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THE IMPACT OF THE GREY ZONE ON THE ECONOMY IN POLAND

Abstract

Objective: This study analyzes the phenomenon of the grey zone in Poland and identifies the tax gap in Poland caused by its development. This raises the question of the extent to which the shadow economy affects the Polish economy, and in particular its contribution to the tax gap.

Research Design & Methods: The article is based on grey zone data in the Polish economy. The data was obtained from the EY Economic Analysis Team report as well as from the CASE report for the European Commission on the VAT gap.

Findings: The study shows that the impact of the grey zone on the economy is multi-faceted. The growth of the grey zone is largely due to the government's mismanagement of economic policy. In turn, the reason for the reduction in the grey zone in Poland is the reduction in the amount of tax fraud through the use of better government measures and an increase in cashless transactions. The results show that although the grey zone in Poland has been increasing since 2019, it remains at a similar level to before. By contrast, since 2015 the tax gap has reduced by more than 20%.

Implications/Recommendations: The study shows that in order to reduce the negative phenomenon of the grey zone in the economy, effective measures should be taken through the application of appropriate economic policies. The actions of the government should be focused on eliminating systemic factors that favour activities which are not officially registered. It is through the development of unregistered activities that the government loses tax revenue.

Contribution: The article contributes to the literature on the changing size of the grey zone in Poland over the last decade. The analysis enhances our understanding of how the impact of this phenomenon on the Polish economy changed in recent years.

Keywords: grey zone, economy, tax gap, labour market.

JEL Classification: E24, E26, J46, O17.

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1. Introduction

The phenomenon of the grey zone in the economy has been of interest to academics for a number of years. The way it operates is complex and multidimensional. It is difficult to estimate the true size of the grey zone because it is not possible to summarize all the reasons for its existence and the factors contributing to its development. This, in turn, makes it difficult to effectively scale down and completely eliminate this phenomenon. However, regardless of the size of the grey zone, its impact on the economy is negative.

The concept of the grey zone cannot be defined in a consistent way. The variety and complexity of its processes have influenced how many of the definitions of the grey zone operate in the language of economics. These definitions vary depending on the purpose of research and on the methods used to study it (Schneider & Enste 2000). The basic definition presents the grey zone as all activities carried out in the area of the state economy which contribute to official GDP growth but which remain directly unregistered. These are activities which are not prohibited by law, but which involve conducting illegal trade in legal goods and services, and the income derived from that trade is hidden in whole or in part from the public administration.

The phenomenon of the grey zone has permanent effects. It not only affects the markets of underdeveloped countries and economies in transition, but is also present in all economies around the world and in almost all industries (Krajewska 1998). All economic actors can observe its effects with varying degrees of intensity. If the investment conditions of a state are favourable, corruption is low, and there is a high level of awareness in society about the harmful impact of the grey zone, then its size will be negligible. By contrast, in poorer countries, where taxes are not too high but corruption is a widespread phenomenon, and society calls for such practices, then the tendency to conduct business in the grey zone will be relatively high.

After exhibiting a downward trend for several years, the shadow economy is on the rise again in Poland. Growth has been recorded since 2019. The COVID-19 pandemic, as well as rising inflation and the war in Ukraine, have all contributed to it. The war has an impact on the shadow economy in that it increases the costs of running a business, which are reflected in the need to look for savings through illegal practices (Cieślak-Wróblewska 2022a). The rising costs of running a business do not have a positive impact on the number of people taking up work in an officially registered manner. An analysis of the shadow economy can indicate the policy direction that

the Polish government should follow in order to limit the development of this phenomenon.

The purpose of this paper is to analyze the grey zone in Poland and identify the tax gap caused by its development. This raises the question of the extent to which the shadow economy affects the Polish economy, and in particular its contribution to the tax gap. In order to analyze this phenomenon, quantitative data based on desk research are used. By using this research method, it was possible to present the changes in the grey zone in Poland between 2013 and 2021. This method was also used to present the changes in the tax gap, which is closely related to the size of the grey zone. Indeed, the grey zone is to some extent responsible for the incidence of the tax gap.

2. Literature Review

Researchers have a problem with defining the shadow economy. The most popular view is that the unofficial economy is the one that, while creating new value, is not subject to registration in the national accounts. We do not take into consideration the production activity of households aimed at their own needs. Also, for many experts, avoidance of taxation is the main motive for locating entities in the unobservable economy. In connection with this, the shadow economy is often referred to as tax abuse (Pasternak-Malicka 2019).

The grey zone consists of the following activities (Pauch 2015):

- illegal activity – this includes trade in goods and services, the possession, sale and distribution of which is prohibited by law. An activity which is normally legal but becomes illegal if it is carried out in a situation where no licence or authorization has been obtained, e.g. medical practice, legal practice, taxi transport, is also considered illegal. The most common activities carried out outside the area of state control are the smuggling of tobacco products, the production and trafficking of drugs, and deriving income from the prostitution of others. It is not possible to clearly identify entities operating illegally in the grey zone. They are generally unregistered economic entities, usually criminal gangs, but the participation of registered and legally operating companies in illegal activities is increasing;

- hidden activity (undeclared) – this refers to activities carried out by officially registered economic entities whose transactions are not against the law, but are not reported to the tax authorities, because the amount of turnover is deliberately understated. Such activity is pursued in order to

avoid payment of taxes such as income tax or VAT and to avoid payment of social security contributions. The desire to hide the amount of turnover from the public administration is also associated with non-compliance with the standards required by law, e.g. minimum wage, maximum working hours, occupational health and safety, technical standards, and environmental regulations;

– informal activity – this involves not keeping any records. Most often it concerns individuals providing paid services to other persons or enterprises. The total lack of registration of their activities is most often the result of the small scale of the services provided or may be dictated by the casual or seasonal nature of the work undertaken. This group consists of: unemployed people with little chance of finding work on the official labour market due to, for instance, low qualifications; employees who want to earn extra money in the grey zone, sometimes using their employers' materials, equipment and devices for this purpose; pensioners; students; and migrant workers.

The main reasons for the development of the shadow economy are considered to be the high costs of doing business that are directly related to the tax system and the excess of economic regulations imposed on enterprises by the state. From the point of view of the entrepreneur, the most significant and burdensome costs are tax costs (income tax, VAT), followed by social insurance contributions and administrative fees depending on the type of activity carried out (Fundowicz, Łapiński & Wyżnikiewicz 2018). The greater the propensity of entrepreneurs to move their activities into the grey zone, the higher the costs of doing business legally. Economic overregulation e.g. the need to obtain the concessions permits authorizations necessary to carry out certain activities, the excess of compulsory forms and declarations, and excessive and frequent inspections carried out by various state institutions discourage entrepreneurs from doing legal business. Many publications suggest that the emergence of a grey zone is associated with the violation of ethical principles in the application of law and points to the weakness of the state; it is manifested, for instance, in discretion on the part of officials, corruption, and the ineffectiveness of the justice system (Szwalek 2003).

The existence of a few positive aspects of the economic impact of the grey zone is only a consequence of the imperfection of the economic system and does not change the overall negative influence of this phenomenon; it should not therefore be regarded as an aspiration in itself (Łapiński, Peterlik & Wyżnikiewicz 2014). National governments must draw up economic programmes that balance economic and social issues and propose measures

to systematically and progressively reduce the size of the grey zone. This should be done by pursuing an appropriate economic policy directly aimed at eliminating systemic factors conducive to the development of undeclared activities. The most important elements of such a policy should be measures aimed at (Fundowicz *et al.* 2016):

- simplifying the tax system,
- reducing the fiscal burden,
- reducing the non-tax operating costs of conducting economic activity,
- reducing the number of regulations (including the number of permits and authorizations),
- limiting the necessary number and scope of inspections in companies,
- supporting the development of cashless trading (e.g. through the promotion of electronic payments and the introduction of administrative restrictions on cash payments).

An effective method of reducing the size of the grey zone that is widely used by many countries is the promotion and popularization of non-cash trading. In the grey zone, payments are made only in the form of cash transactions, which leave no audit trail in the financial system and therefore make it impossible to establish that the activities concerned are illegal (Pauch 2015).

3. Research Methods

The principal characteristic of activities undertaken within the grey zone is that they are not registered and remain unnoticed by administrative authorities. It is therefore difficult, but not impossible, to analyze the actual size of the grey zone phenomenon. To that end, the following analyses are used (Fundowicz *et al.* 2016):

- analysis of the labour market – this enables the involvement of employees in business in the grey zone to be assessed. It uses a comparative method of the number of registered unemployed and the number of unemployed estimated using the International Labour Organization's definition;
- fiscal analysis – this refers to examining the level of tax evasion;
- analysis of the monetary sphere – this consists in assessing the speed of cash turnover and the demand for high-denomination banknotes, which are typical for settlements made in the grey zone;
- comparative analysis in the national accounts – based on the differences between household income and expenditure. Indeed, statistical studies show

that expenditure exceeds household income and savings, which suggests that this is the result of income received from the grey zone;

- econometric modelling – this looks for relationships between variables describing the grey zone;

- random and curiosity approach – this is an estimate of selected aspects of the grey zone, e.g. an analysis of electricity consumption in different locations assuming that above-average consumption indicates activity in the grey zone.

The methods used to measure the informal economy can be divided into two groups: direct methods and indirect methods. Direct methods include questionnaire research, while indirect methods include analysis of macroeconomic data. Compared to questionnaire surveys, indirect methods do not have any of the disadvantages typical of questionnaires, e.g. subjective assessments of people directly involved in creating the shadow economy. There are also no restrictions related to the number of respondents here (Czapkiewicz & Brzozowska-Rup 2021).

In order to analyze this phenomenon, quantitative data based on desk research were used. By using this research method, it was possible to present the changes in the grey zone in Poland between 2013 and 2021. This method was also used to present the changes in the tax gap, which is closely related to the size of the grey zone. Indeed, the grey zone is to some extent responsible for the incidence of the tax gap. The data was obtained from the EY Economic Analysis Team report as well as from the CASE report for the European Commission on the VAT gap.

4. Results

Currently, two conditions are identified that contribute to the reduction of budget revenues from taxes (Buszko 2017):

- grey zone, i.e. conducting business that is not registered to avoid taxes,
- tax fraud.

In addition, the elements that have an impact on the reduction of budget revenues are social acceptance of tax avoidance and lack of appropriate legislation (Buszko 2017). According to a study on the measurement of the grey zone in Poland carried out by the Institute of Economic Forecasts and Analyses, in the years 2013–16 the grey zone remained at a similar level. However, Figure 1 shows that it began to get bigger from 2020. It was estimated that it could reach 18.9% of GDP in 2022 (PLN 590 billion),

whereas in 2021 it amounted to 18.3% (PLN 511 billion), and in 2020 – 18% (PLN 449 billion) (Cieślak-Wróblewska 2022b). This study focuses on measuring gross value added to cash payments, which is defined as the cash shadow economy.

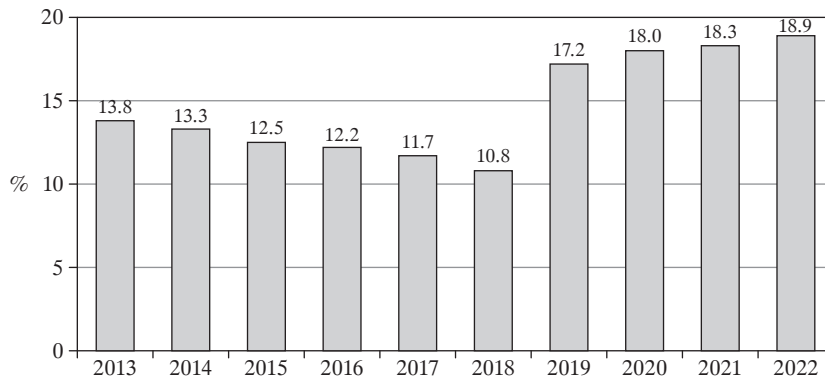


Fig. 1. The Level of the Grey Zone in Poland, 2013–2022

Note: for 2022 – estimated value.

Source: author's own elaboration based on data from the EY Economic Analysis Team (EY EAT 2020) and Statistics Poland.

The factors supporting the level of the grey zone in Poland include:

- economic results that are related to the state's economic situation or unemployment rate,
- GDP per capita,
- level of income per person in the family,
- level of taxation (PIT, CIT, excise duty),
- the complex tax system is cited as a key factor.

Concern about the income situation and standards of living also contributes to the development of the grey zone in Poland (Buszko 2022).

Given this phenomenon, it is important to analyze the tax gap. Compared to the grey zone, the tax gap is the difference between the value of the taxes that should theoretically be collected and the actual value of tax revenues. The grey zone, in turn, covers a wide range of unregistered activities and is responsible for only part of the tax gap. The loss of VAT revenues has a negative impact on spending on public goods and services, including schools, hospitals and transport, which are used by all Poles (Słomski 2022).

Figure 2 shows the level of the tax gap in Poland in the years 2013–21. Since 2013, the size of the tax gap has been falling. The decline continued until 2018. The tax gap then decreased from more than 25% in 2013 to 11.7% in 2018. In 2019, the level of tax gap was similar to the previous year. However a downward trend is observed from 2020 onwards.

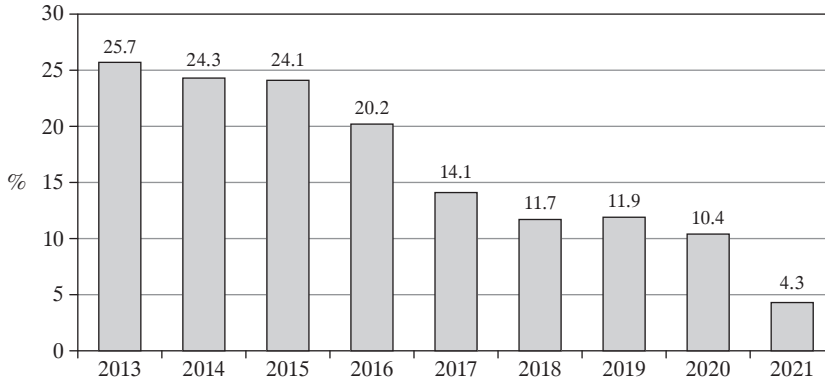


Fig. 2. The Tax Gap in Poland, 2013–2021

Source: author's own elaboration based on data from EC (2021).

Throughout the period under analysis, there was a systematic decline in the cash grey zone. This was facilitated by the proliferation of non-cash transactions, resulting in a reduction in the value of the VAT gap. The most visible decline in the gap was seen between 2016 and 2017. This decrease was due to a reduction in tax fraud. Another significant decline was recorded in 2021, which attests to the improved actions of the government in combating tax fraudsters. The decrease is noticeable, because over a period of almost 10 years, the tax gap has decreased from more than 25% to 4.3% in 2021.

5. Conclusions

The aim of the study was to analyze the phenomenon of the grey zone in Poland and to identify the tax gap in Poland caused by its development. The study showed that the grey economy is multi-faceted problem that arose as a result of the consequences of the economic policy pursued by the state. Its growth was mainly due to the tax system, which for many entrepreneurs is complicated and does not allow them to derive satisfactory income from their activities. The implementation of corrective and preventive measures

faces various obstacles, but is necessary in order to make the public aware that the impact of the grey zone is harmful and that it is in the public interest to curtail it. The results demonstrated that although the grey zone in Poland has been increasing since 2019, it remains at a similar level to before. By contrast, since 2015 the tax gap has reduced by more than 20%.

The existence of a grey zone distorts key economic indicators, such as the level and dynamics of GDP, inflation, and employment, which makes achieving the goals of a rational economic policy chaotic and ineffective. The grey zone decreases state budget revenues, which contributes to the formation of a budget deficit in the long run. It causes a general weakening in the efficiency of the economy, reduces the degree of public confidence in the state, and increases state budget expenditure on social programmes. The grey zone interferes with the proper functioning of market mechanisms. Business entities operating in the grey zone often become more competitive than companies operating fully legally. By avoiding taxation, and thus unfairly reducing their costs, they can offer goods and services at lower prices. This distorts the basic concept of competition, since the prices at which such goods can be purchased in the grey zone cannot be offered by non-tax evaders. In periods of economic downturn, when consumer incomes are not growing rapidly or are falling, the price criterion plays an important role. The bad economic situation and the need to measure up to unfair competition forces companies that pay their taxes honestly to move their activities into the grey zone. In a situation where the most important factor determining sales is price, other aspects of competition, such as the quality or innovation of products and services, are becoming increasingly important. On a macroeconomic scale, less investment in research and development means a decline in the innovation and international competitiveness of the economy. It also indirectly affects the rate of economic growth. In this way, the negative effects of the microeconomic grey zone extend to the macroeconomic dimension. The impact of the grey zone on the economy is generally negative, but there are also positive aspects of the operation of the market in this area. The grey zone creates opportunities for unregistered work, especially for those with low or no professional qualifications who cannot find employment in the official economy. The income they earn is spent mostly in the legal economy and contributes to state budget revenues via VAT. It also translates into relief for the state budget as regards spending on social benefits for those persons and their families (Fundowicz, Łapiński & Wyżnikiewicz 2018). Undeclared work also means lower employment

costs for employers, who bypass administrative barriers and thus recruit workers for short periods of time in order to get the necessary work done more quickly (Pauch 2015).

References

- Buszko, A. (2017) “Poziom szarej strefy w Polsce w kontekście luki podatkowej”. *Annales Universitatis Mariae Curie-Skłodowska, sectio H – Oeconomia* 51(4): 47–54, <https://doi.org/10.17951/h.2017.51.4.47>.
- Buszko, A. (2022) “Factors Fostering Shadow Economy Performance in Poland and Lithuania during 2000–2019”. *Engineering Economics* 33(1): 4–12, <https://doi.org/10.5755/j01.ee.33.1.24944>.
- Cieślak-Wróblewska, A. (2022a) “Powrót szarej strefy. Skłonność do omijania prawa rośnie”. *Parkiet*, 31 March. Retrieved from: <https://www.parkiet.com/gospodarka-krajowa/art35977121-powrot-szarej-strefy-sklonnosc-do-omijania-prawa-rosnie> (accessed: 31.03.2022).
- Cieślak-Wróblewska, A. (2022b) “Szara strefa w Polsce ponownie wzrosła”. *Parkiet*, 30 March. Retrieved from: <https://www.parkiet.com/gospodarka-krajowa/art35974111-szara-strefa-w-polsce-ponownie-wzrosla> (accessed: 30.03.2022).
- Czapkiewicz, A. and Brzozowska-Rup, K. (2021) “Szacowanie rozmiarów szarej strefy w Polsce”. *The Polish Statistician* 66(4): 7–24, <https://doi.org/10.5604/01.3001.0014.8323>.
- EC (2021) *VAT Gap in the EU. Report 2021*. CASE Report for the European Commission. Luxembourg: Publications Office of the European Union. Retrieved from: <https://www.case-research.eu/en/vat-gap-in-the-eu-report-2021-101941> (accessed: 20.06.2022).
- EY EAT (2020) *Report on the Grey Zone in Poland*. EY Economic Analysis Team. Warszawa: EYGM Limited. Retrieved from: https://assets.ey.com/content/dam/ey-sites/ey-com/en_pl/topics/eat/pdf/03/ey-szara-strefa-w-polsce-final.pdf (accessed: 20.06.2022).
- Fundowicz, J., Łapiński, K., Peterlik, M. and Wyżnikiewicz, B. (2016) *Szara strefa w polskiej gospodarce w 2016 roku*. Warszawa: Instytut Badań Nad Gospodarką Rynkową.
- Fundowicz, J., Łapiński, K. and Wyżnikiewicz, B. (2018) *Szara strefa 2018*. Warszawa: Instytut Prognoz i Analiz Gospodarczych. Retrieved from: https://www.ipag.org.pl/Content/Uploaded/files/IPAG_Szara_Strefa_2018.pdf (accessed: 20.06.2022).
- Krajewska, A. (1998) *Uwarunkowania i konsekwencje szarej strefy w Polsce. Etyka w życiu gospodarczym*. Volume 1. Łódź: SWSEiZ.
- Łapiński, K., Peterlik, M. and Wyżnikiewicz, B. (2014) *Szara strefa w polskiej gospodarce*. Warszawa: Instytut Badań Nad Gospodarką Rynkową.
- Pasternak-Malicka, M. (2019) “Szara strefa – definicje, przyczyny, szacunki. Polska perspektywa zjawiska”. *Studia BAS* 2(58): 29–56, <https://doi.org/10.31268/StudiaBAS.2019.11>.
- Pauch, D. (2015) “Zjawisko szarej strefy w gospodarce”. *Academic Papers of the University of Szczecin No 864. Finanse, Rynki Finansowe, Ubezpieczenia* 76(1): 247–255, <http://dx.doi.org/10.18276/frfu.2015.76/1-21>.

- Schneider, F. and Enste, H. D. (2000) "Shadow Economies: Size, Causes and Consequence". *Journal of Economic Literature* 38(1): 77–114, <https://doi.org/10.1257/jel.38.1.77>.
- Słomski, D. (2022) "Polacy dosypali do budżetu 14 mld zł. Coraz trudniej oszukiwać na podatkach". *Money.pl*, 27 April. Retrieved from: <https://www.money.pl/gospodarka/polacy-dosypali-do-budzetu-14-mld-zl-coraz-trudniej-oszukiwac-na-podatkach-6762711109249856a.html> (accessed: 27.04.2022).
- Szwalek, K. (2003) "Ostrożnie z wybielaniem. Raport specjalny: szara strefa". *Business Week – Edycja Polska* 8(137): 10–17. Retrieved from: <http://bazekon.icm.edu.pl/bazekon/element/bwmeta1.element.ekon-element-000000118217?q=bwmeta1.element.ekon-element-34075d62-e9b0-3dc2-a49f-e343d3487565;0&qt=CHILDREN-STATELESS> (accessed: 20.06.2022).