CHAPTER 5

TAX REFORMS IN THE EU ACCEDING COUNTRIES

The tax systems in the east European countries that are now about to join the European Union have undergone profound reforms during the past decade and a half, as part of the broader process of economic and political transformation. While the initial changes at the start of the 1990s was largely driven by transition-specific demands, in recent years tax reforms in the EU acceding countries[258] have been shaped to a large extent by the need to harmonize their systems with EU norms and rules. This chapter looks at the major tax reforms undertaken in the EU acceding economies without attempting a comprehensive overview of the process.[259] The main analytical focus of the chapter is on the current state of tax systems in these economies – after some 15 years of reforms – in view of their forthcoming EU membership. The exposition starts with a summary of some of the main findings in the theoretical and empirical literature about the impact of taxation on economic performance. Changes in the systems of taxation during the transition period are then assessed, first against these theoretical and empirical findings and then in comparison with the tax systems in the current EU member states. From this perspective, the chapter discusses some of the related challenges facing policy makers in the acceding countries as well as the possible future course of tax reforms.

5.1 Taxes and economic performance

Being the main source of public revenue, taxes provide the financial basis for the functioning of the public sector. One of the most important macroeconomic aspects of a tax system, which can be regarded as the supply side of the fiscal account, is the overall tax burden on an economy, that is, the sum of all collected taxes as a proportion of GDP. Looked at from the demand side of the fiscal account, the total level of public expenditure as a proportion of GDP is sometimes referred to as the "size of government". The public finance literature generally argues that it is the demand side (public expenditure) that drives the level of taxation and, ultimately, the overall tax burden on the economy.[260] One of the first theories of public expenditure was that of the nineteenth century German economist Adolph Wagner who put forward the hypothesis that the rise in public spending was an inherent feature of the development process and that total government expenditure would grow with the rise in per capita incomes (this later became known as "Wagner's Law"). More recent theories conjecture that the growth in public spending relative to GDP (a trend that was widespread in the twentieth century) resulted from changing views about the role of government.[261] The more functions a society expects from its government, the larger will be the required level of public spending and the greater the willingness of the public to part with a larger share of its income to enable the government to perform those functions. A number of other hypotheses about the determinants of the "size of the government" have also been put forward in the recent literature.[262]

258 Throughout this chapter the term "EU acceding countries" denotes the eight east European countries acceding to the EU in 2004 (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia) plus Bulgaria and Romania, which have set for themselves the target of joining the EU in 2007.

259 For a more comprehensive overview of the tax reforms in these economies see, among others, P. Mitra and N. Stern, *Tax Systems in Transition*, World Bank Policy Research Working Paper, No. 2947 (Washington, D.C.), January 2003; J. Martinez-Vazquez and R. McNab, "The tax reform experiment in transitional countries", *National Tax Journal*, Vol. 53, No. 2, June 2000, pp. 273-298; L. Ebrill and O. Havrylyshyn, *Tax Reform in the Baltics, Russia, and Other Countries of the Former Soviet Union*, IMF Occasional Paper, No. 182 (Washington, D.C.), August 1999; V. Tanzi and G. Tsibouris, *Fiscal Reform Over Ten Years of Transition*, IMF Working Paper, No. 00/113 (Washington, D.C.), June 2000; A. Alam and M. Sundberg, *A Decade of Fiscal Transition*, World Bank Policy Research Working Paper, No. 2835 (Washington, D.C.), April 2002.

260 R. Musgrave, *Fiscal Systems* (New Haven, CT, Yale University Press, 1969).

261 V. Tanzi and L. Schuknecht, *Public Spending in the 20th Century. A Global Perspective* (Cambridge, Cambridge University Press, 2000).

262 Thus, Rodrik argues that open economies which are more prone to external shocks tend to have bigger governments, as public funds can be used to cushion shocks. D. Rodrik, "Why do more open economies have bigger governments?", *Journal of Political Economy*, Vol. 106, No. 5, 1998, pp. 997-1032. Alesina and Wacziarg conjecture a link between the size of the economy and the size of its government, claiming that size matters because of economies of scale in the provision of public goods. A. Alesina and R. Wacziarg, "Openness, country size and government", *Journal of Public Economics*, Vol. 69, No. 3, 1998, pp. 305-321. In an empirical study, Begg and Wyplosz explore the statistical association between the "size of government", as revealed by the relative level of public spending, and other factors such as business cycles, the level of public debt and tax distortions, which are also hypothesized to affect the relative size of public spending. D. Begg and C. Wyplosz, "How big a government? Transition economy forecasts based on OECD history", paper presented at the 5th Dubrovnik Conference on Transition Economies (Dubrovnik), 23-25 June 1999. In another empirical study, Annett includes additional political and institutional factors, which are assumed to affect the aggregate tax burden. A. Annett, *Politics, Government Size and Fiscal Adjustment in Industrial Countries*, IMF Working Paper, No. 02/162 (Washington, D.C.), September 2002. Obviously, the demographic structure also may affect the desired size of government (for example, population aging affects the level of some specific claims on public funds such as public health care and pensions).

Despite the differences in some of their underlying assumptions, most of these theoretical works agree with the view that the overall tax burden is mainly "demand driven". They imply that it is the existence of a core consensus (or majority) in society about the need for specific public services that determines the level of public spending which, in turn, drives the level of overall level of taxation and provides the legitimacy for taxation in a democracy.

The specific tax mix in an economy usually reflects both its development level and the evolution of the tax system: path dependence in taxation is especially pronounced.[263] In the course of the twentieth century, and especially in the post-Second World War period, there were dramatic changes throughout the world in both the overall level of taxation and its composition. Notably, the changes in the systems of taxation in this period were driven not only by considerations of economic efficiency but also by concerns about social cohesion, equity and justice. The increase in social security spending also reflects public recognition of the existence of market failures in some insurance markets such as, for example, income protection for the poor or unemployment insurance. At the same time, there are strong arguments in support of the view that greater equity and higher levels of social protection may have a beneficial effect (up to a certain threshold) on efficiency, productivity and national competitiveness.[265] Thus in Western Europe, where the change in thinking was most pronounced, the sharp rise in the overall tax burden reflected the growing importance of factors such as group solidarity as well as a revealed preference for regulation and subsidization.[266] These developments have produced a lasting rise in public sector commitments to welfare provision (mirrored in an increasing share of taxes associated with social security), a process that accelerated during the last decades of the century. Economists have also identified the so-called "scale effect" in tax systems: as the overall tax burden increases, governments tend to diversify the sources of public revenue.[267]

While essential for the provision of the required public services, taxation affects economic performance both at the micro and at the macro level.[268] Taxes tend to distort microeconomic behaviour as the decisions of economic agents in their presence are different from what they would be in their absence. At the same time, taxes enable governments to reduce other distortions (and hence improve resource allocation), especially when government regulation and public investment amend market failures.

There are numerous channels through which the effects of taxation are transmitted, and the direction and strength of any impact may differ considerably between economic agents and types of tax.[269] While it is usually assumed that the effect on microeconomic behaviour increases with the average level of taxation, economic theory suggests that it is the marginal, not the average, tax rate, as well as the degree of progressivity of the tax system, that are the main determinants of the overall impact.[270] Thus, in analyzing the impact of taxation on economic behaviour and performance, the composition and structure of the tax system and the design of different taxes must be taken into account.

A strand in the theoretical literature is devoted to the issue of "optimal taxation". From an efficiency point of view, a tax system is considered ideal if it is consistent with a Pareto optimal allocation of resources. In this sense, a system based on the lump sum taxation of economic agents would be close to these requirements as it does not affect marginal conditions and would have the least impact on economic behaviour. However, there are

The role of political economy factors and politics on the size of government and the scope of its activities are analyzed in T. Persson and G. Tabellini, "The size and scope of government: comparative politics with rational politicians", *European Economic Review*, Vol. 43, No. 4-6, April 1999, pp. 699-735.

[263] For an overview of tax systems in industrialized countries see I. Joumard, *Tax Systems in European Union Countries*", OECD Economics Department Working Paper, No. 301 (Paris), June 2001 and B. Volkerink and J. de Haan, *Political and Institutional Determinants of the Tax Mix: An Empirical Investigation for OECD Countries*, University of Groningen, Research Report, No. 99E05 (Groningen), 1999 [www.ub.rug.nl/eldoc/som/].

[264] D. Mueller (ed.), *Perspectives on Public Choice: A Handbook* (Cambridge, Cambridge University Press, 1997).

[265] D. Fouarge, "Costs of non-social policy: towards an economic framework of quality social policies – and the costs of not having them", report for the Employment and Social Affairs DG (Brussels), January 2003 [europa.eu.int/comm/employment_social/news/2003/jan/costofnonsoc_final_en.pdf]; P. De Grauwe and M. Polan, *Globalization and Social Spending*, CESifo Working Paper, No. 885 (Munich), March 2003.

[266] D. Mueller (ed.), op. cit.

[267] L. Kenny and S. Winer, *Tax Systems in the World – An Empirical Investigation into the Importance of Tax Bases, Collection Costs and Political Regime,* Carleton University, Department of Economics, Carleton Economic Paper, No. 01-03 (Ottawa), May 2001 [www.carleton.ca/economics/].

[268] For a comprehensive overview of the topic see W. Leibfritz, J. Thornton and A. Bibbee, *Taxation and Economic Performance,* OECD Economics Department Working Paper, No. 176 (Paris), June 1997.

[269] For example, the taxation of factor incomes will affect both the supply of and demand for production factors. A change in the marginal rate of tax on labour income creates a wedge between the opportunity cost of effort relative to that of leisure (supply effect). It also changes the cost of labour and hence affects demand of firms for labour. Similarly, a change in the taxation of capital income is equivalent to a change in the return on capital and thus affects both saving (supply effect) and investment (demand effect) decisions. B. Heitger, "Convergence, the 'tax-state' and economic dynamics", *Weltwirtschaftliches Archiv*, Vol. 129, No. 2, 1993, pp. 254-274.

[270] Thus, for example, average and marginal tax rates on labour income may have the opposite effect on employment: an increase in the average rate reduces consumption possibilities and may induce workers to work more (a positive income effect) while a marginal rate hike may increase the attractiveness of leisure (a negative substitution effect). S. Cnossen, *Tax Policy in the European Union. A Review of Issues and Options,* Maastricht Research School of Economics of Technology and Organization, Research Memorandum No. 023 (Maastricht), 2002 [edata.ub.unimaas.nl/www-edocs/loader/file.asp?id=588].

also sound theoretical arguments against such a system; moreover, in practice it would hardly be acceptable on political grounds.[271]

Some theoretical studies have also advocated the notion of tax equivalence by showing that under certain assumptions, some taxes are formally equivalent in terms of their effect on economic performance. Thus an income tax can be equivalent to a consumption tax while a tax on imports can be equivalent to a tax on exports.[272] In particular, VAT is formally equivalent not only to a tax on private income net of saving but also to a tax on labour income and corporate profits.[273] The idea of tax equivalence is often used as an argument in implementing different tax reforms.

At the macroeconomic level the impacts associated with taxation may reduce allocative efficiency and, ultimately, may have a negative effect on economic growth. A variety of approaches have been suggested in the theoretical and empirical literature to analyse the impact of taxation on economic performance, and, in particular, on economic growth. In the traditional neoclassical growth models (implying diminishing returns to scale), there are two main channels through which taxation may negatively affect economic growth, namely, through its adverse effect on the levels and the composition of investment and labour supply. However, the traditional (Solow) neoclassical model implies that tax policy, however distortionary and affecting short-term economic growth, has no impact on long-run growth rates (although it may affect the long-run level of output).[274] In this model, steady state growth is only determined by exogenous factors (the dynamics of population and technological progress), and changes in taxation (the surrogate for fiscal policy in this model) can only affect the rate of growth during the transition to the steady state.[275] The connotation is that fiscal policy does not matter for long-run growth and this obviously controversial conclusion has been widely criticised in the economic literature.

The endogenous growth theory (incorporating increasing returns to scale and developed partially as a response to the criticism of the neoclassical models) recognizes the central role of knowledge accumulation and dissemination as well as the role of institutions for economic performance and growth. Thus, in contrast to the neoclassical approach, knowledge is considered as a public good and is not characterized by diminishing returns to scale.[276] Factors such as spillover effects, learning by doing, individual investments in human capital, firms' investment in R&D, and the like, can benefit the whole economy, leading to increasing returns to scale. In such a framework, reducing the distorting effects of the tax system would have a lasting positive effect on the long-run rates of economic growth, provided public policy creates a conducive environment for human capital accumulation.[277] Hence, endogenous growth models transform the temporary effects of tax policy in the neoclassical model into permanent growth effects, which means fiscal policy does matter for long-run growth.

From this point of view public expenditure invested in physical and human capital as well as in knowledge accumulation, can have a growth enhancing effect, while government consumption expenditure generally has no direct effect on long-run growth (but indirectly it may have a negative effect through the distorting effect of the taxes that support it).[278] Thus an increase in public investment in education may permanently foster long-run economic growth.[279] It is also generally acknowledged that government expenditures on core public goods such as the rule of law, internal and external security, have a positive impact on economic growth.[280] However, the link between public spending (including investment) and growth is complex and non-linear, largely due to the fact that government spending is financed through taxation which may affect growth adversely. So the overall effect of increased government investment spending is ambiguous; even if the effect is positive at some levels of spending, it may turn negative if the overall level of taxation exceeds some threshold; the efficiency of public investment can also play a role in this.[281]

One of the internationally debated policy issues in public finance is that of tax competition. The latter arises when governments compete to attract larger inflows of mobile production factors by offering various tax incentives, especially to businesses considering investment

[271] B. Volkerink and J. de Haan, op. cit.

[272] A. Auerbach, J. Frenkel and A. Razin, "Equivalence relations in international taxation", in M. Bléjer and T. Ter-Minassian (eds.), *Macroeconomic Dimensions of Public Finance: Essays in Honour of Vito Tanzi* (London and New York, Routledge, 1997), pp. 146-163.

[273] S. Cnossen, op. cit.

[274] E. Engen and J. Skinner, "Taxation and economic growth", *National Tax Journal*, Vol. 49, No. 4, December 1996, pp. 617-642.

[275] W. Easterly and S. Rebelo, "Fiscal policy and economic growth: an empirical investigation", *Journal of Monetary Economics*, Vol. 32, No. 3, December 1993, pp. 417-458.

[276] M. Brons, H. de Groot and P. Nijkamp, *Growth Effects of Fiscal Policies – A Comparative Analysis in a Multi-Country Context*, Tinbergen Institute Discussion Paper, No. 99-042/3 (Rotterdam), June 1999.

[277] E. Engen and J. Skinner, loc. cit.

[278] But some components of government consumption expenditure can have a positive effect on growth (such as those on public health care as they may boost labour supply).

[279] M. Brons, H. de Groot and P. Nijkamp, op. cit.

[280] B. Heitger, *The Scope of Government and its Impact on Economic Growth in OECD Countries*, Kiel Institute of World Economics, Working Paper, No. 1034 (Kiel), April 2001 [www.uni-kiel.de/ifw/pub/].

[281] R. Barro, "Government spending in a simple model of endogenous growth", *Journal of Political Economy*, Vol. 98, No. 5, Part 2, October 1990, pp. S103-S126 and G. Glomma and B. Ravikumar, "Flat-rate taxes, government spending on education, and growth", *Review of Economic Dynamics*, Vol. 1, Issue 1, January 1998, pp. 306-325.

decisions.[282] The general result in the theoretical literature is that tax competition is equivalent to a general downward pressure on the level of taxation of capital income (the so-called "race to the bottom"); at the same time, this may be accompanied by an increase in other taxes where the tax base is less mobile, possibly leaving the overall tax burden unchanged. However, these predictions are derived from a very restrictive set of assumptions; relaxing them may produce different outcomes.[283]

The numerous empirical studies of the presumed link between taxation/public spending and economic growth have not so far provided clear-cut evidence of its existence or of the direction of the possible impact: some studies find a negative link between the overall level of taxation and rates of growth, while others fail to establish any significant association. It should be noted, however, that due to the very wide-ranging scope of the topic, empirical studies are forced either to use highly simplified approaches or to narrow their analytical focus to a few selected issues.[284] Empirical research also indicates that a given tax system (and changes therein) in a developing country may have a different effect on economic performance than in a developed market economy, as in the former there may be numerous additional distortions that affect the allocation of resources (such as inadequate infrastructure, macroeconomic instability, large income inequalities, etc.).[285] In turn, public investment (for example, in transport infrastructure) may have a larger positive effect in developing or transition economies than a similar investment in a mature market economy.

However, the ambiguity of the empirical analysis may be partly due to measurement problems, namely, the choice of taxation indicators.[286] As already noted, theory suggests that the behaviour of economic agents is most affected by marginal tax rates and by the degree of progressivity in taxation. However, marginal tax rates may be difficult to measure and in empirical studies they are often proxied by average tax rates, which may lead to erroneous results and conclusions. In fact, tax systems in most countries are progressive rather than proportionate and, hence, average tax rates tend to underestimate the distortions associated with marginal tax rates. At the same time, there may well be a reverse causality problem as increased public spending (which drives average tax rates higher) may have a positive effect on growth. More generally, the empirical analysis of the impact of taxation on economic performance is further complicated by the fact that the observed behaviour of economic agents reflects the outcome of the combined effects of all taxes (and of the public spending financed by them) and it is extremely difficult, if not impossible, to isolate the specific effects of each individual component of the tax system. Notwithstanding these difficulties, recent empirical research, which distinguishes between average and marginal taxation, suggests that higher marginal tax rates and progressive tax systems have a negative impact on economic growth in industrialized countries.[287]

5.2 The present tax systems in the acceding countries

The economies that are now acceding to the EU inherited from their communist past an opaque system of taxation. The main sources of tax revenue in the centrally planned economies were the various taxes paid by state-owned firms and the turnover taxes levied on retail sales. These taxes, however, were not intended to perform the economic functions of their counterparts in a market economy. Many of the numerous taxes levied on state-owned firms were not directly related to the outcome of their business activity, reported profits being fundamentally determined by administratively determined prices. Tax rates were not unified and neutral but were often tailored to a specific economic sector or region, or even an individual firm, leaving considerable room for policy discretion and bargaining between the centre and the firm. In short, enterprise taxes represented a sort of dividend that the state, being the sole shareholder, levied – often on the basis of arbitrary criteria – on the invested

[282] In principle, tax competition is a broader issue and affects all types of taxes, not only on capital but also on labour, consumption, foreign trade, etc. However, due to the different degree of mobility of production factors, tax competition is most intensive with respect to the taxation of capital income.

[283] S. Krogstrup, *What Do Theories of Tax Competition Predict for Capital Taxes in EU Countries? A Review of the Tax Competition Literature*, The Graduate Institute of International Studies, Economics Section, HEI Working Paper, No. 05 (Geneva), 2002 [heiwww.unige.ch/sections/ec/].

[284] Among the most comprehensive empirical studies on the topic is that by Easterly and Rebelo. On the basis of an international cross-section data set comprising the period 1970-1988, they find that the share of public investment in transport and communication as well as the government's budget surplus are highly correlated with economic growth, while the link between most other fiscal variables and growth is statistically fragile. W. Easterly and S. Rebelo, "Fiscal policy and economic growth: an empirical investigation", *Journal of Monetary Economics*, Vol. 32, No. 3, December 1993, pp. 417-458. In contrast, Folster and Henrekson find a strong negative relationship between government expenditure and growth in developed market economies: according to their results, an increase of the expenditure ratio by 10 percentage points is associated with a decrease in the growth rate of the order of 0.7-0.8 percentage points. S. Folster and M. Henrekson, "Growth effects of government expenditure and taxation in rich countries", *European Economic Review*, Vol. 45, No. 8, August 2001, pp. 1501-1520. Using OECD data for 1970-1995, Bleaney, Gemmell and Kneller find evidence that shifts from direct to indirect taxation accompanied by rising expenditure on physical and human capital formation may have a positive effect on long-run growth. M. Bleaney, N. Gemmell and R. Kneller, "Testing the endogenous growth model: public expenditure, taxation, and growth over the long run", *Canadian Journal of Economics*, Vol. 34, No. 1, 2001, pp. 36-57.

[285] V. Stepanyan, *Reforming Tax Systems: Experience of the Baltics, Russia, and Other Countries of the Former Soviet Union*, IMF Working Paper, No. 03/173 (Washington, D.C.), September 2003.

[286] For a discussion, see F. Padovano and E. Galli, "Comparing the growth effects of marginal vs. average tax rates and progressivity", *European Journal of Political Economy*, Vol. 18, No. 3, September 2002, pp. 529-544.

[287] Ibid.

assets. The situation with respect to turnover taxes was similar: these were not uniform and in some countries there were hundreds of specific rates of turnover tax. The taxation of personal incomes at the onset of transition differed from country to country as in some centrally planned economies these had not existed at all, while in others they were somewhat rudimentary. The whole social security system, as well as health care and education, were part of an integrated public financial system and there was no direct link between contributions earmarked for specific services and actual spending on the service; the balances of each subsystem were settled within the overall fiscal balance. Other sources of tax revenue included import duties and export taxes, all of which were subject to considerable degrees of arbitrariness and discretion.

During the past decade and a half, there has been a complete overhaul of the systems of taxation in the acceding countries. The prospect of EU membership has had an enormous impact on the process and nature of tax reform in these economies, especially in more recent years. The goal of harmonizing their systems of public finance with those in the EU, especially in the context of the accession negotiations, has entailed imperative targets and deadlines and has provided one of the most important catalysts of the reforms. In addition, all these countries have signed the European Social Charter, and many of them have ratified ILO Convention 102 (which requires a minimum 40 per cent income replacement rate for pensions), political decisions that also entail specific targets for the reform of social security systems.

The main stages in the reform of the systems of public finance in the acceding countries can be summarized briefly as follows.[288] Among the first and most important reforms were the introduction of personal income tax and the transformation of the former enterprise taxes into profit (corporate income) taxes proper. The obscure system of turnover taxes was also scrapped and replaced by valued added tax (VAT) and excise taxes. There have also been major reforms in trade tariffs and the countries that are due to join the EU in 2004 have already harmonized almost all their tariffs with those of the EU.

The most complex part of public finance reforms has been the reorganization of the social security systems and, in particular, the two key institutional structures: the pension and the health care systems. Notwithstanding a number of differences, the general direction of the reforms of social security systems has been similar in most of the acceding countries. Conceptually, the reform process in these areas has involved three main goals: i) to separate pension and health systems from the central government budget; ii) to link expenditures directly to designated revenues and to secure a sustainable long-term balance within each system (transfers from the central balance often being unavoidable in the initial transitional years); and iii) to partly privatize some of these systems in order to achieve greater stability through diversification of funding and to ease the burden on public expenditure. Thus, for example, pension reforms in a number of countries have moved towards establishing multi-pillar pension systems (although there are exceptions to this model), with the state directly responsible for one of them, namely, the guaranteed minimum pension pillar. Health care reforms have included the establishment of a health insurance system (combining state controlled and private health insurance institutions) and the commercialization and/or partial privatization of health care services (which implies direct cost accounting of all such services and the recovery of these costs from funds provided by the health insurance institutions). The social safety net proper has largely remained the responsibility of the state and is concentrated on providing insurance against job loss and assistance to the poorest layers of society.[289]

It goes without saying that the process of reforming the systems of public finance in the acceding countries has been a difficult one, especially in its initial phases. The hasty replacement of old tax regulations often led to instability and confusion, which in turn was aggravated at the level of implementation of the new laws by the weak judicial systems. The changes in the system of taxation were often highly politicized, leading to increased political confrontation and the polarization of societies. Electoral cycles and changes in government were routinely accompanied by amendments to tax legislation, undermining the confidence of the business community and of the population at large in the predictability of the fiscal system.

Different countries have chosen different strategies of tax reforms: while some have taken a more gradualist approach, others introduced comprehensive and wide-ranging reforms in one step. Probably the most radical and far-reaching reform in any of the acceding countries is that introduced in Slovakia in 2003, which will trigger simultaneous and major changes in a number of areas of taxation (see box 5.2.1).

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[288] On tax reforms in some individual countries see C. Bronchi and A. Burns, *The Tax System in the Czech Republic*, OECD Economics Department, Working Papers, No. 245 (Paris), May 2000; P. Lenain and L. Bartoszuk, *The Polish Tax Reform*, OECD Economics Department, Working Papers, No. 234 (Paris), March 2000; D. Kemme and R. Rapacki, “Fiscal reform, policy, and constraints during transition in Poland”, *Post-Soviet Geography and Economics*, Vol. 41, No. 8, December 2000, pp. 581-598; G. Kiss and G. Szapáry, “Fiscal adjustment in the transition process: Hungary, 1990-1999”, *Post-Soviet Geography and Economics*, Vol. 41, No. 4, June 2000, pp. 233-264; Z. Drabek and O. Schneider, “Size of the public sector, contingent liabilities, and structural and cyclical deficits in the Czech Republic, 1993-1999”, *Post-Soviet Geography and Economics*, Vol. 41, No. 5, July-August 2000, pp. 311-340.

[289] In practice, however, the social safety nets in these countries still do not function properly: thus a significant proportion of the poor receive no benefits while fraudulent claims to such benefits are widespread.

Box 5.2.1

The Slovak tax reform of 2003

Following the parliamentary elections of September 2002, the newly formed government elaborated an ambitious economic programme of major changes in public health care and the pension and welfare systems, as well as a comprehensive tax reform. According to the declared objectives, these reforms aim at fiscal consolidation, improvements in the functioning of product and labour markets, and enhanced public sector efficiency, which depends to a considerable extent on the interaction of the various reform components. The tax reform, scheduled to be implemented on 1 January 2004, aims, above all, to strengthen the incentives to work and save.

The core underlying principle of the tax reform is the introduction of a flat tax rate throughout the economy: a uniform 19 per cent rate will apply to both personal and corporate incomes; the VAT rate will also be unified at 19 per cent, whereas excise taxes will be increased in line with EU rules. Given the higher pre-reform rates on income (25 per cent on corporate income and a top marginal rate of 38 per cent on personal income) and the lower VAT rate on necessities (14 per cent), the reform shifts the tax burden from direct to indirect taxes. Both types of income are to be taxed only once so that dividends and inheritance should escape taxation. Another goal is simplification and increased transparency, which is to be achieved through the elimination of numerous loopholes in the previous, frequently amended, income tax act. The parameters of revenue sharing with sub-national administrations and their taxation competencies are still to be decided within the context of an ongoing process of administrative decentralization. In principle, the tax reform is intended to be broadly revenue-neutral. Early versions of the reform envisaged that the share of total tax revenues in GDP would remain constant. Recent estimates show that total tax revenue (including social security contributions) will decline by 2 percentage points of GDP in 2004; however, it is expected that non-tax revenues (EU transfers and dividends accruing to the state) will compensate for the shortfall [www.imf.org/external/np/ms/2003/101503.htm].

The tax reform is envisaged as part of a broad and wide-ranging programme of structural reforms. The reformed pension system is also due to start on 1 January 2004 with the launch of the modified first pillar (the pay-as-you-go system), already approved by the parliament. This reform envisages a gradual increase of the comparatively low statutory retirement age, an increase of the minimum contribution period for a full pension (currently only 25 years), and a stronger link between contributions and benefits. A second pillar should be operational by July 2006 when about one third of the pension contributions of participants (first-time workers and those already employed who choose to switch to the new system) will be re-allocated to their personal retirement accounts which are to be administered by private-sector funds. A part of the government's privatization revenues, set aside in a special account at the central bank, will be used to finance the transition to the two-pillar public pension system. However, this reserve is likely to be exhausted by 2007 after which, according to official projections, the first pillar is expected to generate permanent deficits averaging about 1 per cent of GDP per annum. Those could have negative implications for the overall general government fiscal deficit, especially in view of entry into the euro zone, planned for 2008.

Aside from changes in income and consumption taxes, the authorities have also decided to reduce sickness and unemployment-insurance contributions. Although this relief concerns the contributions paid by employers, some of the savings may well be passed on to employees through centralized or decentralized wage bargains. Nevertheless, the lower contributions are likely to reduce indirect wage costs, and thus improve somewhat the incentives to hire labour. In relative terms, compulsory social security contributions in Slovakia are very high compared with other acceding countries (table 5.2.3), and are among the highest in Europe. The accompanying reform of the welfare system aims to strengthen the incentives to work and upgrade skills by introducing new in-work benefits and rewards for skill upgrading, education or training. If the result is a significant improvement of the exceptionally low employment rate in the country, the reform package might become self-financing in the longer term. Unfortunately, the new welfare system appears to ignore the considerable barriers to employment faced by the Romany, a minority that accounts for some 7-8 per cent of Slovakia's population and more than one half of the long-term unemployed.

The possible effects of the tax reform on economic performance are difficult to assess; besides it is necessary to differentiate between short- and long-run effects. Thus the reform may have some positive long-run effects on economic performance. By reducing substantially the progressivity of the tax system, it may improve the efficiency of resource allocation. Although the income-tax rate is flat, progressivity in the personal income tax is not fully eliminated as the threshold for taxation is non-negligible. However, its degree will be significantly reduced. The personal income tax changes could have a positive effect on the incentives to work (especially for employees at the opposite poles of the skills spectrum) and increasing the returns to education. The reform increases considerably the non-taxable income threshold, which is bound to increase the take-home pay of low-skilled workers. Those with incomes exceeding three times the average wage gain significantly from the halving of the top marginal tax rate and the cap on social-security contributions. In-work benefits that are to be introduced in January 2004 should also have a positive effect on work incentives. As discussed in section 5.1(i), the shift from direct to indirect taxation may have a positive impact on long-run growth, provided that sufficient amounts of public expenditure are allocated to human and physical capital formation.

Box 5.2.1 (concluded)

The Slovak tax reform of 2003

Other implications of the reform are more ambiguous. The significant lowering of the progressiveness of the income tax will render the automatic stabilizers less effective. The less progressive personal income tax regime, together with the increase in the rate of VAT on food and other necessities from 14 to 19 per cent, which will affect low-income households disproportionately, will increase social inequality. The authorities intend to compensate the poor with new transfers but their form and extent remain unclear. Although the reform increases the take-home pay of low-skilled workers, it does not in itself improve the meagre labour-market prospects of the long-term unemployed who account for more than one half of Slovakia's jobless. Ultimately, the success of the tax reform, including the increased revenue generated by higher employment, will depend on the actual and parallel implementation of public expenditure and social security reforms.

Probably the greatest uncertainty about the tax reform is related to its possible effect on total tax revenue – the risk of possible revenue shortfalls – especially in the short run. In the event of serious negative effects in the short term, the authorities might be forced to make sizeable spending cuts (some of which are planned anyway). Although significant overemployment in the general government sector points to the need for cuts in public payrolls, it is essential that staffing reductions be implemented without jeopardizing the quality of key public services such as education, health, justice and tax administration (which will be under increased pressure in implementing the reforms). The reforms are further complicated by the ongoing process of administrative decentralization. Although the management of expenditure is likely to improve at the central level, the current legislation fails to provide strong safeguards against fiscal misconduct at the subnational level. All these risks point to the need for a careful monitoring of the implementation of the new measures.

The start of accession negotiations with the EU set the main directions for the reform of public finance in the acceding countries, even though the EU's *acquis communautaire* per se essentially covers only indirect taxation, in particular the value added tax (VAT) and excise duties. However, participation in an economic union generally calls for wider and broader tax harmonization among the participating economies as the interactions between their tax systems tends to grow with increasing economic integration. It is often argued that diverging tax policies and tax competition can have strong spillover effects on other countries and may distort allocative efficiency across the EU (and, vice versa, tax harmonization may enhance EU-wide allocative efficiency).[290] Moreover, the structure of taxes in one country may also influence the allocation of resources in other member countries. Hence, candidate countries were required to achieve a significant degree of tax harmonization (mostly of indirect taxation) by the time of their entry into the Union.[291]

With the approach of EU enlargement, the outcomes of the various tax reforms in the candidate countries are finally taking a more stable shape. The rest of this section presents an overview of some of the main components of the tax systems in the acceding countries on the eve of their EU membership.[292]

(i) Personal income tax

In line with the arguments presented in section 5.1, it is generally believed that high effective tax rates on labour, particularly at the lower end of the income scale, has a detrimental effect both on labour supply (by reducing after-tax net wages) and on labour demand (by raising labour costs).[293] It is therefore sometimes argued that switching part of the tax burden from taxing labour to taxing consumption, capital and energy could be more efficient in a strictly economic sense.[294] Both the theoretical and the empirical literature also emphasize that

[290] S. Cnossen, op. cit. On the other hand, there are counter arguments that increased tax competition from countries with more efficient tax systems may foster tax reforms in countries with less efficient systems of taxation.

[291] At the same time, it should be noted that tax harmonization remains a highly controversial and politicized issue in the European Union. There is still no consensus among the member countries on the direction of future tax harmonization (particularly for direct taxation). In addition, control over the national budget (which incorporates the system of taxation) is a key policy area epitomizing national sovereignty, which many countries are keen to preserve. At the same time, the degrees of freedom in national budgetary policy are limited, in principle, by the strict rules of the Stability and Growth Pact and EU's fiscal policy framework.

[292] Most of the tabulated information presented in this section was kindly provided by various public institutions (ministries of finance, tax authorities and investment promotion agencies) in the acceding countries on the basis of a questionnaire prepared by the UNECE secretariat. For the most recent developments, the on-line publications of Deloitte and Touche, *Tax and Legal News* and *World Tax Advisor*, Ernst and Young, *Worldwide Corporate Tax Guide* and *Tax News International*, KPMG, *Tax News and Tax Card 2003 (The Czech Republic and Latvia)*, were also consulted. Information on EU taxation is mainly from A. Martinez-Serrano and B. Patterson, *Taxation in Europe: Recent Developments*, European Parliament, Working Paper, Economic Affairs Series ECON 131 EN (Luxembourg), January 2003 and European Commission, *VAT in the European Community* and *VAT Rates Applied in the Member States of the EU, Situation at 1st May* (Doc/2908/2003-EN), and *Excise Duty Tables: Special Version with Information from the Candidate Countries to the European Union* (Brussels), July 2003 [europa.eu.int/comm/taxation_customs/publications/info_doc/info_doc.htm].

[293] At the same time, as already noted earlier, *ex ante* the outcomes are uncertain and *ex post* may be highly differentiated.

[294] This is mostly a theoretical argument; empirical studies have not produced convincing evidence in its support.

the degree of progressivity in a tax system (and hence high marginal tax rates) creates the most serious impediments to economic performance. The evolution in the taxation of personal incomes in the acceding countries (in some cases such taxation did not exist in the past) during the period of transition has been more or less consistent with these arguments: there has been a general trend toward lowering the tax burden on personal income and this has involved both the lowering of the maximum (marginal) tax rates and a reduction of the number of tax brackets.

As a rule, personal income tax (PIT) in the acceding countries at present is imposed by the central government. Only in a few cases are the central taxes supplemented with local personal income taxes, but these are of rather limited importance. The three Baltic states have adopted flat rate PIT systems from the outset of their new tax regimes, but the remaining seven countries had progressive rates in 2003, the number of tax brackets varying from three to six (table 5.2.1).[295] The lowest applicable PIT rates in 2003 ranged from 10 per cent (lowest bracket) in Slovakia to 33 per cent (the uniform flat rate) in Lithuania.[296] The average minimum rate in the 10 acceding countries in 2003 was 19.8 per cent, with a coefficient of variation of 33 per cent. The highest marginal rates varied from 25 per cent (the flat rate) in Latvia to 50 per cent in Slovenia, with an average of 35.3 per cent. In several countries, in parallel to these basic rates, there exists a range of reduced rates on specific types or sources of income although there is often a limit to the amount of such income to which the reduced rates apply.[297]

As taxation is usually a compromise between arguments of economic efficiency, on the one hand, and those of social justice, on the other, the standard rates of PIT are often supplemented by other measures (such as tax reliefs), which take into account social and other non-economic factors. The most frequently used tax relief in the acceding countries is the "tax allowance", which is a deduction from the taxable income (the size of which may increase under progressive tax regimes). Eight out of ten countries apply such allowances, which include a standard non-taxable amount (often supplemented with a child/spouse allowance) and a certain amount of work-related expenses. In contrast, Hungary uses tax credits – lump-sum deductions from the amount of payable tax – as a standard relief, while Poland applies both tax credits and tax allowances.[298]

(ii) Taxation of capital income

Over the past 15 years or so, the acceding countries have implemented a series of corporate tax reforms, in order to adapt their systems to the changing economic environment. On the one hand, they had to scrap completely the previously existing system of enterprise taxation (which was inappropriate for a market economy); on the other, the new system of corporate taxation was required not only to generate government revenue but also to promote growth and catching up. During these years there have been considerable changes in corporate income tax in most of these economies (Slovenia being one of the few exceptions).

Corporate income taxes (CIT) raise the cost of capital (which at the same time is the required rate of return on an investment) and, consequently, affect the investment decision.[299] Thus, in principle, lower corporate taxes should be favourable for fixed investment and for the business environment in general. However, as discussed earlier in section 5.1, the lowering of corporate taxes in an open economy – without due consideration of the tax systems in the outside world – may not necessarily produce the expected results. Reducing corporate taxes to attract more investment (tax competition) may have a positive short-run effect for an individual country but in the longer run it may provoke a "race to the bottom", exerting downward pressure on rates in other countries with negative implications for public revenue.[300] In addition, frequent changes in tax legislation – even those offering incentives – may have an adverse effect on investment as they reduce the predictability of the business environment.

As was the case with PIT, the general trend in the acceding countries has been towards lowering the rates of corporate income tax. Thus between 1999 and 2003, all the EU candidate countries except Hungary reduced the statutory CIT rates, while some of them simultaneously broadened the corporate tax base (table 5.2.2).[301] Estonia has

[295] Slovakia is due to adopt a flat tax rate of 19 per cent as from January 2004; Poland and Romania are also considering a switch to the flat rate regime in the medium term (2005-2007).

[296] In 2003, the Lithuanian government was considering lowering the standard PIT rate from 33 to 24 per cent; however, due to the worsening of the fiscal situation, reduction was postponed.

[297] For example, reduced rates sometimes apply to income from agricultural production, forestry, rentals and small trade, or to the income of athletes and entertainers, royalties, gifts, etc. For details see the notes to table 5.2.1.

[298] Under the new income tax system, a tax credit of SKK 3,600 will also apply in Slovakia in 2004.

[299] M. Devereux, R. Griffith and A. Klemm, "Corporate income tax reforms and international tax competition", *Economic Policy*, No. 35, October 2002, pp. 449-488. As discussed below, in recent years there has been growing competition in the taxation of corporate income among the acceding countries.

[300] Thus, if all countries offer such incentives their effect on capital movement will be eliminated, but all governments will be worse off as their revenue will be reduced. J. Wilson, "Theories of tax competition", *National Tax Journal*, Vol. 52, No. 2, June 1999, pp. 269-304.

[301] Since 1996, Hungary's statutory CIT rate has been fixed at 18 per cent and was the lowest among the acceding countries until 2002 when Lithuania reduced its rate to 15 per cent. However, small businesses in Hungary, starting in January 2003, can opt for a simplified entrepreneur's tax system with a flat rate of 15 per cent for revenues up to HUF 15 million a year (to be raised to HUF 25 million in 2004). Many Hungarian firms providing financial services have taken advantage of the possibility for offshore registration, which reduces their profits tax to only 3 per cent. As this practice has been repeatedly criticized by the OECD and is not in conformity with EU regulations, the Hungarian authorities stopped issuing "offshore licences" in 2003 and restricted the validity of the reduced tax rate until 31 December 2005 for those companies that already have such licences. OECD, *Economic Surveys: Hungary* (Paris), 2002, pp. 137-138.

TABLE 5.2.1

Main features of personal income taxation (PIT) in the EU acceding countries, 2003

(Per cent of taxable income, national currency and euro)

	Number of brackets	*Minimum rate (per cent)*	*Maximum rate (per cent)*	*Annual income above which maximum rate applies (national currency/euro)* [a]	*Standard tax-exempt income per annum (national currency/euro)* [a]	*Deductible expenses*
Bulgaria [b]	4	15	29	BGN 7 200/€3 680	BGN 1 320/€675	Yes[c]
Czech Republic	4	15	32	CZK 331.2 th/€10 400	CZK 38.04 th/€1 178[d]	Yes[e]
Estonia	1	26	26	–	EEK 12 000/€767[f]	Yes[g]
Hungary	3[h]	20[i]	40[i]	HUF 1 350 th/€5 200	HUF 108 th/€416	Yes[j]
Latvia	1	25	25	–	LVL 252/ €338[k]	Yes[l]
Lithuania	1[m]	33	33	–	LTL 3 480/€1 039[n]	Yes[o]
Poland	3[p]	19	40	PLN 74 048/€16 400	PLN 2 790/€640	Yes[q]
Romania	5[r]	18	40	ROL 139.2 mn/€3 800	ROL 21.6 mn/€581	No[s]
Slovakia	5	10	38	SKK 564 th/€13 500	SKK 38.76 th/€928[t]	Yes
Slovenia	6[u]	17	50	€37 500[v]	11 per cent of average annual wage[w]	Yes[x]
Acceding countries average	..	19.8	35.3	–	–	–
Coefficient of variation (per cent)	..	33.4	21.9	–	–	–

Source: Direct communications from ministries of finance, tax administrations and investment promotion agencies in the acceding countries.

Note: Th = thousand, mn = million.

[a] Amounts in euros are converted at the average exchange rate for August 2003.

[b] The licence tax (applied to self-employed persons in some services, and having a total annual income of up to BGN 75 000) is an alternative to PIT.

[c] Donations to charities are deductible (together with gifts), up to 5 per cent of taxable income.

[d] Child allowance is CZK 23 520 per year.

[e] Pension and life insurance premia are tax deductible.

[f] The basic exemption increases when the taxpayer has three or more children.

[g] Income from sale of own agricultural products up to the amount of EEK 45 000 is not subject to income tax. Maintenance support, housing loan interest, training expenses and trade union membership fees may be deducted from income (together with gifts of up to 5 per cent of taxable income, or EEK 100 000).

[h] Dividend income is taxed at two rates: the portion of dividends that does not exceed 30 per cent of the value of the individual's stake in the company's equity is taxed at 20 per cent; the remainder is taxed at 35 per cent.

[i] From 2004, PIT rates will fall to 18, 26 and 38 per cent; the total annual income brackets will not change. Monthly family allowances will increase.

[j] There are also special tax allowances: for adult education expenditures (30 per cent but no more than HUF 60 000 per year); for life and pension insurance (up to HUF 100 000 per year); and a family allowance.

[k] Child allowance (amounting to LVL 10.50 per month) is exempt from taxation. Dividends from Latvian companies (after profits tax), income from state and municipal bonds and from property sales are also tax deductible. As of 2004, the non-taxable minimum monthly income will be set in the annual budget law.

[l] Life insurance premia and contributions to private pension funds (which in total do not exceed 10 per cent of gross income); gifts amounting to LVL 70 per year; some expenses related to professional education.

[m] The standard 33 per cent rate is levied on employment income, while a 15 per cent tax is levied on income from distributed profits, interest, seamen's income, income from sporting and artistic activities, royalties, income from rent or sale of property, pensions paid out of Lithuanian pension funds and life insurance payments.

[n] The tax allowance increases to LTL 430 for households with three children, and by another LTL 46 for each additional child.

[o] Expenses related to self-employment; some insurance premia; payments to pension funds; interest paid on mortgage loans (up to 25 per cent of the annual employment income). Income from activities licensed by a business certificate is subject to a local lump-sum tax and is exempt from state tax.

[p] Gambling prizes are taxed at 10 per cent; dividends and similar income are taxed at 15 per cent; interest income as well as income from artistic, literary, scientific or journalistic activities are taxed at 20 per cent.

[q] A tax credit for work related expenses amounts to PLN 530.08 per year.

[r] In Romania, interest income and capital gains are taxed at 1 per cent; dividend incomes at 5 per cent; royalties and the income of entertainers and sportsmen at 15 per cent; a daily amount of gambling income and prizes are exempt, any excess being taxed at 10-20 per cent.

[s] Except for materials used for the construction of private dwellings (up to 20 per cent of their value).

[t] Additional allowance of SKK 12 000 for married couples, unless the spouse's annual income exceeds SKK 38 760. Child allowance is SKK 16 800 per year.

[u] There is also a special tax of 25 per cent on income from temporary work contracts (related expenses are deductible). The tax on lottery prizes (15 per cent) is withheld at origin.

[v] The maximum advance tax rate applies to monthly incomes over 300 per cent of the average wage. The estimate above is based on the average wage and the average tolar/euro exchange rate for 2002.

[w] Family allowances (10 per cent of the average salary for the first child or any other dependent family member and 5 additional percentage points for each subsequent child) are also exempt from taxation.

[x] Social security contributions are tax deductible; certain expenses (up to 3 per cent of taxable income) may also be deducted from the total taxable income.

made the most radical change in this direction: under the income tax act of 2000, corporate retained earnings were exempted from tax altogether.[302] Apart from this extreme case, there has been some convergence in statutory CIT rates in the region in the past few years, with the average rate falling from 30.3 per cent in 1999 to 23.2 per cent in 2003 and the coefficient of variation falling slightly. In many countries (Bulgaria, the Czech Republic, Hungary, Latvia, Poland and Slovakia) further reductions are envisaged in 2004 (or later). In 2003 nine candidate countries had statutory CIT rates that were lower than the EU average (this was the case for only five of them in 1999). If the averages for the existing EU and the candidate countries are compared, the difference increased from 2 percentage points in 1999 to 6 percentage points in 2003.

Reducing statutory CIT rates is not the only route to lowering the level of corporate taxation that the candidate countries have followed. During the years of transition, in an attempt to improve their competitive position vis-à-vis the rest of the world, and to attract more FDI, many countries introduced various tax holidays and exemptions from corporate tax. At the same time most of these countries established special economic zones, which offer further tax incentives to foreign investors. In some countries there is also a range of reduced CIT rates (for example, for SMEs, agricultural enterprises, etc.) and various exemptions (for reinvested earnings, etc.).[303] The existence of numerous reliefs and exemptions (which affect the tax base) prevents a more detailed cross-country comparison of the level of corporate income taxation on the basis of statutory rates; instead, a comparison of the effective rates of taxation (which take into account differences in the tax base) is presented in section 5.3.

Most of the existing tax holidays and exemptions are typical of the competition that has arisen among the east European countries targeting FDI. Moreover, some of them are not compatible with the EU's *acquis communautaire* and they are widely regarded as an impediment to further tax harmonization in the enlarged EU.[304] In the process of finalizing the accession negotiations, agreements were reached on the phasing out of some of the existing tax incentives, but a number of issues remain unresolved.

Compared with current EU practices in the area of corporate income taxation, there are also discrepancies in the way some of the candidate countries define specific components of the corporate tax base, in particular with respect to depreciation allowances (the last column of table 5.2.2), the treatment of accounting losses and the treatment of inventories. Each candidate country applies only one method of depreciation: most of them use straight-line depreciation for both machinery and buildings (but at varying rates), while Latvia and Poland use the declining balance method.[305] The accepted practice in most EU member states is to allow firms to choose either of these two methods. Losses can only be carried forward in the candidate countries and in general only within five years (seven years in the Czech Republic), whereas in the EU the term is usually unlimited and an option for previous trading losses is allowed in some cases.

As regards capital gains, these are usually included in taxable income and thus are taxed at the statutory CIT rate. However, some countries (including Bulgaria, Hungary and Latvia) apply different rates for capital gains of non-resident companies with or without permanent establishments.[306]

Withholding taxes on dividends and interest also vary substantially among the candidate countries in respect of rates and in the differential treatment of individuals and firms, and of resident and non-resident companies. In most countries the tax rates are in the range of 10 to 15 per cent and the unweighted average for the 10 countries is 16 per cent. In Hungary, the dividends paid to resident companies are not subject to withholding tax (regardless of whether they are paid out of taxed or untaxed profits), while in Slovenia, non-residents are taxed at a lower rate. In Estonia, dividends paid to non-residents are subject to withholding tax at the general rate of 26 per cent, unless the non-resident legal entity holds at least 25 per cent of the share capital of the dividend-distributing Estonian company.[307] In most acceding countries interest paid on personal bank deposits is exempt from withholding tax. As to the interest income of companies, most countries applied positive withholding rates in 2003, of which the highest were in Estonia and Slovakia (26 per cent and 25 per cent, respectively). The withholding tax rates for non-residents also vary according to the provisions in the bilateral treaties on double taxation.

[302] This latest Estonian income tax act (*Tulumaksuseadus*) was passed on 15 December 1999 and came into effect on 1 January 2000.

[303] For more details on such incentives in the candidate countries see the notes to table 5.2.2.

[304] But there are also other obstacles to tax harmonization in the EU such as the lack of consensus on the harmonization of income taxes.

[305] The declining balance method of depreciation implies that a pre-set percentage (which may be time variable) of the remaining cost is written off each year.

[306] In Latvia, for example, capital gains of non-resident companies are taxed at a rate of 2 per cent; in Hungary, non-resident companies without permanent establishment are exempt from tax; in Bulgaria a final 15 per cent withholding tax is imposed on gains derived by non-residents from the sale of shares and securities of Bulgarian companies.

[307] Since 1 January 2003, the flat rate on all dividend distribution, regardless of the recipient, is 26/74, i.e. 26 kroons for every 74 kroons. The above-mentioned withholding tax is in addition. M. Funke and H. Strulik, *Taxation, Growth and Welfare: Dynamic Effects of Estonia's 2000 Income Tax Act*, Bank of Finland Institute for Economics in Transition (BOFIT), Discussion Papers, No. 10 (Helsinki), 2003.

TABLE 5.2.2

Main features of corporate income taxation (CIT) in the EU acceding countries, 1999-2004

(Per cent of taxable income)

	Basic CIT rate				
	1999	*2003*	*Plan for 2004*	*Tax relief*	*Depreciation rules on machinery and equipment*
Bulgaria [a]	32.5	23.5	19.5	Yes[b]	Straight-line depreciation (5 years)
Czech Republic	35	31	28	Yes[c]	Either straight-line or accelerated depreciation[d]
Estonia [e]	26	–	–	–	–
Hungary	18	18	16	Yes[f]	Straight-line depreciation (20 per cent)
Latvia	25	19	15	Yes[g]	Declining balance depreciation (20-70 per cent)
Lithuania	29	15	15	Yes[h]	Straight-line depreciation (4-10 years)
Poland	34	27[i]	19	Yes[j]	Declining balance depreciation (20 per cent)
Romania	38	25	25	Yes[k]	Straight-line depreciation (10 years)[l]
Slovakia	40	25	19	Yes[m]	Either straight-line or accelerated depreciation[n]
Slovenia	25	25	25	Yes[o]	Straight-line depreciation (4-10 years)
Acceding countries average	30.3	23.2	20.2	–	–
Coefficient of variation (per cent)	22.6	21.4	23.7	–	–
Memorandum items:					
EU average	32.4	29.3[p]	..	–	Either straight-line or declining balance depreciation
Coefficient of variation (per cent)	22.5	22.3	..	–	–

Source: As for table 5.2.1 for acceding countries; for the EU: A. Martinez-Serrano and B. Patterson, *Taxation in Europe: Recent Developments*, European Parliament, Working Paper, Economic Affairs Series ECON 131 EN (Luxembourg), January 2003.

a The standard rates are the aggregates of municipal and state corporate taxes. Insurance and gambling are taxed under a special legal framework.

b Options for tax holidays (up to 100 per cent) for specific production activities (including inward processing as well as fixed investment in regions with high unemployment). Losses can be carried forward for up to 5 years (banks, 10 years). Donations, business gifts, etc. are taxed at 15-20 per cent.

c Income tax relief of up to 10 years for a new manufacturing entity and five years for an expansion of existing activities. Minimum investment of CZK 350 million (CZK 100 million if unemployment in the region is 50 per cent or more above the national average). Losses can be carried forward for up to seven years.

d Straight-line or accelerated depreciation options are available. For heavy machinery the period is 12 years, the straight-line rate is 4.3 per cent for the first year and 8.7 per cent for subsequent years, and for accelerated depreciation the coefficient is 12 per cent for the first year and 13 per cent for subsequent years. There is an additional 10 per cent investment allowance on certain equipment and machinery.

e In Estonia, starting in 2000, all retained earnings are exempt from corporate income tax. Dividends are taxed at 26 per cent.

f Starting in 2003, firms have access to a development tax credit applicable to the first five years of a new investment project valued at more than HUF 10 billion (or HUF 3 billion in "underdeveloped areas"). The tax credit cannot exceed 50 per cent of the initial investment. Further tax relief can be granted in relation to the employment of vocational trainees or previously unemployed people. Reserves for investment from retained earnings up to 25 per cent of the overall pre-tax profits (but no more than HUF 500 million) are also tax deductible. Losses can be carried forward for up to five years.

g Special tax regimes are applied to companies operating in Special Economic Zones (SEZs) and Free Ports. A reduced CIT of 15 per cent applies to SMEs. A 40 per cent tax credit is available to companies for fixed investment above LVL 10 million during a 3-year period (subject to government approval). Agricultural firms or firms producing high-tech products or software are entitled to tax relief. Tax allowances (of up to 90 per cent) may apply to donations to foundations and programmes approved by the government. Losses can be carried forward for up to five years (for those registered in SEZs, 10 years). Shipping companies are subject to a special "tonnage tax" based on the ships' freight capacity.

h Incorporated SMEs are taxed at 13 per cent. The local revenue of foreign entities is taxed at 10 per cent. Agricultural firms (with more than 50 per cent of their revenue originating from agriculture) are exempt from CIT. Tax relief (between 25 and 100 per cent) is available to companies employing handicapped people. Tax holidays and tax relief for firms operating in the SEZs (exemption from CIT for five years after registration; and 50 per cent discount for the following 10 years for companies that have invested more than $1 million in the country; in addition, profits re-invested in fixed assets, R&D and innovation are tax exempt). Losses can be carried forward for up to 5 years.

i Revenues from entertainment or sports services are taxed at 20 per cent.

j Tax incentives for investment in the form of investment allowances can be granted provided the allowance does not exceed 10 per cent of the taxable base (30 per cent for "preferential" investment). For investments in SEZs, additional allowances may be granted. Tax exemptions are applied to income from non-specialized agricultural activities and from forestry. Specific donations for science, education, health, culture or other charitable purposes are also tax deductible. Losses can be carried forward for up to five years.

k A rate of 12.5 per cent applies to export-related profits. Tax holidays (a reduced rate of 5 per cent) is applied in the free zones (based on licences valid until 31 December 2004). Tax incentives are provided for investment in fixed assets. Allocations for legal reserves (corporate entities must allocate to reserves 5 per cent of their profits until these reserves reach 20 per cent of the subscribed share capital), and donations (up to 5 per cent of total taxable income) are also tax deductible. Losses can be carried forward for up to five years.

l Accelerated depreciation may be used for technological equipment, computers and related equipment, put into operation after 1 July 2002.

m Agricultural firms (with more than 50 per cent of their revenue originating from agriculture) are taxed at 15 per cent. Firms employing disabled persons ere eligible for tax relief (a lower rate of 18 per cent). Firms can benefit from a tax credit (of up to 20 per cent in the Bratislava region and up to 50 per cent elsewhere) for their fixed investment. Losses can be carried forward for up to five years.

n For heavy machinery the period is 15 years with a straight-line rate of 3.4 per cent for the first year and 6.9 per cent for subsequent years, whereas the accelerated coefficient is 15 per cent for the first year and 16 per cent for subsequent years.

o Tax relief (a lower rate of 10 per cent) and investment incentives (a further 50 per cent tax relief on investment in fixed assets) for firms operating in SEZs. General tax incentives for fixed investment: up to 40 per cent in the year of the investment plus an option of placing up to 10 per cent of the profits (tax free) into an investment reserve (the latter valid for four years). Losses can be carried forward for up to five years.

p 2002 instead of 2003.

(iii) Compulsory social security contributions

Compulsory payments to the public social security system represent a specific type of taxation designated for the provision of welfare benefits such as pensions, health care insurance, unemployment protection, social assistance and the like. Social security systems vary considerably, not only among the acceding countries but also within the EU, as a result, *inter alia,* of historical tradition. Some of these, such as the pension system, are characterized by considerable inertia, implying that changes can only be implemented gradually. Social security schemes are generally quite diverse, not only regarding the levels of taxation and the allocation of revenue but also with respect to the proportions of the compulsory contributions imposed on employers and employees, and to the provisions for additional voluntary contributions (in particular, to pension schemes). In principle, it is considered desirable if each component of the public social security system is financially balanced and self-sufficient, that is, if the respective benefits are funded within the limits of the revenue generated on the basis of the contributions earmarked for this purpose. However, this is not a universal practice: even in the EU there are countries that finance part of their social security systems from general tax revenue.[308] In general, the level of social protection increases with economic development and the rise in per capita incomes: in a worldwide perspective rich, industrialized countries usually provide a higher degree of social protection than poor, developing countries.

As noted earlier, reforming social security has probably been the most difficult part of the fiscal reform programmes in the acceding countries, but despite the difficulties there has been notable progress. One of the important general changes has been a switch from taxes being paid only by the employers to sharing, in varying proportions, the compulsory contributions between employers and employees. In addition, voluntary social security contributions are now encouraged in several countries for pension schemes and in some cases for health insurance.

Although social security systems vary substantially among the acceding countries, in relative terms (taking total social security expenditure in proportion to GDP) they generally provide higher levels of social protection than other countries with similar levels of GDP per capita. This is partly due to the legacies of the communist past, when social security systems were required as a rule to provide (at least on paper) full social protection to all citizens, regardless of their long-term financial or fiscal sustainability. Partly as a consequence of this relative generosity, some social security schemes in the acceding countries are still not internally balanced but are partly funded by transfers from the general government budget. However, the differences in social security protection also reflect the different policies that the governments of these countries have followed since the start of economic transformation.

On average, compulsory social security contributions (SSC) in 2003 amounted to 42.8 per cent of the tax base (total payroll remuneration) in the 10 countries (table 5.2.3), with the lowest rate in Latvia (33.1 per cent) and the highest in Romania (53.5 per cent). Except in Poland and Slovenia, employers generally pay about two thirds or more of the compulsory contribution (in Estonia and Lithuania it is more than 90 per cent) and employees are required to pay the rest. The employee contributions are usually deducted at source from their salaries. In several countries (including Bulgaria, Estonia, Lithuania, Poland) these contributions are bound to specific funds such as those for pensions, unemployment, health care and other social benefits funds (sickness and disability, industrial injury, etc.).[309] In others, the distribution among these major social benefits is not set in advance and all contributions are collected into one social security fund. Participation in private pension insurance schemes is complementary to the obligatory contribution, which in some countries is subsequently reduced while in others such voluntary payments are simply tax deductible.

In an international perspective, the overall level of taxes levied on labour income (including PIT and SSC) in the acceding countries is relatively high, particularly given their development level. According to a Joint Assessment Paper issued by the European Commission,[310] the tax wedge on total labour cost[311] in a number of countries (Hungary, Latvia, Lithuania) is comparable to those in France, Germany or Sweden, where they are among the highest in the EU. For instance, in 2000, the wedge for an average production worker in nine of the acceding countries (except Slovenia) averaged about 45.7 per cent, with the highest (52 per cent) in Hungary and the lowest in Estonia and Slovakia (42 per cent).[312] For comparison, the highest tax wedge in the EU was in Belgium (56 per cent) and the lowest in Ireland (29 per cent).

[308] For example, health care in Denmark and the United Kingdom is partly financed from general tax revenue.

[309] For an overview of unemployment benefit systems in eastern Europe and the CIS see UNECE, *Economic Survey of Europe, 2003 No. 1*, pp. 191-198.

[310] European Commission, *Progress on the Implementation of the Joint Assessment Papers on Employment Policies in Candidate Countries,* COM (2003) 37 final (Brussels), 30 January 2003.

[311] The tax wedge represents personal income tax plus employers' and employees' social security contributions as a percentage of total labour costs.

[312] However, in absolute terms, nominal labour costs in the acceding countries are still much below those in the incumbent EU member states, which remains an important incentive for inward FDI.

TABLE 5.2.3

Compulsory social security contributions (SSC) in the EU acceding countries, 2003

(Per cent of taxable income) [a]

	Contributions to the public pension system	Health insurance	Other SSC	Total
Bulgaria	29.0[b]	6.0	7.0	42.0
of which:				
Employer	21.75	4.5	5.25	31.5
Employee	7.25	1.5	1.75	10.5
Czech Republic	26.0	13.5	8.0	47.5
of which:				
Employer	19.5	9	6.5	35.0
Employee	6.5	4.5	1.5	12.5
Estonia	22.0	13.0	1.5[c]	34.5
of which:				
Employer	20	13	0.5	33.5
Employee	2[d]	-	1.0	1.0
Hungary	37.5[e]	3	5.5	46.0
of which:				
Employer	29[e]	..	4.5	33.5
Employee	8.5	3	1.0	12.5
Latvia	..	..	..	33.09[f]
of which:				
Employer	..	..	..	24.09[f]
Employee	..	..	..	9.0[f]
Lithuania	25.9	3.0	5.1	34.0
of which:				
Employer	23.4	3	4.6	31.0
Employee	2.5	-	0.5	3.0
Poland	19.5	6.3	19.6	45.42
of which:				
Employer	9.76	-	10.65	20.41
Employee	9.76	6.3(7.75)[g]	8.95	25.01
Romania	..	13.5	40[h]	53.5
of which:				
Employer	..	7	29.5	36.5
Employee	..	6.5	10.5	17.0
Slovakia	28.0	14.0	8.6	50.55
of which:				
Employer	21.6	10	6.15	37.75
Employee	6.4	4	2.4	12.8
Slovenia	24.35	13.45	0.40	38.20
of which:				
Employer	8.85	7.09	0.16	16.1
Employee	15.5	6.36	0.24	22.1
Acceding countries average				42.6
Coefficient of variation (per cent)				16.7

Source: As for table 5.2.1.

[a] SSC are generally levied on the payroll remuneration of firms' employees.

[b] For persons born before 1 January 1960. For persons born after that date, the rate is 27 per cent and there is an additional 2 per cent obligatory pension contribution (1.5 per cent paid by the employer and 0.5 per cent by the employee).

[c] Compulsory contribution to a separate unemployment insurance fund.

[d] Obligatory funded pension contribution.

[e] The employers' contribution of 29 per cent covers both pension and health care insurance. In addition employers pay a flat health tax contribution (HUF 3 450 in 2003) per employee per month.

[f] All social security payments are made as a single contribution.

[g] Health insurance paid by employees amounts to 7.75 per cent of gross remuneration minus compulsory social insurance contributions, hence 6.3 per cent of gross remuneration.

[h] Includes contribution to pension system.

(iv) Consumption taxes

Indirect taxation is the area where tax harmonization within the EU is most advanced. The EU applies common tariffs to trade with the rest of the world (while internal duties have been eliminated) and there has been considerable progress in harmonizing consumption taxes.[313] The introduction of VAT is a non-negotiable condition for EU membership and the general principles as well as the technical aspects of applying consumption taxes are almost fully harmonized within the EU (several EU directives have been adopted to this effect). As to the levels of indirect taxation, there has been some convergence of tax rates within the EU but important differences among member states still exist, particularly with respect to the application of reduced VAT rates and excise taxes.

During the accession negotiations, the EU pushed for greater tax harmonization already in the pre-accession phase and, at least as regards VAT, this has been achieved to a considerable degree. In the last few years, the legal framework for indirect taxation in the acceding countries has been largely brought into line with EU requirements, although on a number of specific technical issues (such as exemptions, rate levels, tax refunds, etc.) some discrepancies remain. With the approach of the accession date, the authorities in most of the acceding countries have embarked on major adjustments; at the same time there have been requests for transitional measures and certain derogations in the area of consumption taxes. Most of the acceding countries have been granted transitional periods to allow them to align VAT and excise taxation with the *acquis communautaire*. The agreed periods in many cases extend through 31 December 2007 (in the case of excise duty on cigarettes for Latvia and Lithuania, 31 December 2009), and turnover thresholds to exempt SMEs from VAT have been set individually for each country.[314]

In 2003, the standard VAT rates in the acceding countries varied between 18 per cent (Latvia and Lithuania) and 25 per cent (Hungary), with an average of slightly above 20 per cent. The latter is above the EU average and well above the minimum standard rate of 15 per cent required by the *acquis* (table 5.2.4). At the same time, the acceding countries appear to be applying reduced VAT rates and exemptions much more extensively than the existing EU members. In general (except in Poland) these rates are at, or above, the 5 per cent limit required by the EU's *acquis*. Furthermore, as can be seen in table 5.2.4, zero rates and exemptions are also applied to some services and basic goods that are not

[313] All member states adhere to the destination principle for indirect taxes (advanced by the WTO) which implies that exports are exempt from taxation in the country of origin but are taxed in the country of import.

[314] For country details see European Commission, *Enlargement of the European Union. Guide to the Negotiations Chapter by Chapter. Chapter 10 – Taxation*, December 2003 [europa.eu.int/comm/enlargement/negotiations/chapters/chap10/].

TABLE 5.2.4

Main features of the VAT system in the EU acceding countries, 2003
(Per cent of tax base, national currency)

	Basic rate	*Reduced rate*	*VAT (Non-standard exemptions)* [a]	*Threshold for mandatory VAT registration of firms*
Bulgaria	20	–	–	BGN 50 000 a year
Czech Republic	22	5[b]	–	CZK 750 000 in any consecutive 3-month period
Estonia	18	5[c]	Yes[d]	EEK 250 000 a year
Hungary	25	12[e]	Yes[f]	–
Latvia	18	9[g]	–	LVL 10 000 within a 12-month period
Lithuania	18	5-9[h]	–	LTL 100 000 a year
Poland	22	3-7[i]	Yes[j]	PLN equivalent of €10 000
Romania	19	–	Yes[k]	ROL 1.7 billion a year
Slovakia	20	14[l]	–	SKK 750 000 in any consecutive 3-month period
Slovenia	20	8.5[m]	–	SIT 5 million within a 12-month period
Acceding countries average	20.2	..	..	..
Coefficient of variation (per cent)	11.1	..	..	..
Memorandum items:		..	..	..
EU actual average	19.6	..	..	..
Coefficient of variation (per cent)	15.1	..	..	..
EU required minimum rate	15	5	..	..

Source: As for table 5.2.1 for acceding countries; for the EU: European Commission, *VAT in the European Community* and *VAT Rates Applied in the Member States of the EU, Situation at 1st May* (Doc/2908/2003-EN).

a The standard EU VAT exemptions are already applied in all acceding countries. For a definition of these exemptions see text.

b Applies to basic foodstuffs, minerals, pharmaceutical products, certain medical equipment and most services.

c Applies to books (other than textbooks and workbooks for basic schools and gymnasiums), medicines and medical equipment, treatment of hazardous waste, funeral requisites and services, theatrical performances and concerts, and heat and solid fuels sold to private individuals.

d A zero rate is levied on periodical subscriptions, sea-going vessels and aircraft operating on international routes, textbooks and workbooks for basic schools and gymnasiums, and goods and services sold to non-profit associations and foundations of Estonia (under certain conditions).

e Applies to public utilities, books and newspapers, food, agricultural products and most services.

f A zero rate applies to textbooks and certain pharmaceutical products as well as to a range of services provided in customs free zones and customs warehouses. As from 2004, the reduced rates will be changed: from 0 to 5 per cent, and from 12 to 15 per cent, respectively; the basic rate will remain unchanged.

g Applies to the supply of certain medicinal substances, veterinary services, products for infants, books and mass media products, and some other basic goods.

h The reduced rate of 5 per cent is applied to specific passenger transport services, books, newspapers and magazines, pharmaceuticals and medical products, hotel accommodation and other special accommodation services, chilled meat and edible offal, frozen and deep frozen poultry meat. The 9 per cent VAT rate is applicable to energy for district heating (until 31 December 2003), the supply of services relating to the construction and renovation of residential houses, and some forms of publicly financed residential construction.

i The reduced rate of 3 per cent applies to the sale of non-processed agricultural products. Certain goods and services (e.g. agricultural equipment and tools, mountain rescue services, internet connection services) are subject to a rate of 7 per cent.

j Some unprocessed foods are taxed at a zero rate. Standard VAT exemptions also apply to certain services.

k VAT exemptions apply to some activities performed inside free trade zones. Standard VAT exemptions also apply to certain services.

l The reduced rate applies to supplies of foodstuffs and beverages, pharmaceuticals, paper products, books, some energy carriers, and various services (carriage, hotel and restaurant services, etc).

m Applies to foodstuffs, live animals, seeds, plants, water supply, pharmaceutical products, medical equipment and accessories for the disabled, public transport, books, newspapers and periodicals, royalties, sporting competitions, hotels and other accommodation, waste treatment, and some other goods and services.

usually exempt from VAT in the EU.[315] In addition, the turnover threshold for registering as a VAT payer differs significantly both in the level and in the mandatory registration period.

The cross-country differences in excise duties are also considerable. All acceding countries impose excise duties on alcoholic beverages, tobacco and hydrocarbon fuels, which is consistent with EU regulations, but the actual rates in many cases are markedly lower than the minimum rates applied within the EU.[316] The largest

[315] The standard VAT exemptions under the EU's Sixth Directive include health care, education, social services, cultural services, public radio and television broadcasts, postal services, immovable property, insurance, financial transactions and gambling. Apart from the standard exemptions, some activities (in particular some public sector activities and small private businesses) can also be exempt; in addition some agricultural activities can also be taxed on the basis of flat rate schemes. European Communities, *Sixth Council Directive of 17 May 1977* on the harmonization of the laws of the member states relating to turnover taxes – common system of value added tax: uniform basis of assessment, Council Directive No. 77/388/EEC. The EU's VAT is a consumption tax; investment goods are therefore exempt.

[316] For details (as of July 2003) and comparisons between the acceding countries: European Commission, *Excise Duty Tables*. Special version with information from the candidate countries to the European Union, July 2003 [europa.eu.int/comm./taxation_customs/publications/info_doc/.info_doc.htm].

differences concern tobacco taxes, which in many countries consist of a specific excise duty and an *ad valorem* tax. If these elements are aggregated, the duties on cigarettes range from about 20 per cent of the retail price in Bulgaria (for non-filter cigarettes only) and Hungary to about 57 per cent in Poland. However, in effective terms, they are way below the minimum requirement of the EU, which was set at €95 per 1000 cigarettes in 2002. As regards excise duties on mineral oils, only Bulgaria, Estonia and Latvia have lower duties than those recommended by the EU for petrol and diesel. No excise on heavy fuel oil is levied at all in 4 of the 10 EU candidate countries (Czech Republic, Estonia, Hungary and Romania), and in Lithuania the excise is below the EU required minimum of €13 per 1000 kg.

5.3 The changing structure of taxation in the acceding countries

As a result of the fiscal reforms during the past decade and a half, there have been profound changes on both the revenue and the expenditure sides of government budgets in the acceding countries. This section reviews briefly some of the changes in the structure of tax revenue in relation to the declared goals and the economic rationale of the reforms. The tax structures in the current EU member states are taken as a reference point in assessing the changes in the acceding countries.

(i) Overall level of taxation

The theoretical literature on public finance acknowledges the leading role of the demand for public services (and hence expenditure) in shaping the "size of government". Accordingly, changes in the latter may prompt changes (if necessary) in the system of taxation, which in this sense has a subordinate role. In this framework the overall level of taxation is largely demand driven: once the required level of public spending is set, then the desired level of revenue – given the constraints on the fiscal balance stemming from the requirements of fiscal solvency and sustainability – should be attained through relevant fiscal reforms and changes in tax legislation.[317]

The initial conditions of the fiscal systems in the acceding countries at the onset of economic transformation were shaped by the legacy of command economies based on central planning. Relative to per capita incomes, they were characterized by a disproportionately large share of national income being redistributed through the government's budget. Although the quality and reliability of the data is highly questionable, the available evidence suggests that at the end of the 1980s the share of government expenditure in most centrally planned economies was well above 50 per cent of GDP and in some cases was closer to 70 per cent.[318] Such abnormally high levels of government spending were for the most part driven by the ideological stance embodied in the extensive system of central planning and control. Hence, it could be expected that with the collapse of communism the levels of public spending would fall to levels more appropriate to a market economy. At the same time, the initial fiscal adjustment was partly a forced one, driven by the sharp fall in government revenue during the first phase of transition, which led to substantial fiscal imbalances. During this initial period many changes were more the outcome of crisis management rather than purposeful reform. In any case, the main trend in this period was for lower levels of both government revenue and expenditure relative to GDP.

After the start of transformational recovery and especially after the start of accession negotiations, the changes have been of a different nature. Several years of relatively fast economic growth have generally enlarged the tax base in these countries, thereby providing a strong boost to tax revenues. Furthermore, the ambitious fiscal and other structural and institutional reforms affected profoundly the level and structure of various types of tax revenue. In the main, the reforms reflected a withdrawal of the state from the economy, and the process of creating the institutional infrastructure for a market economy. Coupled with the partial privatization of certain services (health care, education and pensions, for example) there was a reduction in the aggregate demand for public funds and hence a lower tax burden. The comprehensive reform of the tax system (including tax administration) was a necessary response to the new realities of the market and business environment. Tax reforms per se generally sought to define clearly a broader tax base (matching the new economic conditions), while at the same time lowering tax rates. The parallel upgrading of tax administration provided an additional boost to government revenue by raising the efficiency of tax collection.

On balance, the combined effect of these diverse developments is not entirely clear as sometimes they have opposite effects on the overall level of taxation. In general, the initial sharp fall in tax revenue as a proportion to GDP was arrested by the mid-1990s: after 1995 the total tax burden continued to decline in most acceding countries but much more slowly than before (table 5.3.1).[319] The cross-country variation in the aggregate levels of taxation also declined after 1996.

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[317] Some empirical studies support this theoretical conjecture. C. Martinez-Mongay and R. Fernandez, "Effective taxation, spending and employment performance", in M. Buti, P. Sestino and H. Wijkander (eds.), *Taxation, Welfare and the Crisis of Unemployment in Europe* (Cheltenham, Edward Elgar, 2001), pp. 55-94.

[318] D. Begg and C. Wyplosz, op. cit.

[319] Throughout this section the public sector is considered at the level of the consolidated general government, including the central government, the local governments as well as all extra-budgetary government funds. The total level of taxation as well as its breakdown (which is discussed in the following subsections) is defined as the consolidated general government revenue, which takes the form of various taxes or tax-equivalent collectibles. For EU member states it is based on the OECD methodology of defining tax revenue. For details see OECD, *Revenue Statistics 1965-2001* (Paris), 2002. To the extent possible – in view of the quality of the available data which is not always satisfactory – the same methodology has been applied to the acceding countries as well.

TABLE 5.3.1

Total tax share in the acceding countries and the EU, 1995-2002
(Per cent of GDP)

	1995	1996	1997	1998	1999	2000	2001	2002
Acceding countries								
Bulgaria	29.3	25.6	27.5	29.8	29.4	29.9	28.7	27.5
Czech Republic	41.5	40.0	38.9	37.9	38.9	38.8	36.0	36.6
Estonia	36.9	34.1	35.0	34.2	32.7	31.4	30.7	34.4
Hungary	41.4	39.7	39.1	38.9	39.1	38.9	39.0	37.7
Latvia	31.2	31.2	33.1	36.3	34.3	31.6	30.2	30.8
Lithuania	29.9	29.1	31.8	30.8	30.4	28.7	27.7	27.6
Poland	36.4	36.1	35.3	34.6	33.8	31.7	31.4	31.4
Romania	28.8	26.9	26.5	27.8	30.1	29.2	28.0	28.0
Slovakia	36.9	36.2	33.6	32.1	31.0	31.7	30.8	32.2
Slovenia	41.2	40.4	39.8	40.0	41.1	37.9	37.9	36.1
Acceding countries average	35.4	33.9	34.1	34.2	34.1	33.0	32.0	32.2
Coefficient of variation (per cent)	14.7	16.2	13.5	11.9	12.4	12.0	12.9	12.0
EU member states								
Austria	41.6	43.5	44.4	44.3	44.1	43.7	45.7	..
Belgium	44.6	44.9	45.2	45.8	45.4	45.6	45.3	..
Denmark	49.4	49.9	49.8	50.1	51.2	48.8	49.0	..
Finland	45.0	47.3	46.3	46.2	46.8	46.9	46.3	..
France	44.0	45.0	45.2	45.1	45.7	45.3	45.4	..
Germany	38.2	37.4	37.0	37.1	37.8	37.9	36.4	..
Greece	31.7	31.8	33.4	35.6	36.9	37.8	40.8	..
Ireland	32.7	32.8	32.2	31.7	31.3	31.1	29.2	..
Italy	41.2	42.7	44.2	42.5	43.3	42.0	41.8	..
Luxembourg	42.0	43.0	40.8	39.8	40.9	41.7	42.4	..
Netherlands	41.9	41.5	41.9	40.0	41.2	41.4	39.9	..
Portugal	32.5	32.3	32.8	33.3	34.1	34.5	34.5	..
Spain	32.8	32.6	33.5	34.0	35.0	35.2	35.2	..
Sweden	47.6	49.8	51.2	51.6	52.0	54.2	53.2	..
United Kingdom	34.8	34.8	35.0	36.9	36.4	37.4	37.4	..
EU average	40.0	40.6	40.9	40.9	41.5	41.6	41.5	..
Coefficient of variation (per cent)	14.6	16.0	15.7	15.1	14.9	14.7	15.1	..

Source: Acceding countries: direct communications from ministries of finance, IMF country reports (various issues); EU member states: OECD, *Revenue Statistics, 1965-2001* (Paris), 2002.

In comparison, the overall tax share in the majority of the EU member states in this period was relatively stable although there were changes in trend in some of them as well. During the 1990s fiscal performance in the EU was greatly affected by the commitments undertaken under the Maastricht Treaty which, for some countries, implied a major effort of fiscal consolidation, often involving an increase in the overall level of taxation. The cross-country variation in aggregate taxation within the EU remained relatively stable but, judging from the coefficients of variation in the period after 1998, the acceding countries are in fact a more homogenous group than the EU in terms of the total tax burden.

Chart 5.3.1 compares the overall level of taxation in the acceding countries with that in the present EU members. The data, for 2001-2002, show clearly that on average the total tax burden in the acceding countries was considerably below that in the EU: the average share of total tax revenue in GDP in the latter was 41.5 per cent while in the 10 east European countries it was 32.2 per cent. But, taking into account the differences in per capita income, these figures are more or less consistent with the theoretical considerations regarding the size of government outlined in section 5.1, and in particular with the logic of Wagner's Law, which suggests that the share of the government sector tends to increase with the level of per capita GDP.

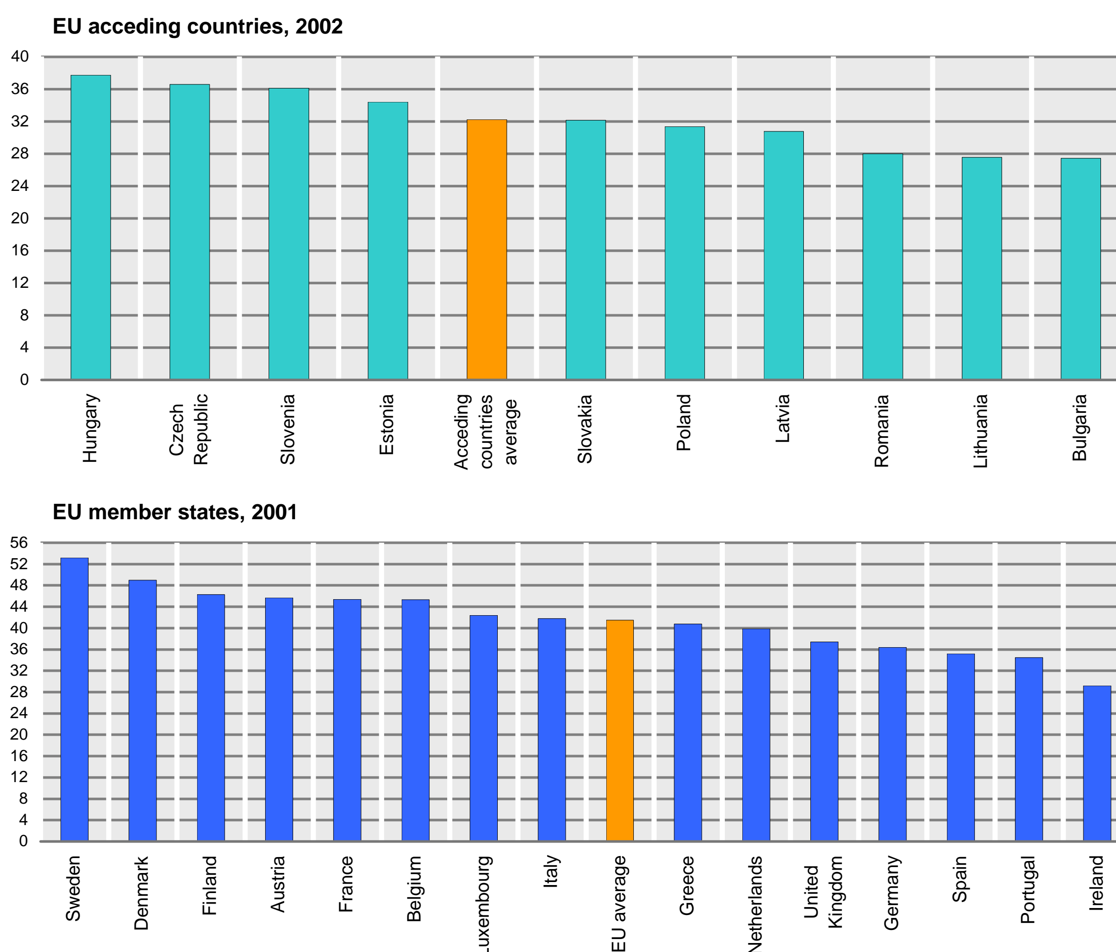
(ii) The structure of tax revenue

The transformation of the system of taxation in the acceding countries has had a profound effect not only on aggregate tax revenue but also on its composition. Tables 5.3.2 and 5.3.3 and chart 5.3.2 present a summary picture of the emerging tax structures in the acceding countries and of changes in the structure of their tax revenue in the period 1995-2002. The tax structures in the present EU member states are again used as a benchmark for assessing the changes that have taken place in the acceding countries. This comparison is based on a breakdown of total tax revenues into six main categories: PIT, CIT, SSC, VAT, excise duties and other taxes (including custom duties, local taxes and various other tax-equivalent dues not included in the other categories).

Some of the results of the reforms in the acceding countries can be seen in the large changes in the composition of their tax revenues during this relatively

CHART 5.3.1

Total tax shares in the acceding countries, 2002, and the EU, 2001
(Total tax revenue as percentage of GDP)



Source: Acceding countries: direct communications from ministries of finance and IMF country reports (various issues); EU member states: OECD, *Revenue Statistics*, 1965-2001 (Paris), 2002.

short period (table 5.3.2). In contrast, the composition of tax revenue in the EU was relatively stable during the second half of the 1990s). Thus the share of corporate income taxes in total revenue has been steadily declining in all the acceding countries. The initial fall was mostly due to the impact of the transformational recession and the inadequacy of the inherited system of taxation. Later on, increasing competition among these economies to attract FDI contributed to the further lowering of the share of CIT. In most countries the share of SSC in public revenue has grown but this mainly reflects the effort to balance internally the different parts of the social security systems. Similarly, the share of excise taxes in total revenue has also increased and this can be largely attributed to the gradual harmonization of these taxes with those in the EU, undertaken in the context of the accession negotiations.

Nevertheless, the composition of tax revenue still differs from that in the EU in some important aspects (table 5.3.2 and chart 5.3.1). The most noteworthy are the different weights of the three largest items (PIT, SSC and VAT) in total tax revenue. In the EU, PIT accounts on average for a quarter of total revenue, which is some 9 percentage points more than the average share in the acceding countries. In contrast, the shares of SSC and VAT are substantially larger in the acceding countries than in the EU (by 7 and 6 percentage points, respectively).[320] There are also small but less significant differences in CIT and other taxes.

The differences in average tax structure between the two groups largely reflect the transitional nature of the tax structures in the acceding countries. The large share of SSC is to a great extent due to the inertia in the social security systems. As already mentioned, social security systems in the acceding countries are generally relatively

[320] At the same time, consumption taxes (VAT and excise duties) both in the acceding countries and in the EU are high compared with other industrialized countries. Thus, for example, in 1998 consumption taxes accounted for only around 16 per cent of total tax revenue in the United States. On the other hand, corporate income and property taxes play a smaller role in the EU than in the United States and Japan. I. Joumard, op. cit.

TABLE 5.3.2

The average structure of tax revenue in the acceding countries and the EU, 1995-2002
(Per cent)

	1995	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
A. Individual taxes as percentage of total tax revenue								
Acceding countries average								
Personal income tax	17.2	17.4	17.7	18.2	17.3	16.8	16.8	16.4
Corporate income tax	9.4	9.1	9.2	7.9	7.2	6.5	6.6	6.8
Social security contributions	30.9	30.8	30.7	31.5	32.3	33.4	34.1	34.7
VAT	23.7	24.3	24.4	24.0	24.1	24.7	24.3	24.1
Excises	7.8	7.7	8.1	9.3	10.2	10.4	10.6	10.5
Other taxes	11.0	10.7	9.9	9.0	8.9	8.3	7.5	7.6
EU average								
Personal income tax	26.3	26.0	25.5	25.6	25.6	25.6	..	..
Corporate income tax	6.9	7.7	8.5	8.7	8.8	9.3	..	..
Social security contributions	28.7	29.8	28.7	27.6	27.4	27.5	..	..
VAT	17.8	17.9	17.9	17.9	18.0	18.2	..	..
Excises	11.9	11.7	11.5	10.9	10.8	10.3	..	..
Other taxes	8.4	7.0	7.8	9.3	9.5	9.2	..	..
B. Individual tax as percentage of GDP								
Acceding countries average								
Personal income tax	6.0	5.8	6.1	6.2	5.9	5.5	5.4	5.3
Corporate income tax	3.3	3.0	2.9	2.7	2.4	2.1	2.1	2.2
Social security contributions	11.1	10.6	10.6	10.9	11.1	11.1	11.0	11.3
VAT	8.3	8.2	8.3	8.2	8.2	8.1	7.7	7.7
Excises	2.7	2.6	2.8	3.1	3.4	3.4	3.4	3.4
Other taxes	3.9	3.6	3.4	3.1	3.1	2.8	2.5	2.5
Total tax revenue	35.3	33.9	34.1	34.2	34.1	33.0	32.0	32.2
EU average								
Personal income tax	10.9	10.9	10.8	10.8	10.9	10.9	..	..
Corporate income tax	2.7	3.1	3.4	3.5	3.5	3.8	..	..
Social security contributions	11.6	12.1	11.7	11.3	11.3	11.4	..	..
VAT	7.0	7.2	7.2	7.3	7.4	7.5	..	..
Excises	4.6	4.6	4.6	4.4	4.4	4.2	..	..
Other taxes	3.3	2.7	3.2	3.6	4.0	3.8	..	..
Total tax revenue	40.1	40.6	40.9	40.9	41.5	41.6	..	..

Source: As for table 5.3.1.

generous (considering their levels of GDP per capita): reducing the levels of coverage is highly unpopular and governments have found it difficult to move in this direction.[321] Current levels of social security spending in the acceding countries are unlikely to be sustainable and probably they will have to be trimmed. The possible ways of doing that are discussed in section 5.4.

The relatively high share of VAT in the acceding countries' total tax revenue can be explained by the fact that the introduction of VAT was one of the first important tax reforms after the start of transition and it quickly started to generate relatively large amounts of government revenue. Compared with the EU, VAT is still a more important source of tax revenue in the acceding countries but its relative importance will probably decline in the future.[322]

As to the high average share of PIT in the tax revenue of the incumbent EU member states, this reflects the higher rates or broader base of taxation for this type of income (discussed in more detail later) but also the evolution of the tax systems in these countries. At the same time, the high EU average is to some extent due to the very large shares of PIT in some individual countries, in particular, Belgium, Denmark, Finland and Sweden (table 5.3.3).[323] More generally, these specificities reflect important differences in the systems of taxation in the EU and in the functioning of their public sectors. At present, there seems to be more variation in the overall structure of taxation among the current EU member states than among the acceding countries (table 5.3.3). Obviously, there will be major challenges for efforts to achieve tax harmonization in the enlarged Union.

One of the key features of tax systems in general is the relative importance of direct and indirect taxes and, from this perspective, there is considerable variation in

[321] The average level of total social security spending (as a percentage of GDP) in the acceding countries remained broadly unchanged between 1997 and 2002.

[322] As discussed below, the VAT's high share in the acceding countries' total tax revenue is also partly due to some specific structural aspects of their economies.

[323] It should be added that in some of these countries, part of the PIT is in fact a substitute for SSC, as parts of the social security system are financed from general tax revenue.

TABLE 5.3.3

The structure of tax revenue in individual acceding countries, 2002, and the EU, 2000

(Per cent of total tax revenue)

	Personal income tax	*Corporate income tax*	*Social security contributions*	*VAT*	*Excises*	*Other taxes*
Acceding countries, 2002						
Bulgaria	11.9	11.0	26.5	30.3	14.8	5.5
Czech Republic	13.7	12.7	40.2	18.5	9.5	5.3
Estonia	21.0	3.6	35.7	27.4	10.6	1.8
Hungary	19.9	6.2	33.2	20.4	9.2	11.1
Latvia	20.0	6.9	33.1	24.0	11.1	5.0
Lithuania	25.5	2.2	24.6	27.3	11.4	9.0
Poland	14.1	6.0	37.3	22.7	12.3	7.7
Romania	10.1	6.6	40.0	24.4	8.0	10.9
Slovakia	10.8	8.6	40.4	23.8	9.3	7.1
Slovenia	16.7	3.9	35.7	22.2	9.0	12.5
Acceding countries average	16.4	6.8	34.7	24.1	10.5	7.6
EU member states, 2000						
Austria	22.0	4.8	34.1	19.0	7.8	12.4
Belgium	30.9	8.1	30.9	16.2	7.0	6.8
Denmark	52.7	4.9	4.5	19.5	11.3	7.2
Finland	30.7	11.7	25.6	18.1	10.4	3.4
France	18.1	7.1	36.2	17.0	8.2	13.5
Germany	25.3	4.7	39.1	18.5	8.7	3.7
Greece	13.5	11.6	30.2	22.8	11.6	10.3
Ireland	30.9	12.2	13.5	21.5	14.1	7.7
Italy	25.7	7.6	28.3	15.7	10.0	12.6
Luxembourg	18.2	17.7	25.7	14.4	12.7	11.3
Netherlands	15.0	10.1	38.9	17.4	8.9	9.7
Portugal	17.4	12.2	25.5	24.1	15.1	5.8
Spain	18.8	8.5	35.2	17.6	9.7	10.2
Sweden	35.6	7.6	28.0	13.3	6.6	8.9
United Kingdom	29.1	9.9	16.3	18.4	12.3	13.9
EU average	25.6	9.3	27.5	18.2	10.3	9.2

Source: As for table 5.3.1.

tax systems across the globe. There are no clear-cut arguments in favour of any specific composition and the debates usually seek to reconcile considerations of economic efficiency with those of social equity. Theory suggests that direct taxes such as PIT and CIT tend to have a larger distorting impact on economic decisions and hence on the economy-wide allocation of resources. Progressivity in taxation, especially as regards labour income may amplify such impacts; these will tend to be even more pronounced when high marginal tax rates affect relatively large segments of the working population, particularly medium-income earners.[324] Other compulsory payments such as SSC (which are equivalent to direct taxes) raise the cost of labour and may distort resource allocation (for example, by discouraging investment). In turn, theory suggests that the differential impact of some of the major indirect taxes, such as those on consumption, is fairly limited, at least as regards long-run economic performance: these taxes are relatively neutral with respect to savings and investment decisions, they do not discriminate between imports and domestically produced goods and provide for a symmetric treatment of labour and capital income.[325] Hence, from the point of view of economic efficiency, a tax system with a relatively low level of direct taxation and a larger share of indirect taxes may have certain advantages.[326]

However, there are counter economic arguments as well as objections based on considerations of social equity and justice. Thus, as the demand for most consumption goods is highly price and income elastic, raising consumption taxes (resulting in higher prices) will affect the real consumption of individuals with different incomes in different ways. Obviously, it is the poorest and people with generally low incomes whose consumption will be disproportionately affected by such a change. Moreover, if such price rises are large, the

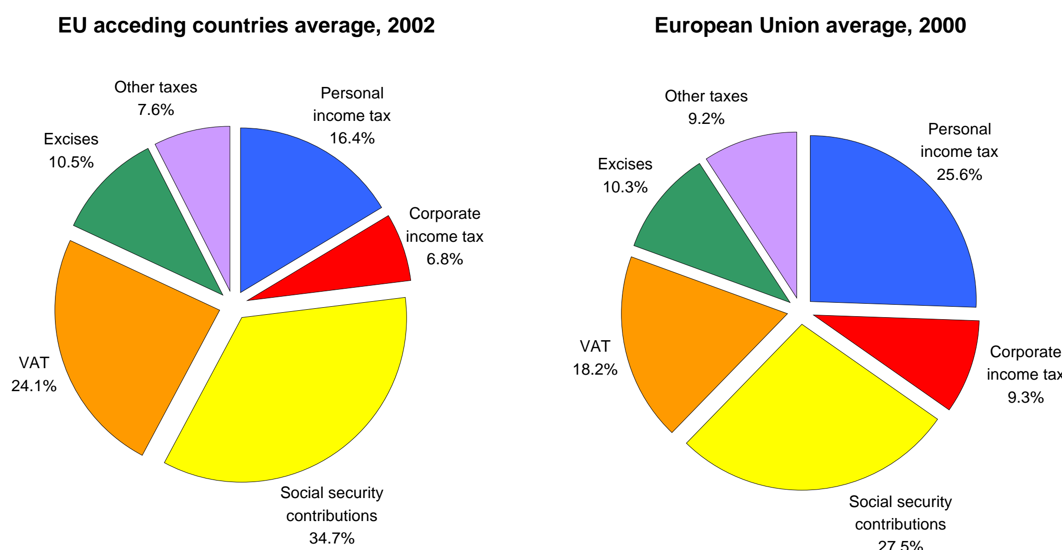
[324] This is the case in some of the acceding countries; for example, in Hungary the highest PIT rate of 40 per cent applies to annual incomes above HUF 1,350 thousand, which is below the national average (table 5.2.1).

[325] I. Joumard, op. cit.

[326] It has been argued in the literature that, under certain conditions, a relative shift from income taxes to consumption taxation would reduce the disincentives to save and boost capital accumulation, and hence might have a positive effect on growth. V. Tanzi and H. Zee, *Fiscal Policy and Long-run Growth*, IMF Working Paper, No. 96/119 (Washington, D.C.), October 1996; N. Stokey and S. Rebelo, "Growth effects of flat-rate taxes", *Journal of Political Economy*, Vol. 103, No. 3, June 1995, pp. 519-550.

CHART 5.3.2

Composition of total tax revenue in the acceding countries, 2002, and the EU, 2000
(Per cent of total tax revenue)



Source: As for chart 5.3.1.

result may be an overall reduction in final consumer demand, with negative consequences on economic growth, at least in the short run. The higher the degree of income inequality in society, the greater will be these negative social and economic effects. Thus, the overall structure of the tax system should provide a certain balance between the pros and cons of the two approaches, reflecting the priorities assigned by the populace on the issues of economic efficiency and social equity.[327] Empirical research also suggests that governments leaning towards different sides of the political spectrum may have different preferences both as regards the overall level of taxation and its composition (in terms of direct and indirect taxation).[328]

Table 5.3.4 provides an overview of the relative importance of direct and indirect taxes in the acceding countries and the EU. Currently, indirect taxes are much more important as a source of revenue in the acceding countries as compared with the present EU member states. Between 1995 and 2000 the trends in the two groups of countries were generally moving in opposite directions: while the (unweighted) average ratio "direct:indirect taxes" in the acceding countries was declining, it was increasing in the EU as a whole; in 9 of the 10 acceding countries (Latvia being the only exception) this ratio was lower in 2000 than in 1995. In 2001 and 2002 there was a reversal of this trend in a number of acceding countries, but nevertheless their ratios generally remained lower than those in the EU.

If this development is interpreted in terms of the arguments outlined above, it could be said that during the initial phase of their economic and political transformation, the acceding countries put more emphasis on the economic efficiency of their tax systems at the expense of social equity. Conversely, the prevailing tax structures in the EU tend to suggest greater emphasis on social equity and justice, at the expense of economic efficiency. It is difficult to be certain about how the mix between direct and indirect taxation in the new EU members will evolve after accession and how fast it will change. But it seems likely that it will tend to converge on that prevailing in the existing members, implying an increased importance of direct taxation as a source of public revenue.

(iii) Effective taxation

The economic literature suggests three main types of indicator to measure the burden of taxation: i) nominal (statutory) tax rates and tariffs as prescribed in tax codes, the rate being levied on the actual tax base as defined in the legislation (these are the indicators discussed in section 5.2); ii) aggregate tax quotas: the ratio of the total tax revenue from a particular source (for example labour) to an economy-wide indicator of income (such as GDP); and iii) effective tax rates: the ratio of a particular tax revenue to a corresponding component of aggregate income or expenditure that can be regarded as the potential tax base (note that the potential tax base may

[327] For example, as regards consumption taxes, efficiency considerations imply that goods for which demand is less elastic should be taxed more heavily, whereas equity consideration suggests that there should be a greater tax burden on those goods that account for a greater share of the expenditure of those who are better off.

[328] B. Volkerink and J. de Haan, op. cit.

TABLE 5.3.4

Ratio of direct to indirect taxes in the acceding countries and the EU, 1995-2002

	1995	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
Acceding countries								
Bulgaria	1.69	1.76	2.08	1.41	1.41	1.20	1.27	1.09
Czech Republic	2.16	2.14	2.15	2.27	2.06	2.13	2.27	2.37
Estonia	1.82	1.50	1.42	1.70	1.69	1.45	1.44	1.59
Hungary	2.00	1.95	2.04	2.03	1.80	1.73	1.89	2.00
Latvia	1.29	1.29	1.41	1.52	1.66	1.60	1.69	1.71
Lithuania	1.70	1.70	1.51	1.33	1.35	1.44	1.37	1.35
Poland	1.96	1.83	1.75	1.75	1.59	1.65	1.64	1.64
Romania	2.38	2.34	2.13	1.93	1.87	1.94	1.83	1.75
Slovakia	1.76	2.07	1.93	2.01	1.89	1.73	1.77	1.81
Slovenia	1.86	1.74	1.66	1.66	1.42	1.59	1.61	1.81
Acceding countries average	1.82	1.79	1.77	1.73	1.65	1.62	1.65	1.67
Coefficient of variation (per cent)	16.2	17.3	16.7	17.3	14.2	16.3	17.5	20.7
EU member states								
Austria	2.32	2.22	2.29	2.31	2.27	2.27	..	..
Belgium	2.97	2.94	2.95	3.12	3.03	3.01	..	..
Denmark	1.99	1.97	1.96	1.91	1.97	2.02	..	..
Finland	2.35	2.32	2.21	2.23	2.23	2.38	..	..
France	2.22	2.19	2.20	2.26	2.35	2.44	..	..
Germany	2.31	2.53	2.57	2.67	2.57	2.54	..	..
Greece	1.25	1.22	1.33	1.52	1.55	1.61	..	..
Ireland	1.39	1.40	1.41	1.47	1.58	1.59	..	..
Italy	2.65	3.01	3.05	2.53	2.50	2.40	..	..
Luxembourg	2.47	2.42	2.45	2.47	2.26	2.27	..	..
Netherlands	2.78	3.23	2.65	2.48	2.48	2.43	..	..
Portugal	1.24	1.29	1.32	1.33	1.33	1.41	..	..
Spain	2.49	2.43	2.45	2.33	2.27	2.29	..	..
Sweden	2.97	3.24	3.23	3.31	3.22	3.57	..	..
United Kingdom	1.61	1.64	1.64	1.77	1.84	1.80	..	..
EU average	2.09	2.14	2.13	2.15	2.15	2.18	..	..
Coefficient of variation (per cent)	28.1	31.3	28.9	26.7	24.3	25.5	..	..

Source: As for table 5.3.1.

differ from the actual one defined in legislation due to various exemptions).[329]

Tables 5.3.5 and 5.3.6 present tax quotas and effective tax rates with respect to PIT, CIT, SSC and VAT in the acceding countries as well as in the current EU member states. All tax quotas are calculated with respect to GDP, whereas the different aggregate income or expenditure components are selected as proxies for the potential tax bases in calculating the effective tax rates. Thus, the national accounts definition of "total compensation of employees" is used to define the potential tax base of PIT and SSC, whereas another national accounts definition, that of "total gross operating surplus and mixed income", is taken as the potential tax base of CIT. In the case of consumption taxes as a whole (VAT and excise duties) the potential tax base is taken as the national accounts indicator "total final consumption expenditure", whereas for VAT alone it is "taxable value added".[330]

The measures of effective taxation highlight a number of additional features of the tax systems in the acceding countries as compared with those in the EU. Thus, the calculated effective tax rates for PIT clearly show that personal income is generally much more heavily taxed in the present EU member states than in the acceding countries. In the acceding countries, PIT accounts on average for just 5.4 per cent of GDP and for 12.3 per cent of the total compensation of employees, whereas in the EU the corresponding figures are 10.9 per cent and 22.1 per cent (table 5.3.5). The situation is similar with respect to CIT: the effective tax rates and quotas in the acceding countries are on average half the size of those in the EU.

On the other hand, these figures suggest, for example, that despite the fact that SSC in the acceding countries generally contribute a much higher share of total tax revenue than in the EU, social security payments

[329] For more details see M. Leibrecht and R. Römisch, *Comparison of Tax Burdens*, The Vienna Institute for International Economic Studies (WIIW), Research Report, No. 292 (Vienna), December 2002.

[330] This is also derived from the national accounts as follows. First, the gross value added produced in the economy is adjusted to take into account standard VAT exemptions (in this case, the standard exemptions applied in the EU). For this purpose value added in the sectors exempt from taxation is deducted from the aggregate value added produced. Second, since VAT is deducted from exported goods and imposed on imported ones, the value of net exports is subtracted from the above subtotal of value added.

TABLE 5.3.5

Relative shares of personal and corporate income taxes and social security contributions in the acceding countries, 2001, and the EU, 2000
(Per cent)

	Personal income tax as percentage of:		*Corporate income tax as percentage of:*		*Social security contributions as percentage of:*	
	GDP	*Total compensation of employees*	*GDP*	*Total gross operating surplus and mixed income*	*GDP*	*Total compensation of employees*
Acceding countries, 2001						
Bulgaria	3.6	9.7	3.9	7.3	7.8	21.1
Czech Republic	4.8	10.3	4.2	9.8	14.7	31.5
Estonia	7.3	14.4	0.8	2.0	9.8	19.3
Hungary	7.5	15.8	2.4	6.2	12.8	26.8
Latvia	5.9	13.4	2.0	4.6	10.0	22.8
Lithuania	7.4	19.0	0.5	1.1	6.9	17.6
Poland	4.4	10.2	1.9	4.4	11.7	27.0
Romania	3.2	10.8	1.9	3.2	10.7	36.2
Slovakia	3.5	7.6	2.2	4.5	12.6	26.2
Slovenia	6.1	11.5	1.5	4.3	13.1	26.3
Acceding countries average	5.4	12.3	2.1	4.7	11.0	25.5
Coefficient of variation (per cent)	31.6	27.7	55.4	53.3	22.3	22.0
EU member states, 2000						
Austria	9.6	18.4	2.1	5.9	14.9	28.5
Belgium	14.1	27.4	3.7	10.2	14.1	27.4
Denmark	25.7	49.2	2.4	7.1	2.2	4.2
Finland	14.4	30.6	5.5	13.3	12.0	25.5
France	8.2	15.7	3.2	9.5	16.4	31.4
Germany	9.6	17.8	1.8	5.1	14.8	27.5
Greece	5.1	15.7	4.4	8.1	11.4	35.0
Ireland	9.6	23.8	3.8	7.8	4.2	10.4
Italy	10.8	26.6	3.2	7.0	11.9	29.3
Luxembourg	7.6	15.4	7.4	19.8	10.7	21.7
Netherlands	6.2	12.1	4.2	11.2	16.1	31.4
Portugal	6.0	12.9	4.2	10.5	8.8	18.9
Spain	6.6	13.2	3.0	7.6	12.4	24.8
Sweden	19.3	33.3	4.1	14.2	15.2	26.3
United Kingdom	10.9	19.7	3.7	12.0	6.1	11.0
EU average	10.9	22.1	3.8	10.0	11.4	23.6
Coefficient of variation (per cent)	51.0	45.4	36.6	38.2	38.2	37.4

Source: UNECE secretariat calculations, based on national statistics.

in the EU, on average, are higher as a proportion of GDP. However, in relation to the total compensation of employees, the average burden of SSC in the acceding countries is still higher than the average for the EU. This reflects the fact that the compensation of employees in relatively more wealthy countries (such as the EU) usually accounts for a greater share of GDP than is the case in economies with lower per capita incomes (such as the acceding countries).

Table 5.3.6 reveals another interesting contrast. While VAT as a proportion of GDP in the acceding countries is generally higher than in the EU, the average effective VAT rates (as a proportion of taxable value added) in the EU are higher than those in the acceding countries. This reflects several factors. First, there are important differences in the composition of GDP between the two groups: the service sector in the more developed EU generally contributes a larger share of GDP than in the acceding countries. As this is also the case for at least some of the sectors that are exempt from VAT, it results in a relative reduction of the aggregate taxable value added. Second, as already discussed, additional VAT exemptions (apart from the standard ones) tend to be more widespread in the acceding countries, and these lead to lower tax revenue. Third, tax collection may be less efficient (or tax compliance weaker) in the acceding countries. The efficiency of tax collection reflects the organizational capability of the tax administration to enforce tax laws and regulations, and administrative capacity is still relatively underdeveloped in the acceding countries.[331]

In general, when taking into account both VAT and excise duties, consumption is more heavily taxed in effective terms in the present EU than in the acceding countries (the second column in table 5.3.6) which, apart from the factors mentioned above, reflects the higher levels of excise taxes in the EU.

[331] For an empirical confirmation of the low efficiency of VAT collection in the acceding countries as compared with the EU see R. Dobrinsky, "Tax structures in transition economies in a comparative perspective with EU member states", in G. Tumpel-Gugerell and P. Mooslechner (eds.), *Structural Challenges for Europe* (Cheltenham, Edward Elgar, 2003), pp. 298-328.

TABLE 5.3.6

Relative shares of consumption taxes in the acceding countries, 2002, and the EU, 2000
(Per cent)

	Total consumption taxes [a] as percentage of:		*VAT as percentage of:*	
	GDP	*Total final consumption expenditure*	*GDP*	*Taxable value added [b]*
Acceding countries, 2002				
Bulgaria	12.4	14.2	8.3	13.5
Czech Republic	10.3	13.9	6.8	10.6
Estonia	13.1	17.0	9.4	14.0
Hungary	11.2	14.3	7.7	14.7
Latvia	10.8	13.1	7.4	10.7
Lithuania	10.7	12.8	7.5	11.1
Poland	11.0	13.3	7.1	11.2
Romania	9.1	11.0	6.8	9.4
Slovakia	10.6	14.0	7.7	11.1
Slovenia	11.3	14.9	8.0	15.2
Acceding countries average	11.0	13.8	7.7	12.1
Coefficient of variation (per cent)	9.9	11.1	10.2	16.6
EU member states, 2000				
Austria	11.7	15.3	8.3	15.2
Belgium	10.6	14.1	7.4	17.6
Denmark	15.0	20.7	9.5	23.8
Finland	13.4	19.1	8.5	19.9
France	11.4	14.6	7.7	17.8
Germany	10.3	13.3	7.0	15.8
Greece	13.0	15.2	8.6	16.6
Ireland	11.1	18.2	6.7	17.5
Italy	10.8	13.8	6.6	13.3
Luxembourg	11.3	20.4	6.0	24.5
Netherlands	10.9	15.0	7.2	17.0
Portugal	13.5	16.5	8.3	12.8
Spain	9.6	12.5	6.2	10.7
Sweden	10.8	14.1	7.2	18.0
United Kingdom	11.5	13.7	6.9	14.7
EU average	11.7	15.8	7.5	17.0
Coefficient of variation (per cent)	12.4	16.6	13.2	21.9

Source: UNECE secretariat calculations, based on national statistics.

[a] VAT and excise duties.

[b] For definition, see text.

5.4 Tax systems after EU accession: prospects and policy challenges

During the past decade and a half the systems of taxation in the acceding countries have been radically transformed, partly in preparation for EU accession. However, as discussed throughout this chapter, the fiscal transition is far from over and these countries will face new challenges upon entry to the EU. As regards future tax reforms, policy makers in the acceding countries will need to take into account both their macroeconomic aspects (in the first place, fiscal sustainability) and the need for further improvements in the structure and operation of the systems of taxation. Moreover, upon accession these reforms will have to be pursued in a completely new macroeconomic policy context (in particular, the EU's fiscal policy framework and the Stability and Growth Pact), and in parallel with the further harmonization of EU tax systems.

The key challenge for the acceding countries will be to accommodate a growing demand for public spending, while at the same time maintaining a fiscal stance in line with the EU's fiscal policy framework. A closer look at the implications of this challenge reveals conflicting targets that present a major policy dilemma.

On the one hand, it can be expected that in the foreseeable future there will be a growing demand – coming from different sources – for public spending in the acceding countries which, in turn, will put further pressure on their fiscal systems. These are fast-growing, catching-up economies and, as discussed earlier in this chapter, rising per capita incomes are likely to lead to a growing demand for public services. Upon accession, this pressure will be amplified by the need for further economic harmonization and the implementation of EU norms and rules; some of these (such as EU environmental policy norms, the European Social Charter, the need for upgrading public infrastructure, etc.) are likely to generate considerable demands for new public spending.

At the same time, a number of the acceding countries will be entering the EU with large fiscal deficits. Reducing these (in order to bring them into line with the EU's fiscal rules and to ensure fiscal sustainability in general) will require a major fiscal adjustment. Such a downward pressure on public spending will obviously clash with the growing claims on public funds.

The acceding countries will thus be faced with a dilemma: their fiscal systems will need to accommodate the growing demand for public spending but at the same time there will be a need for fiscal restraint and even for public spending cuts. Fiscal policy and, in particular, the tax systems in the acceding countries will need to be prepared to respond to this dilemma without jeopardizing fiscal sustainability and macroeconomic stability. Consequently, further adjustments and restructuring both on the revenue and expenditure sides of general government will be inevitable.

The evidence presented in this section suggests that there are still important differences between the acceding countries and the present EU member states, both in the levels of total tax revenue (in proportion to GDP) and in its composition. In particular, the relative amount of total tax revenue generated in the acceding countries' economies is still considerably below that in the EU, on average, by some 10 percentage points of GDP. While this is partly related to the lower level of GDP per capita in the prospective EU members, the catch-up process would at the same time imply raising the overall tax burden on their economies.

The comparative analysis of tax systems and structures in the acceding countries also hints at some of the possible strategies for raising their total tax revenues. One of the specific structural characteristics identified by this analysis is their generally low level of revenue from direct taxation (both PIT and CIT) compared with the present EU member states. Moreover, the numerous exemptions mean that the effective shares of direct taxes in total revenue are even lower than those implied by the statutory tax rates.[332] Hence a shift towards higher levels of direct taxation – with respect to both PIT and CIT – might be one of the avenues for future tax reforms in the acceding countries.

Some of the required reforms are fully consistent with tax harmonization within the EU and indeed are binding for the acceding countries. As already discussed, the existence of tax equivalence implies that it would be desirable to achieve a higher degree of harmonization of all taxes in order to reduce negative spillovers in an economic union. Tax competition is especially pronounced in the case of capital income due to the much greater mobility of capital compared with labour. The harmful effects of tax competition on other partners in the union are most obvious in the case of incentives (such as tax holidays and the lowering of CIT rates) to attract foreign investors: when taken unilaterally, these tend to distort the cross-border allocation of capital. In 1997 the EU introduced a "Code of Conduct" for business taxation as part of a package to tackle harmful tax competition. Most of the harmful measures affect financial services, offshore companies and the services provided within multinational groups. Under the code, the member countries commit themselves not to introduce new measures of this sort and to examine their existing laws with a view to eliminating the harmful ones.[333] During the accession negotiations the acceding countries undertook to abide by the general principles of the Code of Conduct and to introduce the necessary changes in their tax systems. Accordingly, the EU's Working Party on Enlargement (tax experts) has prepared a list of "tax measures in the acceding states which are harmful and which must be eliminated in order to bring their corporate tax systems in line with the principles of the Code of Conduct".[334] These refer in the first place to existing tax holidays in the special economic zones but also to general tax exemptions and tax holidays. Obviously, for the reasons spelled out above, it will be in the mutual long-run interest of both the acceding countries and the EU, to eliminate or reduce substantially the existing tax incentives.

In addition, in order to achieve both a higher degree of tax harmonization and to boost tax revenues, the acceding countries might also need to raise their statutory CIT rates, which are at present substantially below those in the EU. Ironically, the current trend is in exactly the opposite direction: as evidenced by the declared intentions of the authorities for 2004 (table 5.2.2), the overwhelming majority of the acceding countries are planning further reductions in their statutory CIT rates. Such moves are likely to intensify tax competition (both among themselves and within the enlarged EU) and will not help to achieve their longer-term policy goals.

Obviously, with increasing per capita incomes in the acceding countries, there will be room for raising further the statutory PIT rates and reducing some of the exemptions: when countries become wealthier, there will be more individuals in a position to contribute relatively more to government revenue.

At present, social security payments in the acceding countries are relatively high, so the scope for raising them further is probably fairly limited. The adjustments needed in the area of social security in these countries concern mostly general government expenditure where some reduction of the coverage of social insurance would contribute substantially to the improvement of their overall fiscal balances. However, great caution and a differentiated approach, tailored to each component of the social security system, will be needed in these reforms. The main emphasis in this area should probably be on improving the efficiency of public expenditure and a more precise targeting of social protection towards those who really need it (reducing the level of abuse of the social security system could provide a sizeable contribution to lower costs). Much effort will also be needed to improve the administration of the social security system. Care will also be necessary to ensure that such cost-cutting measures do not jeopardize the urgent need to accelerate the process of human capital accumulation in these countries.

The analytical information reported in this section also suggests that there may be room for boosting revenue from consumption taxes in the acceding countries. However, given that basic VAT rates are already quite high, further increases may not be the best way to pursue this goal. A preferable solution would be to search for alternative ways of increasing public revenue, while leaving the prevailing basic rates unchanged. One area where there exists considerable

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[332] The impact of the existing exemptions (both for direct and indirect taxes) in some of these countries is considerable. Thus, according to OECD estimates, their aggregate effect in Hungary amounts to some 3 per cent of GDP and more than 6 per cent of GDP in the Czech Republic. OECD, *Economic Surveys: Hungary* (Paris), 2002, p. 78; OECD, *Economic Surveys: Czech Republic* (Paris), 2003, p. 80.

[333] European Commission, *Communication from the Commission to the Council and the European Parliament*, a package to tackle harmful tax competition in the European Union, COM(97) 564 final, 5 November 1997 [europa.eu.int/comm/taxation_customs/].

[334] The 2,532nd Council Meeting, General Affairs (Luxembourg), 13 October 2003, 13098/03/Presse 291 [ue.eu.int/pressData/en/gena/77596.pdf].

room for improvement is the efficiency of tax collection. The low rate of tax collection (particularly with respect to consumption taxes such as VAT and excise duties) is one of the major factors depressing the overall level of tax revenue in the acceding countries. However, improvement will require more public investment in improving the operational capacity of the tax administrations.[335]

Another possible way to boost public revenue from consumption taxes would be to reduce the existing differentiation in VAT rates on various types of consumer goods (table 5.2.4). Although the reduced rates are intended as social policy instruments targeting low-income groups, their efficiency in achieving these goals tends to be rather low as the better off also benefit from the reduced prices. Instead, policy makers in the acceding countries could consider partly replacing VAT-based social policy measures with alternatives such as income taxes and means-based social benefits.[336]

There are also economic arguments in support of reducing the variation in VAT rates and eventually eliminating exemptions, especially in view of the upcoming EU accession. There is evidence that the differentiation of consumption taxes across countries tends to lower their efficiency and reduces their neutrality, distorting product market competition and consumption patterns.[337] In addition, empirical cross-country studies have found that, *ceteris paribus*, multiple VAT rates are generally associated with a lower degree of VAT compliance, with negative implications for total public revenue.[338]

Reducing the existing differentiation in consumption taxes and achieving further tax harmonization with the EU will continue to be a policy challenge for the acceding countries after their entry into the EU. They are already committed to eliminating some of the exemptions and some countries have requested a transition period for introducing other changes. In any case, further harmonization of consumption taxes will benefit both the general government budgets in the acceding countries and reduce the unwanted effects of differential taxation in the enlarged EU.

[335] Empirical studies confirm that public expenditure on improving tax administration has a positive effect on VAT compliance. A. Agha and J. Haughton, "Designing VAT systems: some efficiency considerations", *Review of Economics and Statistics*, Vol. 78, No. 2, May 1996, pp. 303-308.

[336] In principle, means-based social benefits are considered as better targeted instruments to mitigate the regressive impact of the VAT. S. Cnossen, op. cit. Their practical implementation, however, may also be complicated and costly, especially when the policy targets relatively numerous social groups.

[337] However, it should be added that there are still large differences in VAT rates also among the EU member states. For example, in the tourist industry, where there is strong price competition, VAT rates in the EU range between 3 and 25 per cent. The dispersion in excise duties in the EU is even higher. I. Joumard, op. cit. The cross-country variation in consumption taxes is especially high (including within the EU) in cases where the tax base is mobile. Although some of this variation reflects different national social preferences, it leads to cross-country tax competition, the most conspicuous example being the competition among neighbouring countries in highly taxed goods such as tobacco, alcohol and fuels. S. Cnossen, op. cit.

[338] A. Agha and J. Haughton, loc. cit.