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CASE – Centrum Analiz Społeczno-Ekonomicznych
CASE – Center for Social and Economic Research

Overview: This week our energy expert looks at the EU battery market. Can the EU Battery Alliance really turn Europe into a battery-production superpower?

EU Battery Alliance: Will Airbus-style Consortia Make Europe a Battery Tycoon?

By: Karolina Zubel, Energy Economist

European Union (EU) sales of electric vehicles (EVs) are set to boom from 126 thousand in 2017 to 200 thousand this year. While this is obviously good news, what worries Brussels is that more than half of the batteries that power them are being made in China. Keen not to lose out in the fast rising industry, the EU set to join the global race for battery cell production and invite the auto, chemical, and engineering executives to the newly launched (October 11, 2017) EU Battery Alliance, by many also called the "Airbus of batteries."

According to the EU executives, the market for batteries could reach EUR 250 billion annually as promptly as in 2025. Europe's share of lithium-ion batteries (LIBs) demand is expected to amount to 200 GWh (and 600 GWh globally), thus the lack of a domestic EU's cell manufacturing base is seen as a weakness by the European Commission (EC), which during the second meeting of the Alliance (February 12, 2018) urged EU industry to act fast and collectively - to overcome what it sees as a competitive disadvantage.



Photo: Pixabay

The EC is currently working on a specific roadmap and details on the EU funding are expected to follow by May. Maroš Šefčovič, EC Vice-President for the Energy Union, estimates that capturing the market would take a required investment of around <u>EUR 10 billion to EUR 20 billion</u> in order to create between 10 and 20 giga factories – large-scale industrial operations for battery production. Thus far, the European Investment Bank inked a new deal with Swedish startup company Northvolt – one of the Alliance members – to finance a production line for LIB technology. Former Tesla

executive and Northvolt founder and CEO, Peter Carlsson, said the <u>EUR 52.5 million loan</u> will help to construct a demonstration line at what will become Europe's largest LIB cell plant. The loan is part of a financial instrument called <u>InnovFin Energy Demonstration Projects</u> designed to facilitate the market uptake of new, innovative low-carbon energy technologies.

Another initiative worth mentioning is <u>Innovative batteries for eVehicles</u>, launched as the fifth of six European Innovation Council (EIC) Horizon Prizes. The EUR 10 million award will be given to an entity or an individual who manages to develop a prototype battery that can power an EV with similar performance in terms of range and charging time as a conventional petrol/diesel powered vehicle. The battery should also be of relatively low cost, durable, safe, and fully recyclable. Additionally, the winning battery should be manufactured from raw materials that are easily found in Europe and be as environmentally friendly as possible. Any dependency on imported or exotic materials like rare earth metals is discouraged. Given all these requirement, designing such a battery will require significant advancement in materials science in Europe. Again, consortia are very much welcomed.

Financial push for EU-based LIB industry and academia to take over a leading role in the development and manufacturing is so significant because batteries can have other useful applications as well. Battery storage can for instance be used to cope with the intermittency of renewable electricity production. Given regulatory changes to pare back incentives for solar in many markets, the idea of combining solar with storage to enable households to make and consume their own power on demand instead of exporting power to the grid is beginning to be an attractive opportunity for customers who are <u>starting to invest in batteries themselves</u>. While not comparable in volume to EV market segment – according to BNEF, energy storage applications should not exceed <u>10%</u> of the LIBs by 2024 – storage applications are still important for manufacturers in order to diversify and optimize production schedules. To this end, the EC has branded batteries "<u>a key enabler</u>" in its flagship project to establish an Energy Union, saying their development and production play a strategic role in the modernization of the EU industry.

With this acceleration plan in place, the words of Commissioner Šefčovic, who calls for "recharging Europe's economy with the best, greenest, and cheapest batteries in the world –and most importantly <u>made in Europe</u>" take on a whole new meaning. Even though some Asian suppliers like <u>LG Chem in Poland and Samsung SDI in Hungary</u> are, or soon will be, present on the European soil, there are many potential local candidates for large-scale battery production. Their biggest comparative advantage is the fact that they will be working in diversified partnerships, significantly limiting technological entry barriers. LG's and Samsung's know-how is unquestionable given their vast experience in consumer electronics sector, however the top 3 battery cell suppliers: the Japanese Panasonic, the Korean LG Chem, and Samsung SDI, are currently challenged by the Chinese CATL, which was only founded in 2011 and aims to reach an impressive target of <u>50GWh capacity by 2020</u>. There is therefore no valid argument for Europe not to take up the challenge and outpace the competitors in post-2020 reality.

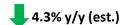
Countries at a glance





This week: According to the latest predictions from the analytical company AutomotiveSuppliers.pl, the total value of products sold abroad in the automotive industry will increase to EUR 27 billion in 2018 from EUR 25.2 billion in 2017 (according to Eurostat). The most important export categories in 2017 were parts and accessories, passenger cars, and trucks. However, exports of passenger vehicles declined for the first time since 2014.

GDP (Q4 2017)



Down from 5.2 % in Q3 2017

Unemployment (Feb 2018)



6.3%

Down from 6.5% in Jan 2018

Inflation (Feb 2018)

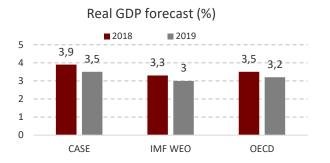


Down from 1.9% in Jan 2018

NBP Base rate

1.5%

From 2% in Mar 2015





This week: Russia could tap the global Eurobond market one more time as it aims to raise USD 3 billion (EUR 2.4 billion) by the end of 2018 in papers that may be denominated in euros, Konstantin Vyshkovsky, head of the Ministry of Finance's state debt department said on Tuesday. Of the total amount, USD 2.2 billion (EUR 1.78 billion) will be used to fund the budget and USD 800 million (EUR 645.52 million) are intended to swap Eurobonds in circulation for new ones.

GDP (Q3 2017)



1.8% y/y

Down from 2.5% in Q2 2017

Unemployment (Feb 2018)



5.0%

Down from 5.2% in Jan 2018

Inflation (February 2018)



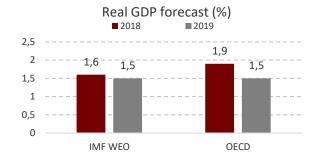
2.2% y/y

Unchanged since Jan 2018

CBR Base rate

7.25 %

From 7.5% in Feb 2018





This week: Consumer mood in Germany stabilized in March after a minor setback in April. Economic and income expectations, as well as the propensity to buy, are on the rise again. GfK, German largest market research institute, forecasts an increase in consumer climate for April of 0.1 points in comparison to the previous month to 10.9 points. Overall, consumer optimism, as the buying mood, remain very high.

GDP (Q4 2017)



2.9% y/y

Up from 2.8% in Q3 2017

Unemployment (Feb 2018)



3.8%

Up from 3.6% in Jan 2018

Inflation (Feb 2018)



1.2% y/y (est.)

Down from 1.4% in Jan 2017

ECB Deposit rate

-0.4%

From -0.3% in Dec 2015



Countries at a glance





This week: According to Interfax-Ukraine, Ukraine and Israel have completed negotiations on creation of the free trade area. The agreement regulates trade disputes, sets customs procedures, rules of origin of goods, and describes sanitary and safeguard measures, including anti-dumping actions. The volume of exports of Ukrainian goods and services to Israel in 2017 increased by 19% to EUR 656 million. In three years, duties will be lifted for spices, seeds, flour, ketchup, canned goods, confectionery, clothing, furniture, and glass.

GDP (Q1 2018)

1 2.2% y/y

Down from 2.4% in Q4

Unemployment (Q3 2017)

1

9.9%

Down from 8.9% in Q4 2017

Inflation (Feb 2018)

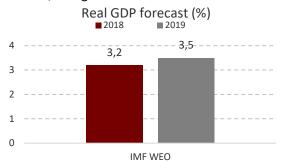
👢 14.0% y/y

Down from 14.1% in Jan

NBU Base rate

17.0%

From 16.0% in Jan 2018





This week: Allianz Euro monitor survey, which annually assesses the stability of the Eurozone economies on the basis of twenty indicators in four areas (fiscal sustainability, competitiveness, employment & productivity, private & foreign debt), has shown Czech Republic as the most stable economy in the European Union. With an overall rating of 8.2 points out of 10, the country tops the EU table once again, ahead of Germany. Very low debt ratios in the private and public sector and the positive labor market situation are the main

factors behind this performance.

GDP (Q4 2017)



5.5% y/y

Up from 5.1% in Q3 2017 Unemployment (Q4 2017)



2.4%

Down from 2.8% in Q3

Inflation (Feb 2018)



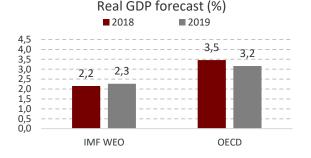
1.8% y/y

Down from 2.2% in Jan 2017

CNB Base rate

0.75%

From 0.5% (2nd Jan 2018)





This Week: Analysts at UniCredit presented a report and predicted that the Hungarian economy can grow by 4.5% in 2018. If UniCredit is right, this year could be the first when Hungary's economic growth is the highest in Central Eastern Europe. UniCredit's 4.5% GDP estimate for this year is way over the market consensus, but several other analysts may follow suit and raise their forecasts in light of the favorable Q1 GDP reading.

GDP (Q4 2017)



4.4% y/y (est.)

Up from 3.9% in Q3

Unemployment (Q4 2017)



Down from 4.1% in Q3

Inflation (Feb 2018)



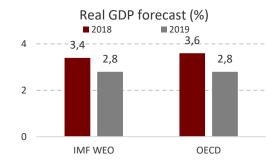
1.9% y/y

Down from 2.1% in Jan 2018

MNB Base rate

0.9%

From 1.05% in May 2016



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The weekly online CASE CPI

The online CASE CPI is an innovative measurement of price dynamics in the Polish economy, which is entirely based on online data. The index is constructed by averaging prices of commodities from the last four weeks and comparing them to average prices of the same commodities from four weeks prior. The index is updated weekly.

Our weekly online CASE CPI



Monthly CASE forecasts for the Polish economy

Every month, CASE experts estimate a range of variables for the Polish economy, including future growth, private consumption, and foreign trade, current account balance, and the CPI.

CASE economic forecasts for the Polish economy (average % change on previous calendar year, unless otherwise indicated)

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	GDP	Private consumption	Gross fixed investment	Industrial production	Consumer prices
2018	3.9	4.0	4.9	3.7	2.5
2019	3.5	3.6	3.3	3.8	2.3
	Nominal monthly wages	Merchandise exports (USD, bn)	Merchandise imports (USD, bn)	Merchandise trade balance (USD, bn)	CA balance (USD, bn)
2018	4.5	233.4	235.2	-1.8	-3.9
2019		242.7		-1.9	-4.1

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Contributions: Stanislav Bieliei, Krzysztof Głowacki, Monika Rębała, Katarzyna Sidło, Sara Skejo, Klaudia Wolniewicz-Slomka **Editor:** Katarzyna Sidło

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