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TRADITIONAL FISCAL DEVICES IN POLAND AND THE CONCEPT OF THEIR MODERNIZATION

Keywords: fiscal system, traditional fiscal devices, online fiscalisation.

J E L Classification: O23, O33, E42.

Abstract: In connection with the upcoming changes in the area of fiscal policy, this article presents the traditional fiscal devices in Poland and the planned concept of their modernization. For this purpose, it describes traditional fiscal equipment operating on the Polish market, which, notably, has not been characterised in detail in the literature so far. Therefore, to the best of her knowledge, the author made the first systematic description and classification of devices used for transaction fiscalisation and also comprehensively presented the current structure of this market. An important objective of the work was to present an innovative concept of *online fiscalisation*. The author proposed her own definition of this concept. As the solution is highly advanced, it was presented on the basis of technical documentation, internal reports of Polish and foreign companies-producers of cash registers, as well as reports of consulting companies, especially from countries where the online fiscal system is already operating. The article also uses a part of the author's expert study on the expected effects of the introduction of "online cash registers".

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■■■ INTRODUCTION

In Poland, fiscal policy (i.e. the shaping of the amount and structure of public expenditure) faces many challenges related to the economic situation in the country and around the world, the geopolitical situation, demographic situation, the state of domestic public finances or EU funds that enable the state to undertake various investments. Like many other European countries, Poland is struggling with large-scale problems of the grey economy and the tax gap (Tomkiewicz, 2006, p. 51). All of this is linked to the constant search for new sources of income or an increase in the efficiency of existing sources, which generates significant difficulties for businesses and citizens (Proppe & Darski, 2016). It also happens that fiscal policy not only does not stimulate economic growth, but even constitutes an obstacle to running and developing economic activity, which has a negative impact on the social and economic development of the country.

Therefore, taking into account the struggles of fiscal policy, including planned or already implemented reforms, it is necessary to take decisive steps that will significantly contribute to an increase in state budget revenue and in the collection of VAT and improve control over taxpayers, and ultimately lead to the reduction of the tax gap and the grey economy. The “online cash registers” project is an opportunity for change in this area, as these devices should ultimately replace traditional fiscal devices. It can be expected that such a radical change will contribute to the reduction of VAT fraud.

Therefore, the main purpose of this article is present of traditional fiscal devices in Poland and concept of their modernization. On the other hand, the presentation of the modernization of the fiscal system, on the example of online fiscalization implemented in Croatia, was adopted as a detailed purpose.

THE RESEARCH METHODOLOGY AND THE COURSE OF THE RESEARCH PROCESS

The article makes use of Polish literature, statistical data from the Ministry of Finance and the Polish Bank Association. The abovementioned sources, industry analyses, technical documentation, internal reports of Polish and foreign companies-producers of cash registers, as well as reports of consulting companies served as the basis for the presentation of fiscalisation methods, description and classification of devices used for fiscalisation of transactions, as well as a comprehensive presentation of the current structure of this market. More-

over, the author carried out statistical analysis and literature research, and introduced her own definition of “online fiscalisation” for the purpose of the present paper. The article also uses some of the results of an expert study on the expected effects of the online fiscalisation project. The expert study was conducted in 2017 by the author on a group of 12 experts from Poland.

TRADITIONAL FISCAL DEVICES

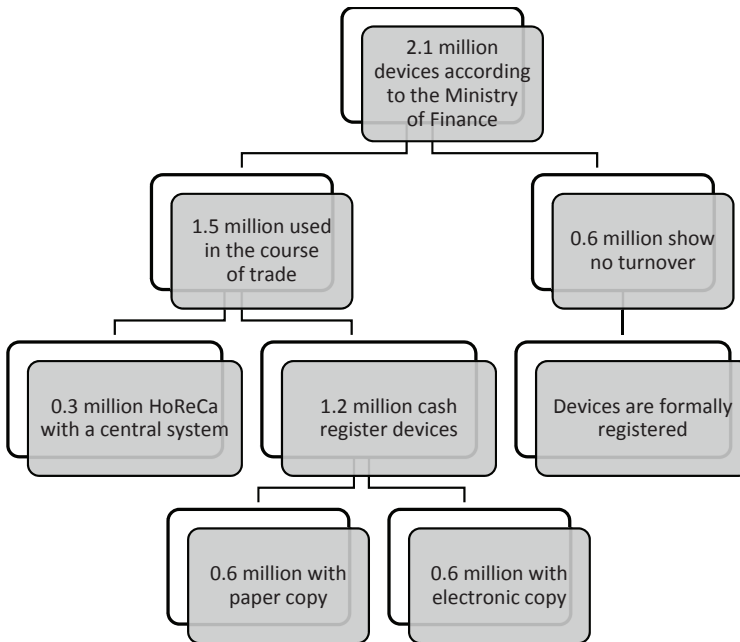
An important tool of fiscal policy consists in the devices recording transactions, contributing to the state budget tax revenue. So-called fiscal devices are used to record information on retail sales; their mode of operation and technical requirements are specified in the ordinances of the Minister of Economy of 2013 (Ordinance of the Minister of Economy). In terms of design, fiscal devices can be divided into the following types (Tradiss, 2014):

- fiscal printers,
- cash registers,
- computer cash registers,

Cash registers are stand-alone recording and printing devices with built-in simple software supporting sales transactions. Fiscal printers need to be connected to a standard computer (workstation) with specialist sales software installed. Computer cash registers, on the other hand, operate in a single casing which includes a computer with software, a printing mechanism, keyboard and monitor.

STRUCTURE OF THE FISCAL DEVICES MARKET

The introduction of fiscal devices to the Polish economy was gradual. The first step towards full fiscalisation of the economy was to extend the obligation to use cash registers in the year 2004. In the following years, several further extensions were made to this obligation in order to cover a growing range of industries and professions subject to compulsory fiscalisation. The professions which only recently joined the group of those obliged to have a cash register include e.g. doctors and dentists who, as a result of the extension of this obligation from the year 2015, must keep records by means of cash register devices regardless of the generated turnover. The structure of the fiscal devices market in the year 2016 is presented in diagram 1.

Diagram 1. Structure of the fiscal devices market in Poland in 2016

Source: own elaboration on the basis of: (Związek Banków Polskich, 2016).

According to data from the Ministry of Finance, approximately 2.1 million fiscal devices are registered in Poland (diagram 1). However, 70% of them are used in the course of trade (i.e. 1.5 million) and the remaining 0.6 million registered cash registers do not show any turnover in practice. In general, there are two main reasons for this situation. Firstly, a portion of cash registers is maintained as spare devices which will be used if the primary cash register has a failure (in the case of entities with a large daily number of transactions, even a few hours' downtime may mean large losses). The second reason is the fact that cash registers are held by entities that do business for other companies and issue invoices, and maintain a cash register in the event of occasional cash transactions with natural persons. Ultimately, the number of cash register devices is 1.2 million, and the rest of the devices in operation are HoReCa devices ("specialised cash registers", touch terminals, e.g. in restaurants) with a central system (Związek Banków Polskich, 2016).

According to the opinion of the Electronic Market Institute: *“The fiscal devices market in Poland is quite specific, as it depends on the adopted legal regulations and the legislator's ability to enforce them. The constantly proposed changes in the regulations concerning this group of devices as well as proposals (declarations) to subject new groups of users to the obligation to register transactions with the use of cash register devices cause this market to be unstable and its development difficult to forecast”* (InfoSfera, 2016).

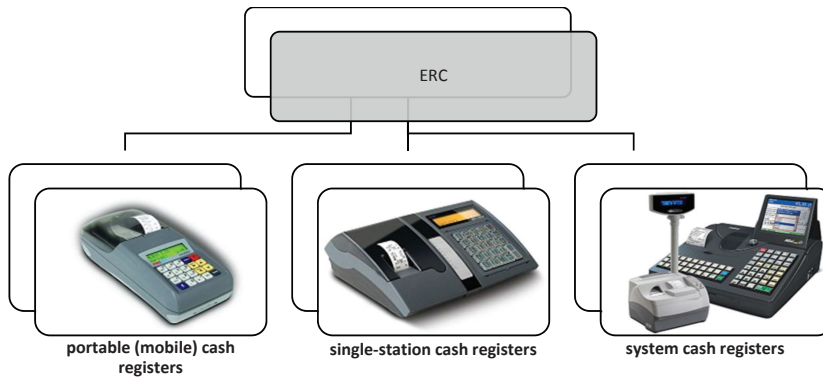
TYPES AND CLASSIFICATION OF FISCAL DEVICES

Cash register devices are an element of the national tax system. They appeared in Poland together with the implementation of the of value added tax (VAT). Its official Polish name is: goods and services tax. Cash register devices were to be used to record turnover for the purposes of VAT settlements in transactions with the final consumer. The use of such devices contributes to exercising consumer's rights to receive a document (receipt) containing basic information about the seller and the transaction, including information about the price structure and the amount of VAT included in it (Ministry of Finance, 2017). Some of the cash register devices used around the world do not have a fiscal memory or it is not a source of VAT calculation, and data on turnover are recorded in an external secured memory. This takes place, for instance, in: Sweden, Serbia and several African countries (Proppe & Darski, 2016). Generally speaking, cash registers can be divided into two groups:

- 1) ERC (Electronic Cash Registers),
- 2) POS cash registers, also known as computer cash registers (Electronic Point-Of-Sale).

According to diagram 2, there are three types of ERC:

- portable (mobile) cash registers – of small size and small range of functionalities. These devices are intended primarily for those entrepreneurs who issue recurring receipts. Mobile cash registers are very popular in small trade and crafts, parking lots, bazaars, door-to-door trade, as well as outdoor events, but also in the catering industry. Usually, up to 3,000 PLU codes can be programmed on mobile cash registers.

Diagram 2. Breakdown of Electronic Cash Registers

Source: own elaboration on the basis of: (Fiskalne-kasy24, 2012).

- single-station cash registers – they have a greater range of functionalities than mobile cash registers. One can connect e.g. a computer, scale and code reader to them, thus changing their configuration. Most of these cash registers are small in size and work very well in small points of sale: local shops, kiosks, stalls, restaurants or service outlets. Single-station cash registers are most often used in places where there is no need to cooperate with a warehousing program. Many of them are also adapted to mobile work.
- system cash registers – they are the equipment of large outlets with several cash desks. They can work independently as a single-station cash register or cooperate with other devices through e.g. integration with other cash registers, computer, payment terminal, scanner, chip card reader, PIN pad, PSTN or GSM modem and receipt printer.

However, in the case of system cash registers, the basic device is a computer with an installed warehousing and invoicing software. Therefore, thanks to the connection between the cash register and the computer, it is possible to control sales on an ongoing basis and have access to up-to-date information on stock levels. Communication between the cash register and the computer can be carried out off-line or online (with a command issued by the computer). The first mode involves interrupting the cashier's work when the cash register uploads data to the server, while in online mode it is not necessary. Sales information is displayed on the computer screen, which allows for actual verification of turnover, products sold, etc. (Fiskalne-kasy24, 2012).

Turning to the second group of cash registers – POS devices – it should be noted that this is the most technologically advanced group of recording devices. Undoubtedly, they can be called computers adapted to record turnover, as well as to perform many different functions related to the storage of goods and their sale. The simplest POS cash register configuration consists of a computer, a fiscal printer connected to it, a keyboard and a standard screen or touch screen. In the extended version it is possible to connect the POS cash register to all devices necessary in a shop, e.g. readers, payment terminals, electronic scales, etc. A characteristic feature of POS cash registers is their versatility. Depending on the needs, one can change the software, extend the RAM memory, install a more efficient processor, i.e. configure the device. The complexity of POS cash register configuration is shown in figure 1.

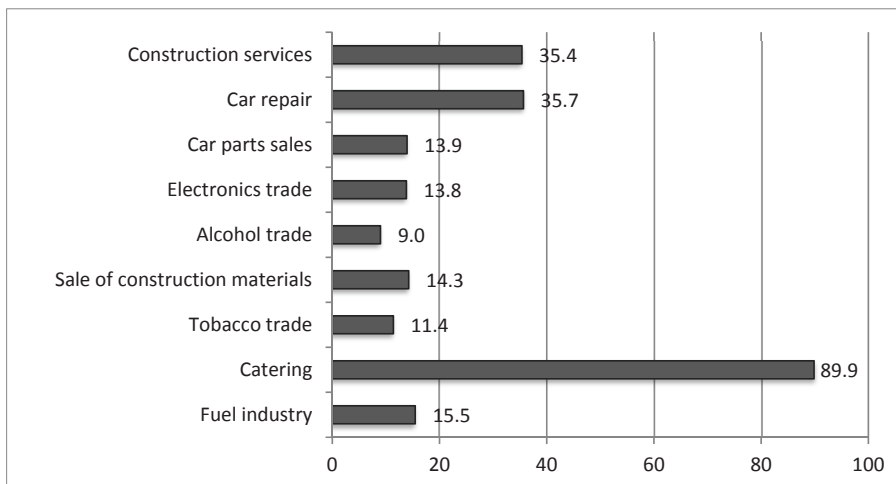
Figure 1. Complexity of POS cash register configuration



Source: (Forcom, 2015).

It should be emphasized that ERC and POS cash registers are characterized by a different range of possibilities, depending on their technical parameters. ERC have very limited expansion and configuration possibilities in comparison to POS models and are characterized by limited memory and permanently installed software (which cannot be changed or modified). A typical ERC has a RAM capacity of 1 to 8 MB, so after several years of use (usually five years), it is full and practically needs to be replaced. The user then has to purchase a new device or install a new fiscal module. There is one more interesting difference – although it is possible to connect various peripheral devices, including a computer, to the ERC cash register, it is not possible to sell from the computer program – the cash register requires direct operation of the cashier. Thanks to the fact that POS cash registers are equipped with hard drives, they can record and remember virtually any number of transactions and related information for a very long time. For example, the cash register may store information about each receipt up to several years back (Fiskalne-kasy24, 2012).

Figure 2. Number of cash registers by industry in 2016 (in thousands)



Source: own elaboration based on data from: (Ministry of Finance, 2017).

The number of cash registers used by a given company is a result of many factors. The number of cash registers depends on the business and its scale,

turnover, as well as the number of employees. Figure 2 presents the number of cash registers in Poland in the year 2016, broken down by industry. The catering industry is the clear market leader (about 90,000 cash registers), followed by construction services and car repair. Among the remaining industries, the lowest number of fiscal devices is recorded in tobacco trade (11,000 cash registers) and alcohol trade (9,000 cash registers).

THE CONCEPT OF ONLINE FISCALISATION

WITHIN THE GOVERNMENT PROGRAMME "FROM PAPER TO DIGITAL POLAND"

Taking into account the scope of the grey market in Poland, the persisting VAT gap and the tools used to reduce them which did not bring the expected results, it seems necessary to search for new solutions in this respect. A qualitative change, a new approach to the fiscalisation of turnover, is becoming necessary. A solution that may significantly improve state tax revenue in Poland is online fiscalisation, also known as the online cash register system. This system works well in other countries, so there is a chance that it may prove effective also in Poland (Proppe & Darski, 2016).

THE CONCEPT OF ONLINE FISCALISATION

The online fiscalisation model is a system of sending sales data from receipts to a central, non-erasable and non-volatile memory. Such a system should be available online, be highly available and resistant to DDoS (distributed denial of service) attacks. The main feature of such a mechanism is the central assignment of unique transaction/receipt numbers, with protection in the event of network disconnection (Ministry of Development, 2016, p. 1).

The general scheme of this system assumes constant communication between the taxpayer and the tax authority. In Europe, there are many solutions in the area of online fiscalisation, aimed, among other things, at reducing the grey market. The two best-known models are called the Hungarian and the Croatian model. Their names come from the countries where the online cash register system has been implemented. Of course, apart from these countries, innovative solutions of this type also exist e.g. in Turkey, Bulgaria, the Czech Republic and Sweden (Ogórek, 2016).

For the purpose of the present paper, the author proposed her own definition of online fiscalisation as: “a *solution under which information about a transaction subject to fiscalisation is recorded and transferred in a short time to the database systems of a given country’s tax administration, via the Internet or another IT system*”.

ONLINE FISCALISATION PROJECT IN POLAND

From 1 May 2019, an ordinance introducing online cash registers will be in force in Poland (Infor, 2019). Online cash registers will automatically transmit data on daily fiscal reports, fiscal receipts and invoices (including cancellations) (VAT, 2017).

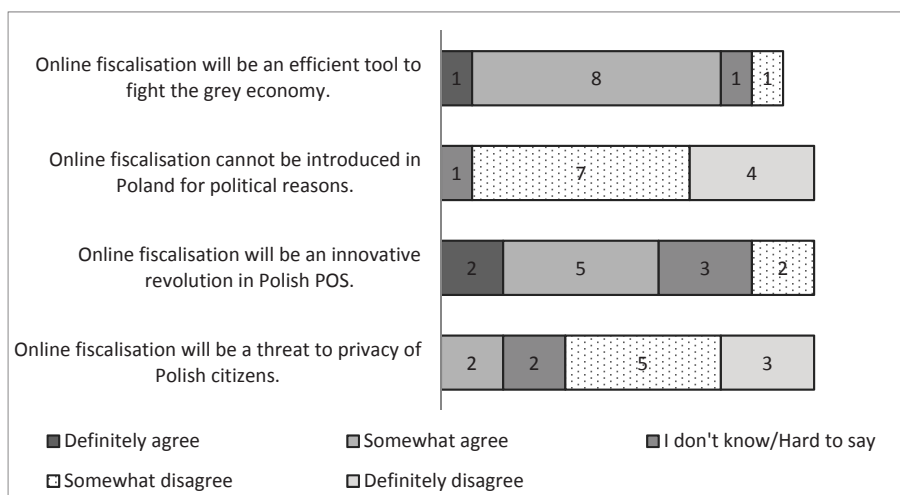
The replacement of cash registers is to be evolutionary, in accordance with the life cycle of this type of devices, where older cash registers which do not meet today's technological standards are replaced with more modern ones (TVN24Bis, 2019). The Act assumes that:

- old cash registers can be used until 31 December 2019 by: entrepreneurs repairing motor vehicles and mopeds, including repairing, fitting, retreading and reconditioning tyres and replacing tyres or wheels for motor vehicles and mopeds; selling petrol, diesel or gas intended for the propulsion of vehicles.
- until 30 June 2020 by: catering establishments (including those operating on a seasonal basis); entrepreneurs offering hotel services; selling coal, briquette and similar solid fuels produced from coal, coke and semi-coke for heating purposes.
- until 31 December 2020 by: hairdressing, beauty, construction services, medical care services provided by doctors and dentists, legal services and services related to the operation of facilities for improving physical condition – only for admissions.

After the entry into force of the new regulations, taxpayers will still be able to purchase cash registers of the “old” type (cash registers with a paper copy entry until 30 June 2019, and cash registers with electronic copy recording until 31 December 2022).

Below are the results of a part of the expert study conducted by the author in 2017 on a group of 12 experts comprising: CEOs of leading companies dealing with electronic payment settlement (VISA, Mastercard), representatives of commercial banks (PeKaO S.A.), employees of leading acquirers in the Polish market (First Data, Polskie e-Płatności) and the clearing house (KIR). A representative of the Ministry of Finance also partook in the study.

Figure 3. Assessment of the potential impact of the online fiscalisation system



Source: own elaboration; n=12; responses presented according to the number of experts' indications.

The question addressed to Experts (figure 3) concerned the online fiscalisation system which is planned to be implemented in Poland in 2019. Generally, according to the Experts, online fiscalisation will be effective in the fight against the grey economy and in principle nobody considers it impossible to introduce for political reasons. This answer is pivotal because it indicates that this project is generally feasible. Seven Experts believe that this system will be an innovative revolution in Polish points of sale, the role of modern infrastructure equipment in POS will increase – and it can be concluded that this will result in POS offering new services. However, when it comes to the issue of surveillance of citizens and threats to their privacy, only two Experts see such a danger.

CASE STUDY ON THE IMPLEMENTATION OF ONLINE FISCALIZATION IN CROATIA

An example of the success of the online fiscalization model is the example of Croatia, which confirms the success of actions aimed at fighting the shadow economy and reducing the tax gap. Due to the prevailing share of cash payments in the country, controlling taxpayers was not the easiest task. Cash, unlike card payments, does not leave a “trace” and the transaction is easier to hide. In Croatia, it was difficult to prove that entrepreneurs report much lower turnover compared to those achieved by them in reality. Therefore, from January 1, 2013, all taxpayers have been permanently connected online to the government’s fiscal system. This is due to the fact that it is not possible to print the receipt until the system has obtained all necessary transaction data from interested parties (the receipt must have a unique identification code, the so-called JIR (Proppe & Darski, 2016)). Unlike other models, such as the Hungarian model, the Croatian model is based on a software solution – that is, it does not require exchange of cash registers, but is based on the integration of applications installed on any mobile devices.

Implementation of the system in Croatia took 8 months, and its implementation was planned in three stages:

- From 1 January 2013 – the catering industry, hotel industry and large companies;
- From April 1, 2013 – wholesale and retail sales, freelancers;
- From July 1, 2013 – other taxpayers.

The result of the introduction of the above solution turned out to be very positive:

- Online fiscalization has received public support;
- Industries that are exempt from fiscalization, want to be subject to the obligation of fiscalization on their own volition;
- After a certain period of operation, the basic VAT rate has been lowered.
- Further improvement of the functioning of this innovative solution is planned.

The most important success of the model was the increase in tax revenues as well as the increase in disclosed revenues from taxpayers – in some branches of the economy revenues increased by over 40%. According to the data of the Croatian Ministry of Finance, restaurants, lawyers and traders revealed about 18% more turnover after one year of operation than a year earlier (Jakubows-

ka, 2017). According to the Croatian Minister of Finance, since 2013 sellers and traders have doubled the turnover revealed (Uryniuk, 2016).

Despite the benefits of the online fiscalization system, attention should be paid to Croatian problems with the use of appropriate VAT rates by entrepreneurs. It was the main area in which irregularities in the functioning of the online cash register system were detected. The next one is the presence of too much cash in the register, in comparison with the number of registered transaction (Fiscalization.hr, 2015).

■■■ CONCLUSION

The analysis of current fiscalisation methods in Poland carried out in the present article has shown that traditional fiscal devices date back to the previous technological era. Therefore, any action aimed at increasing the effectiveness of controls in the area of fiscalisation of retail transactions should involve the replacement of equipment. A real chance for change in this area is provided by the project of “online cash registers”, which, in accordance with the Act, will come into force on 1 May 2019. The concept of online fiscalisation assumes the registration and transmission of data to the ICT system run by the head of the Central Cash Register Repository of the National Revenue Administration in order to hinder VAT fraud.

The change is particularly important in industries that are exposed to the grey economy. According to the Experts, online fiscalisation may effectively reduce the scale of unregistered transactions and the online cash register system itself may turn out to be a revolution in points of sale, thus creating the potential for the growth of innovation of traditional enterprises.

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