EKONOMIA I PRAWO. ECONOMICS AND LAW
Volume 24, Issue 1, March 2025
p-ISSN 1898-2255, e-ISSN 2392-1625
www.apcz.umk.pl/EiP.pl

Original article
received 05.12.2024; accepted 10.03.2025; published 14.04.2025
doi: 10.12775/EiP.2025.04

What doesn't kill you makes you stronger – multinational enterprises facing global challenges related to COVID-19 and the war in Ukraine

MAŁGORZATA JAWOREK
corresponding author
Department of Investment and Real Estate, Faculty of Economic Sciences and Management, Nicolaus Copernicus University in Toruń, Poland
mjaworek@umk.pl
ORCID: https://orcid.org/0000-0003-1448-1127

WŁODZIMIERZ KARASZEWSKI
Department of Investment and Real Estate, Faculty of Economic Sciences and Management, Nicolaus Copernicus University in Toruń, Poland
wkaras@umk.pl
ORCID: https://orcid.org/0000-0002-8351-4589

MAGDALENA KUCZMARSKA
Department of Investment and Real Estate, Faculty of Economic Sciences and Management, Nicolaus Copernicus University in Toruń, Poland
mkuczmarska@umk.pl
ORCID: https://orcid.org/0000-0002-7587-5122

Abstract

Motivation: The activities of multinational enterprises (MNEs) abroad have become a significant theme in international economics, reflecting the growing importance of these

enterprises in the global economy. MNEs control approximately 40% of global production, 50–60% of international trade in goods, 80–90% of research and development, and 90% of transnational investment. Their responses to the challenges posed by significant global events are scrutinised across nearly all areas of the international community. Therefore, it is crucial to indicate how these actors respond to events that cause disruption on a global scale.
Aim: This article aims to assess the impact of recent events — the COVID-19 pandemic and the war in Ukraine, instigated by the Russian Federation's aggression — on the investment activities of MNEs abroad and the changes in the economic parameters of the world's largest MNEs.
Results: The COVID-19 pandemic and the war in Ukraine have reduced investment activities of economic actors in the form of foreign direct investment. The outbreak of the war in Ukraine in 2013 and its subsequent escalation in 2022 were distinctly felt by both the Russian Federation and Ukraine. For Russia, this was associated with the withdrawal of capital by several MNEs, the abandonment of planned investment projects, and sanctions imposed by the country in response to Western actions. The decline in foreign direct investment in Ukraine was primarily due to the high risks associated with the ongoing hostilities. Notably, the COVID-19 pandemic and the escalation of the war in Ukraine have had minimal impact on the reduction in the scale of investment activity abroad for both the world's largest non-financial MNEs and the largest MNEs from developing countries.

Keywords: multinational enterprises; multinational enterprises from developing countries; foreign direct investment; COVID-19, war in Ukraine
JEL: F21; F23; D81

1. Introduction

The investment activities of enterprises abroad have acquired significance in international economics, reflecting the growing importance of multinational enterprises (MNEs) in the global economy. Notably, they control approximately 40% of global production, 50–60% of international trade in goods, 80–90% of research and development, and 90% of transnational investment (Huang et al., 2023).

Given these figures, it is evident that MNEs' responses to the challenges posed by significant global events impact almost all areas of the international community. In the first two decades of the current century, this impact has not been favorable. The third decade commenced with the COVID-19 pandemic and the war in Ukraine, both of which have significantly impacted international business.

The COVID-19 pandemic resulted in the deaths of millions and has possibly left lasting but unrecognised effects on global health. Due to this, the global market has witnessed significant reductions in both demand and supply.

The Russian invasion of Ukraine has had similarly dramatic consequences, marking a turning point for global security, the international economy, and the global energy architecture. In a globalised world, it is impossible to confine the consequences of this war to a single region (Krzykowski, 2022).

This article aims to assess the impact of the COVID-19 pandemic and the war in Ukraine, on the investment activities of MNEs abroad and the changes in the economic parameters of the world's largest MNEs.

Specifically, the article addresses the following questions:

Q1. To what extent have the COVID-19 pandemic and the war in Ukraine affected the scale of international capital flows in the form of foreign direct investment (FDI)?

Q2. To what extent have Russia's hostilities in Ukraine influenced these two countries' participation in international capital flows in the form of FDI?

Q3. Have the COVID-19 pandemic and the escalation of the war in Ukraine reduced the activity abroad of the world's largest non-financial MNEs and MNEs from developing countries?

2. Literature review

MNEs facing crises and global turmoil

Regardless of their origins (developed or developing countries), MNEs are currently exposed to similar challenges arising from emerging global crises. The last two decades have been particularly fraught with events disrupting international activities, including the 2008 financial crisis, the supply chain crisis following the COVID-19 pandemic, and the recent war in Ukraine. All these events have compelled MNEs to reformulate their localisation strategies and manage unpredictable occurrences (Anand et al., 2024).

The COVID-19 pandemic resulted in a standstill of foreign projects, leading to reduced FDI inflows (Dheera-Aumpon & Changwatchai, 2024; Duan et al., 2020; Fang et al., 2021; Truong, 2022; Zhou et al., 2023) or their relocation. Veljanoska & Mazahrih (2023) indicate that the pandemic negatively impacted FDI in Europe and low-income countries, compared to Asia and middle-income countries, where it had a positive effect. Similarly, the pandemic significantly affected FDI flows into Brazil, while other BRICS countries remained largely unaffected (Chattopadhyay et al., 2022). The pandemic impacted various economic sectors, particularly the service sector – especially tourism, transport, and catering (Jaworek et al., 2020) – as well as manufacturing or extractive industries (Doytch et al., 2021). It also caused tremendous disruption in global supply chains, prompting an in-depth reflection on optimising the linkages among the entities comprising these chains (Falvo et al., 2021). The war in Ukraine triggered similar effects, leading to reduced investments in specific countries or regions or their reallocation (Bilotserkivska, 2023; Hosen et al., 2023; Kalotay, 2022).

Events such as pandemics, natural disasters, and wars can both negate the anticipated benefits of global supply chains and lead to substantial economic consequences, not to mention human costs (Bani-Irshid et al., 2024; Chervenkova & Ivanov, 2023; Kazancoglu et al., 2023; Lemke et al., 2024; Ngo & Dang, 2023; Yu et al., 2022). The pharmaceutical industry and healthcare sector are particularly affected due to such events. A tangible example is the drastic, unprecedented shortages of essential drugs and intravenous solutions used daily in emergency departments and outpatient clinics in the United States. In 2021, the U.S. Food and Drug Administration identified shortages of 115 essential medicines, leading the American Medical Association to acknowledge a public health crisis (Edwards, 2021). Daily images from Northern Germany depict a former military airfield transformed into a warehouse for Mercedes Benz cars that cannot be sold due to a shortage of components. Other MNEs too face similar challenges; recently, Volkswagen and BMW periodically halted operations at some European factories. The war in Ukraine has caused the suspension or restriction of imports of critical raw materials used in the automotive industry, primarily neon for semiconductors, palladium for catalytic converters, and nickel for lithium-ion batteries.

3. Methods

This study is based on statistical sources published by the United Nations Conference on Trade and Development. The information includes the following: 1) global FDI flows and stocks from 2019 to 2023, 2) FDI to and from the Russian Federation and Ukraine from 2013 to 2023, 3) internationalisation characteristics of the world's top 100 non-financial MNEs from 2019 to 2023, 4) the world's top non-financial MNEs from selected sectors (assets, sales, employment, transnationalisation index) during 2019–2023, and 5) internationalisation characteristics of the world's top 100 non-financial MNEs from developing countries. This study employs various methods, including statistical and economic analyses, comparisons, analogies, synthesis, data measurement and aggregation, and the tabular method. The selection of the economic parameters presented below, along with the related parameter formulas proposed by the authors, is based on a preliminary review of the scientific literature on the subject, available statistical data, and the authors' research experience and conclusions.

4. Results and Discussion

In 2020, a decline was observed in FDI, marking the most significant decrease in FDI since the beginning of the 21st century. In that year, the value of global FDI inflows was 56.9% lower than that in the previous year and almost 20% lower than 2009 levels, i.e. after the global financial crisis. The decline was primarily felt by developed economies, where the FDI value in 2020 represented only 32.9% of the quantum in 2019. In developing countries, the FDI value fell by 8.8% (UNCTAD, 2024, Table 1). Nevertheless, these countries experienced the most significant impact of the downturn in investment. UNCTAD reported that the number of newly announced greenfield projects in developing countries fell by 42% and that the number of international project financing agreements, crucial for infrastructure, declined by 14%. In developed economies, the decline in greenfield projects was less pronounced, and, vis-a-vis developing economies, a 9% increase was observed in international project financing. FDI inflows to Africa fell by 16% to US$40 billion, at the pre-pandemic level. Advertisements for greenfield projects, essential for the region's industrialisation prospects, fell by 62%. Overall, with MNEs' profits declining by an average of 36%, profits reinvested in direct investment entities – a crucial component of FDI – decreased significantly (UNCTAD, 2021, p. X). In 2021, the value of FDI increased, although it did not reach the 2019 levels. The reported 64.7% increase over 2020 became the proverbial 'light at the end of the tunnel' for a world left in the gloom of the COVID-19 pandemic. Unfortunately, this optimism faded with Russia's invasion of Ukraine on 24 February 2022, which represented an escalation of the war that had been simmering since 2014. A decline followed the increase in FDI in 2021 in the subsequent years, though not as severe as that in 2020. Notably, FDI inflows in 2021 and the two subsequent years were lower than those in 2019.

Unlike FDI flows, statistics recorded an increase in FDI stock, which includes the FDI liabilities and receivables of the world's countries (representing the sum of liabilities/receivables for stocks and other forms of debt holdings), in 2020 and 2021. The state of FDI stock is significantly influenced by the listing of direct investment companies on global stock exchanges, including the largest ones, as discussed further below. FDI stock similarly increased in 2021. However, the value of FDI stocks declined in the following year, vis-a-vis 2021. It is reasonable to assume that significant factors contributing to this decline were investors reducing their equity exposure to the Russian Federation and the responses to internal challenges faced by MNEs due to various disruptions. FDI stock increased again in 2023, reaching its highest level in the five years presented.

The war in Ukraine led to significant changes in the direct participation of the Russian Federation and Ukraine in international capital flows in the form of FDI. Following the outbreak of the war in 2014, international sanctions led to a significant decline in FDI in Russia (Table 2). In the individual years from 2014 to 2023, their value did not reach the 2013 level. The year 2022 witnessed many disinvestments. This decreased to a small number in

2023. Similarly, the value of the FDI outward stock of the Russian Federation decreased, falling short of its 2013 value in the individual years from 2014 to 2023. In 2023 alone, there was a reduction of USD 81.1 billion from the previous year, partly due to the exodus of MNEs from the Russian Federation, loss of assets[1], and Russian sanctions making outflows virtually impossible. The ranking of the top 100 non-financial MNEs in 2022-2023 shows 36 significant divestments from the Russian Federation, with the largest write-downs and charges concentrated among MNEs in the oil, gas and extractive industries (UNCTAD, 2024, p. 38). The direct effects of the war on investment flows into and out of the Russian Federation and Ukraine include a halt to existing project investments and the cancellation of announced projects. There was also a decline in the value of Russian FDI after 2013. While the Russian Federation did not play a significant role in international capital flows in the form of FDI, its position as an FDI destination was marginalised after 2013. Its inward FDI stock also decreased, with its value in 2023 being the lowest throughout the entire period presented. Following the outbreak of the war in 2014, Ukraine experienced a drastic reduction in FDI inflows, undoubtedly as a result of risks perceived by investors associated with capital investment in the country. In 2023, the value of FDI increased slightly compared to the previous year, which also led to an increase in Ukraine's FDI outward stock. The value of Ukrainian FDI throughout the presented period was relatively small. In the last three years, Ukraine's inward FDI stock has been negative, possibly indicating an increasing value of direct investment entities' debt to investors (Table 2).

The escalation of the war in Ukraine has significantly disrupted global political and economic stability (Dimitrijević & Dželetović, 2022; Guénette et al., 2022; Krzykowski, 2022), which is a vital determinant of the international investment market, particularly in the area of private investment. This has caused a dramatic deterioration of the global investment climate. Numerous countries have faced a triple crisis – food, fuel, and finance – while the war has also increased living costs, affecting billions of people worldwide. The prospects for achieving the Sustainable Development Goals (SDGs) have diminished, as has the Paris Climate Agreement. Despite greater awareness than ever of the necessity to fulfil established plans regarding social inclusion, clean energy, responsible consumption, and universal access to public services – prerequisites for averting significant contemporary challenges such as international security threats, pandemics, and dramatic climate change – there has been a concerning diversion of political attention to

1 An example is Fortum, the Finnish energy giant (majority state-owned company), the largest direct foreign investor in the Russian Federation, whose assets (estimated at $32.6 billions of dollars [UNCTAD, 2022, p. 3]) were seized by the Russian authorities by Presidential Decree No. 302 of April 25, 2023 (Reuters, 2023).

immediate problems (Sachs et al., 2022). The signal indication in this article of the problem of the impact of the COVID-19 pandemic and the war in Ukraine on STGs does not mean its unimportance. It is quite the opposite, as the authors believe that it requires a thorough explanation, which is not possible without in-depth research.

In 2022, UNCTAD indicated that increased investment in climate change mitigation would be limited to developed countries. Emerging information suggests that the war in Ukraine may hinder the energy transition, as there has been an increase in fossil fuel production. While the majority of the top 5,000 MNEs revised their 2022 profit forecasts downwards in the first quarter of 2022, those operating in extractive industries revised their expected profits upwards (22% for oil and gas, 32% for coal), while renewable energy companies revised their forecasts downwards by an average of 22%. These data support the notion that current conditions pose a risk of reversing years of progress in sustainable energy development. This is particularly concerning, given the global increase in CO2 emissions from energy combustion and industrial processes in 2021, which reached the highest annual level ever.

Considering the turbulence that has affected the world since 2019, a pertinent question arises: How resilient have the world's largest direct investor MNEs proven to be?

Interestingly, in contrast to the large fluctuations in global FDI flows, there has been a steady increase in the value of the foreign assets of the world's 100 largest MNEs between 2020 and 2023, but a slight decline in 2022. The value of their total assets has increased throughout this period. The scale of the foreign assets of the largest MNEs confirms the continued high concentration of capital placed abroad in a few entities. This is evidenced by the share of foreign assets of the world's 100 largest non-financial MNEs in global FDI outstock, which averaged 24.5% between 2019 and 2023 (falling to 23.8% in 2020 and 2021 from 26.6% in 2019, then rising to 24.9% in 2022 before falling to 23.1% in 2023). These figures are striking, given that they represent only 100 companies.

The value of the assets of these entities directly corresponds to their stock market capitalisation. The pandemic triggered a crisis in financial markets, with global stock exchanges experiencing performance declines not seen since the global economic crisis of 2007–2009. Subsequently, the situation normalised, followed by increased listings of many of the world's companies (Capelle-Blancard & Desroziers, 2020). The following words elucidate this phenomenon (Krugman, 2020): 'Yet stock prices, which fell in the first few weeks of the COVID-19 crisis, have made up much of those losses. They're currently more or less back to where they were last fall, when all the talk was about how well the economy was doing. What's going on? (…) I'd argue that there are deeper reasons for the current stock market-real economy disconnect: Investors are buying stocks in part because they have nowhere else to go. In fact, there's a sense in which stocks are strong precisely because the economy as a whole is so weak'.

Their growth is evident when comparing the characteristics of the world's largest MNEs from 2019 to 2023 (asset values, sales, and number of employees – Table 3). During this period, there were increases of 8.7% in assets abroad, 21.7% in total assets, 19.3% in sales abroad, 31.3% in total sales, 2.3% in the number of employees abroad, and 2.0% in total employees. The Transnationality Index[2] (TNI) decreased slightly, from 62.4 in 2019 to 62.0 in 2023.

Concerns related to health security and the achievement of the SDGs warrant highlighting the changes among the world's largest MNEs operating in industries particularly responsible regarding these issues. The entities within these groups emphasise their commitment to the actions outlined in the SDGs in their mission statements. Given their position in the global economy and their pursuit of these goals, they can significantly contribute to achieving these globally essential objectives. For comparison, the following groups include: 'Pharmaceuticals', 'Motor Vehicles', 'Mining, Quarrying and Petroleum', and 'Petroleum Refining and Related Industries' (Table 4).

The first group experienced an 11.6% increase in foreign assets in 2023 vis-a-vis 2019, representing a higher growth level than that of the entire group of the world's 100 largest MNEs. The total assets of the constituent companies increased even more (by 20.1%). The value of sales abroad increased by 13.6%, with total sales rising by 22.4%. The scale of the increase in the number of employees abroad was lower overall. Consequently, the TNI of the companies in this group fell from an average level of 072.6 in 2019 to 69.8 in 2023.

Companies in the 'Motor Vehicles' sector experienced a significant increase in the value of assets overseas during the period, rising by 19.3%, with a 12.5% increase in total assets in 2023, compared to 2019. They also increased the value of sales abroad and total sales. This occurred against a backdrop of a significant reduction in the number of employees – by almost 150,000 abroad and more than 230,000 overall. The average TNI index increased by 1.3 percentage points in 2023 over 2019. Achievement of the sustainability goals for this group of companies is primarily manifested in the transition to electric vehicles and the implementation of new technologies. The 12 carmakers that comprise this group have expanded internationally, focusing on the United States and China – the two largest markets for electric vehicles (UNCTAD, 2024, p. 38) – while contributing to the slight increase in the TNI of the world's 100 largest MNEs in 2023.

There was a marginal decrease in the value of overseas assets and total assets of the MNEs in the 'Mining, Quarrying and Petroleum' group in 2023,

[2] The Transnationality Index is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales, and foreign employment to total employment.

compared to 2019. This occurred alongside an increase in both overseas sales and total sales. The significant reduction in the number of workers employed abroad (from 544,500 in 2019 to 361,100 in 2022) coincided with an increase in the total number of employees (by more than 170,000). Due to these changes, there has been a sharp decline in the average level of internationalisation of this group of companies (TNI fell from 65.0 in 2019 to 47.6 in 2022). The authors lack adequate evidence to consider these changes symptomatic of the business response to the challenges of the energy transition. Hopefully, this is indeed the case. As reported by UNCTAD (2024, p. 38), the mining industry has had several large-scale international investments put on hold in 2023. Notable exceptions include Shell – ranked No. 2 among the world's top 100 MNEs by value of assets abroad – and Rio Tinto – ranked No. 32 (both in the UK) – which have been actively involved in strategic acquisitions and new ventures. Rio Tinto has finalised the acquisition of the Turquoise Hill copper-nickel mine (Canada) for approximately US$3.3 billion to enrich its critical product portfolio with energy transition minerals while boosting copper production. An example of Shell's energy transformation efforts is its acquisition of India's Spring Energie, a company that produces renewable energy products, for around US$1.5 billion.

In the Petroleum Refining and Related Industries group, there was minimal change in the value of both overseas assets and total assets, with a decrease of around 11% in overseas sales and a similar increase in total sales. There were also slight changes in the number of employees abroad and overall. Group entities experienced a 3.5 percentage point reduction in average TNI.

From 2020 onwards, UNCTAD has revised the rules for classifying countries as 'Developed Economies' and 'Developing Economies'. The 'Transition Economies' group has been dissolved. Belarus, the Republic of Moldova, the Russian Federation, and Ukraine, along with five Western Balkan countries (Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, and Serbia), are now classified as 'Developed Economies'. The Republic of Korea has also joined this group.

UNCTAD has incorporated these changes into its adjustment of the time series on FDI flows and stocks. However, the 2019 data presented in Table 5 for the top 100 non-financial MNEs from developing countries do not consider this change, making them incomparable with the data for subsequent years.

Considering this, and given that UNCTAD will only publish data characterising the top 100 non-financial MNEs from developing countries in 2024, changes for these companies can be presented only for three years – 2020–2022; therefore, it is not possible to assess how they reacted to the escalation of the war in Ukraine (only informative data for 2019 is presented in Table 5).

After an increase in the value of foreign assets in 2021, there was a slight decrease in 2022. In contrast, these companies' total assets, foreign sales, and total sales increased markedly throughout the period. The more significant increase in total value vis-a-vis values abroad is noteworthy. Thus, the value of overseas assets in 2022 was 10.1% higher than in 2020; total assets increased by 36.4%, overseas sales by 38%, and total sales by 65.3%. The largest MNEs in developing countries experienced a slight reduction in employees in 2022, compared to 2020 (less than 1%) while the number of employees increased by 4.5%. The TNI Index decreased by 1.1 percentage points in 2022 over 2020.

Throughout the presented period, a significant difference in asset value, sales, and number of employees remained between the world's 100 largest MNEs and the 100 largest MNEs from developing countries. In 2022, the value of the second group's foreign assets represented 28.8% of the value of the assets of the world's 100 largest MNEs (total asset value 60.4%). A larger share of the value of their sales was abroad – 33.5% – and the value of total sales was 61.7%. The number employed abroad by the largest MNEs from developing countries accounted for 45.2% employed abroad by the world's largest MNEs (total employment 69.1%)[3]. The level of transnationalisation of the 100 largest MNEs from developing countries was significantly lower than that of the group of the 100 largest MNEs globally. In 2022, the difference was 15.6 percentage points.

5. Conclusion

The COVID-19 pandemic and the war in Ukraine have undoubtedly contributed to a reduction in investment activity by economic actors in the form of FDI. The outbreak of the war in Ukraine in 2013 and its subsequent escalation in 2022 were felt by both the Russian Federation and Ukraine. For Russia, this was linked to the withdrawal of capital employed by several MNEs, the abandonment of planned investment projects, and sanctions imposed by the country reciprocating Western actions. The reduction in FDI in Ukraine was primarily due to the high risks associated with ongoing hostilities.

Interestingly, the COVID-19 pandemic and the escalation of the war in Ukraine have had minimal impact on the reduction of the scale of investment activity abroad for both the world's largest non-financial MNEs and the

3 There has, therefore, been a further narrowing of the gap identified by the co-authors of this article between the world's largest MNEs and the largest MNEs from developing countries. In 2005, the total value of assets abroad of the 100 largest MNEs from developing and transitional economies accounted for only 10% of the foreign assets of the world's 100 largest MNEs (total asset value — 16.6%). In 2019, the 100 largest MNEs from developing countries held foreign assets representing 28.7% of the foreign assets of the world's largest MNEs (total asset value — 50.5%) (Karaszewski & Jaworek, 2022, p. 29).

largest MNEs from developing countries. These incidents have necessitated a reconfiguration of resources to enhance the resilience of supply chains. Unfortunately, the impact of global events such as the COVID-19 pandemic, particularly the geopolitical threats they caused, has not been conducive to advancing SDGs.

The statistical evidence presented in this article indicates a widening gap in the changes in the level of transnationalisation of the entities in the group of the world's 100 largest non-financial MNEs and the 100 largest non-financial MNEs from developing countries, as well as a progressive, albeit very moderate, narrowing of the gap between the largest non-financial MNEs from developing countries and the largest MNEs globally.

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Appendix

Table 1. FDI flows and stocks in 2019-2023 (billions of USD)

Specification	2019	2020	2021	2022	2023
FDI inflows	1 729.2	984.6	1621.8	1 355.7	1 331.8
Developed economies	1 024.8	337.6	731.8	426.2	464.4
FDI outflows	1 444.8	779.5	1 881.9	1 574.7	1 550.6
Developed economies	1 046.0	396.0	1376.1	1 023.2	1 059.3
FDI instock	36 150.8	41 892.8	47 156.1	44 375.1	49 130.8
Developed economies	24 807.7	30 006.6	32 855.5	29 591.9	33 434.7
FDI outstock	35 009.3	40 718.0	43 385.9	40 569.6	44 380.6
Developed economies	27 313.9	32 096.3	34 190.6	31 178.0	34 404.5

Source: Own preparation based on UNCTAD (2024, Annex tab. 1, 2, 3, 4).

Table 2. Foreign direct investment to and from the Russian Federation and Ukraine in 2013-2023 (millions of USD)

Year	Russian Federation				Ukraine			
	FDI inflows	FDI outflows	FDI instock	FDI outstock	FDI inflows	FDI outflows	FDI instock	FDI outstock
2013	53 397.1	70 684.8	471 474.7	385 321.6	4499.0	420.0	67 031.0	7 825.0
2014	29 151.7	64 202.5	290 038.6	332 960.6	410.0	111.0	49 835.0	7 584.0
2015	11 857.8	27 089.9	262 747.9	290 092.4	-331.0	-95.0	46 009.0	580.0
2016	37 175.8	26 951.2	393 910.4	342 848.7	4 055.0	100.0	47 706.0	541.0
2017	25 953.5	34 153.1	441 123.4	388 693.0	3 727.0	281.0	47 765.0	744.0
2018	13 227.6	35 819.7	408 097.4	346 593.2	4 732.0	-127.0	46 894.0	589.0
2019	32 075.6	22 024.0	493 155.8	407 318.2	6 017.0	842.0	54 210.0	1 743.0
2020	10 409.9	6 777.7	449 050.5	381 144.0	-36.0	22.0	52 091.0	907.0

Year	Russian Federation				Ukraine			
	FDI inflows	FDI outflows	FDI instock	FDI outstock	FDI inflows	FDI outflows	FDI instock	FDI outstock
2021	38 638.9	64 071.6	497 690.4	374 611.8	7 320.0	-198.0	65 746.0	-295.0
2022	-15 204.6	11 510.0	359 981.6	299 130.9	557.0	344.0	50 987.0	-867.0
2023	8 363.5	29 110.1	278 811.5	258 240.2	4 247.0	42.0	54 261.0	-885.0

Source: Own preparation based on UNCTAD (2024, Annex tab. 2, 4).

Table 3. Internationalisation characteristics of the world's top 100 non-financial MNEs, ranked by foreign assets in 2019-2023

Specification	2019	2020	2021	2022	2023
Foreign assets (billions of USD)	9 403	9 638	10 092	10 083	10 223
Total assets (billions of USD)	17 272	17 948	18 756	19 231	20 904
Foreign sales (billions of USD)	5 843	5 303	6 409	7 473	6 971
Total sales (billions of USD)	10 333	9 477	11 128	13 017	13 572
Foreign employment (thousands)	9 339	9 006	9 370	9 103	9 554
Total employment (thousands)	19 770	19 552	20 392	19 920	20 169
Transnationality Index (%)	62.4	60.5	61.6	61.7	62.0

Source: Own preparation based on (UNCTAD, 2021, 2022, 2023, 2024, Annex tab. 19).

Table 4. The world's top non-financial MNEs from selected sectors, ranked by foreign assets (assets, sales – billions of USD, employment – millions of USD, Transnationalization Index – %) in 2019–2023

Year	Number of MNEs	Assets		Sales		Employment		TNI
		Foreign	Total	Foreign	Total	Foreign	Total	
Pharmaceuticals								
2019	9	758	1 083	337	432	519	841	72.6
2020	11	926	1 373	416	511	556	844	73.3
2021	9	864	1 189	416	511	556	844	76.0
2022	9	781	1 139	406	524	570	832	75.0
2023	10	842	1 300	383	529	558	846	69.8
Motor Vehicles								
2019	12	1 487	2 887	1 242	1,743	1 741	3,154	59.9
2020	12	1 574	3 066	1 051	1,514	1 673	2,992	59.8
2021	10	1 481	2 814	1 193	1,641	1 421	2,690	57.9
2022	12	1 622	3 030	1308	1,783	1 598	2,921	61.4
2023	12	1 775	3 247	1 442	1,984	1 592	2,939	61.2

Year	Number of MNEs	Assets		Sales		Employment		TNI
		Foreign	Total	Foreign	Total	Foreign	Total	
Mining, Quarrying, and petroleum								
2019	10	1 023	2 110	913	1,618	544	1,938	65.0
2020	9	957	2 087	623	1,190	502	1,941	62.4
2021	10	1 103	2 393	823	1,439	529	1,903	61.0
2022	8	956	2 371	1 061	1,886	376	1,581	56.6
2023	8	1 009	1 979	1 069	1,846	351	2,111	47.6
Petroleum Refining and Related Industries								
2019	8	1 157	1 819	7 845	1,490	249	804	53.8
2020	8	1 103	1 743	566	1,097	205	951	54.6
2021	8	1 152	1 827	709	1,342	182	901	52.4
2022	8	1 184	1 983	987	1,894	203	891	53.0
2023	7	1 114	1 ,871	698	1,655	235	882	50.3

Source: Own preparation based on UNCTAD (2021, Annex tab. 19; 2022, Annex tab. 19; 2023, Annex tab. 19; 2024, Annex tab. 19).

Table 5. Internationalisation characteristics of the world's top 100 non-financial MNEs from developing countries

Specification	2019	2020	2021	2022
Foreign assets (billions of USD)	2 688	2 642	2 925	2 908
Total assets (billions of USD)	8 738	8 510	9 811	11 608
Foreign sales (billions of USD)	2 483	1 815	2 291	2 505
Total sales (billions of USD)	5 867	4 857	6 433	80 30
Foreign employment (thousands)	4 501	4 144	4 157	4 112
Total employment (thousands)	13 771	13 169	13 450	13 771
Transnationality Index (%)	47.6	47.2	47.8	46.1

Source: Own preparation based on UNCTAD (2021, 2022, 2023, 2024, Annex tab. 20).

Acknowledgements

Author contributions: authors have given an approval to the final version of the article. Authors contributed to this work equally.
Funding: this research was funded by the Nicolaus Copernicus University in Toruń, Faculty of Economic Sciences and Management, Department of Investment and Real Estate statutory sources.