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THE TENDER PROCEDURES AS A RESPONSE TO RESOURCE PRICE INCREASES ON THE EXAMPLE OF TRAM INVESTMENTS IN WROCLAW

Summary. European Union institutions use public procurement contracts to purchase services, works, and goods through tenders. The purpose of public procurement is to ensure fair competition, which makes it extremely important to the economy. Public procurement may be awarded in several modes. Conducting a tender procedure, including preparing all necessary documents, placing an advertisement, and selecting a contractor, is a tedious and long-term process. 2022 brought increases, which significantly influenced the previously planned investments. Increases in prices were noticed in the area of raw materials and construction materials as well as in the costs of construction works. Such rapid changes were impossible to predict and, therefore, had an impact on the condition of budgetary units. It was necessary to analyze the problem and find a way to make investments in the face of new prices. An unusual contractual provision was used ("option right"), whose application has not been described for tender procedures in other European Union countries. Three examples from the implementation of tram investments in Wroclaw were described. The advantages of the "option law" in the context of implementing engineering tasks were described and analyzed.

1. INTRODUCTION

Public procurement plays a special role in every economy. In practice, today, it is difficult to imagine how countries and world economies function without appropriate regulations related to the expenditure of funds at the discretion of the entities administering them [1]. Public procurement is, on the one hand, intended to enable the purchase of goods and services optimally from an economic point of view, ensuring the best use of the funds available to the state, and, on the other hand, to guarantee contractors that offers will be selected based on clear and uniform selection criteria for all [2]. They play a significant role in the exchange of goods and services, especially since they have a significant impact on the development of enterprises participating in this process, the competitiveness of the economy, and establishing the rules for their provision affects the rationality and transparency of spending public funds. The efficacy and transparency of public procurement processes also impact directly on the overall credibility of government and, hence, on citizens' level of trust [3].

The procurement of construction contracts has been one of the most complex aspects of the construction industry over the last century [4]. As part of the single market, European Union law sets minimum rules on public procurement to protect the fundamental principles of transparency, equal treatment, open competition, and sound management of procedures. This creates a competitive, open, and well-regulated public procurement market that supports job growth and investment in the European Union [5]. The economic and social significance of public procurement will only increase with the current macroeconomic downturn and the emphasis that is being placed on public infrastructure spending as an element of recovery strategies around the world.

This article presents a general outline of public procurement, its division into types, and the regulations in force in Poland. The problem of the increase in material prices was presented, and the

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prices of materials from the tram track industry were compared. The application of the "option right" mechanism is described using the example of three tram investments in Wrocław. The effects and benefits of this solution were then analyzed, and the research methods used were indicated.

2. THE TENDER PROCEDURE IN POLAND

There are different types of public tendering procedures and specific rules on how contracts are awarded. To some extent, national public procurement regulations are adapted to the European Union regulations due to the hierarchical structure of the public procurement system in the region.

The currently applicable public procurement system in Poland is the result of the process of adapting the law to the requirements of European Union law, which resulted in the development and adoption of a new act—the Public Procurement Law of January 29, 2004 [6]—which replaced the Public Procurement Act of 1994 [7], and the introduction of subsequent acts that updated the latest EU changes [8, 9].

Public procurement procedures vary depending on whether the value of the contract awarded exceeds EU thresholds or not. Information about the EU thresholds and the euro to Polish zloty conversion rate is published by the president of the Public Procurement Office in a notice posted on the website of the Public Procurement Office.

The following public procurement procedures are possible:

- above EU thresholds:
 - unlimited tender,
 - limited tender,
 - negotiations with announcements,
 - competitive dialogue,
 - innovation partnership,
 - negotiations without announcements,
 - single-source orders.
- below the EU thresholds:
 - basic,
 - innovation partnership,
 - negotiations without announcement,
 - direct-source orders.

The most popular mode is an unlimited tender (Table 1), which includes offers that may include all persons. This is a contract award procedure in which all interested contractors may submit offers in response to the contract notice.

Table 1

Share of open tenders in all public procurement in a given year and
information about the Polish public procurement market based on announcements
published in the Public Procurement Bulletin

	Date of data			
	30.06.2021	31.05.2022	31.01.2023	31.03.2023
Unlimited tenders [%]	87.23	50.86	52.94	65.63

According to the law, public procurement should be characterized by the following principles:

- equality in applying for contracts and fair competition,
- transparency,
- proportionality to its value and purpose,
- impartiality of the ordering party when evaluating and selecting the offer,
- environmental and health protection,

- innovativeness of technical and organizational solutions,
- efficiency and economy,
- reliable action of the contractor and the ordering party,
- conducted in writing in Polish.

Compliance with public procurement rules is important to ensure fair and effective competition, as well as to protect the interests of both parties in the proceedings.

Tendering activities include:

- preparation of necessary documents, including the specification of essential terms of the order, draft contracts, general terms and conditions of the ordering party and design documentation (in the case of a construction works procedure), description of the subject of the order (in the case of a project execution procedure), and program functional and utilitarian (in the case of the design and build formula),
- publication of the announcement initiating the proceedings together with the above accompanying documents,
- answers to questions asked by interested participants (who may or may not ultimately submit an offer),
- public opening of offers,
- the choice of the most advantageous offer that meets all the conditions of the procedure and earns the most points.

When the tender announcement is given, criteria such as price, declared warranty period, and task completion time (additional points, e.g., for shortening the deadline) are established so that the most advantageous offer can be selected. The most common practice in selecting a contractor for public tenders announced in Poland is the selection based on the price criterion because most tender participants assume the maximum possible warranty period with the shortest contract implementation. The final effect is the signing of a paid contract by at least two parties: the Ordering Party and a separate contractor.

Preparing the tender procedure requires the involvement of many specialists who repeatedly analyze the prepared documentation to eliminate as many risks as possible. Despite the presence of many guidelines, regulations, and provisions, it is difficult to eliminate all risks at both the tender stage and the task implementation stage. The construction industry is one of the most conflict-prone and dispute-prone industries, making it one of the most claim-oriented sectors [10]. Therefore, it is necessary to remember that the most important document governing the relationship between the customer and the contractor is the construction contract. It is important that the contractual terms and conditions are as precise as possible to complete the construction project successfully and on time, as this helps to avoid disputes between the customer and the contractor due to inaccurate or ambiguous contractual terms and conditions [11].

3. INCREASES

Since the beginning of 2020, construction companies have been facing steep increases in the prices of building materials and unexpectedly sharp increases in gas and electricity prices.

According to an April 2022 report [12], forecasts for the condition of the enterprise sector for the next year were among the worst in the history of measurement.

In May 2022, an assessment [13] of the situation of industrial, construction, commercial, and service enterprises was published based on subjective assessments of the current and forecast economic situation expressed by the directors of the surveyed companies.

The barriers most often indicated by companies are:

- employment costs (68.4% in January this year, 59.7% in the same month last year),
- material costs (65.6% in January this year, 31.1% a year ago),
- uncertainty of the general economic situation (62.6% in January this year, 66.1% in the same month last year).

At the beginning of 2022, suppliers and distributors of building materials announced serious problems with obtaining raw materials (e.g., in the form of metal sheets). In some cases, such as cases of sheets with a thickness of more than 12 mm, sales completely stopped as early as April 2022.

In April 2022, attention was drawn to the real threat of a collapse in the supply chain. It was predicted that materials still on the market would soon be completely unavailable or that their prices would increase by several times. According to the information provided by manufacturers of construction chemicals, in May 2022, delays in delivery and production were expected. The estimated mean time of delays was a minimum of eight to 10 weeks. The prices of individual components and raw materials have doubled or even tripled, which translated into the economic aspect of the implementation of concluded contracts. There was a serious risk that this phenomenon would be magnified, as has been reflected in the Polish market. Together with the marked depreciation of the Polish zloty, this translates into a further increase in the costs of supplies, especially imported supplies.

The inflation rate recorded in Poland in February 2023 was 18.4% per year, reaching its highest level in over 26 years. This created further wage pressure and increased employment costs for skilled construction workers, such as increased expectations financial from subcontractors. From Q1 2022 to Q4 2022, the average construction price of facilities in the building construction sector increased by as much as 23.21%. In the same period, the average construction price of facilities in the railway and tram construction sector increased by as much as 19.16%. Similar price increases of approximately 15% were recorded in the road and energy sectors. In 2022, the Monetary Policy Council raised interest rates eight times from January to September.

4. ANALYSIS OF THE INCREASE IN THE PRICE OF TRAM INFRASTRUCTURE MATERIALS

In 2020, there was a steep rise in material prices. In the first place, it resulted from the limited availability of raw materials and components needed for production, meaning that the demand exceeded the supply. This resulted in huge increases in raw materials, especially epoxy resins and steel. The rapid increase in the prices of building materials and problems with their availability have become substantial barriers for both construction companies and tram infrastructure managers. This situation has caused serious problems with proper cost estimation and, as a result, the proper securing of funds for investments in the public sector.

Table 2

A list of sample prices of materials in the field of tram infrastructure
Own development based on suppliers' price offers

Material name	Unit	2020	2021 Q1–Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2
		price [net PLN]					
Tram rail 60R2 R260	t	3,390.00	3,625.00	4,200.00	4,600.00	5,150.00	6,900.00
Transport rail 49E1 R260	t	2,857.00	3,250.00	3,700.00	3,700.00	no data	6,500.00
Concrete sleeper for rail 49E1/60R2	pc.	177.00	189.00	218.00	218.00	241.00	254.00
Tension clamps SB (4xSB, 4xWKW, 2xPUR)	set	36.76	37.50	39.00	39.0	no data	50.00

Table 2 was prepared based on the offer prices submitted by producers and suppliers from the beginning of 2020 for the needs of tram investments in Wrocław. There are presented basic materials for standard track construction (i.e., a rail, a prestressed concrete sleeper, and a set of fasteners). A clear increase can be seen in the case of the rails which have doubled their price in just two years. Although the prices of sleepers and fastenings do not seem to be significantly higher, it should be noted that the given amount applies only to a piece or a set, and when converted to the amount needed for a given structure, it also increases noticeably.

Most of the tram investments in Wrocław include the replacement of tram turnouts. From the beginning of 2020 until September 2022, over 30 tender procedures for construction works related to tram investments were announced. As many as 23 consisted primarily of the replacement of turnouts. table 3 below lists the prices for several types of turnouts.

The below comparison shows clear price discrepancies. Given that the vast majority of tram investments are based mainly on the replacement of turnouts, it was necessary to update the employer's schedules and budgets. There are 493 tram switches in Wrocław (data from 23/01/2023), excluding switches in the area of tram depots. A total of 125 switches were replaced from 2020–2021 [14].

Table 3

List of prices of exemplary types of tram turnouts
Own development based on suppliers' price offers

Material name	Unit	2020	Q1–Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022
		price [net PLN]					
One-track single tramway turnout	set	84,100	n/a	n/a	110,000	n/a	137,000
Double-track single tramway full turnout	set	213,000	239,000	n/a	n/a	295,000	435,400
Double-track double tramway turnout	set	n/a	580,800	n/a	n/a	n/a	886,800

It is worth conducting a short analysis of the above materials. Assuming the replacement of 18 meters of track (which is the standard tram rail length), the change in costs can be easily compared.

Table 4

List of basic steel materials for 18 linear meters of a single track, comparison of prices in 2020 and 2022. Own development based on suppliers' price offers

Material	Unit	Quantity for 18m	2020	2022 Q2	increase	
			price [net PLN]			
Tram rail 60R2 R260	t	2160	7,322.40	14,904.00	net PLN	%
Concrete sleeper for rail 60R2	pc.	26	4,602.00	6,604.00		
Tension clamps SB (4xSB, 4xWKW, 2xPUR)	set	26	955.76	1,300.00	7,927.84	177.08
SUM			12,880.16	22,808.00		

As shown in the table above, the cost of the steel pavement itself, without the rest of the structure (ballast, foundation, etc.), almost doubled its cost per 18 running meters of a single track within two years. This is a change that no one was prepared for. The assumed budgets at the end of 2021 for 2022, therefore, are full of underestimations.

Rising prices of materials are a result of rising prices of the energy, fuel (which, in turn, increases transport costs), and raw materials necessary for the production of building materials. Moreover, companies fearing even more expensive goods accumulate inventories, which consequently reduces supply. The skyrocketing prices of materials needed for construction drive demand in the secondary market. Moreover, prices in the primary market have been rising continuously for many years and may eventually lead to a reduction in demand in the primary market. At the beginning of March 2022, construction steel prices reached a record high. Since the end of February 2023, stabilization and only slight fluctuations in steel prices have been observed. In November and December, many (but not all) steel products continued to get cheaper.

5. APPLICATION OF OPTION LAW IN TENDER PROCEEDINGS – THREE CASE STUDIES

Road and track investments have been underestimated for years [15]. However, none of the parties - neither the Contractors nor the Ordering Parties - could prepare for the drastic price jumps that occurred in 2022. The challenge that both the ordering parties, contractors, and suppliers had to face was sudden and unexpected. Only now, in 2024, after the situation has stabilized, can it be analyzed and assessed whether the actions taken were right and how they influenced the investments. Initially, 16 tram investment tasks (commissioning a construction design or executing construction works) were planned for 2022. The budget was appropriately divided into each of the tasks with a small financial reserve.

All tram investments in Wrocław are usually announced in the form of an unlimited tender.

Most tender procedures settled in the first quarter of 2022 did not differ from the assumed investor's cost estimates. However, as early as April, there were clear differences. Contractors submitted offers with prices significantly exceeding the Contracting Authority's capabilities. Most of the planned investments were called into question. A search for solutions was started that would allow the continuous implementation of the Wrocław track revolution. Therefore, the manager of the tram tracks decided to apply *the option right* in selected tender procedures. *The option right* is intended to increase the flexibility of contract performance by enabling the ordering party to expand the subject of the contract to the extent provided for in the contract. The exercise of *the option right* does not constitute an amendment to the contract or the conclusion of an additional contract on new terms. Rather, it is the implementation of the contract concluded within the scope of the terms and conditions established by the ordering party by submitting a written declaration of will to exercise the option right to the extent specified by the ordering party. This type of contract gives the ordering party the right, but not the obligation, to order work or deliver materials at a specified price.

The option right entitles the Ordering Party to request that the contractor perform the order within an extended scope, and the contractor is obliged to complete the order within the scope specified by the Ordering Party—that is, within the basic or extended scope covered by the option right. However, the contractor has no right to demand the performance of the contract to an extended scope if the ordering party does not exercise its option right during the execution of the contract. The contractor's obligation to perform the contract covered by *the option right* depends only on the decision of the ordering party.

It should be noted that the Public Procurement Law does not contain a legal definition of the concept of "option right." The directives on public procurement do not contain such a definition, either. When implementing the provisions of the European Union directive, the Polish legislator included the option right but only in the context of the issue of estimating the value of the contract. The Polish Public Procurement Law does not have a definition or description of the mechanism of the operation of option law. Therefore, it is not possible to consider this issue in Poland and compare it with other European Union member states or to conduct a literature review.

5.1. The possibility of choosing additional renovation scopes

The first problems related to the increase in prices of materials and services were noticed during the tender procedure for the preparation of design documentation and construction works for the task of

renovating the tram track on Podwale Street and Mostowa Street from Orłąt Lwowskich Square to Jana Pawła II Square (about 350 meters of tram track) and from Jana Pawła II Square to Księcia Witolda Street, with the exception of the Sikorski Bridge (about 370 meters of tram track) in Wrocław.

The tender procedure was announced on October 26, 2021 (fourth quarter of 2021). Although the task concerned two subtasks, they constituted an integral whole as a contract.

The Contracting Authority assumed PLN 2,845,528.46 net for the total amount. On November 25, 2021, the offers listed in Table 5 were submitted.

Table 5

List of offers

	Net amount [PLN]	Exceeding [PLN]	Exceeding [%]
Offer No. 1	3,970,000.00	1,124,471.54	39.52
Offer No. 2	4,008,376.67	1,162,848.21	40.87
Offer No. 3	4,807,278.94	1,961,750.48	68.94
Offer No. 4	5,351,388.00	2,505,859.54	88.06

None of the offers met the assumed budget. Only the lowest proposed amount constituted as much as 139.52% of the price that the Ordering Party planned to allocate for the implementation of the task above. The Contracting Authority did not have enough funds to finance the contract; therefore, the procedure had to be canceled.

It is worth paying attention to the fact that it was only the end of 2021, and there were already significant underestimations of city budgets.

Due to the uncertain situation in the market and the simultaneous need to maintain the continuity of the investment, a decision was made to use *the option law*. On December 7, 2021, the procedure was announced again but this time with a division into the basic task “Renovation in Podwale Street and Mostowa Street from Jana Pawła II Square to Księcia Witolda Street, excluding Sikorski Bridge in Wrocław” and an optional task “Renovation in Podwale Street from the Orłąt Lwowskich Square to the Jana Pawła II Square.”

This procedure involves the Contractor submitting a total and summary offer broken down into indicated areas—the basic scope and the scope covered by *the option right*. Usually, the price determines the selection of the offer during tender procedures announced in Wrocław. Then, the lowest total amount is taken into account, including the basic scope and the scope covered by *the option right*. After the contract is signed, the basic scope must be implemented. The Ordering Party decides on the performance of the task covered by *the option right* after analyzing the offer of the selected Contractor and its financial capabilities. Usually, the decision to exercise *the option right* is submitted to the Contractor on the day the contract is signed or up to three days after it is signed. The procedure presented above is a safety measure for the Ordering Party if too high of a price is indicated in the Contractor’s offer. This makes it possible to perform at least the basic task without having to cancel the procedure. In the case of an offer exceeding the budget assumed by the Ordering Party, the only solution would be to renew the announcement. However, this is a long process that requires many formalities.

As was rightly predicted, the application of this solution made it possible to perform at least part of the task. This time, the Ordering Party assumed PLN 2,032,520.33 net for the basic scope. On January 4, 2022 (Q1 2022), the offers presented in Table 6 were submitted.

Unfortunately, the applied solution also did not turn out to be fully satisfactory. Three Contractors submitted their bids. The amounts again exceeded the assumed budget. The Contracting Authority finally selected the offer. A contract was signed for the basic scope only. Despite the limitation of the scope, an additional payment of PLN 575,841.6 net was the necessary amount assumed by the Ordering Party.

By signing the contract, the Contracting Authority chose only the basic scope (i.e., “Renovation at Podwale Street and Mostowa Street from Jana Pawła II Square to Księcia Witolda Street, with the exception of the Sikorski Bridge in Wrocław”). The part covered by *the option right* (i.e., “Renovation in Podwale Street from Orłąt Lwowskich Square to Jana Pawła II Square”) was commissioned to a company dealing with the ongoing maintenance of tracks under the protocol of necessity. Only repairs

requiring immediate action when the condition of the track endangered road safety were carried out in this section.

Table 6

List of offers

	Net amount for basic order [PLN]	Net amount for the option right [PLN]	Exceeding just for basic order [PLN]	Exceeding just for basic order [%]
Offer No. 1	2,608,361.94	1,288,087.63	575,841.60	28.33
Offer No. 2	2,650,000.00	1,839,000.00	617 479.67	30.38
Offer No. 3	3,356,688.95	1,574,975.32	1,324,169.00	65.15

5.2. The possibility of making a new foundation

The option right in tender procedures announced in Wrocław has also been used in another way worth mentioning.

Because the track manager does not have projects from, for example, 30 years ago, it is difficult to determine the technology available for a given section, which has changed many times over the years. There is no uniform technology adopted in Wrocław. This is due to many factors. First of all, attention should be paid to increasing scientific knowledge. The number of tests performed allows the determination or exclusion of the potential effectiveness of the materials used. In addition, manufacturers and scientific institutions conduct continuous research into new technologies. They convince designers, contractors, and investors to use their materials, who many times agree to try out a promising material.

Over the last few decades, countless materials and solutions found by various manufacturers in Wrocław have been used. A lack of changes to archival projects also means difficulties in assessing the quality and condition of the foundation. During the outsourced services based on the preparation of new design documentation, designers very often assume a good foundation and see no need to replace it. However, this is not always the case. Geological surveys, especially in the case of collection of buy-out quantities (boreholes), may also not be sufficient.

During the tram investments carried out so far, the existing concrete foundation has been damaged many times. The occurring losses, cracks, debris, and chipping made it necessary to make a new foundation.

Bearing in mind all the above-mentioned issues, the procedure for replacing the turnout at the intersection of J. Piłsudskiego Street and Stawowa Street announced on March 23, 2022 (Q1 2022), was allocated taking into account the option right. In this case, the option right included the construction of a new C30/37 concrete foundation. Pursuant to the contract, after the demolition works enabling the assessment of the existing concrete foundation to be carried out, the Contractor was to inform the Employer about this. The Employer was then to provide the Contractor with a written declaration of the need to build a new foundation within three days from the date on which the existing concrete foundation was assessed. As a result of the inspection, the Investor's Supervision Inspector stated that it was necessary to make a new foundation due to the unknown class of concrete and questionable thickness under the rail foot. The applied solution of the option right enabled the Ordering Party to act immediately. In the case of contractual provisions that would not take into account the right of option, it would be necessary to build a new foundation by, for example, drawing up a protocol of necessity along with the preparation and signing of an annex.

A similar solution was used in the procedure "Replacement of the turnout at the intersection of ul. Pułaskiego and ul. Małachowskiego" in Wrocław due to its uncertain foundation.

5.3. The possibility of choosing an additional intersection entry

Another task, where the price increases were more and more noticeable, concerned the replacement of turnouts and bends at the Zwierzyniecki Bridge junction. The task was scheduled to be implemented from June to September 2022.

this procedure allows one to purchase additional quantities for an already agreed price, and this decision rests with the ordering party. There is no need to prepare and sign a new contract or order.

Table 7

List of offers

	Basic scope	Option right	SUM
Amounts assumed by the Ordering Party [net PLN]	1,407,316.25	1,329,946.27	2,737,262.52
Offer submitted by Contractor No. 1			
The offer	1,927,121.55	1,373,675.94	3,300,797.49
Exceeding the amount assumed by the Ordering Party [PLN net]	519,805.30	43,729.67	563,534.97
Exceeding the amount assumed by the Ordering Party [%]	36.94	3.29	20.59
Offer submitted by Contractor No. 2			
The offer	2,638,300.00	1,450,000.00	4,088,300.00
Exceeding the amount assumed by the Ordering Party [net PLN]	1,230,983.75	120,053.73	1,351,037.48
Exceeding the amount assumed by the Ordering Party [%]	87.47	9.03	49.36

2. A chance to perform related scopes by one contractor without the need to order additional works, protecting the ordering party against unfair practices of the contractor in the event of the need to order additional works

It should be borne in mind that it is advantageous to determine prices at the tender stage instead of at the stage of the ongoing investment. In Poland, the primary factor determining the choice of a tender offer is price. For this reason, at the tender stage, contractors try to submit an offer that is close to profitability in order to increase their chances of winning the tender and completing the task.

If it is necessary to order additional works, the ordering party will first ask the contractor carrying out the task to prepare a valuation. Often, the valuations submitted at this stage are much higher than the amounts that would be submitted at the tender stage. This is due to, among other things, the fact that the contractor's action in this situation must be urgent, it is necessary to mobilize additional employees or immediately order additional material.

At the same time, contractors are aware that the ordering party strives to complete the work as quickly as possible. Each investment inconveniences residents and road users. Finding a separate contractor to perform additional work would prolong the task, which should be avoided. Therefore, in the absence of prior amount arrangements, valuations of additional works are often full of price overestimations.

3. A chance for one contractor to complete several adjacent scopes without the need to invalidate the tender procedure.

Launching the (basic) tender procedure without dividing it into separate tasks creates the risk of having to invalidate the entire procedure if the bid price exceeds the budget assumed by the ordering party. An ordering party that does not have financial reserve funds cannot select a contractor due to an insufficient budget. In such a case, the proceedings are usually invalidated and repeated [16].

In the case of application of the option law, if the submitted offer exceeds the budget, it is not necessary to cancel the entire procedure but only to commission the contractor to perform the basic task (without the scope covered by the option law).

4. Updating the ordering party's knowledge of applicable prices (materials and labor).

The price increase was rapid and began to be felt in the 2nd quarter of 2022. At this time, the offer prices were no longer within investors' budgets. Budgets for public procurement plans for any given year are prepared at the end of the previous year. In 2021, it was impossible to predict that there would be such a drastic price increase in 2022. The option law made it possible to update the ordering party's

budgets. Sometimes, budgets can be reallocated during the year, but in most cases, it is necessary to postpone the task until the next year. The law of options gives clear information about the amount that should be assumed in the next budget. In practice, the use of this legal instrument was prudent because steel prices, which are of key importance in the valuation of tram investments, have stabilized but have not returned to prices from, for example, 2020. The role of local governments is to implement tasks in accordance with the city's policy. Therefore, local governments are responsible for including new prices in their budgets.

6. METHODS

This article describes examples presenting the analysis of tender procedures announced between the fourth quarter of 2021 and the second quarter of 2022 concerning tram investments in Wrocław. Data regarding the scope of construction works and financial data were obtained from the website of the ordering party. Due to applicable regulations, this data is publicly available. Tram investments implemented in Wrocław from 2020–2022 were also analyzed based on data from the ordering party's website. Investments containing option rights were selected and subjected to further analysis, which is presented in this article. This analysis aimed to verify the validity of the use of option law and to formulate the main assumptions for the use of this solution when announcing subsequent tender procedures for the implementation of construction investments.

Moreover, this article presents the prices of building materials such as tram and railway rails, tram turnouts, sleepers, and fastening accessories. The data was obtained internally based on offers submitted by manufacturers and suppliers from 2020 until the second quarter of 2022. The list of offers allowed for the presentation of critical price differences, which significantly influenced the tram investments carried out and were subject to this analysis.

7. CONCLUSIONS

The economic crisis that began in 2020 caused unexpected increases in the prices of building materials. In 2021, this had a significant impact on the public sector. Many important investments were called into question. Public transport is now the overriding objective of urban policy in Wrocław. The manager of the tram tracks, in consultation with the commune authorities, decided not to cancel any of the planned tasks related to tram tracks. Additional contractual provisions ("the option right") began to be used. This enabled the Contracting Authority to withdraw from the part of the task if the Contractor submitted a price offer that did not fit the assumed budget. As a result of the above actions, repairs to and the modernization of tram tracks are ongoing. Naturally, it was necessary to modify the budget plans assuming specific investment tasks. The drastic increase in prices forced the contracting authority to select only those sections that required immediate modernization. A decision was made not to end any scheduled tasks, but the scope of the work was kept to an absolute minimum. The parts that could not be completed in 2022 were planned for the following years.

It is important to note that "the option law" used in the tender procedure in Poland is not a solution to the financial problem. Rather, it is a solution to the situation that has to be faced not only in Wrocław, not only in Poland, but all over the world. In this way, tenders are carried out for both construction works and the supply of equipment and materials (e.g., the supply of buses in Wrocław, buses in Poznań [17], or electric multiple units for the Silesian Railways). The application of the option law enhanced the understanding of the new price realities and the adjustment of new budgets for the following years, taking into account the appropriate amount of reserve.

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