

The system of employment of people with disabilities in light of the concepts of Arthur Pigou and Ronald Coase

Abstract

In 1960, the economist Ronald Coase published an article entitled "The Problem of Social Costs", which is still one of the most frequently cited economic texts and still raises lively discussions. He wrote there that the problem of external costs is twofold: negative external effects generated by one entity cause loss for another, but the suppression of injustice is automatically a loss for the first one. He argued that in the case of well-defined property rights and low transaction costs, the problem of external effects can be solved through transactions between parties affected by these effects. This was in opposition to previous attempts to solve this problem through government regulation or taxation proposed by Arthur Pigou. In fact – looking through the prism of the system of supporting employment of people with disabilities – the solution lies in the decision whether it is profitable to limit the employment of efficient people or financial resources of employers in order to provide work for less-efficient people with disabilities, or to leave these people without support on the labor market. In each case, it is about doing the least possible social damage. This article presents both concepts on the example of a system of supporting the employment of people with disabilities in Poland.

Key words: person with disabilities, employment support system, Coase theorem, Pigou tax.

Introduction

In 1960, a publication by R.H. Coase (1910-2013), who would win the Bank of Sweden Alfred Nobel Memorial Prize of 1991, entitled "The Problem of Social Cost", appeared in print. The author focused on the part of economic activities which is harmful to others. The starting point of his deliberations was to undermine the arguments made by A.C. Pigou (1887-1959) - a well-known British economist, presented in *The Economics Welfare* (1920) and earlier in *Wealth of Welfare*. A.Pigou created the foundations of neoclassical analysis in the scope of justifying state intervention due to the so-called external effects. He proposed to solve the problem of the "difference between a social and a private product" - known today as

a problem of external effects - by having the state introduce appropriate taxes, levies or fees. R. Coase challenged these arguments, claiming that the market alone, without the interference of state institutions, is able - provided that transactions costs are low - to cope with the problem of external effects through negotiation. The purpose of this article is to present both of these concepts and characterize them using the example of the system supporting the employment of people with disabilities in Poland. A part of the system is a derivative of the Pigou tax, which is a part of R. Coase's theorem. To characterize them, a descriptive-explanatory method, statistical data and secondary sources (desk research), were used. The assumption that the research problem is up-to-date is supported by the fact that despite many reforms of the institutions within said the system, the main labor market indicators for people with disabilities in Poland are unsatisfactory and deviate from similar measures in EU countries.

Arthur Cecil Pigou's Tax

The concept of external effect appeared in economics at the turn of the 19th and 20th centuries, but for many years it was not taken seriously. It was not until the mid-twentieth century - mainly due to the catastrophic state of the natural environment - that it came to be recognized as a phenomenon with far-reaching implications. Calculations and analyses have shown that the economies of individual countries lose a significant percentage of their GDP. Then the question was asked what to do in a situation where the market has no chance to show its advantages as a result of the existence of these external effects? The market sometimes does not work well - the market mechanism fails and an intervention becomes necessary. One idea for such state interference was a tax proposed in 1920 by A. Pigou and named the *Pigouvian Tax*. A.C. Pigou presented a seemingly obvious way of dealing with the problem of external effects. He maintained that the subject that caused them should be burdened with the costs of their elimination. In this situation, corrective intervention by the state was required, either in the form of taxes, the amount of which would correspond in financial terms to the damage caused, or appropriate legal regulations, for example prohibiting harmful activities in certain locations (Coase 2013, p. 86). In general, the idea of the tax is as follows: "if the market is prone to fail because the perpetrators of external costs manage to avoid liability, shifting the burden to other economic entities or the state (society), a restoration would require the burden to be borne by the perpetrators" (Bovenberg,

Goulder 1996, pp. 1001). Its design, refined by successive economists, consists primarily of: "the calculation of a value equal to the external cost caused by a specific unit of activity, assuming that the scale of this activity is socially optimal. The sum calculated in this way is multiplied by a certain number of units of this activity." A. Pigou believed that this sum should be multiplied by all "units of activity". It was not until J. Pezzey noticed in the 1980s that it is sufficient to multiply it by the number of units over a set threshold. In this way, the perpetrator receives the right incentive to act - eliminate or limit the external cost - because he pays a tax for each unit. It becomes profitable for the entrepreneur to limit his activity as long as the unitary cost of this restriction is lower than the value which - by definition - is equal to the external cost at a socially optimal scale of activity (Bovenberg, Goulder 1996, p. 1009). It is therefore evident that the A. Pigou tax encourages entrepreneurs to develop their business to the optimal level¹. Interestingly, the mechanism operates independently of the threshold, above which the Pigou tax is paid, and below which a subsidy is paid at the same rate (Pezzey 1989, p. 38).

Ronald Coase's Theorem

One should look for the origin of R. Coase's theorem in the article "*The Federal Communications Commission*" published in the "*Journal of Law & Economics*" in 1959. It pointed to the market allocation of radio frequencies as an alternative solution in face of the decisions taken by government offices rigidly fixing these frequencies. He proposed a certain procedure for granting property rights and their dimensions to ensure the most effective use. He argued as follows: "If only ownership titles are granted, negotiations to modify the legal conditions are possible if the probability of their success justifies the costs of these negotiations. The demarcation of [...] ownership titles is a prerequisite for market transactions. However, the final results (maximizing the value of production) cannot be derived from legal decisions" (Coase 1959, pp. 26-27).

The article was in contradiction of established points of view, and the arguments contained in it were considered incorrect by representatives of the Chicago school. However, R. Coase did not accept criticism and decided to defend his position. He received an invitation to a meeting with A. Director, editor-in-chief of the *Journal of Law & Economics* in Chicago,

¹ The optimum rate of the so-called Pigou tax (named after the creator of this concept - A.C. Pigou), i.e. the fee intended to lead to internalizing the external cost, is equal to the external costs at the point at which they're equal to the benefits of economic activity (Mankiw, Taylor 2009, p. 119).

where he had to discuss the purported errors in his article. Furthermore, 21 other contributors of the journal were invited, including: M. Friedman, G. Stigler, A. Herberger, J. McGee and R. Kessel. R. Coase managed to convince them of the validity of his position. As a result, he was asked to write another article in which, after refining the analysis, he had to present his views again. It resulted in the creation of the most famous works in the history of economic thought - "*The Problem of Social Cost*" (1920). On 44 pages of the *Journal of Law & Economics*, he presented his concept called the theorem of R. Coase (Kubisz 2017, p.50). According to Coase, the problem of external costs is twofold: negative externalities generated by one entity cause a loss to another, but prohibiting harm is automatically a loss to the former (Coase 1960, p. 88).

In essence - looking through the prism of the system of supporting employment of people with disabilities - the solution consists of deciding whether it is profitable to limit the employment of efficient people or financial resources of employers, to provide work to less-efficient disabled workers, or leave these people without support on the labor market, condemning them to living off of social benefits. In each case, the aim is to do the least possible social damage.

However, it should be noted that in none of these articles is the theorem proven or precisely formulated. Therefore, after analyzing the assumptions of the theorem, many economists cite arguments about its erroneousness or correctness. This is due to a different understanding of the terms - most often the transaction cost. As a result, the set of these assumptions was subject to evolution, which in turn resulted in its different interpretations. An example are doubts as to whether R. Coase accepted the assumption of perfect competition. In response to such criticism, he rejected this assumption, considering it irrelevant (Coase 1988, p. 175).

Low rate of professional activity of people with disabilities as the background of the problem

Although the regulations functioning in Poland theoretically guarantee equal rights in the field of professional activity for people with disabilities, and public authorities support them using legal and financial instruments, the professional activity of members of this community remains at a low level. This is evidenced by the share of economic activity of working-age Polish people with disabilities, which in the period of 22 years increased by only

4 percentage points (pp) from 21.9% in 1993 to 25.9% in 2015. Employment rate increased in this period by only 3.7 pp (from 18.8% to 22.5%), and the unemployment rate decreased only by 1.3 pp. (from 14.3% to 13.0%) (Labor market, 2016). The results of the Labor Force Survey (see Table 1) demonstrate that the years 2015-2016 showed an increase in the employment rate of working-age people with disabilities up to 29.9%. In addition, there was a reduction in the unemployment rate of working-age persons with disabilities to 8% in 2017. This means that the unemployment rate decreased by 3.3 p.p. compared to the previous year and by 4.3 p.p. compared to 2015 (BAEL, 2017).

Table 1. Economic activity of working-age people with disabilities in Poland in 2007-2017

Year	Employed		Economic activity rate		Employment-to-population ratio		Unemployment rate	
	AP	PwD	AP	PwD	AP	PwD	AP	PwD
	Thousands		%		%		%	
2007	465	14,6	74,4	23,8	68,2	20,2	8,4	15,0
2008	475	15,1	75,3	24,3	70,3	21,5	6,7	11,4
2009	457	15,0	75,8	24,5	69,3	21,7	8,5	11,6
2010	450	14,6	76,1	26,0	69,0	22,2	9,3	14,6
2011	437	14,7	76,8	26,3	69,3	22,1	9,7	16,1
2012	448	14,7	77,4	28,0	69,5	23,2	10,1	17,2
2013	422	14,8	78,2	26,7	70,6	21,9	9,7	18,1
2014	457	15,0	78,9	27,4	72,5	23,7	8,1	13,9

Addendum: AP - able-bodied persons, PwD - persons with disabilities.

Source: (GUS, 2017)

From 2007, a gradual increase in the economic activity rate to 28% in 2012 and a stable value of around 27% in 2013-2014 can also be observed. In 2015, the ratio decreased to 26.8%, and in 2016 to 26.1%. In 2017, the ratio increased by almost 4 p.p. and reached 29.9%. The economic activity rate is closely related to the number of working people as well as the unemployed, and exceeding the threshold of 27% of this indicator in 2012-2014 was caused by an increase in unemployment. Meanwhile, in 2017, the increase in the rate resulted from an increase in employment.

It should be noted that the rate of economic activity - in each of the analyzed periods - is three times lower than in the case of non-disabled people (shaped at 79.9% in 2017) and by a dozen or so percent lower than in other European Union countries (Garbat 2012, p. 134).

Similarly, the unemployment rate is twice as high as for able-bodied people (4.8% in 2017). The low rate of professional activity and high unemployment of people with disabilities is a problem of the labor market in Poland. It is a challenge for institutions and organizations responsible for shaping social policy.

The reasons for this state of affairs are complex and related to both people with disabilities and the surrounding reality. Among the causes on part of employees, which determine their low competitiveness on the labor market, excluding functional limitations, the following should be mentioned (Borek 2017, p. 64):

- the causes of disability and the time of its occurrence (particularly disfavoured on the labor market are people with intellectual and mental disability, epilepsy, overall developmental disabilities, as well as the blind and partially sighted people; oftentimes, the consequences resulting from acquired disability are less burdensome in professional terms than those stemming from innate disabilities)
- a relatively low level of education,
- ignorance of their rights and how to exact them;
- a lack of compatibility between their educational background and labor market needs (in particular the local / regional markets) and functional abilities of the person and her interests,
- character, personality, attitudes (passivity in looking for a job, exacting their rights, low level of social competences - a submissive or restitutionary attitude, reservations to establishing social relations, low level of personal communication skills),
- age (the number of people with disabilities increases in older age groups, which is directly proportional to the decrease in the openness of employers to employment).

The indicated characteristics of people with disabilities co-determine their unfavorable position on the labor market. However, it should be emphasized that they are shaped not only by genetic determinants and causes of disability, but also by socialization, rehabilitation and education processes, the quality of which is determined by members of the society who provide care, personal and institutional support, general and special-purpose social services, as well as by the decision-makers.

Provisions relating to disability in an indirect and direct way are contained in the Constitution (Constitution, 1997). In the first case, the protection of people with disabilities is expressed, inter alia, by respecting the principles and values on which the system of the

Republic of Poland rests, those being first and foremost the principle of solidarity, social justice, equality and dignity of human beings. The practical dimension of these principles boils down to supporting socially and economically weaker groups by granting them additional privileges. Unfortunately, disability is still mentioned as one of the most common causes of discrimination. This is evidenced by the problems that people with disabilities face every day (Sierpowska 2018).

In a situation of imbalance in the labor market characterized by an inadequate supply of labor resources in relation to demand, the phenomenon of growing requirements towards potential employees is observed, in the light of which people with disabilities often lose out. Unfortunately, there is also the phenomenon of questioning their constitutional right to work, in particular the right of the people who receive disability benefits (which are much lower than in other EU countries, absolutely insufficient for a decent life, an example of which is the social pension, which from March 1, 2016 amounted to PLN 741.35 gross, or partial invalidity pension amounting to PLN 667.75 gross) (ZUS, 2016). The fact that spatial differences in the unemployment rate for all Poles oscillate around over a dozen percent, while in the case of people with disabilities - merely a few percent (Government Plenipotentiary, 2016), makes us think about the impact of unemployment on the processes of employment support of people with disabilities.

Other weak points can be found in labor market policy and instruments, an example of what is the low effectiveness of vocational training, difficulties in accessing career counselling services (as shown by statements of employees/career advisors dealing with customer service in labor offices, the average time available for one customer service is just 15 minutes) (ZielonaLinia, 2016). The most comprehensive area within which the factors hindering the implementation process can be indicated is the quota-based employment support system. Its effectiveness and efficiency raise many doubts. For its basis, both the previously discussed indicators characterizing the level of professional activity of Poles with disabilities, the changes in this area, as well as the amount of unit costs of rehabilitation and dependencies between the amount of expenditure incurred on employment support programs and the extent of said employment, can be used. The amount of expenditures of the State Fund for the Rehabilitation of Disabled People (PFRON) in 2005-2015, calculated per person engaged in professional activity, increased by 39%, and per working person by as much as 56.9%. In this period, the amount of expenditures incurred to support professional activation of people with

disabilities increased by 36.3%. Unfortunately, this increase did not translate into the employment of members of this group, which in the period under analysis decreased by 13.2% (ZielonaLinia, 2016).

Still persistent is the dominant share of the protected market in the processes of employment support of people with disabilities. These proportions are the result of legal solutions that differentiate the extent of financial instruments that support the employment of people with disabilities in favor of the protected market (which has also been given higher requirements regarding the scope of support for people with disabilities). As early as in 2014, the number of supported employment enterprises registered in the Subsidy and Remuneration Refund System (SODiR) in the PFRON system equaled 1278, and the number of open market establishments employing members of that population – 22,039. The number of people with disabilities employed in supported employment enterprises (SEEs) stood at 147.8 thousand, while in open market establishments it was 103 thousand, which is 35% less than within the protected market. The amount of expenditures incurred to support employment in the SEE's was PLN 1,971 million, while in open market enterprises - PLN 985 million. The equalization of the amount of wage subsidies meant for employers of the open and protected market on 1 April 2014 resulted in a change in the proportion and increase in the market share of the open market in the process of employment support of people with disabilities. This is evidenced by the fact that already in 2014, the number of people with disabilities employed in the SEE's (ZielonaLinia, 2016) has decreased.

A diverse approach to supporting self-employment and wage labor is problematic. The main difference in favor of the employers (who usually are not disabled) concerns the reimbursement of increased labor costs of a employed employee with disability; Unfortunately, this instrument is not available to disabled entrepreneurs creating jobs (many of whom, for example farmers, run a sole proprietorship). This brings to light certain reflections: firstly, on the unequal treatment of self-employed and wage-earners, secondly, regarding the fact that funds allocated for employment support of people with disabilities - bypassing the entity to be supported - benefit employers. In order not to simplify these relationships too much, it should be emphasized that employers employing people with disabilities are required to shorten working time of persons with disabilities, prolong their annual leave, and they're not allowed to have people with disabilities work night hours. However, since the extent of the instruments compensating for the costs of these burdens is

determined solely by the degree and type of disability (and not the requirements of the job / job or the severity of the symptoms), it would mean that the degree and type of disability do not generate increased business costs for people with disabilities who run a business themselves.

For many people with disabilities, the primary obstacle blocking their social participation are not external barriers, societal attitudes or their inability to find a job. The obstacle is the disabled person's attitude towards the world, their fear of taking on challenges, low self-esteem or the conviction instilled by their family or environment that their disability is a source of rights exempting them from the obligation to be professionally active, which often results in a resignation from an active desire to change their own living situation.

In the lasting search of the causes of occupational and social inactivity of people with disabilities - the search which seemingly has intensified recently - asking the following questions is worthwhile: to what extent are the social and state institutions which have prioritised the struggle for the social and political rights of the disabled as well as promoting attitudes of social responsibility among employers, businessmen and enterprises, responsible for the phenomenon of social and professional passivity of people with disabilities? Which of these institutions of the discussed system are derived from the Pigou tax, and which from the Coase theorem?

Regulating the system - The Pigou Tax and Coase's negotiations

Firstly, two main theoretical concepts regarding the analysis of the problem of low professional activity of people with disabilities should be considered (Tietenberg 1992, p. 51-69). The first is based on an external analysis, in which employers do not want to employ people with disabilities, shifting costs related to their employment on society. These are costs that are not included in the profit and loss account of entrepreneurs - the social costs. This leads to too many unemployed people with disabilities and their rate of professional activity being too low. In this case, the theory of A. Pigou can be used (Pigou, 1920). The second concept concerns people with disabilities who want to be professionally active or work in a competitive labor market where job candidates negotiate for the employment rights and the amount of pay. If the rights to assets are determined and allocated to all entities (employers, employees and jobseekers), those who plan to take up employment must negotiate with employers to get employment. Negotiations determine the number of employees. This approach is based on work of R. Coase (Coase, 1960), who proposed a different way of

thinking about the problem of social costs. Using these assumptions, a meeting of employers and people with disabilities in order to negotiate bilaterally can be “recommended”.

According to R. Coase's theory, if disabled people are employed and their workplaces subsidized, while taxes are levied from other employers for not employing such people, then the possibility of employing able-bodied people and the possibilities for the growth of said enterprises are significantly reduced (through depleting their financial resources in order to pay the tax). Coase discorded with Pigou's analytical scheme, thinking that his considerations in many cases do not indicate the true nature of the choice made. The traditional approach assumed that the cause of the damage goes from the perpetrator to the victim. Coase considered this an incorrect approach. He noted that this is a two-sided problem and the resolution of this problem apparently is not at all obvious, if neither the value of what has been gained is not known nor is the value of what has been sacrificed for this purpose. R. Coase proposes to look at this issue in a holistic manner in terms of marginal cost (Coase 2013, p. 87).

Government intervention is an expensive undertaking that must be taken into account when deciding on the internalisation of external costs. It is a mistake, argues R. Coase, to treat it only in terms of imposing taxes or introducing appropriate regulations. There are other courses of action, sometimes even more effective, which facilitate market transactions, including lack of government intervention. In *"The Problem of Social Cost"*, R. Coase does not use the term "external effects", precisely because of its connotation with the indispensable intervention of state organs. Instead, he uses the term "harmful effects", which he defines as "any other factors of production" (Coase 2013, p. 25), adding that it is not always advisable to eliminate them. R. Coase argued that in the case of well-defined property rights and low transaction costs, the problem of external effects can be solved through transactions between the parties affected by these effects. This stands in contrast to previous attempts to solve this problem through government regulation or taxation proposed by A. Pigou. This assertion is often misunderstood and taken to mean that markets would always achieve effective results if transaction costs were low, while in fact the point was almost exactly inverse: since transaction costs will never be zero, one cannot assume that any institutional agreement will be necessary and efficient. R. Coase claimed that alternative institutional solutions should always be compared to see which would be closest to the "unattainable ideal of the (mythical) world of zero transaction costs" (Merrill, Smith 2017, p. 38).

If there are such institutions as the law and organizations, courts and offices, then it is impossible that the world of zero transaction costs consistent with the assumptions of neoclassical economic theory actually exists. In the real world, transactions are always subject to costs, and the costs depend on many factors - from the distribution of rights, through the content of contracts, and finally on how the execution is carried out. The result of the cooperation of the institutions is therefore not the same and may change when they are modified, especially if the law itself undergoes changes. It is worth stressing that the resolution of conflicts arising between the parties is expensive. Therefore, it should not be expected that the parties will be able to solve them using the market price mechanism. The role of the government becomes evident here. Its task is to help in resolving disputes and to correct market imperfections that occur in reality with imperfect competition, incomplete information and transaction costs (Cole, Grossman 2005, p. 77).

A.C. Pigou's approach is not perfect because obtaining market information is expensive and takes time. It is also impossible to determine the optimal tax amount that would burden employers and eliminate external effects, without aggravating the situation of one of the parties. Friedrich August von Hayek describes the fears of A.C. Pigou as follows: "perhaps even more instructive is the case of the late professor A.C. Pigou, creator of the theory of prosperity economics, who at the end of his long life devoted himself to defining the conditions under which government intervention can be used to improve a given situation. After analyzing the market effects, he had to admit that the practical value of these theoretical considerations was somewhat dubious, because rarely are we able to determine whether a particular circumstance to which the theory refers actually exists. Not because someone knows everything about it, but because he does not know as much as he should know to effectively intervene" (Hayek 1969, p. 264). R. Coase's theorem in theory solves the problem related to information (or rather its lack), because the parties involved are decision-makers and have all the necessary information. His concept may miss the point due to the high transaction costs that arise when thousands of disabled people start bargaining with potential employers. Coase did not aim to develop a solution for state policy in this area. On the contrary, he merely explained how the correct interpretation of market forces based on legal provisions could eliminate the need for specialized laws to deal with the "social cost problem" (in this case, low rate of professional activity of people with disabilities). In doing so, he drew attention to institutions that are evolving to reduce the inevitable costs generated in the

environment. Government regulations are just one of many institutions that can be created. The cost of organizing and running various institutions determines which, if any, approach could be used: government regulation or voluntary transactions between the parties. The intention of R. Coase was to show that government intervention, i.e. imposing taxes on issuers of external costs, is inefficient, because disputes can be resolved by means of voluntary negotiations between the parties. In the real world, with the existing transaction costs, the legal system plays a huge role; on it depends the definition of property and the way in which property rights are transferred, therefore legislative rules directly affect transaction costs.

External costs, social costs and transaction costs

Labor market institutions² are created as a result of social interaction. They also condition and limit the economic activity of entities. They constitute an element of external conditions of management, as well as directly shape preferences and value systems of individuals (Kaźmierczyk 2011, p. 394). Institutions also facilitate cooperation and coordination of business entities' actions in parallel to the conditions of "fair" competition. Institution analysis is therefore the key to understanding the processes taking place in every market, including the labor market (Stiglitz 2004, p. 380).

The institutional environment supports the efficiency of the economy through the constraints and incentives it created. The quality of the institution assessed according to the criterion of transaction costs, the degree of fulfilling the functions for which they were established, and their mutual complementarity determine the efficiency of the economic system and results (Kaźmierczyk 2013, p. 65). The poor quality of institutions is reflected in dysfunctional economic activity and the activity of interest groups and of people seeking pensions (Klimczak 2002, pp. 495-523).

The part of the costs related to the maintenance of efficient institutions is called transaction costs. Assuming that the economic system is a set of interrelated institutions that set the framework and rules of economic activity, it is necessary to recognize K. Arrow's remark (Arrow 1969, p. 1184) that transaction costs are the "operating costs of the economic system". A large part of these costs is borne by the state, whose duty is to ensure a stable and well-functioning legal and organizational framework for business entities. The increase in state expenditure related to this is reflected in the phenomenon called the law of A. Wagner, which states that "together with economic development, the share of public expenditure in

² The author understands the concept of institution just as O. Williamson does 1) formal institutions, 2) informal institutions, 3) rules for concluding transactions, and 4) entities-organizations (Williamson 2000, p. 597).

GDP increases, which in turn forces tax growth" (Wilkin 2010, p. 26). Limiting transaction costs is conducive to perfecting the institutions, including the institution of the state.

The system of supporting employment of people with disabilities is part of the institutional environment that creates the state, organizing the economy and society. It is composed of institutions regulating the size of reliefs and burdens of employers, creating standards for these entities and for the state in exchange relations on the political market, it introduces limitations, compliance (or lack thereof) with which entails transaction costs. These costs occur along the institutions as an unavoidable consequence of the restrictions imposed by them. They are treated as their side costs, often overlooked and ignored in the economic efficiency calculation, even though they affect the overall result of the entire economy - in this case, the system of supporting the employment of people with disabilities. These are costs that include all public aid directed to employers. Extensive legal and legislative activities are required, as well as additional work of state authorities and the State Fund for Rehabilitation of Disabled Persons and control activities all add up to the total costs of coordination of the policy chosen in this respect, i.e. transaction costs. The more the system grows with new privileges for employers and is modified (especially in an ad hoc manner), the greater the costs of coordination to bear.

At the moment there are two ways of supporting the employment of people with disabilities in Poland: the use of an obligatory employment rate for these people (the so-called quota method), and subsidies and other benefits from public funds for entities employing people with disabilities. The aforementioned quota method consists of imposing on employers employing over 25 employees an obligation to employ people with disabilities in the share of 6% of the crew. If the employer does not, he is obliged by law to pay a "penalty payment" to PFRON (Act, 1997, chapter 10). The second method is to support entities employing people with disabilities. It consists in granting subsidies from PFRON, tax reliefs and omissions, and low-interest loans. For example, an employer may obtain reimbursement for the costs of: workplace equipment, remuneration of people with disabilities directed to work by labor offices and trainings organized for such employees.

This apparent privilege of people with disabilities is nothing more than allowing them to exercise the rights of all employees, which they could not do without additional rights due to the limitations resulting from the nature of disability. The aim of this solution is to compensate for deficits resulting from their disability. On the other hand, the aim of the state

and legislation in this area is to enable people with disabilities to fulfil social roles, especially professional ones, and thus to counteract their social marginalization.

Privileges in the form of exemption from contributions to PFRON and subsidies for employers are forms of public assistance, the operation of which is considered harmful because of the disruption of the mechanism of the free market and fair competition. The use of payments to PFRON in a non-fiscal capacity equals to equipping a system supporting the employment of people with disabilities with institutions of relief and subsidies, which are a way of reducing government failure, dealing with ad hoc matters, overcoming the effects of incomplete information, the availability and use of which increases the cost of coordination. Supporting the employment of disabled people is proof that attaining various political goals requires manual control by means of quasi-fiscal instruments. The greater the use of ad hoc tools, the more coordination costs ("friction") are generated in the economic system. They testify to the weakness of the employment support system, which does not solve problems within the functions assigned to it and it thus becomes necessary to violate its construction. The number and frequency of changes affects the volume of transaction costs, because adaptation measures are taken and new institutions, the maintenance of which incurs further cost, are created. The new regulations create the demand and stimulate the offer of consultancy services, training, information gathering, securing, generating further transaction costs of this system.

An undesirable effect of the existing institutions is the violation of formal and informal rules, caused by opportunistic reactions of employers to the introduced restrictions. They create negative phenomena of falsification of employment, deliberate maintenance of tax arrears for PFRON and the Social Insurance Institution (ZUS). Their effect is the lost benefits of PFRON in the form of unpaid income and welfare losses, increasing the costs of the entire occupational rehabilitation system and supporting the employment of people with disabilities, and thus also the economy. Efforts to detect or estimate them add to the workload of the government administration and PFRON; for this reason, data on the scale of these phenomena can also be used as indirect measures of transaction costs generated by the system in question.

The category of transaction costs is usually identified with the microeconomic level, because the academic output on the theory is focused on market transactions and managerial relations. The extension of the application of the transaction costs criterion in the institutions'

assessment of the macroeconomic level and other areas of social relations can be attributed to O. Williamson - a recipient of the Bank of Sweden's Nobel Memorial Prize in Economic Sciences, which proves that any exchange problem can be considered from the point of view of saving transaction costs arising in connection with the conclusion of a contract (Stiglitz 2004, p.388). Relations between the state and an entrepreneur employing people with disabilities take the form of a contract in which the entrepreneur receives protection of their rights as well as the institutional and legal order in exchange for employing disabled employees or paying tribute to PFRON. The state fulfills this contract by creating an institutional environment. The ability to fulfill the functions assigned to the institutions and the transaction costs they carry are the appropriate criteria for assessing the quality of the state's institutional environment, taking into account both the effectiveness and efficiency of organizing the economic system and society, and the effectiveness of using public resources allocated for this purpose from the tax paid to PFRON. Having a choice of different combinations of institutions performing the same functions, a better solution is the one which generates lower transaction costs (e.g. employment of disabled persons or paying tribute to PFRON). The criterion of public choice "comes down to the choice of a system of institutions that minimizes the costs (or maximizing benefits) of living in a collective" (Ząbkowicz 2003, p. 813).

An important difference between transactions concluded on the goods market and a political contract is the method of valuing the value of assets that are subject to exchange. On the goods market, the valuation is shaped by the information on the buyer's readiness to pay a specific price for the good and readiness of the producer to sell it at a specified price. The political market is governed by different rules, the decisions made on it are a public choice in which social preferences manifest and a compromise between rationality and justice is achieved. The result of public choice is the design of the system supporting the employment of people with disabilities, resulting in varying degrees of tribute to PFRON and the renouncement on the state's part of a particular share of potential profits, such as tax, to be received by the Social Insurance Institution and other organizations (offices).

The optimal system of supporting the employment of people with disabilities should maximize social welfare and minimize transaction costs generated by its institutional structure (necessary to ensure operation and fulfill regulatory functions). It should be noted, however, that the current system is not optimal, but at most suboptimal, which causes distortions due to

the substitution effect as well as the loss of well-being resulting in a failure to achieve maximum utility. As a result of political decisions, various constructions of the employment support system for people with disabilities are adopted, attempting to bring it closer to the ideal of the Pareto³ optimum. Detailed solutions are to enable the achievement of political goals of the PFRON, and, at the same time, the reconciliation of efficiency and justice. The more complexities, regulations and deviations from the rule, the greater the cost of coordinating the system and its integration into the economic system.

The transaction costs of the employment support system are the costs of coordination, the aim of which is to maintain an adequate level of employment of disabled persons through legal and fiscal regulations. This coordination consists of various types of activities resulting from the necessity to engage resources and implement solutions that reconcile social preferences, which makes transaction costs to not be homogeneous and have a complex structure; some of them take the form of expenditures expressed in monetary units, and some occur in the form of immeasurable loss social well-being⁴.

The basic problem faced by transaction cost researchers is their operationalization and measurement. This is due to the difficulty of identifying these costs and their partly non-monetary nature, which is why transfers from PFRON and profits from other public funds to employers to support employment of people with disabilities and system coordination costs can be an indirect, approximated measure of said costs.

Direct costs include expenditures for maintaining the institutional structure of the employment support system, comprising of the costs of the entire legislative process, information flow, the functioning of PFRON, training and organizing field administration (communes and counties), software and tribute collection forms for the Fund. The measure of these costs are the expenditures in the state budget and PFRON. Unwanted costs originate from the failure of the state institutions. They include costs due to the effect of the announcement and flow of information, erroneous decisions of PFRON and the Ministry of Family, Labor and Social Policy, protection against risks, and the inconveniences of fulfilling the obligation to pay. These are harmful costs, burdening the state budget and private budgets.

³ It is worth noting that the free exchange of goods, assuming no transaction costs, leads to an efficient allocation in the sense of A.Pareto. Moreover, if the allocation is not effective in the Pareto sense, the situation of some participants can be improved without worsening the situation of others, which is very desirable (Begg, Fischer, Dornbusch 2003, p. 431).

⁴ The term *social well-being* is usually used to describe economic well-being and indicates the ethical value or "goodness" of the states of interests of the whole community (Sen 1991, p. 16).

Reducing the unreliability of state bodies by making tax reliefs available and supporting employers increases the expenditures in form of all the necessary and undesirable costs as a result of the complexity of law, its application and enforcement. Using the approach of O. Williamson (1998, p. 57), the primary sources of transaction costs are: limited human rationality, which can be described as rational in intention, but to a limited extent, which results primarily from difficulties or obstacles in accessing the full the scope of information needed to make a transaction; preferences for opportunism, manifesting itself in the submission of subjective goals of some participants in the transaction process over objective transaction objectives, when the identification of these participants is difficult or requires excessive costs; the specificity of assets used in the transaction, which is connected with the need to invest in specialized resources, characteristic for the transaction under consideration.

Which concept comes out on top: A.C Pigou's or R. Coase's?

The construction of the quota system for employment support in Poland raises many reservations. A large part of funds allocated for vocational rehabilitation comes from payments made by employers who do not comply with their obligation to employ people with disabilities. Therefore, in a hypothetical situation of dynamic employment growth of people with disabilities, and thus a drastic reduction in the amount of payments due to non-employment, would the institutions of the discussed system cope with the equally rapidly growing unit cost and transaction costs of supporting this employment and how? Following this, one can ask another question: which of the presented concepts more reflects the current system of supporting the employment of people with disabilities in Poland? Here the answer is no longer unequivocal. A parallel analysis of the labor market may indicate A.C. Pigou's concept the victor. However, a deeper examination of it indicates that the theorem of R. Coase is not out of the race.

Translating the above analysis into business practice, we can put forward a few practical and theoretical conclusions. First of all, the amount of current tax rates for PFRON (6%) is much higher compared to that in many European Union countries (Garbat 2012, p. 134). Secondly, subsidies and concessions granted to employers of people with disabilities do not meet their expectations, which reflects the level of employment. They are lower than the optimal A.C. Pigou tax rate, which means that there are no economic incentives to employ people with disabilities. Thirdly, employment subsidized from PFRON funds oscillates around 230-240 thousand people (PFRON, 2017). This represents about 16% of the total

number of disabled employees. To simplify, one should assume that the remaining part of these people (about 1.5 million) found a job thanks to negotiations as understood by Coase. Thus, it can be seen that labor market policy based on the assumptions of A.C. Pigou in the field of supporting employment of people with disabilities is insufficient in the light of BAEL. Statistical data does not support the effectiveness of policy based on this theory. Employers prefer to pay a quasi-fiscal tribute to PFRON than employ such persons, and the disabled themselves prefer to remain economically inactive. As a result, both disabled people and their employers do not have satisfactory economic incentives to change their behavior, which leads to ineffectiveness.

A. Pigou's solution highlights the imperfections of the labor market and indicates the need to create institutions to regulate it, so as to obtain an appropriate level of employment rate for people with disabilities. Such an approach requires collecting complex and rapidly changing information, then translating said information into tax or regulation, and imposing a tax or rule on the entities of the labor market. The article considers only some of the problems related to this approach, and it has been pointed out that A. Pigou's taxes are still under discussion, but are implemented and used in practice.

What, then, of the R. Coase's theorem? In this case, the analysis concerned itself with other institutional solutions on the labor market. Where transaction costs are low and property rights are clearly assigned, the market process can lead to an optimal solution. R. Coase's solution adopts a decentralized, process-based approach in which the involved parties gather their own information and use it to form contracts, as in any other market. It is therefore dynamic, which means that if conditions change, the parties may change their contract in the next contract period. They do not have to wait for elections and changes in the functioning of the institution.

It appears therefore that R. Coase's approach can be applied when there is a small number of entities on the labor market that are involved in a specific problem and can make transactions (De Alessi 1998). The approach proposed by A. Pigou seems to fit the labor market with a large number of participants. However, before conclusions about the relative merits of these two approaches are formulated, it should be realized that cases of a "large number of participants" may become less numerous when actors - participants in the labor market - form associations or unions.

Thinking within the R. Coase contra A. Pigou discourse, we should also consider the purpose of Coase's research; he wanted to understand the world in which transaction costs are positive. When we observe this world, we see a rich set of institutions. The principles of responsibility and common law are only a small part of this world. Most are capital, monitoring of the capital market and competition, as well as concern for the community. Thus, it can be seen that there are many players on the labor market of people with disabilities: government, employers, jobseekers and other organizations. These are institutions that create transaction costs that limit direct negotiations as understood by R. Coase. Therefore, suggesting that the government should focus on itself by imposing prescriptive and control regulations only on state-owned enterprises and leave the labor market as is, seems to put forth the A. Pigou tax as the solution. The assumption implicitly is that central management by wise economists-optimists will lead to success. If the public choice theory were to teach anything, it would probably be that the government should be endogenous to political economy. When dealing with a benevolent dictatorship, there in effect is no rule and regulation. The process itself determines the effects and it is in this part of the analysis that R. Coase has an advantage over A. Pigou.

In order to avoid A. Pigou's trap in theoretical investigations, it is necessary to focus on the basic principles and constitutional rules that determine and recognize the private rules of ownership referred to by R. Wagner (Wagner 1998). When the law is adopted by consensus, the role of government becomes clear. The government has a constitutional duty to protect property rights and, therefore, manages its own affairs so that undesirable costs are not imposed on citizens and employers of people with disabilities. When fundamental constitutional protection is compromised by politics, we are in an endless sea. Therefore, instead of relying on solutions proposed by A.C. Pigou, which violate constitutional protection of property rights, we should call for establishing a constitutional order that will minimize the need to introduce A.C. Pigou's tax and will maximize the area for R. Coase's negotiations.

An institution such as the Constitution, in addition to the general justification for the legal protection of persons with disabilities, contains provisions referring directly to the problem of disability (Constitution, 1997, Articles 67-69). Article 69 requires public authorities to help persons with disabilities to secure their existence as well as adapt to work and social communication. At the same time, it should be noted that on the basis of these

provisions people with disabilities cannot make a claim to public authorities for specific support. This does not mean, however, that the provisions are useless (Sierpowska 2018). The Constitution is the foundation of the entire legal order and a kind of a signpost for the legislator. At the same time, it is an act with a very wide range of regulations, and therefore has a high degree of generality. The development and clarification of its provisions takes place in bills. They enumerate the specific tasks of public authorities related to providing support to people with disabilities. However, raising the fundamental rights of these people to the constitutional level is a value in itself, and the legislator thus gives expression to the recognition of these people as full citizens and members of society. This does not mean, however, an approach without reservations to the constitutional take on the issue.

The analysis of legal provisions, organizational solutions and statistical data reveals the image of a person with disabilities as a person in need of support in the labor market. The Constitution speaks about the support of the disabled in the context of health care, subsistence, and social security, using an obsolete term describing them as *handicapped*, which today has a pejorative meaning. Securing livelihood is irresistibly associated with monetary aid at a level that ensures physical survival. Although undoubtedly some people with disabilities need special care from public authorities, you can not treat all disabled people as wards of state. The vast majority of them need real support, care, adapted workplaces, and not just "paper" regulations. Constitutional protection of the discussed social group in no way refers to the independence and activity of people with disabilities, through their social participation, to the idea of participation itself. Therefore, 20 years after the Sejm's adoption of the current Constitution, it would be appropriate to give its provisions a new wording which, instead of securing the existence and assistance in adapting disabled people to work, will draw attention to the use of their potential, skills and competences, and to promote employment at open labor market.

We live in a world created by law and social principles - which are all institutions. There is tension between politics and the economy. The political forces that shape the contemporary social system influence the right of ownership and the market process. Political initiatives inspired by targeted interest groups meet with the unbridled forces of the market, on which contracts and property rights are imposed. Institutions dealing with the employment support of people with disabilities that appear on this market face severe political forces and an entrenched bureaucracy. Some of the institutions established in the employment support

system for people with disabilities are derivatives of R. Coase's theorem; others are derived from A. Pigou tax. At the root of all this lies the system of property rights, which is still evolving.

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Wspieranie zatrudnienia osób z niepełnosprawnościami w świetle koncepcji Artura Pigou i Ronalda Coase

Abstrakt

W 1960 r. R. Coase opublikował artykuł pt. „Problem kosztów społecznych”, który do dziś jest jednym z najczęściej cytowanych tekstów ekonomicznych i nadal wzbudza żywe dyskusje. Wskazał, że problem kosztów zewnętrznych ma dwojaką naturę: negatywne efekty zewnętrzne generowane przez jeden podmiot przynoszą drugiemu stratę, lecz zakazanie

szkodzenia jest automatycznie stratą dla pierwszego. Argumentował, że w przypadku dobrze zdefiniowanych praw własności i niskich kosztów transakcyjnych problem efektów zewnętrznych może być rozwiązany poprzez transakcje pomiędzy stronami, których te efekty dotyczą. Stało to w opozycji do wcześniejszych prób rozwiązania tego problemu poprzez regulację rządową lub opodatkowanie zaproponowane przez A. Pigou. W istocie – patrząc przez pryzmat systemu wspierania zatrudnienia osób z niepełnosprawnościami – rozwiązanie sprowadza się do rozstrzygnięcia: czy opłaca się ograniczyć zatrudnienie osób sprawnych lub zasoby finansowe pracodawców, aby zapewnić pracę mniej wydajnym osobom z niepełnosprawnościami, czy pozostawić te osoby bez wsparcia na rynku pracy. W każdym przypadku chodzi o wyrządzenie jak najmniejszej szkody społecznej. W niniejszym artykule przedstawiono obie koncepcje na przykładzie systemu wspierania zatrudnienia osób z niepełnosprawnościami w Polsce.

Słowa kluczowe: osoba z niepełnosprawnościami, system wspierania zatrudniania, teoremat Coase, podatek Pigou.

JEL: J500, J580, P350