

89th East Jour Fixe

CESEE countries in (e-)motion: trends in the automotive industry and individual mobility

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After 120 years of producing and developing petrol and diesel engines, the automotive industry is racing to switch to all-electric cars – at least across Europe. Having ramped up their efforts to go green, car manufacturers in Central, Eastern and Southeastern European (CESEE) countries are keeping the pace of electrification. The OeNB's most recent East Jour Fixe² on March 28, 2022, highlighted the opportunities and challenges associated with the electrification of the car industry, including the localization of battery production, the deployment of charging infrastructures, the future of combustion engines in emerging markets as well as innovation and future mobility trends.

In his opening remarks, OeNB Governor Robert Holzmann recalled the importance of the car industry for the CESEE region: It is not only a key manufacturing segment but also a major export driver and an important determinant of economic growth in several CESEE countries. In terms of aggregate output and employment, the automotive sector in CESEE is comparable to, and closely intertwined with, the automotive sector in Germany. Governor Holzmann also pointed to recent events that have revealed the vulnerability of the car industry and the risks associated with the region's high dependence on this sector: The COVID-19 pandemic has brought about significant disruptions in global supply chains, and the human and political tragedy in Ukraine has created an additional massive exogenous shock and source of risks for the sector. In addition, other long-term challenges loom high. In particular, the global value chain integration of CESEE's car industry has been strongly related to foreign direct investment flows which seem to have lost steam in the last decade. Moreover, many CESEE countries are locked in a functional middle-income trap, generating comparatively little value added.

The future of automotive mobility

In his keynote address, Klaus Schmitz, Partner at the consulting firm Arthur D. Little, provided global survey-based evidence on some of the key questions regarding consumers' attitudes and preferences with respect to future automotive mobility and megatrends in the industry. Polls suggest that the primary reason for using the car is commuting in and out of cities, particularly for work. Consumers share similar motivational patterns for car ownership across all major global markets; these include in particular comfort, independence, fun and convenience. A large majority of consumers (ranging between some 70% in France or Japan and 90% in China) believe that possessing a car in 10 years' time will be at least as important as it is today, a belief reinforced by the pandemic. Yet, despite the stated importance of owning a car, 60% of respondents would at least consider giving up their

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² The presentations and the workshop program are available at <https://www.oebn.at/en/Calendar/2022/2022-03-28-east-jour-fixe.html>.

own vehicle for new mobility services if they match their needs. According to Schmitz, it is rather traffic congestion than environmental considerations that will prompt people to change their mobility patterns.

With respect to autonomous driving, respondents across all regions are most concerned about safety risks. In view of these results, Schmitz argues that once robo-taxis overcome technical and safety issues, they will replace short-distance means of transport, particularly privately owned vehicles and public transport. However, the prerequisite for robo-taxis is i.a. smart regulation, without which road congestion would significantly increase.

Schmitz then turned to the issue of powertrains and presented survey evidence showing that nearly one in two European owners of a combustion engine vehicle is likely to opt for an alternative drivetrain vehicle when replacing their current car. To date, the transport sector accounts for 20% of CO₂ emissions, most of which come from road traffic, and it is the only sector that has not yet reduced emissions. Still high prices of electric vehicles (EVs), limited charging options and too short a driving range persist as the most discouraging factors for consumers to choose a battery EV.

Schmitz concluded by making a plea for large-scale photovoltaic systems in more favorable regions than in Europe, which only has limited space and hours of sunshine. The energy thus produced should be used for the green production of hydrogen, which, in turn, should be used in fuel cell cars and synthetic fuels. Especially synthetic fuels, based on green hydrogen, will play a key role in decarbonizing the existing car fleet, an objective without which the Paris climate goals cannot be achieved. Schmitz left the audience with a clear message – namely that there is a large market potential for electrolyzers and that cars can be a sustainable means of mobility, even though they are not seen as such today. In this context, e-fuels are the necessary prerequisite.

The ensuing discussion centered on space in cities in the age of robo-taxis and on the future of mobility in less advanced world regions, such as India, Latin America or Africa.

The electric car revolution in Europe: Are CESEE countries ready?

In session 1, Matteo Ferrazzi (European Investment Bank – EIB) and Doris Hanzl-Weiss (Vienna Institute for International Economic Studies – wiiw) presented the first part of a study conducted jointly with the OeNB,³ complemented with country perspectives on Czechia and Slovakia provided by Michal Hrubý (EUROPEUM) and Soňa Muzikárová (GLOBSEC). The session was moderated by Birgit Niessner (OeNB) and Robert Stehrer (wiiw). Ferrazzi noted that many factors have a strong impact on the automotive industry, including long-term trends, such as moving production capacities to emerging markets, and pandemic- and war-related changes to e.g. supply chains. Technology also plays a key role: In Europe, the share of EVs in new vehicle sales has increased strongly over the past years and stood at around 40% in 2021. By 2035, all car sales will be EVs if the goals outlined in the “Fit for 55” initiative of the European Commission are achieved. Two key issues regarding EVs are battery production and charging infrastructures. Regarding the

³ The joint EIB-OeNB-wiiw study can be downloaded at https://www.eib.org/attachments/publications/econ_recharging_the_batteries_en.pdf.

latter, capacities need to be expanded rapidly to make EVs attractive for consumers. Regarding batteries, their price is a key determinant of EV prices and is projected to decrease, but at a much slower pace than in the previous decade. Giga-factories for battery production are being built and planned across Europe to reduce reliance on Asian producers. Referring to Ferrazzi's presentation, Schmitz added that while the 2035 EV goal might be feasible from the perspective of large car producers, it is questionable whether consumer demand and energy supply can adapt fast enough.

In her remarks, Hanzl-Weiss focused on the CESEE region, with many of her points being emphasized and reiterated by Hrubý and Muzikárová. The speakers showed that the CESEE region is heavily specialized in the automotive industry, in particular Czechia, Slovakia, Hungary and, to a somewhat lesser extent, Romania and North Macedonia. The transformation of the sector is thus critical for the region's economic outlook. Muzikárová presented estimation results indicating a strong hit to Slovakia's GDP and employment if production capacities are not adequately adapted to EV production. On a positive note, the share of EVs in exported vehicles has increased rapidly in most CESEE countries, reaching 40% in Slovakia and Slovenia in 2021. The panelists pointed out that EV penetration of CESEE passenger car markets is still low and that EU funds from the Recovery and Resilience Facility for the automotive sector and supporting infrastructures are thus lower than in many Western EU countries.

One issue for CESEE countries is that they still show a much higher concentration of low-value-added functions in the automotive industry than e.g. Germany. As headquarter functions are largely located in other countries, this implies a high degree of foreign control.

In the general discussion with the audience, the role of national governments versus that of car producers in shaping the future of CESEE's automotive industry was raised. The panelists noted that while the influence of car producers is clearly large, national governments can still influence developments, for instance, via industrial policy and incentives as well as subsidies and investments (e.g. by getting involved in the European Battery Alliance).

Risks, challenges and opportunities for a sector in transition: A bumpy road ahead for CESEE countries?

Session 2 was chaired by Debora Revoltella (EIB) and provided a forward-looking view on the sector. Tomáš Slačik (OeNB) started his presentation of the second part of the joint EIB-OeNB-wiiw study by questioning the exclusive focus on electrification as the answer to current problems. He referred to energy and raw material use related to EV production, affordability, distributional aspects and a certain lock-in induced by European regulation, which might preclude the development of other technical solutions. In his view, cars will become more expensive, while, at the same time, their average age will increase. Big tech firms will enter the market, curbing the market power of current car producers. Rising demand for inputs will meet limited and inelastic supply and thus boost prices. Slačik also pointed to geopolitical, environmental and social consequences as well as fiscal costs (arising from financing the transition and foregoing tax revenues from fuels in the long-term) and a potential "big market illusion" (related to enormous market expectations on EV producers implying large margins and quantities). He concluded by underlining the importance for CESEE economies to be part of the e-trend and

to seize the opportunities it provides – for new players and sectors but also for serving combustion engine customers longer. He also emphasized the need to shift activities to higher value-added sectors beyond automobiles and secure affordable energy sources beyond fossils. It is equally important to transition into a digital economy, keeping an eye on risks, including financial risks.

Petr Pavlínek (University of Nebraska Omaha and Charles University Prague) highlighted CESEE's high degree of dependence on foreign capital ("integrated periphery" position) that goes hand in hand with low innovation in the region and weak governments. In his view, this will not change any time soon, as he observes a reversal of the investment trends that have prevailed since the start of the transition 30 years ago: New production sites are no longer built in CESEE, while old-type combustion engine production increasingly concentrates in the region. Building on the latter is a risky strategy which undermines future competitiveness.

Nils Poel (European Association of Automotive Suppliers – CLEPA) presented results from a study focusing on powertrains which show that investment in EV production is taking place in the region, in particular in Poland and Hungary. Germany and France are spearheading this development which has significant implications for employment. An EV-only scenario will shed half a million jobs in the EU (around 84% of current jobs in combustion engine production), notwithstanding some replacement in other sectors. A mixed-tech scenario would provide for a better manageable transition without compromising climate goals. Employment effects differ widely, with some regions within countries being more affected than others.

Georg Zaccharia (Raiffeisen Bank International – RBI) completed the list of speakers and turned the audience's attention to the impact of the war in Ukraine which has led to a shortage of materials and inputs. While Russia is also a market for European cars, the impact on trade in finished cars has been negligible to date, given Russia's (and Ukraine's) small market size. Yet, missing inputs have caused production stops at BMW and VW and pose an additional downward risk on the already existing chip shortage. Furthermore, aluminum production will be increasingly affected by the war on a global scale, putting additional pressure on an already tight market. Also, steel prices have surged, given that Russia and Ukraine together account for 20% of total steel supply in Europe. Zaccharia expects large and longer lasting disruptions in supply chains and considerably lower output levels. While demand will be impaired i.a. by inflation and monetary policy tightening (thus causing consumers to postpone buying decisions), it will remain higher than supply capacity in his view.

The subsequent discussion centered on the further development of demographic pressure in CESEE and whether the decline in working age population and the brain drain will be fueled by future investment trends. Pavlínek supported this view, alluding to an already existing lack of skilled labor in the region and illustrating that not only labor costs but also labor supply play an important role. Revoltella closed the session by asking all panelists about key policy measures to address short- and long-term challenges. Slačik was concerned by too little diversification across technologies and sectors and regional dependency; his view was supported by Poel. Zaccharia pointed to infrastructure needs, Pavlínek to necessary investments in labor force quality and availability. He concluded by expressing his concern that post-COVID-19 fiscal consolidation needs will lead to cuts in research and education.