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**The impact of public procurement system
on the development of competition in the economy
in the light of empirical research**

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Abstract

Research background: The purpose of the public procurement system in the market economy should be to ensure that the public sector entities conduct purchases which are optimal from the economic point of view, as well as to prevent favoring or discrimination of entities participating in public tenders. The Public Procurement Act mentions fair competition as one of the fundamental principles. Both contractors and contracting entities are subject to this principle. In practice, however, it is very often violated in connection with a number of phenomena resulting from imperfections of the aforementioned system.

Purpose of the article: The purpose of this article is to identify the most important solutions to support the development of competition in the economy through the public procurement system, as well as to examine the obstacles and risks carried by the system itself. Another purpose is to present further action proposals based on research — actions affecting the development of competition and at the same time improving the efficiency of tenders.

Methods: The article is based on the analysis of literature and on a questionnaire. The survey was conducted electronically (CAWI). The questionnaire was sent to 300 entities required to apply the provisions of the Public Procurement Law throughout the country. Another method involved a direct route (PAPI) and 155 entities participating in public tenders

as contractors. Purposeful sampling was implemented to ensure reliable and expert replies. The study was carried out in the first half of 2016.

Findings & Value added: The results indicate the most important solutions supporting the development of competition. They include the following: facilitating access to information about orders, improving the efficiency of state authorities in detecting collusive tendering, reducing the possibility of using the potential of third parties, and increasing the availability of data on tender results. The solutions presented in this article are evolutionary rather than revolutionary, and point primarily to the ability to streamline existing procedures and regulations and not to replace them with new ones. They should also help to improve the functioning of public procurement system in Poland, which is of great importance for the development of competition in domestic economy.

Introduction

The concept of market competition remains ambiguous and difficult to define¹. It comes from a Latin word *concurrentia* meaning "run together" regarding competition, and it is inseparably connected with Economics as a science. It affects the way economy, markets, producers and consumers function together. This phenomenon also plays a significant role in exchange processes. However, there are numerous constraints, such as agreements between stakeholders or state intervention. Despite the fact that the phenomenon of competition is inseparable from the market, it also applies to other aspects of life, such as exams, sport competitions, theater and film or obtaining government contracts (Hayek, 2002, p. 9). Especially the latter area seems to be very interesting, as contemporary European economies are characterized by a high proportion of public sector expenditure in GDP, which is major purchaser of goods and services (Martin *et al.*, 1999, p. 387).

These expenses should be optimized, while ensuring equal access to the markets for all parties concerned. In Poland and other countries of the world this role is played by public procurement system, which facilitates purchases made with state budget money. The associated regulations remain today one of the main challenges faced by government authorities.

It is extremely difficult to construct a system of public procurement, which would allow all interested parties to participate, and which would not generate high costs for tender conducting institutions, and simultaneously allow the selection of cheap offers meeting high quality standards. The aforementioned features are often mutually exclusive. For example, a tender favoring both time and price may not be available for some companies, especially those that belong to the sector of small and medium-sized enter-

¹ This problem reaches beyond the scope of this article.

prises. In addition, the postulated openness and transparency of tendering procedures allowing equal treatment of all parties may facilitate cooperation that restricts competition and leads to the so-called “collusive tendering.”

The Public Procurement Act, which is obligatory in Poland mentions fair competition and equality as fundamental principles. Both contractors and contracting authorities are subject to these principles. In practice, however, it is very often violated in connection with a number of phenomena resulting from imperfections of the aforementioned system.

The purpose of this article is to identify the most important solutions to support the development of competition in the economy through public procurement system, as well as to examine the obstacles and risks carried by the system itself. Another purpose is to present further action proposals based on research — actions affecting the development of competition and at the same time improving the efficiency of tenders.

The hypothesis related to the purpose of this article can be formulated as follows: barriers in the Polish public procurement system limit the development of competition in the economy and reduce the effectiveness of tendering.

The structure of the paper attempts to verify this hypothesis. A research on restrictions for market competition has been conducted against the background of theoretical considerations regarding the regulatory environment and the functioning of public procurement system in Poland and the European Union. Measures to improve competition in public tenders in order to increase their effectiveness have also been proposed.

Research methodology

The article is based on the analysis of literature and on a questionnaire. The survey was conducted electronically (CAWI). The questionnaire was sent to 300 entities required to apply the Provisions of the Public Procurement Law throughout the country. Another method involved a direct route (PA-PI) and 155 entities participating in public tenders as contractors. Purposeful sampling was implemented to ensure reliable and expert replies. The study was carried out in the first half of 2016.

Key solutions supporting the development of competition through public procurement system

The primary purpose of the public procurement system is to provide the highest economic efficiency in the implementation of purchases using budgetary funds. In a broad sense, this means that the purchases should focus on the best value for money. It means that contracting authorities should take into account not only financial but also non-financial criteria when choosing the most advantageous offer (Dimitri, 2012, p. 3).

In the case of households or businesses a cost effective purchase is an obvious factor. In a properly functioning market competition each of these entities would take optimal decisions. Unfortunately, it may look quite differently if the purchases are made by a public entity. In this case, the following two problems can be observed:

- ensuring competition,
- avoiding the risks associated with the separation of the entity that purchases and owns the funds for which the purchase is made.

Public procurement system attempts to solve these problems.

Basic legal solutions regarding the proper and competitive procurement procedure include the European Union Directives 2014/24 / EU and 2014/25 / EU. They primarily aim at increasing the participation of contractors from other countries in the framework of individual national procurement systems. Public procurement, therefore, shall respect the principles of free movement of goods, entrepreneurship and provision of services and the principles of transparency, equal treatment, non-discrimination, mutual recognition and proportionality. It is important because a lot of people point to the favoring of domestic contractors, which may constitute an obstacle to trade and international competition (Trionfetti, 2000, p. 57).

The legislator has predicted the existence of the following procedures to allow the awarding of contracts: an open procedure in which each interested party may submit a bid, a restricted procedure, a negotiated procedure and a competitive dialogue. While the first two can be applied in every case, the last two require special conditions to occur. This division stems from the conviction that the first two procedures ensure the principles of full competition on the market.

Analogous to those EU rules are such that result from the Polish Public Procurement Law. An important provision from the point of view of fair competition regards banning the practice of dividing public tender contracts into parts or underselling their value in order to avoid application of the provisions of the Act.

Polish legislator has also solved the problem linked to the procedures of public procurement. In this case, however, the legislator has expanded the catalogue of existing modes by including source procurement, request for quotations and electronic bidding.

An important solution supporting the development of competition in the public procurement system is based on regulations concerning the terms of reference. It shall be clear and comprehensive, and defined by accurate and understandable terms. Descriptions that could impede fair competition are not allowed. The description of the contract is included in the terms of reference (TOR), and available to all interested contractors.

The solutions existing in Poland precisely regulate the choice of bidders. Each contractor may submit only one bid complying with TOR requirements. The opening of bids is public. Directly before it, the contracting authority provides the amount intended to execute the contract. During the examination and evaluation of bids the contracting authority may require appropriate explanations and call the contractors to complete the offers. Failing to provide explanations or refusing to complete the offer results in the rejection of the bid.

The procedure for selecting the best bid ends with the signing of the contract on public procurement. Each of the contractors participating in a tender may also use all legal remedies available.

Also worth mentioning is the existence of entities that can assist the rules for maintaining fair competition on the market of public procurement. The first of these is the President of the Public Procurement Office obliged to provide entrepreneurs with non-discriminatory access to tenders. He has been authorized to carry out inspections. Another entity is the National Board of Appeal, which shall decide on appeals lodged in public procurement procedures.

An important role in securing competition is also played by the President of the Office of Competition and Consumer Protection, the Central Anti-Corruption Bureau, Internal Security Agency, Prosecutor's Office and the Police. Noteworthy is the work of the OECD, which has also recently addressed the improvement of the functioning of national procurement systems. The OECD's most important publications from the point of view of competition are the following:

- „Public Procurement: The Role of Competition Authorities in Promoting Competition," OECD Roundtables (2007) — a report based on contributions of Member States and non-OECD members includes theoretical proposals of system solutions and methods to detect and combat collusion by competition protection authorities, with practical examples of activities of competition protection authorities in this area;

- "Guidelines for combating bid rigging," OECD (2009) — also available in Polish — a practical guide for authorities in the form of a brochure containing practical tips for proper preparation of tenders and how to detect collusion in tenders;
- "Collusion and Corruption in Public Procurement," OECD Roundtables (2010) — a report based on the contributions of OECD member states and non-members containing information about problems with corruption and collusions occurring in these countries as well as practical ways to deal with them;
- „Competition and Procurement: Key Findings," OECD Competition Committee (2011) — which contains an extract from the aforementioned publications and other important OECD documents regarding competition in public procurement.

The functioning of the public procurement system in Poland

Public procurement in Poland and in other European Union countries plays a very important role. This is reflected in its market value, which in Poland amounted to 116.3 billion PLN in 2015. Its estimated value accounted for about 6.5% of GDP in 2015.

Regarding the Official Journal of the European Union, Polish contracting authorities published 21381 calls for bids representing approximately 12% of tenders announced by all the countries of the Community.

A vast majority of tenders in Poland (83%) took place as open tenders. Disturbing, however, is the fact that the second most popular and also the least competitive procedure — the so-called single source procurement — enjoyed a nearly 12% share. On the basis of the calls published by the authorities in the Public Procurement Bulletin, it has been calculated that in 2015 the average duration of proceedings with a value not exceeding the EU thresholds amounted to 35 days.

2015 was the first year when the amended Act, which assumes the use of outside criteria apart from the lowest price, was in full force. As shown in calls published in the Public Procurement Bulletin, the price as a sole evaluation criterion is used in 12% of cases in proceedings with values below the EU thresholds. The data from calls published in the Official Journal of the European Union (in the case of proceedings with values above the EU thresholds) also confirms the decline in the percentage of procurements with the price as the sole criterion for evaluating tenders. In the case of the 2015 procurements the sole criterion of price was applied in 11% of cases. The most frequently used additional criterion was the one

related to lead time (delivery time) — 40% (procurements published in the Public Procurement Bulletin) and 33% (procurements published in the Official Journal of the European Union) of procedures, which used more than one criterion. But what is interesting in the case of the importance of the price criterion is the fact that the contracting authorities specified it in the range of 81-99%. This indicates a continued dominance of price competition.

It is widely accepted that the measure of competitiveness on the public procurement market is constituted by the level of interest in public procurement procedures for potential contractors expressed in the number of bids. Data contained in the calls published in the Public Procurement Bulletin shows that the average number of bids submitted in the proceedings below the thresholds of the EU in 2015 amounted to 2.90. This is slightly more than in 2014 (2.89) and still slightly less than in previous years — 2.96 in 2013 and 2012. Similarly to previous years the largest number of bids regarded procedures for construction works — in 2015 the average was 4.30 (in 2014 — 3.90; 2013 — 4.36, and in 2012 — 4.70). In the procedures for supplies an average of 2.35 bids were placed (in 2014 — 2.44; 2013 — 2.48, and in 2012 — 2.47) and in proceedings concerning services an average amounted to 2.96 bids (in 2014 — 2.99; 2013 — 2.95, and in 2012 — 2.79).

For years, the largest group of procedures were those procurements in which contractors submitted only one bid — in 2015 it amounted to 39% of cases in total (in 2014 — 38%; 2013 — 39%; 2012 — 40%). This situation takes place especially in the case of procurements for supplies and services, while in proceedings for construction works, competitiveness is much better, as one bid was placed in 22% of cases, and 5 and more — in 37% of cases.

The analysis of the notices published by the Polish authorities in the Official Journal of the EU (above the EU thresholds) indicates that in 2015 one proceeding generated 2.65 bids on average (in 2014 — 2.49; 2013 — 2.46; and in 2012 — 2.36). The most bids were linked to proceedings for construction works — 4.94 (2014 — 4.51; 2013 — 5.09; 2012 — 6.06), followed by services — 3.81 (in 2014 — 2.67, 2013 — 2.73; 2012 — 2.68) and supply — 2.34 (in 2014 — 2.39; 2013 — 2.33; 2012 — 2.17).

According to calls published in the Official Journal of the European Union, regarding the proceedings for values above the EU threshold in 2015 Polish contractors were awarded 72 public procurement contracts on foreign markets (in 2014 — 82; 2013 — 89; 2012 — 53). The bids placed by Polish contractors were selected in proceedings organized by authorities mainly from the Czech Republic (14 contracts), Estonia (8 contracts) and

Germany (7 contracts). Six procurements were carried out in Belgium, Latvia and Slovakia, five in Hungary and Italy, three in Lithuania, two in Denmark, Luxembourg and Romania, and one in Bulgaria, Croatia, Greece, Portugal, Sweden and the UK.

As a result of an audit carried out in 2015, it was found that the most serious deficiencies in the application of the Public Procurement Law on the part of contracting authority, consist of the following: unjustified withdrawal of application; dividing procurement into parts to avoid the application of the relevant provisions of the Act or an incorrect estimation; awarding bids via non-competitive procedures without complying with the statutory prerequisites and descriptions of the terms of reference; the conditions for participation in the procedure or evaluation criteria and the method of calculating the price breaching fair competition.

Restrictions of competition in the public procurement system in Poland in the light of empirical research

To identify the existing barriers and restrictions in the Polish public procurement system, we conducted a survey directed to 300 contracting authorities and 155 contractors. Of the 300 redistributed questionnaires 74 returned. In the case of contractors all the surveyed entities responded due to their direct involvement in the process of surveying.

According to article 89, par. 1, pt. 3 of Public Procurement Law, a contracting authority is required to reject a bid if its submission constitutes an act of unfair competition within the meaning of the provisions on unfair competition. Contractors frequently pointed to the phenomenon of offering goods and services at abnormally low prices (63% of responses) and the problem of submitting more than one bid by enterprises belonging to the same group (43%) as acts of unfair competition on behalf of authorities. They considered bid rigging (12%) as another act of unfair competition. The indicated response rates do not add up to 100% because each respondent could provide any number of replies.

Contracting authorities see the phenomenon of unfair competition in a different light. In their opinion, the most common case is bid rigging (45% of replies) resulting in abuses on behalf of contractors related to the execution of public tenders at higher prices than planned by contracting authorities.

The problem of abnormally low prices offered in tender procedures by contractors is a very difficult one. Lowering prices is the essence of the competitive game, and it is usually beneficial to the contracting authority.

Thus, signals on the use of abnormally low prices should be treated with caution, so that reliable and cost-effective contractors are not automatically eliminated.

Among the most common practices associated with the implementation of abnormally low prices, both contractors and contracting authorities pointed to the so called "margin squeeze." This practice is prosecuted by regulatory authorities (Gaudin & Mantzari, 2016, p. 151) and it denotes a situation when an entity with a dominant position on both wholesale and retail markets sets wholesale prices very high, while retaining relatively low prices on the retail market. As a result, the difference between wholesale and retail prices is insufficient for any other less effective competitor on the retail market to achieve any normal profit, while the dominant entity compensates for any loss or understated profits in retail with high wholesale margins.

It is also worth mentioning the consequences of submitting more than one bid by enterprises belonging to the same group. Close mutual connections present between such entrepreneurs make it easier for the exchange of information on prices and other conditions for participation in tenders. This practice results in misleading contracting authorities as to the current state of competition, as the competition between the related participants of tenders becomes apparent and provides them with an opportunity to obtain the contract at more favorable terms for themselves, rather than for undistorted competition.

The phenomenon of low competitiveness of tender procedures in Poland cannot be explained by a low number of potential contractors or poor transparency. As indicated by the respondents, it is not the result of any lack of information about tenders as respectively 87% of contractors and 96% of contracting authorities see no problem linked to this type of information. Figure 1 presents the major barriers to accessing tenders according to contractors.

According to the survey, the biggest problem for Polish entrepreneurs is a short deadline for submitting bids in tender procedures. A brief period for conducting the procedure indicated earlier in this paper is, on the one hand, an advantage of the whole system, but on the other it is an effective barrier especially for the SMEs sector and those who are not experienced in the implementation of public tenders.

Polish entrepreneurs also face the problem of high requirements set by the authorities. The respondents complain about the criteria for experience and human and financial potential, which effectively prevent them from participating in tenders. They also criticize a seemingly beneficial solution enabling the purchase of statements for lending experience, which is not

used later to execute the contract. On the one hand, it supports smaller entities competing in public tenders, but on the other, it is a perversion of market mechanisms.

A separate barrier for numerous businesses is a lack of precision in wording the terms of reference. Too meticulous determination of the terms of reference may indeed prove that only one contractor offers a product that meets the conditions of the contract. Even if such products / services are more numerous, the entities who offer them may not be able to compete with an entity whose offer best fits the description and decide to forgo participation in the tender.

Despite continual changes to these regulations, it turns out that for about 31% of the surveyed contractors the preference for the lowest price criterion adversely affects their participation in tenders. They point out to the following two reasons for this. The first one applies to factors other than price, which are used to compete on other markets unrelated to public procurement. Using only the price criterion does not allow entrepreneurs to compete effectively, as they are not able to win price competition, but could potentially offer the most favorable product from the point of view of customers and taxpayers, taking into account all its characteristics. The second one facilitates reaching an agreement between cartel members, and thus promotes collusive tendering. In the case when the choice of the best bidder is based on one criterion only, entrepreneurs who collude find it much easier to come to an agreement than in a case when there are multiple criteria present.

From the point of view of contracting authorities, the most common case of unfair competition in public procurement is the existence of various types of collusive tendering. According to the authorities, they differ as to the form of collusion or the mechanism used. However, they always lead to a joint determination by independent contractors of at least some of the important aspects of bids or behavior in tenders and their purpose is to restrict competition, which negatively affects the contracting authorities (Heimler, 2012).

In the conducted survey the contracting authorities indicated the most common types of collusive tendering used on the Polish market. They include the following forms: cash withdrawals (75% of replies), division of the market (53%) and the rotation of tenders (34%).

In the case of cash withdrawals, entrepreneurs who win tenders shall pay cash compensation to all participants of the agreement in exchange for fictitious or actual services or supplies, actual or fictitious subcontracting or additional agreements, such as deliveries. The division of markets is to establish a system where competitors do not submit bids to certain custom-

ers (personal division), or do not participate in tenders within certain geographical areas (geographical division) or regarding specific categories of the terms of reference (material division). The proof for the functioning of such agreements lies, for example, in the fact that, despite their presence on many geographic markets (e.g. in terms of selling other types of goods and services), entrepreneurs restrict their activity in tenders to certain disjoint geographical areas. In the case of tender rotation the concern lies in the order of winning tenders by entrepreneurs. Contractors frequently arrange that they would win the announced tenders in succession, or in a rotational manner. The existence of this mechanism is evidenced by the fact that there is a group of entrepreneurs who win similar tenders in a predictable order.

Interestingly, only a few respondents (23% of contracting authorities and 46% of contractors) indicated the existence of the so called vertical collusion between contracting authorities and contractors. The result of such agreements is to grant particularly favorable conditions to one or a group of bidders. A disclosure of TOR can also occur before their publication or a disclosure of the amount with which the contracting authority intends to finance the contract. Also, the disclosure of the identity of other entities interested in participating in a tender may carry an anti-competitive effect. Anti-competitive agreements between contractors and contracting authorities may also be linked to corruption (Bologna, 2015, p. 137). It must be remembered, however, that it is difficult to determine the consequences of the impact of competition on corruption (Alexeev & Song, 2013, p. 167).

A legal possibility to create consortia remains interesting from the point of view of public tenders in Poland. The results of own studies in this field are worth mentioning. Almost 70% of the surveyed contractors believed that joining consortia is worthwhile. The most frequently mentioned argument was that consortia provide small businesses with a chance to win tenders against large companies and then share such contracts. Other tangible benefits of joining numerous companies include a possibility to carry out works in shorter time and offer more favorable prices. It is also possible to connect different companies' machine parks, expertise and financial resources. Moreover, a high cost of initial deposit is spread out over several companies. Consortia also allow the use of more diverse qualifications of employees and create better access to loans. The respondents, however, also included individual companies, which indicated negative aspects of such mergers. The problems included difficult settlements between different companies, a significant dilution of ownership and the risk of monopolization of individual markets (including public procurement market), which restricts free market mechanisms. Moreover, if one consortium

member goes bankrupt, the others may be forced to take over its debts. To sum up, it seems that the creation of consortia may enable a broader range of entities to participate in tenders, but in certain situations it can also lead to restrictions of competition. The principal danger of consortia comes from reduced competition between the entrepreneurs who eliminate competition between one another and prepare a joint bid.

Analyzing the results of the survey, it is also worth mentioning that some contracting authorities as well as contractors indicated public aid as an anti-competitive asset used by bidders.

Conclusions

The results of own studies suggest that the initial research hypothesis has been verified. It is also, therefore, worth trying to identify proposals for measures to increase competitiveness of public tenders.

Such proposals can be divided into the following three groups:

- efforts to eliminate barriers in accessing tenders and consequently increasing the number of participating companies;
- initiatives to combat the formation of anti-competitive agreements in public tenders and supporting their detection;
- actions without any direct impact on the level of competition, but increasing the efficiency of tenders by reducing the costs for both contracting authorities and contractors.

Measures to remove barriers to accessing tenders include the following:

- intensifying activities to promote the opening of tenders for actual competition,
- limiting the use of the criteria related to company size,
- facilitating access to information on tenders.

Initiatives to counteract the formation of anti-competitive agreements include the following:

- increasing the knowledge of authorities on the issue of collusive tendering,
- introducing an obligation to inform about suspected collusion,
- creating a system of communication tools to facilitate contact between contracting authorities and an antitrust authority,
- introducing statements for contractors regarding independent determination of bids,
- restricting the use of third party potential,

- changing the rules of transparency in order to eliminate the phenomenon of bid withdrawals,
 - increasing the availability of data on the results of tenders,
 - excluding those contractors, who have been found to participate in collusive tendering,
 - rejecting bids of those contractors who have entered into collusion,
 - extending the period of limitation for violations of antitrust laws.
- Activities related to increasing the efficiency of tenders include the following:
- excluding unreliable entrepreneurs,
 - improving the appeal process through the establishment of a specialized court.

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Annex

Figure 1. Barriers related to the low competitiveness of tender procedures in Poland

