



The impact of the COVID-19 pandemic on CEE economies and businesses

**How attractive is CEE for Western multinationals?
How did regional players fare during the pandemic?**

CEE Masterclass 2020/21

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Executive Summary 1/2

The “**Impact of the Covid-19 pandemic on CEE economies and businesses**” was the topic of the project seminar of the Master Class 2020/21 at the Competence Center for Emerging Markets & CEE at WU Vienna. 22 students from 9 countries and 8 WU master programs worked under the guidance of program director Arnold Schuh from November 2020 to June 2021 on this project. The aim of our study was to understand the impact of the COVID-19 pandemic on economies and businesses of the EU-CEE11 countries. Two **questions** guided our research:

- What is the effect of the COVID-19 pandemic on CEE's attractiveness for foreign investors?
- How were businesses in CEE affected by the crisis and how did they respond to these challenges?

In order to answer the research questions, we first developed a **post-pandemic country attractiveness model** that matched pandemic-induced environmental developments with the foreign investors view. In a second step, we examined the impact on the financial performance of 49 regional players from nine industries as well as their responses to the crisis based on a **qualitative content analysis** of the annual reports 2020. In addition to a literature review and desk research, we talked to company representatives and academic experts during our online classes at WU to gain a better insight.

Unsurprisingly, the CEE region could not escape the negative effects of the crisis. Although CEE governments were among the fastest and strictest with lockdowns back in spring 2020, they later lost control and as of May 2021 seven countries reported 20-100% **higher numbers of deaths** per one million inhabitants than the EU average. A softer policy response combined with less careful behavior by residents in autumn/winter and **weak healthcare systems** are to blame for this outcome. Regarding economics, EU-CEE11 recorded with **-3.9% a smaller decline in GDP** in 2020 than the EU average of -6.2%. Worst hit was **Croatia** with a decline of 9% due to its large dependence on tourism. **FDI flows** to the region dropped in the first half year of 2020 by 35% - still lower than the global decline of 46%. When foreign investors' appetite will come back will depend on a mix of influences that we tried to represent in a model.

Executive Summary 2/2

Our **post-pandemic country attractiveness model** captures the **recovery potential of the EU-CEE11** economies in the next 1-3 years. The three Baltic states – **Latvia, Estonia and Lithuania** – came out on top of the ranking thanks to **high institutional quality, advanced digitalization** and **solid public finances**. They are in the best position to benefit from trends triggered and reinforced by the pandemic and valued by investors. Overall, the **EU-CEE11** countries show an **average attractiveness** ranging from 4.87 (Hungary) to 6.51 (Latvia) on a 10-point-scale.

In a **qualitative content analysis** we examined the annual reports 2020 of **49 regional players in nine industries**. Subjects of the analysis were financial performance changes 2019-2020, the main activities and initiatives to cope with the crisis in 2020 and planned activities for 2021. Total **revenues** of the sample firms dropped in the 2019-20 period by **15%**. **Hospitality** and **oil & gas** were hit the hardest among the nine industries, while software, pharma and grocery retailers could even grow in 2020. The **net income** of the group **fell by half** while the number of employees increased slightly by 3%. A close look at the measures taken to cope with the crisis reveals, that **health & safety** related actions, **retaining customers** and keeping their operations and **supply chains running** had highest importance in 2020. Latter is obvious as pharma, grocery retailers, banking, telecom, and oil & gas have been seen as **critical infrastructure providers**.

In 2021, gaining **new customers** and increasing **sales** are on top of the management agenda in all companies. Further **digitalization** was mentioned frequently as a priority for future investments. Human resource activities (qualifying, training) will gain in importance among financial service providers and **remote-working** has firmly become part of HR policies of the majority of companies.

To conclude, the CEE region **remains attractive** for Western and regional multinationals when they succeed in participating in the new developments and growth areas.

- 🔍 Introduction
- 🔍 Post-Pandemic Country Attractiveness Model (CAM)
- 🔍 COVID-19 Impact on CEE Businesses
- 🔍 COVID- 19 Impact by Industry
- 🔍 Conclusion

Since the 1990s, the COVID-19 pandemic is the second major shock that has drastic implications on global and regional business interactions.

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Introduction

- Late 1990s and early 2000s were seven years of boom with average annual growth rates of 6%.
- The "**going east**" **strategy** of Western multinationals was based on fast growth, skilled labor at lower costs and an investor-friendly business climate.
- The **Great Recession** that hit the countries hard in 2009 changed the view on the region:
 - The CEE region lost its status as a growth region
 - Western foreign direct investment (FDI) flows started to decline
- The **COVID-19 pandemic** is a new drastic external shock:
 - A unique combination of a public health crisis, global supply chain interruptions and collapse of demand
 - Difference to earlier crisis are due to global reach and simultaneous impact
 - For many CEE countries, the estimated declines in their economic outputs will be more severe than those in 2009.

So how attractive will CEE be for Western multinationals in the post-COVID-19 times? How are regional players in CEE affected by the crisis?

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Aims of the study

- Understand the impact of the COVID-19 pandemic on CEE economies and businesses and derive the effect of COVID-19 on CEE's attractiveness for foreign investors

Research questions

- How are the components of the macro environment (PESTLE) affected by the COVID-19 pandemic?
- How is the attractiveness of CEE (+ its individual countries) affected by the pandemic? Which major differences exist between countries/subregions and industries?
- How do businesses in CEE respond to these challenges?

Methodology

- Besides a general analysis of the effects of Covid-19 on the CEE region, we carried out two studies based on secondary data: an assessment of the post-pandemic attractiveness of the EU-CEE11 countries for foreign investors and a qualitative content analysis of the annual reports 2020 of selected regional players in CEE

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Overview

The impact of the COVID-19 pandemic on CEE economies and businesses

EU-CEE11 countries were harder hit by the pandemic than the other EU countries due to structurally weak and overwhelmed healthcare systems.

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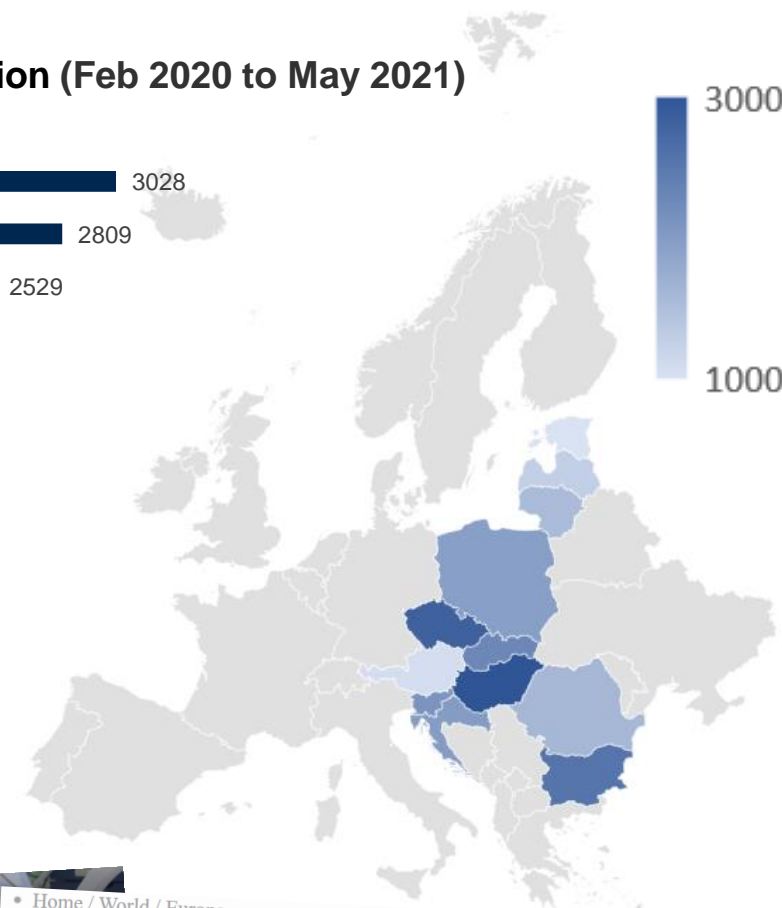
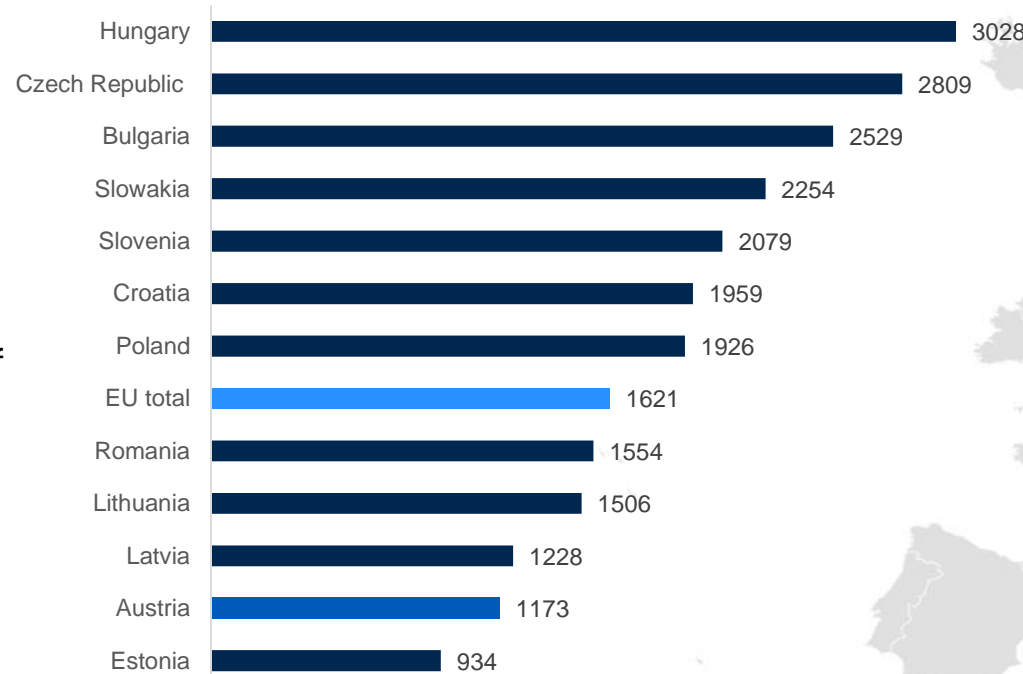
Conclusion

The pandemic has had a huge social impact, causing many deaths around the world. The news headlines were full of shocking numbers which were growing constantly.

COVID-19 cases began to emerge across the CEE region in February 2020, many of which were linked to travelers returning from Italy. After the summer vacations, **Hungary recorded the highest number** of people who died of COVID-19 per one million population.

Other CEE countries also had the highest number of deaths in history, which can be **explained by the significantly worse equipped healthcare systems in this region.**

Total deaths per 1 million of population (Feb 2020 to May 2021)



PANDEMIE

10.500 Corona-Tote in Österreich – ein Ausdruck politischen Versagens?

világ legmagasabb halálozási rátája alakult
magyarországon tegnap a koronavírus mi

Bulgaria suffering 2nd highest COVID-19 death rate in EU as health system overwhelmed

Xinhua | Updated: 2020-12-07 14:49

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In 2020, the EU-CEE11 experienced a decline in GDPs that is lower than for the EU-27, and GDPs are expected to rise again 2021.

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The pandemic has affected all EU-CEE11 countries economically. **In 2020, the GDPs have fallen substantially** but are **expected to rise again in 2021**.

Croatia was hit the hardest, with a **decline in GDP by 9%**. This is because the country's economy is highly reliant on tourism which declined due to the closing of the borders.

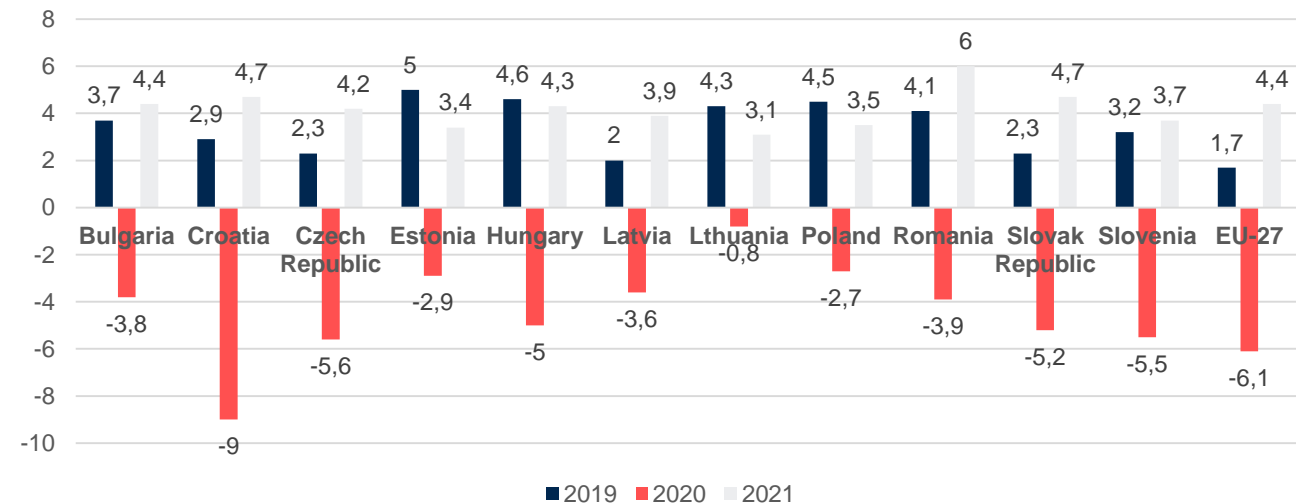
The other countries experienced a decline in GDP by around **3-6% on average**, while the **EU-27 GDP went down by 6%**.

The country the least affected is **Lithuania**, with a **fall in GDP by only 1%** as exports of industrial goods that make up a considerable part of Lithuania's economy were relatively stable.

All countries are expected to **experience a growth in GDP by 2-6%**, while the **EU-27 GDP will increase by 4,4%** in 2021.

Comparison of changes in GDP for EU-CEE11 between 2019 and 2021

(IMF World Economic Outlook, April 2021)



According to the wiiw, these factors will have the biggest influence on economic recovery:

- An increase in the **vaccination rates** will slow down the spread of the virus.
- The return to **exporting more goods and services** as the borders are gradually reopening.
- Strong **fiscal and monetary support** by local governments and EU.

Foreign investments in CEE were hit by COVID19 pandemic, but shrank less than the inflows on a global level.

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In 2020, global FDI flows represented only 1% of world GDP, their lowest level since 1999

Global FDI inflows fell by 46% from 2019(Q1-2) to 2020(Q1-2)

G20 countries were hit especially hard with a decrease of FDI inflow with a decrease of 80%

FDI inflow in EU-CEE fell by 35% in Q1+2 2020. Between the CEE-countries there was a big variety regarding the FDI inflow.

Western Balkan -8%

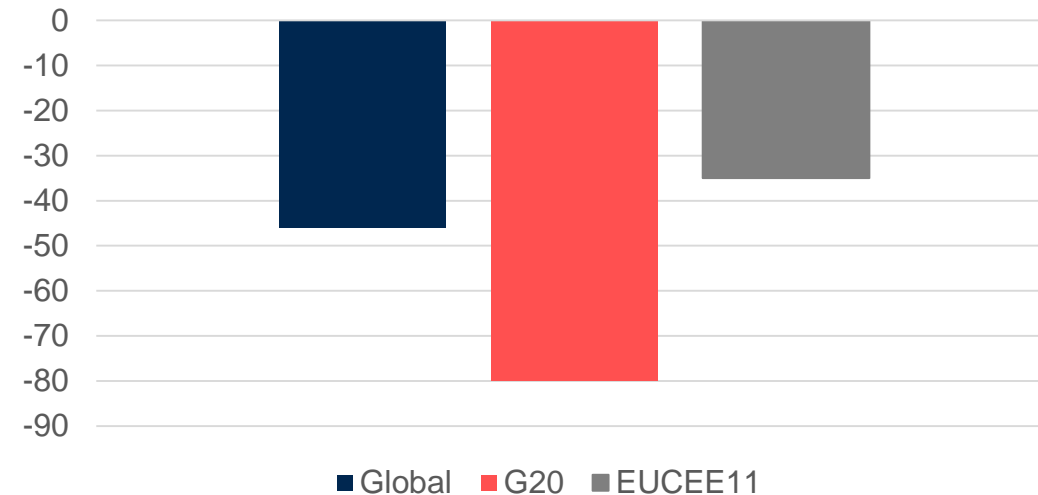
Lithuania -59% & Czech Republic -38%

Hungary & Estonia had a positive inflow

EU-CEE suffered less than average.

Their restructure process will be alongside their European partners due to the deep integration in European value chains

FDI inflow change Q1-2 2019/20 in %



Economists forecast that FDI inflows should **return to pre-COVID levels in about two years**. Both CEE's EU members and parts of the Western Balkans could **benefit from near-shoring of production** by major Western multinationals, as they **re-think their supply chains**

Post-Pandemic Country Attractiveness Model

Outlook on the post-pandemic attractiveness of the EU-CEE11 countries for foreign investors

Purpose of the model

The purpose of the model is to capture the **post-pandemic attractiveness of the EU-CEE11** countries for foreign investors in the **next 1-3 years**. Our model focuses on the environmental dynamics triggered by the COVID-19 pandemic and assesses which countries are profiting most from these developments. The focus areas are the economic recovery, EU funding, FDI openness, digital preparedness and institutional quality.

How did we design it?

The model is based on an environmental analysis (PESTEL) for all EU-CEE11 countries. We looked for developments induced by the COVID-19 pandemic in the six PESTEL domains and matched them with their relevance for foreign investors. We identified 10 impact areas in the **economic, political and technological** domains that play a role in the recovery of those economies and are affecting the FDI attractiveness of the countries. We selected indicators representing developments in those impact areas, estimated their outcome per country and transformed the estimates in a scoring model into a country ranking.

Our model does not replace a comprehensive classic country attractiveness model – it is designed to capture the **recovery potential** of the economies by showing how well prepared they are for benefiting from the recovery.

What is the effect of COVID-19 on CEE's attractiveness for foreign investors?

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Impact of
COVID-19 on
the CEE
business
environment

Economic

Political

Technological

Economic Recovery

Unemployment

EU Funding

Re- and Nearshoring

Indebtedness

Quality of Governance

Perceived Corruption

Pandemic Management

Digitalization Preparedness

E-Commerce

Attractiveness
of CEE
economies for
foreign
investors.

The Covid-19 impact is represented through ten different indicators.

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Covid Impact Areas	CAM Indicator	Explanation Indicator > Attractiveness	Measure	Source
Economic Recovery	Projected GDP growth	Higher projected GDP growth leads to higher attractiveness.	Average projected GDP growth of 2021 and 2022	Spring 2021 Economic Forecast - European Commission, 2021
Unemployment	Unemployment rate	Before Covid-19 many CEE countries were plagued by labour shortage. A higher unemployment rate means that new investment and business expansion are less likely hindered by workforce constraints.	Unemployment rate (most recent monthly rate)	Eurostat, 2021
EU Funding	EU recovery grants	Non-repayable grants mean an additional stimulus to the growth of the economy in the target sectors.	Grants as percentage of GDP 2020	Recovery Plan for Europe - European Commission, 2020
Tendency Towards Re- and Nearshoring	FDI Momentum and FDI Openness	Countries with a higher FDI momentum and a higher FDI openness have a better chance to attract new FDI.	Momentum: Change of FDI inward stock from 2015 to 2019. Openness: FDI inward stock, in % of GDP 2019	wiiw Handbook of Statistics 2020
Indebtedness	The share of public debt to GDP	The lower the share of public indebtedness the higher the fiscal flexibility for the government.	Public debt to GDP in % (2020 or 2021)	TradingEconomics.com

The selected indicators capture the growth momentum and related context factors mediating the effects

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Covid Impact Areas	CAM Indicator	Explanation Indicator > Attractiveness	Measure	Source
Quality of Governance	BTI Governance Index	A high quality of governance ensures the implementation of activities according to the publicly agreed upon goals.	BTI Governance Index 2020 (10=very good/1=failed)	BTI - Bertelsmann Transformation Index 2020
Perceived Corruption	Corruption Perception Index (CPI)	High perceived levels of public sector corruption undermine the recovery efforts and crisis responses of governments by the misuse of funds.	CPI 2020 score (100=very clean/0=highly corrupt)	Transparency International, 2020
Pandemic Management	Fiscal COVID Response: Additional Spending and Forgone Revenue in Response to the COVID-19 Pandemic	Higher spendings by the government to fight the pandemic reflect a higher commitment and better funded response to the crisis what makes investing in the country safer.	Fiscal spending as a percentage of 2020 GDP	IMF Fiscal Affairs Department, 2021
Digitalization Preparedness	IMD World Digital Competitiveness Ranking	A higher score leads to higher attractiveness as better digitally prepared countries can make better use of digitalization initiatives.	Scores of 2020 Ranking	IMD World Competitiveness Center, 2020
Importance of e-Commerce	E-Commerce Revenue	A higher share of e-commerce revenues of GDP reflects entrepreneurial activity and a higher acceptance by consumers and businesses of this new channel.	Expected revenue of e-commerce in relation to expected GDP 2021	Statista, 2020

Economic 63%

Economic recovery	20%
Unemployment	16%
EU funding	10%
Tendency towards re- and nearshoring	
FDI momentum	5%
FDI openness	5%
Indebtedness	7%

Political 25%

Quality of governance	12%
Perceived corruption	8%
Pandemic Management	5%

Technological 12%

Digitalization Preparedness	9%
Importance of e-commerce	3%

100%

Choice of weights

➤ Weights by dimension

First, we assigned weights to each dimension analyzed in the model. As the economic dimension has the strongest impact on investors' decisions, so it was assigned the highest weight (63%). The political dimension (25%) which gained in importance during the pandemic and the technological dimension representing the accelerated digitalization (12%) got lower weights.

➤ Weights by area of impact

Within each area of COVID impact we combined structural with pandemic related variables. For example, quality of governance and corruption are the main indicator for analyzing the political situation in the country, whereas the additional funds for fighting the negative effects represented by pandemic management is relevant in the short term.

Actual values per indicator and country before the transformation into estimates for the scoring model.

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Actual values per indicator and country

	BG	CZ	CRO	EST	HU	LAT	LITH	POL	ROM	SLK	SLV
Econ. Recovery: Av. projected GDP growth of 2021 and 2022	4,1%	3,9%	5,55%	3,9%	5,25%	4,75%	3,4%	4,7%	5%	5%	5%
Unemployment rate (latest 2021)	5,1%	3,2%	7,1%	6,8%	3,9%	8,7%	8,9%	3,1%	5,5%	7,4%	4,8%
EU grants as % of GDP 2020	10,39%	3,32%	12,78%	3,68%	5,32%	6,82%	4,51%	4,59%	6,51%	6,88%	3,89%
FDI momentum: Change of FDI inward stock from 2015 to 2019	15,99%	33,88%	17,23%	43,15%	10,66%	17,68%	25,95%	23,05%	36,56%	20,77%	37,86%
FDI Openness: FDI inward stock, in % of GDP 2019	75,7%	67,9%	48,4%	86,1%	59,8%	52,3%	38%	39,4%	39,5%	56,7%	33,1%
Indebtedness: Public debt to GDP 2020 in %	23,5%	38,1%	88,7%	18,2%	80,4%	43,5%	47,3%	57,5%	47,3%	60,6%	80,8%
Quality of governance: BTI Governance Index 2020	6,18	7,08	6,04	7,46	4,13	7	7,21	6,15	4,85	6,36	6,72
Perceived corruption: CPI 2020 score - Transparency International	44	54	47	75	44	57	60	56	44	49	60
Pandemic management: Fiscal spending as % of 2020 GDP	4,5%	5,4%	5,3%	3,6%	9,2%	8,7%	6,5%	7,8%	2,2%	4,4%	7,2%
Digitalization preparedness: IMD World Digital Competitiveness 2020	56.295	67.459	52.045	70.030	55.914	65.502	72.932	69.233	53.668	53.261	69.475
Expected revenue of e-commerce in relation to expected GDP 2021	1,2%	1,5%	1,4%	1,31%	1,05%	1,16%	1,54%	2,29%	1,05%	1,12%	1,01

Highest value per indicator

The Baltic states emerge as the most attractive target countries in post-pandemic times for foreign investors – with Latvia on top followed by Estonia and Lithuania.

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Scoring model with weighted results and ranking

	BG	CZ	CRO	EST	HU	LAT	LITH	POL	ROM	SLK	SLV
Economic recovery	1	0,8	1,2	0,8	1,2	1	0,8	1	1,2	1,2	1,2
Unemployment	0,8	0,48	1,12	0,96	0,48	1,28	1,28	0,48	0,8	1,12	0,64
EU funding	1	0,4	1	0,4	0,6	0,7	0,5	0,5	0,7	0,7	0,4
FDI momentum	0,3	0,4	0,3	0,45	0,25	0,3	0,4	0,35	0,45	0,35	0,45
FDI Openness	0,4	0,35	0,25	0,45	0,3	0,3	0,2	0,2	0,2	0,3	0,2
Indebtedness	0,7	0,63	0,28	0,7	0,28	0,56	0,56	0,49	0,56	0,42	0,28
Quality of governance	0,72	0,84	0,72	0,84	0,48	0,84	0,84	0,72	0,6	0,72	0,84
Perceived corruption	0,32	0,4	0,4	0,64	0,32	0,48	0,48	0,48	0,32	0,4	0,48
Pandemic management	0,15	0,15	0,15	0,1	0,3	0,3	0,2	0,25	0,05	0,1	0,25
Digitalization preparedness	0,54	0,63	0,54	0,63	0,54	0,63	0,72	0,63	0,54	0,54	0,63
Rise of e-commerce	0,12	0,18	0,15	0,15	0,12	0,12	0,18	0,24	0,12	0,12	0,12
Total score	6,05	5,26	6,11	6,12	4,87	6,51	6,16	5,34	5,54	5,97	5,49
Rank	5.	10.	4.	2.	11.	1.	3.	9.	8.	6.	7.

Highest scores per indicator (see transformation matrix in appendix)

The Baltic countries are most attractive for FDI in the post-pandemic recovery.

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Final Ranking

Rank	Country
1	Latvia
2	Lithuania
3	Estonia
4	Croatia
5	Bulgaria
6	Slovakia
7	Romania
8	Slovenia
9	Poland
10	Czech Republic
11	Hungary



Key Findings



The Baltic region of the CEE took the three first positions in the ranking due to high institutional quality, advanced digitalization and solid public finances. They would be in the best position to benefit from the developments triggered by the pandemic.



Smaller countries in the region seem to be more resistant to the effects of the Covid-19 pandemic.



Overall, the difference between leading Latvia (6,51) and last ranking Hungary (4,87) is not very large. The whole region shows a medium attractiveness for foreign investors.



Limitations

➤ Selective model

The model does not cover all PESTEL dimensions as indicators were hard to find or their relevance for FDI decisions was unclear or marginal.

➤ Use of proxy

Since the model uses proxy, it does not fully reflect the substance of certain areas (e.g., unemployment rate for labor shortage).

➤ Industry difference

Some industries might be benefitting from the COVID developments more than others. The general view does not apply to all industries in the same way, e.g., re-/nearshoring relates stronger to manufacturing, whereas EU recovery grants target healthcare, green/sustainable technology, digitalization, etc.

➤ Vaccination efforts

As the number of vaccinated people is changing continuously, we did not find it to be a reliable indicator/area of COVID impact.

The COVID-19 Impact on CEE Businesses and Industries

How were regional players in CEE affected by the crisis and what are their responses

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Purpose of the model

- Find out how industries and companies were affected by COVID-19 pandemic and how they replied

Research approach

- Qualitative content analysis of the annual reports 2020 of selected regional players
- Sample includes publicly listed firms in their industry with strong CEE presence (“regional players”)
- Three areas of analysis: performance, strategic and organizational handling of the crisis in 2020 and planned activities for 2021
- Activities were counted according to two activity lists encompassing functional and strategic measures taken to fight the immediate crisis in 2020 and the way out of the crisis

Limitations

- Only firms that had their annual reports 2020 published by 20th of May, 2021, were considered
- We restricted our analysis to data on activities which were presented in the annual report 2020
- Not all documented activities can be clearly attributed to crisis management (e.g., formal closure of an acquisition that was initiated before 2020)

The nine analysed industries are: oil & gas, banking, insurance, grocery & general retailers, software, pharma, manufacturing, telecom and hospitality.




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No.	Industry	Companies	Headquarters location
1	Oil & Gas	   	Croatia, Austria, Hungary, Poland
2	Banking	     	Romania, Austria, Hungary, Poland
3	Insurance	  	Austria, Poland
4	Retailers	      	Poland, Latvia, Lithuania, Austria
5	Software	    	Czech Republic, Poland, Slovakia, Bulgaria

Based on the defined industries, 49 CEE regional players were selected as a basis for conducting analyses on COVID-19 effects on businesses in CEE and their response.

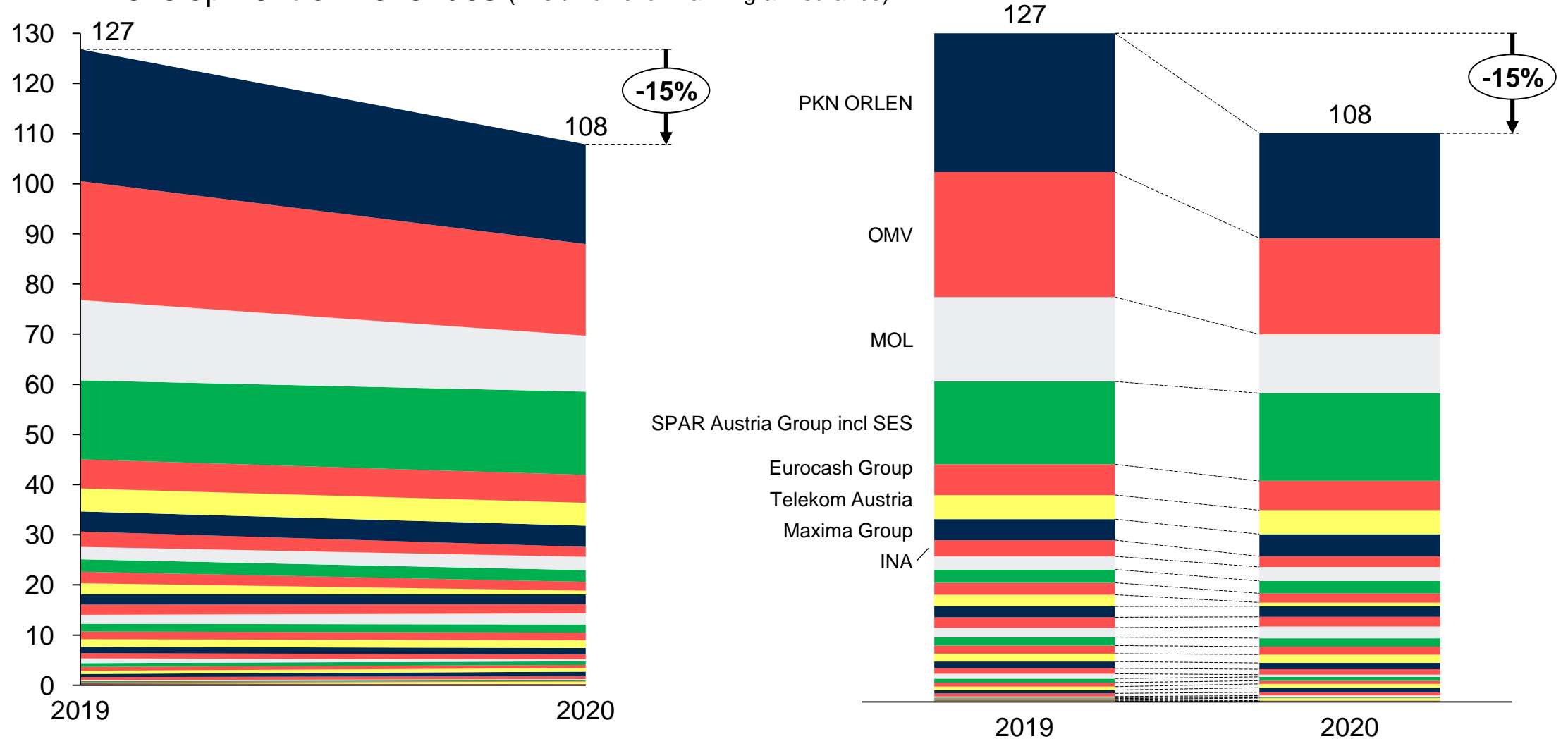


No.	Industry	Companies	Countries
6	Pharma	     	Romania, Hungary, Slovakia, Bulgaria, Czech Republic
7	Manufacturing	        	Croatia, Poland, Czech Republic, Lithuania, Bulgaria, Hungary
8	Telekom	     	Czech Republic, Croatia, Hungary, Poland, Austria
9	Hospitality	  	Croatia, Estonia

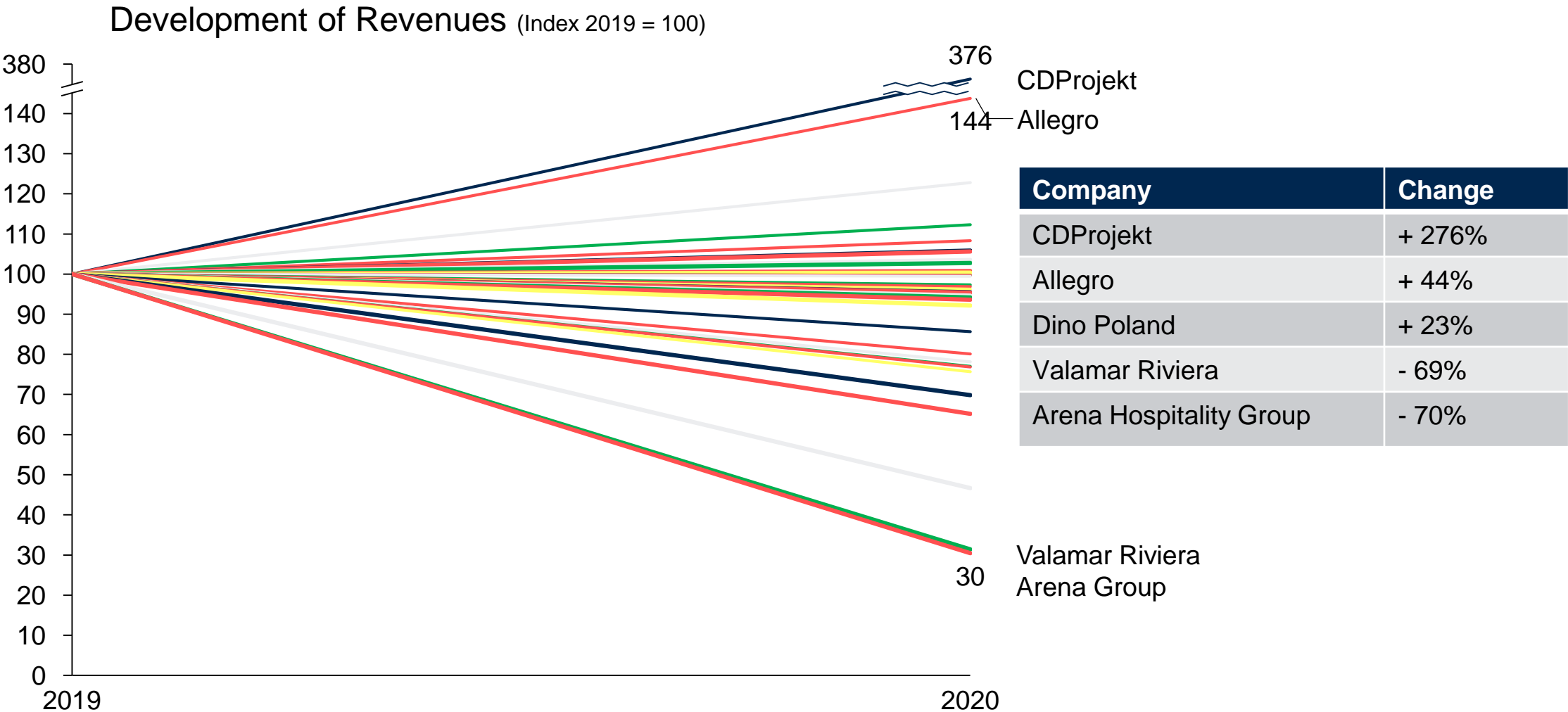
Across the different industries, the overall revenues decreased during the pandemic.



Development of Revenues (in € billion excl. Banking & Insurance)



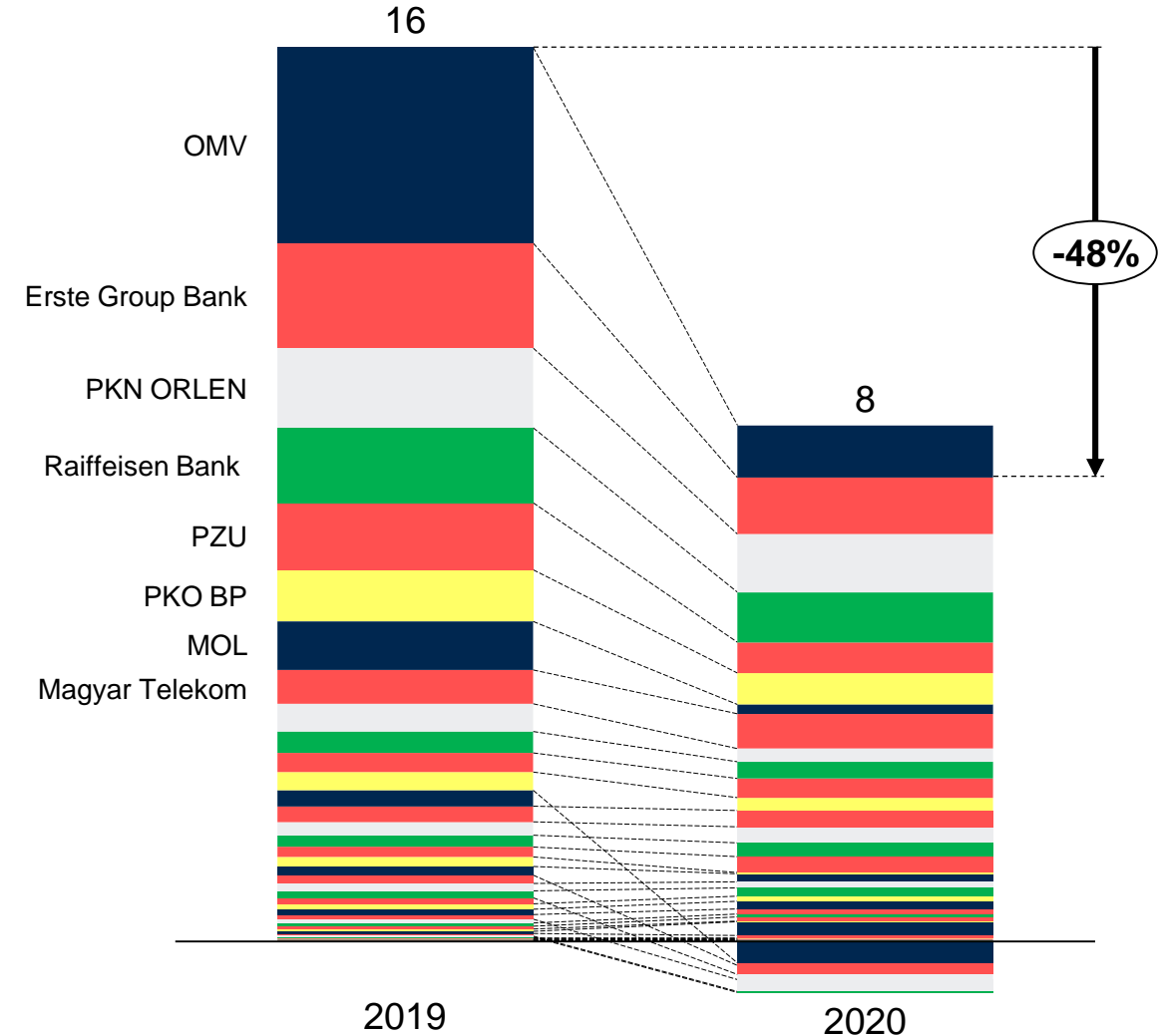
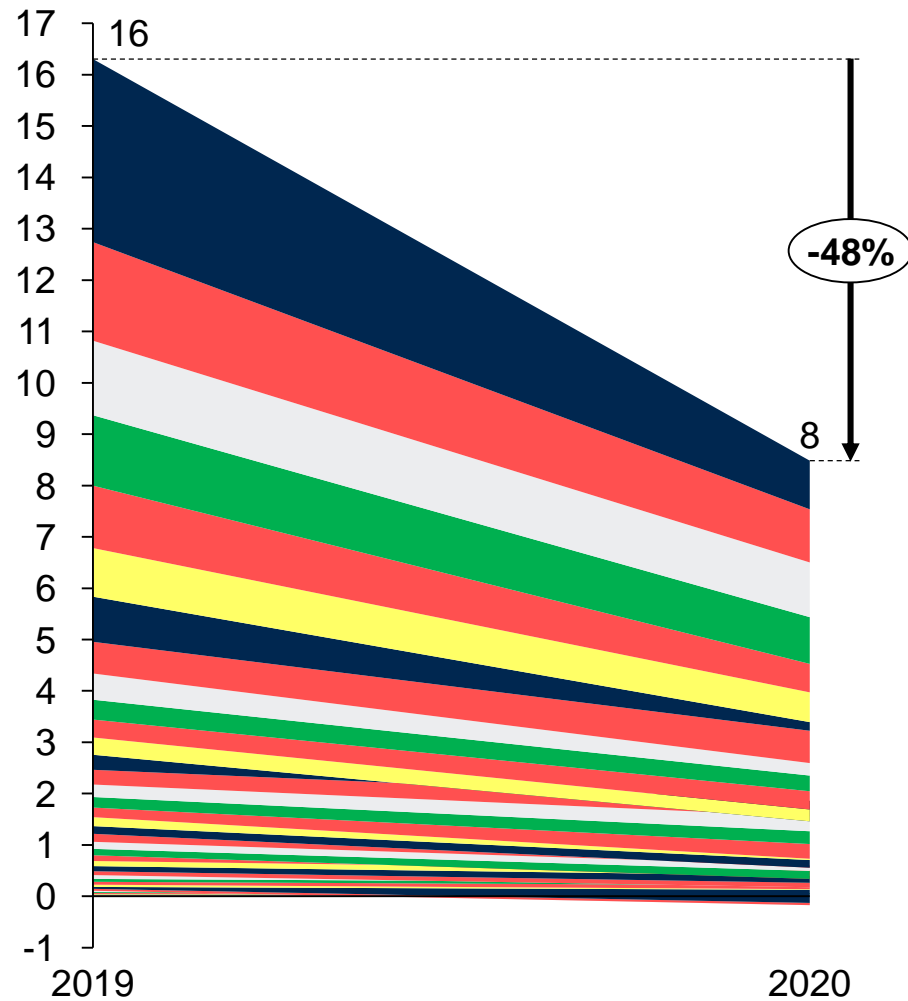
However, looking into more detail, the change of revenues heavily depends on the industry and internal developments.



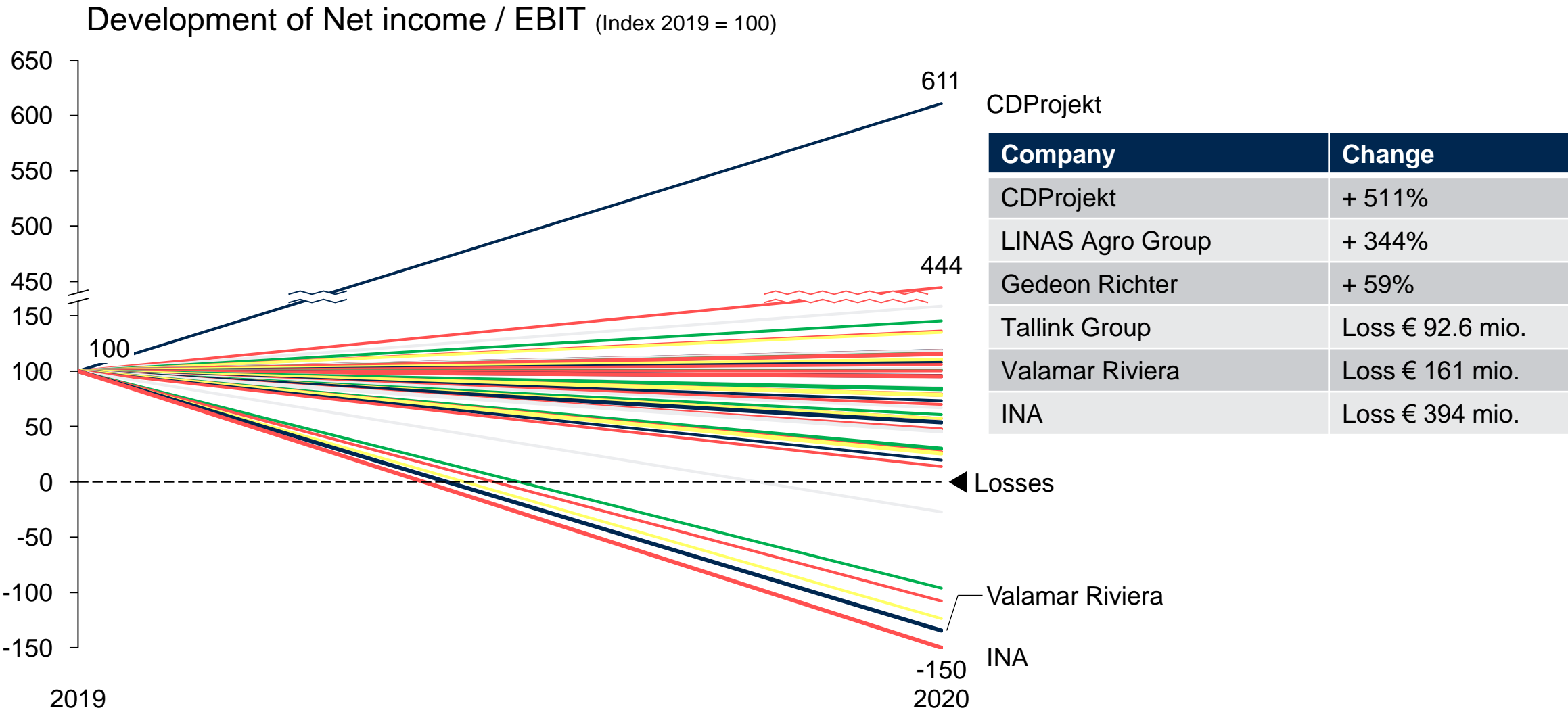
The development of Net income / EBIT decreased significantly during the pandemic - some firms even ended in negative territory.



Development of Net income / EBIT (in € billion)



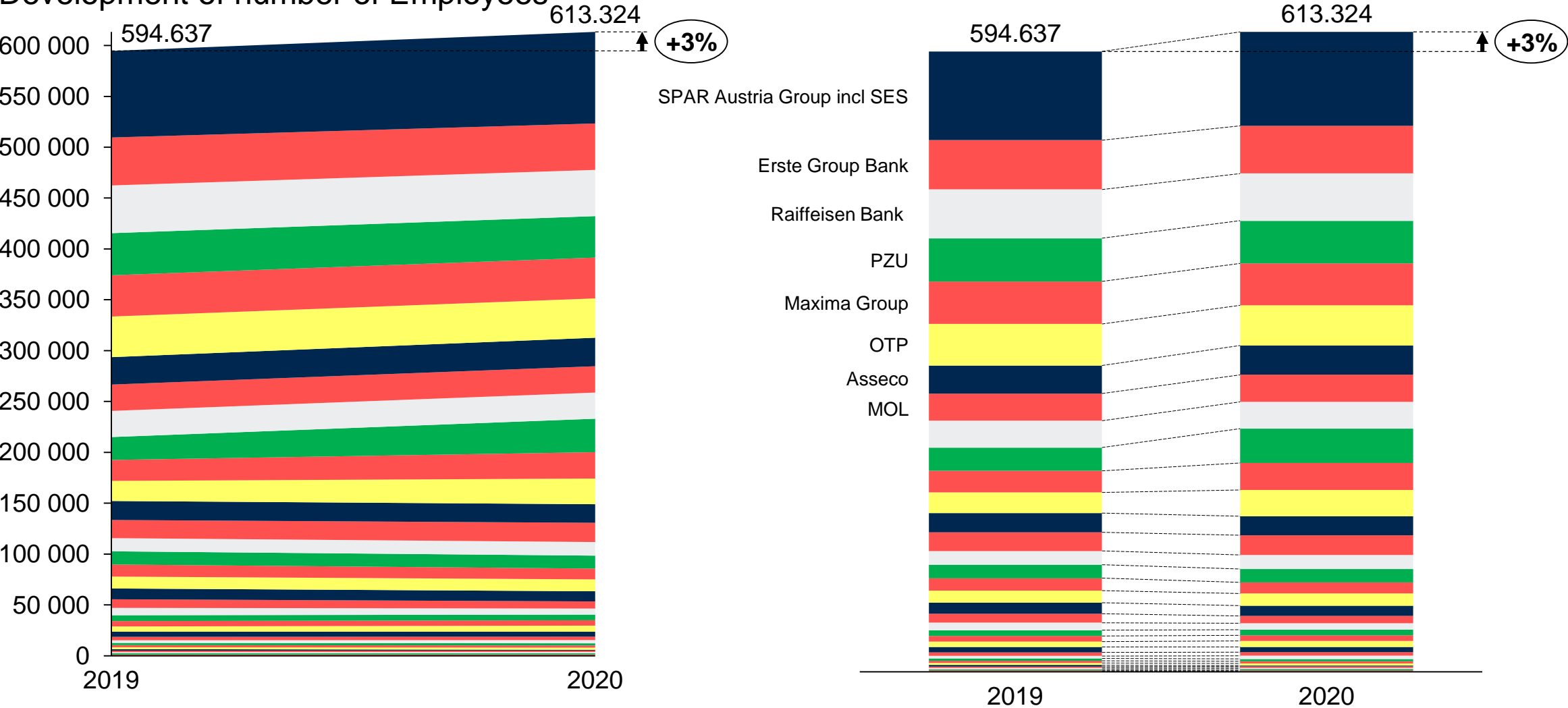
Profitability decreases are heavily hitting the hospitality industry, whereby the software industry is reporting huge gains.



Across all industries the number of employees slightly increased during the pandemic.



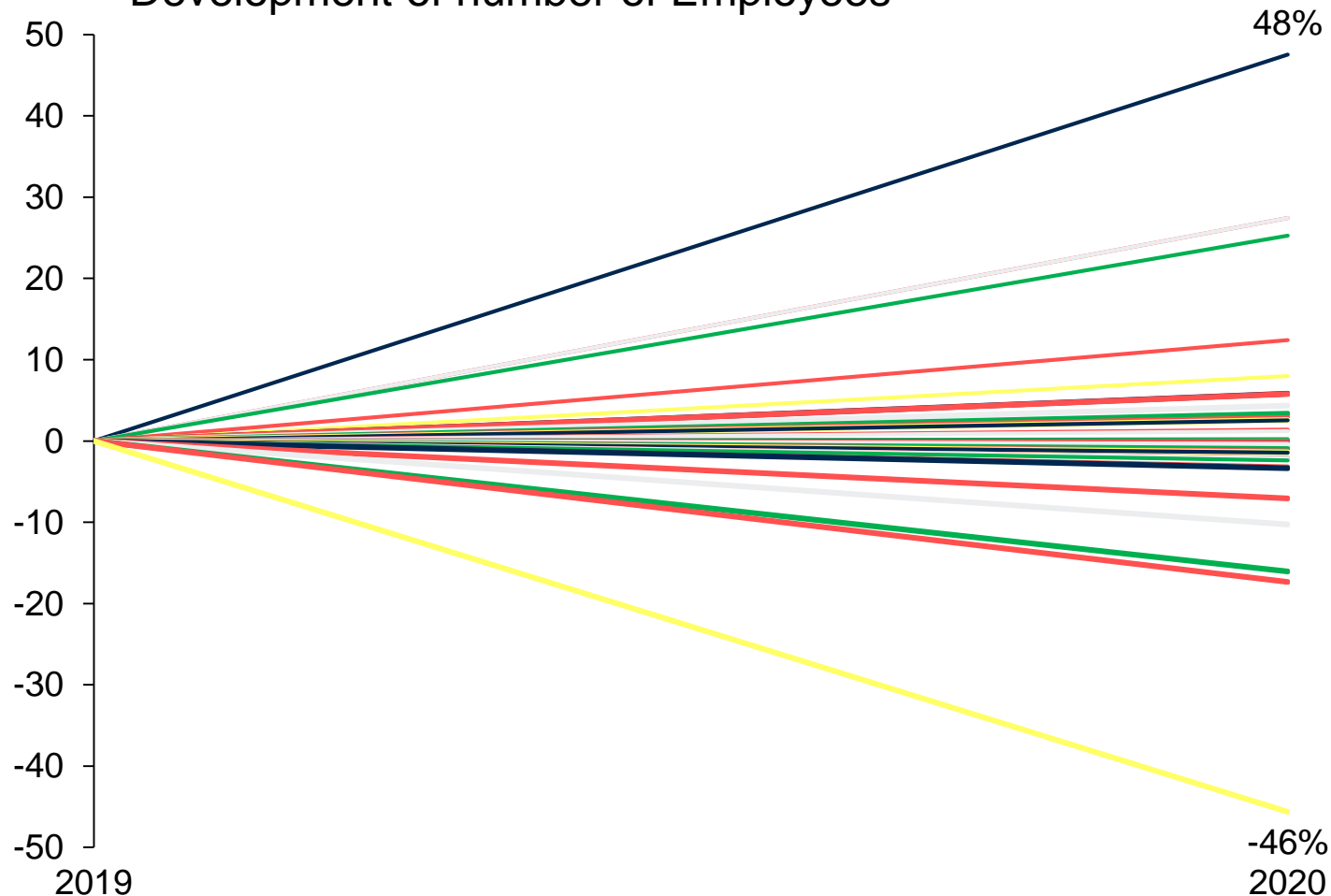
Development of number of Employees



Within industries, firms in the hospitality sector had the highest reductions in workforce.



Development of number of Employees



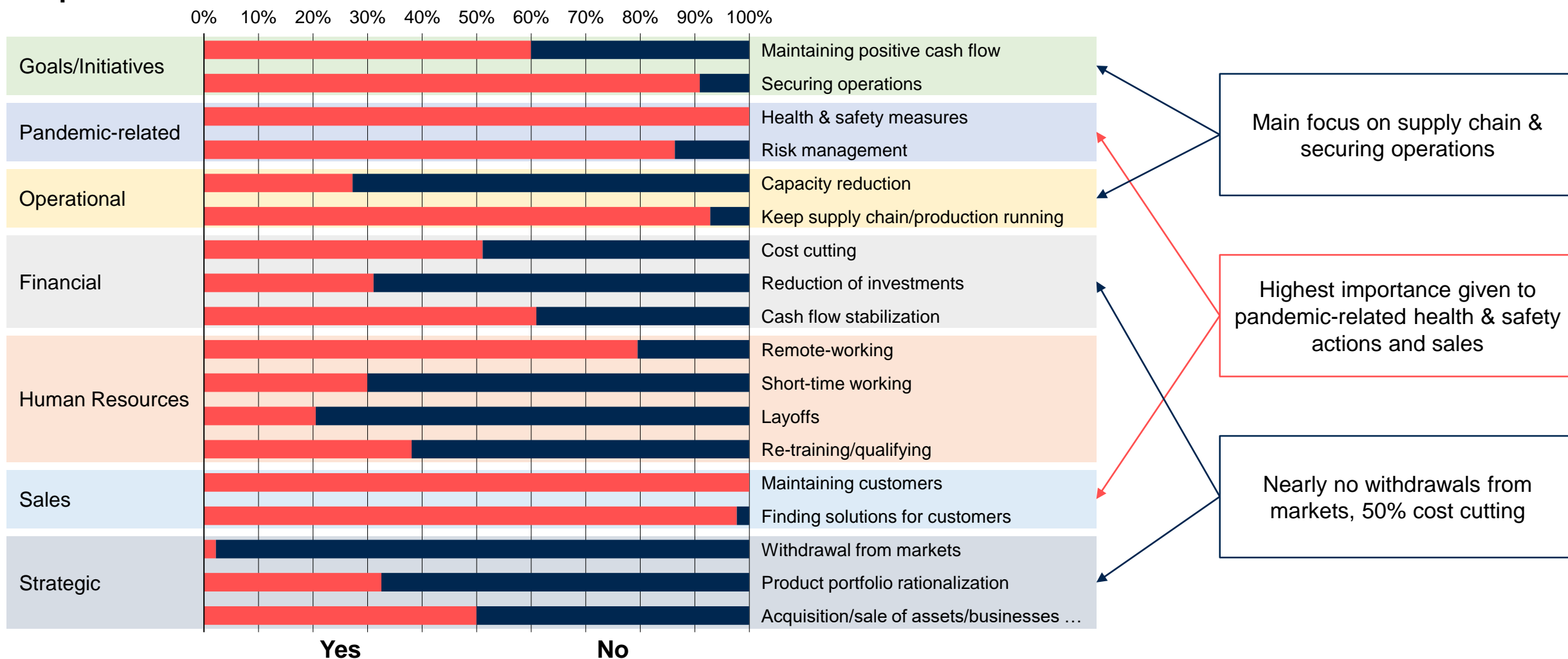
Company	Change
PKN ORLEN	+ 48%
OMV	+ 27%
Allegro	+ 27%
Tallink Group	- 16%
Magyar Telekom	- 17%
Arena Hospitality Group	- 46%

Arena Hospitality Group

In 2020, CEE regional players mainly responded to the crisis with sales, health and safety measures and tried to keep up operations.



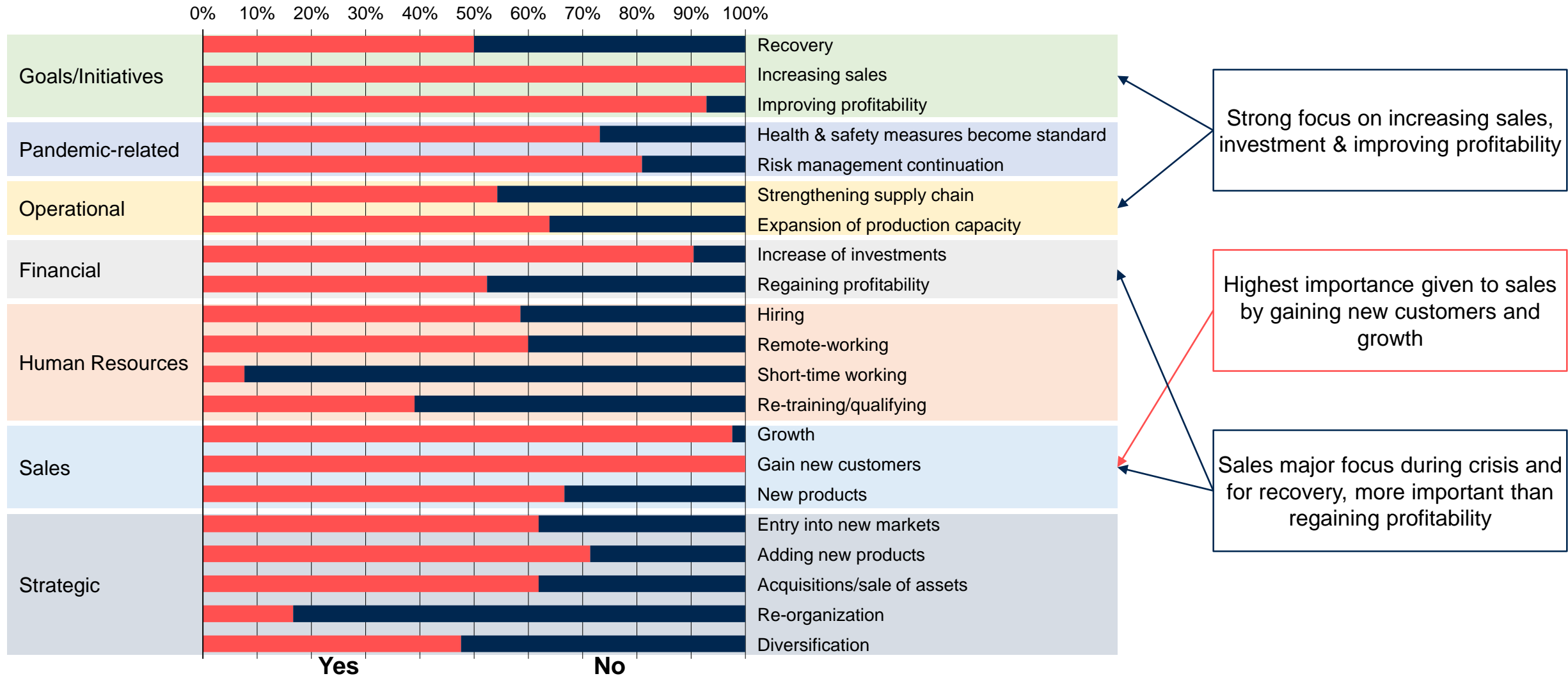
Responses to crisis in 2020



For 2021, sales, investments and increasing profitability are major goals of CEE regional players.



Planned activities in 2021



A breakdown into industries shall allow for understanding specificities and deviations from the overall CEE sample trend.

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Purpose of the following industry breakdown

- The industry breakdown of CEE regional players allows for an investigation of industry-related pandemic-consequences and highlights industry-specific responses and planned actions

How are the slides structured

- The following slides analyse selected CEE regional players as per their industry
- First, the change of revenues, net income/EBIT and number of employees from 2019 to 2020 are given
- Second, a relative comparison is made with the overall industry outcomes in terms of responses to crisis in 2020 and planned activities for 2021
- The text boxes on the right side give further information, following the annual reports 2020 of the companies listed per their logos above

Where does the data come from

- YoY change 2019-20: ORBIS, financial reports
- Crisis responses 2020 and planned activities 2021: company annual reports 2020

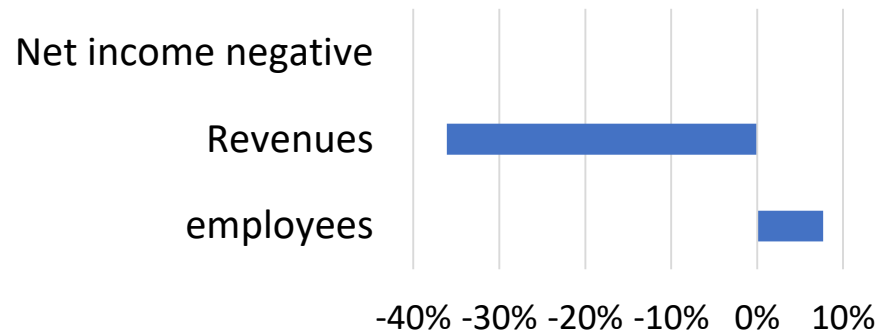
How to read the statistics offered in the boxes

- Performance data reflect YoY change 2019-20
- The highest positive and negative deviations in percentage-points from the average of measures taken of the whole sample were picked

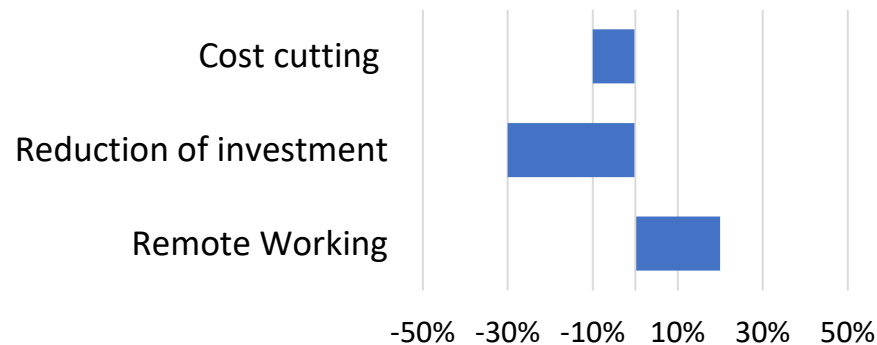
Responses to crisis 2020



Change 2019-2020



Deviation to overall trend



The revenue in 2020 was expected to be less than it turned out to be, there was a huge decrease which is, compared to all the restrictions in this sector, less than experts predicted. The results were expected to mark the low point of what has already been touted as potentially the worst year in the history of global oil markets. The industry had to rethink their business and start responding to the new needs of the population as well as the European Climate Agreements. Companies responded to fuel sales declines with measures such as adapting the schedule and accelerating scheduled maintenance shutdowns and eliminating imports of diesel oil. While several industries suffered in human-resources perspectives, the oil and gas industry underwent significant growth. They went mostly back to presence-working and due to their business re-shifting they are hiring a lot. Most companies developed emergency action plans to ensure the continuity of operations of critical infrastructure and the provision of key services. The higher net income in 2020 resulted from depreciation and amortization. Companies had to cut their costs and their investments. All numbers displayed are the averages of these companies.

Opening

CAM

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Planned activities 2021

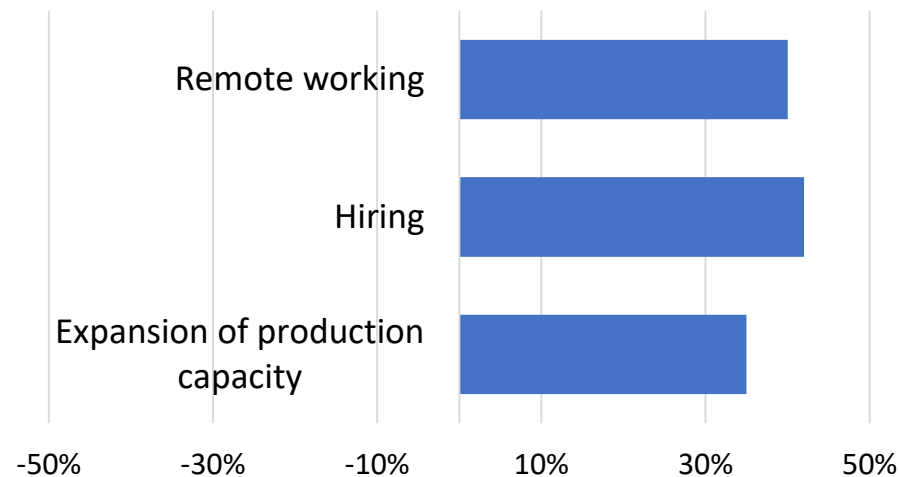
INA

OMV

MOL

ORLEN

Deviation to overall trend



The devastating economic impact of the COVID-19 outbreak has prompted energy majors to slash shareholder distributions, rack up increasing levels of debt, and sell or write-down the value of their assets.

Oil and Gas companies are re-shifting their business into new promising segments, including hydrogen, recycling and biofuels, new mobility, renewable energy services. Moreover, they aim to strengthen retail network and expansion of non-fuel segment and implement new management models and invest in talent and human capital.

*“The key direction is identified around diversification into **renewable energy** business and **advanced petrochemicals** across specialty products and recycling, driven by scaling of capacities and maximized profits.”*
(OMV Annual Report 2020)

OMV

The insurance industry has not escaped the pandemics impact but responded quickly to the crisis.

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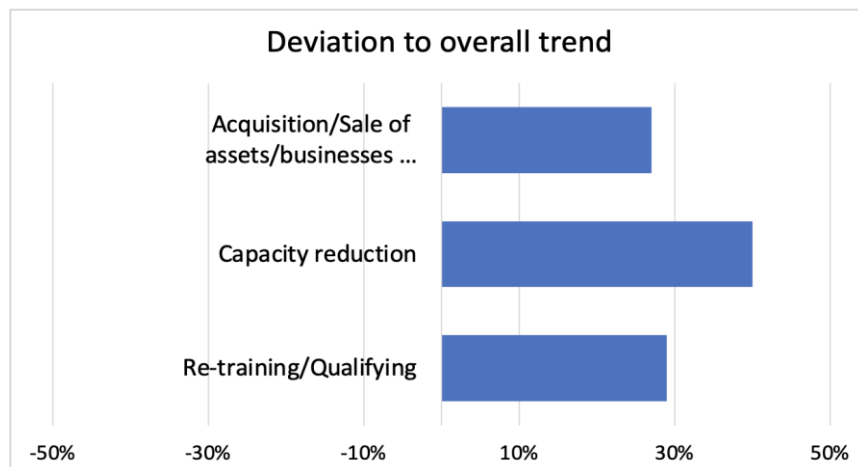
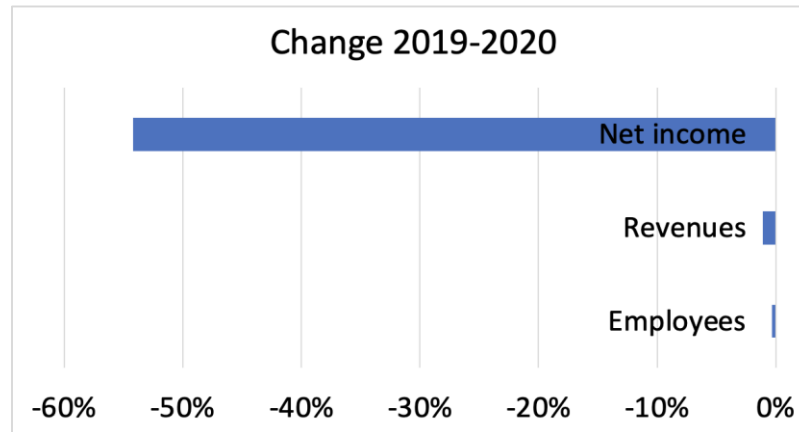
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COVID-19 Business Impact

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Responses to crisis 2020



Even though the insurance industry is in general well prepared for major loss events such as pandemics could be, the financial impacts take time to play-out and are insurance-specific as they depend on the products and types of coverage offered by the companies. As the pandemic crisis had a severe impact on certain types of businesses, such as travel and events, losses from these may become significant. On the other hand, other types increased or remained stable such as home related insurance.

The most important concern for insurance companies is to focus on a good functioning organization as the employees are required to work remotely to support customers and business operation in general even when the office building is not available. In all reviewed companies there is a huge focus on digitalization. New digital processes were established, both business internal and external.

Regarding the CEE region, shares increased. There was a significant rise in shares of CEE business in 2020, compared to the previous year (2019). Two of the three examined companies extended their shares of CEE business.

The crisis brought several challenges to the insurance sector but also a lot of new opportunities.

Opening

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COVID-19 Business Impact

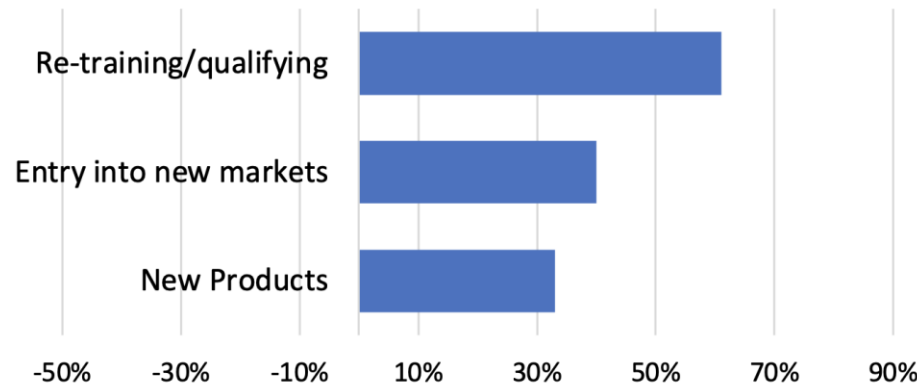
Impact by Industry

Conclusion

Planned activities 2021



Deviation to overall trend



The focus of the insurance sector is to pursue further rapid development, seize new opportunities and conquer new markets in CEE. Further development of digitalization and green investment are also mentioned by all companies.

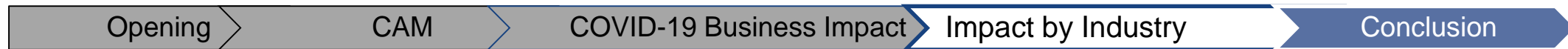
HR stays an important function post crisis. While short-time-working is planned to be ended, re-training and further education offers will be expanded in all companies.

“ We use our **experience, know-how and diversity** to move closer to our customers...”

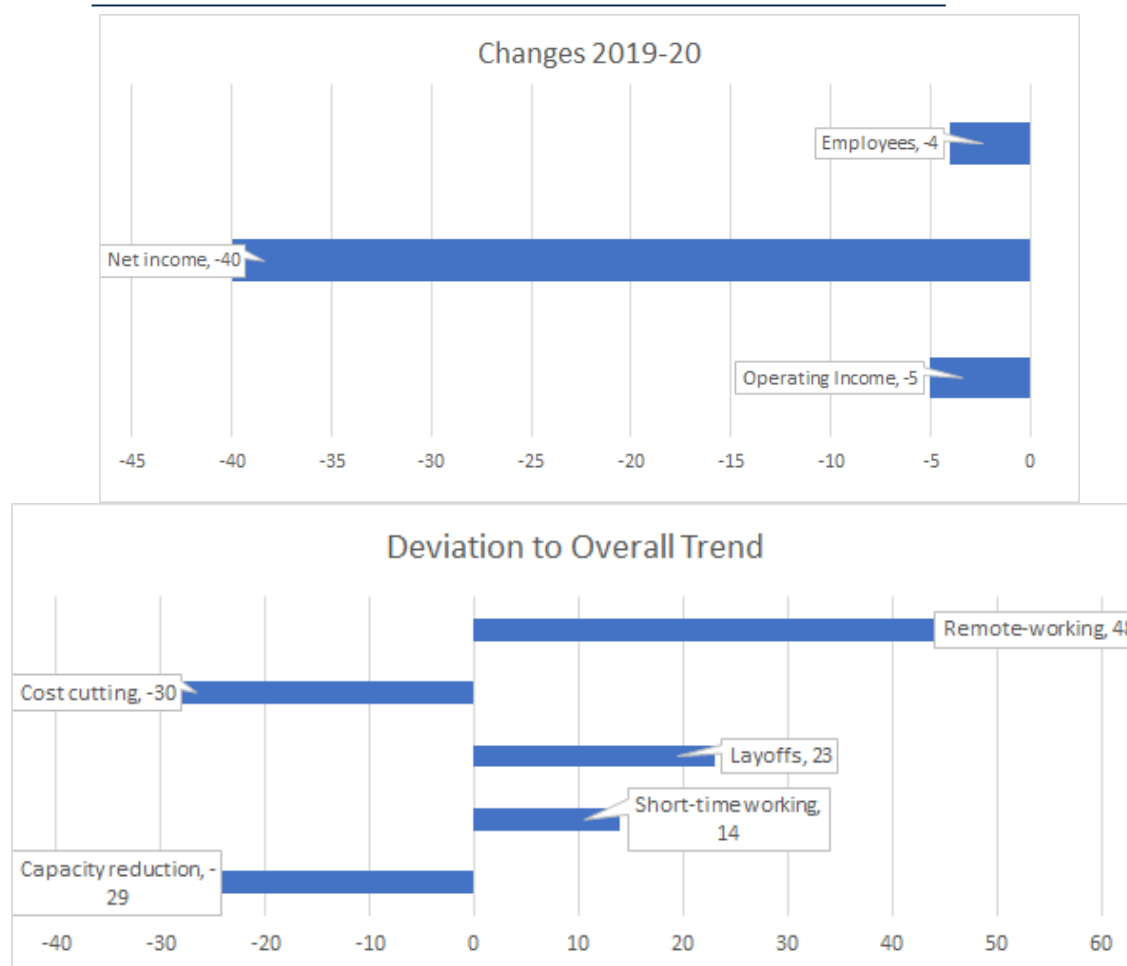


(VIG Annual Report 2020)

The banking sector had to face a decrease in operating- and net income, thus, employee numbers were declining as well.



Responses to crisis 2020



From 2019 to 2020, the operating income in the banking sector slightly decreased. The Financial Crisis of 2007-09 had served as a lesson for banks to improve their resilience. In 2020, the net income was almost halved but they did not report losses. The decrease in the employment rate from 2019 to 2020 resulted from a lack of need for staff and financing opportunities.

In response to the crisis 2020, the focus was on increasing health and safety measures and carefully managing risks. On average, there was a smaller cut in costs and reduction of capacity than in the overall group. Home office was implemented without reducing working hours although short-time working was expanded too. Training was partially offered to improve qualifications. However, 4% of employees were layed off. Additionally, it came to a withdrawal from certain markets.

The COVID-19 crisis made banks increase their risk management capabilities and cut costs, however in the future they are planning to enter new markets and increase their product range.

Opening

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Bank Polski

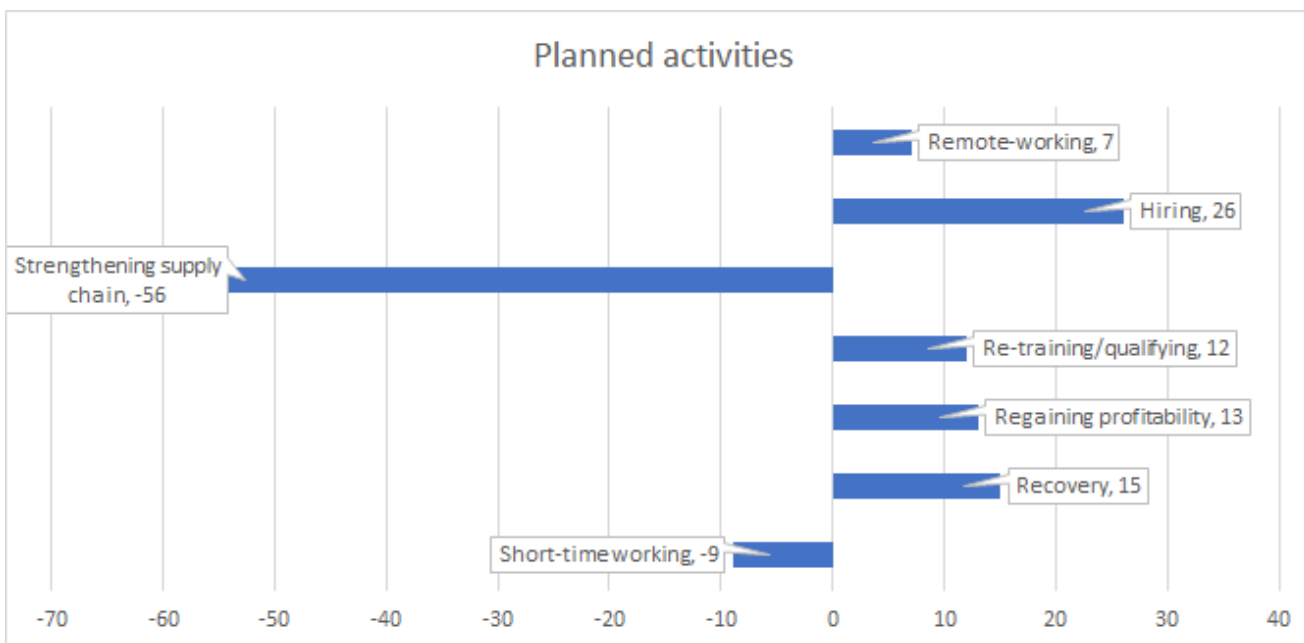


Raiffeisen
BANK



Bank Pekao

Planned activities

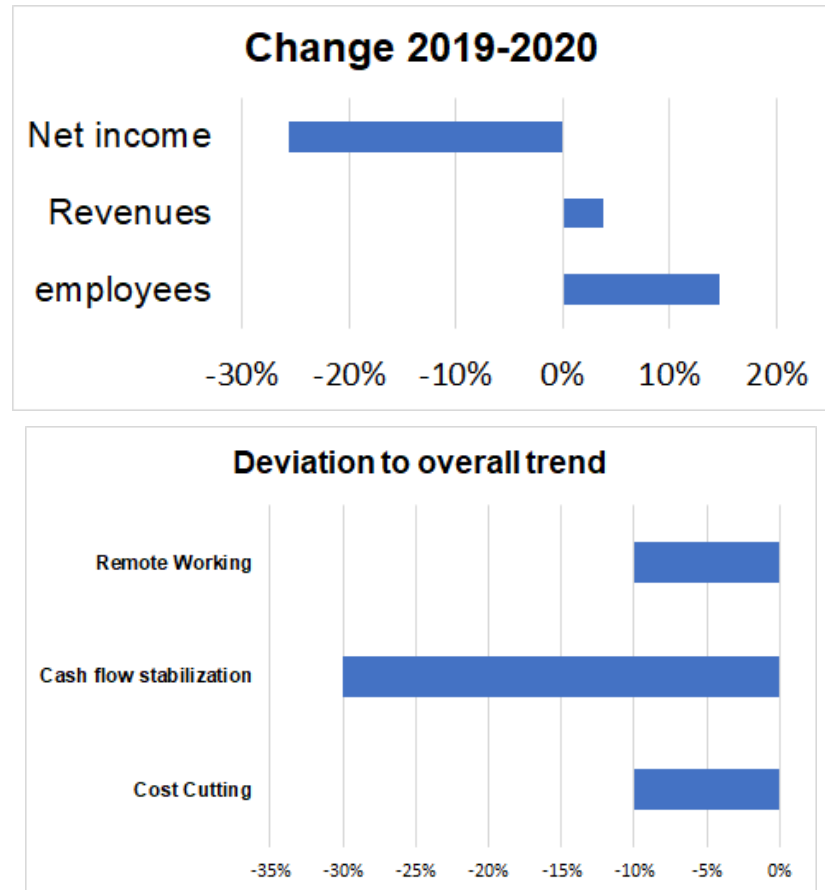


In 2021, standardization was a priority in almost all banks. Hiring will come back strong. Remote working is here to stay. Working hours went back to regular, while additional trainings were offered. There was the aspiration to grow, improve profitability, enter new markets and launch new products.

*“Erste Group’s goal for 2021 is to **increase net profit**. [...] In addition, Erste Group will continue to **invest in IT in 2021 and thus strengthen its competitive position**.” (Erste Group Bank AG Annual Report 2020)*



Responses to crisis 2020



Overall, retailers can be considered as winners of the crisis, especially grocery retailers since they were not severely hit by the crisis. Whereas general retailers suffered from a loss of revenue, many of them shifted their business more towards online shopping and seized the opportunity to digitalize.

Retailers implemented much less measures such as cash flow stabilization, remote working and cost cutting compared to other industries.

Opening

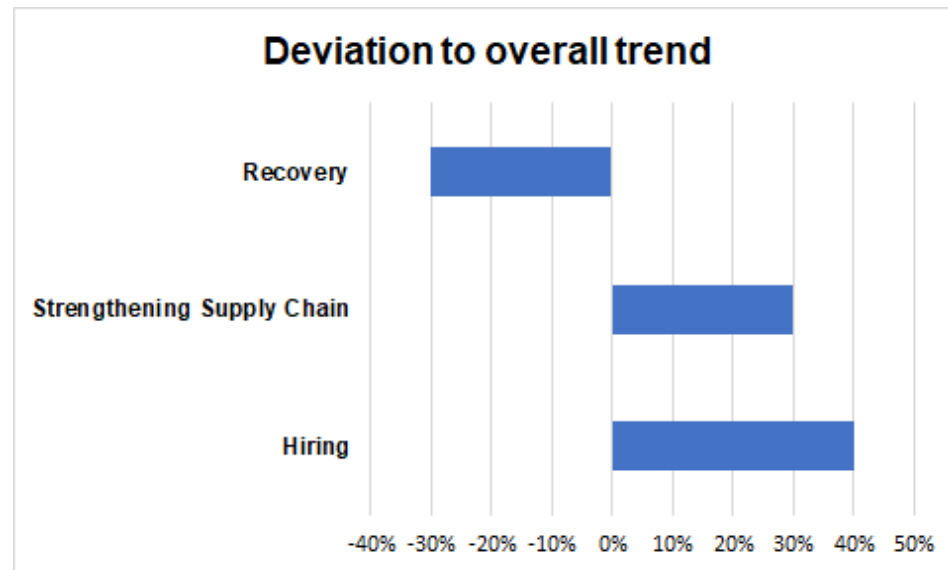
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COVID-19 Business Impact

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Planned activities 2021



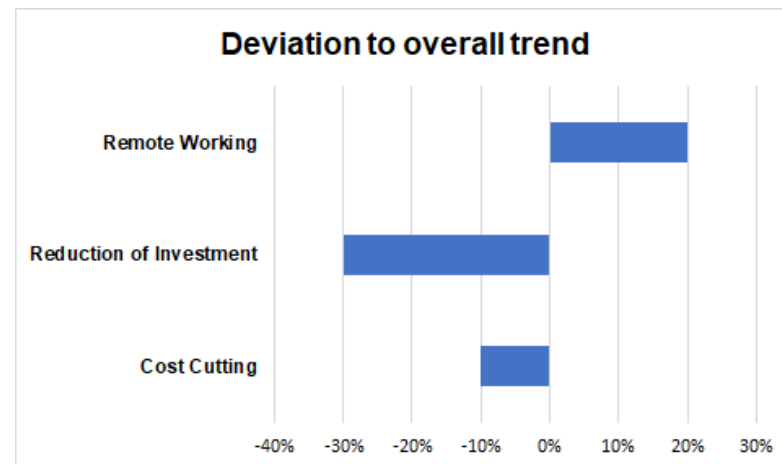
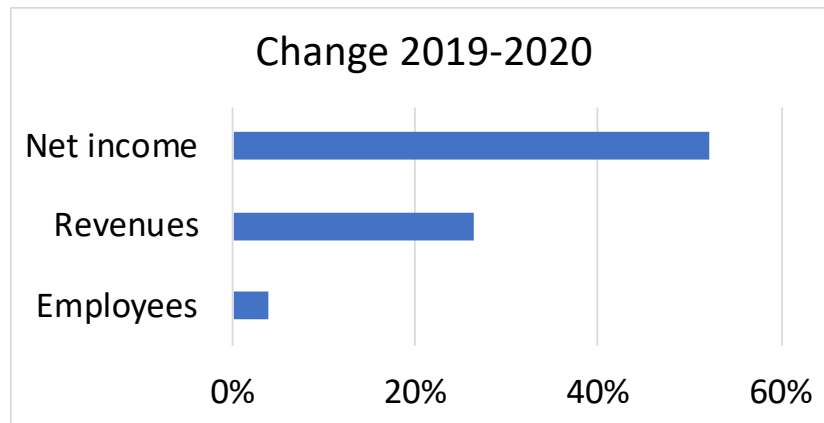
The goals for the majority of the companies were securing operations and keeping supply chains and production running. Recovery was not a goal for the majority of companies since the Pandemic did not hit the retail industry that much. All the examined companies in the industry implemented pandemic related measures and sales measures (maintaining customers, finding solutions for customers).

The human resources measures differ from company to company in the industry, however, short-time working to reduce costs was unnecessary, whereas the hiring of new employees gained traction.

"Please be ensured that we have adopted similar priorities for the year 2021, entering it **full of energy and ambitious goals.**"

LPP (Annual Report 2020)

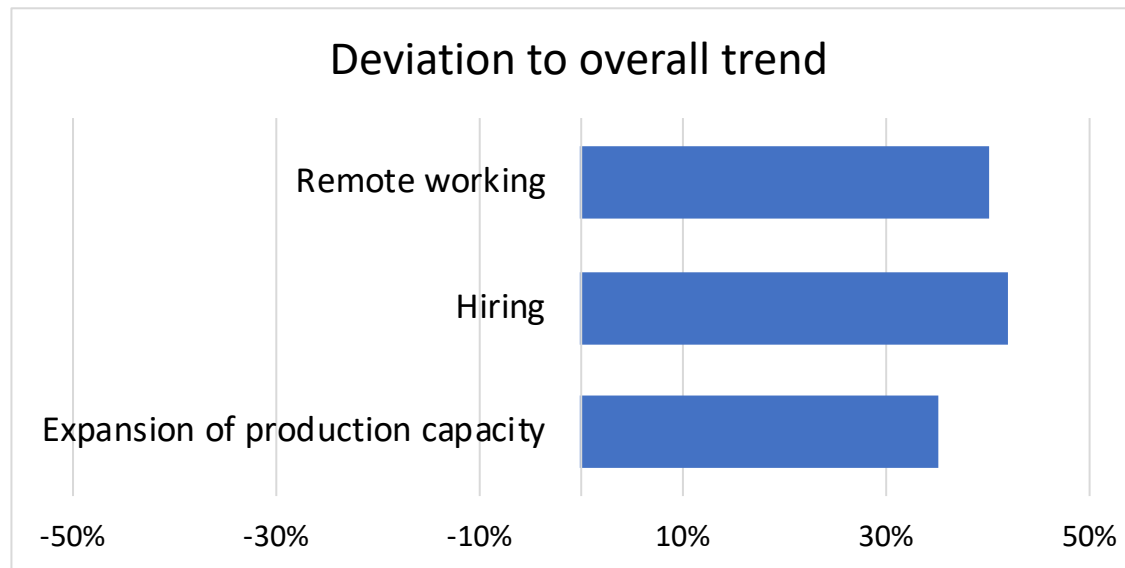
Responses to crisis 2020



While several industries faced declines in revenues and profitability and had to layoff staff, the software industry underwent significant growth. Yet this growth led to critical organizational challenges. Not only the increase in manpower, but also the positive development in net profit alongside revenues is remarkable in this industry.

Most noticeable is the example of the CD Projekt Group, which net profits increased from €41m to €250m. Alongside CD Projekt also Avast was able to increase its net profits to €170m from €126m. Comparing the statements of software companies with the statements of all observed regional players, one can witness a deviation in the other direction in cost cutting and investment reduction, while remote working plans became more important. Sirma Group and Comarch did not release their annual reports yet, so data of these companies has been left out.

Planned activities 2021



COMARCH

ASSECO



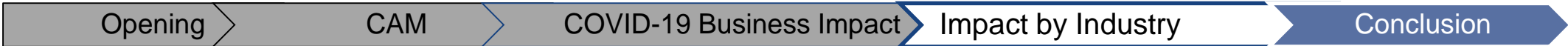
avast®

The COVID-19 pandemic has further fuelled digitization. As a result, the software industry benefited in the last year and will benefit from this pandemic in the future. The corporations anticipate a growing demand: 100% of software companies are planning to hire additional personnel staff. i.e. 42% more than the overall average of companies. Moreover, on average, 35% more companies plan to expand their production capacity in the next year compared to other industries. Lastly, remote work is here to stay in this industry: 40% more firms than in other industries plan to continue with remote working after the pandemic.

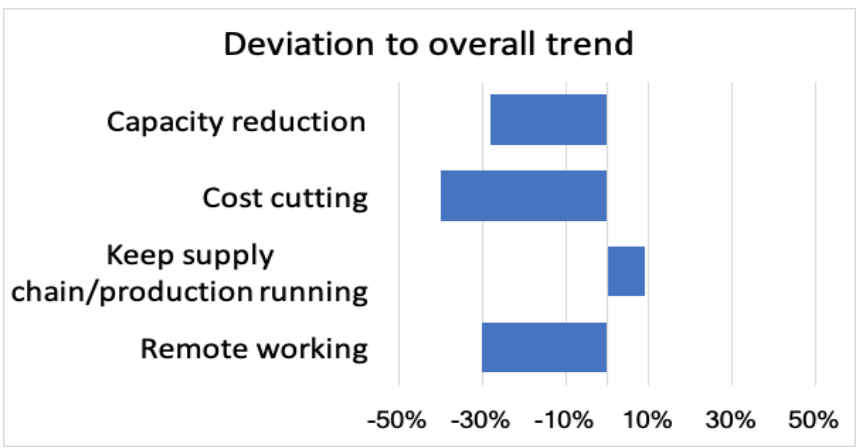
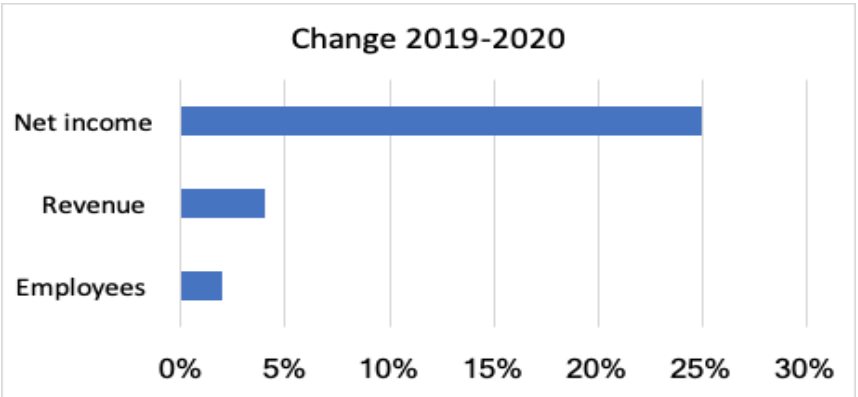
*“Our plans for 2021 are to **continue to invest in skills and innovation** to meet our ambitions and further **grow both our market share and scope.**” (Avast Annual Report 2020)*



In 2020, the pharma industry saw a rising trend in their net income, facilitated by rising demand for critical medical products and increased capacities to ensure security of supply.



Responses to crisis 2020



Disclaimer: Zentiva was removed from the financial analysis due to the lack of 2020 data.



The pharma industry has seen a steep rise in its net income/EBIT from 2019 to 2020 and growth in revenue and employee numbers.

The main issue the industry had to face was the rising demand of critical medical products, for instance, in the market of pain killers. As such, each company kept its operation running and its supply chain stable throughout the pandemic, while increasing capacities instead of reducing them. All companies were prioritizing their customers and trying to find viable solutions for them to tackle the issue of the constantly rising demand.

When it comes to differences within the industry, there is a slight divergence in financial measures, with only one company (Biofarm S.A.) reporting on cost-cutting. Consequently, the deviation to overall trend across all industries is significant. In the HR and Goals/Initiatives dimensions, vivid differences were observed, with only 50% of companies shifting to remote-working as increased capacities required workforce on sites to ensure ongoing production and supply chain running.

From 2021 and onwards, pharma companies plan to grow sales and the customer base alongside increasing investments into R&D and adding new products to the portfolio.

Opening

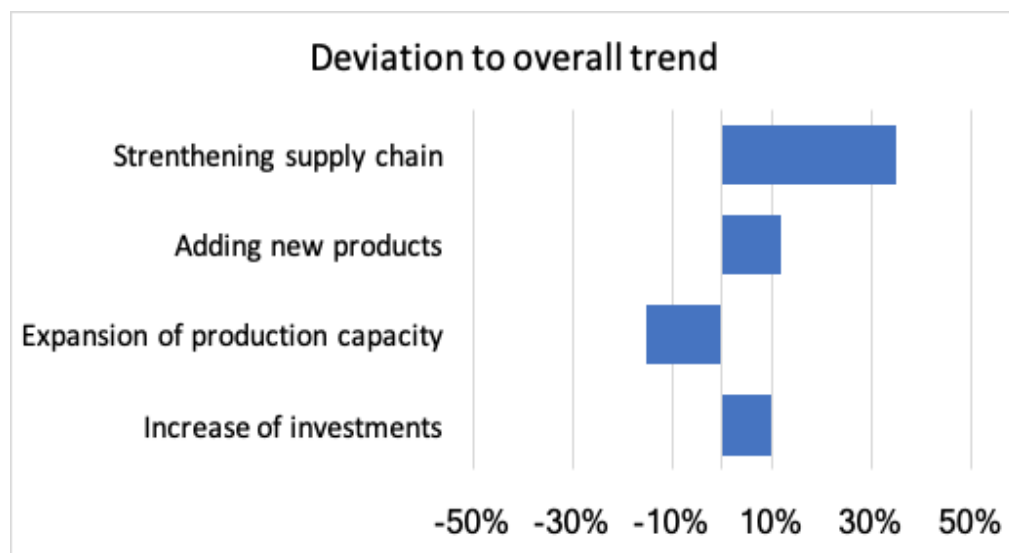
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GEDEON RICHTER

ZENTIVA

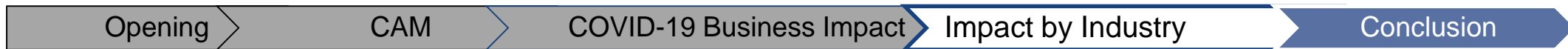
COVID-19 pandemic reinforced strategic importance of pharmaceutical industry in terms of supplying critical medical products and supporting the government in addressing challenges of healthcare system in the CEE region.

In their post-pandemic action plans, pharmaceutical companies outline increase of investments into research & development and growth by adding new products to the product portfolio. Besides, improving supply chain resilience will become key for the companies in the region, which is deviating from the overall trend across all analysed industries.

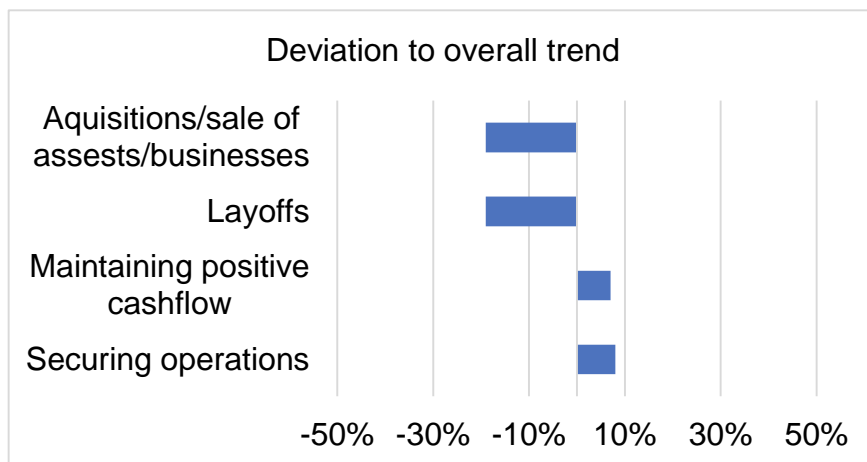
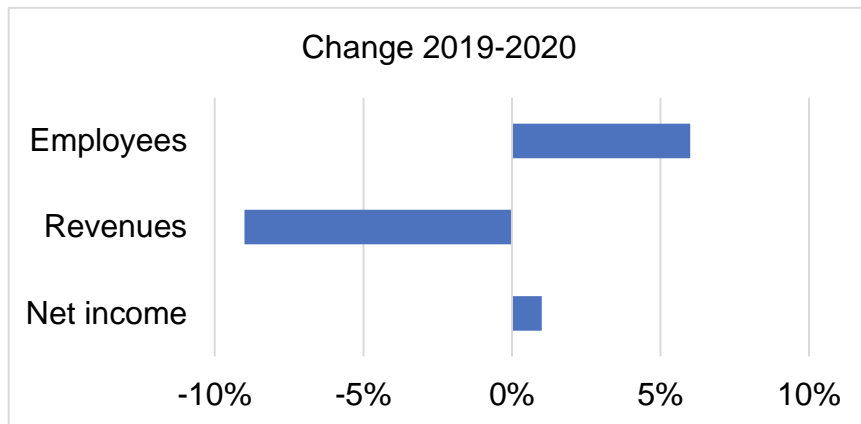
*"...In line with our strategic guidelines until 2024, we plan to allocate **up to 10%** of our annual revenue for **R&D** expenses and ensure growth through acquisitions when interesting target companies become available .."*

(KRKA Strategic guidelines 2024)





Responses to crisis 2020



linas agro

M+S HYDRAULIC

MB

PODRAVKA

kofola

ATLANTIC GRUPA

CP

Amica for living

AD Plastik

Manufacturing companies were challenged by supply interruptions, longer lead times and uncertain demand. Most of them reacted with creating bigger safety stocks and optimizing logistics and transports. The companies looked for alternative ways of transport and started buying from local suppliers. Furthermore, cost rationalization and reduction was a big issue for most of them, which is why many investments have been postponed and the focus was set on internal operations. Thus, manufacturing industry was able to keep its employees and reach a growth in net income.

Food producers in particular have had few break-ins. Podravka, which had the highest turnover in the food segment of the manufacturing industry in 2020, was even able to realize increases in turnover.

Disclaimer: Employee data was not used from Amica, Canpack and Podravka due to lack of data. Data concerning responses to crisis and plans for 2021 from Amica and Canpack was excluded in general because reports for 2020 were not available.

The main goal of the manufacturing companies in CEE for 2021 is to focus on sales increase and gaining new customers.

Opening

CAM

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linas agro

M+S HYDRAULIC

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PODRAVKA

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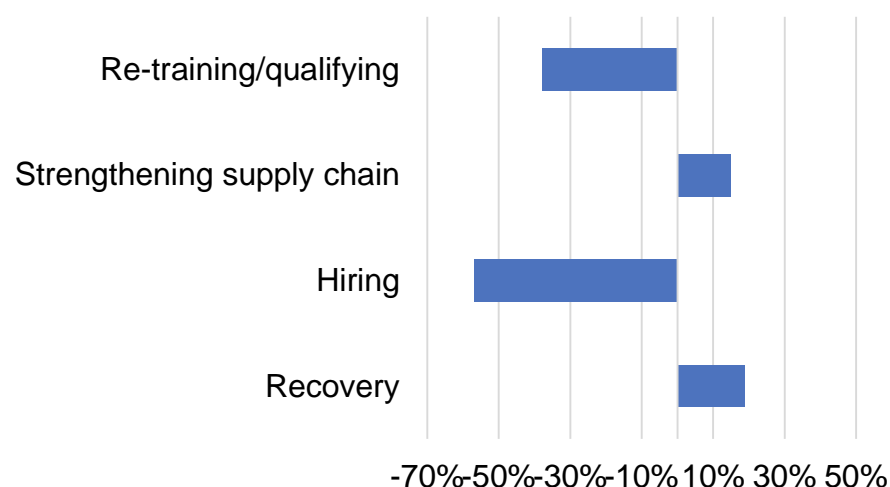
ATLANTIC
GRUPA

CP

Amica
for living

AD Plastik

Deviation to overall trend



In 2021, most of the CEE manufacturing companies want to focus on increasing sales and improving their profitability. They aim to reach a better market position through increasing investments and strengthening their supply chain but also through serving new customers and offering new products. Moreover, a majority of manufacturing companies plans a strategic diversification. Overall, there is a rather positive attitude in the manufacturing sector. Despite all the challenges in 2020, most companies seem optimistic about the new year.

„The challenges posed by the pandemic are still ongoing, so our **plans for 2021 are more conservative than in previous years**, but we believe in their realization.“
(AD Plastik Annual Report 2020)

AD Plastik

The telecom industry is resilient, yet felt the impact of the pandemic, too.
As critical infrastructure, the telecom industry managed the pandemic well.

Opening

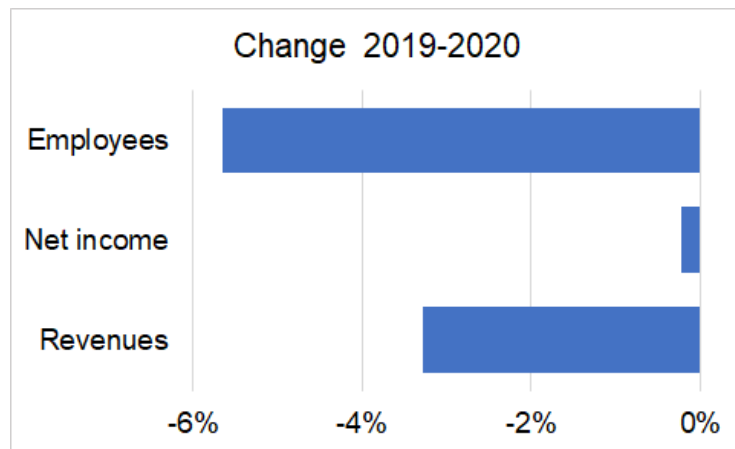
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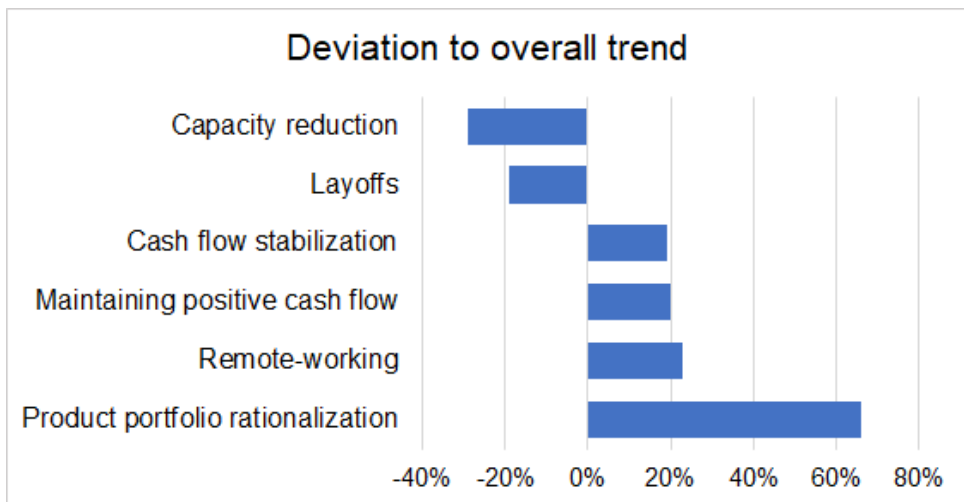
Responses to crisis 2020



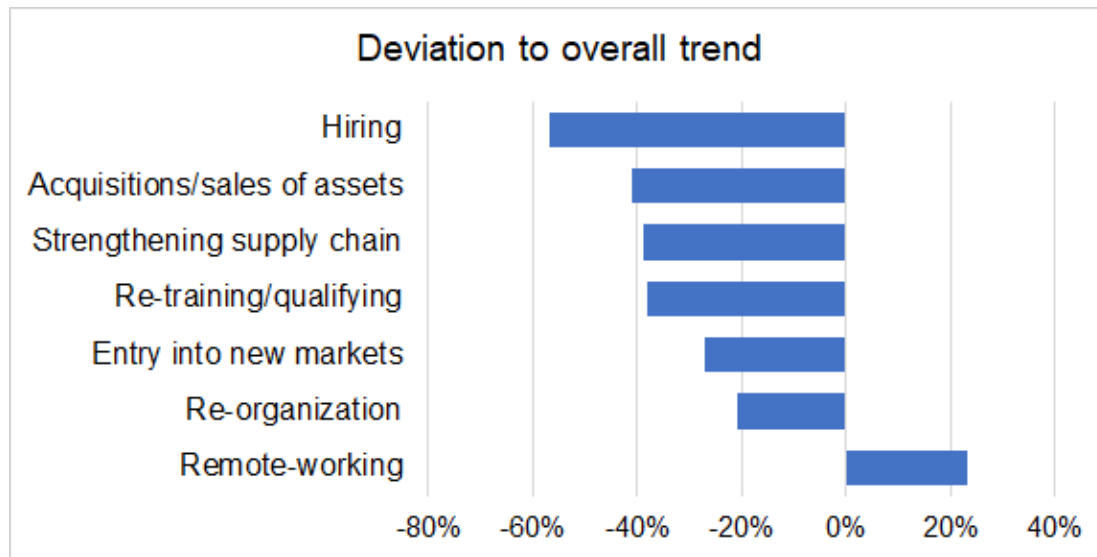
The telecommunication industry is highly resilient and important, belonging to critical infrastructure. Therefore, they did not stop operating, but contributed to fighting the pandemic by supporting information exchange. Nevertheless, we can see that the telecom companies were hit by the pandemic, too.

Although the look at the changes in revenues and net income implies a rather negative impact, there were aspects that have changed for the better. Besides the COVID-19 pandemic, one of the most ground-breaking events were the 5G network introduction.

The pandemic brought about the change in the structure of revenues on products (low usage of roaming), planned investment, costs of organizational measures, financing loans from the previous terms. Also, acquisitions were common despite the pandemic, because these are not spontaneous actions. Another unexpected, yet welcomed change was the accelerated shift in digitalization and increased usage of internet connection.



Planned activities 2021



The upcoming years in the telecom industry are going to be in the name of 5G infrastructure. Going hand in hand with this, the need of modernization and the shift in usage of the products started in 2020 will continue. In this context, the telecom companies even more prioritize innovative, attractive product to keep and gain on customers. Providing digital television services was a common step in 2020.

Another trend the companies increasingly follow is sustainability (e.g. in the field of ecology, such as the use of renewable resources and initiatives to reduce their carbon footprint).

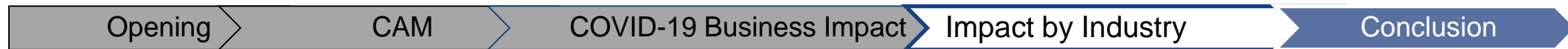
Without doubt, digitalization is the future and the telecom industry will be here to support consumers and businesses.

*"I strongly believe the technology industry has a particular role to play in helping to solve the climate crisis. We **plan to diversify sources of energy towards renewables** [...]"*

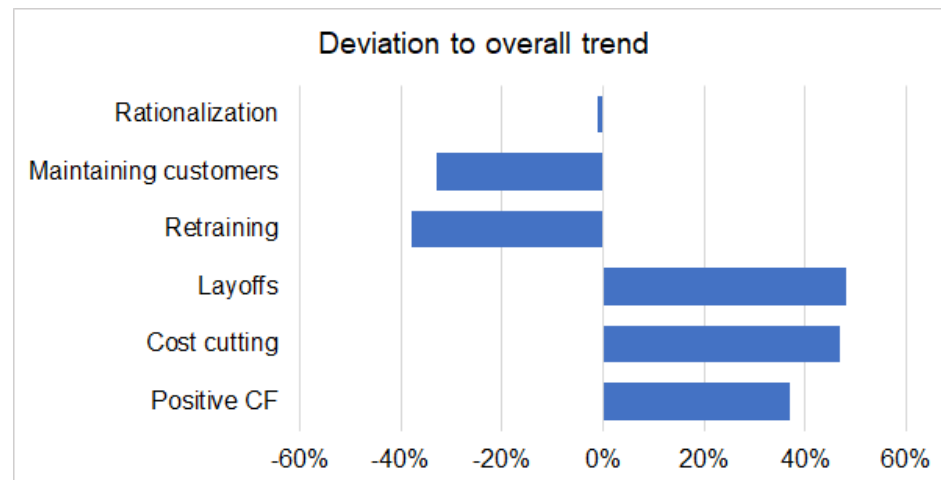
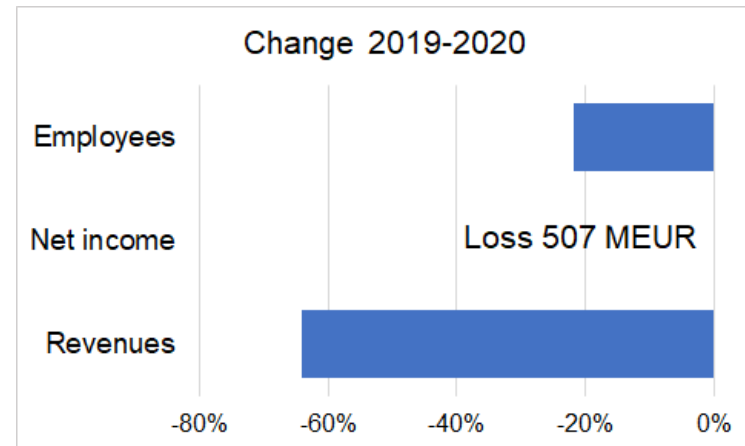
(Julien Ducarroz, Orange Polska S.A.)



The hospitality industry was hit hard by travel restrictions due to COVID-19 and therefore the capacity had to be adapted to lower demand.



Responses to crisis 2020



The hospitality industry was heavily impacted by legislative measures to combat the COVID-19 pandemic. These include, for example, travel restrictions, closing of borders and restrictions on permitted guests. This is reflected in the financial performance of the companies which all ran losses in 2020.

The sector responded immediately to the crisis by reducing capacity, cutting costs and suspending major investments. The hospitality sector is aiming for a quick recovery by introducing new products, attracting new customers and restoring profitability. Health and safety measures remain the focus. However, there will also be further cuts in the workforce.

To recover from the pandemic the hospitality industry puts its focus on its financial performance and managing costs in human resources.

Opening

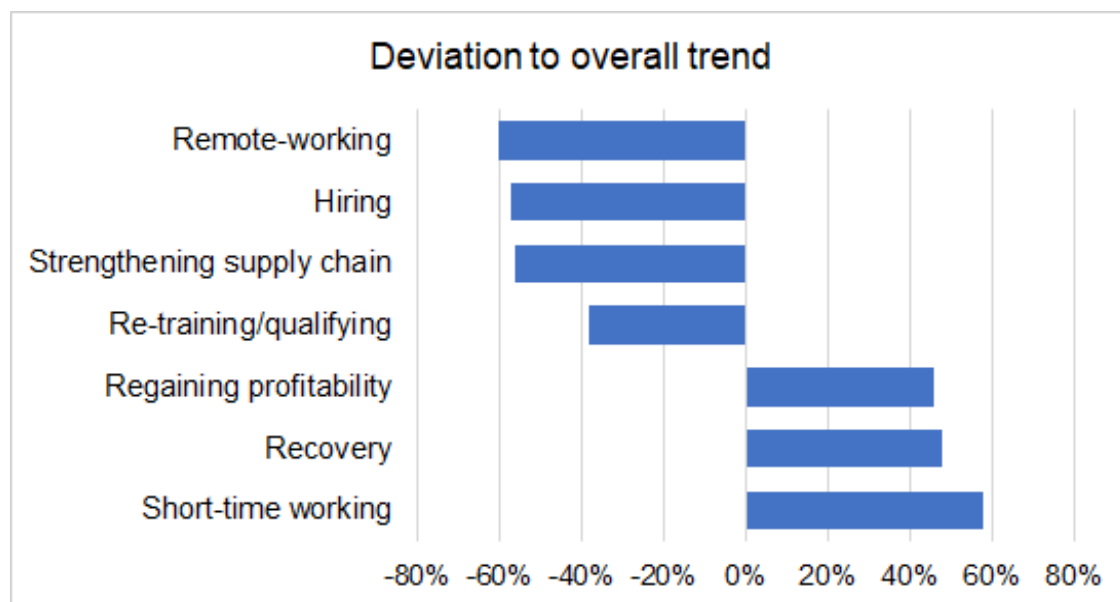
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COVID-19 Business Impact

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Planned activities 2021



The focus in 2021 is to recover from the pandemic, and regain profitability. It is less important to ensure supply chain resilience.

Hiring and training of staff are further reduced given the weak outlook in tourism (compared to the status before the crisis). Remote working is ended. Instead, the selected CEE regional players try to mitigate HR costs through an increase of short-time working.

“... [T]he **investments in 2021 will mostly be focused on the completion of projects and raising service quality and guest satisfaction.**”
(Valamar, Quarterly Report for Q1 2021)



Opening

CAM

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Key findings of Businesses Analysis

Overall, revenue dropped by 15%, net income halved and number of employees increased by 3%

- Hospitality/Tourism and Oil & Gas were hit the hardest
- The “winners” of the crisis appeared to be Software, Pharma and Retailing (Grocery)

Critical infrastructure providers focused all on the operational dimension

- Pharma, grocery retailers, banking, telecom, oil & gas are critical infrastructure providers and therefore had to keep their operations/supply chains running during the crisis.

In 2021, companies prioritize customer relations, sales, investments into digitization & HR activities

- Improving customer relations and increasing sales are a priority in all companies.
- Further digitalization was mentioned frequently as a priority in future investments.
- HR activities (qualifying, training) gained in importance in financial services (banking, insurance) and the remote-working has firmly entered the majority of industries.



Conclusion

The aim of our study was to understand the impact of the COVID-19 pandemic on CEE economies and businesses and derive what is the effect of COVID-19 on **CEE's attractiveness for foreign investors**. Therefore, we wanted to answer the following research questions: How is the attractiveness of EU-CEE11 affected by the pandemic? Which major differences exist between countries/sub-regions and industries? How do businesses in CEE respond to these challenges?

In general, the region was strongly hit by the pandemic. However, the EU-CEE11 economies experienced a **smaller decline in GDP** in 2020 than the EU average. Worst hit was Croatia with a decline of 9% due to its large dependence on tourism. FDI flows to the region dropped by 35% - that was still lower than the global decline of 46% in the first half of 2020. Regarding **public health**, the governments were among the fastest and strictest with lockdowns back in spring 2020 but then lost control and as of May 2021 recorded **higher numbers of deaths** than the EU average. **Weak healthcare systems** are also blamed for this outcome. Hopefully, the EU recovery funds will be used to upgrade the systems and make them more resilient to future health crises.

Our **post-pandemic country attractiveness model** tried to capture the recovery potential of the EU-CEE11 economies in the next 1-3 years based on pandemic induced developments. The three Baltic states – **Latvia, Estonia and Lithuania** – came out on top of the rankings thanks to **high institutional quality, advanced digitalization** and **solid public finances**. They are in the best position to benefit from trends triggered and reinforced by the pandemic and valued by investors. Overall, the EU-CEE11 countries show an **average attractiveness** ranging from 4.87 (Hungary) to 6.51 (Latvia) on a 1-10 scale.

Opening

CAM

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Furthermore, we analysed the impact of the pandemic on businesses and industries. In a qualitative content analysis we examined the annual reports 2020 of **49 regional players in nine industries**, oil & gas, banking, insurance, grocery & general retailers, software, pharma, manufacturing, telecom and hospitality.

Total revenues of the sample dropped in the 2019-20 period by **15%**. Hospitality and Oil & Gas were hit the hardest, while software, pharma and retail (groceries) industries could even grow in 2020. Overall, the net income fell by half while the number of employees increased slightly by **3%**. Looking at the measures taken to cope with the crisis, **health & safety related actions, maintaining customers** and keeping their **operations and supply chains running** had highest importance. Latter is obvious as pharma, grocery retailers, banking, telecom, and oil&gas are seen as critical infrastructure providers.

Our findings show that most of the companies reacted quickly to the changes and aligned their strategies to effectively fight the crisis. In 2021, improving **customer relations** and **increasing sales** are a priority in all companies. Further **digitalization** was mentioned frequently as a priority in future investments. **HR activities** (qualifying, training) gained in importance in financial services (banking, insurance) and **remote-working** has firmly entered the majority of companies.

To conclude, the CEE region will remain **attractive for Western and regional multinationals** when they succeed in participating in the new developments and growth areas.

“Central and eastern European countries have an in-built resilience that is helping them adapt to the Covid-19 crisis and will see them recover more quickly.”

Stanisław Pietrzak and Wiktor Shmeruk of CEC Group

“A region of game changers and outside the box thinkers, CEE has undergone intense business transformation during the pandemic as its business leaders have learned to adapt and stay agile.”

Ileana Glodeanu and Richard Clegg, Partners at Wolf Theiss

- **Annual Reports** (2019, 2020) of INA d.d., MOL Group, OMV Group, PKN ORLEN, VIG, PZU and UNIQA, Banca Transilvania, Pekao, Erste Group, OTP, PKO BP, Raiffeisen, LPP, Elka, Group Maxima, Group CCC, Allegro Group, Spar Group, Eurocash Group, Avast, Asseco, Comarch SA, Sirma Group, CETIN a.s., Hrvatski Telekom, O2 Czech Republic a.s., Magyar Telekom, Orange Polska, A1 Telekom Austria Group, Antibiotice S.A., Biofarm S.A., Gedeon Richter, Krka, Sopharma, Arena Hospitality Group, Tallink Group, Valamar Riviera Group, Plastik d.d., Atlantic Group d.d., Kofola Group, Linas Agro Group. Monobat Group, M+S Hydraulic Plc., Podravka d.d., retrieved from company websites May 2021.
- **Antibiotice S.A.** (2020): Antibiotice Iași resumes the production of Paracetamol and Novocalmin® under emergency conditions. https://bvb.ro/infocont/infocont20/ATB_20200407160748_Paracetamol-si-Novocalmin---ATB-en.pdf, Accessed: 31.05.2021.
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Appendix

CAM - Transformation matrix (of actual values to 1-10 estimates in scoring model)



▼ Measure / Estimate >	1	2	3	4	5	6	7	8	9	10
Av. projected GDP growth of 2021 and 2022 in %	0-0,99	1-1,99	2-2,99	3-3,99	4-4,99	5-5,99	6-6,99	7-7,99	8-8,99	9-10
Unemployment rate in % (latest 2021)	0-1,99	2-2,99	3-3,99	4-4,99	5-5,99	6-6,99	7-7,99	8-8,99	9-9,99	>10
EU grants as % of GDP 2020	<1	1-1,99	2-2,99	3-3,99	4-4,99	5-5,99	6-6,99	7-7,99	8-8,99	>9
FDI momentum: Change of FDI inward stock from 2015 to 2019	<20	(-19,99)- (-10)	(-9,99)-0	0-9,99	10-14,99	15-19,99	20-24,99	25-34,99	35-49,99	>50
FDI Openness: FDI inward stock, in % of GDP 2019	0-9,99	10-19,99	20-29,99	30-39,99	40-49,99	50-59,99	60-69,99	70-79,99	80-89,99	>90
Indebtedness: Public debt to GDP 2020 in %	>110	100-109,99	90-99,99	80-89,99	70-79,99	60-69,99	50-59,99	40-49,99	30-39,99	<30
Quality of governance: BTI Governance Index 2020	<1,4	1,5-2,4	2,5-3,4	3,5-4,4	4,5-5,4	5,5-6,4	6,5-7,4	7,5-8,4	8,5-9,4	>9,5
Perceived corruption: CPI 2020 score - Transparency Int.	0-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85-94	>94
Pandemic management: Fiscal spending as % of 2020 GDP	2-3,249	3,25-4,49	4,5-5,749	5,75-6,99	7-8,249	8,25-9,49	9,5-10,749	10,75-11,99	12-13,249	>13,25
Digitalization prep.: IMD World Digital Compet. Score 2020	0-14,99	15-24,99	25-34,99	35-44,99	45-54,99	55-64,99	65-74,99	75-84,99	85-94,99	95-100
Expected revenue of e-commerce as % of expected GDP 2021	0-0,49	0,5-0,749	0,75-0,99	1-1,249	1,25-1,49	1,5-1,749	1,75-1,99	2-2,249	2,25-2,49	>2,5

Country	Sum	Rank
Latvia	6,51	1
Lithuania	6,16	2
Estonia	6,12	3
Croatia	6,11	4
Bulgaria	6,05	5
Slovakia	5,97	6
Romania	5,54	7
Slovenia	5,49	8
Poland	5,34	9
Czech Republic	5,26	10
Hungary	4,87	11

Regional Players - Company Overview 1/2

Country	Industry	Company
Croatia	Oil & Gas	INA
Hungary	Oil & Gas	MOL
Austria	Oil & Gas	OMV
Poland	Oil & Gas	PKN ORLEN
Country	Industry	Company
Romania	Banking	Banca Transilvania
Poland	Banking	Bank Pekao SA
Austria	Banking	Erste Group Bank
Hungary	Banking	OTP
Poland	Banking	PKO BP
Austria	Banking	Raiffeisen Bank
Country	Industry	Company
Poland	Insurance	PZU
Austria	Insurance	UNIQA
Austria	Insurance	VIG

Country	Industry	Company
Poland	Grocery retailers	Eurocash Group
Lithuania	Grocery retailers	Maxima Group
Austria	Grocery retailers	SPAR Austria Group incl SES
Poland	General retailers	Allegro
Poland	General retailers	CCC
Latvia	General retailers	ELKA GROCERY
Poland	General retailers	LPP
Country	Industry	Company
Poland	Software	Asseco
Czech Republic	Software	Avast
Poland	Software	CDProjekt
Poland	Software	Comarch SA
Bulgaria	Software	Sirma Group

Country	Industry	Company
Romania	Pharma	Antibiotice S.A.
Romania	Pharma	Biofarm S.A.
Hungary	Pharma	Gedeon Richter
Slovakia	Pharma	Krka
Bulgaria	Pharma	Sopharma
Czech Republic	Pharma	Zentiva

Country	Industry	Company
Croatia	Manufacturing	AD Plastik d.d.
Poland	Manufacturing	Amica S.A.
Croatia	Manufacturing	Atlantic Grupa
Poland	Manufacturing	CANPACK Group
Czech Republic	Manufacturing	Kofola
Lithuania	Manufacturing	LINAS Agro Group
Bulgaria	Manufacturing	M+S Hydraulic
Bulgaria	Manufacturing	Monbat Group
Croatia	Manufacturing	Podravka

Country	Industry	Company
Czech Republic	Telekom	CETIN a.s.
Croatia	Telekom	Hrvatski Telekom
Hungary	Telekom	Magyar Telekom
Czech Republic	Telekom	O2 C.R.
Poland	Telekom	Orange Polska
Austria	Telekom	Telekom Austria

Country	Industry	Company
Croatia	Hospitality	Arena Hospitality Group
Estonia	Hospitality	Tallink Grupp
Croatia	Hospitality	Valamar Riviera Group

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