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Risks of investment projects implemented under public procurement in Poland

Ewa Siemińska[1]

[1] Nicolaus Copernicus University in Toruń, Poland, ORCID: https://orcid.org/0000-0002-8885-0338, email: ewahsiem@umk.pl

Abstract

Objective: The purpose of this article is to present, first, the main causes of contractual risk associated with infrastructure projects implemented under public procurement law in Poland, and second, the tender strategies used by construction companies. Against this background, the latest European Union regulations on the protection of domestic construction companies, in line with the idea of 'local content', are also presented.

Material and methods: The study mainly uses the method of analysis and evaluation of primary data on completed and ongoing tender procedures for the implementation of public infrastructure projects posted on the electronic tender platforms of the General Directorate for National Roads and Motorways and PKP Polskie Linie Kolejowe S.A., as well as on the EU tender platform.

Findings: The results of the research clearly indicate that the construction sector is highly susceptible to economic fluctuations and the associated availability of investment financing sources. An interesting observation is that contractors bidding for investment projects adapt to prevailing market conditions, which is reflected in the lowering or raising of bid prices depending on the level of competition, as well as the implementation of legal tools aimed at protecting the domestic construction market from the often aggressive strategies of companies from countries outside the European Union.

Research limitations: The databases used on tender procedures are not always complete and up to date, and therefore have their limitations in terms of information.

Research implications: The presented analyses imply the need for a broader study of the impact of economic fluctuations and external conditions on the (in)stability of entities in the construction sector and the effectiveness of introducing instruments to protect domestic entities against aggressive competition from third-country companies.

Keywords: Investment project risks; Public procurement; Investment project tender procedure; Local content
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INTRODUCTION

Risk is inherent in every investment project, and there are many sources of risk. It turns out that the lack of a stable and predictable policy in Poland regarding public infrastructure projects that would strengthen domestic construction companies, especially during economic downturns or external threats such as pandemics or wars, supported by appropriate legal regulations, is not conducive to building competitive advantages and developing the construction sector.

The aim of this article is to present the most important causes of contractual risk associated with infrastructure projects carried out under the public procurement law regime in Poland and the tender strategies used by construction companies. In addition, the latest international regulations and good practices aimed at protecting domestic construction companies, in line with the idea of 'local content', are presented.

The article is based on an analysis of a large amount of empirical data on completed and ongoing tender procedures for public infrastructure projects posted on electronic tender platforms.

The study first identifies the nature and main sources of risk in construction contracts, and then provides numerous examples of road contracts awarded in particular by the General Directorate for National Roads and Motorways (GDDKiA), illustrating the various business strategies of construction companies participating in tender procedures. In addition, it points to current European Union legal instruments aimed at protecting domestic construction companies from often aggressive competition from third-country entities.

LITERATURE REVIEW

Zaghloul and Hartman point out that over the past 50 years, both in the US and Canadian markets, the risks associated with the construction process have increased significantly due to a large number of diverse factors, however, these processes have not been accompanied by a change in the allocation of risk in construction contracts that is adequate to the changing situation (Zaghloul & Hartman, 2002). Similar conditions for the implementation of construction projects, which are exposed to high volatility in demand and conditions on the construction site, and in this context, the importance of risk management in the construction sector is highlighted by, among others, Almusaed and Almssad (Almusaed & Almssad, 2018, p. 49 ff.). Lam, Wang, Lee and Tsang emphasize the need for the parties to a construction contract to negotiate an appropriate

allocation of risk, which in practice often determines the success of a project (Lam, Wang, Lee, & Tsang, 2007).

Mazzucato, on the other hand, believes that the state should strengthen the importance of the public sector as an important pro-investment market participant and focus in particular on the long-term evaluation of projects and research (Mazzucato, 2013). Inshakova, Matytsin and Inshakova also add that sustainable economic development requires an appropriate investment policy supported by updated legal regulations (Inshakova, Matytsin and Inshakova) (2024).

„Global foreign direct investment (FDI) fell by 2% to $1.3 trillion in 2023 amid an economic slowdown and rising geopolitical tensions, according to the World Investment Report 2024. But the report highlights that the decline exceeds 10% when excluding the large swings in investment flows in a few European conduit economies" (UNCTAD, 2024).

In his famous October 2024 report on the future of European competitiveness (Draghi, 2024), Mario Draghi noted, among other things, that after the global financial crisis of 2008, capital savings and debt limits imposed in EU countries caused a slowdown in public investment, especially in new technologies and infrastructure projects. Therefore, in order to improve the competitiveness of the European Union, it is necessary to create a friendly investment climate and to start urgent work on deregulation and reducing bureaucracy (Draghi, 2024).

In addition, as in other countries, in Poland too, the uncertainty that increasingly accompanies us in various spheres of life and unexpected events such as the pandemic, the war in Ukraine, and the sharp rise in energy prices directly influences the investment decisions made by various groups of investors. This is reflected in Poland's persistently weak investment activity, measured by the investment rate, which in 2022 stood at a record low of 16.4%, while in 2023 it rose to 17.7% and in 2024 to 17.4% (Figure 1).

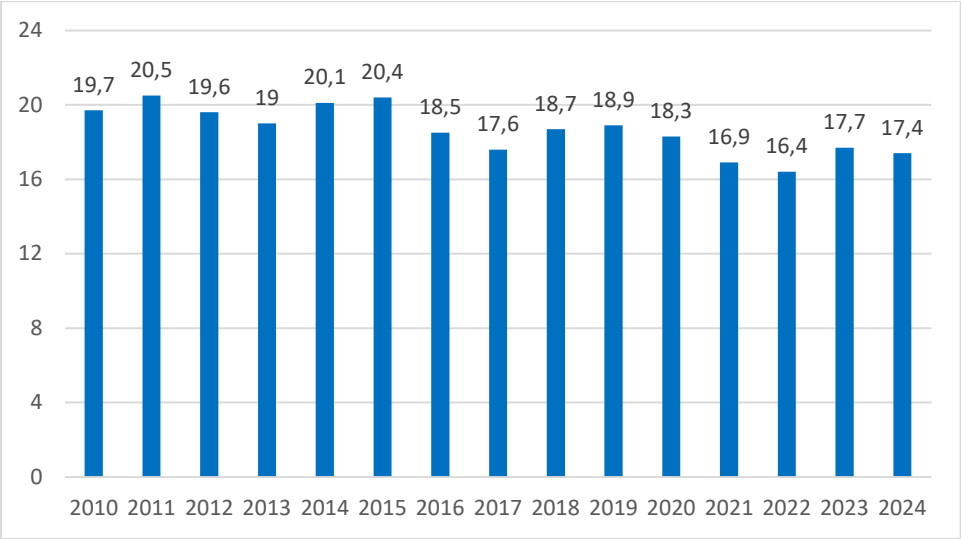

Figure 1. Investment rate in Poland in 2010-2024 (%)
Source: Macroeconomic indicators, GUS, stat.gov.pl (13.07.2025).

These macroeconomic conditions are also compounded by imbalances between supply and demand in various market segments, which are typical of a market economy. In the construction industry, economic fluctuations cause many problems for various groups of participants in investment processes and are largely related to the availability of funds for investment projects. Many of these projects, including those of strategic importance for the entire country, are carried out under public procurement law (PZP) (Act of September 11, 2019 Public Procurement Law), which does not always keep pace with the changing market situation and can be a source of various problems related to so-called contractual risk, i.e., the risk resulting from the provisions of the negotiated terms of the contract for the preparation and/or implementation of a given investment project (Siemińska, 2024). This is mainly due to at least several reasons, among which it is worth mentioning, among others (Siemińska, 2024), (Wysoczański, 2018):

1. asymmetry in contractual relations and an imbalance in the distribution of risk between the parties to a civil law contract concerning the preparation and/or implementation of an investment project (depending on the tender option: 'design and build' or 'build', especially when the client is a large public entity (Gransberg, 2023),
2. the long time that elapses between the submission of the tender offer and the actual start of the project, which, depending on the complexity of the procedure and the project itself, – from several months to even several years, which often results in the value of the signed contract deviating from

the actual costs incurred by the contractor for the implementation of the project and necessitates appropriate contract indexation,

3. the risk of leaving the construction site or not undertaking the works, or the bankruptcy of the contractor selected in the tender due to changing conditions in the investment process that directly affect the financial security of such an entity,
4. the dominance of the lowest price as the criterion for selecting bids in tender procedures, despite the use of non-price criteria, which in practice are most often declared by all bidders and do not constitute a real competitive advantage,
5. the lack of effective procedures and mechanisms limiting access to tenders for entities that are not reliable bidders and the resulting practice of open access to tenders for the implementation of strategic infrastructure projects, i.e., all potential interested parties, regardless of their country of origin and real financial, organizational, and technical capabilities,
6. the burdensome length of appeal and mediation proceedings, which has many negative consequences for all parties involved in a given investment process, as well as for the state treasury, from whose budget any penalties and damages awarded are ultimately paid,
7. the risk of construction contract insurance related to its (in)adequacy to events that may occur at various stages of the investment process, and the problem of the financial capacity of such insurance, which is a key parameter of any policy, determining the level of financial protection of the insured in the event of insured events and related damages.

Marques and Berg conclude that risk is a key issue in contracts with the private sector; an appropriate allocation of risks is a necessary condition for successful contracts (Marques & Berg, 2011) (Martell & Moldogaziev, 2025). In turn, the difficult choice of risk allocation strategies in infrastructure projects is discussed by, among others Jin and Zuo (Jin & Zuo, 2011). The advantages of price transparency in construction contracts are discussed, among others, by Gransberg, Pala and Gransberg, who emphasize that it is in the interest of contractors to demonstrate to the owner that their prices reflect the actual market situation and to avoid a situation in which the contractor withdraws from the project (Gransberg, Pala & Gransberg, 2025).

In addition, it is worth noting that various sources of risk may arise both before the actual commencement of work on the construction site, i.e. in the pre-investment phase of the project, and after the completion of the work, i.e. in the

operational phase, i.e. during the use of the project (Behrens and Hawranek, 1993) (Teixeira et al., 2009) (Table 1). Ko and others note that construction cost estimates are typically inaccurate early in the investment process because they are subject to the risk of imprecise definition of the full scope and specifications of the project (Ko et al., 2024).

Table 1. Sources of risk in the individual phases of the investment project life cycle.

Phase	Sources and types of risk	Examples of risk effects
pre-investment	macroeconomic factors	– global crisis or economic slowdown – wars – natural disasters
	risk of a failed project	– high competition in a given market segment and, consequently, inability to achieve the intended results
	scale of the project	– the larger the project, the greater the risk, as a rule
	sectoral profile of the project	– some projects are subject to greater risk, e.g. road and rail projects, projects related to raw material extraction or energy
	technological solutions, including the level of innovation of the project	– the more innovative the solutions adopted by the designer, the greater the risk of the project during its implementation and operation
	location of the investment, including planning conditions	– the level of risk varies depending on whether the project is located in an area covered by a local plan or not
	impact of the project on the environment, including the natural environment	– the location of the project in "investment-sensitive" areas (e.g., floodplains or natura 2000 sites) increases its location risk
	image of the project among the local community	– lack of proper communication between the investor and the local community about the investment plans and the resulting lack of acceptance for the project.
	legal regulations concerning procedures and legal, environmental, fiscal, and financial regulations	– interpretation of legal regulations concerning a given investment project, e.g., regarding tax settlements or co-financing of a given project, building permits or their absence, expropriation decisions, etc.
investment	tender procedures and criteria, including those under public procurement law	– a grossly low price as the dominant criterion for selecting bidders or other evaluation criteria selection of a bidder that is unreliable in financial and/or technical and organizational terms
	poorly prepared tender documentation and project design and cost estimates	– problems and conflicts at the stage of selecting the bidder(s) – making wrong business, environmental or location decisions based on incorrect or incomplete preliminary information about the project
	failure to obtain a building permit	– delays in the start of construction works and the risk of not meeting the deadline for the completion of the entire project

	increase in production costs, inflation	– deterioration of the profitability of a given project if these changes are not accompanied by adequate contract indexation
	shortage of workers on the construction site	– delays in project implementation and higher implementation costs
	equipment failures, etc.	– as above
	negotiated terms of construction contracts	– lack of symmetrical distribution of contractual risk – court disputes and time-consuming and costly claims – payment of contractual penalties – deterioration of the financial standing of the contracting parties
	relations between all participants in the investment process	– conflicts of interest between the investor, general contractor (consortium), subcontractors, suppliers, construction manager, contract engineer, cost estimators, etc.
	performance risk - unfair behavior of participants in the investment process	– falsification of construction documentation – overestimation of cost estimates – use of materials or equipment that do not meet the specified parameters (e.g., inferior quality) – falsification of invoices – unreliable performance of work on the construction site – acceptance of a poorly constructed facility or refusal to accept it
	financial risk	– financial difficulties of all participants in the investment process, including the possibility of these problems spreading quickly from one company to another – risk of bankruptcy of financially weaker market participants – lack or loss of the possibility of (co-)financing the project
	risk of failure to meet project deadlines	– delays in generating the functional and economic benefits planned by the investor(s)
	reputation risk	– this risk concerns the possibility of loss of reputation by all participants in a given project and is related to the "contagion" effect.
operational	failure to obtain a use permit	– inability to start using a given facility – inability to commercialize the investment
	technical risk	– neglect of mandatory technical inspections and the technical condition of a given facility
	market risk	– unsatisfactory level of use of the facility in relation to the assumed level – the so-called "white elephant" syndrome, i.e. an overly large and costly project that is a burden on the owner – competition in a given segment of facilities
	operational risk	– use of the facility contrary to its intended purpose and/or technical parameters, e.g. intensity of use – unsatisfactory quality of services or level of functional parameters of the facility – restrictions on the accessibility of the facility for users – the impact of the project on the environment

	location risk	– nuisances to the surrounding area, e.g., acoustic or traffic-related – changes to the surroundings of a given project during its use – irregularities in documentation, e.g., in the land register or cadastral maps relating to the project
	legal risk of the project	– irregularities in documentation, e.g., in the land register or cadastral maps relating to the project – unregulated legal status of a given project
	financial risk	– lack of sufficient funds for facility maintenance – lack of satisfactory income from the use of a commercial project – increase in facility maintenance costs in relation to the assumed costs

Source: Siemińska, 2024, s. 37-39.

RESEARCH METHOD

The problems presented regarding the risks of construction contracts are illustrated with numerous current examples of investment projects commissioned mainly by the General Directorate for National Roads and Motorways and PKP Polskie Linie Kolejowe S.A., as the two most important leaders in public procurement on the Polish infrastructure project market.

The above information was obtained both (1) from primary sources obtained through a search of documents from selected tender procedures published on the websites of the aforementioned entities' purchasing platforms: https://gddkia.eb2b.com.pl/auction-public-opefning.html, https://platformazakupowa.plk-sa.pl/servlet/HomeServlet, and on the websites of the Polish government and the European Union: https://ted.europa.eu/pl, and (2) from secondary sources derived from professional industry materials (including tender data presented in Table 2).

Several criteria were used to select open tenders commissioned by GDDKiA, namely:

– the period of the study was from January 1, 2020, to June 30, 2025,
– the scope of works included the fragment "budo" in the description,
– the type of contract was "construction work."

These criteria were met by 843 tenders, of which 418 were excluded, concerning projects such as the construction of lighting, pedestrian and bicycle paths, sidewalks, noise reduction devices, connections to the sanitary or gas sewer system, construction of salt storage facilities, administrative buildings, expansion joints, etc., leaving 425 tenders for analysis. Of these, the following were selected:

1. 7 examples of construction projects commissioned by the General Directorate for National Roads and Motorways (GDDKiA), representing tenders with both relatively low and medium-to-high investment costs (see Table 3).
2. 13 additional tender examples were described in the last section of the study.

The examples presented correspond to the conditions and risks related to public investment projects described in this study and are also intended to present the tendering strategies of companies in the construction sector.

The study utilized research methods such as economic analysis, comparisons, analogies, synthesis, and critical analysis of practical examples of tender procedures (the aforementioned query of over 840 GDDKiA tenders) according to the criteria for selecting submitted bids adopted by the author. Additionally, current international regulations and best practices were analyzed as solutions aimed at protecting domestic companies from competition from entities, especially from non-European Union countries, in accordance with the concept of 'local content.'

RESULTS & DISCUSSION

Uncertainty and risk are inherent in the activities of every company, especially in a rapidly changing environment, but entities in the construction sector experience them particularly strongly. Due to the lengthy investment process, the conditions for preparing a tender offer are often significantly different in practice from those that apply when the contractor physically enters the construction site and begins the project implementation phase until its completion. In addition, the Polish public investment market is subject to legal regulations resulting from the Public Procurement Law (Act of September 11, 2019, Prawo zamówień publicznych), which impose certain obligations and requirements on participants in the investment process that do not always keep pace with dynamically changing market and geopolitical conditions.

The tender procedure itself, carried out under public procurement law, covering the period from the date of publication of the contract notice to the date of conclusion of the contract specified in the contract award notice, for construction works with a value equal to or exceeding the so-called EU thresholds (Obwieszczenie, 2023) in 2023 averaged 127 days, in 2022 – 125 days, in 2018 – 96 days, in 2017 – 93 days, and in 2016 – 81 days (UZP, 2018, 2019, 2023, 2024).

However, according to the General Directorate for National Roads and Motorways (GDDKiA), the largest public investor alongside PKP PLK SA, the full cycle of preparation and implementation of a road investment project takes an average of 9-10 years, with most of this time devoted to the tedious and very time-consuming formal and administrative work that is crucial to the entire investment process and administrative work required by law, as well as obtaining the necessary permits, decisions, and opinions, on which the final decision on the possibility of entering the construction site and actually starting construction and assembly works will depend (GDDKiA, 2019). In addition, it often happens that tender procedures are accompanied by complaints and appeals, which cause further delays (GDDKiA, 2025b) (Miąsko, 2019). During this time, the market situation may change dramatically to the detriment of contractors, resulting in them not achieving their projected margins on projects or, worse still, the company incurring losses on previously planned orders. Recently, such periods of turmoil on the Polish market took place, for example, in 2015-2019, when the prices of construction materials increased significantly (Fig. 2), and during and after the Covid-19 pandemic in 2020-2024, which was related, among other things, was related to the lack of another pool of funds from the European Union funds planned for the period 2021-2027 (European Funds Portal, 2025). Examples of changes in the costs of constructing buildings, including public buildings, in recent years are illustrated in Figs. 2 and 3.

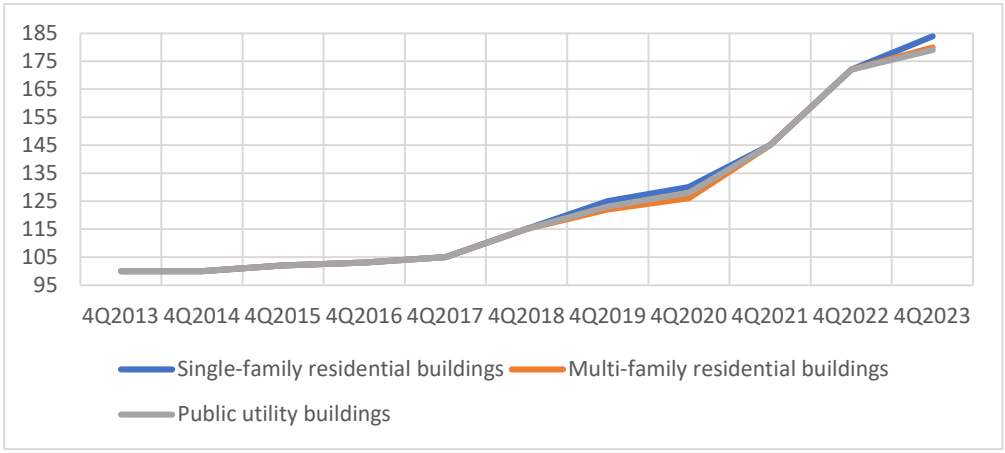

Figure 2. Changes in construction costs (% cumulative) in Poland in 2013-2023
Source: (Secocenbud, 2024)

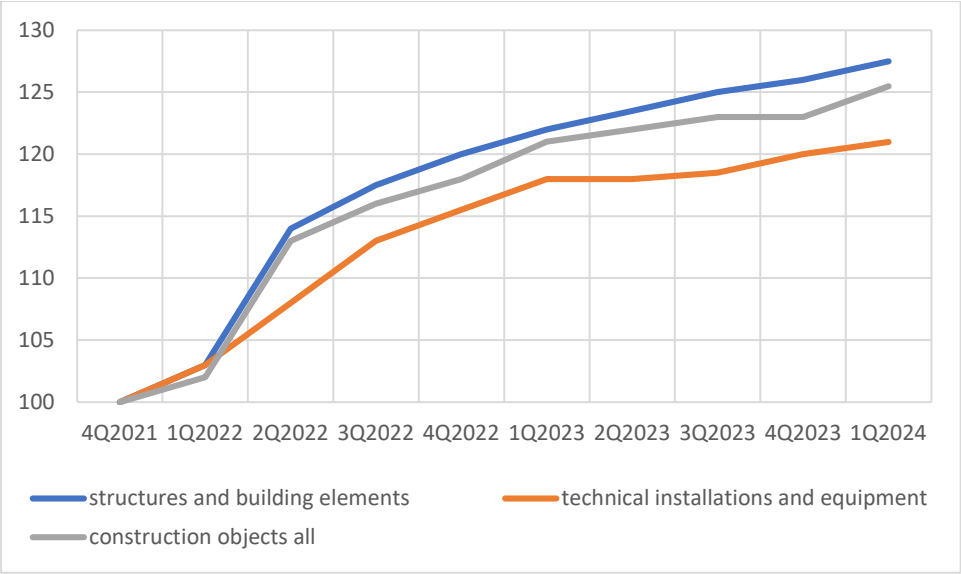

Figure 3. Changes in the costs of construction of public utility facilities by type of work (% cumulative) in Poland in 4Q2021-1Q2024 (4Q2021 = 100%)
Source: (Secocenbud, 2024)

In the phase of the economic slowdown in the construction sector, there is a huge potential of contractor companies, much greater than the projects offered in the tenders announced, which is why in such a period several or a dozen companies join the tenders, which sometimes significantly underestimate investment projects in their bids even by 30-40% compared to the size of the budgets of the contracting party, just to win the tender, as illustrated in Table 2 on selected examples from the second decade of the 21st century.

Table 2. Examples of GDDKiA road contracts with a bid price below 65% of the ordering party's amount (tenders until 2018)

No.	Section	Price min (PLN million)	Budget GDDKiA (PLN million)	% price min to budget	Contractor
1.	S5 road junction Korzeńsko - road junction Widawa (road section III)	597,6	946,1	63,16	Astaldi
2.	S7 Jędrzejów – Voivodeship border	348,6	584,6	59,63	Budimex
3.	S5 road junction Korzeńsko- road junction Widawa (road section II)	310,5	529,2	58,67	Dragados

4.	S11 bypass Kępna stage I	66,0	118,5	55,71	Budimex
5.	S8 Wyszków - road junction Poręba	334,8	516,8	64,79	Skanska
6.	S5 road junction Szubin - road junction Jaroszewo	352,0	548,6	64,16	Intercor/Trakcja
7.	S7 Mława - Strzęgowo	446,2	695,5	64,15	Porr
8.	S5 road junction Nowe Marzy - road junction Dworzysko	374,7	590,5	63,46	Impresa Pizzarotti
9.	S5 road junction Tuszyn - road junction Białe Błota	328,5	524,1	62,68	Pol Aqua/Dragados
10.	S3 road junction Legnica - road junction Jawor II	295,6	475,9	62,11	Eurovia/Warbud
11.	S19 road junction Lasy Janowskie - road junction Zdziary	236,3	382,6	61,76	Strabag
12.	S6 Nowograd - Płoty	390,2	639,3	61,05	Mosty Łódź
13.	S2 road junction Wał Miedzeszyński – road junction Lubelska	561,7	923,9	60,80	Warbud
14.	S7 Naprawa – Skomielna Biała	968,9	1 595,2	60,74	Astaldi
15.	S5 road junction Białe Błota – road junction Szubin	260,0	428,4	60,68	Impresa Pizzarotti
16.	S5 road junction Dworzysko – road junction Aleksandrowo	409,8	683,7	59,93	Impresa Pizzarotti
17.	S7 Strzegowo - Pieńki	516,2	872,5	59,16	Strabag
18.	S2 road junction Przyczółkowa – road junction Wał Miedzeszyński	757,6	1 764,8	42,93	Gulermak/PBDiM Mińsk Mazowiecki

Source: (Sierakowski, 2018)

A similar situation also occurred in the years 2020-2025, when several and a dozen companies competed for tenders mainly with the price offered to the project principal. This was mainly due to the aforementioned increases in the prices of construction materials and workmanship and the cost of financing, in addition to a weaker than planned inflow of European funds. For example, as many as 15 companies applied for large tenders worth billions of zlotys each in the railway segment, while 13 companies applied for the tender for the construction of a 13 km bypass between Szczekocin and Goleniów along the DK78 road announced in April 2025, as well as the tender for the design and construction of the national

road to Poland's first nuclear power plant ‘Lubiatowo-Kopalino’ in Pomorskie Voivodeship, in turn, 19 companies were interested in the construction of two sections of the S11 expressway in Wielkopolska with a length of more than 30 km, in turn, 12 companies applied for the tender for the design and construction of a nearly 16 km long bypass around Starogard Gdański, 10 offers were received in the tender for the construction of a bypass around Brzostek and Kołaczyce (woj. Podkarpackie voivodship), 8 bidders came forward for the tender for the construction of the Złocieńc bypass in the Zachodniopomorskie voivodship, 14 bids were received for the tender for the construction of a sports hall with a connector and technical infrastructure at the School Complex in Stegna, Warsaw (stage 3) (https://platformazakupowa.pl, 2025), (Ołdak, 2025a), (Ołdak, 2025b), (Wroński, 2025c), etc. (Table 3).

Table 3. Selected examples of GDDKiA road contracts from 2020-2025

No.	Section	Bid min (PLN million)	GDDKiA budget (PLN million)	Bid max (PLN million)	Year/ Number of bidders
1.	Adaptation of National Road No. 18 to motorway parameters	180,5	173,0	207,8	2020/5
2.	Expansion of National Road No. 32 at the intersection with Voivodeship Road No. 304	5,8	4,3	6,2	2021/6
3.	Expansion of National Road No. 32, including the demolition and construction of a bridge over the Bóbr River	85,4	64,4	137,1	2022/10
4.	Expansion of National Road No. 92 near WILKOWO	38,9	54,1	53,7	2025/10
5.	Construction of the Mierzyn bypass along National Road No. 10 (Dołuje – Szczecin)	140,0	130,1	227,2	2025/10
6.	Expansion of National Road No. 92 in PNIÓW	28,3	28,4	30,6	2025/3
7.	S6 Western Road Bypass of Szczecin. Section 3 Police – Goleniów	4 920,0	4 852,7	8 517,9	2025/5

Source: (own study based on: https://gddkia.eb2b.com.pl/, https://platformazakupowa.pl/transakcja/893282, retrieved on 31/07/2025).

In addition, it often happens in practice that companies bidding for tenders have to compete with non-EU entities that are not bound by all the requirements of the Member States (Wroński, 2025a). The European Court of Justice, in its judgment of 22 October 2024, ruled that in public tenders within the EU, the participation of entrepreneurs from so-called third countries, i.e. other than a member state of

the European Union, a state party to the WTO Agreement on Government Procurement (GPA) or a state party to a bilateral or regional agreement concluded by the European Union in the field of public procurement, depends on the decision of the contracting authority, i.e. de facto on the conditions that are set by the contracting party, and they cannot count on equal treatment with entities from EU countries (C-652/22, 2024). Indeed, according to the aforementioned judgment in a case brought by Croatia (Case C-652/22 Kolin Inşaat Turizm Sanayi ve Ticaret A.Ș. v Državna komisija za kontrolu postupaka javne nabave), when launching a public tender, a contracting authority from an EU country may determine whether, and under what conditions, it allows entities from third countries to participate in the tender procedure. These conditions may be different from those applicable to EU bidders (C-652/22, 2024). The aforementioned decision of the Court of Justice of the EU is also confirmed by its judgment of 13 March 2025 in Case C-266/22 CRRC Qingdao Sifang CO LTD et Astra Vagoane Călători S.A. v Autoritatea pentru Reformă Feroviară and Alstom Ferroviaria S.P.A., ECLI:EU:C:2025:178 (C-266/22, 2025).

In the wake of the aforementioned verdicts, more and more voices are being raised in the Polish construction and non-construction sectors about the need to introduce a similar regulation into public procurement law so that it can be universally applied in tendering procedures. This is because there are loud echoes of information about, among other things, the possibility of excluding companies from third countries, including consortium members and so-called resource providers, in the tender procedure announced by (1) PKP PLK SA in 2024/25 for the construction of a section of the Rail Baltica railway from Białystok to Elk (MW, 2025), and (2) in July 2025 by GDDKiA for the extension of the A2 motorway between Łódź and Warsaw. The GDDKiA emphasises in the release that this decision "is aimed at protecting the Polish and EU public procurement market and strengthening the position of Polish construction companies" (GDDKiA, 2025a) and takes into account the assumptions of the aforementioned European Court of Justice ruling of 22 October 2024 and 13 March 2025.

In this context, it is also worth mentioning the tender announced in 2022 by the Port of Gdansk for one of the key investments in the Inner Port - the comprehensive reconstruction of the Vistula Quay. Originally, in the 2022 tender, the cheapest offer submitted by a consortium of Gap Insaat Yatirim from Turkey, Sine Midas Stroy from Kazakhstan and Fabe Polska was selected from a group of six bidders. However, after formal objections were raised and an investigation carried out, which did not end until nearly 3 years later in mid-2025, the Port of

Gdansk signed an agreement for the implementation of the aforementioned project with the Doraco Building Corporation from Gdansk (Wroński, 2025b).

A similar problem concerns, inter alia, the terms and conditions of the tender announced by the Central Communication Port (CPK) for the construction works of the passenger terminal. The original conditions concerning, inter alia, the obligation to demonstrate at least PLN 4 billion in revenue for the last four financial years meant de facto that only three foreign companies present on the Polish market could participate, namely: Budimex, Strabag and Porr. Following criticism from the construction community, the CPK softened the tender criteria so that also smaller, including domestic, entities could take part in the said tender, in order to ensure that the largest possible part of this strategic project is realised by entities operating in Poland and paying taxes here (CPK, 2025).

The establishment of the PZPB-Atom Energia Jądrowa association by the Polish Association of Construction Employers is also part of this trend, with the aim of integrating national contractors and suppliers from the construction sector in the design and implementation of solutions supporting the construction of the first Polish nuclear power plant. It is therefore not only about '...representing the interests of Polish companies in the Choczew nuclear power plant construction process, but first and foremost about building sustainable competencies and creating real conditions for increasing the participation of national companies in the supply and contractor chain' (PZPB ATOM, 2025). This entails the need: firstly, to write hard commitments into the EPC contract regarding the participation of so-called local content, and secondly, to develop mechanisms for monitoring their implementation, as practised in many countries (Wektor Polska, 2025).

In mid-2025, the Ministry of Development and Technology confirmed its intention to introduce into the public procurement law provisions implementing a judgment of the European Court of Justice allowing non-EU contractors to be excluded from proceedings, which would consequently sanction these regulations in the Polish legal order (UZP, 2025) (Wektor Polska, 2025). Given the nature and scale of the strategic infrastructure investments planned in Poland in the near future, including in particular the nuclear power plant and the Central Transport Port, as well as over 6,100 km of roads under the Government's National Roads Construction Programme until 2030 (with an outlook until 2033), the announced changes are necessary to ensure the safety and continuity of the development of the national infrastructure and economy.

At this point, it is worth adding that many countries, including those from the European Union, are much less accessible to contractors for investment projects not only from outside the Community, but sometimes also from outside these countries, and companies entering tenders, especially those of strategic importance, are subjected to a thorough and detailed verification of their financial, performance and organisational potential. This is in line with the aforementioned "local content" concept, which favours the participation of national companies and resources in projects, mainly related to the energy and construction sectors, and thus the use of local materials, technologies, services, as well as human resources. Indeed, the essence of "local content" is to leave as much of the economic benefits of a project as possible in the country where it is implemented (Wells and Hawkins, 2008), (Kola, 2023), (Jayasudha and Vidivelli, 2016), (Dhivya and Prabu, 2019), (MAP, 2025).

One of the main economic benefits is, of course, the taxes paid to the state budget. Data from the Ministry of Finance shows that between 2012 and 2023, the value of CIT paid by the largest companies in the construction sector amounted to more than PLN 3 billion, of which nearly half (46.23%), was taxes paid by the sector's leader, BUDIMEX S.A. (Fig. 4).

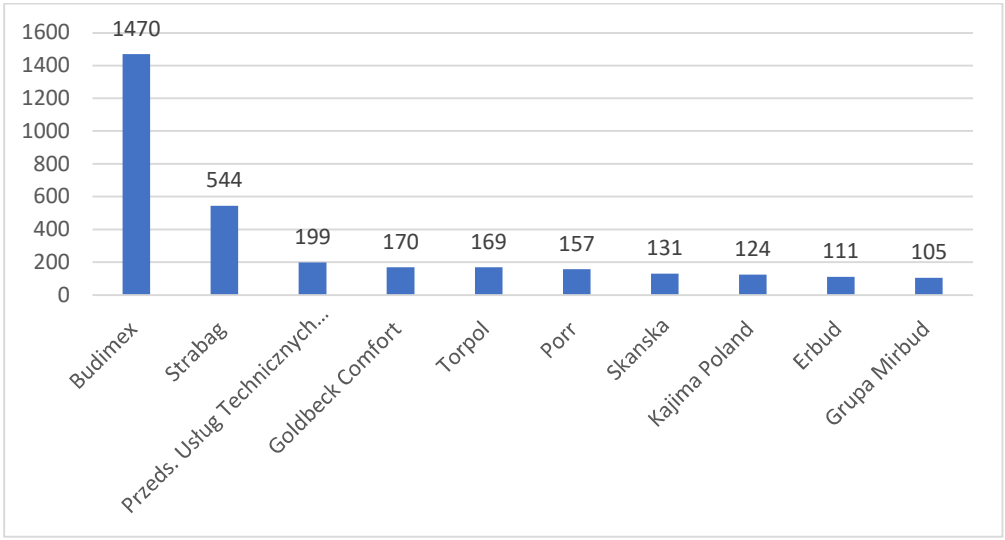

Figure 4. CIT value of the largest construction companies in Poland in 2012-2023 (PLN million)
Source: (BUDIMEX, 2025)

In turn, during the investment boom phase, many bids submitted in tenders exceed the investor's budget, which results in the latter having to increase

expenditures on the project, or the tender is cancelled and the investment is not created at all (Table 3).

A separate problem related to the risk of the procedure for selecting contractors for investment projects is the adopted criteria for their selection. In practice, the offer price is the most important and the main instrument for the evaluation of the bids submitted, although non-price criteria are usually used in addition to it, such as the provision or extension of a guarantee for specific elements/fragments of the investment task, the experience of the construction manager, etc. It is common practice in tenders for all bidders to declare the fulfilment of all additional criteria, with the result that only the price determines the final results of tenders (UZP, 2025), (Siemińska, 2024), (Wroński, 2025d), Wroński, 2025e), (Wroński, 2025f).

CONCLUSIONS

Infrastructural investments are an important and strong stimulus of development for any economy, on the level of which the existence of many jobs depends not only in the companies directly involved in their implementation, but also in their surroundings. It is therefore in the interest of a stable development of the construction industry to maintain a relatively constant level of investment activity supported by adequate financing. This in turn - in the context of public investment - depends on investors from the local and governmental sectors and their financial capabilities. The role of the state is therefore to at least mitigate the high volatility of investment demand in order to minimise the risks associated with construction contracts described here. In addition, the implementation of good practices to protect indigenous construction companies involved in particularly strategic investment projects is an example of the “local content” concept used in many countries.

Furthermore, an extremely important issue related to the risks of infrastructure investments discussed here is not only the amount of expenditures incurred for their implementation, but also the maintenance costs of completed projects. It is increasingly being pointed out, for example, that many roads already built in Poland need to be repaired and thus incur repair costs. As infrastructure resources increase, this problem will increasingly require decisions to be made regarding sources of funding. As infrastructural resources increase, this problem will increasingly require decisions regarding the sources of financing for maintaining the efficiency and ensuring the safe use of said resources (Wroński, 2025e), (EEC, 2025). This problem requires further research and analysis.

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