Volume 63 22 Number 1, 2015

http://dx.doi.org/10.11118/actaun201563010165

CORPORATION INCOME TAX AND ADMINISTRATIVE COSTS OF THE PUBLIC SECTOR

Břetislav Andrlík¹

¹Department of Accounting and Taxes, Faculty ob Bussines and Economics, Mendel University in Brno, Zemědělská 1, 613 00 Brno, Czech Republic

Abstract

ANDRLÍK BŘETISLAV. 2015. Corporation Income Tax and Administrative Costs of the Public Sector. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 63(1): 165–173.

This contribution examines the issues of measurement of corporate income tax effectiveness in the circumstances of the Czech Republic, referred to as the tax on income of legal persons. The tax on income of legal persons represents a significant part of the public budget revenue, with the volume of collection of CZK 128,002 million in 2012. The theoretical basis for this contribution is the principle of tax system effectiveness, which is one of the principles characterizing a good tax system and is related to costs inherent in a tax system. The contribution defines two existing types of costs expended on the collection of taxes, i. e. administrative costs (direct or indirect) and in theory describes excessive tax burden. In this contribution we shall focus on the measurement of direct administrative costs. The measurement of effectiveness of corporation income tax is performed with the use of the full-time equivalent (FTE) method, which is based on the classification of revenue authorities' staff according to their jobs and on the determination of conversion coefficients in order to identify costs related to the collection of a particular tax.

A separate part of the article deals with measurement of administrative costs performed by the Organisation for Economic Co-operation and Development on the timeline ranging from year 2009 to 2011. The author of this article performed his own measurements concerning the direct administrative costs related to the collection of tax on income of legal persons in the Czech Republic. Results achieved in the respective monitored years are lower by the average (in the Czech Republic 2 percentage) of ca 1.66 percentage points in relation to the average value of direct administrative costs of the Czech tax system.

Keywords: tax on income of legal persons, fiscal revenue, administrative costs, excessive tax burden

INTRODUCTION

Corporate income tax (in the Czech Republic referred to as the tax on income of legal persons) is one of the direct taxes, paid by companies from their profit. We can find different opinions of this tax and its application in modern tax systems. Some praise its asset consisting in payment of a part of public sector costs ensuing from the use of public services by these entities and stress their taxable capacity. On the other hand some authors maintain that corporate income tax lacks economic substantiation, because all corporate incomes are ultimately subject to personal income tax in existing tax systems of respective countries. In this context

we face the issue of double taxation of one and the same income.

The collected tax on income of legal persons in the Czech Republic amounted to CZK 128,002 million in 2012 representing 21.93% of the total tax revenue. Thus the tax on income of legal persons is one of the most important taxes in the Czech tax system thanks to its substantial collection for the benefit of the public budget. Taxation of corporate income should correspond to requirements whose fulfilment the tax levy expects. Široký (2008) summarizes the requirements put on a good tax system and individual taxes in four basic principles, namely the principle of efficiency, administrative simplicity, flexibility and

fairness, and highlights particularly the principle of efficiency and fairness. Names of the principles may vary in the literature, such as Peková (2008), but remain mostly content and semantically almost identical, see for example, Musgrave and Musgrave (1994).

The aim of this contribution is to measure effectiveness of collection of this tax in the tax system of the Czech Republic in view of direct administrative costs expended by the public sector on the administration of the tax.

MATERIALS AND METHODS

The article deals with the issues of measurement of direct administrative costs in the tax system of the Czech Republic. The cost demands of the public sector on the collection of tax on income of legal persons are discussed within the application of method of measurement of direct administrative costs. The full-time equivalent method has been chosen for the measurement of direct administrative costs.

Input data necessary for the examination of direct administrative costs of income tax on corporation are the amount of collection of this tax and costs of tax administration in the Czech Republic divided into current expenses and investments. Another relevant figure is the number of employees of the administrative authority, classified according to job descriptions. The timeline for the analysis of direct administrative costs from 2005 to 2012 was chosen intentionally for the following reason: Outcomes of this contribution follow the study of Pudil *et al.* (2004) and complement the timeline of measurement of direct administrative costs concerning the income tax on corporation up to the present.

Source data on the collection of taxes and overall expenses of tax administration were obtained from annual reports published by the Czech Ministry of Finance and its General Financial Directorate. Information from research studies, conducted both in the Czech Republic and within international comparisons in this field, which extends the text also on the international level of measuring administrative costs of taxation, are also presented when processing this paper. Another important source of information is the internal materials of the Ministry of Finance of the Czech Republic, which are provided for the preparation of this paper (data on the number of staff of local tax authorities). The text used standard methods of scientific work, basic mathematical and statistical methods.

The measurement of direct administrative costs, according to Pudil *et al.* (2004), in the case of the tax administration, can be performed using the method of recounted worker, which is based on the distribution of workers of local tax authorities according to their activities and the construction of conversion coefficients to identify costs associated with the collection of specific taxes. Methodology

for calculating administrative costs can be expressed using simple equations and relationships. Defined relationships are given for calculation of direct administrative costs of corporation income tax, but when editing indexes they are applicable to all taxes in the tax system in the Czech Republic. The distribution of employees of local tax authorities according to taxes and activities can be defined by:

$$\begin{split} &TE_{to}=DE_{pit}+DE_{cit}+DE_{vat}+DE_{ed}+DE_{rt}+DE_{ret}+\\ &+DE_{it}+DE_{gt}+DE_{rett}+DE_{na}+IE_{ta}+IE_{o}, \end{split} \tag{1}$$

where

TE_{to}......total number of employees of territorial financial authorities,

DE_{pit} number of employees directly involved in the collection of personal income tax,

DE_{cit}......number of employees directly involved in collection of corporate income tax,

 DE_{vat}number of employees directly involved in the collection of value added tax,

 $\mathrm{DE}_{\mathrm{ed}}$number of employees directly involved in collection of excise duties,

DE_{rt}...... number of employees directly involved in the collection of road tax,

DE_{ret}.....number of employees directly involved in the collection of real estate tax,

DE_{it}......number of employees directly involved in the collection of inheritance tax,

DE_{gt} number of employees directly involved in the collection of gift tax,

DE_{rett}.....number of employees directly involved in the collection of real estate transfer tax,

DE_{na}.....number of employees directly involved in non-tax activities,

 IE_{ta}number of overhead employees of tax activities,

IE_o......number of overhead employees undifferentiated.

Conversion coefficients are used in order to determine the number of employees of tax authority involved in the collection of a specific tax liability. At first, coefficient $K1_{\rm cit}$ is defined to determine the number of overhead employees of tax activities involved in the administration of corporation income tax. Calculation of $K1_{\rm cit}$ is given by the ratio of employees involved directly in the administration of corporation income tax in comparison to employees involved directly in the administration of other taxes.

$$K1_{cit} = \frac{DE_{cit}}{DE_{pit} + DE_{vat} + DE_{ed} + DE_{ret} + DE_{dn} + DE_{it} + DE_{gt} + DE_{rett} + DE_{rt}}. \tag{2}$$

Determination of number of employees who are involved in administration of corporation income tax, including overhead employees of tax activity involved in collection of corporation income tax (PE_{cit}) is defined by relation:

$$PE_{cit} = DE_{cit} + K1_{cit} \times IE_{ta}.$$
 (3)

Another coefficient is $K2_{cit}$, which is used to determine the number of overhead employees undifferentiated involved in the administration of corporation income tax. $K2_{cit}$ coefficient is defined by relation which uses results calculated by relation (3):

$$K2_{cit} = \frac{PE_{cit}}{PE_{pit} + PE_{vat} + PE_{ed} + PE_{ret} + PE_{it} + PE_{gt} + PE_{rett} + PE_{rt} + DE_{na}}.$$
(4)

Determination of total number of employees who are involved in collection of corporation income tax (TE_{ci}) is defined by relation:

$$TE_{cit} = PE_{cit} + K2_{cit} \times IE_{o}.$$
 (5)

The last designed coefficient is $K3_{cit}$, which expresses the ratio of the total number of employees involved in the collection of corporation income tax compared to the total number of employees of local tax authorities and is used for conversion of costs attributable to corporation income tax.

$$K3_{cit} = \frac{TE_{cit}}{TE_{to}}.$$
 (6)

Total costs on corporation income tax (TC_{cit}) are defined by relation:

$$TC_{cit} = K3_{cit} \times CC_{to} + K3_{cit} \times TNC_{to},$$
 (7)

where

 ${\rm CC_{to}}$ current costs of local tax authorities, ${\rm TNC_{to}}$... investment costs of local taxauthorities.

The actual calculation of direct administrative costs of corporation income tax is given by the ratio of total costs of corporation income tax compared to collection of corporation income tax (TR_{cit}) given by:

$$AC_{cit} = \left(\frac{TC_{cit}}{TR_{cit}}\right) \times 100, \tag{8}$$

where

AC_{cit}...... administrative costs of local tax authorities as a percentage of collection of corporation income tax.

RESULTS AND DISCUSSION

The subject of this paper is just to measure the effectiveness of collection of corporation income tax as one of the primary principles of good tax systems. Tax collection means, for the individual participants in the whole process of collection and administration of taxes, real harm representing to taxpayers payment of taxes and other costs caused by the tax system, which must spend during fulfillment of their tax liabilities. By collection of tax, the actual state (tax authority), does not gain net income, which would correspond to a total collection of taxes, but tax revenues are reduced by the amount

of costs necessary to the functioning of the entire system of tax collection and administration. This creates a clear disproportion between the amount of collected tax and the amount, which can be used by public budget for public interest. The aim is, of course, to seek to minimize the difference between these two angles of look at the collected amount of tax. The purpose of good fiscal policy of the state, as part of national economic policy, is the effort for efficiency of collection of individual components making up the tax system of the state.

It cannot therefore be consider only own collection in terms of profitability of corporation income tax, but it is also necessary to quantify the efficiency of collection, because the functioning of any tax system bears costs (expenses) on current and investment activities of individual tax authorities. The revenue of the public budget is therefore directly affected by expenses of tax administrators, which reduce the amount of the collected tax, i.e. the amount obtained by the state (public budget) through the collection of taxes.

These costs are known as direct costs of tax authority. In addition to these costs, there are also costs for taxpayers known as compliance costs of taxation and excessive tax burden, which arises in connection with a violation of conditions for efficient use of resources. Kubátová (2010) states, those taxes, in their essence, present a transfer of funds from citizens and businesses to public budgets. The problem of the whole public sector is its tendency to inefficiency. Efficiency of administration of tax collection, which have to ensure not only smooth stable revenues of public budgets, including sanctions against tax debtors, but also respect for justice and fairness in relation to the taxpayers and payers of individual taxes significantly affect tax revenue (income) to public budgets. The actual transfer however does not go without additional costs, which have a negative effect and causes inefficiency. Costs are so inseparably connected with the administration of taxes, there would not be even costs without the existence of taxes. It is not therefore questionable how to reduce cost, but rather how to compress it to a minimum level. The aim of modern tax systems is to reduce inefficiencies in the lowest possible level. Historically, Adam Smith (2001) already presented requirement for efficiency of the tax system in his tax canons or Musgrave and Musgrave (1994) in formulating their requirements for a good tax system. Tax theories distinguish in connection with

- direct and indirect administrative costs,
- excessive tax burden.

Pudil *et al.* (2004) also address in detail examination of the administrative costs of taxation. They define the following aspects of assessing administrative costs of taxation:

It shows six possible aspects of examining administrative costs. In another investigation, the text will in detail deal with the exploration

I: Examination of the administrative costs of taxation

A Time perspective

- standard repeated administrative costs related to the tax collection
- extraordinary administrative costs related to the introduction of a new tax or to a substantive change in tax/taxation
- fluctuation of costs concerning administration of an individual taxpayer (registration, commencement and termination of activity that is subject to tax etc.)

Perspective of impact on economic sectors

- administrative costs borne only by the public sector
- administrative costs affecting the private sector

C Perspective of impact on government levels

- administrative costs borne by the central government
- administrative costs borne by sub-central governments

D Perspective of the type of public administrative body generating costs

- drafting bills on the executive level (ministries)
- drafting bills and passing laws on the parliamentary level
- enforcement of tax laws in particular courts, police, state prosecutors, investigators, prisons, ex officio lawyers etc.

E Chronology of tax costs (analogy with sequence of budgeting process steps)

- drafting bills
- passing laws

- application of laws
- monitoring of compliance and law enforcement

Perspective of administrative cost structure

- wages, health insurance and social security
- offices and equipment
- investment into tangible assets
- time

 \mathbf{F}

В

- costs of professional qualification (investment into human capital)
- other

Source: Pudil et al. (2004)

of administrative costs according to impacts on the relevant economic sector. Within this perspective, the administrative costs will be classified in administrative costs which will be carried only by the public sector (referred to as direct administrative costs) and administrative costs, which affect the private sector (indirect administrative costs). Direct administrative costs include costs for the identification and collection of tax, which cannot be performed without personnel and equipment. Typical direct administrative costs are state costs for administration of applied tax system, records of taxpayers, collection itself of tax liabilities and, finally, for control of compliance with legal standards. Monitoring compliance with legal norms is related in particular to detecting those taxpayers who deliberately seek ways to avoid paying taxes on the edge of the law "by legal or illegal manner". Direct administrative costs are increased especially with the higher complexity of the tax system of particular country resulting from a large number of different taxes, from the number of tax rates, from application of various exemptions or exceptions for certain groups of taxpayers and ultimately from frequency of advance payments or payments of tax liability itself. Kubátová (2010) states that direct administrative costs often tend to grow excessively and she sees causes in fact, that the public sector is not controlled by the market, which would force it to the efficient allocation of resources (she says that it is providing services in the tax field without direct competition). Stiglitz (1997) deals with the identification of specific causes of inefficiency of public sector and defines two basic causes of inefficiency. He says that the public sector does not have to worry about bankruptcy and competition. Musgrave and Musgrave (1994) suggest that these activities represent an important public good, and like all public goods, they should be ensured effectively and also they point out that required quality of this public good should be offered at minimal cost. The authors also define the criteria for effective tax administration to which open possible discussion:

- to determine the appropriate techniques and administrative procedures (involvement of greater amount of computer technology leads to a reduction in costs),
- to determine appropriate procedures for tax audits (determining how deep tax inspection should go to, frequency of tax audits and the resulting assessment of additional collection with costs),
- to determine whether to ensure compliance of tax laws by taxpayers by higher frequency of inspections and thereby to increase probability of disclosure of tax evasion or to ensure compliance of tax laws by setting high penalties (second introduced procedure is certainly less expensive),
- to decide how complex the tax system will be, the more complex tax system, the faster grow in direct and indirect administrative costs,
- to chosen system of tax collection. It is obvious that a centralized system of collection of tax liabilities will be less expensive than a decentralized system,

which leads to duplication of the administrative apparatus.

Indirect administrative costs are associated with additional costs of private sector, which carry a burden of the tax burden, known as compliance costs of taxation. They represent the cost of taxpayer, for example for filling in tax returns or payment of given operation to tax advisors, records of supporting documents for the correct determination of taxes, study of tax laws, etc.

- costs of taxpayers (time, fees to external suppliers, staff costs, technical equipment, space, etc.),
- costs resulting from the collection of taxes earlier than there is the economic transaction (cash flow costs). This situation occurs only when the entity responsible for administering the tax, has to pay this tax, without obtaining actually tax base until the moment of payment (e.g. collection of tax liability in the case of VAT),
- "psychic costs", which in some cases may reach significant values. These costs can also be seen in the direct administrative costs.

Kubátová (2010) observes that quantifying these costs is difficult or even impossible. The reason is that these costs cannot be somehow statistically monitored and it is possible to only estimate how much time taxpayers spend over the fulfillment of their tax liabilities. Even in this case is certainly true that the costs increase with the complexity of the tax system. Musgrave and Musgrave (1994) report that the compliance costs of taxation at income tax, according to research conducted in the U.S. brought an estimate, that indirect administrative costs represent approximately 7% of the volume of collected taxes. An important international study annually processed by the World Bank and PricewaterhouseCoopers deals with complexity of tax systems. PricewaterhouseCoopers (2013) states that according to the study "Paying Taxes 2013: The Global Picture", assessing the demands of tax payment and overall tax burden, the tax system of the Czech Republic is time-consuming. A typical Czech taxpayer has to make 8 payments a year in average and he/she spends 413 hours a year completing tax returns and meeting all the tax duties. This criterion of international comparison has markedly improved if compared with year 2011: The original 557 hours have been reduced by 144 hours. We may say with certainty that the trend is positive and the Czech Republic is likely to achieve even better results thanks to year-on-year changes within the international comparison. The time spent over tax duties ranks the Czech Republic on the 169th place out of the 183 monitored world countries. Within the European Union, the Czech Republic occupies the second to last position (26th), with only Bulgaria being worse (the average time spent over tax duties in the EU is 184 per year). The main reasons for the high time demands in the Czech Republic and Bulgaria consist in the complexity of labour taxation – represented by payroll tax and related social security and health insurance.

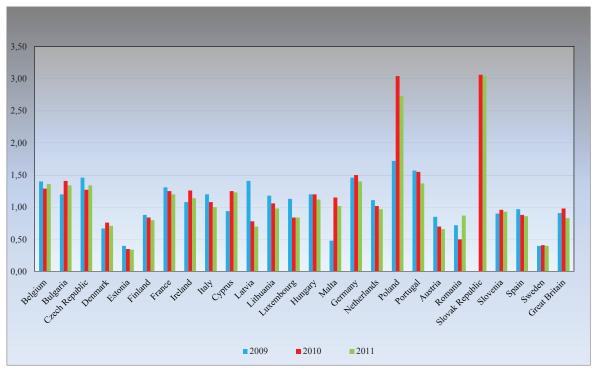
The first place was occupied by the United Arab Emirates with 12 hours a year (in 2011 the list was led by the Maldives with 0 hours a year) and the last country was Brazil with 2,600 hours per year. In the field of indirect administrative costs, research study entitled "Analysis of costs of private sector caused by tax system" from December 2008, authors Pavel and Vítek (2008) is elaborated. This study is based on a research sample of enterprises and achieved results are applied to an entire sector. It notes that compliance costs of taxation are approximately 40 bln. CZK, i.e. 3.9% of the assessed tax, for whole Czech tax system.

On the international level, administrative cost measurements are performed by the Organisation for Economic Co-operation and Development. The latest published output is the study "Tax Administration in OECD and Selected Non-OECD Countries: Comparative Information Series (2010)" published in March 2011 (OECD, 2011). A more recent comprehensive study was not available at the time of this article and therefore data for years 2010 and 2011 were taken from individual charts published by the Organisation for Economic Co-operation and Development. Fig. 1, prepared using available data, represents a proportion of administrative costs to net tax revenue in 26 EU member states.

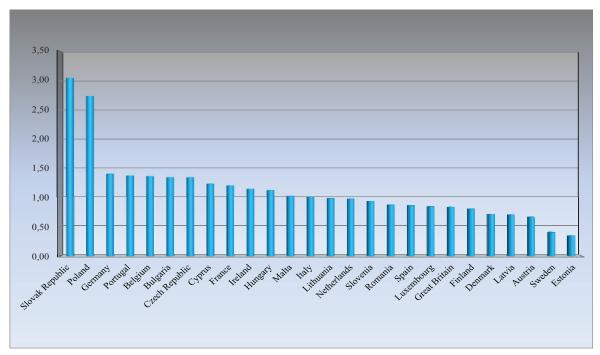
It follows from Fig. 1 that in the long-term run, the highest proportion of administrative costs to net tax revenue is shown in Slovakia with 3.04% (value of 2011). Another country with a high proportion of administrative costs to net tax revenue is Poland with 2.73% (value of 2011). On the other hand, the smallest proportion is shown in Estonia, where the value for 2011 was 0.34%. The development of the defined proportion in Malta is worth mentioning, where the proportion sharply rose in the monitored period from 0.43% of administrative costs in 2008 to 1.02% in 2011.

Fig. 2 shows the proportion of administrative costs to net tax revenue of the respective 26 EU member states in 2011, ranked from the highest to the lowest level of the defined proportion. The Czech Republic on the 20th place is among the countries with a higher proportion of administrative costs to net tax revenue, and the concrete value calculated for 2011 is 1.34%. A weakness of all the calculated values stated by the Organisation for Economic Cooperation and Development is that the methodology used for the measurement of direct administrative costs is not available.

Excessive tax burden is the cost arising from the loss of efficiency of functioning of the market mechanism due to the implementation of taxes. It is connected with distortion of taxes as it affects the behavior of the economically active population and gives rise to inefficiency in the economy, as a consequence of performed substitution. Smith (2001) in the fourth canon of taxation states that



1: Proportion of administrative costs to net tax revenue in % Note: The list of EU member states does not include Greece, which was not part of the OECD research. A figure for 2009 is not specified for Slovakia due to lack of data in the analysis concerned. Source: OECD (2011), OECD (2013), own work



2: Proportion of administrative costs to net tax revenue of EU member states in %, 2011

Note: The list of EU member states does not include Greece, which was not part of the OECD research.

Source: OECD (2013), own work

any tax should be thought through and developed so that residents pay as little as possible over how much tax actually brings to the Treasury and also notes that against

the application of this principle of the tax system works, that tax may prevent business of population and can discourage population from devoting to certain types of

professions that could feed and employ a lot of people. Because population must pay this tax, some sources, which would relieve them payment of tax, are decreasing or even destroying. From this perspective, factor causing inefficiencies in the tax system is just an excessive tax burden.

Kubátová (2010) states that any change in taxes affects the behavior of individuals who seek for the highest benefit and lowest tax burden and as a result of this behavior, they are trying to avoid tax liabilities. A specific legal instrument to tax avoidance is a substitution involving the replacement of production or consumption of newly taxed goods by untaxed good. A typical example of such behavior is the substitution of free time at the expense of labor. She stresses, however, that it is possible to avoid tax by changing behavior, but it is not possible to avoid damage caused by tax.

Musgrave and Musgrave (1994) observe that the effective tax policy should minimize excessive tax burden. The easiest way how to avoid this inefficiency is that the entire tax revenue will be based on the poll tax when everyone pays the same. This procedure would lead to removal of excessive tax burden, but it is unacceptable in terms of the principle of tax fairness. For this reason, fair taxation must reflect the taxation according to economic activity, but it necessarily distorts economic choices and it leads to excessive tax burden. Andrlík (2010b) and Kubátová (2010), however, believe that the poll tax considered as not causing distortion and not causing substitution is currently not entirely correct. Taxpayers can even avoid poll tax by moving out from tax jurisdiction where the tax is applied and excessive tax burden then represents e.g. nostalgia for his native country. Tax theory seeks to find solutions, how to formulate tax system to ensure maximum efficiency of the tax system and thus minimize the impact of excessive tax burden. Stiglitz (1997) states that one of the possible approaches is the application of thesis applied in the theory of optimal taxation, which is called the second-best. The essence of this approach is thesis that the two small taxes are in terms of efficiency better than one big tax, because the excessive tax burden is growing faster than income. More specifically it notes that it increases with the square of growth of the tax. In terms of effectiveness, these two smaller taxes are always better than one big tax and they lead to lower overall excessive tax burden. Kubátová (2003) or Široký (2008) deal with specific relationship of excessive tax burden, such as the elasticity of supply and demand, and Pudil et al. (2004) deal with measurement issues of excessive tax burden.

The measurement of direct administrative costs shall be performed through the full-time equivalent method, defined in the section Material and Methods. According to provided documents by the Ministry of Finance of the Czech Republic on the specification of employees of local tax authorities according to activities, employees of local tax authorities are divided into groups defined by the relation (1) and the resulting distribution used in calculating the direct administrative costs are shown in Tab. II.

II: Division of number of workers of the local tax authorities in individual years

Item -	Number of workers in individual year										
	2005	2006	2007	2008	2009	2010	20 11	2012			
DE_{pit} - DE_{rett}	4994.11	4991.09	5 055.57	5 074.53	5 024.62	4810.78	4648.34	4678.86			
DE_{na}	3 459.51	3 530.33	3 792.56	4030.68	4029.99	3 935.16	4016.23	4044.54			
IE _{ta}	6 096.90	6270.81	5 825.57	5 473.31	5 480.98	5 182.49	5 125.26	5 155.12			
IE_o	916.90	899.59	868.35	819.28	815.78	783.60	833.05	843.23			
Total	15 467.42	15 691.82	15 542.05	15 397.80	15 351.36	14712.03	14622.88	14721.75			

Source: own calculations according to internal sources of Czech Ministry of Finance

III: Coefficients for conversion of the cost of local tax authorities

Item -		K3 coefficients in individual years									
	2005	2006	2007	2008	2009	2010	2011	2012			
K3 _{cit}	0.0636	0.0651	0.0604	0.0587	0.0585	0.0584	0.0595	0.0590			

Source: own calculation

IV: Collection of corporation income tax in millions of CZK

Thom	Collection of corporation income tax in individual years								
Item -	2005	2006	2007	2008	2009	2010	2011	2012	
Corporation income tax	142 254	135 437	162 791	182 511	119601	123 859	118 106	128 002	

Note: The value of collection of tax on income of legal persons is the sum of the tax collection and the relevant amount attributable to that tax from the income tax withheld.

Source: Finanční správa (2013a, 2013b)

V: Costs of local tax authorities in the years 2005 to 2012 in thousands CZK

Thomas	Costs of local tax authorities									
Item	2005	2006	2007	2008	2009	2010	2011	2012		
Investment costs	412 464	293 798	335 421	488 791	250757	200 359	786 792	1078486		
Current costs	6 513 866	6941058	7 300 002	7 440 034	7732931	7223784	7185229	7256847		
Total	6 9 2 6 3 3 0	7234856	7635423	7 928 825	7 983 688	7 424 143	7972021	8 3 3 5 3 3 3		

Source: Finanční správa (2013a)

VI: Administrative costs of tax administration in the years 2005-2012 in %

Thomas -	Direct administrative costs									
Item	2005	2006	2007	2008	2009	2010	2011	2012		
Corporation income tax	0.31%	0.35%	0.28%	0.26%	0.39%	0.35%	0.40%	0.38%		

Source: own calculation

Based on the defined methodology of the calculation of direct administrative costs of taxation and the documents listed in Tab. II there are calculated the following results of coefficients for conversion of costs K3 for corporation income tax in individual surveyed years listed in Tab. III. The results show that the trend in corporation income tax is a gradual reduction in the number of employees involved in the administration of this tax.

It is necessary to define the amount of collection of corporation income tax on a defined timeline from 2005 to 2012 and the amount of investment and current costs in individual years for the actual calculation of the direct administrative costs of corporation income tax. Collection of corporation income tax is given in Tab. IV and costs of local tax authorities arising from Tab. V.

Amounts of directive administrative costs for corporation income tax are calculated in the individual researched years, on the basis of defined methodology of calculation of direct administrative costs of taxation and information given in Tab. III, Tab. IV and Tab. V.

Tab. VI represents the results of measurement of direct administrative costs based on the method of recounted worker, which classifies employees of local tax authorities into groups and assigns a specific number of these workers to monitored corporation income tax using the conversion coefficients. Then it defines the total costs (current and investment costs) using the coefficients for corporation income tax, and establishes

administrative costs as a percentage of collection of corporation income tax. The obtained results suggest that the direct administrative costs on income tax on legal persons are low, in particular with respect to the statement of the Czech Ministry of Finance (2006) that the average administrative costs of the Czech tax system are approximately 2% (a more recent figure was not known at the time of this article). The administrative costs calculated by the Organisation for Economic Co-operation and Development may be regarded in a similar way. Here, the entire tax system of the Czech Republic reached 1.34% for year 2011. The results clearly show that the collection amount of the examined tax in the respective years monitored is sufficient for the settlement of costs related to the collection and administration. The results obtained by measurements show that the situation has markedly improved since the research performed by Pudil et al. (2004) also considering the data mentioned in Tab. III, which show that the number of staff working on the administration of income tax on legal persons has been decreasing along the monitored timeline since 2005. If we use the comparison with measurement outcomes already processed, e.g. in the case of property taxes, which were published in Andrlík (2010a), we may say that in comparison with property taxes, the income tax on legal persons involves almost no costs. Measurements in the case of property taxes evidence that the estate and gift taxes show long-term loss and the tax revenue proper is not sufficient to settle the direct administrative costs related to the collection.

CONCLUSION

Issues of tax collection and achievement of the highest possible effectiveness are a subject of many discussions, in particular between politicians. This paper deals with the issue of effectiveness of the tax system and definition of three basic components that cause inefficiencies of the tax system – direct administrative costs, indirect administrative costs and excessive tax burden. It defines the basic characteristics of all given components of cost of tax system and is dedicated in detail to the direct administrative costs. For indirect administrative costs also known as incremental costs, the results of measurements carried out research studies both abroad and in the Czech Republic. The contribution also presents an international study focusing on the measurement of administrative costs of different world countries' tax systems. The Czech Republic occupies the 20th place among the European Union

member states within the international comparison resulting from measurement of administrative costs. The value of administrative costs of the entire Czech tax system was 1.34% in 2011.

The author of this article performed his own measurements concerning the direct administrative costs related to the collection of tax on income of legal persons in the Czech Republic. The method used for determination of direct administrative costs of the mentioned corporation income tax is the so-called full-time equivalent method, which is described in detail in the section Material and Methods. As a contribution method was used full-time equivalent method. This method has several drawbacks and for this reason the results obtained by various authors mentioned in the paper slightly different. The main weakness of the methodology is different procedure for own classification of individual groups of employees and their allocation to the groups defined in the formula (1). Results achieved in the respective monitored years are lower by the average of ca 1.66 percentage points in relation to the average value of direct administrative costs of the Czech tax system. On the basis of results of measurements concerning property taxes (real estate tax, gift tax, estate tax and tax on real estate transfer) performed earlier we establish that the income tax on legal persons is an absolute "good result", as the administrative costs necessary for its collection are negligible if compared with the amount of collected tax. This statement is based on conclusions of a separate measurement whose results are contained in articles Andrlík (2010a, 2012, 2014), where the values of direct administrative costs related in particular to estate tax and gift tax exceed 100%, and local revenue authorities sustain losses from their collection. The future and further development of direct administrative costs related to tax on income of legal persons is difficult to predict as it depends on a number of factors. It is impossible to estimate the changes in key values entering into the calculation of direct administrative costs in the present political situation of 2014. This particularly concerns the tax collection and potential streamlining of revenue authorities.

REFERENCES

- ANDRLÍK, B. 2014. Measurement of effectiveness of personal income tax in the Czech Republic. *Acta Universitatis agriculturae et silviculturae Mendelianae Brunensis*, 62(2): 307–314.
- ANDRLÍK, B. 2012. Efficiency of road tax in the tax system of the Czech Republic. *Acta Universitatis agriculturae et silviculturae Mendelianae Brunensis*, 60(2): 17–24.
- ANDRLÍK, B. 2010a. Administrativní náklady majetkových daní v České republice. *Acta univ. agr. et silv. Mendelianae Brunensis*, 58(6): 13–20.
- ANDRLÍK, B. 2010b. *Transferové daně v zemích Evropské unie.* 1. vyd. Brno: Akademické nakladatelství CERM.
- FINANČNÍ SPRÁVA. 2013a. *Výroční zprávy a informace o činnosti*. [Online]. Available at: http://www.financnisprava.cz/cs/financni-sprava/financni-sprava-cr/vyrocni-zpravy-a-souvisejici-dokumenty/2012. [Accessed: 2013, October 5].
- FINANČNÍ SPRÁVA. 2013b. *Přehled vývoje inkasa uvedených daní v* ČR. [Online]. Available at: http://www.financnisprava.cz/assets/cs/prilohy/dudaje-z-vyberu-dani/Inkasa_dani_1993-2012.xls. [Accessed: 2013, November 15].
- KUBÁTOVÁ, K. 2010. Daňová teorie a politika. 5. přepracované vyd. Praha: Wolters Kluwer ČR.
- CZECH MINISTRY OF FINANCE. 2006. Zdanění příjmů a majetku v České republice výstup expertní skupiny. [Online]. 2006, Available at: http://www.mfcr.cz/cps/rde/xbcr/mfcr/Vystupni_material_

- expertni_skupiny_pdf.pdf. [Accessed: 2013, October 13].
- MUSGRAVE, R. A., MUSGRAVEOVÁ, P. B. 1994. *Veřejné finance v teorii a praxi.* 1. vyd. Praha: Management Press.
- OECD. 2011. Tax Administration in OECD and Selected Non-OECD Countries: Comparative Information Series (2010). [Online]. Available at: http://www.oecd.org/ctp/administration/CIS-2010.pdf. [Accessed: 2013, November 8].
- OECD. 2013. *Tax Administration database*. [Online]. Available at: http://www.oecd.org/site/ctpfta/taxadministrationdatabase.htm. [Accessed: 2013, November 8].
- PEKOVÁ, J. 2008. Veřejné finance. 4. vyd. Praha: ASPI.
- PRICEWATERHOUSECOOPERS. 2013. *Paying Taxes* 2013 *The global picture.* [Online]. Available at: http://www.pwc.com/gx/en/paying-taxes/assets/pwc-paying-taxes-2013-full-report.pdf. [Accessed: 2013, November 10].
- PUDIL, P., VYBÍHAL, V., VÍTEK, L. et al. 2004. *Zdanění a efektivnost*. Praha: Eurolex Bohemia.
- SMITH, A. 2001. *Pojednání o podstatě a původu bohatství národů*. Praha: Liberální institut.
- STIGLITZ, J. E. 1997. *Ekonomie veřejného sektoru*. 1. vyd. Praha: Grada Publishing.
- ŠIROKÝ, J. et al. 2008. Daňové teorie s praktickou aplikací. 2. vyd. Praha: C. H. Beck.
- VÍTEK, L., PAVEL, J. 2008. Analýza nákladů soukromého sektoru vyvolaných daňovým systémem. [Online]. Available at: http://www.mfcr.cz/cs/aktualne/tiskove-zpravy/2009/2009-08-10-tiskova-zprava-5431-5431. [Accessed: 2013, October 25].