

CURRENT TRENDS IN THE CONSTRUCTION SECTOR

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Abstract: *This article discusses and shows one of the biggest economic sectors, construction, which is a lucrative industry for investors as well as a source of revenue and output for the country's economy. Over the years, the construction industry has seen times of uncertain development. But thanks to new trends in the industry (such as creative technological solutions, the growing popularity of modular constructions as an alternative to personal constructions, the sustainability and durability of constructions, and, last but not least, the increased emphasis on creating a safer working environment), the construction industry is undergoing a constant transformation and has succeeded in becoming one of the most competitive economic sectors.*

The Republic of Moldova's construction sector is expanding at the moment and is essential to raising living standards and promoting the expansion of the country's economy. Improving the nation's economic potential and ensuring a stable income for the populace is essential for achieving long-term performance and sustainability in all facets of this industry, since this fuels consumer demand.

Key words: *construction sector, technological solutions, innovations, performance, sustainability, durability*

JEL: L7, O1, O3, O4

1. Introduction

A number of internal structural and administrative flaws that have accumulated over the years, in addition to the consequences of the pandemic and the global economic crisis, are to blame for the current challenging state of the Republic of Moldova's building industry. Significant external shocks have been experienced by the national economy, revealing the system's underlying weaknesses. The Republic of Moldova, which depends mostly on remittances from its residents living outside, has been greatly impacted by regional events, especially the unrest in Russia and Ukraine. The detrimental effects on the nation's economy have been exacerbated by this reliance.

The effects on the populace have been seen in the severe decline in living circumstances brought on by the fast rise in the cost of necessities like food and electricity, which has significantly outpaced growth in income.

2. Basic content

An examination of the Republic of Moldova's overall construction volume from 2019 to 2023 is shown in Figure 1. The following are the key findings:

1. Overall decline from 2019-2023:

Over the course of the time, there was a consistent decrease in the amount of construction work [5]. Beginning in 2019, the construction sector in the Republic of Moldova experienced an annual decrease in the volume of completed works. As a result, there were 1% fewer works produced in 2020 than in 2019 [1]. There was a little decline of 0.2% in 2021 as opposed to 2020. The biggest decline,

of 5%, was noted in 2022 as opposed to 2021. In comparison to 2022, the volume of works decreased by 4.1% in 2023, continuing the downward trend.

2. Constant fall (2019–2023):

The number of construction projects in 2023 decreased by more than 10% [3] in comparison to 2019 [4], indicating a persistent pattern of recession in this industry. In summary, between 2019 and 2023, the overall amount of construction projects has decreased significantly and steadily.

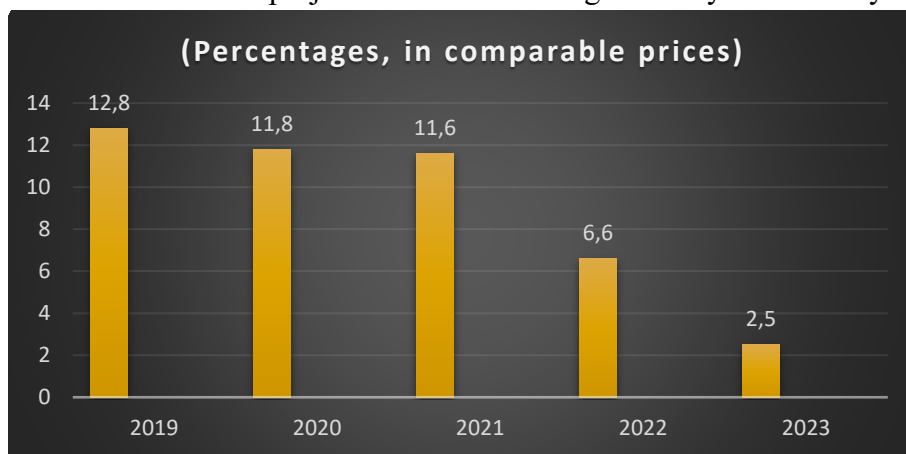


Figure 1. Construction works executed during the period 2019-2023 in the Republic of Moldova (%)

Source: Developed by the author based on [1]

Table 1 highlights the variations in the volume of construction works in the Republic of Moldova for the year 2023, compared to the years 2022 and 2021. The following is the thorough analysis:

The overall amount of construction work: In comparison to 2022, the whole amount of building work represented 97.5% [2] in 2023, a 2.5% decline. With an 86.1% volume of works in 2022 [2], there was a notable decline from 2021 to 2022.

By the works' structural components:

New building: The percentage of new works dropped to 85.8% in 2023 [2], a 14.2% fall from 2022. Nonetheless, the number of new projects decreased by 46.2% in 2022 as opposed to 2021 [2], indicating a significant drop of over 54% from 2021 to 2022.

Capital repairs: The volume of these structures increased by an astonishing 140.4% in 2023 as opposed to a 40.4% growth in the same period in 2022 [2]. The volume of these structures, however, was just 27.5% in 2022 as opposed to 2021, which represents a sharp decline of over 72.5% [2] from the year before.

Current repairs and maintenance: The amount of these works decreased by 12.0% from 2022 to 2023, reaching 88.0%. The volume was just 23.3% in 2022 as opposed to 2021, indicating a notable decline from 2021 to 2022.

Additional works: These works increased by 17.0% in 2023, reaching 117.0% in comparison to 2022 [2]. However, compared to 2021, the amount of other works in 2022 was just 3.0% [3], indicating that these works were mostly ignored in 2022.

By construction objects:

Residential buildings: Compared to 2022, the volume of residential constructions decreased by 16.1% in 2023, reaching nearly 84% [2]. The same situation was observed in 2022 when the volume of these works fell by 20.8% [2] compared to the previous period in 2021.

Non-residential buildings: A considerable increase can be noted in the construction of non-residential buildings in 2023, when the volume of these constructions exceeded 120% [2] compared to 2022, indicating a significant recovery.

Engineering constructions: In 2023, the volume of these works decreased to 90.7% [2] compared to the year 2022, marking a reduction of 9.3%. In 2022, the volume of engineering constructions was reduced by 43.4% [2] compared to 2021, indicating a substantial decline during the reference period.

Other works: The volume of other works increased to 117.0% in 2023 compared to 2022, while in 2022, the volume of these works was only 3.0% compared to 2021 [2], indicating that these types of works had minimal activity in the previous period.

Table 1. Indices of the volume of construction works executed in 2023

	Year 2023 in % compared to		Year 2022 in % compared to:
	year 2022	total	year 2021
Total construction works, of which:	97,5	100,0	86,1
By structural elements of the works:			
new construction	85,8	46,2	88,1
capital repairs	140,4	27,5	66,6
maintenance and current repairs:	88,0	23,3	102,6
other works	117,0	3,0	93,0
By construction objects:			
residential buildings	83,9	20,8	77,0
non-residential buildings	120,3	32,8	88,5
engineering constructions	90,7	43,4	89,8
other works	117,0	3,0	93,0

Source: [2]

Following the analysis of the indices of the volume of construction works executed by structural elements and construction objects, we can observe the following:

1. *Substantial reductions in new and residential constructions:* New construction works and residential constructions experienced significant declines both in 2023 compared to 2022 and in 2022 compared to 2021.

2. *Significant increases in capital repairs and non-residential buildings:* Capital repairs and works on non-residential buildings showed a strong recovery in 2023, indicating the prioritization of these segments.

3. *Recovery of the „other works” segment:* We note that both in the „other works” category and in engineering works, activity in 2023 improved compared to 2022, as the volume of these works in 2022 was extremely low compared to 2021.

This suggests an uneven recovery in the construction sector, with segments experiencing strong recoveries while others continue to decline.

The decline in the volume of construction works in the Republic of Moldova has been influenced by several key factors:

1. *COVID-19 Pandemic*

The pandemic had a severe impact on the construction sector, disrupting supply chains, reducing demand for new projects, and affecting the financial viability of companies in the field. Sanitary restrictions and labor difficulties slowed down project progress and increased operational costs.

2. Labor Shortages

A significant shortage of skilled labor, caused by mass migration and an aging population, has affected the sector's ability to implement large projects. The exodus of young workers to European countries has reduced the availability of specialized labor, thereby increasing recruitment and wage costs.

3. Rising Construction Material Prices

Due in large part to global market imbalances as well as high energy and transportation costs, the cost of building materials has increased significantly. Some projects have been delayed or abandoned as a result of this, which has decreased project profitability and raised the funds required to finish construction.

4. Instability in the Regional Economy

The building industry has been negatively impacted by the conflict between Russia and Ukraine, two nations that Moldova greatly depends on economically. The region's political and economic unrest has made investments unpredictable and decreased the supply of building materials and resources.

5. Anticompetitive behavior and unfair competition

Anticompetitive behaviors in Moldova's construction materials sector limit economic agents' access to equitable resources and opportunities. The sector's robust growth has been hampered by this unfair competition, which has also made businesses in the industry less competitive.

These elements have put a great deal of strain on the Republic of Moldova's construction industry, which has led to a sharp decline in the amount of work completed in recent years.

There are now several tendencies in the growth of Moldova's construction industry that show attempts to adjust to changing social, technological, and economic demands. The future of construction is being shaped by a number of distinct development trajectories, despite the fact that the industry has experienced several difficulties, including the pandemic crisis and regional instability:

1. Use of Innovative and Digital Technologies

Moldovan construction firms have been incorporating more contemporary technology to boost productivity and cut expenses. The use of technologies like virtual reality for project planning, drones for site monitoring, and software for material and logistics management is growing in popularity.

The digitization of processes allows for faster and more accurate execution of works, reducing errors and improving productivity.

1. Increased Interest in Modular and Prefabricated Constructions

A significant trend is the migration towards modular and prefabricated constructions, which offer an efficient and economical solution for housing and infrastructure projects. This type of construction allows for reduced execution time and optimizes costs, especially during a period when construction material prices are volatile.

2. Focus on Sustainability and Durability

More and more companies in Moldova are adjusting their strategies to integrate sustainability principles. This includes the use of recyclable materials, reducing carbon emissions, and improving the energy efficiency of buildings. Furthermore, firms in the sector are investing in solutions that minimize material waste and enhance the energy efficiency of constructions, such as effective thermal insulation and the use of renewable energy sources.

3. *Enhancing Security on Building Sites*

The focus on making workplaces safer for workers is another significant development. Accidents have decreased as a result of improved site safety brought about by new laws and contemporary technology. In this process, technological solutions like intelligent safety gear and building site monitoring systems are essential.

4. *Green infrastructure and urban development*

The creation of green areas and sustainable urban development are becoming more and more important, especially in Moldovan cities. In order to encourage a healthier and more ecologically friendly lifestyle, cities are beginning to implement programs that support eco-friendly structures and pollution reduction. Green infrastructure, such as bike lanes, parks, and energy-efficient structures, is gaining importance.

5. *A rise in investments in housing*

Residential growth is stimulated by the persistently high demand for homes, particularly in metropolitan areas. The goal of more and more real estate developments is to provide high-quality, reasonably priced housing, such as energy-efficient flats that require less upkeep. The requirements of a youthful, energetic population looking for contemporary, cost-effective housing options are the focus of these initiatives.

These trends point to a positive development in the Republic of Moldova's construction industry, emphasizing the growing importance of safety, sustainability, and technical advancements. These elements will significantly influence how this industry develops in the future.

3. Conclusions

Although the Republic of Moldova's construction industry has had challenging times, recent patterns point to a strong recovery built on creativity, sustainability, and the capacity to adjust to shifting market conditions. These elements will significantly influence how this industry develops in the future. However, to progress in a sustainable and competitive manner in the long term, the sector will need to face persistent challenges, such as labor shortages and price fluctuations.

There is a lot of room for expansion, especially in the areas of residential, commercial, and public infrastructure building. The growing need for infrastructure and contemporary housing may spur investments, provide employment, and aid in the expansion of the national economy.

The Republic of Moldova's building industry is undergoing a period of transformation, where economic and social challenges are balanced by the opportunities provided by innovation and sustainability. With a well-defined strategy and government support, this sector can become a driving force for long-term economic development, significantly contributing to the modernization of national infrastructure and the improvement of living standards.

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