	26.4	8.4	8.8	2.2	2.2	0.0	14.2	0.0
Canada	1996-00	22,800	120.7	100.0	20.7	48.1	37.2	6.4	14.1	23.6	7.0	2.4	0.7	0.7	0.0	10.6	2.0
Iceland	1994-98	30,600	119.6	100.0	19.6	36.5	33.4	2.8	8.0	44.6	28.7	9.7	1.2	1.1	0.0	7.7	2.0
Japan ⁷	1991-93	37,600	118.9	100.0	18.9	45.9	28.9	17.0	30.2	16.4	7.7	7.2	1.4	1.2	0.0	4.2	1.0
New Zealand ⁸	1996-00	13,300	114.1	100.0	14.1	62.2	45.5	11.6	1.0	28.2	19.4	5.7	2.3	2.3	0.0	5.9	0.0
Norway	1994-98	36,000	128.7	100.0	28.7	37.0	26.7	8.7	22.0	37.6	21.4	13.2	0.6	0.6	0.0	2.7	0.0
Switzerland	1995-99	33,300	124.8	100.0	24.8	36.8	30.8	2.5	36.7	18.0	10.3	5.3	0.7	0.7	0.0	7.7	0.0
United States	1995-99	35,600	124.9	100.0	24.9	48.3	39.1	7.7	23.9	16.0	2.1	0.8	0.8	0.8	0.0	10.9	0.0
<u>Other OECD unweighted average</u>		<u>28,700</u>	<u>122.1</u>	<u>100.0</u>	<u>22.1</u>	<u>46.2</u>	<u>35.3</u>	<u>8.8</u>	<u>17.2</u>	<u>26.4</u>	<u>14.7</u>	<u>6.8</u>	<u>1.2</u>	<u>1.2</u>	<u>0.0</u>	<u>8.0</u>	<u>0.5</u>
Unweighted average:		24,700	117.4	100.0	17.4	39.6	28.2	7.6	23.3	29.6	16.8	8.9	0.5	0.4	0.0	5.3	1.8

¹ Consolidated budgetary, extrabudgetary and social security accounts of central, state/provincial and local governments

² Excluding grants and transfers between budgets of different levels

³ In addition to individual and corporate taxes on income, profit and capital gain, the total includes other unallocated taxes on income profit and capital

⁴ In addition to general sales, turnover, VAT taxes, and excises, the total includes profits of fiscal monopolies, taxes on specific services, taxes on activities and use/permission to use goods (business and professional licenses, motor vehicle taxes, etc), as well as other taxes on goods and services

⁵ Individual and corporate taxes on income, profits and capital gains are for consolidated central government only

⁶ Central government only Excluding adjustment to tax revenue

⁷ Central government only

⁸ Budgetary accounts only

Source: IMF, Government Financial Statistics

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