3 Economic Report

3.1 Macroeconomic and Industry-Specific Conditions

General economic conditions

Global economy and the Covid-19 pandemic

The development of the global economy in 2020 was determined by the Covid-19 pandemic and its effects. It led to one of the worst recessions in the post-war period. Based on the Annual Report by the German Council of Economic Experts published on November 11, 2020, global gross domestic product (GDP) is expected to decline by 4% in 2020, while the International Monetary Fund (IMF) forecasts a decline of 3.5% in its World Economic Outlook Update published in January 2021. In 2019, global GDP growth was still as high as 2.7% according to the German Council of Economic Experts' estimate and 2.8% according to the IMF.

Global economic growth had already lost momentum in 2019. On the one hand, existing trade conflicts had an increasingly negative impact while on the other, burdens from managing structural change in individual sectors of the economy, such as the automotive industry, led to a deterioration in the macroeconomic environment.

Shortly after economic data began to improve in early 2020 as a result of the conflict between the USA and China settling, the novel coronavirus emerged and began to spread globally after its origination in China. On March 11, 2020, the World Health Organization (WHO) declared Covid-19 – a disease caused by the coronavirus (SARS-CoV-2) – to be a pandemic. The subsequent measures that were taken, both voluntary and imposed by individual governments, to contain the outbreak significantly impacted the economy. In some industries, activity came to a complete halt. In many other sectors, supply chains were disrupted or production was interrupted as a result of a drop in demand.

In order to counter the negative economic effects – in particular the historic slump in the global economy in the second quarter of 2020 – governments and central banks responded with a wide range of measures. These measures were initially intended to safeguard the existence of companies and households in the short term and subsequently to revive the economy. The unprecedented programs, as well as the partial lifting of the measures imposed to contain the virus, had their effect, and the economy experienced a strong revival in the summer. After the summer months, increasing levels of infection led to a resurgence of restrictions, which impacted sectors and regions differently.

From a global perspective, GDP in all major economies – with the exception of China – is expected to decline in 2020.

Eurozone

In the eurozone, the Covid-19 pandemic and the associated containment measures caused the economy to slide into recession in the first half of 2020. The decline of 11.8% in the second quarter was particularly large compared with the previous quarter. The development of GDP was very heterogeneous in the individual member states. The differing impact on the countries was particularly influenced by regional infection rates. However, the importance of the economic sectors heavily affected by the pandemic for the individual economies and the extent to which the economies of the individual countries are dependent on international supply chains also played a role.

To counteract the economic impact of the Covid-19 pandemic, far-reaching fiscal measures were taken by the individual member states. Aid programs were also launched at the European Union (EU) level. In addition, the European Central Bank (ECB) took extensive measures aimed at stabilizing the financial markets and supporting the economic recovery.

On the labor market, the moderate increase in the unemployment rate to date contrasts with a sharp decline in the volume of work – the total hours worked by all employed persons. In addition to the decline in the number of people in work, the use of short-time working is playing an important role here.

Overall, in its Annual Report 2020/2021 the German Council of Economic Experts expects GDP to fall by 7.0% in the eurozone in 2020, while the IMF forecasts a decline of 7.2%. The decline in economic output is expected to be particularly sharp in France, Italy and Spain. In the previous year, GDP grew by 1.3%.

USA

Economic development in the USA in 2020 was also significantly impacted by the effects of the Covid-19 pandemic. In the second quarter, seasonally adjusted GDP decreased by 9.0% compared with the previous quarter. Unlike in the major European economies where short-time working was used, there was a sharp rise in the unemployment rate in the USA. While this was 3.5% before the outbreak of the pandemic, in April 2020 it reached 14.7% – the highest level so far in the course of the pandemic. Numerous monetary and fiscal policy measures were also adopted in the USA to mitigate the impact of the pandemic. In the course of the year, economic development also recovered in the USA.

At the beginning of 2020, an initial agreement was reached in the trade conflict between the USA and China with the "Phase One Deal." Under the agreement, China undertook to expand imports of certain products from the USA, and the USA partially reduced the punitive tariffs introduced during the conflict and suspended the introduction of new tariffs. Despite the agreement, the US trade deficit is said to have widened during the year.

For 2020, the German Council of Economic Experts predicts a decline in GDP of 3.7%. In the previous year, growth is expected to have been 2.2%. The IMF expects GDP to decline by 3.4% in 2020, following growth of 2.2% in 2019.

Asia (Japan)

In Japan – the most relevant and strongest market in terms of revenue for the Nemetschek Group in Asia – the 7.9% GDP slump in Q2 was low compared with other countries. The infections caused by the Covid-19 pandemic were also comparatively low in spring 2020, meaning that the containment measures imposed by the Japanese government were relatively moderate in international comparison. The production slump occurred somewhat later than in other leading economies, with the result that recovery trends also started with a slight delay. Unemployment in Japan rose from 2.4% in February 2020 to 3.0% in August 2020.

Overall, the German Council of Economic Experts expects Japan's GDP to decline by 5.4% in 2020 – the estimated growth rate in the previous year was 0.7%. The International Monetary Fund sees a decline of 5.1% in 2020. Growth in the previous year is put at 0.3%.

Emerging markets (China)

Emerging markets have also been affected by the Covid-19 pandemic in many ways. Although severe Covid-19 outbreaks may be less frequent due to the tendency of the population to be younger, it is assumed that there will also be a significant decline in economic activity in 2020.

China has a central role when it comes to the Covid-19 pandemic. The country was the first to be affected by the pandemic, and the government quickly imposed strict containment measures. As a result of these measures, there was a significant drop in GDP of 10% in the first quarter compared with the previous quarter. With infection rates lowering, the containment measures were relaxed. In its Annual Report 2020/2021, the German Council of Economic Experts expects Chinese GDP to grow by 1.8% in 2020. In the previous year, it increased by 6.1%. The International Monetary Fund sees GDP increasing by 2.3% in 2020 (previous year: 6.0%).

The situation is different in other emerging markets. The oil-exporting emerging markets are suffering from the significant drop in crude oil prices as a result of the pandemic. Other countries that are heavily dependent on the tourism industry are currently experiencing a significant decline in GDP due to the sharp drop in the number of travelers. In addition, some of the emerging markets have only limited options for taking fiscal policy measures to combat the consequences of the pandemic.

Overall, GDP in the emerging markets is also expected to decline in 2020. The German Council of Economic Experts predicts a decline of 1.8%, while the International Monetary Fund even expects a drop of 2.4%. In the previous year, growth of 4.5% (German Council of Economic Experts) and 3.6% (IMF) was forecast. For India and South Africa, which were both particularly affected by the pandemic, significant declines in GDP are expected for 2020.

Sources: German Council of Economic Experts, Annual Report 2020/2021 (November 2020) and International Monetary Fund, World Economic Outlook Update (January 2021), https://www.euro.who.int/de/health-topics/health-emergencies/coronavirus-covid-19/novel-coronavirus-2019-ncov.

Development of the construction industry

Europe

The development of the construction industry in 2020 was dominated by the effects of the Covid-19 pandemic. After years of upswing, European construction output in 2020 slumped by 7.8% compared with the previous year. The decline is thus comparable to the slump in 2009 that came as a result of the global financial crisis.

With -19.5% year-on-year in the UK in 2019, -16.0% in Ireland and -15.8% in France, these countries were hardest hit by the decline in construction output. Spain also showed an above-average decline of -12.5%. By contrast, the construction industry either developed slightly positively or stagnated in Finland (1.3% year-on-year), Norway (0.1%) and Portugal (0.1%). In Germany, the experts expect a moderate decline of -1.6%. The same applies to the Netherlands at -2.2%. While growth rates of between 5% and 13% were recorded in Eastern Europe in the past three years, the construction industry also slumped here in 2020. Overall, the decline amounted to -4.5% compared with the previous year. Slovakia was hit hardest at -9.5%, followed by Hungary (-8.3%) and the Czech Republic (-3.9%).

The various segments of the construction industry were affected by the decline in construction activity in 2020 to different degrees. While building construction declined significantly by 8.6%, infrastructure construction recorded a decline of a comparatively low 3.8%. The lower decline was also due to the numerous investment programs initiated by governments in infrastructure measures.

USA

In 2020, the construction industry in the USA maintained investment levels similar to 2019 (+0%) despite the negative impact of the Covid-19 pandemic. In the previous year, the industry recorded growth of 2%. New residential construction was a major contributor to the stabilization, growing 3% in 2020 compared with the previous year. In contrast, commercial real estate construction recorded a 4% decline, while infrastructure construction stagnated.

Asia (Japan)

According to the Research Institute of Construction and Economy (RICE), construction investment in Japan declined for the first time in 2020 following several years of continuous growth (-2.3% year-on-year). The decline was mainly attributable to the private commercial construction (-5.4%) and private residential construction (-7.5%) segments, as well as the negative development in the renovation market (-9.0%). By contrast, the construction industry in 2020 was supported by public sector investment, which increased by 4.1% year-on-year.

Emerging markets (China)

The construction industry in the emerging markets also showed negative development in 2020. Depending on the extent of government stabilization measures, particularly in the infrastructure sector, the negative effects caused by the Covid-19 pandemic were partially cushioned.

China was an exception in this regard. Despite the Covid-19 pandemic, China's construction sector recorded growth in 2020. Building construction continued to benefit from high domestic demand and the lack of cash investment alternatives, as well as ongoing urbanization. In the first half of 2020, investment here rose 3.4% year-on-year. According to the National Bureau of Statistics of China, investment in infrastructure construction grew by 0.9% in the first half of 2020. The main drivers here included investments in the expansion of pipelines (+13.8%) and the rail network (+5.7%).

The construction sector in India recorded a decline of 14.9% in the pandemic year. Spending on infrastructure measures of EUR 420 billion was originally planned for 2019/2020 and 2020/2021. However, according to estimates by the rating agency ICRA, only projects with an investment volume of just under EUR 300 billion have been completed or started to date.

The Russian construction industry also declined in 2020. Compared with the previous year, residential construction slumped by around 10%. In response, the Russian government has taken extensive aid measures and pledged billions in funding for infrastructure projects to support the construction sector.

Sources: Euroconstruct – Summary Report, Winter 2020; FMI – North American Engineering and Construction Outlook, Q3 2020; GTAI – Branchen, Bau, USA, October 29, 2020; GTAI – Branchen, USA, Machtwechsel in Washington, January 15, 2021; RICE – Quarterly Outlook of Construction and Macro Economy, October 2020; GTAI – Branchencheck, Bauwirtschaft, Japan, December 28, 2020; GTAI – Branchenanalyse, Bauwirtschaft, China, December 12, 2020; Global Data – Press Release, India's construction industry, September 9, 2020; GTAI – Branchencheck, Indien, December 11, 2020; GTAI – Branchen, Tiefbau, Indien, July 13, 2020, GTAI – Branche kompakt, Bau, Russland, June 23, 2020.

Digitalization in construction

In addition to the general development of the construction industry, the advancing digital transformation of the construction sector is an important structural growth driver for the Nemetschek Group. The construction industry has a below-average level of digitalization compared with other industries and therefore offers further growth potential for the Nemetschek Group. Even if the Covid-19 pandemic represents a challenge for the economic development of the construction industry, it is considered an accelerator for the digital transformation. According to a study from spring 2020, 75% of construction companies plan to increase their spending on digital solutions.

Building Information Modeling (BIM) is considered one of the fastest growing disruptive technology trends within the construction industry. BIM describes a networked working method in which all relevant building data is digitally captured using software as part of the planning, execution and management process. The use of the BIM methodology has progressed to varying degrees in different countries. The pioneers here are the USA and Singapore, and the Scandinavian countries, the Netherlands and Great Britain in Europe.

In 2016, the UK took a decisive step towards the nationwide establishment of BIM with the entry into effect of the BIM Level 2 mandate, which makes the use of BIM Level 2 mandatory for public construction projects. Due to the proven benefits of using BIM software, the UK government plans to make further investments in the 2020s to further advance the use of BIM Level 3.

Since 2014, there has also been a new directive for the EU that recommends the use of computer-based methods such as BIM in the awarding of public works contracts and tenders. In the meantime, many European countries have implemented the EU recommendations on a national level.

In Germany, BIM is being boosted by the "Digital Planning, Building and Operation" step-by-step plan. Since 2015, experience has been gathered and skills have been pooled in pilot projects funded by the Federal Ministry of Transport and Digital Infrastructure (BMVI) in order to define the necessary quality standards. Since 2017, BIM has been used in an extended pilot phase in numerous transport infrastructure projects. As of December 31, 2020, the use of BIM is mandatory in all new public sector infrastructure projects that are in the planning stage.

Sources: McKinsey – Rise of the platform era, October 2020; McKinsey – Reinventing construction through a productivity revolution, February 17, 2017; IFS – Understanding construction and engineering spending on digital transformation, October 2020; BIM World – Der BIM-Stufenplan – wie Deutschland sich vernetzt, October 13, 2020; NBS – National BIM Report 2020, BMVI – Stufenplan Digitales Bauen.