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THE IMPACT OF COVID-19 PANDEMIC ON THE CONSTRUCTION INDUSTRY IN CZECHIA AND EUROPE; CURRENT STRUGGLES AND FUTURE PREDICTIONS

Abstract:

This paper talks about the the COVID-19 pandemic in Europe and the impact it had on the construction industry between the years 2020 and 2023. We look at the pre-pandemic situation of the construction industry in both Europe and specifically in Czechia, followed by taking a look at the start of the pandemic and the effect it had on the industry, ranging from government restrictions and the economical impact of changing supply and demand, to changes in the strategy of different construction companies and future predictions. The paper is split into 3 parts. The first part discusses the situation in Czechia in several steps and how things changed for local construction companies (but also other industries this affected). Second part of the paper describes the situation in Europe in the same manner. Third and final portion of the paper discusses the current situation and future predictions for the development of the construction industry in Europe while also reflecting on current struggles, and comparing them to older predictions.

Keywords:

construction, economy, pandemic, COVID-19, Europe, Czechia

JEL Classification: A00, A10, A19

Literature review

Eurostat. Impact of Covid-19 crisis on construction. [online] Eurostat, 2022. Available from: <https://ec.europa.eu/eurostat/> - *This online publication contains articles on the impact of the of Covid-19 crisis on short-term business statistics (STS) indicators. The indicators shown are the retail trade volume indicator, industrial production, construction and services.*

Kearney. Covid-19 sector impact: construction and building materials in Europe. [online] Kearney, 2020. Available from: <https://www.de.kearney.com/documents/> - *This publication from 2020 talks about the economic predictions for the next 3 years in relation to the construction industry and other industries connected to it, predicting 0% growth at best.*

CECE. Covid-19. [online] CECE, 2020. Available from: <https://www.cece.eu/covid19> – *This article goes over several topics concerning the COVID-19 pandemic situation in relation to the construction industry, ranging from economic analysis and forecast, to recovery plans for the industry.*

FIEC. Negative Impact of Covid-19 on the Construction Industry. [online] FIEC, 2020. Available from: <https://www.fiec.eu/news/news-2020> – *This press release goes over the requested urgent measures related to the start of pandemic and the construction industry by a prominent construction industry federation, showcasing the urgency of the situation and sudden changes.*

Husien I. A., Borisovich Z., Naji A. A. Covid-19: Key global impacts on the construction industry and proposed coping strategies. [online] E3S, 2021. Available from: <https://www.e3s-conferences.org/articles/> - *This paper attempt to shed light on the most prominent effects of COVID-19 on the construction industry around the world, and which were repeated with high frequency in previous studies and reports by following the methodology of review, analysis and selection, and then suggesting optimal coping strategies to reduce the damages of these effects.*

Introduction

The coronavirus pandemic has had a significant impact on the vast majority of industries, and the construction industry was no different. At the beginning of 2020, the construction industry was still doing fairly well – that was mainly due to the minimal engineering attenuation construction. Despite the restrictive measures, construction companies succeeded in most cases to continue their activities without much trouble. The major issues only started to appear in the Q3 and Q4 of 2020.

Before we talk about the impact of the pandemic on the European construction industry, we have to look at what the industry looks like in general. The EU construction sector provides 18 million direct jobs within the EU and contributed about 9% to the EU's GDP in 2019, accounting for about €1.216 billion. It is a sector that is very sensitive to economic cycles, and it was hit hard during the 2008 financial crisis. This caused major imbalance between supply and demand (Kadeřábková, 1994). Additionally, the construction industries are facing challenges associated to stimulating demand, the uptake of innovation and new technologies, as well as incorporating and implementing energy efficiency and addressing climate change. While the European Green Deal has major implications for the construction industries and will require major adaptations, it is claimed that the

green transition and the need to shift to a circular and climate neutral economy will have significant positive effects on the sector.

Impact of the COVID-19 pandemic on the construction industry in Czechia

As the pandemic intensified, the government of the Czech Republic announced a new state of emergency on March 12, 2020. The announcement was followed in the following weeks by the adoption of crisis measures. Those were put in place in response to the unpredictable development and the spread of the SARS-CoV-2 coronavirus. This sudden pandemic led to fundamental changes of not only the financial plans of companies, but also public budgets, as well as the normal functioning of the whole society. Furthermore, the measures were intended to minimize the social impact on people, especially with regard to the preservation of jobs, and to ensure optimal conditions for re-employment and re-establishment of the pre-pandemic economy. In order to mitigate the consequences of the pandemic, major restrictions were put in place.

The future development of the construction industry was influenced by a number of hard-to-estimate factors. A very significant driver, applying on a global scale, was uncertainty. It had undoubtedly major impact on the behavior of customers of construction companies. For this reason, in many cases, project implementation dates were postponed to a later date. This eventually led to even cancellation of some orders altogether. In normal cases, the contract is binding and cannot be changed without consent from the other contracting parties. However, it is the change of circumstances that are an exception to this rule. The consequence can be an excusable delay, a change in the content of the contract due to influence re-evaluation of individual projects, or the already mentioned complete termination of the contract. These unexpected contracts can lead to fatal losses for companies without sufficient loss reserves loss of income resulting in insolvency or even bankruptcy. According to the quarterly data of the analysis of the Czech construction industry, prepared by an analytical company CEEC Research, the largest decline in the construction market for 2020 was expected for small construction companies (with an annual turnover of less than 100 million CZK) and especially due to restrictions demand from private investors and the recession of the whole economy. On average construction companies estimated a fall in construction by 2.0%. In reality, however, production per year decreased by 6.2%. For this year, the estimates of large companies are cautious, they expect a moderate one growth of 0.9%. The expectations of small and medium-sized companies are more optimistic, they estimate growth at 2.1%. The average estimate according to the CEEC Research analysis is therefore 1.4%. (CEEC, 2020).

From the analysis, created on the basis of information from leading representatives of selected construction, project and development companies, was obtained through a unique questionnaire survey data on the impact of orders due to the coronavirus crisis. According to the information obtained, the cancellation of the entire order affected 59% of the respondents businesses. At the time the study was closed, 41% of businesses had not experienced cancellation. Whether in the following months those companies would be affected too, was not processed. Firms also state that, on average, it was entirely due to the coronavirus situation that they canceled 16% of their orders. When asked if construction companies have met with relegation due to the coronavirus situation,

exactly 80% of companies stated that they have encountered such a situation. Only a fifth of those companies did not encounter any. (CEEC, 2020).

Impact of the COVID-19 pandemic on the construction industry in Europe

The main goal of construction companies in the beginning was to survive this sudden drop in economic activity due to the pandemic (Kearney, 2020). While it is estimated that construction industries in the euro area were operating at 25% to 30% below their normal capacity during the first wave, which represents the period under strictest confinements, the situation across the EU is very diverse – but one thing is known for certain, and that is the impact was significant (FIEC, 2020; ILO, 2021). It was also obvious that construction companies were not prepared for such a scenario (Rokooei, Alvanchi, Rahimi, Shukla, 2022). This also affected other industries, such as machinery, since construction companies had no need to invest in or rent more equipment – this led to a decline in business by up to 52% (CECE, 2020). In some Member States, it was possible to continue activity more or less as before (e.g. in Germany), while in some countries (such as Italy, Spain, Slovakia, Ireland or France), construction sector activities were severely limited. Countries outside of the EU were severely affected too, such as China (Husien, Borisovich, Naji, 2021; Mew, 2020). Even if in most countries, construction industries have been allowed to take up production quickly again, a number of difficulties arose due to the confinement measures and travel bans: labour shortages, supply chain disruptions leading to shortages of construction material, as well as additional costs due to intensified health and security measures. Due to COVID-19, the winter slowdown in production substantially intensified by a drop of about 20% and prolonged until April, before recovery started. Until August 2020, production recovered from -11.5% year-on-year growth to -9.1%. Overall, the labour market in the construction industries was affected substantially during the first wave, particularly in consideration of temporary layoffs and reduced hours: the risk of being subject to temporary layoffs or reduced hours has been slightly above 20% in the construction sector during Q2 2020. Nevertheless, as in other industries, impacts on employment differ between Member States and across subsectors: In Germany, the number of persons employed in the construction of residential and non-residential buildings decreased by on average 0.3% between April and November, while persons working in civil engineering increased by on average 2% during the same period.

After an unprecedented decline in March and April (-25.9%), construction production in the EU increased by 20.4% in May 2020 and recovered some of the losses of the crisis. Since then construction production increased in most months but not very dynamically. In January 2022 the production level stood only 1.9% higher than in February 2020. (Eurostat, 2022).

The second wave is expected to impact construction industries much less, as the industries had time to adjust to new security measures. Additionally, confinement measures have been more defined, and no shortages of inputs are to be expected as supply chains adjusted and have been more protected than during the first wave in Spring 2020. Until August 2020, production recovered from -11.5% year-on-year growth to -9.1%. The construction sector performance stabilized, with production in November 2020 levels recovering to 97.5% of the pre-crisis level of February 2020.

According to forecasts, recovery will start in 2021 with a forecasted growth of 4.1% for 2021, 3.4% in 2022, and 2.4% in 2023. Hence, the recovery scenario for the general construction sector will be similar to a V-shape. Nevertheless, a complete recovery back to pre-crisis 2019 levels will take until 2023. In parallel to the different intensity of impacts of the pandemic on the industries across the different Member States, recovery will vary substantially across Member States, in speed as well as intensity. While Poland and Portugal have been forecasted with growth levels for the sector above 2019 levels from mid-2021 already, countries that have been hit harder, such as the Netherlands, Ireland, Slovakia, France or Sweden, will experience a longer recovery period and will need more time to get back to pre-crisis levels.

Conclusion

The Czech Republic construction market size was valued at \$48 billion in 2021. The market is projected to grow at an AAGR of more than 1% during the period 2023-2026. The growth in the forecast period will be supported by developments in the transportation and energy sectors. The outlook for the Czech Republic's construction industry has weakened amid deteriorating conditions in the wider economy. Surging energy costs and rising inflation owing to the conflict in Ukraine are expected to impact construction activity over the second half of 2022 and into 2023.

Construction output in the Czech Republic went down by 6% year-on-year in March of 2023, following a 4.3% drop in the prior month. It was the second consecutive month of falling construction activity and the lowest reading since February of 2021, as works in both civil engineering (-12%) and buildings (-4.1%) declined. Moreover, 3,306 dwellings were started, shrinking by 21% compared to the previous year. On a monthly basis, construction output dropped by 0.9%, after decreasing by a significant amount of 3.7% in February.

While the construction industry in Europe has somewhat stabilized, the same is not true for the one in Czechia, which is currently facing the issues of high inflation and new laws proposing an increase in corporate income tax.

While the European construction industry has somewhat stabilized, the outlook is not all that great. Experts predict that the industry will see weaker growth in the future. „Construction in Europe will see weaker growth in the period 2023–2025. Residential construction in particular – in Italy and many other European countries – is facing considerable headwinds. This is evident from calculations by the EUROCONSTRUCT forecasting network, of which the ifo Institute is a member. “Resilience will be greatest in civil engineering,” says ifo expert Ludwig Dorffmeister., “Civil engineering volumes face a series of major challenges,” he adds. Necessary investment in energy supply, expansion of the transportation network, and public transit will trigger civil engineering growth of 2.9 percent in 2023, 1.8 percent in 2024, and 2.2 percent in 2025. Italy, Norway, Slovakia, and Poland are expected to see the largest increases. Only in Finland will the market shrink. (IFO, 2023).

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