

Famulska, Teresa; Rogowska-Rajda, Beata

## Article

# Principle of vat neutrality and the reverse charge mechanism

e-Finanse: Financial Internet Quarterly

## Provided in Cooperation with:

University of Information Technology and Management, Rzeszów

*Suggested Citation:* Famulska, Teresa; Rogowska-Rajda, Beata (2018) : Principle of vat neutrality and the reverse charge mechanism, e-Finanse: Financial Internet Quarterly, ISSN 1734-039X, Sciendo, Warsaw, Vol. 14, Iss. 3, pp. 87-97,  
<https://doi.org/10.2478/fiqf-2018-0022>

This Version is available at:

<https://hdl.handle.net/10419/197421>

## Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

## Terms of use:

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



<https://creativecommons.org/licenses/by-nc-nd/3.0>

## PRINCIPLE OF VAT NEUTRALITY AND THE REVERSE CHARGE MECHANISM

TERESA FAMULSKA<sup>1</sup>, BEATA ROGOWSKA-RAJDA<sup>2</sup>

### <sup>3</sup>Abstract

The principle of VAT neutrality is among the fundamental characteristics of this tax. It is implemented through reduction of VAT output by the amount of VAT input. The right of deduction constitutes an integral part of the VAT mechanism and is intended to free the entrepreneur entirely from the burden of VAT paid for the goods and services purchased within the framework of business activity. However, in certain situations it is possible to shift the obligation to pay VAT to the customer being a taxable person by introducing a reverse charge mechanism. The purpose of the article is to identify the relationship between the implementation of the principle of VAT neutrality and the reverse charge mechanism. The conducted analysis of the essence and functioning of the reverse charge and the detailed findings drawn on its basis allow us to conclude generally that this mechanism does not affect implementation of this principle.

**JEL classification:** H21, H25, H32

**Keywords:** VAT, input VAT, output VAT, principle of VAT neutrality, reverse charge

Received: 10.03.2018

Accepted: 20.09.2018

1 University of Economics in Katowice, Faculty of Finance and Insurance, Department of Public Finance; e-mail: [teresa.famulska@ue.katowice.pl](mailto:teresa.famulska@ue.katowice.pl), ORCID: <https://orcid.org/0000-0002-6283-4380>.

2 University of Economics in Katowice, Faculty of Finance and Insurance, Department of Public Finance; e-mail: [beata.rogowska-rajda@ue.katowice.pl](mailto:beata.rogowska-rajda@ue.katowice.pl), ORCID: <https://orcid.org/0000-0003-3879-3440>.

## INTRODUCTION

VAT is a consumption tax by its nature, and therefore, it should not encumber business entities involved in trade of goods or provision of services, i.e. in particular, it should be neutral for companies. Implementation of the principle of neutrality, specific for VAT, is ensured by deduction of VAT input from VAT output. However, in certain situations it is possible to shift the obligation to pay VAT to the customer being a taxable person by introducing a reverse charge mechanism.

The purpose of the article is to identify the relationship between the implementation of the principle of VAT neutrality and the reverse charge mechanism. This problem has not been investigated either in theory or in practice. No complex research has been performed to enable assessment of the reverse charge mechanism, in particular with regard to implementation of the principle of neutrality. The previous analyses were fragmented and did not provide any clear conclusions focusing in particular on the effectiveness of this mechanism in counteracting tax fraud (Keen, 2007; Borselli, 2008; Amand, 2011; Bal, 2011; Brederode, 2015; Cnossen, 2017). Two analyses performed for the purposes of the European Commission shall be mentioned among the few existing ones – one from 2007 (Study in respect ..., 2007) and the other one from 2014 (Assessment of the application ..., 2014), as well as a study carried out in Germany (Planspiel zur systembezogenen ..., 2005). In Poland, the first attempt to estimate the economic effects of implementation of reverse charges in domestic transactions was the analysis of its impact on the market for reinforcing bars (Analiza wpływu zmian..., 2014), followed by the analysis (Ocena funkcjonowania ustawy, 2013) of reverse charges in steel products prepared within the framework of broader VAT assessment (Ekspertyza CASE, 2015). In the Polish literature on the subject, there have also been synthetic short analyses performed (e.g. Zaleska & Dziadek, 2014; Rogowska-Rajda & Tratkiewicz, 2017; Szlęzak-Matusiewicz, 2015; Kaczmarczyk, 2017; Rogowska-Rajda & Tratkiewicz, 2017).

For the purpose of this paper, the literature study method was applied, Polish and EU legal regulations were compared and the case-law of the European Court of Justice concerning the reverse charge mechanism was analysed. The solutions existing in Poland were also compared to other EU Member States. Moreover, the

simulation analysis of different variants of VAT in Polish settlement was performed in the context of financial liquidity of a company.

## ESSENCE OF THE PRINCIPLE OF VAT NEUTRALITY

The principle of VAT neutrality is among the fundamental characteristics of this tax. This principle is implemented through reduction of VAT output for the sale of goods and services by VAT input for the purchase of goods and services related to business activity. The right to deduct VAT input constitutes an integral part of the VAT mechanism and is intended to free the entrepreneur entirely from the burden of VAT paid for goods and services purchased within the framework of business activity, regardless of its purpose and results, provided that such activity, as a principle, is subject to VAT taxation itself<sup>1</sup>. Tax input is an element of passing the burden of VAT to subsequent purchasers and ultimately, assumedly, to the consumer (Famulska, 2007, p. 97). Therefore, tax deduction is a structural element of VAT rather than the taxpayer's privilege or obligation.

Neutrality is the fundamental principle on which the common system of VAT, established by EU legislation, is based<sup>2</sup>. It is the transposition of the general principle of equal treatment to VAT terms by the EU legislature<sup>3</sup>. However, while this last principle has constitutional status, the principle of VAT neutrality requires the legislative framework to be prepared through EU secondary legislation<sup>4</sup>. The principle of equal treatment, which is particularly expressed under EU secondary legislation by the principle of VAT neutrality, requires that comparable situations should not be treated in a different manner, unless such distinction is objectively justified<sup>5</sup>. Among other things, this principle assumes that different

1 This has been confirmed by numerous judgments of the Court of Justice, e.g.: of 14 February 1985, C-268/83, Rompelman, EU:C:1985:74, point 19; of 29 April 2004, C-137/02, Faxworld, EU:C:2004:267, point 37; of 13 March 2008, C-437/06, Securenta, EU:C:2008:166, point 25; of 12 February 2009, C-515/07, VNLTO, EU:C:2009:88, point 27; of 22 December 2010, C-438/09, Dankowski, EU:C:2010:818, point 24; of 16 February 2012, C-118/11, Eon Aset Menidjmont, EU:C:2012:97, point 43; of 8 May 2013, C-271/12, Petroma Transports, EU:C:2013:297, point 23.

2 Judgments of the Court of Justice: of 10 July 2008 in case C 25/07, Sosnowska, points 14, 15; of 23 April 2009 in case C 74/08 PARAT Automotive Cabrio, point 15.

3 Judgments of the Court of Justice: of 29 October 2009 C-174/08, NCC Construction Danmark, EU:C:2009:669, points 41-43; of 10 April 2008 in case C 309/06, Marks & Spencer, point 49.

4 Judgment of the Court of Justice of 15 October 2009 in case C 101/08, Audiolux, point 63.

5 Judgment of the Court of Justice in case C 309/06, Marks & Spencer, point 51; C-174/08, NCC Construction Danmark, point 44.



categories of entities in a comparable situation are treated in the same manner, in order to avoid any distortions of competition in the internal market. Therefore, when transposing EU VAT regulations, the Member States were obliged to take into consideration the principle of equal treatment<sup>6</sup>.

The principle of VAT neutrality is properly implemented by ensuring both correct application of the rules of VAT deduction and protection of entrepreneurs against VAT fraud, especially as the institution of tax deduction followed by tax refund is commonly used by fraudsters. The reverse charge mechanism is one of the basic instruments for counteracting fraud<sup>7</sup>. Further considerations will be based only on reverse charges in domestic transactions.

## **REVERSE CHARGE AS A DEVIATION FROM THE GENERAL RULES OF VAT SETTLEMENT – GENESIS OF THE INTRODUCTION**

The basic rule for VAT settlement is the payment of this tax by a taxpayer carrying out transactions that are subject to taxation (vendor or service provider).

The vendor supplying goods or providing a service collects payment from the purchaser, including VAT, and pays it to the state budget. For the purchaser, this tax is VAT input by which they may reduce their VAT output resulting from the taxable activities that they perform. An exception to the rule is the reverse charge, which moves the obligation to pay the tax to the taxpayer for whose benefit the transaction is carried out. In such a situation, the vendor supplying goods or providing a service collects only the net amount from the purchaser (excluding VAT). When buying goods or service and paying only the net amount due to the vendor, the purchaser shall charge VAT for such transactions, which at the same time constitutes VAT input for them.

Reverse charges in domestic transactions as a deviation from the general rules were introduced into the EU VAT system first in 2006 (Directive 2006/69/EC). The reason for this action was the need to rationalise some of the large number of deviations from the

general rules<sup>8</sup>, as well as to provide all states with the opportunity to introduce the deviations which had been granted to certain states and proved to be effective, as a support in combating tax avoidance or evasion. Since VAT evasion in certain sectors became so frequent that it created competitive disadvantages for honest traders, it became preferable and more appropriate to establish a permanent regulation through the amended Sixth Directive (Directive 77/388/EEC) than to rely on temporary deviations. Taking into consideration different needs of the Member States, these solutions are optional and not limited in time; the Member States may adopt them when and where appropriate, for a period of time which they consider to be sufficient. Initially, the introduced mechanism concerned 7 specified categories of activities in selected economic sectors in which the Member States had particular difficulties with performing tax inspections, e.g. due to the type or structure of a specific industry, and with reference to which they had the opportunity to apply this mechanism prior to amendment of the Sixth Directive through derogatory provisions.

In 2010, the list of goods and services subject to reverse charge was expanded further by 2 groups (Directive 2010/23/EU) and by another 8 groups in 2013 (Directive 2013/43/EU), whereby these expansions are of a temporary nature (i.e. they may be implemented until 3 December 2018 for the period of at least two years). When applying the reverse charge, the Member States are free to establish the terms of its application, including determination of thresholds, categories of suppliers or recipients to which it may be applied, as well as partial application of this mechanism in particular categories. However, the introduction of reverse charges depends on simultaneous introduction of appropriate and effective reporting obligations for the taxpayers to whom it refers.

Moreover, the so-called Rapid Reaction Mechanism (Directive 2013/42/EU) was introduced in 2013, enabling the Member States, with the agreement from the European Commission, in strictly specific cases, to introduce reverse charge in a selected sector affected by sudden and significant fraud that could lead to significant and irreversible financial losses<sup>9</sup>. In December 2016 the European Commission presented a draft amendment of Directive 2006/11/EC, enabling the Member States, in strictly defined circumstances, to apply a temporary

6 Judgments of the Court of Justice: of 18 May 2000 in case C 107/97, *Rombi i Arkopharma*, point 65; of 8 June 2000 in case C 396/98, *Schloßstrasse*, point 44.

7 In the VAT Act, reverse charge is defined as supply (provision of services) for which the purchaser is the taxpayer.

8 Derogatory provisions granted to Member States by the Council, issued pursuant to Art. 27 Par. 1 of the Sixth Directive.

9 As of now, none of the Member States has used this opportunity.

general reverse charge mechanism (COM 2016 811). This draft amendment arouses much controversy among the Member States, because the introduction of this mechanism in one Member State creates the risk of transmitting fraud to the territories of the neighbouring states. In consequence, the chances to adopt the version of the amendment of Directive 2006/112/EC proposed by the European Commission can be regarded as minimal.

## REVERSE CHARGES IN EU MEMBER STATES, INCLUDING POLAND

The scope of implementation of Directive 2006/112/EC in terms of reverse charge is different in particular EU Member States (Assessment of the application..., 2014; Notifications of the VAT Committee, 2018). Luxembourg is the only country where the reverse charge is not applied in domestic transactions, whereas this mechanism is used to the greatest extent in the Czech Republic, followed by Germany and Latvia. Only 7 states did not take the opportunity to cover construction work with the reverse charge mechanism. The remaining 21 Member States have implemented this mechanism to a different extent, in respect of specific subcategories, such as particular types of construction work, as well as transactions involving specific recipients. The most frequently included category among goods is scrap and waste - only 4 states did not take the opportunity to cover this group with the reverse charge mechanism. Deposits and industrial plants are least frequently covered with this mechanism - 6 states.

In Poland, the reverse charge in domestic transactions was first introduced in VAT regulations (Act of 11 March 2004)<sup>10</sup> from 1 April 2011 (Act of 18 March 2011); however, only with reference to transactions involving scrap (goods) and transfer of rights to greenhouse gas emissions (service). Due to the doubts in interpretation related to goods covered by the concept of scrap<sup>11</sup> the catalogue of 8 product groups covered by this mechanism was implemented on 1 July 2011 (Act of 9 June 2011). The positive effect of over two years since this mechanism was introduced for scrap was one of the reasons why the list of goods settled on the basis of the reverse charge system was expanded. As of 1 October 2013, a further 33 product groups were subject to reverse charges, including steel bars (Act of 26 July 2013). Further expansion of the

catalogue of goods subject to reverse charges took place on 1 July 2015 (Act of 9 April 2015). This concerned e.g. electronic products and base metals, which became subject to reverse charges. At the same time, the reporting obligation was introduced - all taxpayers selling goods and providing services subject to reverse charges were obliged to submit summary information in domestic transactions. At present, the list of goods subject to reverse charges includes 58 product groups. The scope of services subject to reverse charges was only supplemented from 1 January 2017 by 47 types of construction services (Act of 1 December 2016). With one exception (rights to greenhouse gas emissions), all goods and services were described by means of relevant grouping in the Polish Classification of Goods and Services (Regulation of 29 October 2008). The adopted solutions place Poland in the group of states applying reverse charges to a relatively large extent.

## RULES OF VAT SETTLEMENT AND THE PRINCIPLE OF NEUTRALITY – POLISH EXPERIENCES

Deduction of VAT input from VAT output assumedly implements the principle of neutrality. However, despite ‘passing’ and its typical consumption tax nature, VAT has a systemic influence on the financial flows of a company, and therefore, it interferes with the ‘ideal’ neutrality (Wolański, 2007, p. 127). This is mainly the effect of the shape of regulations concerning both VAT output and VAT input, as well as the method and dates of settlement. As regards VAT output in connection with the financial liquidity of a company, the tax point and VAT payment date are statutorily defined, whereas in respect of VAT input - the moment of expenditure (purchase) including tax, the moment of acquisition of the right to deduct this tax and the moment of its actual recovery are statutory (Ciupek (ed.), 2013, p. 152, 157).

VAT output, collected from the purchaser of goods and services, shall be paid to the state budget at the moment when the tax obligation arises. In Polish and EU reality, tax obligation arises upon completing the delivery of goods or provision of service<sup>12</sup>. In the case when general rules are applied, the taxpayer carrying

10 Tax on goods and services is the Polish version of VAT.

11 In this respect general interpretation no. PT3/033/2/188/LWA/11/56 was issued on 2 May 2011 by the Minister of Finance.

12 Art. 19a of the VAT Act. This provision is a faithful reflection of Art. 63 of Directive 2006/112/EC. There are certain exceptions, but they are basically marginal.

out a transaction is obliged to pay VAT collected from the contractor by the 25th day of the month following the month (or quarter, if the taxpayer pays VAT quarterly) in which the tax obligation arose. However, in the situation when the reverse charge is applied to this transaction, the contractor is obliged to pay the VAT.

From the perspective of the supplier of goods or service provider (Table 1), in the case of applying the general rules, ‘ideal’ neutrality occurs only in the situation when the taxpayer receives payment for the delivered goods or provided service from their contractor on the above-mentioned 25th day of the month, and therefore, they are able to pay VAT to the state budget on the same day. Receipt of payment at any other moment (before or after this date) interferes with neutrality, having either a positive or negative impact on the taxpayer’s finances. However, in the case of a reverse charge, regardless of the date of payment receipt, ‘ideal’ neutrality is always maintained. The taxpayer does not collect VAT, because they are not obliged to pay VAT to the state budget, and therefore, they do not actually assume the burden of VAT. However, if we compare the situation of a supplier in the case where VAT is settled through the reverse charge, with reference to the general rules, improvement or deterioration of liquidity is noticed, subject to the reverse charge principle, to the extent depending on the situation of the supplier before the implementation of the reverse charge.

The taxpayer’s situation is different in the case of purchasing goods or services (Table 2). Both in Polish and EU reality, VAT input paid by the purchaser of goods and services cannot be deducted before receiving the

invoice<sup>13</sup>. If the taxpayer is in the ‘pay’ position, the actual recovery of VAT input does not take place until the 25th day of the month following the month (or quarter, if the taxpayer pays VAT quarterly) in which the purchaser received the invoice evidencing the supply of goods or provision of services. However, if the taxpayer is in the ‘return’ position, the date of VAT recovery depends on the date of tax return, i.e. the recovery may only take place on the 25th, 60th and 180th day following the date of submitting the VAT return form for the settlement period in which the purchaser received the invoice evidencing the supply of goods and provision of services. In the case of covering a transaction with the reverse charge, the purchaser who is not obliged to pay VAT to the supplier, but to pay it to the state budget, shall disclose it in the VAT return form both as VAT output and VAT input.

From the perspective of the supplier of goods or service provider, in the case of applying the general rules, ‘ideal’ neutrality occurs only in the situation where the taxpayer pays for the delivered goods or provided service, at the moment when they actually recover the tax from the state budget. Making the payment at any other moment (before or after this date) interferes with neutrality, having either a positive or negative impact on the taxpayer’s finances. However, in the case of the reverse charge, regardless of the date of making the payment for a transaction, ‘ideal’ neutrality is always maintained. The taxpayer does not collect VAT, because they are not

13 Art. 86 (10) and (10b) point 1 of the VAT Act, which reflects Art. 178 (a) of Directive 2006/112/EC. The deductibility of VAT input in the settlement period in which the purchaser received the invoice is a general principle; the Directive and the following Polish Act provide for multiple exceptions.

**Table 1: Number of days of ‘using’ output VAT paid by the contractor with the Polish taxpayer paying VAT monthly**

Rules of output VAT settlement		Date of VAT payment by the contractor taxpayer		
		1 March - 24 April	25 April	26 April - ...
1	General	(+) 56* - 1	0	(-) 1 - ...
2	Reverse charge	0	0	0
Comparison 2:1		(-) 1 - 56*	0	(+) ... - 1

Assumption:

performance of activity in the period 1-31 March (in the case of a taxpayer paying VAT quarterly – 1 January - 31 March)

Key:

\* in the case of a taxpayer paying VAT quarterly it will be 117 days

(+) Number of days with profit on liquidity

(-) Number of days with loss on liquidity

Source: Own study



**Table 2: Number of days of ‘waiting’ for the recovery of paid input VAT charged to the contractor by the Polish taxpayer paying VAT monthly**

Rules of input VAT settlement		Taxpayer's position	Date of payment of VAT charged to the taxpayer's contractor								
			1 Mar - 24 Apr	25 Apr	26 Apr - 19 May	20 May	21 May - 23 Jun	24 Jun	25 Jun - 21 Oct	22 Oct	23 Oct - ...
1	General	payment	(-) 56*-1	0	(+) 1 - ...						
2		refund 25 days	(-) 81* - 1			0	(+) 1 - ...				
3		refund 60 days	(-) 116* - 1				0	(+) 1 - ...			
4		refund 180 days	(-) 236* - 1						0	(+) 1 - ...	
5	Reverse charge	payment	0								
		refund 25 days									
		refund 60 days									
		refund 180 days									
Comparison 5:1			(+) 1-56*	0	(-) ... - 1						
Comparison 5:2			(+) 1 - 81*			0	(-) ... - 1				
Comparison 5:3			(+) 1 - 116*				0	(-) ... - 1			
Comparison 5:4			(+) 1 - 236*						0	(-) ... - 1	

Assumption:

purchase in the period 1-31 March (in case of a taxpayer paying VAT quarterly – 1 January - 31 March)

Key:

\* in the case of a taxpayer paying VAT quarterly it will be the respective number of days: 117, 142, 177, 297

(+) Number of days with profit on liquidity

(-) Number of days with loss on liquidity

Source: Own study

obliged to pay VAT to the state budget, and therefore, they do not actually assume the burden of VAT. However, if we compare the situation of a supplier in the case of settling VAT through the reverse charge, with reference to the general rules, improvement or deterioration of liquidity is noticed, subject to the reverse charge principle, to the extent depending on the situation of the supplier before the implementation of the reverse charge.

When comparing possible VAT settlements (Table 3), “ideal” neutrality can only occur in the case of a taxable person who settles both output tax and input tax through a reverse charge mechanism. In any other case, neutrality will be distorted by a positive or negative impact on

business finances. The least distortions will occur in the case of a taxpayer paying tax, settling output and input tax on a general basis, and the largest in the case of a taxpayer settling output tax on a reverse charge basis and input tax on a general basis

## CONCLUSIONS

While the reverse charge as a solution for reducing fraud in VAT is applied in EU Member States to a different extent, in Poland it is significant. An analysis of the essence and functioning of the reverse charge

**Table 3: Statement of the number of days of “using” of output VAT and “waiting” for the recovery of input VAT depending on the method of accounting for VAT by the Polish taxpayer paying VAT monthly**

Rules of VAT settlement		Tax owed	Tax basis	
output	input			
General	General	(+) 56* – (-) ...	payment	(-) 56* – (+) ...
			refund 25 days	(-) 81* – (+) ...
			refund 60 days	(-) 116* – (+) ...
			refund 180 days	(-) 236* – (+) ...
	Reverse charge		void	0
Reverse charge	General	0	refund 25 days	(-) 81* – (+) ...
			refund 60 days	(-) 116* – (+) ...
			refund 180 days	(-) 236* – (+) ...
	Reverse charge			0

Key:

\* in the case of a taxpayer paying VAT quarterly the respective number of days will be: 117, 142, 177, 297

(+) Number of days with profit on liquidity

(-) Number of days with loss on liquidity

Source: Own study

mechanism in Poland in the aspect of the principle of VAT neutrality, both from the perspective of a supplier and a purchaser, allows us to conclude that it does not affect implementation of this principle. Additionally, in certain cases the reverse charge is more consistent with the principle of neutrality than with the general rules, particularly with reference to taxpayers-purchasers. The conducted variant simulation analysis in the context of financial liquidity of a company also allows us to draw a generalised conclusion that the degree to which the principle of neutrality has been implemented depends on many factors. These include especially VAT laws applicable in a particular situation, determined by the method of tax

settlement selected by the company, as well as terms and conditions of agreements with contractors, in particular with reference to the terms of payment. Due to the EU nature of the reverse charge mechanism, the results of the study may be generalised to other EU Member States and used in the planning of legal solutions by the state, including the introduction of a reverse charge mechanism for further categories of goods and services, conducive to the best possible implementation of the principle of neutrality for entrepreneurs. The study is the starting point for further in-depth analyses in this area, both in Poland and in the EU.



## REFERENCES

- Act of 1 December 2016 on amendment of the VAT Act and certain other acts (Journal of Laws, Item 2024).
- Act of 1 December 2016 on amendment of the VAT Act and certain other acts, act on the rules for recording and identification of taxpayers and payers, as well as Road Transport Law (Journal of Laws, No. 134, Item 780).
- Act of 18 March 2011 on amendment of the VAT Act and the Measurements Law (Journal of Laws no. 64, Item 332).
- Act of 26 July 2013 on amendment of the VAT Act and certain other acts (Journal of Laws, Item 1027).
- Act of 9 April 2015 on amendment of the VAT Act and Public Procurement Act (Journal of Laws, Item 605).
- Amand, Ch., Boucquez, K. (2011). *A New Defence for Victims of EU Missing-Trader Fraud?* International VAT Monitor, July/August 2011.
- Assessment of implementation of the Act (OSR ex-post) of 26 July 2013 on amendment of the VAT Act and certain other acts (Journal of Laws, Item 1027) as regards Art. 1, point (7). Retrieved from: <https://legislacja.rcl.gov.pl/projekt/12282103> (27 March 2017).
- Bal, A. (2011). *VAT Treatment of Transactions in the German Construction Sector*, International VAT Monitor, November/December 2011.
- Borselli, F. (2008). *Pragmatic Policies to Tackle VAT Fraud in the European Union*, International VAT Monitor, September/October 2008.
- Brederode van, R.F., Pfeiffer, S. (2015). *Combating Carousel Fraud: The General Reverse Charge VAT*, International VAT Monitor, May/June 2015.
- Ciupek, B., Famulska, T. (Eds.) (2013). *Strategie podatkowe przedsiębiorstw*. Katowice: Uniwersytet Ekonomiczny.
- Cnossen, S. (2017). VAT, RST, or Reverse Charge Mechanism: which is Best? In: *Tax notes international*. - Falls Church. - Vol. 88 (2017), no. 5.
- Council Directive 2010/23/EU of 16 March 2010 amending Directive 2006/112/EC on the common system of value added tax as regards optional and temporary application of the reverse charge mechanism in relation to supplies of certain goods and services susceptible to fraud (EU Journal of Laws L 72, p. 1).
- Council Directive 2013/42/EU of 22 July 2013 amending Directive 2006/112/EC on the common system of value added tax as regards quick reaction mechanism against VAT fraud (EU Journal of Laws L 201, p. 1).
- Council Directive 2013/43/EU of 22 July 2013 amending Directive 2006/112/EC on the common system of value added tax as regards optional and temporary application of the reverse charge mechanism in relation to supplies of certain goods and services susceptible to fraud (EU Journal of Laws L 201, p. 4).
- Directive 2006/69/EC of 24 July 2006 amending Directive 77/388/EEC as regards certain measures to simplify the procedure for charging value added tax and to assist in countering tax evasion or avoidance and repealing certain decisions granting derogations (EU Journal of Laws L 221 of 12 August 2006, p. 9).
- European Commission, *Assessment of the application and impact of the optional „Reverse Charge Mechanism” within the EU VAT System*, Final Report, November 2014. Retrieved from: [https://ec.europa.eu/taxation\\_customs/sites/taxation/files/docs/body/kp\\_07\\_14\\_060\\_en.pdf](https://ec.europa.eu/taxation_customs/sites/taxation/files/docs/body/kp_07_14_060_en.pdf) (27.03.2017).
- Expert opinion prepared by the Center for Social and Economic Research (CASE) of 23 November 2015 entitled *Ocena czy poprzez wprowadzenie od dnia 1 października 2013 r. odwróconego obciążenia VAT na niektóre wyroby stalowe ograniczono nadużycia w rozliczaniu podatku VAT w obrocie tymi towarami oraz czy warunki funkcjonowania przedsiębiorstw w branży objętej zmianami uległy poprawie*. Retrieved from: <https://legislacja.rcl.gov.pl/projekt/12282103> (27 March 2017).
- EY, (2014). *Analiza wpływu zmian administracyjnych na wielkość szarej strefy na rynku prętów zbrojeniowych i sytuację sektora finansów publicznych*. Warszawa, March 2014. Retrieved from: <http://ey.media.pl/pr/281379/analiza-ey-ponad-300-mln-rocznie-tyle-zyska-skarb-panstwa-dzieki-likwidacji-szarej-strefy-w-handlu-pretami-zbrojeniowymi> (27 March 2017).
- Famulska, T. (2007). *Teoretyczne i praktyczne aspekty funkcjonowania podatku od wartości dodanej*. Katowice: Akademia Ekonomiczna.
- General interpretation of the Minister of Finance of 2 May 2011 no. PT3/033/2/188/LWA/11/569.
- Judgment of the Court of Justice of 10 April 2008 in case C 309/06, *Marks & Spencer*.
- Judgment of the Court of Justice of 10 July 2008 in case C 25/07, *Sosnowska*.
- Judgment of the Court of Justice of 12 February 2009, C-515/07, *VNLTO*, EU:C:2009:88.
- Judgment of the Court of Justice of 13 March 2008, C-137/02, *Securenta*, EU:C:2008:166.
- Judgment of the Court of Justice of 14 February 1985, C-268/83, *Rompelman*, EU:C:1985:74.
- Judgment of the Court of Justice of 15 October 2009 in case C 101/08, *Audiolux*.
- Judgment of the Court of Justice of 16 February 2012, C-118/11, *Eon Aset Menidjunt*, EU:C:2012:97.

- Judgment of the Court of Justice of 18 May 2000 in case C 107/97, *Rombi and Arkopharma*.
- Judgment of the Court of Justice of 18 May 2000 in case C 396/98, *Schloßstrasse*.
- Judgment of the Court of Justice of 22 December 2010, C-438/09, *Dankowski*, EU:C:2010:818.
- Judgment of the Court of Justice of 23 April 2009 in case C 74/08, *PARAT Automotive Cabrio*.
- Judgment of the Court of Justice of 29 April 2004, C-137/02, *Faxworld*, EU:C:2004:267.
- Judgment of the Court of Justice of 29 October 2009 C-174/08, *NCC Construction Danmark*, EU:C:2009:669.
- Judgment of the Court of Justice of 8 May 2013 in case C 271/12, *Petroma Transports*, EU:C:2013:297.
- Kaczmarczyk, A. (2017). *Problemy wdrożenia mechanizmu odwrotnego obciążenia podatkiem VAT w praktyce gospodarczej małych firm z branży budowlanej*. Katowice: Studia Ekonomiczne, Zeszyty Naukowe Uniwersytetu Ekonomicznego, no. 333.
- Keen, M., Smith, S. (2007). *VAT Fraud and Evasion: What Do We Know, and What Can be Done?*, IMF Working Paper, February 2007.
- Lipniewicz, L. (2010). *Docelowy system VAT w Unii Europejskiej. Harmonizacja opodatkowania transakcje wewnątrzwspólnotowych*. Warszawa: Wolters Kluwer Polska.
- Notifications of the VAT Committee, up until 1 January 2018. Retrieved from: [https://ec.europa.eu/taxation\\_customs/sites/taxation/files/resources/documents/taxation/vat/key\\_documents/vat\\_committee/notifications.pdf](https://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/taxation/vat/key_documents/vat_committee/notifications.pdf).
- Planspiel zur systembezogenen Änderungen bei der Umsatzsteuer „Reverse-Chargé-Verfahren”* (2005). Zusammenfassender Ergebnisbericht, Peters Schoenberger.
- PriceWaterhouseCoopers (2007). Study in Respect of Introducing an Optional Reverse Charge Mechanism in the EU VAT Directive. In: *Final Report to the European Commission*. Retrieved from: [http://ec.europa.eu/taxation\\_customs/sites/taxation/files/resources/documents/common/consultations/tax/4209\\_study\\_en.pdf](http://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/common/consultations/tax/4209_study_en.pdf).
- Regulation of the Council of Ministers of 29 October 2008 on Polish Classification of Products and Services (PKWiU) (Journal of Laws no. 207, Item 1293, with further amendments).
- Request from the European Commission on a proposal for a directive of the Council amending Directive 2006/112/EC on the common system of value added tax, on temporary application of the general reverse charge mechanism, in conjunction with the supplies of certain goods and services above a specific threshold COM(2016) 811 final. Retrieved from: <http://ec.europa.eu/transparency/regdoc/rep/1/2016/PL/COM-2016-811-F1-PL-MAIN-PART-1.PDF>
- Rogowska-Rajda, B., Tratkiewicz, T. (2014). Skutki odwrotnego obciążenia podatkiem od towarów i usług w finansach przedsiębiorstw. *Zeszyty Naukowe Wyższej Szkoły Bankowej w Poznaniu*, vol. 52(1).
- Rogowska-Rajda, B., Tratkiewicz, T. (2017). Mechanizm odwrotnego obciążenia podatkiem VAT w odniesieniu do usług budowlanych a finanse przedsiębiorstw. *Przedsiębiorczość i Zarządzanie*, vol. 9(II).
- Sachs, K., Namysłowski, R. (Ed.) (2008). *Dyrektywa VAT*. Warszawa: Wolters Kluwer Polska.
- Sixth Council Directive 77/388/EEC of 17 May 1977 on the harmonisation of the laws of the Member States relating to turnover taxes - common system of value added tax: uniform basis of tax assessment (EU Journal of Laws L 145, p. 1 with amendments).
- Szlęzak-Matusiewicz, J. (2015). Odwrotne obciążenie VAT jako mechanizm przeciwdziałający oszustwom podatkowym. *Zeszyty Naukowe Uniwersytetu Szczecińskiego* (864), *Finanse, Rynki Finansowe, Ubezpieczenia* 76(1).
- VAT Act of 11 March 2004 (Journal of Laws of 2017, Item 1221).
- Wolański, R. (2007). *System podatkowy w Polsce*. Warszawa: Wolters Kluwer Polska.
- Zalewska, B., Dziadek, K. (2014). Odwrotne obciążenie podatkiem VAT przedmiotem kontroli zarządczej. *Zeszyty Naukowe Uniwersytetu Szczecińskiego*, no. 833, *Finanse, Rynki Finansowe, Ubezpieczenia* no. 72.

## APPENDIX

**Table 5: The results of regression models for primary balance ratio in subgroups**

Pbalancer	System GMM onestep (new members)	System GMM onestep (old members)	System GMM onestep (after crisis)
L.Pbalancer	0.23*** (0.04)	0.21*** (0.03)	0.16*** (0.04)
Interestr	1.78*** (0.25)	1.83*** (0.13)	1.66*** (0.3)
Expenditur	-0.52*** (0.05)	-0.72*** (0.03)	-0.76*** (0.05)
Subsidies	0.28 (0.33)	3.88*** (0.55)	1.01* (0.6)
Unemployment	0.00 (0.00)	-0.01*** (0.00)	-0.01*** (0.00)
Unemploy2	-0.00 (0.00)	0.00*** (0.00)	0.00*** (0.00)
Socialpref	0.00 (0.07)	0.69*** (0.06)	0.44*** (0.00)
Population	0.13 (0.17)	-0.84*** (0.27)	0.07 (0.17)
FDIstockr	-0.01 (0.01)	-0.01 (0.01)	-0.03*** (0.01)
FDInetflowr	0.03 (0.03)	-0.00 (0.01)	0.00 (0.01)
Openness	0.02** (0.01)	0.01 (0.01)	0.05*** (0.01)
constant	0.15*** (0.03)	0.02 (0.03)	0.14*** (0.04)
Number of observations	157	201	130

Source: Own calculation in Stata based on (Eurostat, 2017).

Notes: Standard errors in parentheses. \*\*\*  $P < 0.01$ ; \*\*  $P < 0.05$ ; \*  $P < 0.1$ .

**Table 6: The results of regression models for lambda in subgroups**

Lambda	System GMM onestep (new members)	System GMM onestep (old members)	System GMM onestep (after crisis)
L.Lambda	-0.04 (0.06)	-0.05 (0.07)	-0.31*** (0.06)
L2.Lambda	-0.12** (0.05)	-0.26*** (0.06)	-0.22*** (0.06)
Interestr	1.74 (1.11)	0.56 (0.53)	-2.23* (1.26)
Expenditur	0.79*** (0.18)	0.76*** (0.13)	0.81*** (0.2)
Subsidies	-1.12 (1.84)	-3.69** (1.62)	-9.26*** (2.71)
Unemployment	0.02** (0.01)	-0.00 (0.00)	0.02*** (0.01)
Unemploy2	-0.00** (0.00)	0.00** (0.00)	-0.00 (0.00)
Socialpref	1.06*** (0.32)	-0.04 (0.22)	1.28*** (0.34)
Population	-0.70 (0.72)	4.38*** (0.98)	0.39 (0.63)
FDIstockr	0.16*** (0.04)	0.06** (0.03)	0.01 (0.04)
FDInetflowr	-0.40*** (0.14)	-0.05*** (0.02)	-0.08** (0.03)
Openness	-0.18*** (0.04)	-0.03 (0.02)	-0.23*** (0.06)
constant	-0.66*** (0.13)	-0.34*** (0.1)	-0.54*** (0.18)
Number of observations	156	182	130

Source: Own calculation in Stata based on (Eurostat, 2017).

Notes: Standard errors in parentheses. \*\*\*  $P < 0.01$ ; \*\*  $P < 0.05$ ; \*  $P < 0.1$ .

**Table 7: The results of regression models for government assets change in subgroups**

Govassetsr	System GMM onestep (new members)	System GMM onestep (old members)	System GMM onestep (after crisis)
L.Govassetsr	-0.07 (0.07)	-0.22*** (0.07)	-0.26*** (0.09)
Interestr	0.32 (0.59)	0.62 (0.4)	5.17*** (1.01)
Expenditur	-0.03 (0.09)	-0.12 (0.09)	-0.34*** (0.13)
Subsidiesr	0.24 (0.8)	-0.95 (1.41)	-0.22 (1.79)
Unemployment	0.00 (0.00)	0.01*** (0.00)	0.01* (0.01)
Unemploy2	-0.00 (0.00)	-0.00*** (0.00)	-0.00*** (0.00)
Socialpref	0.19 (0.16)	0.66*** (0.18)	0.09 (0.21)
Population	0.61 (0.38)	-0.13 (0.83)	0.38 (0.51)
FDIstockr	0.03* (0.02)	0.05** (0.02)	0.02 (0.03)
FDInetflowr	0.03 (0.06)	-0.04** (0.02)	-0.04** (0.02)
Openness	-0.00 (0.02)	-0.00 (0.02)	-0.01 (0.02)
constant	-0.07 (0.06)	-0.26*** (0.08)	-0.00 (0.09)
Number of observations	157	190	130

Source: Own calculation in Stata based on (Eurostat, 2017).

Notes: Standard errors in parentheses. \*\*\*  $P < 0.01$ ; \*\*  $P < 0.05$ ; \*  $P < 0.1$ .