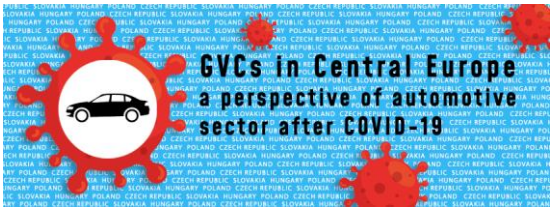


Visegrad Fund

Effects of COVID-19 on the automotive branch in Hungary

A case study by Andrea Éltető

The case was developed with support of the Centre of Economic and Regional studies (CERS), Budapest, Hungary and by the Visegrad Fund in 2021. It is intended to be used as a base for discussion in courses focusing on Global Value Chains and Supply Chain management.

The project is co-financed by the Governments of Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund. The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe.

There were serious problems, disruptions in the automotive supply chains in Hungary, the production of some companies had to stop several times. The international shortage of electronic chips causes ongoing difficulties. It is a longer process to build new chip factories. In Hungary there is one semiconductor factory but there is a new one being built and it will begin production at the end of 2021. (*The Infineon Technologies AG was founded in 2000, originated from the Siemens semiconductor division. In the same year, the facility and the production area was purchased from a Hungarian electronic company. Infineon AG integrated the Hungarian subsidiary in 2005. The new Infineon affiliate will employ 275 workers*). The international supply of electronic chips is problematic because producers sell much more to computers, electronic devices now, during the home-office times. There are less deliveries to the automotive industry.

Most OEMs, Tier 1 companies look for alternative suppliers as a consequence of supply chain disruptions. There are some examples that Hungarian companies received orders instead of Asian firms. However, it is a long-term process. Being a supplier means to think in 8-10 years' time, because the company has to deliver spare parts too for several years. Contracts are for a long term.

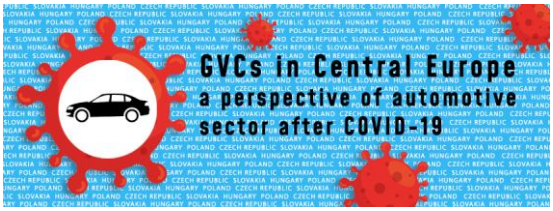
Inventories increased during 2020-21 at the companies but mostly at supplier firms. OEMs cannot give up Just-in-Time system. Supplier firms had to often replan their deliveries because of large fluctuations in orders (in the first wave almost nothing, then 100-120% around September 2020. Dismissed workers had to be re-employed).

COVID-19 caused illness of workers and that caused some disruptions in the production. Firms took every kind of measures against contagion, antibacterial fluids, distance keeping and lately vaccination.

The epidemic gave a further push to automation, although it was already largely introduced before because of the shortage of labour. The most difficult it is at the SMEs, Hungarian SMEs are still not prepared enough. The biggest problem is the outdated machine park, these cannot produce adequate data. These machines have to be equipped with proper tools and there is a huge task of coordinating logistics, finance, product analytics. This is a long process, Hungarian SMEs are not yet prepared for that (although there is financial support from the government).

German OEMs could increase on the Asian markets after the 2008/9 crisis, the European market stagnates. China recovered very quickly from the first wave of the pandemic. Suzuki has very popular models Sx4 Cross, Vitara, they sell all over the world. Opel will bring to Hungary the production of the modern benzene motors (from 2023). India and also Africa have a big growth potential regarding car sales. Chinese car producers buy firms, there is a sharp competition, Chinese are good at electric motors.

The effects of the pandemic hit more the SMEs and domestic companies than larger foreign ones. The latter could better compensate and finance problems. No Hungarian firm went bankrupt but there are some with serious difficulties. These will be acquired by others.



Visegrad Fund

Survival methods: automotive companies took credits and used state help too. 85% of the firms used job protection, R&D helping measures, support on investments or subsidies to improve competitiveness and also EU finance.

The pandemic was costly for the firms. Logistical, transport costs increased largely, storage costs too, the price of steel increased. All these do not necessarily manifest in the price of the cars, because OEMs pass the costs to suppliers.

Wages have increased in the past 2-3 years, trade unions became more active. The real question is productivity, if productivity increases then wages can also increase. Although the pandemic caused unemployment, labour shortage remained at the automotive companies.

Upgrading: we should invest more in education. In the field of R&D there are steps forward, lots of small innovation. Foreign headquarters usually keep R&D at home but they brought these also to Hungary. Continental, Bosch, Thyssen, Knorr-Bremse, Siemens-Valeo established R&D centres with several thousands workers. Companies cooperate with universities (dual education). Young graduates can participate in global projects. Zalazone test path for self- governing cars. EU budget for the next 7 years is important too. It is important if OEMs develop together and cooperate with suppliers.

The case study was made based on the interview with Csaba Kilián, secretary general of the Association of Hungarian Automotive Industry (04.05.2021)

The Association of the Hungarian Automotive Industry comprises more than 50 member companies. They put focus on producing vehicles, engines, tools, body panels, automotive electronics sub-assemblies, air-suspension systems, heating-cooling pipes, fuel hoses, moulded automotive couplings (connectors), fuel-calibrating system elements, steering wheels, SRS systems, gas generators, safety belts, child protection systems, clutches and several other components in Hungary. 80 % of the total production of the Hungarian automotive industry and 90 % of the R&D investment value (research and development) is implemented by the member companies of MAGE. Number of workers employed by them exceeds 90 000.