Revenue effect of vat expenditures in Germany and Poland

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Abstract
VAT collection is affected by many different factors. One of the most important of them is tax design. Special provisions of the tax law such as tax exemptions, tax rate or tax base reductions may significantly decrease tax revenue. From the budgetary point of view they may therefore be perceived as a form of expenditure. The topic of tax expenditures gained on importance due to the current scarcity of public resources and urgent need for fiscal consolidation in many European Union Member States. Moreover the amount of tax expenditures and revenue loss attributable to them in these countries have been growing rapidly over the past two decades. The basic aim of this article is to evaluate the effect of tax expenditures on VAT revenue in Germany and Poland. The first chapter reviews the definition and measurement methods of tax expenditures in both countries. The second part of the article compares VAT rates, VAT exemptionsand VAT collection efficiency in Germany and Poland. The third uses the data included in the reports on federal subsidies in Germany and reports on tax preferences in Poland to analyse the value and structure of the most important VAT expenditures.

Introduction

One of the major threats to the sustainability of public finances in EU Member States is the growing public debt. Over the last 10 years, in the EU-25 the share of general government gross debt in the GDP has risen by about 23.4 percentage points (General government gross debt, 2016). This rise was mainly a result of the systematic increase in budget expenditures in these countries. Tax expenditures are considered an alternative to budget expenditures. Their structure depends on the functions assigned to them by the tax law. The term tax expenditure relates to its negative impact on public revenue. Tax expenditures have been the subject of interest for the state authorities only since the late 1960s. For the first time their valuewas measured in Germany and the USA (Choosing a Broad Base, 2010, p. 38). In Germany the value of tax expenditures isprovided for in subsidy reports which have been published since 1959. In the US the first budget taking tax expenditures into account was published in 1968. In 1974 the report on tax expenditures became part of the Budget Act (McBride, 2013). The concept of tax expenditures spread to other countries of the European Union and in many of them reporting their value has become regular and obligatory.

Amongst the EU states which regularly publish reports on the value of tax expenditures are Germany and Poland. In the first of these countries the obligation to publish the reports is statutory and the published data concern a broader time range. The German reports concern not only t-1 period, but also t-2 and t+1 (Bauger 2014, p. 12). These reports take into account a number of taxes constituting the revenue of the state budget as well as the budgets of local government units. One of them is the value added tax which is an important source of public revenue in both countries. It is the value added tax expenditures that are analysed in this article. The aim of the article is to compare their effect on the amount of VAT revenue in Germany and Poland. It also presents an analysis of selected indicators of the fiscal efficiency of this tax as well as comparing tax rates in both countries.

Defining and Measuring Tax Expenditures in Germany and Poland

The definition of tax expenditures is often the subject of studies in the field of public finance. It is also quoted in reports published by individual EU Member States conducting the measurement. The concept of tax expenditures was used for the first time in 1967 by Stanley S. Surrey, a law professor at Harvard University and Assistant Secretary of the US Treasury for Tax Policy. He considered tax expenditures to be tax preferences (tax incentives or tax subsidies) constituting departure from the normal tax structure used to favour a particular industry, activity or a group of persons. They may take the form of exclusions, deductions, deferrals of tax liabilities, credits or preferential tax rates (Surrey, 1973, p. 53). He pointed out that not all tax preferences should be classified as tax expenditures but only those that do not have a universal character and fulfil social, economic or political goals for certain categories of taxpayers (Dziemianowicz, Wyszkowski, Budlewska, 2014, p. 39). In its original form this definition referred to income taxes. However tax expenditures could also be defined with respect to other taxes, such as excise duties, payroll taxes or estate taxes, but as it is stressed by L. E. Burman and M. Phaup (2012, p. 97) it has not been done on a systematic basis. The most important way to classify a tax preference as tax expenditure is determining whether this preference differs from the normative (normal) tax structure. For this purpose it is necessary to define the concept of normative (normal) tax structure.

In the case of the VAT normal tax structure is related to a broad-based destination principle and includes two tax rates: the zero rate for exports and the single rate for all other supplies. Any deviation from this rate structure may be considered a tax expenditure (Hutton, 2010, pp. 4-5). Another category of tax expenditures is reductions to the tax base. In value added tax the reduction of the tax base is a consequence of applying tax exemptions. Most of these exemptions are classified as tax expenditures. Sometimes, however, some exceptions are envisaged. They concern, for example, exemptions which are provided as a result of international negotiation or treaty. In the opinion of some authors classifying the VAT registration threshold as tax expenditure is controversial (Hutton, 2010, p. 6). Some experts in the field of tax expenditures also indicate that considering reduced VAT rates as tax expenditures is not fully justified because all consumers - and not just selected groups of taxpayers - benefit from the application of these rates (Bauger, 2014, p. 15).

In Germany there is no commonly used and accepted definition of tax expenditures. The biennial subsidy report includes two categories of subsidies. The first one includes financial assistance, i.e. federal funds allocated to agencies outside the federal administration and deployed for the benefit of private businesses or economic sectors. The second one includes tax benefits. They are defined as special tax provisions that lead to a reduction in public revenue (24the Subsidy Report, 2015, p. 10). These include preferences directly or indirectly conducive for certain sectors or sub-sectors of the economy. Moreover they are also special tax regulations that directly support business and industry over the general public. This definition of tax benefit corresponds only to some extent with the definition of tax expenditure used by the OECD. According to the OECD publication *Tax Expenditures in the OECD Countries* (2010, p. 12) tax expenditures are provisions of tax law, regulations or practices that reduce or postpone revenue for a comparatively narrow group of taxpayers relative to a benchmark tax system. Here tax expenditures are seen from the perspective of the loss of public revenue as a result of deviations from the tax standard. In Germany, however, the tax standard is never mentioned when defining tax expenditures as the substitution benchmark approach is applied. In this approach there is no formal concept of the tax standard and only those tax benefits are taken into account which provide an alternative to direct subsidies and which may be replaced by them. The implicit reference tax system is defined by the legal language and is re-evaluated with every new tax law (Tax expenditures in OECD, 2010, p. 89). As a result the concept of tax expenditures in Germany differs from the ones used in other countries.

Part of the subsidy report in Germany is an evaluation of the 20 largest tax expenditures. This evaluation is made by three European research centres: the Centre for European Economic Research in Mannheim, the Danish Consultancy firm Copenhagen Economics, the FiFo Institute for Public Economics at the University of Cologne. This evaluation takes into account (Thöne, 2012, p. 6-7): the description of tax expenditure, its evolution and volume, transparency, relevance, rationale, efficiency (in order to answer the question of the cost per unit of target attainment) and the effectiveness of this expenditure (in order to answer the question of the extent to which a given tax expenditure achieves its objectives). The final evaluation of each tax expenditure assumes one of the following forms: tax expenditure can be maintained, tax expenditure should be heavily revised, tax expenditure should be abolished.

In Poland annual reports are published to present the amount of tax preferences in individual taxes. For the purpose of these reports the definition of tax preference refers to the OECD definition of tax expenditure and not to the classical notion of tax relief formulated in the Tax Ordinance Act. The Tax Ordinance Act considers as tax relief all tax exemptions, deductions or reductions envisaged in the tax law, the use of which reduces the tax base or the tax amount. Thus the concept of tax relief is broader than that of tax expenditure. A tax preference may be regarded as tax expenditure on condition that it is aimed at a specific number of taxpayers. This condition is met by preferences to which taxpayers are entitled on the basis of tax laws and the regulations of the Minister of Finance. It is not met by discretionary relief for taxpayers the granting of which under the Tax Ordinance Act is justified by an important interest of the taxpayer or an important public interest. These allowances are granted to specific taxpayers and the granting of them depends solely on the decision of the tax authorities.

With regard to tax expenditures Poland applies the reference benchmark approach (also called internal, legal, normal or baseline benchmark approach). This approach has been developed in countries where the tax legislation provides the basis for defining the standard tax system (Burton, Sadiq, 2013, p. 89). The key role in this approach is played by the definition of the tax standard which greatly differentiates this approach from the substitution benchmark approach. This requires an indication of the most important tax rules as well as these solutions which are tax allowances in a legal sense but in practice constitute part of the standard. These principles include the principles of universality, completeness and equality of taxation.

The standard is defined differently for each tax. In the case of value added tax the standard is the rules laid down in the harmonized EU law. Optional solutions are considered as exceptions from this standard and also solutions introduced for administrative purposes including a VAT registration threshold. It should be noted that determining the amount of tax preferences and their effect on the public revenue collected is a complicated task as these preferences are not subject to detailed reporting. For this reason it is difficult to determine their value even ex post. In most cases the value of tax preferences is subject to estimation. Despite the differences in the scope of defining tax expenditures, Poland and Germany apply the same method of estimation. The literature names three such methods (Rabin, 1992, p. 320): outlay equivalence method, revenue gain method and revenue forgone method.

The first is based on calculation of the outlay that would have resulted in a similar gain for the taxpayer as the considered tax expenditure. The revenue gain method involves ex ante calculation of the additional revenue that would accrue from repealing tax expenditures (Polacova Brixi, Valenduc, Li Swift, 2004, p. 7). The revenue forgone method is the most straightforward; it estimates the cost of tax expenditure as the deviation between the tax paid by taxpayers affected by specific tax provision and tax paid by similar taxpayers not affected by that provision (Li Swift, 2006, p. 21). Due to its simplicity it also the most predominant method. In addition it provides a parallel between the tax expenditure budget and direct expenditure budget. Other methods lead to complexity in terms of data collection, underlying assumptions and the actual calculations (Burton, Sadiq, 2013, pp. 95-96).

In Germany tax expenditure estimates are based on different sources of data such as official statistics, business statistics or direct payment data. Tax expenditure estimates represent revenue forgone on the cash basis for the year of estimation. Basically they do not take into account any behavioural responses (Tax expenditures in OECD, 2010, p. 89).While estimating tax expenditures two additional evaluations are taken into account: one related to the measurement of marginal cost of public funds and the other to the measurement of administrative effort with the use of the Federal Government's Standard Cost Model (Thöne, 2012, p. 12-13).

In Poland the value of tax expenditures is calculated on the basis of the actual data obtained from taxpayers' tax returns and on the basis of the data held by the Ministry of Finance (including the official budget reports of local government units, the data from tax and customs bases or surveys). In the case of value added tax expenditures are estimated on the basis of national accounts, including the data on household final consumption expenditure, intermediate consumption, gross fixed capital formation in the sector of state government institutions, local government institutions and other sectors (Preferencje podatkowe w Polsce, 2015, p. 13).

VAT Collection Efficiency, and Selected VAT Preferencesin Germany and Poland

Both in Germany and in Poland VAT is a major source of public revenue. According to the data of the German Federal Statistical Office for 2014 the share of VAT revenue amounted to 31.6% (Statistisches Jahrbuch, 2015, p. 254). VAT and the wage withholding tax are the most fiscally efficient taxes in Germany. The share of value added tax in GDP in 2007-2014 ranged from 6.7% to 7.2% and was the highest in 2009 (Table 1). It should be noted that the financial crisis did not lead to a reduction in VAT revenue only to a slightly slower growth in revenue from this tax between 2009 and 2010. In Poland VAT is also the most fiscally efficient tax. Its share in the tax revenue of the state budget in 2014 amounted to as much as 48.8%. With the exception of 2013 the share of VAT revenue in GDP was slightly higher in Poland than in Germany. VAT revenue in 2007-2014 was characterized by varying dynamics. In 2009 it decreased by as much as 2.3 percentage points. The decrease in VAT revenue compared to the preceding year occurred also in 2012-2013. The VAT revenue in 2013 was negatively influenced by the decline in public investment which constitutes an important element of the VAT base. In 2013 the nominal value of public investment fell by 10.9% compared with the previous year. During this year changes in the structure of VAT bases subject to different VAT rates were also noted. The value of the consumption of products and services taxed at the standard VAT rate decreased whilst at the same time the turnover of products and services taxed at reduced VAT rates increased. In 2010 VAT revenue increased by as much as about 8.5 percentage points. The high growth rate of VAT revenue was partially caused by macroeconomic factors such as the increase in the nominal rate of industrial production sold and the increase of the value of the retail sales in the subsequent quarters of that year. A significant – about 12.0 percentage point increase in VAT revenue - took place in 2011 when the VAT rates increased: the standard one from 22 to 23% and the reduced rate from 7 to 8%.

Year	Germany			Poland		
	VAT revenue (mln euro)	VAT revenue (% GDP)	VAT revenue growth rate (%)	VAT revenue (mln PLN)	VAT revenue (% GDP)	VAT revenue growth rate (%)
2007	169 636	6.76	–	96 350	8.12	–
2008	175 989	6.88	3.75	101 783	7.97	5.64
2009	176 991	7.20	0.57	99 455	7.30	-2.29
2010	180 042	6.99	1.72	107 880	7.47	8.47
2011	190 033	7.04	5.55	120 832	7.71	12.01
2012	194 635	7.08	2.42	120 001	7.37	-0.69
2013	196 843	7.01	1.13	113 412	6.85	-5.49
2014	203 110	6.99	3.18	124 262	7.23	9.57

Table 1: VAT revenue in Germany and Poland in the years 2007-2014

Source: (Statistisches Jahrbuch, 2015, pp. 321-325; Kassenmäßige Steuereinnahmen 2016; Analiza wykonania budżetu państwa, 2015, p. 84; Analiza wykonania budżetu państwa,2009, p. 54; Analiza wykonania budżetu państwa, 2008, p. 50; Roczne wskaźniki makroekonomiczne,2016).

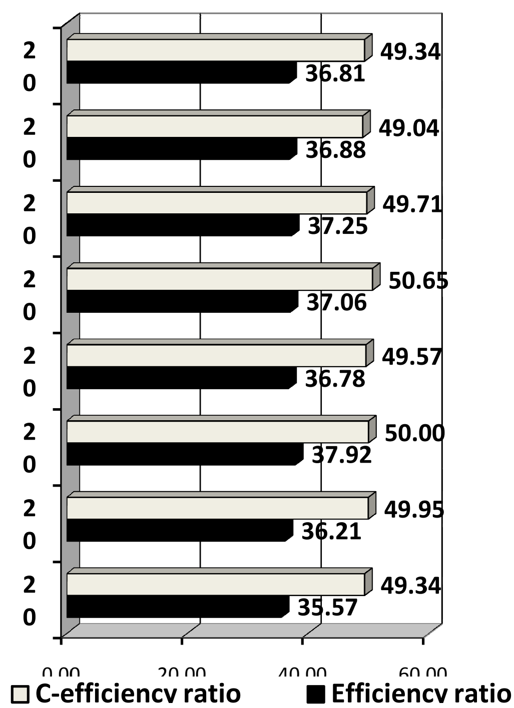

Figure 1: VAT efficiency ratios in Germany in the years 2007-2014
Source: (Statistisches Jahrbuch, 2015, pp. 321-325; Statistisches Jahrbuch, 2012, p. 325; Statistisches Jahrbuch,2009, p. 644; Kassenmäßige Steuereinnahmen 2016).

Amongst the most common measures of VAT performance, taking into account basic macroeconomic variables and one of the most important elements of VAT construction, i.e. the standard rate of the tax, are the efficiency ratio and c-efficiency ratio. The first of these measures is calculated using the following formula:

$$E = \frac{V}{\tau_s GDP}$$

Where: E – efficiency ratio, V – VAT revenue, τ_s – standard VAT rate, GDP – Gross Domestic Product.

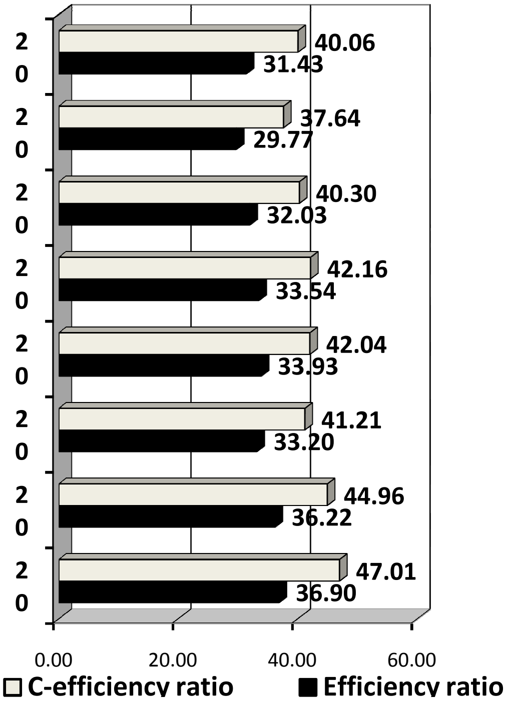

Figure 2: VAT efficiency ratios in Poland in the years 2007-2014
Source: (Analiza wykonania budżetu państwa, 2015, p. 84; Analiza wykonania budżetu państwa, 2009, p. 54; Analiza wykonania budżetu państwa, 2008, p. 50;Roczne wskaźniki makroekonomiczne,2016).

Although the efficiency ratio is widely used as a diagnostic tool in evaluating VATs its limitations are significant. Errors in the measurement of GDP will clearly distort this measure (Ebrill, Keen, Bodin, Summers, 2001, p. 41). In addition it suffers from a fundamental weakness - a "perfect" efficiency ratio of 100 percent could be only achieved by a product type VAT levied at a uniform rate (Tax Administration, 2015, p. 204). Because the appropriate benchmark against which to gauge a given VAT would typically be a consumption-type VAT levied at uniform rate a better measure of VAT performance is the c-efficiency. The C-efficiency ratio is used to compare the revenue that is actually collected with that which would be raised if it were perfectly enforced and levied at a uniform (standard) rate on all consumption and with no exemptions (Keen, 2013, p. 7). Any value of the c-efficiency ratio other than 100 indicates deviation from a single base (e.g. the inclusion of investment in the VAT base may result in a c-efficiency ratio above 100 and zero-rating of consumption on the other hand would decrease this ratio) (Ebrill, Keen, Bodin, Summers, 2001, p. 42). The C-efficiency ratio is calculated as follows:

$$E^c = \frac{V}{\tau_s C}$$

Where: E^c – efficiency ratio, V – VAT revenue, τ_s – standard VAT rate, C – consumption.

The comparison of figures 1 and 2 shows that the VAT efficiency ratio in Germany is several percentage points higher than in Poland. In the periodanalysed in Germany this ratio remained relatively stable, whereas in Poland it dropped significantly. In 2007-2014 also the c-efficiency ratio in Poland dropped. It should be mentioned that in 2007 and 2008 this ratio in Poland was slightly higher than in Germany. At the same time in Germany, in the periodanalysed, a slight increase in the c-efficiency ratio could be observed.

Category of goods and services	Tax rates and tax exemptions	
	Germany	Poland
Foodstuffs	7, 19	5, 8, 23

Water supplies	7	8
Pharmaceutical products	19	8
Medical equipment for disabled persons	7	8
Children's car seats	19	8
Transport of passengers	7, 19	8
Books	7	5, 23
Books on (or?) other physical means of support	7, 19	5, 23
Newspapers	7	8, 23
Periodicals	7	5, 8, 23
Admissions to cultural services	ex , 7	8
Admissions to amusements parks	19	8
Pay TV/Cable TV	19	8, 23
TV license	ex	23
Writers, composers…,	7	ex, 8
Social housing	19	8
Renovation and repair of private dwellings	19	8, 23
Window cleaning and cleaning in private households	19	23
Agricultural input	7	5, 8, 23
Hotel accommodation	7	8
Restaurants and catering services	19	8
Admission to sporting events	7, 19	8
Use of sporting facilities	ex, 19	8
Social services in so far as those transactions are not exempt pursuant to Articles 132, 135 and 136 of the Directive 2006/112/EC	7	23
Supplies by undertakers and cremation services	19	8
Medical anddental care in so far as those services are not exempt pursuant to points (b) to (e) of Article 132(1) of the Directive 2006/112/EC	ex, 7	23
Collection of domesticwaste and street cleaning, other than the supply of such services by bodies referred to in Article 13 of the Directive 2006/112/EC	19	8
Minor repairs (including mending and alteration) of: Bicycles	19	8
Shoes and leather goods	19	8
Clothing and household linen	19	8
Domestic care services	ex, 19	ex, 23
Hairdressing	19	8

Table 2: VAT rates and VAT exemptions in Germany and Poland (categories of goods and services contained in Annex III and Annex IV of VAT Directive 2006/112/EC)
Source: (VAT Rates, 2016, p. 4-5).

Since 1 January 2007 in Germany the standard rate of VAT has been 19%. The Value Added Tax Act in § 12 and in Annex 2 lists the scope of application of the reduced rate which is 7% (Umsatzsteuergesetz, 2015). In Germany the reduced VAT rate is applied to delivery, intra-Community acquisition and import of the following goods: agricultural and forestry products, animals and animal feed, living plants and other products for the cultivation of ornamental plants, including bulbs and roots, flowers and ornamental foliage, as well as firewood, foodstuffs (including inter alia milk and dairy products, flour, vegetables, fruit, fish, meat products, tea, coffee, spices), printed materials (including, for example: books, magazines, maps, stamps), medical equipment, some works of art and collectors' items (including items of particular archaeological, botanical, mineralogical, paleontological and folk value, paintings, sculptures, coins), etc.. The reduced rate also applies to the lease or rental of the aforementioned goods against payment.

In addition the reduced rate applies to services provided by authors, artists and performers rewarded in the form of fees for the transfer of the copyright license or the rights to artistic performance. The reduced rate is used for dental services and services provided by dental technicians. Moreover it applies to cultural and social services including, for example, admissions to concerts, shows, theatrical performances, performances of choirs and orchestras, as well as screenings of films (with the exception of commercials), circus performances and zoos (with the exception of tax-exempt services). The reduced VAT rate applies to the supply of goods and services by legal persons whose only statutory purpose are religious, social or charitable activities as defined in § 51-68 of the Tax Ordinance Act (Abgabenordnung 2002). These activities include, amongst others, supporting science and research, health care, culture and art, protection and conservation of monuments, protection of German traditions and customs, protection of animals, the development of sports, actions aimed at ensuring equality between women and men. A separate group of services taxed at the reduced VAT rate includes certain passenger transport services. For example: the reduced rate is applied to rail transport (with the exception of roller coasters) of passengers and their baggage, transport by electric-powered means of transport and other means of transport, where the transport takes place on a regular basis between specified places of departure and arrival (e.g. the transport of workers to their workplace, children to school, customers to shopping centres). The 7% rate applies also to the supply of natural water to end users and the supply of services in the field of water distribution, including the installation of water systems and connections, to services offered by swimming pools and to medicinal baths. German law envisages also a number of VAT exemptions. They concern, for example, transactions made by the blind. The selected range of application of the reduced rate and tax exemptions is presented in Table 2.

In Poland, since 1 January 2011, pursuant to Art. 41 (1) in conjunction with Art. 146a, the standard rate of VAT has been 23% (Act of 11 March 2004, 2004). In addition for selected goods and services listed in Annex 3 to this Act, during the period from 1 January 2011 to 31 December 2016, the reduced rate is 8%, whereas for goods and services listed in Annex 10 – 5%. The rate of 8% is applied to the supply, construction, renovation, modernization, thermal modernization or reconstruction of buildings or parts of buildings classified under the social housing programme. It applies also to the intra-Community acquisition and import of, amongst other things: food, fertilizers, goods related to health care, services related to agriculture and forestry, waste disposal services, transport, accommodation, admission to sporting events, recreational and cultural activities.

The super-reduced rate of 5% applies, amongst other things, to: plants other than perennials, live animals, fish, meat, oils, spices, dairy products, fruit, fruit and vegetable juices, fresh, crisp and toasted bread and similar toasted products, unleavened bread and breadcrumbs, pasta and similar products, flour, couscous, convenience foods, excluding products in which the alcohol content exceeds 1.2%. It is used also for printed books marked with ISBN symbols, maps produced by printing (except flyers), publications in Braille, books on disk, tapes or other media (marked with ISBN), professional journals and music notes in a printed form. In Poland there is also the 0% rate, applied, for example, to the supply of central processing units, computers, servers, monitors and sets of desktop computers.

The range of applied reduced rates in Poland is broader than in Germany. For example in Poland the VAT rate of 8% applies to labour-intensive services, including the repair of footwear and leather goods, the repair and alteration of clothing and household textile articles, to the repair of bicycles and to hairdressing services. In Germany these services are taxed at the standard rate. In Poland there is also a reduced rate of 8%, applied, for example, to children's car seats, supplies by undertakers and cremation services, restaurants and catering services, social housing or admissions to amusements parks. In Germany all these products and services are taxed at the standard rate.

VAT Expenditures in Germany and Poland

Whilst in Italy, the UK or Spain the relation of tax expenditures to GDP and to the total tax revenue is the highest when compared to other Member States of the European Union, in Portugal, Germany and France it is relatively low. At the same time it should be emphasized that in terms of value in Germany tax benefits currently play a far more important role than financial assistance as a form of support to specific economic sectors or specific groups of taxpayers. According to the subsidy report published in 2015 the value of tax benefits between 2013 and 2016 exceeded 2.5 times the value of financial assistance (Vierundzwanzigster Subventionsbericht, 2015, p. 7). The share of tax benefits to GDP in 2014 reached 0.53% and declined in the last ten years by about a 0.45 percentage point. In 2004-2014 the relation of tax benefits to tax revenue dropped from 7.5 to 5.8%.

Category of preferential tax regulation	2011	2012	2013
VAT exemption for medical services	13 210	13 410	13 620
Reduced VAT rate for cultural services and entertainment	3370	3455	3520
Reduced VAT rate for transport of people in urban and suburban areas	1045	1050	1075

Reduced VAT rate for accommodation services	920	955	960
Reduced VAT rate for medical equipment for the disabled, orthopaedic appliances, swimming pool services and medicinal baths	580	590	600
Reduced VAT rate for activities specified in § 51- 68 of the Tax Ordinance Act	320	325	330
Reduced VAT rate for services provided by dental technicians and for supplies of dental prostheses	495	505	515
Total tax benefits and miscellaneous tax regulations	19 940	20 290	20 620

Table 3: VAT benefitsand miscellaneous tax regulations of the highest value in Germany in 2011-2013 (million euros)

Source: (Vierundzwanzigster Subventionsbericht, 2013 pp. 56-83).

Poland belongs to the countries in which the value of tax expenditures can be described as significant. The share of tax expenditures in GDP reached 5.2% in 2013. This share increased slightly compared to 2010 when it amounted to 4.8%. The share of tax expenditures in the tax revenue in Poland is also one of the highest amongst EU Member States. Since 2010 this share has been relatively stable at 30.0%.

In most EU Member States tax expenditures are lower than PIT expenditures. In countries such as Denmark, France, the Netherlands, Poland and the United Kingdom the share of VAT expenditures in the GDP is relatively high. The total value of VAT expenditures is affected by the level and scope of the application of reduced tax rates and exemptions as well as by the scope of the benchmark definition (Tax expenditures in direct taxation, 2014, p. 9). As a result, in countries that use high VAT standard rates, even with a relatively narrow scope of application of exemptions and reduced rates, the loss arising from tax expenditures can be relatively high. It is so, for example, in Denmark, where the standard rate of 25% is considered the benchmark and VAT exemptions treated as tax expenditures generate a significant loss of public revenue (National Report, 2012, p. 8).

Often the purpose of reduced VAT rates and tax exemptions is to support specific sectors of the economy, a group of entities or special activities. This is, for example, the case with reduced rates for labour-intensive services, the hotel and catering industry, or intermediate goods and raw materials used for agricultural purposes. The introduction of VAT expenditures may also be motivated by social or pro-family policies. Another argument for reduced VAT rates, especially on merit goods and services, is that lowering the burden of tax on basic goods is necessary in order to counter the regressive character of VAT (Forenc, 2015, p. 72).

Category of preferential tax regulation	2011	2012	2013
Reduced VAT rate on construction works in the residential housing sector	11 004 (2505)	11 204 (2551)	11 320 (2577)
Reduced VAT rate on medicines	4 569 (1040)	4 867 (1108)	5 079 (1156)
Reduced VAT rate on meat and preserved meat products	2 940 (669)	2 864 (652)	2 817 (641)
Reduced VAT rate on land transport in urban and suburban areas	1 750 (398)	1722 (392)	1 892 (431)
Reduced VAT rate on dairy products	1 724 (392)	1780 (405)	1 882 (428)
Reduced VAT rate on plants	1677 (382)	1 874 (427)	1347 (307)
Reduced VAT rate on services related to food	1 674 (381)	1 824 (415)	1825 (415)
Reduced VAT rate on bread, pastry goods and cakes	1559 (355)	1547 (352)	1536 (350)
Other tax expenditures	14 215 (3236)	14 830 (3376)	15 689 (3572)
Total VAT preferences	41 112 (9360)	42 512 (9678)	43 387 (9878)

Table 4: VAT preferences of the highest value in Poland in 2011-2013 in million PLN (millioneuros*)

Source: (Preferencje podatkowe [Tax expenditures] , 2015, p. 30; 2014, p. 29; 2013, p. 29; Wartość preferencji [Value of tax expenditures], 2015, 22-39).

* 1 EURO = 4,39245 PLN, 18 Mai 2016.

The subsidy report in Germany includes the values of public revenue lost as a result of tax benefits as well as miscellaneous tax regulations. Miscellaneous tax regulations are not classified as subsidies or tax benefits but they have an equivalent effect on the tax revenue and are listed for information in Annex 3 of the subsidy report. For the same reason they are also included in Table 3. Table 3 shows that in Germany the greatest loss of the public revenue from VAT is due to exempting medical services regulated in § 4 No. 14 of the Turnover Tax Act (UStG) from this tax. Pursuant to Art. 132 of the Directive 2006/112 / EC, it belongs to the group of tax exemptions for certain activities in the public interest. This exemption applies to services provided by hospitals, clinics and diagnostic centres and other entities of a similar nature operating in the health care industry and meeting the conditions set by the law (including units held by public legal bodies). These services include, amongst other things, diagnostics, prevention and rehabilitation. In 2011-2013, the loss due to tax exemptions for these services amounted to about 40.2 billion euros. It must be also added that in the subsidy report this exemption is recognized in the group of miscellaneous tax regulations.

A significant loss of VAT revenue is also a result of the application of reduced rates. The analyses conducted by Ch. M. Schmidt and W. Wiegard (2011, p. 5), aimed at determining the impact of reduced VAT rates on the fiscal performance of VAT on the basis of simulation models suggest that the elimination of these rates, assuming the constancy of consumer behaviour, could contribute to an increase in VAT tax revenue of about 26.7 billion euros. In the group of reduced VAT rates considered as tax benefits the highest loss of revenue is caused by the VAT reduced rate on cultural services and entertainment. In 2011-2013 the amount of loss due to the application of the reduced VAT rate on services and cultural activities reached about 10.4 billion euros. This rate does not apply to such services exempt from tax. Services exempt from tax are those financed from the budget of the federation, states (*Länder*), municipalities or associations of municipalities: theatres, orchestras, chamber ensembles, choirs, museums, botanical and zoological gardens, archives, libraries, collections of books and monuments. This exemption applies also to non-state actors if the relevant authorities of the federal state confirm that they perform the same functions as the entities mentioned above. The aim of this tax expenditure is to increase the attractiveness of these services by keeping their prices at a relatively low level. In the 2009 report including the assessment of tax benefits in Germany it was concluded that this rate should be abolished as it is not sufficiently justified economically. Goals similar to the ones achieved by this rate could be reached more effectively by means of budget expenditures (Thöne, Schmidt, Heinemann, 2009, p. 13).

Table 3 lists also other tax benefits, such as the reduced VAT rate on the transport of people in urban and suburban areas, the reduced VAT rate on services provided by dental technicians and supplies of dental prostheses, as well as the reduced VAT rate for accommodation services. The report evaluating tax benefits in Germany proposes an amendment of the first of these rates, whereas the second rate is – in the opinion of the authors of the report – fully justified economically. The reduced rate on accommodation services was introduced from 1 January 2010 and hence it was not subject to assessment in that report. The loss of tax revenue as a result of these tax benefits in the period presented in Table 3 amounted to about 7.5 billion euros.

In Poland, unlike in Germany, the amount of VAT expenditures exceeds the value of tax expenditures in income taxes. For example in 2013 the value of VAT expenditures amounted to approximately PLN 43.4 billion (2.7% GDP), whilst the value of PIT expenditures was PLN 19.4 billion (1.2% GDP) and CIT expenditures – PLN 12.6 billion (0.8% GDP). The quota domination of VAT expenditures over expenditures in other taxes has persisted for several years. The key area of support in the case of the VAT preferences (expenditures), just as in the case of the personal income tax, has for many years been family and social support. The most significant VAT expenditures in Poland, are presented in Table 4. The value of the listed expenditures presented in the table was between 63.8% of the total of VAT expenditures in 2013 to 65.4% in 2011. The value of VAT revenue lost by the state budget in 2013 due to tax expenditures – reduced preferential VAT rates – was 38.3% of the state budget revenue from this tax. Of the total amount of expenditures as much as 26.4% was due to the reduced VAT rate of 8% for residential housing construction works. It applies to the supply, construction, renovation, modernization and thermal modernization or reconstruction of buildings or parts of buildings covered under the social housing programme. The social housing programme does not cover single-family houses where the usable area does not exceed 300 m², and flats whose usable area does not exceed 150 m². A loss of public revenue of about 14.5 billion PLN results from the application of the 8% rate on medicinal products, including basic sanitary products, medical equipment, medicines, wheelchairs, veterinary services. The reduced VAT rate on meat and meat products, milk and dairy products and bread, pastry goods and cakes contributed in 2011-2013 to a loss of tax revenue of PLN 18.7 billion. A significant loss of tax revenue results also from reduced VAT rates on certain services, including those related to land transport and catering and canteen services.

Conclusions

Conducting a comprehensive comparative analysis of the scope and value of tax expenditures between individual EU Member States is a difficult task due to significant differences concerning not only the definition of tax expenditures, the applied tax standard, the method of determining the value of tax expenditures but also the level of details presented in statistical data reports. Both in Germany and in Poland the value of tax expenditures is calculated using the revenue forgone method. Also the nature of the sources of data on the basis of which tax expenditures are evaluated is similar.

Significant differences arise in the definition of tax expenditure and the tax standard used to construct these definition. Whilst in Germany it is the value of tax benefits that is evaluated and the tax benefits include tax provisions which aim at supporting selected taxpayers and particular sectors of the economy, in Poland the evaluated values are the amounts of tax preferences, defined as the transfer of public resources made as a result of a reduction in tax liability in relation to the tax standard adopted . In Germany the standards used for VAT purposes are measures conforming to the European common VAT system. In Poland only mandatory Community rules are treated as standard whereas optional rules are an exception and are classified as tax preferences (expenditures).

In Germany the tax standard includes, for example, reduced VAT rates on foodstuffs or exempting house rental from tax, whilst the reduced VAT rates e.g. on cultural services and entertainment or rates on the transport of people in urban and suburban areas are considered tax benefits. In Poland all reduced VAT rates are treated as tax expenditures. The tax standard includes however those solutions which for administrative and control reasons limit the scope of tax, including the VAT registration threshold.

In Germany reports evaluating the loss of public revenue as a result of tax expenditures distinguish between tax benefits and miscellaneous tax provisions but at the same time do not give the values of the total revenue loss for both of these categories of tax regulations. The assessment of the amount of the loss for individual taxes is difficult due to the shortage of data. The presented data concern several years and include also estimated values for the following year. In Poland the reports provide for the data related only to the preceding year. Each time the value of tax expenditures is given in total but it does not take into account all the expenditures, also due to the shortage of statistical data.

The fiscal consequences of tax expenditures in VAT can be inferred on the basis of the analysis of legislation. In Germany the standard rate is lower than in Poland and also the difference between the standard rate and the reduced rate (in percentage points) is smaller. This results in a greater loss of revenue from the application of reduced rates in Poland than in Germany. Moreover in Poland there are two reduced rates and their scope of application is broader than in Germany, which is also clearly reflected in the higher loss of public revenue from the VAT.

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