

The Top 20 Czech Multinationals in 2020

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The Faculty of International Relations at Prague University of Economics and Business is releasing the results of a survey on outward investors in Czechia in 2020¹. The report is part of the Emerging Market Global Players (EMGP) Project, a long-term study of the rapid global expansion of multinational enterprises (MNEs) from emerging markets, convened by the Columbia Center on Sustainable Investment at Columbia University.

Highlights

The top 20 largest Czech MNEs held almost USD 37 billion in foreign assets in 2020. We define Czech MNEs based on ultimate ownership rather than on the company seat as many of the largest Czech owned and controlled companies have their seat in tax havens (see box for methodology). The largest MNE is PPF Holding originally almost fully controlled by Petr Kellner, after his tragic death in March 2021 by his family. PPF is primarily a financial holding company, with subsidiaries such as the non-bank financial institution Home Credit. But PPF is active also in other fields such as telecommunications, media, machinery and biotechnology. In these non-financial sectors PPF holds assets in foreign countries to the value of over USD 14 billion. Other firms among the largest MNEs in terms of foreign assets include CPI Property Group, a real estate developer in Central Europe, and Energetický a průmyslový Holding a.s., operating mainly in the energy sector. Overall, the top 5 companies account for 86% of foreign assets of the top 20 largest MNEs. The major motivation for foreign expansion is finding new opportunities.

The major MNEs are particularly active in the energy, manufacturing, and real estate industries. The top 20 also include MNEs operating in gambling, software development, and healthcare provision. Many MNEs cover a broad spectrum of activities. Altogether the top 20 largest MNEs have over 960 affiliates in 60 countries. The majority of their activities are in Europe with the most foreign affiliates located in Slovakia (153), which can be explained by the common history of both countries. Germany is right behind Slovakia with 146 affiliates. Neighboring countries such as Poland and Hungary are also important destinations for investment. On average, Czech MNEs had 48 affiliates in 11 countries, but there are significant differences with some companies operating in more than 30 countries and some in only three.

¹ This report was prepared by Jana Vlčková, Associate Professor, and Monika Smělá, a PhD. Candidate at the Faculty of International Relations, Prague University of Economics and Business.

Except for ČEZ a.s. there is no state ownership and only three companies are listed on a stock exchange.

Particularly notable is the major role of tax havens in our ranking. Thirteen companies on the list are either seated in or controlled from a tax haven, although they are owned and run by Czech citizens. This situation is linked to the economic transformation from a communist to a capitalist economy and the accompanying privatization in the 1990s. Companies were seated outside Czechia for tax reasons, and in order to benefit from investment protection agreements, especially in the case of the Netherlands². Likewise, some more recently established companies are seated abroad (e.g. Energetický a průmyslový holding, a.s. and W.A.G. Payment solutions, a.s.). Nonetheless, this situation distorts the FDI data that is based on the immediate rather than the ultimate investor, and masks the importance of Czech investors in the global economy and, in particular, in the region.

Czech outward foreign direct investment flows fell by a quarter in 2020, which is less than the 35% decline of global FDI flows³. Several large M&A took place in 2020, the largest one being the PPF Group's acquisition of the CME television group, estimated at USD 2.1 billion. Surprisingly, most of the companies in the list were not significantly affected by the COVID-19 pandemic in terms of their (foreign) assets or sales, although several projects were postponed. Some companies increased their foreign assets and a hospital bed producer, LINET Group, witnessed record growth.

² Czechia and Slovakia signed in 1992 an "Agreement on encouragement and reciprocal protection of investments between the Czech and Slovak Federal Republics and the Kingdom of the Netherlands". This agreement stipulates that the Dutch owner of Czech firms could sue Czechia for devaluation of investment (for example in the case of changes in taxation etc.). However, there is a breakthrough case C-218/16 Achmea from 2018 between Slovakia and the Netherlands which states, that the arbitration clause included in the bilateral investment between the two Member States is incompatible with EU law.

³ UNCTAD (2021): World investment report 2021. https://unctad.org/system/files/official-document/wir2021_en.pdf

Table 1: The top 20 non-financial Czech MNEs by foreign assets, 2020 (USD million⁴)

Rank	Company	Main industries	Status	Foreign assets
1	PPF Group N.V.	Telecommunication, media, engineering	listed (Prague)*	10 587
2	CPI Property Group	Construction, real estate	not listed	7 964
3	Energetický a průmyslový holding, a.s.	Energy	not listed	5 625
4	KKCG AG	Gambling, energy	not listed	3 868
5	Koncern AGROFERT, a.s.	Chemistry, agriculture, food industry	not listed	3 440
6	DK Holding Investment s.r.o.	Energy	not listed	1 554
7	Skupina ČEZ, a.s.	Energy	listed (Prague, Warsaw)	1 043
8	AVAST PLC	Software	listed (Prague, London)	1 036
9	PREMIER ENERGY PLC**	Energy	not listed	375
10	LINET GROUP SE	Manufacture of medical beds	not listed	299
11	CZECHOSLOVAK GROUP a.s.	Automotive, Space, Defense	not listed	274
12	AGEL a.s.	Healthcare	not listed	193
13	Sev.en Energy AG	Energy	not listed	151
14	Bonatrans Group, a.s.	Rail components	not listed	139
15	W.A.G. Payment solutions, a.s.***	Mobile solutions in logistics	not listed	81
16	MORAVIA STEEL a.s.	Steel, machinery	not listed	50
17	HOPI Holding a.s.	Logistics	not listed	43
18	TESCAN ORSAY HOLDING, a.s.	Scientific instruments	not listed	34
19	KOH-I-NOOR Holding, a.s.	Machinery, automotive, real estate	not listed	28
20	DEK a.s.	Trade (building material)	not listed	27
Total				36 811

* Only one of the PPF branches is listed – the telecommunication provider O2 Czech Republic a.s.

** PREMIER ENERGY PLC is seated in Romania, but part of its management is Czech. The company belongs to Emma Capital Limited seated in Cyprus and fully owned by Czech citizens. Emma Capital is an investment holding involved also in financial and gambling activities. However, due to the complex structure, we decided to include only Premier Energy for which an annual report is available.

*** W.A.G. payment solutions, a.s. focus primarily on fuel cards and tolls. Although the fuel cards might be considered as financial assets, we consider this company to be primarily a business service provider.

The foreign assets of an MNE are the current and fixed assets abroad that it controls. They are usually much larger than the multinational's total outward FDI (due to the accumulation of dividends and interest etc.). Our estimation is based on information from company surveys, final reports and Amadeus database. Therefore, it is not a precise value of the foreign assets of the top 20 Czech MNEs but rather it gives an approximation of the magnitude of such investments. Further, some companies might have been omitted.

⁴ We used the year-end official exchange rate published by the Czech National Bank 1.2271 EUR USD

Profile of the Top 20 MNEs

Key drivers

According to our surveys, Czech-owned companies investing abroad are mostly driven by the desire to access new opportunities. This is related to the limited size of the Czech economy, with a population of 10.7 million, and can be for example demonstrated by the activities of Czech Property Group in Central Europe. The most important attributes for success in foreign markets according to interviews include relationships with the suppliers and the customers, as well as cost management, competitive prices, relationships with local employees, and relationship with the government. On the other hand, patented/non-patented technologies were among the least important attributes.

Many MNEs are also diversifying into other markets and sectors to spread the risks. Asset-seeking motives are typical for the energy sector. In this case, some MNEs (particularly Energetický a průmyslový holding, a.s.) were recently buying coal power plants in Western Europe for very low costs. It was considered as an entry into these markets driven also by an expected increase in energy costs. At the same time, the possibility to obtain compensation for decommissioning coal plants was likely considered a possible motivation and has now been criticized by environmentalists and the European Commission⁵. The asset-seeking motive can be seen also in the case of PPF and its acquisition of CME, one of the leading media and entertainment companies in Central and Eastern Europe.

We have also seen the opposite strategy – namely divestment and withdrawal in response to risks. ČEZ a.s., for example, have divested from troubled markets (Albania, Bulgaria) in recent years.

The efficiency-seeking motive is less common among Czech-owned MNE. Czech firms investing abroad are generally not driven to do so by the desire to reduce costs. This is arguably reflected in the fact that East Asia accounts for less than 1% of foreign affiliates.

Concentration

The largest company on the list, PPF Group NV, accounts for 29% of the top 20 Czech MNEs' total foreign assets, whereas the top 5 companies account for 86%. This indicates a relatively significant concentration of foreign assets among a few firms, a pattern that does not appear to be different from the picture in other emerging countries (see other EMGP country reports). Notably, the domination of PPF would be much larger if we also included its financial assets. This is because PPF's activities are concentrated on financial activities through Home Credit, a consumer finance company active, especially in Russia and China.

TNI (ratio of foreign to total assets)

Since we do not have data on foreign employment and sales for many companies, we only use the ratio of foreign to total assets to evaluate how internationalized companies are. The average value of the ratio is 34 (see annex 1). However, we can see large differences between the MNEs.

⁵ See for example https://ec.europa.eu/commission/presscorner/detail/en/ip_21_972 or <https://www.wired.co.uk/article/europe-coal-plants-green>

The top 10 MNEs are in general more transnational than the smaller ones. The most transnational companies are Premier Energy based in Romania and DK Holding, a Czech company building and operating hydropower plants. A high share of foreign activities is also typical for KKCG AG, HOPI Holding a.s. or the PPF Group, particularly within its telecommunications and media activities.

Size

The value of foreign non-financial assets among the top 20 Czech MNEs appears similar to the situation in neighboring countries (Hungary, Poland), although their latest EMGP reports are from the year 2013. Here we must also point out the differences in methodology as we apply the ultimate ownership principle. However, the specific nature of Czech MNEs (Czech ownership and control, foreign company seat) is rather typical for Czechia and has not been recorded in Hungary.⁶ Even so, compared to other emerging markets the total amount of foreign assets held by the top 20 is low. None of the Czech MNEs has made it to the list of the top 100 non-financial MNEs by UNCTAD.⁷ UNCTAD also publishes the same list for developing and transition economies. Here, the largest MNEs could possibly make it to the bottom lines of the ranking. However, the largest ones have their seat outside Czechia; moreover, Czechia belongs to the group of developed economies in UNCTAD's classification. While data on foreign employment are often missing, figures that we do have indicate that foreign employment appears high in several MNEs. The highest foreign employment is in ČEZ a.s. with almost 10 000 foreign employees, followed by EPH a.s. (8900 employees) and Agrofert (5700 employees). In relative terms, the figures are different, though. The highest share of foreign employment is in the case of DK Holding (over 95%), EPH a.s. (79%) and Czechoslovak Group (65%), whereas in ČEZ foreign employment is only 31% and in Agrofert 18%.

Location of head offices

The Czech report is distinct from other EMGP reports, and many other studies of MNEs, due to its focus on the ultimate owner for the identification of Czech MNEs. Out of the 20 MNEs, 13 have their seat in Czechia, the majority of them in Prague (see annex 1). However, several companies seated in Czechia are controlled from abroad, mostly by companies that are owned by Czech citizens but are located in tax havens. Thus, only nine MNEs are fully seated in Czechia. The remaining ones are except for AVAST PLC and W.A.G. Payment solutions, a.s. in the UK, seated in tax havens such as the Netherlands, Lichtenstein, Switzerland, or Luxembourg. Several of the largest MNEs were established in the early 1990s in the process of privatization of existing state-owned companies. This is typical not only for the energy sector (Seven Energy, KKCG) but also in manufacturing (part of the PPF Group, Agrofert, Moravia Steel, Bonatrans). Many of these companies started to be controlled from tax havens soon after

⁶ Sass, M., & Vlčková, J. (2019). Just look behind the data! Czech and Hungarian outward foreign direct investment and multinationals. *Acta Oeconomica*, 69(S2), 73-105.

<https://akjournals.com/view/journals/032/69/S2/article-p73.xml>

⁷ https://unctad.org/system/files/non-official-document/WIR2022_tab19.xlsx

their inception (see the “Big picture”, below, for reasons). Nonetheless, even companies established more recently are now often seated in tax havens (e.g. PREMIER ENERGY PLC).

Ownership and public status

The majority of the largest Czech MNEs are not listed. In 2020, only three companies were listed, all of them on the Prague stock exchange. Two companies were also listed on foreign stock exchanges: ČEZ a.s. (Warsaw Stock Exchange) and Avast PLC (London). The third company is O2 Czech Republic, a mobile provider controlled by PPF Group NV. Unlike in other emerging markets, state ownership is very limited in Czechia. Of the 20 largest Czech multinationals, only one company is partly state-owned. It is Skupina ČEZ a.s. focused on the generation, distribution, trade in, and sales of electricity and heat, where the Ministry of Finance owns a 69.78% share.

Main industries

In terms of sectors, the activities of the largest MNEs are varied. The energy sector, with several MNEs, represents almost a quarter of total foreign assets. The real estate segment, represented by CPI Property Group, has a share of over 20%. The manufacturing sector is diverse and covers, for instance, the manufacturing of chemicals, food, machinery, hospital beds, steel and scientific instruments accounting for approximately 12% of foreign assets. Other companies among the top 20 firms are also engaged in gambling operations (KKCG AG), software development (Avast PLC), telecommunications and media (PPF Group N.V.), and, like PPF a.s., KKCG a.s., Agrofert, a.s., and Czechoslovak Group a.s, may be engaged in a broad spectrum of activities. We can see also a trend toward greater diversification among several MNEs. This is not only typical for companies in the energy sector (such as Energetický a průmyslový holding, a.s.), but also in the case of PPF Group, reflected in the declining role of its financial operations (which are not included in the data).

Foreign affiliates and geographic distribution

In 2020 the top 20 MNEs had 969 affiliates in 60 countries. As Czechia is located in Central Europe a lot of its foreign investment is placed in surrounding European countries including Russia. This is related to geographic, economic and cultural closeness as well as historical economic ties from the Council for Mutual Economic Assistance (CMEA) period. Further, for Czechia, there are especially strong ties with Slovakia, as, until 1992, both countries were part of one country. There are 153 foreign affiliates in Slovakia alone. For example, Agel Group and DEK a.s. have the majority of their foreign assets in Slovakia. The second place is occupied by Germany with 146 affiliates, followed by Poland (64), Hungary (58) and Italy (47). Tax havens also host many Czech subsidiaries, with 39 in the Netherlands, 32 in Cyprus, and 12 in Luxembourg. These subsidiaries are frequently used for tax avoidance and fundraising without focusing on any other operations in the given country. In terms of regions, 86% of affiliates are located in Europe, followed by North America (4%), Eastern Europe represented by Russia and Ukraine (3%), and the Middle East (2%). The least represented regions are South Asia with 3 affiliates and Sub-Saharan Africa with one affiliate.

There is a significant difference between the number of host countries as well as the number of foreign affiliates among Czech MNEs. On average, Czech MNEs had 49 affiliates in 11 countries. Countries operating in the most host countries (and having the highest number of foreign affiliates) include PPF Group NV, KKCG AG and W.A.G. payments solutions. Some of the companies have complex structures (more affiliates) even though they do not operate in many locations. This is the case of Energetický a průmyslový holding, a.s. (135 affiliates in 16 countries), Skupina ČEZ (144 affiliates in 15 countries), and CPI Property Group (162 affiliates in 16 countries). While, as noted above, the majority of foreign affiliates of Czech MNEs are located in Europe, this is not the case for DK Holding, which is active around the world with its hydropower plants, or Avast with its software. We have also witnessed increasing investment by Czech MNEs outside the European regions⁸ in recent years.

Mergers and acquisitions

In terms of M&A the year 2020 was heavily affected by the COVID-19 pandemic. Many planned acquisitions were either cancelled or postponed, particularly in the spring. Further, some sectors became riskier (hotels, entertainment industry), while others such as e-commerce, software development and pharmaceuticals have become even more attractive. Overall M&As in Czechia, including domestic ones, declined by approximately one half in terms of number and value relative to 2019⁹. Nevertheless, several large M&As of foreign companies by Czech-owned MNEs took place in 2020. PPF Group purchased the CME television group, which operates stations in the Czechia, Slovakia, Romania and Bulgaria and serves roughly 45 million viewers. The price of the transaction was estimated at USD 2.1 billion.¹⁰ This transaction was criticized by many including Senator Rubio, who believed that PPF would try to use the media for its business as well as geopolitical interests¹¹; PPF countered that it was solely motivated by the development of its telecommunications and media business. PPF Group though Škoda Transportation also gained a 50% share in Turkish bus producer TEMSA. Other large acquisitions were in the energy sector. Energetický a průmyslový holding, a.s. acquired Humbly Grove Energy Limited (underground gas storage facilities) in the UK, and the remaining stake in the Schkopau power plant in Germany, which is now fully owned by the holding. Sev.en energy acquired one of the largest US metallurgical coal producers Blackhawk Mining, LLC. ČEZ Group acquired a minority stake in Eliq through its investment fund Inven Capital. Eliq develops software to collect data on energy consumption from smart meters. CPI Group acquired Zakiono Enterprises Limited for 284 million Euro.

The impact of the pandemic

Among the top 20 MNEs, the impact of the pandemic differed. Most of the companies were not considerably affected by the pandemic, despite major disruptions in the spring of 2020. Some

⁸ Based on EMGP guidelines Eastern Europe & Central Asia includes the former USSR, minus the Baltics and Other Europe includes Western & Central Europe – mainly the EU 27.

⁹ <https://www.pravniprostor.cz/clanky/ostatni-pravo/rozhovor-miroslav-dubovsky-fuze-akvizice-v-roce-2020>

¹⁰ <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/ec-approves-ppf-group-central-european-media-deal-60628784>

¹¹ Available at <https://www.reuters.com/article/us-usa-security-media-idUSKCN20K33N>

of them witnessed merely a partial decline in their profits related to the fall in economic activity resulting largely from lockdowns. The operating profit of Skupina ČEZ a.s. was only moderately hit by the pandemic due to its hedging strategy of pre-sale of electricity and purchase of emission allowances for production for three years ahead.¹² Agrofert also recorded a slight decrease in profits, mainly through a decline in its media activities. However, in 2020 the largest MNE, PPF, witnessed the first loss over its 30-year history. This was related particularly to its financial activities, although its machinery sector increased its loss in 2020 compared to losses recorded in previous years. Telecommunications, real estate and media operations recorded profits, though these were smaller when compared to 2019.

For several companies, the year 2020 was rather successful. Czechoslovak Group increased its sales and assets both domestically and abroad. The same is true for Energetický a průmyslový holding, a.s. Also, the impact for the CPI Group (real estate) was surprisingly mild and the Group even managed to increase its assets. Assets and profits increased in Agel Group, which could be expected considering that it is a healthcare provider. Another major winner was the LINET Group, a hospital bed producer, which increased its turnover by 8% and doubled its profit margin.

Box 1: Methodology

We apply slightly different processes than other researchers in the EMGP project. For identification of the largest MNEs, we look at ultimate ownership rather than the seat of the company as many firms owned by Czech citizens have their seat in tax havens. We identified the largest foreign investors from Czechia in 2020 based on the Amadeus database, companies' annual reports, news and other reports, and firm-level questionnaires. Due to the very complex structure of many MNEs located in tax havens (such companies frequently apply cross-ownership through multiple holdings), identification of domestic and foreign assets is not easy. In some cases, foreign assets are under Czech entities (which can be controlled from other countries such as Energetický a průmyslový holding, a.s.); in other cases, most of the foreign activities are controlled from foreign entities. As in certain cases, consolidated data for the whole group are not available, we present the data for the company with accessible data in the form of annual reports (e.g. PREMIER ENERGY PLC). Therefore, sometimes it is a Czech entity, in other cases a foreign one. For the identification of the largest foreign investors, we applied the following procedure.

First, we gathered information from research papers/reports and media to identify companies with foreign investment. In the Amadeus database (a Bureau van Dijk database containing information on European companies), we collected relevant information about these companies. We focused particularly on the volume of foreign assets. Further, we also used the Amadeus database to identify the ultimate owner. In some cases, even the Amadeus database did not provide information about the ultimate owner. A typical example is when the ultimate owner is a fund located in Cyprus. In such a case we used information from the media (such as Forbes) to identify the ultimate owner. As mixed ownership is also common, we include companies with at least 50% Czech ownership. Based on that we created a list of approximately 40 companies we considered to be potentially the largest Czech foreign investors and contacted

¹² ČEZ Annual report 2020 - <https://www.cez.cz/webpublic/file/edee/ospol/fileexport/investori/vz-2020/cez-group-2020-annual-report.pdf>

them. The response rate, however, was very low. Many companies said they do not want to disclose such information and/or that we can find this information in their annual reports. Third, for all the remaining companies we searched through their annual reports to identify their total foreign assets as well as other information. One of the challenges we faced was in excluding, per standard EMGP methodology, financial activities. We had to split the financial and non-financial assets correctly. This was especially difficult for the largest Czech MNE, PPF, which is predominantly a financial group. Further, if companies did not fully own their foreign subsidiaries, we only included data on their proportional shares. Finally, for the companies that did not have or present information about their foreign assets in their final reports or respond to our questionnaires, we used data from Amadeus. Often, and due to the low response rate to our surveys, we had to combine both sources – final reports and Amadeus. We gathered all the available data and made the list of the twenty largest Czech companies based on foreign assets. For many companies we do not provide data for foreign sales and or for foreign employment. This is because such data, particularly employment data, are often missing or are largely under or overestimated in the Amadeus database.

The big picture

Total OFDI flows reached 3.1 billion USD, which was one billion lower than in 2019. The COVID-19 pandemic significantly impacted FDI globally, FDI flows fell by one quarter hitting greenfield investments in industry and new infrastructure investment projects in developing countries especially hard¹³. OFDI flows peaked in 2018 (see annex 1) and have declined since. If we look at OFDI stock, it reached 56 billion in 2020 increasing rapidly, especially since 2016. Compared to inward FDI stock, it is more than three times lower. Whereas in high-income countries the outward FDI stock is usually higher than the inward stock, in the new EU member states the situation is different. These countries attracted significant FDI during their transition period and especially after their EU accession. On the other hand, their outward FDI remains rather modest, though it is slowly increasing. Within the Visegrad countries¹⁴, Czechia is the leader in inward FDI stock relative to GDP (77%) and almost reached the level of Hungary in outward FDI stock to GDP (23% - see annex), although in terms of FDI based on ultimate ownership the data would be different as will be discussed below. The majority of OFDI flows were in financial and service activities (particularly activities of holding companies), followed by scientific research and development.

As the year 2020 was rather peculiar, a look at the major sectors within OFDI stock provides useful insights. The largest share of outward investment was in financial and insurance activities (76%) followed by manufacturing (6%) (with the biggest share of manufacturing being the manufacture of chemicals and chemical products), and professional, scientific and technical activities (4%). In terms of destinations, 92% of OFDI flows from Czechia in 2020 (as well as stock) went to the EU28. The major destinations included the Netherlands (35%), followed by Luxembourg (19%), Poland (17%), Greece (9%), Georgia (8%), and Bulgaria (8%). In terms of OFDI stock the leading countries are the Netherlands (26%), Luxembourg (21%), Cyprus (9%), Slovakia (9%), and Italy (6%). Here the data are influenced by the fact that roughly three-quarters of OFDI are in financial and service activities, which are not included in the EMGP

¹³ UNCTAD (2021): World investment report 2021. https://unctad.org/system/files/official-document/wir2021_en.pdf

¹⁴ Visegrad Group includes Czechia, Hungary, Slovakia and Poland.

report. The large share of OFDI flows to Georgia and Bulgaria in 2020 can be related to the activities of DK Holding. Other destinations cannot be easily explained. Nonetheless, we can see the dominant role of tax havens.

The activities of the largest MNEs do not correspond with targeted sectors of OFDI (even after leaving out financial services). This is also indicated by other data. When exploring sales and employment of branches of Czech MNEs (under the direct investor principle applied also in presented FDI data¹⁵), the most important host country for the largest Czech MNEs is Slovakia with 24% of foreign sales and 31% of foreign employment. There is also a big role of Germany, Bulgaria, Poland and Hungary. These five countries together account for 69% of foreign sales and 64% of foreign employment. While the role of tax havens in FDI flows may be significant for all countries, the situation in Czechia appears particularly pronounced. This is well demonstrated when we look at the ten richest people in Czechia according to Forbes in 2020¹⁶. Only one billionaire has his company seated in Czechia. In this case the company is holding Agrofert. Its former owner and still a major beneficiary is Andrej Babiš, the former prime minister of the Czech Republic. All other companies are either located abroad and have some branches in Czechia, while controlling their foreign activities from abroad (e.g. PPF Group N.V., CPI Property Group), or the majority of their activities are within their Czech company, but this company is owned by another entity located in a tax haven (e.g. Energetický a průmyslový holding, a.s., Bonatrans Group, a.s.). The MNEs' structures are thus often extremely complex and difficult to unravel (see box 1). There are several reasons why Czech firms are often located outside Czechia. The most common ones include lower taxation and/or different, stable and more beneficial regulations¹⁷.

These circumstances have several implications. First of all, it indicated that FDI inflows are exaggerated, while FDI outflows are underestimated in Czechia. Czechia has 4% lower GNI compared to GDP¹⁸. This is linked to the fact that Czechia is named as a dependent market economy¹⁹. However, if the FDI flows were mapped on the ultimate ownership principle, the difference between inward and outward FDI would be smaller. Further, ignorance about the “real” flows prevents one from mapping the dependencies in the economy and understanding the overall picture of global economic activities. Another major problem is tax losses for the Czech economy and the limited possibilities for regulation. More transparent financial reporting of companies could improve the situation. There have been several attempts by the EU, the OECD, and other stakeholders to address these issues.²⁰ Even in Czechia, we can see increased attention given to these topics. Since 2021 there has been a publicly available portal entitled “Evidence” established under the Act No. 37/2021 Coll., on the Register of Beneficial Owners which regulates certain rights and duties arising in connection with the determination of beneficial owners and registration of beneficial ownership information in the Register of

¹⁵ ČNB (2022): https://www.cnb.cz/cnb/STAT.ARADY_PKG.STROM_DRILL?p_strid=A&p_lang=EN

¹⁶ <https://forbes.cz/nejbohatsi-cesi-2020/>

¹⁷ for more details, see Sass, M., & Vlčková, J. (2019): Just look behind the data! Czech and Hungarian outward foreign direct investment and multinationals. *Acta Oeconomica*, 69(S2), 73-105; Sass, M., Élteto, A., & Antalóczy, K. (2014). Outward FDI from Hungary: The emergence of Hungarian multinationals. *Entrepreneurial Business and Economics Review*, 2(3), 47.

¹⁸ ČSU (2022): https://www.czso.cz/csu/czso/gdp_national_accounts_ekon

¹⁹ Nölke, A., & Vliegenthart, A. (2009). Enlarging the varieties of capitalism: The emergence of dependent market economies in East Central Europe. *World politics*, 61(4), 670-702.

²⁰ Such as OECD/G20 Inclusive Framework on BEPS or European Commission Anti tax avoidance package

Beneficial Owners²¹. Further, in early 2022 the new Czech government also promised to implement rules for transparent documentation of beneficial owners of companies that draw subsidies, investment incentives and win public contracts.²² Future reports will be able to benefit from these initiatives and identify remaining transparency gaps.

²¹ https://esm.justice.cz/ias/issm/download/Act%2037-2021_EN.pdf

²² https://www.idnes.cz/zpravy/domaci/programove-prohlaseni-vlady-petra-fialy-danove-prazdniny-pro-cast-rodin.A220107_092121_domaci_kop

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Emerging Markets Global Players Project

This report on Czech multinationals was prepared under the framework of the Emerging Market Global Players (EMGP) Project, a collaborative effort led by the [Columbia Center on Sustainable Investment \(CCSI\)](#). It brings together researchers on FDI from leading institutions in emerging markets to generate annual reports on the top multinationals in each participating country. Since 2007, reports on 16 economies have been published (some with multiple reports). For further information, visit: <https://ccsi.columbia.edu/content/emerging-market-global-players-emgp>

Faculty of International Relations, Prague University of Economics and Business

The Faculty of International Relations (FIR) is one of the largest faculties at the Prague University of Economics and Business. There are two main directions in both teaching and research: International Business and International Politics and Diplomacy. Other programs, focusing on Business and Law, International Politics and Diplomacy or Tourism also play an inevitable role. The mission of the Faculty of International Relations is to develop education and knowledge in the field of international economic and political relations and to provide internationally recognized study programs based on critical thinking and openness, personal and societal responsibility and commitment to lifelong learning. For further information, visit: <https://fir.vse.cz/>

Annex Table 1. Czechia: The top 20 multinationals: Key variables, 2020 (US\$ million and number of employees)

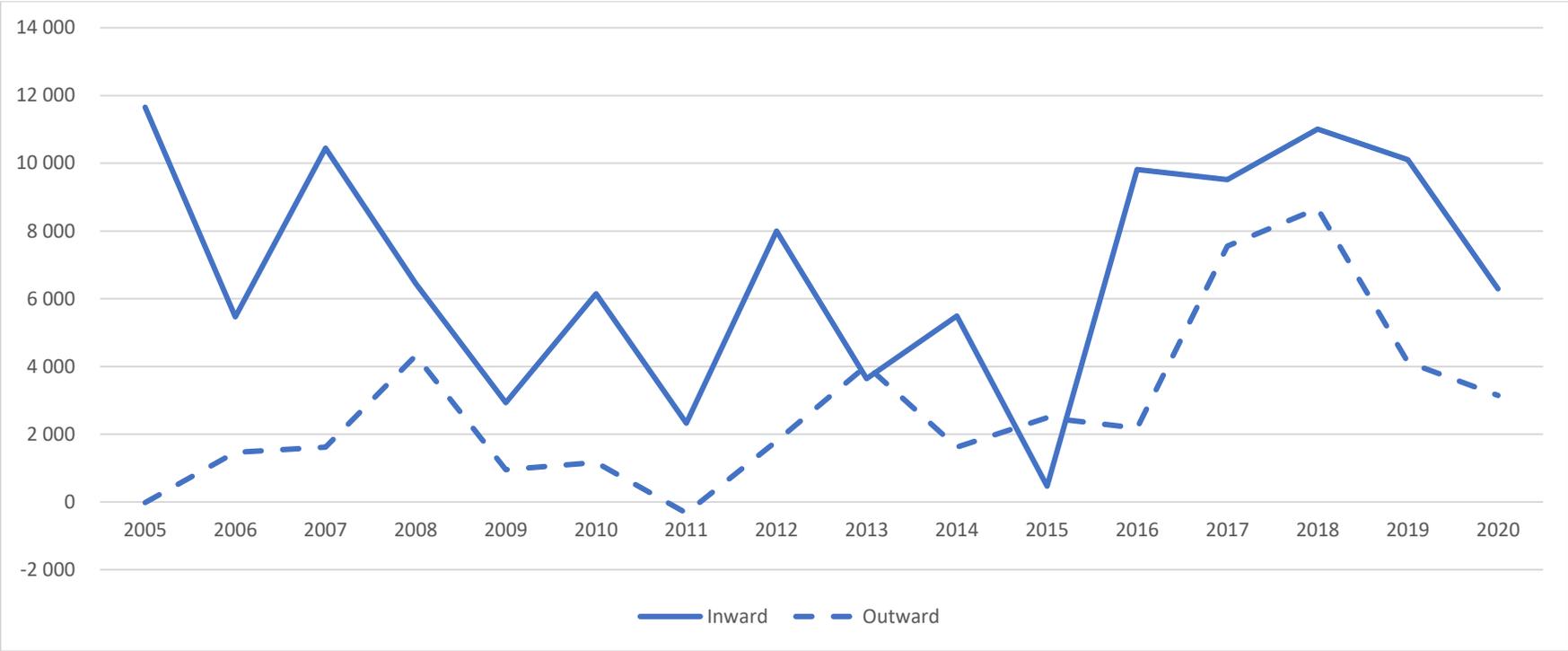
Rank by foreign assets	Company	Foreign Assets	Total Assets	FA/TA	Foreign Sales	Total Sales	FS/TS	Foreign Employment	Total Employment	FE/TE	No. of host countries
1	PPF Group N.V.	10,587	18,041	59%	n.a.	4,965	n.a.	n.a.	n.a.	n.a.	20
2	CPI Property Group	7,964	14,480	55%	n.a.	794	n.a.	n.a.	2,278	n.a.	16
3	Energetický a průmyslový	5,625	14,841	38%	9,282	10,468	89%	8,877	11,281	79%	16
4	KKCG AG	3,868	6,428	60%	n.a.	n.a.	n.a.	n.a.	6,000	n.a.	27
5	Koncern AGROFERT, a.s.	3,440	7,339	47%	n.a.	7,527	n.a.	5,659	31,792	18%	11
6	DK Holding Investment s.r.o.	1,554	1,636	95%	n.a.	936	n.a.	9,433	9,645	98%	9
7	Skupina ČEZ, a.s.	1,043	32,843	3%	2,740	10,126	27%	9,970	32,535	31%	15
8	AVAST PLC	1,036	2,707	38%	n.a.	892	n.a.	n.a.	1,688	n.a.	21
9	PREMIER ENERGY PLC	375	375	100%	n.a.	471	n.a.	n.a.	1,138	n.a.	3
10	LINET GROUP SE	299	594	50%	n.a.	448	n.a.	n.a.	1,852	n.a.	13
11	CZECHOSLOVAK GROUP a.s.	274	1,252	22%	92	703	13%	2,537	3,906	65%	10
12	AGEL a.s.	193	652	30%	n.a.	965	n.a.	n.a.	11,270	n.a.	4
13	Sev.en Energy AG	151	1,060	14%	n.a.	968	n.a.	n.a.	3,863	n.a.	3
14	Bonatrans Group, a.s.	139	456	30%	232	266	87%	n.a.	1,404	n.a.	3
15	W.A.G. Payment solutions, a.s.	81	475	17%	935	884	106%	n.a.	390	n.a.	30
16	MORAVIA STEEL a.s.	50	2,776	2%	1,542	2,226	69%	n.a.	7,320	n.a.	6
17	HOPI Holding a.s.	43	61	70%	n.a.	183	n.a.	n.a.	5,000	n.a.	5
18	TESCAN ORSAY HOLDING, a.s.	34	173	20%	n.a.	103	n.a.	n.a.	650	n.a.	6
19	KOH-I-NOOR Holding, a.s.	28	234	12%	38	152	25%	40	2,229	2%	6
20	DEK a.s.	27	579	5%	1	40	3%	n.a.	192	n.a.	4
TOTAL/AVERAGE		36,811	107,001	34%	14,863	43,118	n.a.	36,516	134,433	n.a.	60

Annex 2 Table 2. Czechia: The top 20 multinationals, Regionality index*, 2020

Rank by foreign assets	Company	No. of host countries	No. of foreign affiliates	Other Europe	Eastern Europe & Central Asia	North America	Developed Asia-Pacific	East Asia & The Pacific	Middle East & North Africa	Latin America & the Caribbean	South Asia	Sub-Saharan Africa
1	PPF Group N.V.	20	56	68	25	4	0	2	0	1	0	0
2	CPI Property Group	16	162	99	1	0	0	0	0	1	0	0
3	Energetický a průmyslový holding, a.s.	16	135	100	0	0	0	0	0	0	0	0
4	KKCG AG	27	115	80	0	3	4	1	3	8	0	0
5	Koncern AGROFERT, a.s.	11	70	99	0	0	0	0	0	1	0	0
6	DK Holding Investment s.r.o.	9	28	35	18	11	0	4	25	7	0	0
7	Skupina ČEZ, a.s.	15	144	93	1	0	0	1	5	0	0	0
8	AVAST PLC	21	49	41	2	43	6	2	2	2	2	0
9	PREMIER ENERGY PLC	3	12	70	30	0	0	0	0	0	0	0
10	LINET GROUP SE	13	29	86	4	4	0	4	0	4	0	0
11	CZECHOSLOVAK GROUP a.s.	10	35	91	0	0	0	3	3	0	3	0
12	AGEL a.s.	4	30	97	0	0	0	0	0	0	0	3
13	Sev.en Energy AG	3	5	67	0	0	33	0	0	0	0	0
14	Bonatrans Group, a.s.	3	4	50	0	0	0	25	0	0	25	0
15	W.A.G. Payment solutions, a.s.	30	45	96	2	2	0	0	0	0	0	0
16	MORAVIA STEEL a.s.	6	11	82	18	0	0	0	0	0	0	0
17	HOPÍ Holding a.s.	5	6	100	0	0	0	0	0	0	0	0
18	TESCAN ORSAY HOLDING, a.s.	6	10	80	0	10	0	0	0	10	0	0
19	KOH-I-NOOR Holding, a.s.	6	10	88	12	0	0	0	0	0	0	0
20	DEK a.s.	4	13	100	0	0	0	0	0	0	0	0
AVERAGE		11.4	48.5	81.1	5.7	3.9	2.2	2.1	1.9	1.7	1.5	0.2

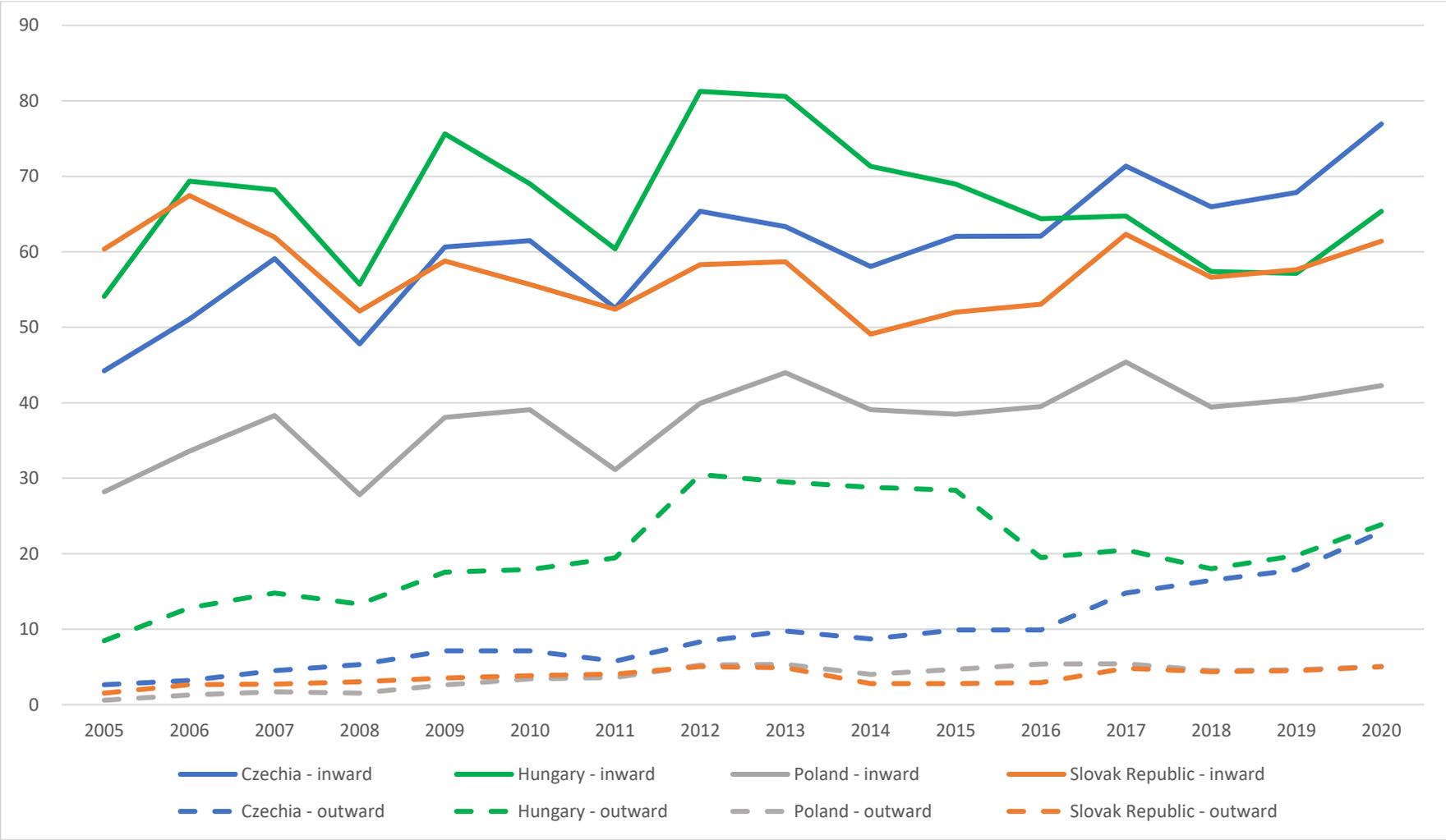
*The Regionality Index is calculated by dividing the number of the firm's foreign affiliates in a particular region of the world by its total number of foreign affiliates and multiplying the result by 100.

Annex Figure 1. Czechia: Inward and outward FDI flows 2005-2020 (mil. USD)



Source: Czech National Bank, 2022

Annex Figure 2. Visegrad countries: Inward and outward FDI stock as a share of GDP 2005-2020 (%)



Source: Czech National Bank, 2022

Annex II. Brief company profiles (in order of ranking)

1. PPF Group N.V.

PPF Group N.V. was established in 1991 by Petr Kellner who was the majority owner until his tragic accident in March 2021. In 1994 the PPF Holding Group was registered in the Netherlands. Currently, the company is owned by Kellner's family. Initially, the company was founded as the First Czech Privatization Fund. The breaking point came in 1996 when PPF bought a 20% share of Česká pojišťovna (Czech Insurance Company), afterwards, it continuously gained more influence in the company, in 2001 PPF became the sole owner of Česká pojišťovna. PPF has widely spread its activities around the world from Central and Eastern Europe to Russia and Asia, however, the company is presently also in the USA. Concerning fields of investments, PPF operates in financial services (HomeCredit), telecommunication, biotechnology, engineering as well as real estate. Besides the financial sector, PPF owns the company CME, one of the top media and entertainment companies in Central and Eastern Europe. Regarding the real estate field, the Netherlands plays a crucial role in the PPF portfolio as it owns a few office buildings and a shopping center.

2. CPI Property Group

CPI Property Group is owned by Radovan Vitek and headquartered in Luxembourg. It is a real estate company being active, especially in the Central and Eastern European region. The company was established in 1991 and it expanded its domestic activities in the 1990s. In 2013, it acquired ABLON Group Limited, a significant property portfolio owner in Central and Eastern Europe. One year later, it was combined with German Orco Property Group which owned office properties in Berlin. In 2020, the company entered the Polish and Romanian markets and acquired Globalworth Real Estate Investments Limited.

3. Energetický a průmyslový holding, a.s.

Energetický a průmyslový holding, a.s. (EPH) was established in 2009 by J&T and PPF Groups as a strategic company for investments in the energy sector. In 2017, the ownership structure was changed and Daniel Křetínský became the majority owner of EPH. The holding is a vertically integrated energy utility covering the complete value chain: from lignite mining through to electricity and heat production to electricity and heat distribution, including supply and trading platforms and gas infrastructure management. It incorporates over 70 companies based mainly in Europe, namely Slovakia, Italy, Germany, Hungary and the UK. Nowadays, EPH invests especially in modern steam-gas blocks and using biomass in the energy sector. The most vulnerable of EPH's asset is the share in Slovakian pipelines Eustream. Apart from the energy sector, EPH is also involved in rail cargo transport and dispatch.

4. KKCG AG

KKCG AG is an international investment company established in 1995. The group covers many activities, however, the most prominent ones are the lottery industry, oil mining and IT. The company is seated in Switzerland, the major owner being Karel Komárek. KKCG invested into the US territory in the methanol industry as it established the company of US Methanol.

Regarding the mining industry, KCCG holds investments in Germany, Georgia, Ukraine and Italy. In Italy, Greece and Austria, KCCG operates also in the lottery field. One of the most recent and significant acquisitions in the lottery industry was announced in 2020, the Czech Sazka Group was supposed to acquire Apollo Global Management. The company invested also in start-up companies through Springtide Ventures fund, the latest announced investment is concerning the security of the internet of things by an Israeli company.

5. AGROFERT, a.s.

AGROFERT, a.s. is a Czech holding company operating especially in agriculture, food and chemical industry and media. It was established in January 1993 as a business based on trade with fertilizers, nowadays the company has its subsidiaries on four continents. The company is widely discussed in the Czech business environment in association with European subsidies and the way of acquiring other companies as the former owner and current beneficial owner is former Czech prime minister Andrej Babiš. The majority of holding activities are based in Europe. Among others, AGROFERT owns German Bakery Lieken, Hungarian bakery Ceres and SKW Piesteritz - Germany's largest producer of ammonia and urea.

6. DK Holding Investment s.r.o.

DK Holding Investment s.r.o. is the only shareholder of ENERGO – PRO a.s. company incorporated in 1994 currently operating hydroelectric power stations in the Black Sea and Caucasus regions. Nowadays, the company has the majority of its assets abroad, especially in Bulgaria, Georgia and Turkey. The most successful market of ENERGO – PRO is Georgia which is supported by the fact that ENERGO – PRO is the most prominent investor in this territory. ENERGO – PRO has made the largest Czech investment into hydroelectric power since 1989 in Turkish hydroelectric station Alpaslan 2 which was put into operation in April 2021. The company owns a total of 38 hydroelectric stations in four countries, including Czechia. Apart from hydroelectricity, it operates in the sector of energy distribution, it runs the distribution nets in Bulgaria and Georgia. The company issued bonds in 2020 through Energo – Pro Green Finance for the total amount of 530 million CZK. Despite the company having a relatively high level of indebtedness, it can manage it in a good way.

7. Skupina ČEZ, a.s.

Skupina ČEZ, a.s. was established in 1992 by transforming the state Czech energy company. In 2003 the company started to merge with distribution companies and the basic structure of the currently known Skupina ČEZ, a.s. was laid down. Almost 70% of shares is owned by the Ministry of Finance of the Czech Republic. The first acquisition abroad took place in 2004 when ČEZ bought 67% of shares in some Bulgarian companies. This action was followed by company expansion to other countries of south-eastern Europe as well as central Europe and Turkey. Despite selling the assets in Bulgaria and Romania in recent years, the company still ranks among the top energy companies in the whole of Europe.

8. AVAST PLC

AVAST PLC is a multinational cybersecurity software company that has more than 435 million users and the largest market share among anti-malware application vendors worldwide. Avast was founded by Pavel Baudiš and Eduard Kučera in 1988 as a cooperative and had its IPO in May 2018. The company has approximately 1,700 employees across its 25 offices worldwide

including the United States, Japan, Germany, Great Britain. However, the ultimate owner of Avast PLC is based in the United Kingdom, though in 2020 Czech shareholders still owned over 50% of the firm.

9. PREMIER ENERGY PLC

PREMIER ENERGY PLC is a fast-growing energy holding in Southeast Europe. Its main activities include the production, distribution and sale of electricity and natural gas to households and industrial companies in Romania and Moldova. The holding was established in 2013 when EMMA Capital (majority ownership by Jiří Šmejč) acquired Gaz Sud and Grup Dezvoltare Retele dealing with natural gas distribution. Since then PREMIER ENERGY PLC has grown thanks to the acquisition of dozens of other companies as well as through organic growth.

10. LINET Group SE

LINET Group SE is a leading global supplier of hospital beds. Linet was founded in 1990, now it is a part of a multinational holding, though its manufacturing plants are still located in Czechia. The company has about 20 branches in the whole world and is also present in the US market. The company's portfolio includes solutions designed for intensive care, products for the regular in-bed treatment and also special beds for old people's homes and long-term care facilities. The company has recently acquired a start-up company in Austria and it plans to continue to deepen its influence in this territory.