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TAX SYSTEMS AND REFORMS IN EU NEW MEMBER COUNTRIES: AN OVERVIEW

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This paper is part of a wider research program on Taxation in EU New Members, carried on at University of Pavia, under the direction of L. Bernardi, M. Chandler and L. Gandullia, and the supervision of V. Tanzi.

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TAX SYSTEMS AND REFORMS IN EU NEW MEMBER COUNTRIES: AN OVERVIEW

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Abstract
This paper is part of a wider research program on Taxation in New EU members, carried on at the University of Pavia, under the direction of L. Bernardi, M. Chandler and L. Gandullia, and the supervision of V. Tanzi. The paper aims at identifying common features of the tax systems in the New EU Member States and at evaluating their main equity and efficiency profiles, leaving the discussion of tax policy issues to the chapter of the research due to L. Bernardi and M. Chandler. The last decade of tax reforms in countries in transition has provided a remarkable laboratory in tax policy design and practice. Compared to the other transition countries, New Members can be considered as successful examples of tax reform implementation. At present they show tax systems reasonably close to the European ones, but in some key aspects there are wide differences which mainly refer to the tax mix between direct and indirect taxes, to the degree of progressivity of personal income taxation and finally to the taxation of corporate capital and labor. The paper, after a brief presentation of tax systems at the time of transition to the market economy, presents evidence of their structure and evolution; then it illustrates common features of current tax systems, reporting measures to evaluate their main equity and efficiency profiles.

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1. Introduction and main conclusions

It is commonly recognized that the last decade of tax reforms in countries in transition from the previous central planned economies has provided a remarkable laboratory in tax policy design and practice. This is particularly true for those countries (like Hungary, Czech Republic, Poland, Slovenia and the Baltic States) that rapidly moved early in transition to introduce comprehensive tax reforms, being a common objective their accession to the EU. At the beginning of transition these countries had to create new fiscal institutions and new market-oriented tax systems, preserving at the same time their revenue raising capacity under the pressure of the existing levels of social security and welfare expenditures.

Compared with the other transition countries, New Members can be considered as successful examples of tax reform implementation. In early transition they have been able to avoid the fiscal crisis encountered by other transition economies. In New Members the increase in income inequality has been generally lower than in the other transition countries. Moreover, they have shown a capacity in collecting tax revenues higher than the slow transition reformer countries and close to the EU levels.

In all the ex-transition, now EU member countries, the process of tax reform has been significantly influenced by their history. Instead of making copies of Western-type tax systems, they followed a more evolutionary process that has led to the design of tax systems reflecting the structural characteristics of their economies.

At present the New Members show models of taxation reasonably close to those in the EU, but in some key aspects there are wide differences. The following seem the most relevant. First of all the, tax mix is different and the distance from the EU benchmark has increased during the last decade; while the incidence of total taxes and social contributions is close to the European average, the tax mix between direct and indirect taxes is considerably different, with the New Members relying much more on indirect taxes and less on direct taxes.

Secondly, the degree of progressivity of the personal income tax is lower than in most EU countries. The group of Baltic States applies a flat rate taxation; a linear system of personal income taxation has been introduced recently (2004) in Slovak Republic. Also in Poland the effective structure of the personal income tax is almost linear. It should also be noted that the real progressivity of the PIT is even lower as the tax bases are narrow due to the exclusion of most capital income.

In the field of corporate taxation New Members apply very low (compared with international standards) statutory tax rates with narrow tax bases. The most emblematic case is given by Estonia where the corporation tax on retained earnings has been completely abolished. In recent years the tax bases have been partially broadened, but the reduction in tax rates has been considerable. On average these countries show levels of effective taxation on investment much lower than the European benchmarks. The gap increases considerably if the effects of tax incentives are considered. More generally, in the presence of low statutory tax rates the distortions on investment decisions induced by the corporation tax appear lower than in the EU. Many countries give strong tax preference to retained earnings over distributed profits. This result together with the low taxation of capital income shows the efforts to promote savings and investment.

In the field of indirect taxation, as noted above, New Member countries rely heavily (and more than the EU countries) on consumption-based taxes, but at the same time they show levels of implicit tax rates on consumption much lower than the European average, meaning that the tax bases are far from being comprehensive.

Finally, the tax burden on labor continues to be as high as it was in the early stages of transition. The tax wedges are close to the European average for many New Members. However, in some countries the tax wedge appears to be much higher than the European average for lower-paid labor.

The paper is organized as follows. Paragraph 2 shortly illustrates the starting point of tax systems and reforms at the beginning of the transition process. Paragraph 3 presents some indicators of the macro structure and evolution of the tax systems over the last decade, focusing on tax ratios by legal categories and on the allocation of revenues across sectors of government. Paragraph 4 gives a comparative analysis of direct and indirect taxation in the selected countries, while paragraph 5 presents some indicators to measure and compare their main equity and efficiency profiles.

2. Tax systems and reforms during transition

Tax systems in force during the socialist command economy were not comparable to the Western-style ones, being their role deeply different and more limited (Tanzi 1992; Tanzi and Tsibouris 2000). Most tax revenue was obtained from three major sources (enterprise tax, turnover tax and payroll tax), while taxes on personal income accounted for a very small share

of total revenue (Dabrowski and Tomczynska 2001; Martinez-Vazquez and McNab 1997). Tax rates were numerous and non-parametric, tax structures were complex and tax liabilities were discretionary and negotiable. Earnings of State-owned enterprises were the main source of financing government spending. Not-basic consumer goods were subject to highly differentiated turnover taxes. Payroll taxes were collected by enterprises on behalf of employees. The enterprise taxes, the most important source of revenue, were used to centralize and regulate enterprise incomes.

In centrally planned economies taxes were not collected on the basis of codified tax laws and rules for the determination of taxable bases and applicable tax rates. They were collected mostly on the basis of negotiations between government and enterprises. Thus there was little need for a tax administration because of the presence of few taxpayers (mainly large enterprises) and the role of mono-bank in processing payments.

The impact of transition on the public finance system was radical. The process raised the fundamental need to create (together with economic reforms) necessary and well-working fiscal institutions (Tanzi and Tsibouris 2000). The old tax systems could not simply be reformed at the margin, but completely new tax systems were needed. The basic choice was between the adoption of a modern market-oriented tax system with a 'shock therapy' approach and the adoption of new tax systems following a more evolutionary approach (OECD 1991; Tanzi 1992).

At that time important economic and institutional constraints were present. The path of tax reform during the transition period was largely determined by the legacy of the past systems (Martinez-Vazquez and McNab 1997; Stepanyan, 2003): an interventionist tradition; taxes were frequently negotiated; the tax systems lacked transparency and there was no experience with voluntary compliance; the previous tax systems were not designed to pursue efficiency and equity objectives; finally, the tax administration was underdeveloped. Given these constraints, there was a general consensus between foreign experts on the desirability of a more evolutionary and country-specific approach to tax reforms. Emphasis was placed on the need to modernize tax administration and to adopt taxes that could be enforced, with a stable revenue raising capacity.

Progresses in tax reform have varied across individual countries in transition. The main EU accession countries (Hungary, Czech republic, Poland, Slovenia and the Baltic States) rapidly moved early in transition to introduce comprehensive tax reform, being a common objective their accession to the EU. This is the main reason why in these countries tax reforms generally moved faster than in other transition countries (Martinez-Vazquez and McNab

2000). Compared to the other countries of the former Soviet Union the specific group of Baltic States can be considered as successful examples of tax reform implementation (Stepanyan 2003; Dabrowski and Tomczynska 2001). These countries managed to adopt in a relatively short period new tax systems consistent with the best international standards and to recover tax revenue levels prevailing before transition (see also the chapter of the research due to Ahermaa and Bernardi).

For most transition countries the early stages of this process led to substantial decline in the traditional tax bases and to consequent fall in tax revenues. However, between transition countries those (like the Czech and Slovak Republics, Poland, Hungary and Slovenia) that made the most progress in terms of market based reforms have seen their revenue share in GDP maintained or sometimes increased (Tanzi and Tsibouris 2000; Dobrinsky 2002). For instance, in Poland the tax system performed well during the 1990s, particularly in its revenue raising capacity on a continuous basis (Lenain and Bartoszuk 2000); as a consequence Poland has been able to avoid the fiscal crisis encountered by other transition economies. The same countries were those among the transition countries in which the increase in income inequality has been generally lower (according to the data reported by Tanzi and Tsibouris 2000).

In all the accession countries the process of tax reform has been significantly influenced by their history and their state at the starting point of the process. In the design of the tax systems countries continued to favor an interventionist stand providing special tax treatments and incentives, which in turn have led to tax erosion, economic distortions, compliance costs and equity problems. This heritage from the past experience with central planning reflected, as noted by Tanzi in the foreword to this research, a lack of trust in the ability of a market economy to make the right choices. Only in the second half of the 1990s this trend has been partially reversed.

During the 1990s in most transition countries tax policy reforms were generally more advanced than reforms in tax administration (Martinez-Vazquez and McNab 2000; see also the chapter by Trasberg in this research). The experience of transition economies has shown the interrelation between tax polices and tax administration (Stepanyan 2003), playing the reform of tax administration a crucial role in successful tax policy implementation. Even in this field the leading transition countries (like most New Members) have shown a capacity in collecting revenue from the main taxes (corporate tax, VAT and social contributions) higher than that of the slow transition reformer countries and close to the EU benchmarks (Schaffer and Turley 2001).

3. Tax systems: structure and developments

The data made available by the EU Commission (2000) for the period 1992-1998 allow to compare over time and cross sectionally New EU Members with existing EU Members countries. Looking at the ratio of taxes to GDP as a signal of the country's preference for the size of the public sector, in the period 1992-1998 (see Table 1) tax ratios increased on average within the EU (going from 41.4 to 42.6 percent), while the same figures for the New Members show an opposite trend, with the average ratios decreasing from 41.0 to 38.6 per cent.

This results from the different pattern of two groups of countries: in some of the New Members (Estonia, Poland and Slovenia) the ratio has remained stable, while the countries (Czech Republic and Hungary) where at the beginning the ratios where higher than the average (and than the EU average) the reduction has been significant (from 42.8 to 38.3 in Czech Republic and from 46.0 to 38.9 in Hungary).

At the end of the period (1998) the difference between the highest ratio (40.5 in Slovenia) and the lowest (37.5 in Estonia) is less than at the beginning of the 1990s, indicating a process of convergence among the New Members, while the distance from the EU countries has increased for about 3.6 percentage points. On average the tax pressure in the New Members (0.4 points lower than the European average in 1992) becomes 4.0 percentage points lower than in the EU at the end of the period (1998).

The lower tax burden is due to the lower incidence of both tax revenues (2.8 percentage points) and social security contributions (1.2 percentage points). Within tax revenues the incidence of direct taxes is much lower than in the EU (4.1 percentage points), while the share of indirect taxes is higher (1.4 percentage points).

Among the accession countries the share of individual taxes in GDP shows large differences. The difference between the highest and the lowest figure is about 2.2 percentage points for direct taxes, 6.5 points for indirect taxes and 4.8 points for social security contributions. Similar differences are not found in EU member countries (Gandullia, 2004).

TABLE 1.1 NEAR HERE

More updated comparable figures are available but only for the OECD member countries (Czech Republic, Hungary, Poland and Slovak Republic; OECD, 2003a). In the years after

1998 (1999-2002, provisional data) the tax-to-GDP ratio has decreased for all these countries, excluding the Czech Republic, where the ratio increased from 38.9 percent to 39.2. The ratio decreased from 39.1 to 37.7 in Hungary, from 35.0 to 34.3 in Poland and from 34.4 to 33.8 in the Slovak Republic. Even if the data from the EU Commission and those from the OECD are non directly comparable (also the coverage of countries is different), it can be argued that during the last decade (1992-2002) a general process of reduction in tax pressure has taken place in most of the accession countries.

The tax structure by legal categories, measured as the distribution of tax revenue among major taxes (direct taxes, indirect taxes and social security contributions) has changed over time (see Table 2), while in the same period the tax mix has remained quite stable within the EU members.

At the beginning of the 1990s the broad fiscal structure of New Members was composed by social security contributions (37.1 percent), indirect taxes (36.3 percent) and direct taxes (26.6). Compared to the EU figures, it was higher (2.0 percent) the share of social security contributions and lower the incidence of tax revenues. Among taxes, in the New Members the share of direct taxes was lower (6.0 percent) and higher (4.0 percent) the share of indirect taxes. It should be noted that the higher incidence of indirect taxes was mainly due to the presence of ‘other’ taxes, different from VAT and excise duties. Within social contributions, it was higher (3.5 percent) the incidence of employers contributions.

Among individual New Member countries the tax structure was considerably different. At one side some countries (Estonia and Poland) had tax structures based for about two third on taxes and the remaining third on social contributions, in line with the EU average. At the opposite side in Slovenia the share of tax revenues was very low (54.1 percent), while the share of social contributions was high (45.9 percent).

At the end of the period (1998) the tax mix changed as effect of the reduction in direct taxes (1.7 percent) and social security contributions (1.4 percent), compensated by the increase in the share of indirect taxes (3.1 percent). The decrease in direct taxes is due to the large reduction in the corporate income taxes (3.1 percent), partly offset by the increase in personal income taxes (1.3 percent). In the field of indirect taxation, as effect of the process of converge to the European standards the main change is represented by the large fall of ‘other taxes’ (6.3 percent), almost exactly offset by the increase in the VAT revenue.

The comparison with the EU average shows that at the end of the period the tax structure of New Members is even more different than at the beginning of the 1990s. More specifically, in 1998 the tax mix between taxes and social contributions is almost equal for EU members

and New Members. But the tax mix has changed between direct and indirect taxes. The difference in share of direct taxes in the comparison between New Members and EU countries has increased from 6.0 percent to 7.3 percent, while the same difference regarding indirect taxes has increased from 4.0 to 6.8 percent.

The variation in the share of individual taxes between New Members countries has continued to be considerable. For instance, in 1998 the share of direct taxes ranged from a low 19.3 percent in Slovenia, 22.4 percent in Hungary to 29.6 percent in Estonia and Poland. The share of personal income tax ranged from 13.6 in Czech Republic to 22.7 in Estonia. The share of the corporate income tax ranged from the low 3.0 percent in Slovenia to the 9.7 percent in the Czech Republic.

TABLE 2 NEAR HERE

Selected New Members also differ in the way they provide arrangements between the central and the sun-national levels of government. Table 2 shows the attribution of tax revenues to the three sub-sectors of general government (central, local and social security sectors). In 1992 only Hungary showed a tax structure by level of government not much different from the EU average. The share of central government receipts in the other New Members varied from 77.6 percent in the Czech Republic to 45.9 percent in Slovenia and 44.0 percent in Estonia. The share of local government ranged from 7.3 percent in Poland to the high 23.9 percent in Estonia. Finally, the share of social contributions varied from 13.6 in the Czech Republic to 45.9 percent in Slovenia.

During the 1990s the tax structure is changed on average, with the decrease in the shares of local government and social security, offset by the increase in the share of the central government. The Czech Republic and Estonia appear the most (tax) decentralized countries among New Members, while the other countries show similar tax structures, in line with the EU average[1].

4. Institutional features of current tax systems

4.1 Personal Income Tax

The modern personal income taxes have been introduced in recent years (Hungary in 1988, Poland in 1991, the Czech Republic in 1993). After the reforms New Member countries

adopted neither a full comprehensive income tax model neither (as recommended by foreign experts - like McLure 1992 - in order to encourage private savings) an expenditure tax model, but rather a hybrid tax base. Before reforms, countries were used to apply separate schedules to different sources of income; generally the whole systems were not progressive.

Today (see Table 3) the personal income tax (PIT) rates are progressive in some of the accession countries, but many of them (the Baltic States) apply a flat rate taxation; a linear system of personal income taxation also exists in Slovak Republic after the 2004 tax reform. In Poland the recent tax reform proposal (still not enacted) moves in the same direction. The flat rate is 26 percent in Estonia, 25 percent in Latvia, 33 percent in Lithuania and 19 percent in the Slovak Republic. However even in these countries PIT is made partially progressive by basic relief (Estonia) or the exemption of a minimum amount of the personal employment income (Lithuania).

The maximum number of brackets is 6 (Slovenia). The lowest marginal tax rate applied to the first bracket is in the Czech Republic (15 percent); the highest level is applied in Lithuania (33 percent). Top marginal tax rates range from 19 percent in the Slovak Republic to 50 percent in Slovenia. Until recently in Slovak Republic the tax schedule was progressive with 5 tax brackets and marginal rates ranging from 10 to 38 per cent A comprehensive tax reform has been launched, effective from January 2004. The core of the reform consists of a flat marginal tax rate of 19 percent on all personal (and corporate) income and the increase of the basic relief for low income earners (OECD, 2004). The reform introduces a flat rate tax, where progressivity is obtained through a basic personal allowance (19.2 times the minimum subsistence amount), doubled in the presence of a dependent spouse. Among the accession countries the degree of progressivity of the personal income tax appears higher in Slovenia, also as effect of the basic personal relief (Cok 2003; see also the chapter by Galizzi and Scabrosetti in this research).

TABLE 3 NEAR HERE

In all countries the tax unit is the individual; only in Poland married couples may opt to be taxed on their joint income; in this case a splitting system is applied where the tax bill is

[1] A more clear move toward fiscal decentralization in New members appears looking at more recent and general comparable data (OECD 2002).

twice the income tax due on half of joint income, provided the joint income does not include capital income taxed at the flat 20 percent rate (OECD 2003b).

Standard relief is implemented in most countries through tax allowances in the form of fixed deductions from the PIT base. Apart from Polish optional splitting system, marital status relief and child relief can be found in Czech Republic, Slovak Republic and Slovenia. In Hungary a non standard tax relief is applicable in the form of employee tax credit, decreasing with the level of wage income.

Tax bases are far from being comprehensive. In most countries (with the exception of Slovenia) capital incomes are taxed outside the PIT under separate (preferential) schedules or are tax exempt. The only non standard system of taxing capital income can be found in Hungary, where dividends are taxed separately at 20 percent tax rate, increased to 35 percent for "excess dividends", that is dividends paid in excess of a specified rate of return on equity (actually double the prime national discount rate).

In Poland the erosion of the tax base determined by tax relief and special tax regimes has been relevant until recent years (IMF 1999b). Moreover the PIT expenditure programs, introduced in 1992 and intended to compensate lower-income taxpayers for the withdrawal of price subsidies, resulted extremely regressive (Cavalcanti and Li 2000). The classic tax-cuts-cum-broadening-tax-base reform model proposed in 1999 has still not be enacted (IMF 2003). It should also be noted that since 2002 most capital income have being taxed under separate schedule (20 percent on interest and capital gains, 15 percent on dividends).

The present systems are the result of fundamental tax reforms implemented during the transition and during the '90s. For instance, when the PIT was introduced in Hungary (1988) the tax brackets were 11 (60 percent was the top marginal tax rate); marginal tax rates and brackets have changed almost on a yearly basis; the 1999 tax reform reduced from 6 to 3 the number of tax brackets and corresponding tax rates in order to reduce the burden of taxation on labor (IMF 1999a); after following reductions the top marginal tax rate has reached the actual level of 38%.

In Czech Republic the number of brackets and level of top rates have been reduced since the introduction of the PIT in 1993 (Bronchi and Burns 2000); the last reduction took place in 1999 with the number of brackets reduced from 5 to 4 in 1999 and the top marginal tax rate from 40 to 32 percent, because very few taxpayers were taxed at the highest bracket.

In Poland, despite the presence of 3 tax brackets most taxpayers (94,9 percent) fall into the first bracket whose upper limit is about 9.600 euro (see the chapter by Vergano and Zantomio inside this research). This explains the tax reform proposal toward a linear income

taxation (proposal still not enacted mainly for revenue reasons; see Lenain and Bartoszuk 2000)[2]. The effective structure of the Polish income tax system is close to the flat tax model, realized through a basic relief (standard fixed tax credit) and a first tax bracket which includes most part of incomes.

Finally, in all New Members PITs are in the exclusive competence of central government; however in Czech Republic, Estonia, Slovak Republic, Poland and Hungary the tax revenues are allocated also to sub-national government.

4.2 The Corporate Income Tax

The two largest accession countries, Hungary and Poland, were the first to reform their Soviet-inspired *enterprise profit tax* (Martinez-Vazquez and McNab 2000). Poland introduced a uniform enterprise profit tax in 1989, then substituted by a modern corporate income tax in 1992. In Estonia CIT has been adopted in 1993 (as in the Czech Republic) and reformed in 1999 and 2000; in Latvia the CIT replaced the profit tax in 1995 (Brekis and Revina 2003).

Present corporate taxes in New Members are linear and central. In the Czech Republic the tax revenues is allocated between the central and local governments. Only Hungary applies a local levy on corporate taxpayers on a tax base similar to the value added.

As illustrated in Table 4, currently statutory CIT rates in accession countries are moderate and generally lower than those in EU countries. Apart from the Estonian case, where retained earnings are untaxed, the lowest tax rate can be found in Hungary (18 percent), the highest in Czech Republic (31 percent)[3].

Similarly to EU countries, the reduction of corporate tax rates has been particularly relevant during the second half of the 1990s. In Poland the tax rate was lowered from 40 percent (in the period 1989-1996) to 27 percent (2003)[4]. In Hungary the tax rate was halved in 1995 (from 36 percent to 18 percent), but at the same time a "supplementary tax" levied at 23 percent was imposed on distributed profits (replaced in 1997 by a classical withholding tax on dividends at 20 percent, or at the reduced applicable treaty tax rate). In Latvia, where the CIT is relatively recent, the tax rate was 25 per cent in 2001, then reduced to respectively 22, 19 and 15 percent in the following 3 years. In Slovak Republic the tax rate has been cut from 40 percent (1999) to 29 (2000), 25 (2002) and 19 percent (after the 2004 tax reform).

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[2] According to the original plan (Government's 1998 White Paper) the tax rates would have been lowered from the schedule 19, 30 and 40 percent to 18 and 28 percent in 2002, with the elimination of the top marginal tax rate (IMF, 2003).

[3] Considering also the other accession countries the highest tax rate is in Malta (35 percent), the lowest in Lithuania and Cyprus (15 percent). In Lithuania the tax rate is even lower (13 percent) for SMEs.

At the time of transition the applicable tax rates were very high compared to international standards (55 percent in the Czech Republic, 50 percent in Hungary and up to 75 percent in Poland). Now on average the statutory tax rate in selected accession countries is 24.33 percent (it is 23.6 percent considering all the accession countries; see Jacobs et al, 2003), that is considerably lower than the current average tax rate of EU member states (31,68 percent) or the OECD average (30.79 percent).

The main non standard CIT is represented by the Estonian experiment (Raju 2003) where after the 1999 reform the tax is no more levied on any retained earnings, but only on distributed profits and capital gains; the tax rate is set at 26/74 of the net distribution (26 percent of the gross distribution). This levy is not a withholding tax and is consequently not reduced under tax treaties.

The experiment (in line with a proposal made by Tanzi 1975) has been based on different characteristics (Raju 2003): the argument that the ability to pay can be evaluated only at personal level (not at the level of legal persons); the tax base is not the enterprise's profits (actually the tax code does not define 'profits' for tax purposes), but their use (dividends and other specific kinds of income distribution); the timing of taxation of corporate income, which is deferred until their distribution; finally, the argument that non taxing corporate profits assures more neutrality, through the elimination of the distortions caused otherwise by the tax system.

The selected countries apply different systems of integration with the personal income tax: some of them (Hungary and Poland) apply a 'classic' system, even if dividends are taxed with final withholding tax, at rates generally lower than marginal PIT tax rates. Some countries apply a system of exemption, full (Slovak Republic) or partial (40 percent in Slovenia); in Estonia dividends are taxed only at corporate level. Finally, the Czech Republic combines a final withholding tax with a partial tax relief at corporate level.

More specifically, Hungary and Poland apply a classic system of corporate taxation, even if dividends are taxed through final withholding taxes. In Hungary corporate earnings distributed as dividends are effectively taxed at a rate of 34.4 percent (increased to 46.7 percent for "excess distributions"). Distributions higher than normal are penalized through the application of an higher tax rate, which increases the incentives for companies to reinvest profits (where the effective tax rate is 18 percent) rather than distribute them (IMF 1999a).

[4] In the new tax reform proposal, still not approved, the tax rate should be further reduced to 19 percent.

Thus Hungary together with Estonia (and Lithuania) provides a substantial preference for retained earnings, as opposed to distributed profits.

In the Czech Republic the double taxation of corporate (distributed) earnings is alleviated both at personal and corporate levels. On dividends a final withholding tax is levied at a rate (15 percent) equal to the lowest marginal PIT rate; moreover the company may credit 50 percent of the withholding tax against its corporation income tax liability, reducing in these instances the effective corporate income tax on distributed earnings to 36.17 percent. Slovenia applies a system of partial exemption (only 60 percent of dividends are taxed under PIT). After the 2004 tax reform the Slovak Republic has replaced the classic system with a system of dividends exemption.

Corporate tax bases appear lower than their potential because of extensive exemptions and tax incentives. In the Baltic States the degree of tax erosion caused by preferred tax treatments is still considerable (Brekis and Revina 2003).

In the earliest stages of transition foreign investors were given special tax privileges in the form of tax holidays and reduced CIT rates. In the early 1990s Hungary removed various tax exemptions and incentives, but this trend was reversed in the second half of ‘90s when the range of activities qualified for tax incentives was expanded (IMF 1999a). The same trend can be found in Poland, that during the middle 1990s re-introduced extensive tax exemptions, targeted to foreign investors, as instruments to compete with Hungary and Czech Republic in attracting foreign direct investments (Martinez-Vazquez and McNab 2000; Schratzenstaller, 2003). In 1997 the Czech Republic introduced more investor-friendly policies and tax holidays targeted to large investments. The Slovak Republic was the last to enter the competition for foreign direct investment starting from 1998.

Also in Poland traditionally corporate tax liabilities have been reduced by tax incentives for investments in certain sectors or made by certain firms, for instance export-oriented firms and start-ups (Lenain and Bartoszuk 2000). Preferential tax regimes have been granted in Special Economic Zones, even if they will be repealed after the entry of Poland in the EU (see the chapter by Vergano and Zantomio inside this research). In this field the 2000 tax reform (partly enacted) achieved substantial progress on tax policy (IMF, 2003), broadening the corporate tax base through the elimination of many previous investment allowances, the revision of the structure and rate of depreciation deductions and the closure of loopholes in the legislation. However the role of tax-related investment incentives still appears substantial (Schratzenstaller 2003; Appel 2003).

Like in Hungary and Poland, the Czech Republic (see Bronchi and Burns 2000) soon after the transition introduced a number of corporate tax incentives (mainly in the form of tax holidays) in order to promote new investment, innovation and entrepreneurial activity. However these schemes failed to achieve their aims (OECD 1995) and were abolished at the time of the introduction of the modern CIT (1993). The growing pressure of international competition induced the authorities to re-introduce a range of investment incentives at the end of the 1990s.

Also in the Slovak Republic but more recently (2004) a comprehensive tax reform has been introduced. The core of the reform consists of a flat marginal rate (19 percent) applied to all corporate incomes, financed by the elimination of almost all tax incentives and exemptions (OECD 2004; Miklos 2004).

As reported in Table 4, in taxing corporate profits a number of approaches can be observed, especially in the determination of taxable income. As already illustrated, in Estonia the tax base is not linked to profits, being retained earnings untaxed. Distributed earnings are assessed according to the International Financial Reporting Standards (IFRS), without adjustments for tax purposes.

In the calculation of the tax base buildings may be depreciated in all New Members. The declining-balance method is in use in Czech and Slovak Republics, the straight-line system is compulsory in the remaining countries. The useful life ranges from 20 (Slovenia) to 40 years (Poland). For tangible fixed assets (plant and machinery) Czech Republic, Poland and Slovak Republic apply the declining-balance method. The Czech Republic recognizes also a first-year deduction of 10 percent in addition to the annual depreciation for the acquisition of new machinery. Hungary and Slovenia restrict depreciation to the straight-line method. In the evaluation of inventories two main methods are applied. Hungary, Poland and Slovenia permit the last-in, first-out (LIFO) method, while the Czech and Slovak Republics allow the option for the weighted-average cost method. None of the New Members allows a carry-back of losses; the carry-forward is allowed in all countries, subjected to restrictions. Losses can be carried forward only for 5 years in most countries (7 years in the Czech Republic). In Poland the amount of loss to be set off from taxable income in each year is limited to 50 percent of the loss. The carry-forward is unrestricted in Hungary for start-ups.

Finally the selected countries make large use of specific tax instruments targeted to increase domestic and foreign investment (see for details Jacobs *et al,* 2003). Tax holidays can be found in both Czech and Slovak Republic for new firms or expansion of existing firms. In Hungary and Slovenia companies may utilize a tax-free reserve of profits, to be used to

finance new investment. More generally, tax incentives targeted to new investment are very frequent in almost all the selected countries.

The desirability of many existing preferential tax schemes has been questioned as instrument to promote domestic and foreign investment (OECD, 1995; Owens, 2004), like their compatibility with the European law (Meussen 2003).

TABLE 4 NEAR HERE

4.4 Consumption-based taxes

As illustrated in paragraph 2 (Table 2) countries rely heavily on indirect taxes that account (in 1998) for about 39.4 per cent (against 32.6 in the EU countries) of total tax revenue and 15.3 per cent (against 13.9 in the EU) in terms of GDP. VAT revenue covers the main share (20.9 per cent of total tax revenue and 8.1 per cent in terms of GDP). Also the excises revenues show figures higher than the EU average (10.4 against 8.2 in terms of total tax revenue and 4.0 against 3.5 in terms of GDP).

In early stages of transition one of the most immediate tax policy objective in the area of indirect taxation was to replace the complex and inefficient turnover taxes (Martinez-Vazquez and McNab 2000). In Poland for instance the turnover tax had been applied with more than 100 different tax rates (see the chapter by Vergano and Zantomio in this research). An even more complex sales taxation was in force in the Czech Republic (Bronchi and Burns 2000). The basic choice was between a single stage retain sales tax or a traditional value added tax (Cnossen 1998). The desire to join the EU induced almost all the central and eastern European countries to adopt the basic EU value-added tax model. Hungary was the first country to introduce the VAT (1988), followed by Poland (1993), while Slovenia was the last country (1999).

The value added tax systems applied in most new member countries are very close to the European model. These countries have recently carried out reform in the field of VAT in order to comply with the provisions of the EU Directives. Some of them have requested transitional measures.

The VAT structure is predominantly dual- or (more frequently) multiple-rate (see Table 5). Only the Slovak Republic shows a single-rate structure, as result of the recent flat tax reform. The standard VAT rate ranges from 25 percent in Hungary to 18 percent in Estonia. It

should be noted that the Hungarian rate is equal to the highest applied in the EU (specifically in Denmark and Sweden; see Cnossen 2002). Most countries apply one or two reduced rates, ranging between 3 (Poland) and 15 percent (Hungary). Many countries apply a 0 percent rate on some basic products and services.

The presence of multiple-rate structures in the selected countries (with the exception of Slovak Republic) can be explained, other than the heritage of the past multiple-rate turnover taxes, by the attempt to mitigate the regressive burden distribution of the VAT measured against income. However, the rate differentiation still appears to be an ineffective and ill-targeted instrument.

Currently the standard rate applied on average in the selected new members (21 percent) is higher than the EU (un-weighted) average (19.4 percent).

For many countries bringing the agricultural sector into the tax net has been one of the most important EU accession requirements in the field of indirect taxation. Until 2000 in Poland the entire sector was *de facto* zero-rated (Lenain and Bartoszuk 2000), while currently a reduced rate (3 percent) is applied on most non-processed agricultural products.

The range of activities exempted from VAT or subject to reduced tax rates still appears to be wide. A good example is given by the Czech Republic that combines a high statutory standard tax rate (22 per cent) with a wide range of items subject to reduced taxation; the effect is that the VAT productivity is very low by international comparison (Bronchi and Burns 2000). As for the personal and corporate income taxes, VAT is central, but in the Czech republic the revenues are allocated also to Regions and Municipalities.

The accession to EU will have more impacts in the field of excise taxation. Accession countries show wide differences in the way they levy excises on alcoholic beverages, tobacco and on hydrocarbon fuels. In this field during the 1990s some common trends can be identified: the move toward the conversion of *ad valorem* rates into specific rates; the increase in effective tax rates (even if they are still below international levels); the gradual equalization of rates applied to domestic and imported products; the convergence of tax rates among neighboring countries. The advantages of specific excise regime over *ad valorem* taxation in terms of revenue raising capacity, reduction of consumption and contrast to trade diversion have been recommended to the accession countries by international observers (see for instance, Cnossen, 2001 in the field of tobacco taxation).

For some excises (for instance those on wine and on spirits) the accession will have few effects in terms of increase of tax rates, which are already in line with the EU minimum requirements. On the contrary (see Table 5) most countries will have to increase significantly

the tobacco duties and some of them the rates on hydrocarbon fuels (Martinez-Serrano and Patterson 2003; see also the chapter by Bernardi and Chandler in this research).

TABLE 5 NEAR HERE

5. Equity and efficiency profiles of current tax systems

Looking at the structure and evolution of the New Members tax systems, Table 6 shows the economic structure measured as the share of individual taxes in GDP and in total taxation by economic category (consumption, labor and capital). It should be noted that the economic tax mix, indicating a country's preference for one tax over another, shows some differences from the EU standard. While in EU countries taxes on labor contribute for more than half of total tax revenue, taxes on consumption for less than 30 percent and taxes on capital for more than 20 percent, in the New Members the contribution of taxes on labor and of taxes on consumption is higher (respectively for 2.2 and 6.3 percentage points); the contribution of taxes on capital is much lower (9.5 percentage points) mainly as effect of the shadow economy's wide evasion and the low taxation of income from financial capital.

The distance from the EU standard increased during the 1990s; this means that the tax structure of New Members in the early '90s was much closer to the EU structure than in more recent years. Within the New Members the tax preferences appear not very different, with the main exception of Slovenia, where the contribution of consumption taxes is much higher than the average and the contribution of taxes on capital much lower.

A full picture of the distribution of the macro-tax burden is given by the *implicit tax rates*, measured as individual tax revenues expressed as a percentage of their respective tax base[5]. Even if the contribution of taxes on consumption to the total tax revenue is higher in New Members than in the EU countries (as effect of the higher propensity to consume in New Members), the implicit tax rate is considerably lower (17.6 percent against 23.6 percent). The distance from the EU average has lightly decreased over the period. The reason is that most countries (with the exception of the Czech Republic) has increased the effective taxation on consumption; in Poland and in Slovenia for instance the implicit tax rate on consumption increased by respectively 4.4 and 2.6 percentage points.

[5] However among New Members the implicit tax rates on capital and business are only available for Estonia and Poland.

As in EU countries the effective taxation of labor appears higher than that on consumption and for Estonia and Slovenia on capital. However the evolution over time of the implicit tax rate on labor has been different in EU Members and New Members countries. In the EU the tax rate has risen from 36.9 to 37.4 percent, while in the New Members the tax rate has decreased from 37.9 to 37.2 percent. However it should be noted that in two countries (Czech Republic and Slovenia) the implicit tax rate on labor has increased, while a large fall has taken place in Poland and to less extent in Hungary.

TABLE 6 NEAR HERE

Other than at macro-level by economic function, the distribution of tax burden can be observed at micro-level and compared for some New EU countries, OECD members. Table 7 illustrates specific measures of horizontal tax equity, where both the personal income tax and social security contributions are taken into account. The Table (based on OECD 2003b) compares the average effective tax rates of two different categories of tax payers: a single individual without children and a one earner married couple with two children, both earning the same income level (100 percent APW). In each country differences in the effective tax rates represent how the tax system treats different economic positions of taxpayers. Looking only at the personal income tax, horizontal equity seems to be pursued effectively in all the selected countries. For instance in the Czech Republic, Hungary and the Slovak Republic the average effective tax rate is halved for one-earner couple with children. In all the countries social security contributions are flat, thus not directed to horizontal tax equity purposes.

A more comprehensive picture can be obtained from the last column, where average effective tax rates are determined taking into account both the tax system (personal income tax and social security contributions) and the benefit system (cash transfers). The Czech and Slovak Republics and Hungary appear as the countries which give more emphasis to horizontal tax (and benefit) equity. More generally this result is confirmed when the whole effects of the different fiscal treatments of families are considered (see OECD 2003b).

With reference to *vertical equity* Table 8 reports measures of statutory tax progressivity, constructed by comparing the share of income paid in tax by taxpayers at different income levels (van den Noord and Heady 2001). The Table (based on OECD 2003b data) presents measures of statutory tax progressivity for low-wage (67 per cent of the APW) and high-wage (167 per cent of APW) people, taking into account only the personal income tax or also the

social security contributions. Personal income taxes are progressive in all selected countries, but (with the exception of Hungary) at degrees generally lower than those existing in the EU countries (see Gandullia 2004). Hungary shows a pronounced tax structure across different income levels, while the progressivity is more concentrated at above-average income levels in the Slovak Republic. Poland appears as the country with the lowest progressivity across different income levels; in this country until very recent years the progressivity was even lower due to the regressive effects of the tax expenditure programs (Cavalcanti and Li 2000). Finally, in all the selected countries statutory social security contributions are neutral or progressive.

TABLE 7 NEAR HERE

TABLE 8 NEAR HERE

In the field of labor taxation it is well known that the tax burden in New Members has been historically high, mainly due to the need to finance the high level of social security and welfare expenditures; as a consequence countries have not been able to deter effectively underground economy and to relieve unemployment (Tanzi 1993b; see also the foreword to this research by Tanzi).

Table 9 reports the total tax wedge on labor in the selected countries (100 per cent APW) and its evolution during the recent years (where homogeneous data are available). The tax burden has decreased in Hungary, Poland and the Slovak Republic, while it has increased in the Czech Republic. Currently, labor is still most heavily taxed in Hungary, even if in the last seven years the reduction in the tax wedge has been larger than in the other selected New members. It should be noted that given the average tax wedge on labor in the most important EU countries (43.5 percent; see Gandullia, 2004) labor appears to be less taxed in Poland and Slovak Republic and much more than the average in Hungary.

The taxation of labor appears to be most relevant for lower-paid labor. Like in most EU countries, some measures have been introduced in the selected New Members to reduce effective tax wedges on low-paid workers. All the four countries apply lower tax wedges on low-income (67 per cent APW; OECD, 2003). However, according to the last available data (2002) the tax wedges on lower-paid labor in the New members are still much higher than the

European average. Compared with the European average (34.11 percent), the tax wedge is always above 40 percent in the selected countries (ranging from 40.3 percent in Slovak Republic to 42 percent in Hungary).

TABLE 9 NEAR HERE

With reference to the effective taxation of (corporate) capital some studies report estimations for specific countries (see for instance, Holeckova, Vitek and Pubal 2003; Schratzenstaller 2003; Dethier and John 1998). The only comparative study about the New Members (Jacobs *at al*. 2003) reports the (forward) effective average tax rates (EATRs) for domestic investments[6]. Looking at Table 10, there is a wide range of EATRs within the New Members, from the low 19.37 percent in Hungary to 24.73 percent in Poland.

The average EATR in the selected New Members is 22.42 percent, about 6 percentage points lower than the European average (EU Commission 2001). Compared to the main EU countries, overall the New Members appear to have a significant advantage. The advantage increases considerably if the effects of tax incentives are considered (as shown in the last column of Table 1.10 the average EATR decreases from 22.42 to a low 16.56 percent).

As in EU countries, debt appears to be the most tax-efficient source of financing, followed by retained earnings. However, on average the advantage of debt over equity is lower in the New Members than in the EU as effect of the lower statutory tax rates. The effective tax rate on retained earnings and on new equity is the same for all countries, with the exception of the Czech Republic and Estonia. In the Czech Republic the EATR on new equity is lower as effect of the tax credit on distributed earnings, while in Estonia the tax rate on retained earnings is lower because they are exempt from taxation until they are distributed. The specific Estonian system (in terms of exemption of retained earnings) produces the effect (neutrality) that EATR on retained earnings and on debt is the same, and that the EATR does not change across different types of investments (buildings, machinery and inventories).

TABLE 10 NEAR HERE

[6] The study reports also EATRs about international investments, but only from the perspective of parent companies located in Germany.

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Table 1 Structure and development of fiscal revenue in New members and EU 15 as % of GDP, 1992-1998

	1992								*1998*							
	CZ	*EE*	*HU*	*PL*	*SI*	*NM*	*EU*	*NM-EU*	*CZ*	*EE*	*HU*	*PL*	*SI*	*NM*	*EU*	*NM-EU*
Direct Taxes, of which	10,9	13,3	10,1	12,2	7,4	10,8	13,5	-2,7	9	11,1	8,7	11,2	7,8	9,6	13,7	-4,1
Personal income	*3,8*	*8,5*	*7,5*	*7,6*	*6,8*	6,8	*9,6*	-2,8	*5,2*	*8,5*	*6,5*	*8,3*	*6,6*	7,0	*9,3*	-2,3
Corporation income	*7,1*	*4,8*	*2,6*	*4,6*	*0,6*	3,9	*2,3*	1,6	*3,7*	*2,6*	*2,2*	*2,9*	*1,2*	2,5	*3,0*	-0,5
Indirect taxes, of which	15,4	12,3	17,9	14,6	14,5	14,9	13,4	1,5	12,4	14,3	16,3	14,4	18,9	15,3	13,9	1,4
VAT	*7,6*	*9,2*	*6*	*0*	*6,8*	5,9	*6,7*	-0,8	*6,6*	*8,8*	*7,9*	*7,9*	*9,1*	8,1	*7,0*	1,1
Excise duties	*4*	*1,9*	*6,2*	*0*	*3,6*	3,1	*3,4*	-0,3	*3,7*	*3,8*	*4,2*	*3,9*	*4,4*	4,0	*3,5*	0,5
Others	*3,9*	*1,2*	*5,8*	*14,6*	*4,1*	5,9	*3,3*	2,6	*2,1*	*1,8*	*4,2*	*2,7*	*5,5*	3,3	*3,5*	-0,2
																0,0
TOTAL TAX REVENUE	26,3	25,6	28	26,8	21,9	25,7	26,9	-1,2	21,4	25,4	25	25,6	26,7	24,8	27,6	-2,8
Social contributions	16,5	12,1	18	11,3	18,6	15,3	14,5	0,8	16,9	12,1	13,9	12,2	13,8	13,8	15,0	-1,2
Employers	*10,2*	*11,9*	*14*	*4,1*	*7,6*	9,6	*8,1*	1,5	*11*	*11,9*	*11,6*	*4,4*	*4,4*	8,7	*8,2*	0,5
Employees	*3,8*	*0*	*3,3*	*4,2*	*10,1*	4,3	*4,8*	-0,5	*3,9*	*0*	*2,1*	*4,5*	*8,5*	3,8	*5,0*	-1,2
Self employed	*2,5*	*0,2*	*0,7*	*3,1*	*0,9*	1,5	*1,6*	-0,1	*2*	*0,2*	*0,3*	*3,3*	*0,9*	1,3	*1,9*	-0,6
TOTAL FISCAL REVENUE	42,8	37,7	46	38,1	40,5	41,0	41,4	-0,4	38,3	37,5	38,9	37,8	40,5	38,6	42,6	-4,0
Administrative level																
Central government	33,2	16,6	24,9	24,1	18,6	23,5	22,8	0,7	28	20,1	21,5	22,3	23,6	23,1	22,9	0,2
Local government	3,9	9	3,1	2,8	3,3	4,4	3,0	1,4	4,6	5,3	3,5	3,4	3,1	4,0	4,0	0,0
Social Security	5,8	12,1	18	11,3	18,6	13,2	14,5	-1,3	5,7	12,1	13,9	12,2	13,8	11,5	14,9	-3,4

Sources: EU Commission (2000) for New members (unweighted average); Eurostat (2000) for EU 15 (1997 unweighted average).

Notes: Czech data start from 1993 and Social security is only health.

Table 2 Tax mix in New members and EU 15 as % of total taxation, 1992-1998

	1992								*1998*							
	CZ	*EE*	*HU*	*PL*	*SI*	*NM*	*EU*	*NM-EU*	*CZ*	*EE*	*HU*	*PL*	*SI*	*NM*	*EU*	*NM-EU*
Direct Taxes, of which	25,5	35,3	22,0	32,0	18,3	26,6	32,6	-6,0	23,5	29,6	22,4	29,6	19,3	24,9	32,2	-7,3
Personal income	8,9	22,5	16,3	19,9	16,8	16,9	23,2	-6,3	13,6	22,7	16,7	22,0	16,3	18,2	21,8	-3,6
Corporation income	16,6	12,7	5,7	12,1	1,5	9,7	5,6	4,2	9,7	6,9	5,7	7,7	3,0	6,6	7,0	-0,5
Indirect taxes, of which	36,0	32,6	38,9	38,3	35,8	36,3	32,4	4,0	32,4	38,1	41,9	38,1	46,7	39,4	32,6	6,8
VAT	17,8	24,4	13,0	0,0	16,8	14,4	16,2	-1,8	17,2	23,5	20,3	20,9	22,5	20,9	16,4	4,4
Excise duties	9,3	5,0	13,5	0,0	8,9	7,4	8,2	-0,9	9,7	10,1	10,8	10,3	10,9	10,4	8,2	2,1
Others	9,1	3,2	12,6	38,3	10,1	14,7	8,0	6,7	5,5	4,8	10,8	7,1	13,6	8,4	8,2	0,1
																0,0
TOTAL TAX REVENUE	61,4	67,9	60,9	70,3	54,1	62,9	65,0	-2,0	55,9	67,7	64,3	67,7	65,9	64,3	64,8	-0,5
Social contributions	38,6	32,1	39,1	29,7	45,9	37,1	35,0	2,0	44,1	32,3	35,7	32,3	34,1	35,7	35,2	0,5
Employers	23,8	31,6	30,4	10,8	18,8	23,1	19,6	3,5	28,7	31,7	29,8	11,6	10,9	22,6	19,2	3,3
Employees	8,9	0,0	7,2	11,0	24,9	10,4	11,6	-1,2	10,2	0,0	5,4	11,9	21,0	9,7	11,7	-2,0
Self employed	5,8	0,5	1,5	8,1	2,2	3,7	3,9	-0,2	5,2	0,5	0,8	8,7	2,2	3,5	4,5	-1,0
TOTAL FISCAL REVENUE	100,0	100,0	100,0	100,0	100,0	100,0	100,0	0,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	0,0
Administrative level																
Central government	77,6	44,0	54,1	63,3	45,9	57,0	55,1	1,9	73,1	53,6	55,3	59,0	58,3	59,8	53,8	6,1
Local government	9,1	23,9	6,7	7,3	8,1	11,0	7,2	3,8	12,0	14,1	9,0	9,0	7,7	10,4	9,4	1,0
Social Security	13,6	32,1	39,1	29,7	45,9	32,1	35,0	-3,0	14,9	32,3	35,7	32,3	34,1	29,8	35,0	-5,1

Sources: see Table 1.1

Table.3 Structure of the personal income tax

Country	Tax unit	Number of brackets	Minimum tax rate	Maximum tax rate	Highest rate applies from (euro)	Tax base	Reliefs
Czech Republic	Individual	4	15	32	10.400	Most capital income taxed separately (15-25%)	Basic relief. Marital status relief. Child relief.
Estonia	Individual	1	26	26	n.a.	Most capital income exempt.	Basic relief. Child relief.
Hungary	Individual	3	18	38	5.300	Capital income taxed separately at a flat rate	Tax credits for wage income, social security contributions and private pension contributions
Poland	Individual. Option for joint taxation (splitting system)	3	19	40	9.600	Most capital income taxed separately (15-20%)	Basic relief (tax credit) and relief for wage income and social security contributions.
Slovak Republic (before 2004 reform)	Individual	5	10	38	13.600	Most capital income taxed separately (15-25%)	Basic relief. Marital status relief. Child relief.
After 2004 reform	Individual	1	19	19	n.a.	Interest income is taxed separately. Dividends are tax exempt.	Basic personal allowance. Marital status allowance.
Slovenia	Individual	6	17	50	33.200	Comprehensive	Basic relief. Family allowances.

Sources: countries'chapters; OECD (2003b); Martinez-Serrano and Patterson (2003)

Table.4 Structure of the corporate income tax

Country	statutory tax rate	Integration with PIT for dividends	Depreciation			Carry forward of losses	Main tax incentives
			Buildings	Machinery	Inventories	(number of years)	
Czech Republic	31	Final withholding tax (15%) and relief at corporate level	Declining-balance (25 years)	Declining-balance (6 years)	Weighted average	7	Investment tax incentives. Tax holiday (10 years for new firms and 5 years for expansion)
Estonia	26	Exemption	Financial accounting (IFRS)	Financial accounting (IFRS)	Financial accounting (IFRS)	Not applicable	-
Hungary	18	Classic (final withholding tax 20%)	Straight-line (25 years)	Straight-line (14,5%)	LIFO	5 (unlimited for start-ups)	Investment reserve of 25%. R&D (deduction of 200% costs). Investment tax incentives.
Poland	27	Classic (final withholding tax 15%)	Straight-line (40 years)	Declining-balance (14%)	LIFO	5 (only 50% of the loss deductible in each year)	Accelerated depreciation of 30% in the first year. Special Economic Zones.
Slovak Republic	19	Exemption	Declining-balance (30 years)	Declining-balance (6 years)	Weighted average	5	Tax holiday (10 years for new firms or expansion).
Slovenia	25	Partial (40%) exemption	Straight-line (20 years)	Straight-line (4 years)	LIFO	5	10% investment reserve. 20% tax relief for investment in fixed assets.

Sources: countries' chapters; Jacobs et al. (2003); Martinez-Serrano and Patterson (2003)

Table 5 Tax rates for selected consumption-based taxes

Country	VAT		Excises		
	Standard rate (%)	Reduced rate (%)	Cigarettes (euro/1.000 pieces)	Unleaded gasoline	Diesel fuel
Czech Republic	22	5	18.71 or 21.62	325.3	244.6
Estonia	18	0 - 5	11.1 + 23% of the main retail price)	224.4	163.7
Hungary	25	5 - 15	13.99 or 27.99 or 41.98	368	317.3
Poland	22	0 - 3 - 7	23.78 or 16.02 or 20.37	387.8/363	288.6/259.5
Slovak Republic	19	0	11.89 or 21.41	269.9	256.2
Slovenia	20	8.5	45%	363.9	318.4
EU minimum	-	-	60	287	245

Sources: countries'chapters; Martinez-Serrano and Patterson (2003)

Table.6 Structure of taxation by economic function and implicit tax rates in New members and EU 15

	Early 1990s								*Late 1990s*							
	CZ	*EE*	*HU*	*PL*	*SI*	*NM*	*EU*	*NM-EU*	*CZ*	*EE*	*HU*	*PL*	*SI*	*NM*	*EU*	*NM-EU*
Structure according to the economic function as % of GDP																
Consumption	*13,2*	*11,4*	*14,9*	*9,7*	*13,9*	12,6	*12,3*	0,3	*11,1*	*13,5*	*14,1*	*13,0*	*16,0*	13,5	*12,6*	0,9
Labor	*20,8*	*19,9*	*23,7*	*18,8*	*24,9*	21,6	*20,7*	0,9	*21,4*	*19,8*	*19,2*	*19,1*	*21,4*	20,2	*20,6*	-0,4
Capital	*8,9*	*6,1*	*8,0*	*8,6*	*1,6*	*6,6*	*7,7*	*-1,1*	*5,7*	*4,1*	*5,3*	*4,2*	*1,3*	*4,1*	*9,1*	*-5,0*
Structure according to the economic function as % of total taxation																
Consumption	*30,7*	*30,4*	*32,0*	*26,2*	*34,2*	*30,7*	*28,1*	*2,6*	*29,1*	*33,8*	*36,7*	*34,3*	*39,5*	*34,7*	*28,4*	*6,3*
Labor	*48,6*	*52,9*	*50,8*	*50,6*	*61,5*	*52,9*	*52,9*	*0,0*	*55,9*	*53,1*	*49,7*	*50,4*	*52,6*	*52,3*	*50,1*	*2,2*
Capital	*20,7*	*16,2*	*17,2*	*23,1*	*4,0*	*16,2*	*19,0*	*-2,8*	*14,9*	*12,5*	*13,7*	*11,1*	*7,6*	*12,0*	*21,5*	*-9,5*
Implicit tax rates																
Consumption	*18,4*	*14,4*	*18,5*	*11,9*	*18,4*	*16,3*	*22,7*	*-6,4*	*15,6*	*15,9*	*19,2*	*16,3*	*21,0*	*17,6*	*23,6*	*-6,0*
Labor employed	*37,0*	*37,5*	*40,8*	*37,3*	*36,9*	*37,9*	*36,9*	*1,0*	*38,6*	*37,1*	*39,6*	*32,2*	*38,4*	*37,2*	*37,4*	*-0,2*
Capital and business	*n.a*	*29,4*	*n.a*	*n.a*	*29,7*	*n.a*	*16,2*	*n.a*	*n.a*	*20,2*	*n.a*	*n.a*	*31,2*	*n.a*	*21,0*	*n.a*

Sources: EU Commission (2000) for New members (unweighted average); Eurostat (2003).

Table 7 Measures of horizontal tax equity in selected New Members

	AVERAGE EFFECTIVE TAX RATE (INCOME TAX)		*SSC*		*AVERAGE EFFECTIVE TAX RATE (INCOME TAX+SSC-CASH TRANSFERS)*	
	SINGLE INDIVIDUAL WITHOUT CHILDREN (APW)	*ONE-EARNER MARRIED COUPLE WITH TWO CHILDREN (APW)*	*SINGLE INDIVIDUAL WITHOUT CHILDREN (APW)*	*ONE-EARNER MARRIED COUPLE WITH TWO CHILDREN (APW)*	*SINGLE INDIVIDUAL WITHOUT CHILDREN (APW)*	*ONE-EARNER MARRIED COUPLE WITH TWO CHILDREN (APW)*
Czech Republic	11,2	5,3	12,5	12,5	23,7	3,7
Hungary	16,6	7,6	12,5	12,5	29,1	7,8
Poland	6,0	4,0	25,0	25,0	31,0	25,0
Slovak Republic	6,5	3,2	12,8	12,8	19,3	3,1

Source: OECD (2003b)

Table 8 Statutory tax progressivity in selected New Members

COUNTRIES	*LOW-WAGE PROGRESSIVITY*		*HIGH-WAGE PROGRESSIVITY*	
	INCOME TAX	*TOTAL*	*INCOME TAX*	*TOTAL*
Czech Republic	2,48	3,01	3,62	4,24
Hungary	6,71	8,01	15,51	18,81
Poland	1,60	2,27	1,40	1,96
Slovak Republic	1,71	1,88	5,06	5,97

Source: own calculations based on OECD (2003b) data.

Table 9 Tax wedges on labor (as % of labor costs)

Countries	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
Czech Republic	42,6	42,9	42,8	42,7	43,1	43,1	43,5
Hungary	52,0	52,0	51,6	50,7	49,6	49,0	46,3
Poland	44,7	43,9	43,2	43,0	43,0	42,7	42,7
Slovak Republic	n.a	n.a	n.a	n.a	41,9	42,1	41,4

Source: OECD (2003b)

Table 10 Average effective tax rates on domestic corporate investments

		Average for each source of finance			Average for each asset			
	Overall average	*Retained earnings*	*New equity*	*Debt*	*Buildings*	*Machinery*	*Inventories*	*Overall average with tax incentives*
Czech Republic	24,18	28,9	26,4	17,3	21,6	21,1	24,9	16,4
Estonia	22,52	19,5	28,6	19,5	22,5	22,5	22,5	11,34
Hungary	19,37	21,7	21,7	14,8	23,2	17,6	17,4	17,05
Poland	24,73	27,9	27,9	18,5	25,3	27,3	23,9	23,92
Slovak Republic	22,1	25,0	25,0	16,3	21,3	20,9	23,3	11,19
Slovenia	21,6	24,5	24,5	15,8	20,7	20,2	22,1	19,44
New Members average	22,42	24,56	25,66	17,03	22,42	21,61	22,34	16,56

Source: Jacobs et al. (2003)