

Agricultural Tax: An (Un)Reliable Source of Local Government Revenue in Poland

ABSTRACT

The issues discussed in the article are part of the area of research dedicated to local government finances in Poland, in particular the optimization of the fiscal legal construction of agricultural tax. The aim of the paper is to diagnose the determinants of the amount of municipal revenue from this tax, and to determine the significance of this revenue in the budgets of the indicated local government units. The hypotheses adopted in the paper assume that (i) the amount of agricultural tax revenue in Poland is determined not so much by the scope of tax authority of local authorities as by the structure of this tax defined by law; and that (ii) the basis for determining the amount of agricultural tax in force over the years does not secure the interests of local authorities in the context of recognizing this levy as a stable and efficient source of budget revenue financing local government expenditures. The study uses the method of critical analysis of literature and legal regulations, as well as the method of comparisons over time and methods of descriptive statistics (structure and dynamics indicators). Empirical data (obtained from the collections of public statistics) are presented for the years 2008–2023. The results obtained confirm the strong dependence of revenue from agricultural tax in Poland on

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determinants which its beneficiaries (municipalities) have no influence on, including in particular the purchase price of rye, and the low fiscal efficiency of this tax.

KEYWORDS: local government finances; own revenue; agricultural tax; fiscal efficiency; tax structure; price of rye

INTRODUCTION

The involvement of the state in Poland in meeting social needs, in view of the social market economy enshrined in the Basic Law (Constitution of the Republic of Poland; Act, 1997, Article 20), requires financial resources to be placed in the 'public coffers'. However, given the division of public authority (central level, local government level), the aforementioned 'coffers' are represented both by the state budget and the budgets of all local government units, both at the regional (voivodeship) and local (municipalities, districts) level. The pool of funds contained in these budgets is linked to the adopted concept of the implementation of public tasks by public authorities (in accordance with the principle of subsidiarity, the principle of presumption of competence) and exemplifies the decentralisation of public funds.

The basic source of financing the implementation of public tasks is tax revenue. In Poland, by virtue of legal regulations, it has been clearly defined which tax revenues contribute to the state budget and which to local government budgets. Thus, the state budget receives primarily revenue from consumption taxes (value added tax – VAT, excise tax) and income taxes (personal income tax – PIT, corporate income tax – CIT). While the former feed the state budget in its entirety, the state shares the proceeds of the latter (in appropriate proportions, closely related to the scope of tasks performed) with local government units. Revenue taxes, property taxes or revenue and property taxes are local

government revenues. In accordance with the concept adopted in Poland of entrusting the largest scope of tasks to basic local government units, revenues from these taxes should be sought in the budgets of municipalities. However, the subject of taxation in these taxes determines which municipalities (rural, urban-rural, urban, including cities with county rights) are the largest beneficiaries of these revenues.

The group of local taxes, as they are referred to, is very diverse in terms of the object of taxation and fiscal efficiency. One such tax is agricultural tax. The aims of the study are: 1) to diagnose the determinants of the amount of municipal revenue from the indicated tax, 2) to determine the significance of this revenue in the budgets of the indicated local government units, 3) to present proposed solutions, the essence of which is to increase municipal revenue from this tax. Hypotheses adopted in the study assume that the amount of agricultural tax revenue in Poland is determined not so much by the scope of tax authority of local authorities as by the construction of this tax determined by the legislator, and thus the basis for determining the amount of agricultural tax in force over the years does not secure the interests of local governments in the context of considering this tax as a stable and efficient source of budget revenue, financing local government expenditures.

This study relies on a critical analysis of legal regulations contained in the Agricultural Tax Act, as well as of the literature in the field of local government finance, including: own revenues of municipalities, the scope of tax authority of local authorities, and real estate taxation. The following issues are analysed: the structure of the tax system, the distribution of public revenue between the state budget and local government budgets; the shape of the system of own income of municipalities, the independence of local governments for revenue, and the scope of tax authority of local authorities, as well as the characteristic features of agricultural tax and its structure, influencing the amount of municipal income on this account. The data presented in the study

is from 2008–2023 and was obtained from the resources of public statistics (Local Data Bank of the Central Statistical Office [GUS] or announcements of its president) are analysed using the method of comparisons in time and methods of descriptive statistics (structure, dynamics), considering the share of agricultural tax revenue in the total revenue of communes and revenue from local taxes, the level of rye prices adopted for determining the rate of agricultural tax, including the level of inflation.

1. FINDINGS

1.1 Agricultural taxation as a form of taxation of agricultural economic activity and a source of revenue for municipalities in Poland

Contemporary tax systems in the world, including agricultural taxation systems, are not uniform (Andersen et al., 2002). Taking the tax base as a criterion, the following possibilities for the fiscal burden on agriculture can be distinguished: a) taxes based on the size of the land, b) taxes based on the value of the land, c) taxes based on the amount of rent, and d) taxes based on the concept of income (Podstawka, 2000). Taking the above into account, the existing solutions concern the taxation of land used for agriculture and the results of farming activities.

In the EU, the income received by farmers was originally taxed according to an asset-based scheme – average income was determined on the basis of the acreage owned or the number of animals. This system of taxation corresponded to the original nature of agriculture (Gruziel, 2011, p. 151). Nowadays, most agricultural holdings are specialised production enterprises, therefore in the EU countries the property-based construction of agricultural taxation has been rather abandoned, and two models of taxation of income from agricultural activity have been applied (Przygodzka, 2006, p. 208). On the first model, income derived

from agricultural activity is treated equally to other income (UK, Ireland, Denmark, Sweden), while in the second model, income derived from agricultural production is calculated according to different rules (Germany, France, Italy). In general, however, farmers' income in the EU countries is treated on an equal footing with other income and is subject – depending on the organisational and legal form – to personal income tax or corporate tax regulations. However, it is not only the tax scales that determine tax burden, but also the rules for determining the tax base (Felis, 2015, p. 24). The taxation of agriculture is subject to common rules as in small businesses in non-agricultural industries (Wach, 2005, pp. 40–55).

Taxation of agriculture in Poland in comparison with other EU countries shows significant differences (Gruziel & Wasilewski, 2008, p. 159). Only income from special departments of agricultural production is taxed with income tax (PIT or CIT respectively). In other cases, income from agricultural activities is taxed with agricultural tax, which, unlike income tax revenues, goes entirely to local budgets.

In accordance with the provisions of the Polish Constitution, the revenue of each local government unit, including municipalities in Poland, is own revenue, general subvention and purpose-specific subsidies from the state budget (Act, 1997, Article 167 para. 2). Enumeratively, the sources of own income of local government units, the construction of the general subvention and the directions of destination of purpose-specific subsidies are defined in the Act on the Revenue of Local Government Units (2003), substantially updated at the end of 2024, and the new act in force from 2025 (Act, 2024).

While there is significant discrepancy between the legal regulations and the literature regarding which local government revenue is considered own revenue and which is not (this applies to income from participation in state taxes; Denek et al., 2001, p. 117; Kańduła, 2003, p. 38; Dylewski et al., 2006, p. 75; Kosek-Wojnar &

Surówka, 2007, p. 71; Rudzka-Lorenz & Sochacka-Krysiak, 2008, p. 156; Kotlińska, 2009; Patrzalek, 2010, pp. 150–151; Jastrzębska, 2012, p. 110; Poniatowicz & Dziemianowicz, 2016, p. 308; Banaszewska, 2022; Milewska & Parlińska, 2022, p. 54), while these disputes do not concern local taxes, among which agricultural tax is mentioned. Agricultural tax is the own income of municipalities in Poland, included in local taxes (Piotrowska-Marczak, 1997, p. 51; Kańduła & Śmiechowicz, 2016, p. 736).

Local taxes in Poland are not uniform, either in terms of their fiscal efficiency, structure or scope of tax authority. As a rule, they can be divided into those contributing directly to the budgets of municipalities (real estate tax, agricultural tax, forestry tax, tax on means of transport) and those contributing indirectly to the budgets of these local government units (tax on inheritances and donations, tax on civil law transactions, revenue from tax cards). Local authorities have tax authority only in relation to taxes from the first group indicated. It is therefore a good thing that it applies to the most fiscally efficient local tax, which is property tax (Śwital & Kobylski, 2024, p. 179; Felis, 2023, p. 37).

Revenue from agricultural tax supplies the budgets of municipalities (in the territory of which the subject of this tax is located) in its entirety, in perpetuity, and the bodies of these local government units independently decide on the allocation of the revenue collected from it, i.e. they have full spending independence. The tax analysed was the revenue of municipalities even when municipalities were not local government units, but only the smallest units of administrative division of the country (i.e. until the end of 1989). The Agricultural Tax Act in force today, although it has already been amended several times (its eighth consolidated text is now in legal circulation), dates back to 1984. The purpose of the law passed at that time was to strengthen the fiscal function of agricultural tax, and thus increase revenues of municipal budgets on this account, intensify the impact of economic mechanisms on agriculture, and thus the development

of agricultural holdings by increasing their area, production efficiency and labour productivity (Dziemianowicz, 2009, p. 58). During the thirty years of its operation, unfortunately, little has changed in the abovementioned regard. The shape of this legal act still betrays preferential taxation of agricultural activity in Poland, diverging from the solutions in force in the countries with developed economies (Dziemianowicz, 2007, p. 196ff).

1.2 Agricultural tax in the Polish tax system, including its features referring to the elements of construction

The tax system is a set of taxes in force in a given country, at a given time, whose constructions are internally consistent (Szczodrowski, 2007, p. 26; Juja, 2011, p. 229). These taxes can be classified taking into account various criteria, which are, *inter alia*, the individual elements of the tax construction, such as the subject of taxation or the object of taxation.

Agricultural tax is one of the oldest legal and tax burdens still existing in the Polish tax system. It is levied directly on natural persons, legal entities and organisational units without legal personality, which are both owners, holders and users of land covered by the provisions of the Act on Agricultural Tax. This does not mean, however, that the transfer of the burden of this tax is not possible. Such a situation may occur when the taxing entity (e.g. the owner of agricultural land) transfers the burden of this tax to the lessee of the land. The proceeds from this tax go directly (without the intermediation of the tax office) to the bank account of the municipality with jurisdiction over the location of the tax subject.

The classification of the Polish agricultural tax poses certain difficulty considering the subject of taxation. All farm land is subject to this tax, regardless of its area, location and profitability (Etel, 2003, pp. 307–308), i.e. classified in the register of buildings and land as agricultural land or as wooded and shrubby land on agricultural land, with the exception of land used to conduct economic activity

other than agricultural activity. The disadvantage of the current legislation is that agricultural land does not have to be used for agricultural production. The statutory definition of an agricultural holding does not stipulate that the land has to be used for agricultural purposes, which may lead to a reduced taxation of the land despite its other purpose (excluding non-agricultural activity).

There is no unanimity in Polish literature as to what kind of tax – from the point of view of the subject of taxation – agricultural tax is. Some authors classify it as revenue tax due to the fact that it does not take into account tax-deductible costs (e.g. Kuzińska, 2001), others as property tax, using the method of bonitation assessment (e.g. Modzelewski, 2007). A kind of compromise between the two above-mentioned views is to include agricultural tax in the group of revenue and property taxes (e.g. Mastalski, 2006; Kotlińska, 2008, p. 126). As for the indicated divisions, it should be pointed out that agricultural tax is a typical tax paid on property for those who do not carry out agricultural activity, and revenue and property tax for entities carrying out agricultural economic activity (it does not apply to special divisions of agricultural production), excluded from taxation pursuant to the provisions on taxation of income of legal persons (CIT) or income of natural persons (PIT).

Depending on the basis of taxation, the literature distinguishes four types of agricultural taxation: a tax based on the size of the land, a tax determined on the basis of value, a tax based on the amount of rent, and a tax based on the concept of income. Despite the diversity of the forms of agricultural taxation, the common features of this group of taxes are the use of estimates when calculating the liabilities due, the actual nature of taxation, and the relatively low flexibility of revenues from this type of taxation (Gomułowicz & Małecki, 2006, pp. 617–618).

In Poland, agricultural tax is calculated on a quantitative basis, referring to the area of agricultural use. For entities not conducting agricultural economic activity, it is the number of physical

hectares of area, while for those conducting activity it would be the number of conversion hectares, resulting from an estimated construction based on the natural criterion. The number of conversion hectares refers to the possibility of obtaining income from their cultivation. It is determined on the basis of the area, types and classes of agricultural land (AL), resulting from the land register and the inclusion of land in one of the four tax districts (Modzelewski, 2007, pp. 169–174). However, it is worth emphasising that already a dozen or so years ago, in the opinion of farmers, the analysed tax depending on the number of conversion hectares within separate tax districts was not a tool for levelling out the differences resulting from the economic location of the farm (Gruziel & Wasielewski, 2008, p. 159).

The tax base in agricultural tax for those engaged in agricultural economic activities appears to be inadequate, both in terms of the burden of this tax and the types of these activities. The agricultural tax is correctly structured if it takes from 6 to 8% or even 10% of the average income per hectare (Hanusz, 1996, p. 262). In Poland, this tax is much lower in relation to income (e.g. in 2004–2009, the burden of this tax was from 1.38 to 1.55%; Forfa, 2011, p. 76). At the same time, the linear structure of agricultural tax in Poland favours large farms. Taking into account the current structure of agricultural holdings in Poland and the large share of holdings with an animal production profile or mixed (plant and animal) production profile in it, it seems even strange that animal husbandry is not taxed at all, apart from that included in special divisions of agricultural production (Szydełko, 2016, p. 9). Failure to take into account this fact raises doubts whether to call the tax in question a substitute for income tax on agricultural activity (Bieluk, 2003, p. 409). A separate issue at this point is the fact that in agricultural tax the value basis (value of land) does not apply at all, as it is the case in systems where real estate, including agricultural land, is taxed with *ad valorem* tax, the introduction

of which in Poland would affect beneficiaries of revenues from this tribute (Głuszak & Marona, 2015).

The consequence of the tax base so defined in the Polish legislation is the type of rates in the analysed tax. These are specific rates, but set in an indirect manner. The legislator did not – as it did with similar forestry tax – specify them directly with a possible valorisation mechanism (as is the case, for example, in real estate tax or tax on means of transport), but described the manner of its calculation in relation to the base volume. The base volume in this case is the purchase price of rye, which in the years 2008–2013 was the average price for the first three quarters of the year preceding the tax year, and since 2014 it is the average for the 11 quarters preceding the quarter preceding the tax year. Thus, the agricultural tax rate on 1 ha of calculation land is the monetary equivalent of 2.5 quintals of rye, and on 1 hectare of physical land – the monetary equivalent of 5 quintals of rye.

In the intention of the legislator, the indicated conversion method of determining the agricultural tax rate was to be a solution preventing the devaluation of fiscal burdens for the budget, especially in crisis situations (Majchrzycka-Guzowska, 1999, p. 180). However, fixed specific rates relating to the normative form of the tax base are attributed a regressive character, meaning that as the taxpayer's income increases, the tax amount–income ratio decreases. Thus, the actual income from an agricultural holding does not constitute the tax base and does not affect the character of the tax rate (Mastalski, 2006, p. 580).

At the end of the considerations conducted in this part of the study it should be pointed out that the declaratory character of agricultural tax should be indicated, which results from the fact that the basis for its assessment are the data provided by taxpayers (natural persons, legal persons, and unincorporated entities) in statements about land or in agricultural tax declarations, which is today uniformly specified by the legislator. These data should originate from source documents (notarial deeds, contracts) and

the actual use of agricultural land (arable land, pasture, orchards, etc.), which should be verified by the local government tax services, as it affects the tax assessment.

1.3 Determinants of agricultural tax revenue (the context of tax rules and tax authority of local authorities)

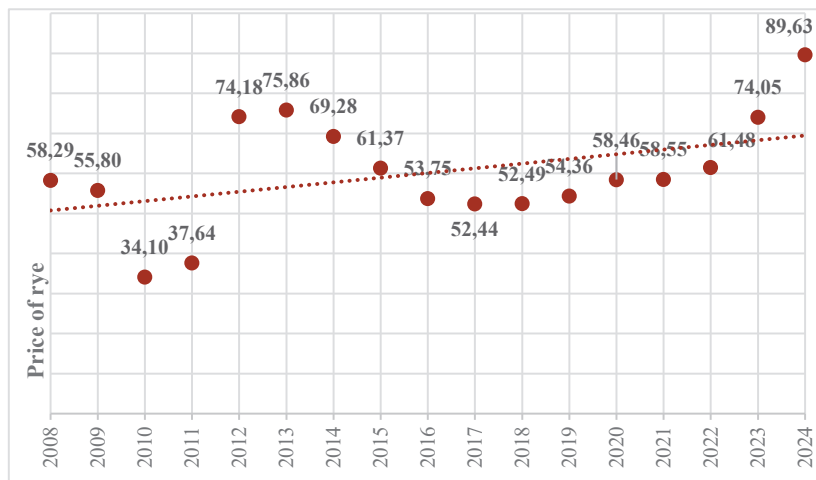
Considering the subject of taxation, agricultural tax was a very reliable tax until recently, contributing towards municipal budgets, analysed in light of the invariability of the tax base and the manner and amount of the tax. The area of agricultural land did not tend to decrease, and only possibly the manner of use changed (some arable land became grassland, etc.), and the local tax policy, resulting from the tax authority of local bodies, guaranteed basically unchanged budget revenues and burden on taxpayers over the years. Recent years have shown that this certainty does not exist.

The area of agricultural land has decreased according to data held by the Central Statistical Office database (Local Data Bank). In 2008 it accounted for 60.8% of the country's area, i.e. just over 19 million hectares, and in 2023 it constituted 59.5% of this area, i.e. approximately 18.6 million hectares; however, the loss of this land related to agricultural economic activity was greater at that time and amounted to nearly 0.8 million hectares). This decrease is the result of a number of factors, such as a) construction pressure and rising land prices in connection with state subsidies for mortgage loans (a significant part of agricultural land was declassified, subdivided and sold for single-family [less frequently multi-family] housing, among others, owing to a simplified procedure for obtaining a building permit); b) the EU policy aimed at reducing sowing (part of the land was excluded from agricultural production and forested, with financial support from the EU budget going to owners of forested agricultural land); c) the expected earnings of landowners in connection with the energy transition carried out in the country (a significant part of the land

was excluded from agricultural production and is used for multi-area photovoltaic or wind farms).

The rate of agricultural tax in the analysed period was the equivalent of 2.5 or 5 quintals respectively of the average purchase price of rye for the first three quarters of the year preceding the tax year (up to 2013), and from 2014 – from the 11 quarters preceding the quarter preceding the tax year. The structure of calculating the tax rate per 1 hectare (calculation or physical hectare) existing until 2013 resulted in significant differences in the amount of agricultural tax rates between particular years (Figure 1), especially in the context of changes in the price of rye between 2009 and 2012. The structure of determining this average price, in operation since 2013, has significantly reduced such large disproportions, as it has led to a significant flattening of the amplitude of fluctuations of this price between particular years.

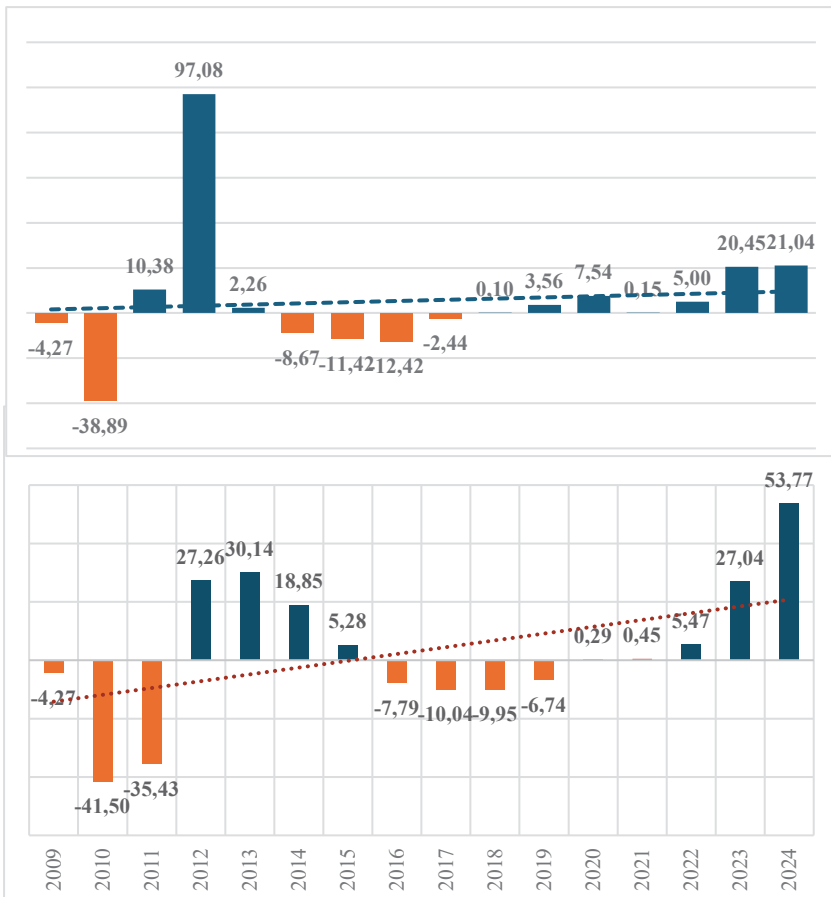
Figure 1. Price (PLN) of 1 quintal of rye adopted for the purpose of determining the maximum agricultural tax rate in Poland in 2008–2024.



Note. Own compilation based on data collected from the announcements of the President of the Central Statistical Office, published in Monitor Polski in 2007–2024.

Changes in prices of rye adopted as the basis for setting the rate of agricultural tax – in relation to the previous year or in relation to the base year, which is the year 2008 – are presented in Figure 2.

Figure 2. Change in the price of 1 quintal of rye adopted for the purpose of calculating the agricultural tax rate per hectare in Poland in 2009–2024 (upper – previous year = 100, lower – 2008 = 100, increase/decrease in %).



Note. Own elaboration based on Figure 1.

This visualisation confirms a favourable – considering the certainty of the amount of revenue from agricultural tax – change introduced by the legislator with regard to the number of quarters taken into account for the purpose of determining the average price of rye (this price has been relatively stabilised). In addition, it presents the impact on this price not only of domestic rye production, but also of the influx of imported rye into this market (recently especially from Ukraine).

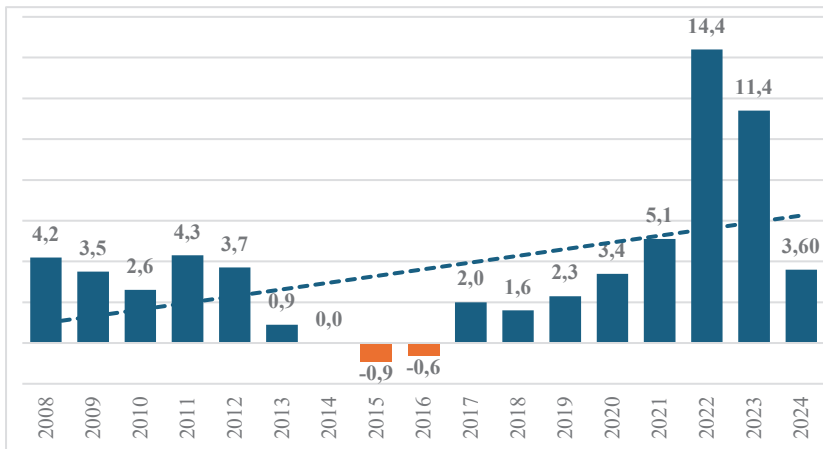
Considering the above, it should be stated that a kind of unpredictability of the amount of the price of rye, which is the basis for determining the rate per hectare in the agricultural tax, is a factor destabilizing financial planning in municipalities in the long term (for example, in the context of the amount of current income determined for the purpose of determining the IDR [individual debt ratio], or the forecast of the amount of debt for subsequent years). After all, this destabilization is further exacerbated by inflation.

Between 2008 and 2024, the price level index for goods and services (inflation) in Poland was fluctuating (Figure 3). In 2008–2012 it ranged from 2.6 to 4.3%, in 2013–2016 it reached its lowest values, including negative values (–0.6% and –0.9%), and in 2017–2020 it was also relatively low (from 1.6% to 3.4%). The increase in inflation in Poland occurred in 2021 and was high in the next two years (the highest in 2022, when Russia attacked Ukraine), after which inflation began to decline. The impact of inflation on the level of rye prices adopted for the purpose of determining the rate in the agricultural tax and agricultural tax revenues during the period under review is presented in Figure 4, respectively.

From the data presented it can be seen that in recent years the amount of the agricultural tax rate has been influenced by two factors, acting inversely on it (increased by inflation and decreased by rye imports from Ukraine; Supreme Audit Office, 2023, p. 13). It is worth asking at this point whether rye is the right reference point for determining the tax burden in agricultural tax, since there have been significant changes in the production

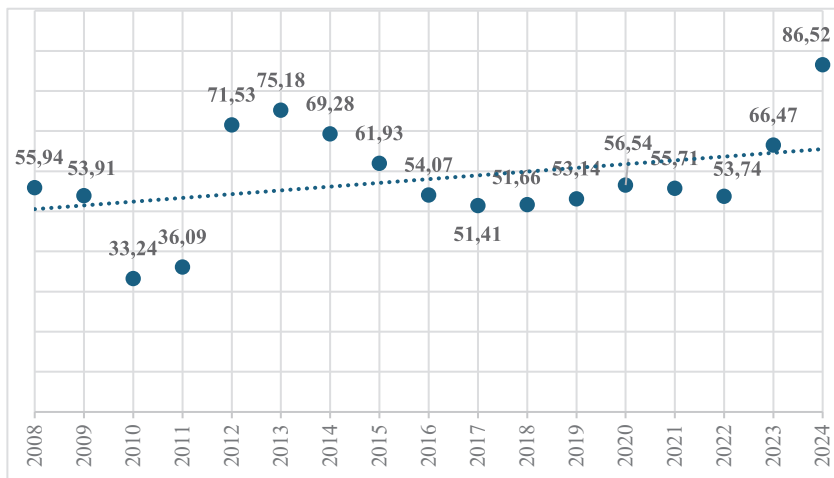
structure during the period of the Agricultural Tax Law. As early as 2011, it was pointed out that rye was no longer the primary sowing crop on farms, so it is not a suitable reference point for estimating agricultural income. The choice of rye as the basis for calculating the tax burden does not allow to adjust the amount of the tax to the taxpayer's ability to pay and does not provide an efficient and stable source of own income for rural municipalities (Dziemianowicz & Przygodzka, 2011, p. 53). This fact was noted by the Ministry of Finance in Poland as early as 2012 due to the steadily decreasing acreage of this grain (it was 27.1% in 1990 and 13.9% in 2010; Pogroszewska, 2012), and although it was already pointed out at that time that it was advisable to replace the purchase price of rye with another indicator that would more closely reflect the situation in the economy, nothing has changed in this regard so far.

Figure 3. Consumer price index in Poland in 2008–2024 (%).



Note. Own compilation based on CSO data (<https://stat.gov.pl/obszary-tematyczne/ceny-handel/wskazniki-cen/wskazniki-cen-towarow-i-uslug-konsumpcyjnych-pot-inflacja>).

Figure 4. Real price of 1 quintal of rye adopted in Poland in 2008–2023 for calculating agricultural tax (in PLN).



Note. Own compilation based on Figures 1 and 3.

Agricultural tax revenues, however, do not depend only on the statutory construction of this tax, but also on the extent of tax authority granted under it and exercised by local authorities.

The literature indicates that the scope of the tax authority of the municipal decision-making body in the agricultural tax manifests itself only in the shaping (modelling) of the tax burden, and not in its enactment (Kulicki, 2010, pp. 10–11), although it is referred to as full, i.e. active in the broad sense (Filipiak, 2015, p. 223). This authority boils down to the following: a) lowering the price of rye, which is the basis for determining tax rate; b) introducing additional (non-statutory) exemptions and objective reliefs; c) ordering the collection of this tax from individuals by way of collection, and determining the collectors and the amount of remuneration for collection; d) determining the conditions and procedure for submitting information and tax declarations by means of electronic communication. In addition (Act, 1984,

Article 5 paras. 2–3), the municipal council, after consultation with the chamber of agriculture, may a) request the provincial assembly to include the entire territory of the municipality in a different tax district, or b) include certain villages in a tax district other than the one specified for the municipality. However, changes made in either case may not reduce the number of conversion hectares for that municipality by more than 1.5%.

The municipality's executive authorities, in turn, as part of its tax authority in the analysed tax, have the right to a) postpone the tax due date, b) break down the tax payment into instalments, and c) refrain from determining or collecting the tax in whole or in part. Under Article 13c para. 1 of the Agricultural Tax Law, in the event of a state of natural disaster, relief from agricultural tax by abandoning its determination or collection in whole or in part, will be strictly related to the extent of losses caused by the disaster on the farm. The exercise of the granted tax authority by municipal authorities reduces the amount of expected agricultural tax revenues, but is an expression of the pursuit of local tax policy (Motek, 2022, pp. 263–265). Its effect is, as local bodies, especially the constituent body, should be aware, the low productivity of this own income of municipalities (Kozyra, 2017, p. 83).

The state does not compensate municipalities for lost revenue as a result of the exercise of tax authority, but in connection with the use of statutory exemptions and concessions by selected taxpayers. Thus, under Article 12 para. 10 of the Agricultural Tax Law, municipalities are entitled to reimbursement from the state budget for lost revenue, as they enjoy exemption from agricultural taxation of entrepreneurs with the status of an RD centre, granted under the rules set forth in the regulations on certain forms of support for innovative activities, with respect to taxable objects occupied for the purposes of research and development work carried out (Act, 1984, Article 12 para. 2 (5a)). In addition, from 2024 (Act, 1984, Article 6f para. 1), there is a reimbursement for

lost revenue from the transfer of a portion of municipal revenues from this tax, obligatorily transferred to other entities.¹

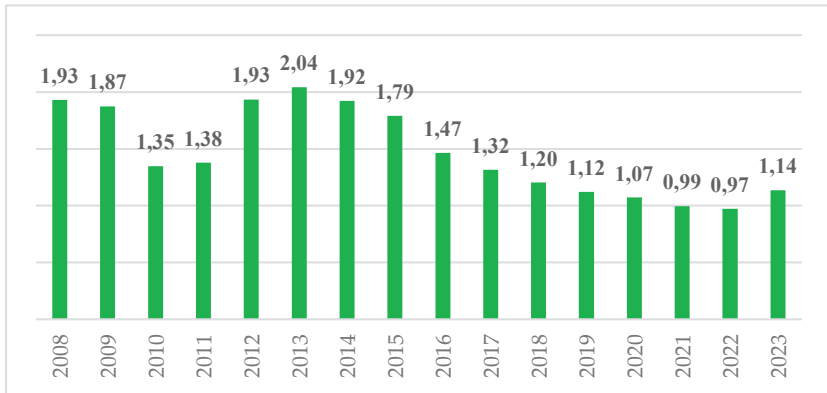
To sum up this part of the discussion, it should be stated that the agricultural tax performs the fiscal function to a very small extent, and this translates into decreased financial independence of municipalities (Śmiechowicz, 2020, p. 186). Today, it also does not effectively perform any other tax functions, yet the stimulus function could have a significant motivating effect on the modernization of the Polish agricultural sector, which was postulated several years ago (Szydełko, 2016, p. 8).

2. RESEARCH RESULTS: AGRICULTURAL TAX IN THE BUDGETS OF MUNICIPALITIES IN POLAND IN 2008–2023

Agricultural tax, despite the fact that in municipalities (excluding ones with county rights), especially rural ones, should be, as it seems, an important source of budget revenue. In fact it is not. The pool of funds that went to the budgets of these local government units in 2008–2023 only slightly exceeded 2% of their total budget revenues, with the lowest values assumed since 2018 (Figure 5). The importance of agricultural tax revenues in the total local tax revenues of municipalities in the period under review was also not significant (Figure 6). Of the eight taxes that supply municipal budgets with receipts, the importance of the one analysed in the study in the first years studied (2008–2015) oscillated around 10–11% of total local tax receipts (the exception being 2010–2011).

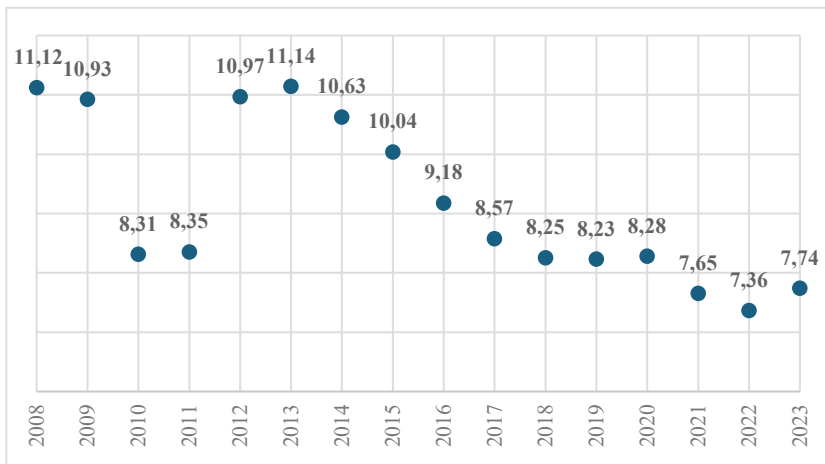
¹ Pursuant to Article 6d para. 1 of the Agricultural Tax Law, if the tax has been paid by the taxpayer in the amount due, the tax authority is to transfer 1.5% of this amount to the following selected by the taxpayer: a trade union of individual farmers entitled to receive this amount (Act, 1989, Article 8b para. 1), or an audit association of agricultural production cooperatives (Act, 1982a, Article 257a (1), or the National Union of Farmers, Circles and Agricultural Organizations (Act 1982b, Article 35a para. 1).

Figure 5. Share of agricultural tax revenue in total budget revenues of municipalities (excluding cities with county rights) in Poland in 2008–2023 (in %).



Note. Own compilation based on data obtained from the Local Data Bank (<https://bdl.stat.gov.pl/bdl>).

Figure 6. Importance of agricultural tax revenue in municipalities' (excluding ones with county rights) income from local taxes in Poland in 2008–2023 (in %).



Note. Own compilation based on data obtained from the Local Data Bank (<https://bdl.stat.gov.pl/bdl>).

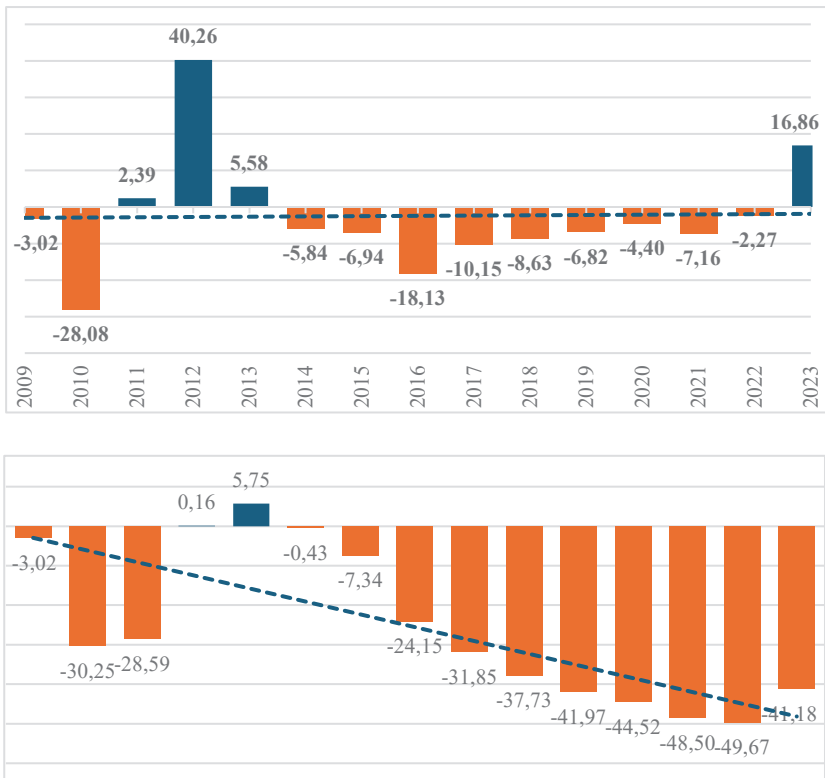
In the later period, the decrease in the importance of agricultural tax revenues in local tax revenues was clearly visible (since 2021, i.e. since the start of the war in Ukraine and the influx of grain, including Ukrainian rye to Poland).

The analysis of changes in the importance of agricultural tax revenue in the total budget revenue of municipalities, as well as in local tax revenue over the analysed period provides interesting insights. These changes were presented on a year-on-year basis, as well as in relation to the base year, which was taken as 2008 in the study. With regard to total budget revenue (Figure 7), the largest increase in the importance of agricultural tax revenue (compared to the previous year) occurred in 2012 (an increase of more than 40%) and in 2023 (an increase of nearly 17%), while in relation to the base year (2008), the increase in the importance of agricultural tax revenue in total budget revenue occurred only in 2012 and 2013 (by 0.16% and 5.75%, respectively). However, the data presented in Figure 8 shows that the largest increase in the share of agricultural tax revenue in the total local tax revenue of these local government units – taking into account year-on-year changes – took place in 2012 (more than 45% up), while in relation to 2008 the increase was nearly 61% in 2023. The largest drop in relation to local tax revenues occurred in 2010 (a decrease of nearly 20% and just over 19%, respectively).

The volume of agricultural tax revenue and its importance in the municipal budgets in the analysed period was closely associated, as previously established, with the level of inflation, but also with the average price of rye, which was influenced, especially in recent years, by grain imports from Ukraine. Thus, realistically, revenue from the analysed tax was even lower. This fact definitively indicates that, for certainty and stability of municipal revenues, the main determinant of agricultural tax revenues in Poland should not be the price of rye. The unpredictability of these prices heavily affects the level of agricultural tax revenue

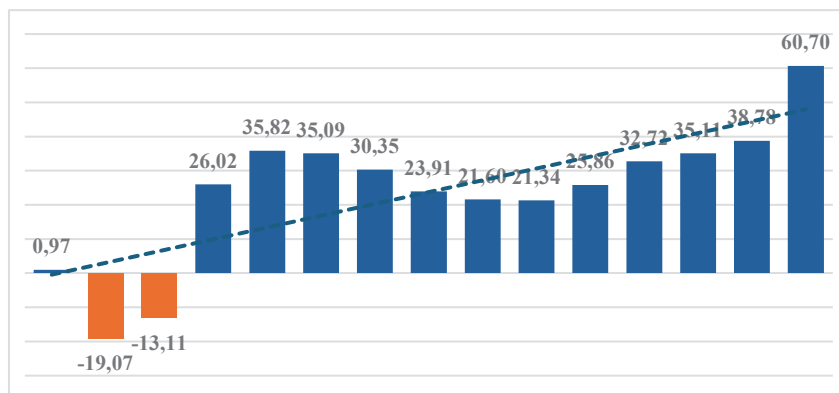
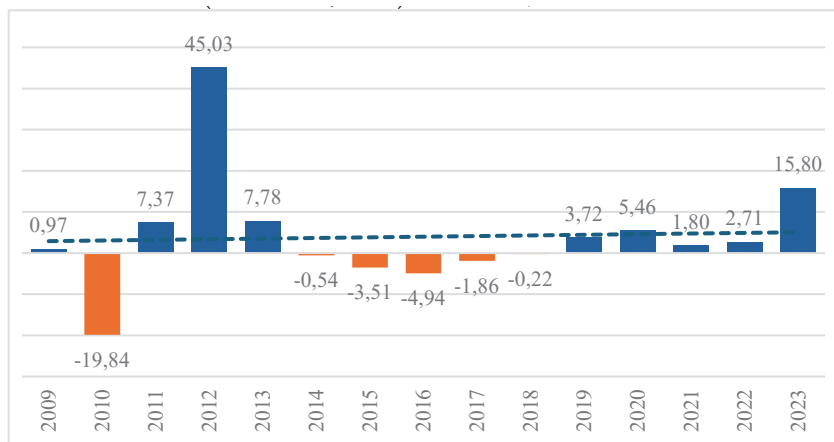
that supplies municipal budgets, thus ensuring the necessary financial ability to carry out the tasks delegated to them (Figure 9).

Figure 7. Change in the share of agricultural tax revenue in total budget revenue of municipalities (excluding ones with county rights) in Poland in 2009–2023 – upper (previous year = 100, in %); lower (year 2008 = 100, in %) – increase/decrease in %.



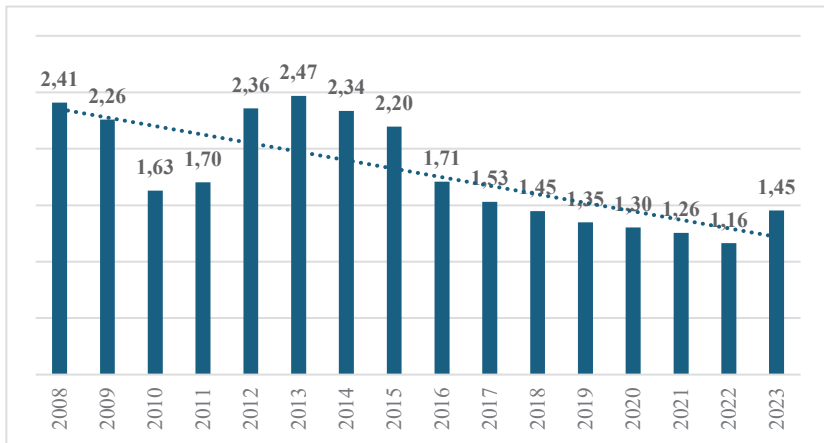
Note. Own compilation based on data obtained from the Local Data Bank (<https://bdl.stat.gov.pl/bdl>).

Figure 8. Change in the share of agricultural tax revenue in total revenue of municipalities (excluding towns with county rights) from local taxes in Poland in 2009–2023 – upper (previous year = 100, in %); lower (2008 = 100, in %) – increase/decrease in %.



Note. Own compilation based on data obtained from the Local Data Bank (<https://bdl.stat.gov.pl/bdl>).

Figure 9. Level of financing current expenditures with agricultural tax revenue in the budgets of municipalities (excluding ones with county rights) in Poland in 2008–2023 (in %).



Note. Own compilation based on data obtained from the Local Data Bank (<https://bdl.stat.gov.pl/bdl>).

CONCLUSIONS

Based on the data presented in this study we can conclude as follows.

- The division of public revenue between the state and municipalities (although there are more local taxes) does not guarantee the latter equally high revenues, due mainly to the structure of these levies.
- Exclusion from income tax (PIT and CIT, respectively) of income from agricultural activities already “at the start” – considering possible potential revenues – condemns rural and urban-rural municipalities to lower budget revenue.
- Agricultural tax in Poland

- a) is not fiscally efficient, owing to the adopted concept of preferential taxation of agricultural activities, expressed in the various elements of this tax, which
 - has not undergone major changes over the years, a fact visible in the income derived from it;
 - does not guarantee that the derived revenue will be obtained in a given fiscal year in the amount of at least that of the previous year;
- b) with regard to land related to business activities, is calculated only on the basis of measures that potentially determine revenues from these activities.
- The financial independence of municipalities and the associated scope of the tax authority of local authorities in the tax in question can only result in lower revenue from this tribute, and this often lower year-on-year is not always a consequence of its application (its real amount is determined by inflation rate).
- The state compensates municipalities for some revenue losses from agricultural tax, but this does not apply to changes in the purchase price of rye resulting from the supply and demand of this raw material on the market, as well as inflation rate.
- The construction of agricultural tax (it concerns the tax base and the tax rate) does not protect the interests of the beneficiaries of these revenues, which makes it possible to conclude that there is a need to change it (for the time being) on the basis of the current concept of property taxation in Poland (the need for changes was already highlighted in 1995, and two types of taxes were proposed: property tax on land and income tax on agricultural income (Podstawka, 1995, p. 104).

Based on the observations presented above, the following conclusion and question may appear. Since a tax on the value of real estate is unlikely to be introduced in Poland in the near future, given the subject of taxation in the tax in question with respect to taxpayers engaged in agricultural economic activity (income

and property tax), shouldn't a different approach be taken to the manner of determining the tax base therein and the manner of determining/calculating the tax rate? Local tax is a kind of hybrid taxation (business income and property), so perhaps it needs a hybrid solution? This could be a solution combining the fact of taxation of land used for economic activity and taxation of income from economic activity, or in fact the possibility of obtaining it. In the first case, the basis for taxation could be the number of hectares. The maximum rate could be determined by the law based on the property, the land associated with a particular type of economic activity, and would be subject to change in line with inflation rate. In the latter case, the tax base would be income from a farm – this figure is given by the President of the Central Statistical Office and is already applicable in various legal regulations and calculations)?

The proposed solution

- a) does not simplify (although this is debatable) the tax system, but certainly optimizes it because of
 - the lack of equality of taxation of income/income from different types of economic activity;
 - the still unrealistic prospect of introducing an ad valorem tax in Poland plus unpredictable price changes in the agricultural market, triggered not only by the fertility of the plants, but also by Poland's food import policy in the face of a security threat (armed conflict);
 - the illusion that local governments are far from independent and can significantly influence the amount and shape of their revenue, including their own, and among them income derived from local taxes, in which the authorities have fiscal authority;
- b) certainly requires simulations giving empirical verification or falsification of its validity in terms of its potential changes in the amount of local government revenue and the burden on

agricultural taxpayers (financial consequences of replacing agricultural tax with income tax on individual farms can be found in existing publications; Gruziel & Wasilewski, 2008; Szydełko, 2016).

The adoption in Poland of the hybrid model of agricultural land taxation, which the author advocates, would undoubtedly have both economic and social consequences. It would therefore be worthwhile to devote a separate study to an assessment of these consequences.

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