AGRICULTURAL TAXATION IN POLAND VS. SOLUTIONS IN SELECTED EU COUNTRIES

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Abstract. The main aim of the paper was to compare the agricultural taxation in Poland with solutions in the selected EU Member States. The paper presents the system of agricultural taxation in Poland compared with fiscal solutions in selected EU countries. It also discusses the typology of tax solutions referring to agriculture in Europe. Polish agricultural taxation is based on the so-called agricultural tax and income tax from special sections of agricultural production. A significant shift to income taxation may result in higher tax revenues from the agricultural sector. The process of implementation of recording and reporting farm income (as in other EU countries) and expenditures in Polish agriculture should be recommended in the planned reform of agricultural taxation.

Key words: agricultural taxation, farm income, agricultural policy.

JEL code: H24, Q14, Q18.

Introduction

Agriculture is commonly regarded as the sector that is very difficult to tax (Bird, 1983). This results from (i) the small scale and (ii) spatial spread of the agricultural activity, and (iii) the need for state-contingent levies (Rajaraman, 2004). Nevertheless, as Florianczyk (2012) discussed, the EU strategy underlaid role of agriculture in preservation natural environment while the national strategy pointed out the need for agricultural modernisation linked with structural transformations and concentration of agricultural production. The agricultural sector, as the part of economy, is affected by fiscal (inter alia, income and business taxes) and parafiscal (among others, social security contributions) policies (Kay et al., 2012). Moreover, the system of agricultural taxation depends on priorities of public policy of each country. Andersen et al. (2002) stated that rates of taxes and their structure might be changed or manipulated to intervene in the area of economic policy. Khan (2011) argued that the question how tax structure and administration should affect the agricultural sector had become more important problem, particularly, as the element of ongoing agricultural policy in developing states. Moreover, one of the most controversial issues of tax policy in most countries (both developing and developed) referred to the measurement of agricultural income. Khan concluded that the political and administrative considerations were regarded as the main obstacles in introducing measures of presumed farm income.

Ramajaran (2004) stated that agricultural taxation was a less important political issue in developed countries, where the agricultural sector generated a minor share of GDP; whereas, the problem of fiscal

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policy seemed to be more important in developing countries. On the contrary, Kulawik (2012) analysed that there were two opposite approaches to the impact of fiscal policy on the agricultural sector. The first group of researchers (Lewis, Matsuyama, Timmer) stated that taxes in the agricultural sector were the main source of national savings at early stages of the economic development. In contrast, according the adversaries (Betes, Mwabu, Rastø, Torbeck, Torvik), discrimination of agriculture in the economic policy should be harmful to the poorest.

The problem of agricultural taxation, the tax structure, the measurement of taxable basis (income, capital), and determining optimal (or sub-optimal) tax rate for farmers seems to be more important in the developed countries. First, according to the OECD (2006), ignoring tax concessions may lead to *an understatement of the real extent of government involvement in agriculture and can distort comparisons between countries*. Second, tax concessions to the agricultural sector, in general, often constitute an alternative to programmes incurring direct government outlay. Although, tax concessions lead to implications for, inter alia, production, incomes, trade, rural society, and other economic categories, they have been little explored (OECD, 2006).

The aim of this paper is an attempt to compare the system of agricultural taxation in Poland with solutions in the selected EU countries. The following research tasks are included: (i) analysing the system of agricultural taxation in Poland, including proposals for its reform, and (ii) presenting the typology of tax solutions referring to agriculture in the selected EU countries. Conclusions provide recommendations addressed to policymakers. The following hypothesis is verified: *the agricultural taxation in Poland rely on archaic fiscal instruments compared with the solutions in other EU countries*. The authors used the secondary data from the Central Statistics Office (GUS) and the Eurostat. The research methods used for the purpose of data analysis included economic analysis of legal acts, descriptive statistics, and comparative analysis.

Research results and discussion

1. The system of agricultural taxation in Poland

Table 1 presents a short description of the agricultural sector in Poland. Proposals of reform of the agricultural taxation should be foregone by a detailed analysis of structural changes in the agricultural sector. First, as shown in Table 1, the number of farmers' households in 2010 has decreased by 656,000, i.e. 22.4% compared with 2002. The strongest decrease in the number of farmers' households was recorded in the group of the smallest entities, i.e. households covering to 1 ha and from 1 to 5 ha of utilised agricultural area (UAA). According to the Central Statistic Office in Poland, the average income of farmers' household per "conversion hectare"[5] was PLN 2713 in 2011 and was higher by PLN 435 in 2010.

[5] "Conversion hectare" is a synthetic unit describing an ability of a farm to generate farm income. The number of "conversion hectares" might be determined on the ground of the area and the class of utilised arable areas stemming from the filling system of buildings and lands as well as the type of tax district. See: Ustawa z dnia 15 listopada 1984 r. o podatku rolnym (Dz.U. 1984 nr 52 poz. 268)

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Table 1

Farmers' households in 2002 and 2010

Description		**Years**	
		2002	2010
Farmers' households	The number, in thousand	2,933	2,278
	Utilised agricultural area, UAA, in thousand hectares	16,899	15,534
	The averaged acreage of UAA in the farmers' household, in hectares	5.78	6.82
including those involved in agricultural activities	The number, in thousand	2,172	1,891
	Utilised agricultural area, UAA, in thousand hectares	15,160	14,971
	The averaged acreage of UAA in the farmers' household, in hectares	6.98	7.92

Source: authors' calculations based on the results of Agricultural Census in 2010

Overall taxes and levies on the agricultural sector can be divided into three categories: income taxes, wealth taxes (capital levies) and indirect taxes. Nowadays, the Polish tax system directed to farmers is based on several types of levies, including:

- "agricultural" tax - as the archaic and preferential form of taxation;
- forestry tax;
- personal income tax (strictly from special sections of agriculture);
- value added tax (VAT);
- transport tax;
- other levies (connected with inheritance, donation, fiscal charges, etc.).

Agricultural tax and personal income tax (strictly from special sections of agriculture) constitute the most significant elements of agricultural taxation in Poland. Table 2 shows a detailed description of the aforementioned levies. The agricultural tax is the basic form of taxation for farmers, whereas, the special type of income tax from selected sections of agricultural production refer to a part of farms. It should be noted that this type of taxation refers to the so-called "agricultural holding". Moreover, the rate of the agricultural tax refers to the price of rye. It is worth noting that the price of rye does not reflect the current financial situation of the farms. This is mainly due to the fact that the share of this cereal in areas under crop is gradually decreasing. As a result, farm incomes are taxed differently than incomes from typical non-agricultural activities.

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Table 2

Agricultural tax vs. PIT from special sections of agriculture in Poland

Description	Agricultural tax	Personal income tax (PIT) from special sections of agriculture
Taxpayer	Natural entities, legal entities, including companies without a legal personality, which are: landowners; holders of spontaneous land; perpetual land users; holders of land owned by the state or local government Municipalities and the Treasury are exempted from the agricultural tax.	Agricultural holdings in the form of natural entities, classified to agricultural production that cover production in greenhouses and plastic tunnels, fungi and mycelium production, plants in vitro, farmed breeding and rearing of poultry for slaughter, poultry hatcheries (avicultures), breeding and rearing of fur and laboratory animals, raising earthworms and entomophages, cocoonery, beekeeping, animal breading and rearing outside farm as well
Taxable base	Lump-sum method is used. Accrued tax = the number of „conversion hectares" of agricultural holding x rate (determined by the location of farm and the average price of rye). The term "agricultural holding" means an entity covering a total area of more than 1 physical hectare that might be owned by a natural entity, a legal entity or an organisational unit without a legal personality. A land with an area of less than 1 ha is levied by higher rate of agricultural tax. Moreover, agricultural activities in Poland cover plant and animal production, including seed production, breeding and reproduction; production of vegetables, ornamental plants, fungi, horticulture, insemination, industrial livestock production as well.	Taxable base depends on the method how taxable income is calculated. The estimated annual income is determined by standards for special sections of agriculture (determined either the area of intensive production or the number of animals). When a farm keeps ledgers (or simplified tax register), taxable income is determined as the difference between tax revenues and expenses (tax-deductible).
Exemptions	A long list of exemptions and deductions within the competence of municipalities	A long list of exemptions and deductions as the element of tax law
Taxpayer's obligations	Keeping accounting records is not obligatory	Keeping accounting records (a simplified accounting – tax register of revenues or expenses or ledgers) is optional

Source: authors' studies

Figure 1 shows how a possible reform of tax system addressed to the agricultural sector would affect economic processes in rural areas. The repeal of the agricultural tax has to be acted as the first step of possible reform. It should be noted that before introducing changes, main aims, goals and tools to

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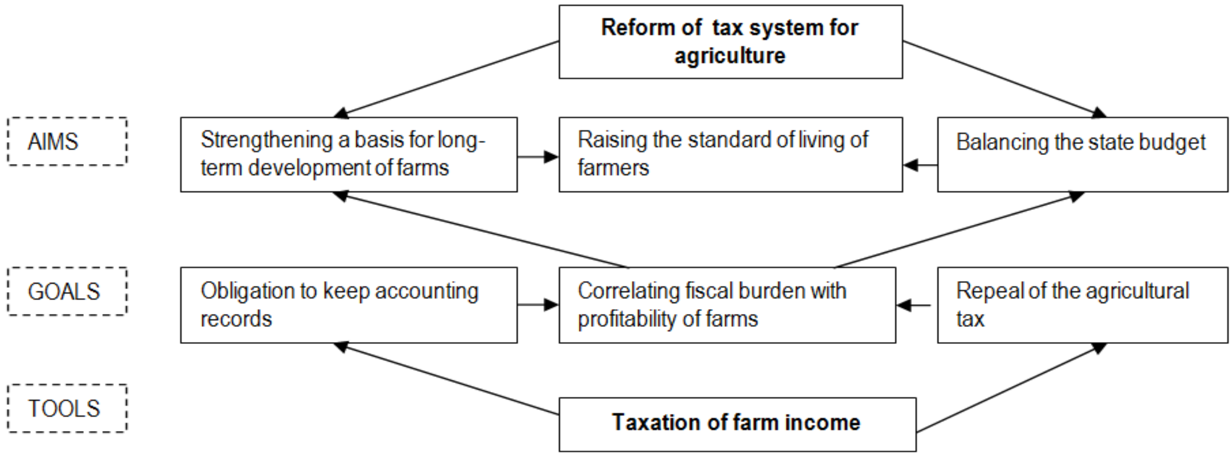
achieve them ought to be defined and described. The basic premise for the introduction of the income tax is the fact that labour income constitutes the most significant part of farmers' income.



Source: authors' construction

Fig. 1. **Proposal for the reform of the agricultural taxation in Poland**

According to the principle of fair taxation, income from agricultural activities should be taxed on the basis of economic results that may be reported. The introduction of tax accounting to farms may be beneficial from the viewpoint of improving the economic/financial situation of the agricultural sector. Moreover, fiscal policy ought to take into account the different forms of taxation, including a lump-sum method based on recorded revenues.

2. Agricultural taxation in the selected EU countries

Tax systems in the EU countries have been affected by economic, social, and political processes. It should be noted that despite numerous changes those systems have been burdened with defects and still require continuous changes to their adaptation to the new economic conditions. International comparisons regarding taxes may be particularly useful on these conditions. Numerous studies show that the EU countries are characterised by very similar tax systems despite different socio-economic and political determinants[6]. Mendoga and Tesar (2006) indicated that a high share of indirect taxes in the tax system might foster an economic growth. This results from a positive impact on an increase in savings as well as a low impact on an allocation of capital. In turn, higher revenues from income levies indicate a high level of economic development. Revenues from direct and indirect taxes account for about 60% of budget revenues and 90% of all tax revenues which prove their particular fiscal sense. The exceptions are Denmark, Italy, and England where budget revenue from these taxes fluctuated from 80% to over 90%.

[6] In the EU Member States, tax systems are determined by many complex socio-economic determinants, such as the level of living standard, consumption habits, views on the role of the state in the economy, tax mentality of the society. Therefore, the group of the EU Member States may be divided into clusters of countries with a relatively small share of taxes on personal income (several percent) with the superiority of consumption taxes such as the Czech Republic, France, Greece, the Netherlands, Poland and Spain, and the countries where the taxation of personal income is high (e.g. Belgium, Denmark, Finland, England, Ireland). This situation corresponds to the classification based on "Southern" and "Northern" tax mentality (Krajewska, 2010).

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Table 3 indicates that tax revenues in some countries account for almost half of GDP (for example, Denmark); whereas, they constitute about 30% of GDP in the majority of the EU states. The share of indirect taxes in countries, such as Finland, Greece, Italy, Poland, Spain, or the UK slightly increased in the years 2009-2011. In recent years, most EU countries took actions in the direction of lowering direct taxes, especially income tax from individuals which should translate into a reduction in their share in tax revenues of the EU countries.

In most countries, there are no separate tax systems targeted at agriculture. Nevertheless, farmers are treated differently than other occupational groups. This may be treated as a kind of preferential treatment of the agricultural sector by the tax system, which is referred to the concept of agricultural tax expenditures (TEs) in literature. In substance, two main approaches (systems) to agricultural taxation may be distinguished:

- general tax system - agriculture is a subject to the same tax regulations as other professional groups;
  - there are no any instruments that may support agriculture in the tax system (e.g. Finland);
  - there are many preferential instruments, for example, investment reliefs and other exemptions (e.g. the Netherlands, Spain, Belgium, the UK, Ireland, Denmark, Sweden, Slovakia);
- special (preferential) tax system – separate tax regulations referring to farmers, aimed at reducing their tax burden (e.g. Austria, Germany, France, Italy, Poland).

The distinction between income taxes in agriculture should be based on multiple criteria but the most common criterion is a tax base on which the tax is levied. Two concepts of calculating the tax base (causal and "effect-based") are used both in theory and in practice. The first concept assumes that calculating the tax factors affecting the performance of the farm, mainly land and buildings are necessary for calculating the accrued tax. The latter concept bases on income, production or revenue results, excluding their sources. It should be noted that the method of calculating farm income diversifies tax systems of the EU Member States. Farm income may be determined on the basis of:

- entries in accounting books;
- simplified accounting records, the so-called simplified accounting;
- the size of household (the number of hectares or livestock units);
- various methods of estimation (e.g. profit as a part of turnover).

Farmers' obligations concerning keeping accounting records are very varied and depend on the type of agricultural policy. The Netherlands is one of a few countries where farmers are treated entirely on part with other entrepreneurs and are required to keep accounting records of. In other countries (e.g. France, Germany), simplified accounting is acceptable. Moreover, the part of entities is not obliged to keep accounting books (e.g. Austria, Germany).

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Table 3

The share of tax revenues in GDP in selected EU Member States by the type of taxes in the years 2009 and 2011

State	Taxes as % GDP							
	Total sum		Indirect (consumption) taxes		Direct (income) taxes		Other indirect and direct taxes	
	2009	2011	2009	2011	2009	2011	2009	2011
Austria (AT)	42.4	42.0	14.9	14.6	12.8	13.0	4.4	4.1
Belgium (BE)	43.4	44.1	13.0	13.1	15.9	16.8	3.1	3.1
Czech Republic (CZ)	33.4	34.4	11.3	11.8	7.2	7.3	0.5	0.6
Denmark (DK)	47.8	47.7	17.0	17.0	30.0	29.9	3.0	3.1
Finland (FI)	42.8	43.4	13.7	14.4	16.4	16.5	1.3	1.3
France (FR)	42.1	43.9	15.3	15.5	10.3	11.8	6.2	6.1
Germany (DE)	38.3	38.7	11.8	11.5	11.7	11.6	1.4	1.5
Greece (EL	30.5	32.4	11.6	13.0	8.5	8.8	1.5	2.5
Italy (IT)	43.0	42.5	13.8	14.4	15.5	14.8	4.3	4.0
Netherlands (NL)	38.2	38.4	12.2	12.0	12.1	11.7	2.6	2.6
Poland (PL)	31.8	32.4	13.1	14.0	7.5	7.1	2.1	2.0
Spain (ES)	30.7	31.4	9.1	10.2	10.1	9.9	2.0	2.1
United Kingdom (UK)	34.8	36.1	11.9	13.5	16.0	15.9	4.5	4.4
Ireland (IE)	33.8	35.9	14.0	14.4	16.7	17.5	4.6	4.2

Source: Eurostat Data

Non-compulsory accounting in farms in most countries results in serious problems connected with determining farm income. As a result, a estimated income is treated as a taxable basis.

Given a scope of benefits targeted at agriculture as the criterion of classification, the EU Member States may be divided into three groups:

- countries with special preferential taxation systems for agriculture,
- countries with limited preferences directed to agriculture,
- countries with systems without tax preferences for agriculture.

Table 4 presents the structure of tax systems in selected EU countries with regard to tax preferences targeted at agriculture. This table shows that fiscal preferences in agriculture are common and include: taxation of income, capital gains, and consumption taxes. In many EU countries, incomes from individual farms are taxed under two separate, special tax regimes, mainly flat-rate schemes, in which tax revenues are estimated, or simplified systems. The latter systems have a historical justification; whereas, a shift to a general tax system may result in a significant increase in the tax burden from the viewpoint of both farmers and fiscal administration. For the fiscal authorities, extra costs could exceed tax revenues. In some countries, where farmers are included in the general taxation system, agricultural activities are favourably treated solutions such as taxation of average income over several years. It should be noted that, however, this applies not only to agriculture, because these preferences are also entitled to non-agricultural entities operating as small businesses.

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Table 4

Matrix of tax preferences for agriculture in selected EU countries

Country	Income of natural entities		Profits (companies)	Contributions to social insurances	Value of assets		Products and services
	Preferential systems	Tax reliefs and exemptions			Capital gains	Heritage	Excise duty, VAT etc.
Austria	x	x					x
Belgium	x	x					x
Czech Republic		x	x				x
Denmark							x
Finland						x	
France	x	x			x	x	x
Germany	x	x		x		x	x
Hungary			x				x
Ireland		x			x	x	x
Italy	x	x	x	x		x	x
Norway		x		x	x	x	x
Poland	x	x		x	x	x	
Netherlands		x			x		x
Spain	x	x					
UK		x					x

Source: authors' construction based on the OECD data

Conclusions

1. Nowadays, in Poland, farm income is not taxable within the general taxation system. Moreover, as described in comparative analysis including selected EU countries, agricultural taxation in Poland bases on a bundle of archaic fiscal instruments. On the contrary, economists and policymakers strongly deliberate on the implementation of changes in agricultural taxation. This results from the marginal role of the agricultural tax in financing of rural communities. Moreover, contemporary fiscal solutions for farmers may be treated as the form of hidden subsidising, and agricultural taxation does not play the basic fiscal role. Therefore, taxes (parataxes or parafiscal levies as well) do not result in any direct fiscal effects (i.e. lower or higher budgetary revenues), though, they are treated as a kind of aid for development of farms[7]. Proposals how the agriculture should be taxed are arguable, given increasing farm incomes. This significant change in the agricultural taxation may result in higher tax revenues from the agricultural sector; though, policymakers should reconsider model of taxation addressed to Polish farmers, aiming at structural changes in rural areas.
2. Given the global context of economic processes, tax harmonisation of agricultural taxation in Europe may be very positive. Since it is very difficult to come to an agreement on monetary policy, this

[7] See: Dziemianowicz, 2008

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seems to be very unrealistic. However, any forms of tax harmonisation are preferred from the viewpoint of improving the competitiveness of European agricultural sector.

3. The process of implementation of recording and reporting farm income and expenditures in Polish agriculture seems to be very important from the viewpoint of the planned reform of agricultural taxation (including income taxation) and a type of similarity to European solutions (e.g. Germany, Belgium, France). This may be regarded as more significant part of the aforesaid fiscal reform. Using even simplified tax registry by farmers would provide a basis for processes of production, investment, and financing.
4. Eliminating the category of special sections of agricultural production and inclusion of revenues/ income to the proposed form of income tax would be very desirable. This would indicate the practical implementation of Smith's tax principles concerning tax equity and an ability of taxpayer to pay levies.

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