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## THE USE OF TAX BASE ESTIMATION METHODS FOR INCOME TAX PURPOSES IN THE LIGHT OF RESEARCH

**Abstract.** One of the phenomena that can be observed in the economy is income tax evasion. Its occurrence can be reduced, *inter alia*, by estimating taxpayers' taxable income. Tax legislation specifies methods that can be used to this end, however methods other than statutory ones can also be employed. The article aims to evaluate the need for developing tax base estimation methods other than those specified in the legislation by analysing their use by tax authorities. The analysis focuses on cases that the Supreme Administrative Court considered in 2013. Its results show that in nearly 80% of the cases taxable incomes were estimated using methods other than those recommended by law, some of which (e.g. the production method) were never used, one of the reasons being the lack of data necessary to make comparisons. Based on the findings, changes are proposed to make the tax base estimation methods more specific.

**Key words:** tax fraud, the estimation of tax base, income taxes.

### 1. INTRODUCTION

The defining attribute of a free market economy is competition and one of the factors that clearly determine the functioning of enterprises is the amount of taxes they must pay. An important component of tax systems is income tax, but instead of paying income taxation some taxpayers choose to make illicit attempts to reduce their tax liabilities. In order to protect the interests of the State Treasury and to ensure fair competition in the economy, measures must be available to prevent the occurrence of such attempts. Governments can reduce the scale of the grey economy by means of a variety of instruments. Legislation in both developed countries (such as Germany) and developing countries (e.g. Poland) allows tax authorities to make their own estimates of a taxpayer's taxable incomes. The purpose of this process is to calculate as close as possible an estimate of the amount of tax a taxpayer should pay. The difference between legislation in Germany and Poland is that the former does not specify the methods that tax authorities should use to this end, whereas the Polish legislation

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contains six of them. The methods are not obligatory, in the sense that tax authorities may also use other methods serving the same purpose, as they find appropriate [Witczak 2013a: 149].

The aim of this article is to determine the need for other methods to be created supplementing the existing range of statutory methods.

The research hypothesis is as follows: the tax base estimation methods specified in legislation are rarely used. To ensure that taxable incomes are correctly estimated, methods other than those explicitly indicated in the law must be created.

## 2. TAX BASE ESTIMATION – GENERAL RULES

The law in force allows tax authorities to estimate taxpayers' taxable incomes and explains when the procedure can be applied. The law excludes its use in cases when the amount of taxable income can be established based on taxpayers' ledgers and other evidence obtained during tax proceedings [Dzwonkowski, Huchla, Kosikowski 2003].

Polish legislation provides tax authorities with a list of six tax base estimation methods they can use. These are [Dzwonkowski 2013]:

- the internal comparative method,
- the external comparative method,
- the inventory method,
- the production method,
- the cost method,
- the type of income as a percentage of turnover.

According to its legal definition, the internal comparative method compares the previous years' turnover figures in the audited company. The external comparative method compares turnover figures of companies that are similar to the one audited in terms of business scope and conditions. The inventory method juxtaposes the value of the company's assets recorded at the beginning and end of a period, allowing for the rate of turnover. The production method estimates the production capacity of the taxpayer, while the cost method derives the turnover figure from a company's expenses based on a coefficient indicating their share of turnover. The last of the six methods determines the amount of income from the sale of particular goods and particular services based on their share of total turnover [the Tax Ordinance Act, art. 23 par. 3; (Ordynacja Podatkowa)].

In cases when none of these methods is applicable, tax authorities may use other methods serving the same purpose [the Tax Ordinance Act, art. 23 item 4,], but the law does not indicate what these methods should be. The range of „non-

statutory” methods discussed in the literature includes approaches that [Schneider 2007: 223; Brzeziński et al. 2007: 242; Kosikowski 2013]:

- determine the turnover figure from information sources,
- determine the percentages of particular products in total production,
- determine the percentages of some goods in the total turnover of the company,
- analyse the formulas used to make particular products,
- estimate business expenses in relation to turnover,
- examine the consumption of electricity,
- estimate a company’s incomes based on its expenses,
- investigate net profits,
- utilise an econometric model of costs.

The law requires tax authorities to explain their choice of method and to ensure that the tax base they use to calculate a taxpayer’s liability is as accurate as possible [the Tax Ordinance Act, art. 23 item 5].

### **3. THE USE OF TAX BASE ESTIMATION METHODS FOR INCOME TAX PURPOSES – RESEARCH FINDINGS**

The empirical part of this article is based on the analysis of case studies derived from the rulings of the Supreme Administrative Court. Taxpayers challenging tax authorities’ decisions may lodge a complaint with the Voivodeship Administrative Court (VAC), which is competent to assess whether a particular decision is legally sound. Administrative Courts also handle taxpayers’ complaints against the tax authority’s choice of the tax base estimation method. A complainant who disagrees with the ruling issued by the Voivodeship Administrative Court may submit a cassation appeal to the Supreme Administrative Court. By analysing court rulings concerning the application of estimation methods, the use of particular methods by tax authorities in the process of assessing taxpayers’ incomes can be identified. For the purposes of this article, all rulings that the Supreme Administrative Court made in 2013 and which were available in the Lex database on 25 February 2014 were analysed. A total of 82 rulings made in connection with article 23 of the Tax Ordinance Act regulating the use of the tax base estimation rules were examined. These rulings were made in cases involving different types of taxes (see Table 1).

Almost 60% of the analysed rulings (see table above) concerned income taxes, mainly personal income tax (PIT). Whereas, corporate income tax (CIT) was dealt with in only one of the rulings while value-added tax was analysed in almost 33% of cases. Two rulings related to lump sum turnover-based tax, three to excise tax and gambling tax was featured in only one ruling.

Table 1. The types and numbers of taxes to which estimation methods apply

Tax	PIT	PIT cases as a percentage of all rulings	CIT	CIT cases as a percentage of all rulings	VAT	VAT cases as a percentage of all rulings	Lump sum tax	Gambling tax as a percentage of all rulings	Excise	Excise cases as a percentage of all rulings	Gambling tax	Gambling tax as a percentage of all rulings
No. of cases	48	58.54%	1	1.22%	27	32.93%	2	2.44%	3	3.66	1	1.22%

Source: developed by the author.

The significant proportion of rulings made in relation to personal income tax seems to imply that a large number of decisions made by tax authorities in connection with the estimation of taxable incomes concerned small businesses, since when larger companies are found to have unreliable ledgers, both incomes and turnover should be examined. However, taxpayers with annual turnover below PLN 150,000 are excluded from VAT, so the tax base is not estimated for VAT purposes in their case. This suggests that most cases concerned taxpayers with incomes lower than PLN 150,000.

A more detailed analysis was applied to 49 rulings made in cases where the tax base was estimated for income tax purposes (lump sum taxes were omitted). Incomes were estimated by tax authorities in only certain cases (see Table 2).

Table 2. Numbers of rulings concerning estimation methods and other matters related to income taxes

No. of analysed rulings	No. of rulings in cases in which tax base estimation methods were used	No. of rulings evaluating the use of tax base estimation methods as a percentage of all rulings on income taxes	No. of rulings on matters other than the use of estimation methods	No. of rulings on other matters as a percentage of all rulings on income taxes
49	27	55%	22	45%

Source: developed by the author.

The data in Table 2 show that tax authorities did not estimate the tax base in 45% of cases related to income tax. The reasons for the decision not to use a tax base estimation method were varied, such as a withdrawal from an estimation procedure, dummy invoices used as a source of deductible costs or the non-applicability of estimation methods.

In many cases analysed by the courts, tax authorities did not exercise their right to make estimations arising from art. 23 item 2 of the Tax Ordinance Act because, even though the taxpayers' ledgers were evaluated as inaccurate, the necessary information was determined from financial documents obtained during inspection or tax proceedings.

Tax base estimation methods were also not used in cases when so-called dummy invoices were found to have been used as a illegitimate source of deductible expenses. Dummy invoices are issued either by a business that does not exist or by a business involved in tax fraud, and the only purpose for which they are produced is to increase the amount of expenses or input VAT. The word „dummy” means that no goods are sold or services delivered in connection with the invoice. Tax authorities consider dummy invoices illegitimate proof of deductible expenses that could not be used to calculate income tax liability. In cases involving their use, taxpayers requested tax authorities to present the estimates of the challenged amount of expenses. Courts generally agreed with tax authorities that no legal obligation existed for them to do so and that they could treat such expenses as illegitimate. In one case, a tax authority seeking to establish the taxable income of the provider of construction services did not perform an estimation procedure under art. 23 item 2 of the Tax Ordinance Act, but used other sources of information instead. The taxpayer lodged a complaint with the Voivodeship Administrative Court, which ruled against the decision of the tax authority and its ruling was upheld by the Supreme Administrative Court.

In 27 analysed cases involving income taxes, tax authorities used a range of methods to estimate taxable income (see Table 3).

Table 3. Numbers of rulings on cases involving the use of particular tax base estimation methods

Method	The external comparative method	The external comparative method as a percentage of analysed rulings	The inventory method	The inventory method as a percentage of analysed rulings	The cost method	The cost method as a percentage of analysed rulings	Other methods	Other methods as a percentage of analysed rulings
No. of rulings	1	3.7%	2	7.4%	2	7.4%	21	77.8%

Source: developed by the author.

Tax authorities used the statutory methods in only 20% of cases, whereas the comparative method was adopted in one case and the inventory method and the cost method were used in two cases each. In one ruling, the court did not mention what method the tax authority used to estimate the tax base. The internal comparative method, the production method, and the type of income as a percentage of turnover were never used to calculate the taxable income. An analysis of the circumstances in which statutory methods are used is a useful tool that allows the identification of the scope for using methods other than statutory.

The inventory method was applied in two cases, which respectively involved a taxpayer trading in footwear, leather accessories and clothing articles, and carrying on a rental business, and a taxpayer that was a trading firm.

In the first case, the inventory method was adopted to assess incomes from the trading business (the rental income was estimated based on other documents). Having analysed the taxpayer's financial documents, the tax authority concluded that there were discrepancies between goods stated in the final inventory report and the purchase documents. The physical inventory count report that the taxpayer drew up at the end of the year showed goods for which purchase documents were not available. In the estimation process, the tax authority also used data on mark-ups and wastage provided by the taxpayer and his staff.

As far as the second taxpayer is concerned, the tax authority found the final inventory report to contain commercial goods that the initial inventory report did not show and for which proof of purchase was not available. The amount of taxable income was determined from values presented in inventory reports and average weighted mark-ups on goods sold. The mark-up information was provided by the taxpayer.

Both these cases show that two conditions must be met for the inventory method to be useful: the taxpayer must be a trading firm and the necessary financial data must exist. There are cases, however, when such data are either unavailable or not known to the tax authority. A noteworthy fact is that tax authorities accepted the physical inventory count reports and information provided by the taxpayer's staff as true and accurate.

The cost method was applied to estimate the taxable income of a taxpayer selling motorcycles and spare parts imported from Canada. The value of goods that were purchased abroad was determined from the amount of funds the taxpayer transferred in payment for these goods and from the mark-up rate on spare parts brought from the US; the purchase prices were found in the submitted SAD documents and the sale prices were the prices of items the taxpayer sold through an online auction website. The data sources were therefore the bank and SAD documents. If the parts had been imported from an EU Member State, it would have been impossible for the tax authorities to get access to some of this information due to the removal of border controls and of some earlier obligations of entities in the foreign trade business.

There was one further case in which the tax authority used the cost method, but the Supreme Administrative Court did not analyse how it was used as it was outside the scope of the taxpayer's complaint.

The external comparative method was used to estimate the amount of tax-deductible expenses of the provider of copier services. To this end, the tax authority collected data on the expenses of other providers of comparable services in the same area, since the method cannot be used unless information on the type of cost is known and comparable companies have been identified. In the case of certain services, such as copier services, finding comparable providers does not pose a major problem.

The conclusion that can be drawn from this part of the discussion is that whether or not the statutory tax base estimation methods are applicable depends on the availability of the necessary input data, which may not always be the case. If a tax authority has doubts about the accuracy and reliability of taxpayer's ledgers, it is quite likely that the inventory reports or the information presented by the taxpayer is untrustworthy too. When entries in tax ledgers cannot be trusted, the statutory estimation methods cannot be applied.

In over 75% of cases involving estimations made by tax authorities, non-statutory methods were used. This high percentage of non-statutory methods shows that tax authorities are faced with the problem of finding data necessary to estimate taxable incomes. An interesting source of information revealing why tax authorities did not use estimation methods explicitly indicated in the legislation is their explanations provided in connection with some of the cases.

The internal comparative method was not employed because of the risk involved in the use of the previous years' data. The use of the external comparative method was prevented by the lack of comparable firms. In one of the analysed cases, the tax authority requested other units to find firms similar to the audited taxpayer in terms of the business profile. All answers were negative, meaning that comparable taxpayers simply did not exist. In some cases, the use of the external comparative method was requested by the taxpayers themselves, where they could indicate companies of a similar size. The inventory method was not used due to the lack of information on taxpayer's assets (the applicability of this method is determined by access to the initial and final inventory reports and the knowledge of the rate of turnover). The production method was rejected owing to the nature of the taxpayer's business (it cannot be applied to service providers and trading firms). The cost method could not be employed because expenses as a percentage of turnover were not known. The tax authority explained that the information it gathered did not contain the necessary data. The method based on the type of income as a percentage of turnover was inapplicable when the tax authority sought to estimate the amount of income and not of turnover.

The external comparative method was rejected in one case because of the failure to find another shop selling similar merchandise in the same location. The cost method and the method utilising the type of income as a percentage of turnover were recognised as ineffectual where the taxpayer kept a simplified register of revenues and purchases in the previous years and because reliable documents showing the current year's turnover in the taxpayer's shop were not available. Faced with the problem of finding data that could be used to estimate taxpayers' taxable incomes, tax authorities have to seek other methods serving the purpose.

It is worth noting that tax authorities using non-statutory methods to estimate taxpayers' incomes frequently accept explanations and information presented by taxpayers.

#### 4. CONCLUSIONS

The research has revealed that in estimating the tax base for income tax purposes tax authorities use various methods.

Table 4. The number of rulings in cases involving the use of statutory and non-statutory estimation methods

Method	Statutory methods	Statutory methods as a percentage of all analysed rulings	Non-statutory methods	The inventory method as a percentage of all analysed rulings	Information on the method not available	The cost method as a percentage of all analysed rulings
No. of rulings	5	18.5%	21	77.8%	1	3.7%

Source: developed by the author.

Tax authorities employed the statutory tax base estimation methods in only ca. 20% of the analysed cases, while other methods accounted for more than 75%. This finding confirms the research hypothesis formulated in this article, according to which, tax authorities tend to use non-statutory methods to estimate the tax base for income tax purposes.

The non-statutory methods are used for the following reasons:

- the unavailability of data enabling comparisons,
- the type of the taxpayer's business,
- the special demands of the statutory methods.

The more frequent use of non-statutory methods shows that tax authorities have problems finding data without which the six statutory methods cannot be used. Considering that tax authorities use taxpayers' information which may not always be true and reliable, the amount of taxable incomes that is finally produced may be underestimated. As a result, businesses operating in the grey market will pay lower taxes than they ought. In order to secure the interests of the State Treasury, compliant taxpayers and also of the audited taxpayers, the rules for the use of the non-statutory tax base estimation methods should be made more specific. One solution that seems to be worth considering is to add to the legislation a list of estimation methods that could be used by tax authorities, together with the factors they should address in this process. The methods could be detailed in the Tax Ordinance Act, secondary legislation or guidelines, however, secondary legislation seems the optimal choice. The creation of



guidelines on industries that are more likely than others to need tax base estimations also seems an interesting option.

The results of this study, based on 2013 data as well as of a partial study conducted with 2012 data [Witczak 2013b: 132], show equally high percentages of cases in which tax authorities decided to use non-statutory methods to estimate taxpayers' taxable incomes. To assess whether the research hypothesis will hold true for other years as well, which is very likely, further investigations are necessary.

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## WYKORZYSTANIE METOD SZACOWANIA PODSTAWY OPODATKOWANIA W PODATKACH DOCHODOWYCH W ŚWIETLE BADAŃ

Jednym ze zjawisk obserwowanych w gospodarce są oszustwa podatkowe w podatkach dochodowych. Zjawisko to można ograniczać, między innymi, poprzez szacowanie podstawy opodatkowania. Przepisy wskazują różne metody szacowania podstawy opodatkowania. Pozwalają również na stosowanie metod innych niż wymienione w przepisach. Celem pracy jest ocena konieczności opracowania metod szacowania podstawy opodatkowania innych niż wymienionych w przepisach. Przeprowadzono analizę wykorzystania takich metod szacowania podstawy opodatkowania. Przedmiotem analizy były orzeczenia Naczelnego Sądu Administracyjnego wydane 2013 r. Organy podatkowe w prawie 80% przypadków zastosowały metody szacowania dochodu niewskazane w regulacjach. Niektóre metody szacowania dochodu (np. produkcyjna) określone w przepisach nie były w ogóle wykorzystywane przez organy podatkowe. Wynika to między innymi z braku porównywalnych danych. Zaproponowano zmiany dotyczące uszczegółowienia metod szacowania podstawy opodatkowania.

**Słowa kluczowe:** oszustwa podatkowe, szacowanie podstawy opodatkowania, podatek dochodowy.