Article

Foreign Direct Investment and Labour Productivity: Relationship and Interconnection

Olga Nosova[1,2*]
[1] Department of Business, Vilnius Business College, Kalvarijų g. 129-401, LT-08221 Vilnius, Lithuania
[2] Department of Marketing, Management and Entrepreneurship, V. N. Karazin Kharkiv National University, Svobody Square, 4, Kharkiv, 61000 Ukraina
[*] Corresponding author, e-mail: *olgano59@gmail.com*

Received: 02 December 2022
Accepted: 11 December 2022
Online: 30 December 2022

Abstract. The article aims to define the interconnection and interdependence of foreign direct investment (FDI) and labour productivity. The contributing factors of economic modernization, R&D spending, and production cost reduction to labour productivity growth are defined. The comparison analysis of FDI inflow, outflow, and labour productivity in the European Union countries is provided. The paper contributes to the empirical explanation of the relationship between labour productivity and FDI outflow and wage growth in certain sectors of the economy. The existence of higher wages in industries with a higher presence of joint venture foreign investments and industries with greater foreign participation was analysed. Greenfield investments are considered a stimulus for economic growth by the supply increase of both national and companies controllable by foreign proprietors. The sources of enhancing investment in R&D released by labour from economic sectors are proposed.

JEL: E24, F20, F21.

Keywords: labour productivity; labour costs; foreign direct investment; greenfield investment.

Citation: Olga Nosova (2022) Foreign Direct Investment and Labour Productivity: Relationship and Interconnection. – *Applied Business: Issues & Solutions* 2(2022)3–9 – ISSN 2783-6967. https://doi.org/10.57005/ab.2022.2.1

Introduction

The article analyses the interconnection and interdependence of foreign direct investment (FDI) and labour productivity and suggests policy options for improving the country's performance and stimulating labour productivity growth. The inflow of FDI provides the transfer of new technologies, the development of new management techniques, and the creation of additional jobs. Several factors influence the attraction of FDI in the economy including high profit, access to a new market, and availability of low labour costs.

FDI inflows affect and enhance labour productivity increase. The higher wage rates lead to rising aggregate demand. The higher investment with total productivity improvements could reinforce the current account position of the country. The rising technological transparency of the digital economy has contributed to a growing incidence of technology spillovers and external scale economies. Globalization encourages creating an enlarged world supply of a relatively unskilled labour force.

FDI meaning reveals a variety of investment projects and the short-term character of the investment. The rise in the international participation shows that wages grow more quickly for workers in sectors with higher foreign participation. The enhancement of living standards and the formation of an attractive investment climate are the goals of the legislative changes, incentive programs, and new job creation.

The labour market is one of the most important factors for economic growth, which is mainly determined by labour productivity. The existence of the disparity between wage and labour productivity growth impedes economic growth. Despite the radical economic reforms in Eastern Europe, one can still observe a high unemployment rate, low labour productivity, and deterioration of the quality of labour. The creation of new rules and institutions in the labour market aims to strengthen and acceptance of formal rule and promote stable demand and income.

The main approaches to the analysis of the interdependence between FDI and labour productivity show that foreign investment is best seen to extend control for reasons of corporate strategy rather than as a channel for shifting resources from one country to another. Some authors draw more attention to short-term adjustment problems rather than to long-term possibilities. We can assume that workers in industries with a high presence of joint venture foreign investment are paid higher wages. As the magnitude of the foreign presence increases over time, it will be confirmed that workers in industries with greater foreign participation face faster wage growth.

A government policy to support education and training affects the future opportunities for individuals and the ability of firms to enter new markets and adopt new technologies. It also needs to facilitate the allocation of labour to its most productive use while helping workers to cope with mobility.

Improving the country's investment climate goes hand in hand with enhancing human capital. A skilled workforce is essential for firms to adopt new and more productive technologies, and a better investment climate enhances the returns on investment in education. As firms are offered more opportunities and better access to new technologies, the demand for more skilled workers increases, and the firms have stronger incentives to engage in growth-enhancing activities, which raise both the private and social returns to education.

We could suggest that foreign investment inflow has a positive effect as it increases both labour productivity, export volumes, and spill-over or indirect effect associated with higher performance compared to firms that do not receive.

The number of unskilled workers is growing in East European countries. The problem of the relationship between the quality of labour and labour cost, labour productivity, and FDI has been subjected to a lot of scientific work. The positive wage effect tends to be concentrated among workers that are directly employed by MNEs, but there also appears to be a small positive impact on wages in domestic firms' participation in the supply chains established by MNEs [1]. The latest surveys reveal that most FDI occurs between countries with similar wages. Most low-wage countries have the lowest levels of FDI.

This work is devoted to analysing labour productivity methodologies, designing labour market regulations, and tracking their outcomes. The data for labour productivity in the European Union and across East Asia and the Pacific region demonstrates the future potential for growth. The empirical data support the hypothesis that

there is a connection between FDI outflows and labour productivity per person.

1. Literature Review

The variety of approaches considered different labour assessments in production and service sectors that study requires additional theoretical and practical research. The structural changes in the economy reflected in the labour supply and demand fluctuations and resulted in the appearance of instability and imbalances in the economy. The study of labour market structure, factors, the needs for labour resources, and the possibilities for their coverage demonstrate a slight recovery after COVID-19. The global labour force participation rate, having fallen by close to 2 percentage points between 2019 and 2020, is projected to recover only partially to just below 59.3% by 2022, around 1 percentage point below its 2019 level [2]. The Eastern European countries have maintained their cost competitiveness, despite surging wages and occasional labour shortages, benefiting from considerable productivity improvements.

The definition of labour productivity is based on its determination, and at the level of branches, companies, individual workers, products, etc. The productivity labour estimation is calculated as the volume of production per worker, the volume of net production, or the number of details per worked hour. Hour productivity is calculated based on the gross domestic product (GDP) per hour worked and the total number of worked hours in the entire economy. This indicator eliminates the disadvantages that appear when using the indicator "labour productivity per employee" in the comparison among countries [3]. It measures the efficiency of labour input combined with other factors of production. Bogheana and State [3] argue that high labour productivity is often associated with high levels or types of human capital, indicating priorities for specific education and training policies.

Labour input is defined as the total hours worked by all persons engaged in production [4]. Labour productivity only partially reflects the productivity of labour in terms of the personal capacities of workers or the intensity of their effort. The ratio between the output measure and the labour input depends to a large degree on the presence and/or use of other inputs (e.g., capital, intermediate inputs, technical, organizational, and efficiency change, and economies of scale). This indicator is measured in USD (constant prices 2010 and PPPs) and indices [4].

The main difference in labour productivity measurement in the USA from the East European country's approach deals with inclusion into the analysis of production and service spheres. The labour productivity measurement depends on the internal technological organization of the company and market conditions. Economists assert the interdependence of these two components for the efficient organization of a company's economic performance. The market fluctuations affect the company's performance which has an average labour productivity index. If labour productivity rises, the role of market factors would be reduced. The acceleration of US productivity in recent years is generally associated with a significant part of the production and use of Information and Communication Technology (ICT), which spurred output per hour worked through significant capital deepening and higher total factor productivity (TFP) growth. The economy of euro area seems to have benefited much less from these factors, reflecting both lower investment in ICT compared with the US and barriers to the diffusion or appropriate use of new technologies, in the services sector [5].

The labour productivity serves to develop and monitor the effects of labour market policies, be used to understand the effects of wage settlements on rates of inflation, or to ensure that such settlements will compensate workers for realized productivity improvements and contribute to the understanding of how labour market performance affects living standards.

Bulkley and Van Alstyne [6, p.5] define productivity increase as an outward shift of feasible production with the same resources, which is the difference between the rate of growth of real product and the rate of growth of real factor input. The change in labour distribution in different branches and regions in the world summons a shortage of jobs and economic instability.

Grodzicki and Moldzen [7] prove that the improved internationally competitive position of most CEE economies has counterbalanced the institutional change towards more labour market flexibility. In turn, the long-run equilibrium of CEE labour markets has not changed significantly. Kuntze and Mai [8] draw attention to countries Germany, the United Kingdom, France, Italy, and Spain, which accounted for 69.7% of the economic performance of the 28 Member States of the European Union and played a key role in determining their product development in 2018.

The analysis of the recent data on labour productivity per person employed and hour workers discovers the problem of the existence of significant differences in labour productivity between European Union countries (see Table 1). Note the existence of countries with high labour productivity per person employed and hour workers to which Germany, France, and Italy belong, as well as countries with moderate indicators, such as Spain, Estonia, and Lithuania, and low level, including Bulgaria, Latvia, and Poland. According to Eurostat data, between 2003 and 2019 labour productivity increased by an average of 2.6% per year in Estonia, by 3% in Poland, and by 4.5% in Romania. This compares favourably to an average increase of 0.5% per year in Germany or 0.8% in France in the same period. In 2020, the average labour productivity in the European Union amounted to US$58.5 in GDP per hour worked.

Table 1. Labour Productivity Per Person Employed and Hour Workers (EU27_2020=100). Constructed using Eurostat data [9].

No	Country	2019	2020	2021
1	European Union 27 countries from 2020	100	100	100
2	Euro area	109.2	109.9	109.2
3	Bulgaria	46.2	47.7	49.2
4	Germany	122.8	122.4	123.3
5	Estonia	71.1	73.5	74.2
6	Spain	95.2	92.7	91.2
7	France	125.9	125.9	122.5
8	Italy	100.3	102.2	100.1
9	Latvia	60.2	61.1	65.1
10	Lithuania	67.9	69.6	72.9
11	Poland	64.5	64.8	65.0

Table 2. Nominal Unit Labour Cost Three Years % Change Constructed on the Eurostat data [9]

No	Country	2019	2020	2021
1	Bulgaria	4.8	7.1	5.4
2	Chechia	14.5	18.7	13.9
3	Germany	8.1	18.3	7.4
4	Estonia	15.8	15.7	18.7
5	Spain	5.7	14.3	12.3
6	France	8.9	5.0	4.6
7	Italy	3.2	6.6	4.6
8	Latvia	15.3	16.1	14.5
9	Lithuania	16.6	17.4	19.2
10	Poland	8.0	14.0	9.9

According to data published recently by Eurostat, average hourly labour costs across the EU were an estimated €29.1, slightly more (€32.8) in the eurozone. Most EU member states in Central and Eastern Europe continue to lag, and not by a small margin. The lowest nominal unit labour cost three years percent change in all the EU was recorded in Bulgaria, France, and Italy at €5.4, €4.6, and €4.6 respectively in 2021 (see Table 2).

The labour market in Central and Eastern European countries is more limited compared to Western European countries, with notably lower unemployment and unmet need for employment. It makes employers increase wages and offer better working conditions to attract or retain employees. Wage growth has on average not kept up with inflation across both advanced and emerging markets and developing economies, eroding household purchasing power. Although long-term inflation expectations have been stable in most major economies, they have started to rise according to some measures, including the United States [10].

The Eurozone economy continued to grow at 0.2% in the third quarter of 2022. The growth is based on increased domestic demand following an unexpectedly good tourism season, especially in Italy, France, and Spain. The forecast for a meltdown economy in G7 countries (China's) GDP growth rate of 1 percentage point would lower the aggregate growth in the rest of East Asia and the Pacific (EAP) countries by 0.6 (0.5) percentage points for the next two years [11].

The labour productivity growth is estimated as the average annual growth rate of GDP at constant prices per worker in 2011 purchasing power parities (PPPs). The difference in labour productivity growth across EAP region from 2000 to 2013 demonstrates that labour productivity growth has been the highest in China (9%), India (5.2%), Vietnam (4.4%), Cambodia (4.5%), Sri Lanka (4.1%) and Indonesia (3.5%). The productivity level per person employed per hour in India was the lowest at US$6.48 during 2013 in comparison to other Asian countries. The highest labour productivity (PPP) (GDP per person employed per hour) was in Singapore (US$ 59.76) compared to China (US$ 10.64), and the USA (59.77%) [11].

India's labour productivity improved by 2.91% in December 2021, compared with a growth of 1.41% in the previous year. China has labour productivity growth of 8.71% in 2021 contrasted to 2.76% in 2020 [12].

China's economy slowed down by 4.8% in the first quarter of 2022, but the rest of East Asia and the Pacific (EAP) countries were growing by 5.9% in the second quarter [11]. The moderate growth rate in China is explained by the restrictions related to COVID-19 and tepid consumer demand. The most competitive sectors continue to be information and communication technology, finance, and agriculture. There are the transportation, accommodation, and catering sectors, where the mentioned countries do not reach the pre-pandemic levels. Data on labour productivity in the European Union and throughout East Asia and the Pacific area demonstrate that there are untapped potentials for future increases in labour productivity.

The labour policy of reduction of labour expenditures per worker is directed to boost labour productivity. Social and economic factors affect labour productivity. They comprise the degree of training, as well as professional knowledge, attitude, and fit for the job. The level of technique is determined by technological progress. The use of innovative techniques, modernization, automatic equipment, new materials, and energy application define labour productivity within the company. The advancement of the production system, new progressive forms of labour application, and the system of labour motivation are among the organizational factors, that characterize the quality of the labour force and equipment. The quality of labour force use, effective technology, and labour organization determine labour productivity reserves.

Regulations to boost labour productivity include a whole number of measures enhancing labour productivity growth. The government provides policies to increase labour productivity in several ways. A rise in public and private investment in infrastructure development leads to higher productivity, stimulates economic growth, improves working conditions, and increases wages in sectors for skilled workers. It results in more rapid changes at the firms' and industries' levels. Improving the business climate goes hand in hand with enhancing human capital. A skilled workforce is essential for firms to adopt new and more productive technologies, and a better business environment raises the returns for investment in education. As firms have more opportunities and better access to new technologies, they demand more skilled workers and have stronger incentives to engage in growth-enhancing activities, raising both the private and social returns to education [13].

The indicators of labour productivity per person employed and hour workers, nominal unit labour cost, and labour productivity growth were moderate and did not reach the margin, according to comparison data for labour productivity in the European Union and throughout East Asia and the Pacific region.

Reform of the labour market includes the liberalization of labour legislation, which expands employment and creates more jobs. Labour market reform is directed to regulate a narrow section of the relationship between employer and employee and provide a balance of interests between employers and employees. The parent company will stimulate FDI outflows and capital transfer to the new place of production. Multinational firms are applying abroad a type of bargaining model they are familiar with. The allocation of a high stock of multinational corporations (MNC's) foreign investment abroad could assume its relocation in case of credible threats.

2. FDI and labour productivity relationship

2.1. Inflows

The scientific debates on the relationship between FDI and labour productivity show the existence of various companies' strategies through technological transfer, management, and marketing proficiency. The increasing intensity of international economic competition and profitable capital markets force the overall production reduction related to employment in practically all countries. Global foreign direct investment flows reached US$1.58 trillion in 2021, a 64% increase from the level of less than US$1 trillion during the first year of the COVID-19 epidemic. The strong recovery of growth in 2021 is mostly explained by the expanding M&A industry and MNE retained earnings. The majority of the FDI increase in 2021 was attributable to the reinvested earnings component of FDI, which refers to profits kept in foreign affiliates by multinational corporations (MNEs) [14].

The global capital movement demonstrates the volatile conditions, recent data releases confirm that the global economy is in a broad-based slowdown as downside risks—including risks in 2022. FDI inflows to G20 economies decreased by 7% in H1 2022 compared to the previous half-year. While they were up by 3% in OECD G20 economies, they dropped by 19% in non-OECD G20 economies, driven by decreases in South Africa, Russia, and to a lesser extent China. FDI flows in Russia were negative in both quarters of 2022, reflecting the response to Russia's full-scale invasion of Ukraine. 5 Lower inflows in China largely contributed to the overall decrease of 39% in FDI inflows in non-OECD G20 economies in Q2 2022 [15].

Developing nations continued to pursue policies that were largely intended to liberalize, encourage, or facilitate investment, reiterating the crucial part that FDI plays in their plans for economic recovery. The opening of new activities to FDI (30 %), new investment incentives (20%), and investment facilitation measures made up nearly 40% of all measures more favourable to investment (20%) [14].

The assessment of the supply–side and demand-side conditions on the level and the growth rate confirm increasing pressure from the capital and product markets [16, p.315]. Geishecker and Hunya [17, p.12] assert that FDI effect significantly the skill composition of the new EU members against skilled manual workers, where MNE result in more employment of high-skill non-manual workers and low-skill workers. Walkenhorst [18] examines the effect of FDI on wages in transition countries. The author proves that FDI has fostered higher sectoral wage growth. Diverse factors influence foreign investment activities, such as capital cost, industry competitiveness, and access to resources. There is a self-selection effect when firms choose to engage in FDI that is mainly based on their cost-benefit analysis.

A double-di erence model examines the relationships among labour protection, labour costs, and China's outward foreign direct investment. Empirical results showed that the law, promoted FDI outflow, significantly increased the probability of Chinese firms, conducting outward FDI [19].

This study analysis supports empirically the dependence between capital influx and wage growth in specific economic sectors. Higher wages are paid to workers in industries with more joint venture foreign investment, and foreign participation, and pay growth is more rapid in these businesses. Bogheana and State [3] prove the connection between FDI and hourly productivity, based on the data available in 2012 for the countries of the European Union, highlighting the existence of a strong connection between the volume of FDI outflows and productivity zones.

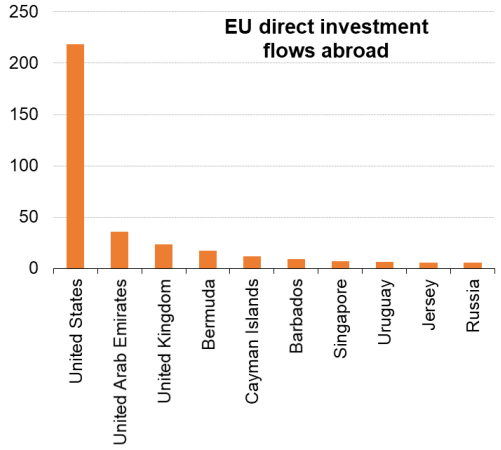

Fig. 1. European Union Direct Investment Flows Abroad (Billion €). Adapted according to Ref.[21].

For countries like Romania and Bulgaria, where the level of labour productivity is very low, a decrease in FDI outflows occurs. Furthermore, in Ireland and Luxembourg where labour productivity exceeds 50 euro per hour, the volume of FDI outflows represents over 150% of gross domestic product (GDP). At the same time, it can be noticed the absence of a connection between foreign direct investment inflows and average labour productivity [3].

M&A is a widespread form of company penetration into national markets. Innovations in goods reduce future employment opportunities for unskilled labour. New technological industries require a high level of qualifications of employees. Economic efficiency rises due to M&A, as well as the implementation of the corporate strategy, and market concentration. FDI inflow provides knowledge absorption, cost reduction, and new forms of activities within a company organization. FDI inflow enhances the eagerness of MNCs in the process of internationalizing activity [20]. The biggest recipients of EU direct investment abroad are the United States, United Arab Emirates, and the United Kingdom (see Fig. 1).

These countries are also the biggest investors of direct investment in the European Union in 2021. Desbordes and Franssen [22] find out, that a larger foreign presence tends to have a positive and statistically significant impact on TFP through manufacturing backward FDI linkages and within-industry presence.

Using comparative analysis of data for FDI flows by partner countries in the European Union for the period 2018 to 2020, we could note, the existing tendency to decrease in FDI flows except for Germany, Lithuania, and Latvia (see Table 3). This does not correspond to all analysed EU countries and does not explain the different indicators of labour productivity per person employed and hour workers there.

2.2. Outflows

Further research brought us to the study of FDI outflows from the mentioned countries. The biggest FDI outflows are in Germany, Italy, and Latvia in 2021, which correspond with relatively high labour productivity per person employed and hour workers in Germany and Italy (see Table 4). These data confirm the existence of a relationship between labour productivity per person and FDI outflows. The negative data of FDI outflows for Spain and France were explained by several sizeable divestments of foreign affiliates to

Table 3. Foreign Direct Investment Flows by Partner Countries (Million EUR) Constructed using data of Eurostat [23].

No	Country	2018	2019	2020
1	European Union 27 countries from 2020	15614429.3	16196679.7	15616077.2
2	Bulgaria	2311.6	2533.6	2602.2
3	Germany	1442347.0	1593499.0	1593499.0
4	Estonia	6954.6	9045.6	9011.6
5	Spain	524110.0	552055.0	510265.0
6	France	1309298.0	1273405.0	1261351.0
7	Italy	484629.0	497245.9	478183.6
8	Latvia	2042.0	1928.0	2096.0
9	Lithuania	4223.5	6300.7	8627.8
10	Poland	21517.9	24034.0	23766.5

domestic firms, which led to negative values in net cross-border M&As. For example, the sale in France of *Aviva France* (United Kingdom) to *Aema Groupe* (France) for US$3.9 billion [14].

Some researchers believe that the US economy is losing its advantages in the manufacture of high-tech items and inventive places in the product life cycle. US assets are more affordable when compared to overseas assets due to the rise in foreign stock prices and the strengthening of the currency. The international production of foreign affiliates of MNEs is still expanding in recent years. The average annual growth rates over the last five years of foreign affiliate sales, value-added, and employment have slowed. The data indicate that international production is a contributing factor behind slower trade expansion [25, p.11].

The literature review shows limited research works on the effects of FDI on the productivity of domestically owned firms for several transition countries. It should be noted that the contribution of FDI to the host economy can have two opposite effects. The positive effect results in job training programs and stimulates further capital inflow into the country. The negative effect deals with differences in average labour productivity in multinationals and domestic firms, leading to incomplete internationalization of benefits from foreign investment [26, p.177].

FDI affects the productivity of local firms via competition between foreign and domestic firms in the host economy. The contributions of a skilled and healthy workforce to a productive and prosperous society under foreign capital inflow in subsidiaries in comparison with domestic companies demonstrate a positive FDI effect on the economy. Non-accession countries' trade agreements with EU preferential or association agreements may affect market size, one of the key determinants of FDI [27, p.136].

MNCs try to locate labour-intensive products in Eastern Europe and Asia, where wages and units of labour costs are cheaper than in Western Europe. Wage pressures are encouraged by increasing capital intensity and the need to increase the volume of R&D. These measures improve the quality of products and force companies to maintain higher prices in world markets. The introduction of new technologies requires skilled workers, as they cope better with technological change.

This is true for different types of firms and different levels of technological development. Technology transfers by multinational firms and the application of technology by local firms require the use of a minimum of human capital and the training of a skilled workforce. The use of new technologies usually requires significant organisational changes in companies. MNCs are accompanied better by the attraction of a skilled labour force. Lack of employees with higher education can be a deterrent for firms in production and value-added services than for less complex production processes.

The lack of skilled workers is a common problem for firms in MNCs in developing countries. This is especially so for companies that plan to innovate and expand their scale of production. World Bank data [28, p.136-137] shows that firms that consider the shortage of skilled workers to be a "major" or "very serious" constraint are those that improve their production processes. These firms are also more likely to invest in training their workforce. While large firms can organise internal training for their workforce, smaller firms often do not provide such functions.

An attractive investment climate increases the incentive for people to attain a higher level of education. This is the best indication of the large increase in income from education in the former centrally planned economies during their transition to market systems. Similar patterns have emerged in other countries. A high level of formal education is not required for all firms or activities. A lack of employees with higher education can be more of a deterrent for firms in manufacturing and value-added services than for less complex production processes.

The allocation of a large stock of MNC's foreign investment abroad may lead to its relocation in the event of real political and economic threats. The parent company will stimulate FDI outflows and capital transfers to new locations. Multinational firms use a model of negotiation abroad that they are familiar with in terms of international relations (IR) and international business (IB) and reconstituting intellectual boundaries. The importance of retained earnings in 2021 FDI flows reflects the record rise in profit levels

Table 4. Foreign Direct Investment Outflows (Millions of US$). Constructed on the data of Ref. [14, 24]

No	Country	2018	2019	2020	2021
1	European Union 27 countries from 2020	293 339	368 335	66 412	397 637
2	Bulgaria	249	449	242	150
3	Germany	97 233	137 293	60 624	151 690
4	Estonia	45	1 966	220	1 547
5	Spain	37 546	24 827	23 567	-1 625
6	France	102 042	33 818	46 010	-2 839
7	Italy	31 542	19 787	-1 856	11 759
8	Latvia	207	-103	266	3 361
9	Lithuania	704	1 747	2 874	663
10	Poland	891	1 854	1 295	178

Table 5. Value of Announced Greenfield FDI Projects, by Destination (Millions of US$). Constructed on the data of Ref.[14].

No	Country	2018	2019	2020	2021
1	European Union 27 countries from 2020	172880	162137	139622	178105
2	Bulgaria	2926	2220	750	1042
3	Germany	22196	21324	25917	40527
4	Estonia	1101	531	614	764
5	Spain	34379	21454	13420	28742
6	France	19116	17847	14964	11964
7	Italy	5514	6951	7109	7594
8	Latvia	1142	934	879	638
9	Lithuania	2034	1931	1094	2076
10	Poland	18220	24462	22757	21871

of MNEs, especially in developed economies, with the release of pent-up demand, low financing costs, and significant government support. The profitability of the largest MNEs doubled to 8.2% [14].

Increasing of labour productivity can be ensured by the minimising of labour costs. Labour productivity is influenced by socio-economic factors, including the level of qualifications and professional knowledge, skills, competence, responsibility, and professional suitability.

The most widespread form of FDI inflow in less developed countries "zero" investments (greenfield investments) act which is made in the form of new enterprises establishment and promotes the expansion of a company's capacities in comparison with the acquisition process of already existing companies - see Table 5. New investments stimulate economic growth by the supply increase of both national and companies controllable by foreign proprietors under liberalization trade conditions in the country.

The data on the value of announced greenfield FDI projects identify countries with increasing amounts in Germany, Italy, and France in 2021 compared to 2018. In other countries, we can mention a slight increase or decrease in their value. It is explained by data on a declining greenfield investment in the power sector in 2021 which remained at less than half the level of 2019. The number of greenfield investment projects in renewable energy remained continued to decline [14].

The impact of FDI on productivity can either be direct or indirect. Inward FDI is associated with the introduction of additional capital and new production and managerial skills that directly affect efficiency. FDI also provides indirect effects by knowledge diffusion [29]. The effects of FDI on host countries' economies are mainly related to increasing labour productivity through technological transfers, and management and marketing proficiency that enables long-term technological progress and economic growth. Blomstrom and Kokko [29] have shown that the effect of privatization is mostly positive in Central Europe, but quantitatively smaller than that to foreign owners and greater in the later than earlier transition period.

The inflow of FDI in R&D provides spillover effects and affects the domestic firms' productivity. The assessment of the spillover effect from FDI in two different sectors namely manufacturing and services demonstrates positive backward spillovers prevail in both sectors [30]. The study of indirect effects of FDI on productivity spillovers from foreign to domestic firms in the Central and Eastern Europe countries indicates the dependence on the number of industry and firm-level characteristics including the relative technological level *vis-a-vis* foreign firms (absorptive capacity), export orientation, or firm size. M&A represents the widespread form of companies' penetration into the markets of advanced countries.

The paper reveals the existence of interdependence between labour productivity and FDI outflow and wage growth in certain sectors of the economy. Workers in industries with a higher presence of joint venture foreign investments have higher wages, and industries with greater foreign participation have faster wage growth.

Conclusions

1. Analysis reveals how FDI outflows and labour productivity are independent. The degree of economic modernity, R&D expenditure, and cost-cutting in a country influence dependency. The country's FDI shows a variety of investment industries and the transient nature of foreign investments. The increase in MNCs penetration in the country's market demonstrates that workers in industries with higher foreign participation experience faster wage growth.

2. The objectives of the legislative changes, incentive programs, and new job creation improve living standards and create an attractive investment climate. Different profit rates are the result of labour being liberated from some economic sectors in favour of intensive R&D. This leads to structural changes in the economy, since investment goals are chosen only those that promote the increase in labor productivity.

Abbreviations

CEE	-	Central European Economies
EAP	-	East Asia and the Pacific Countries
FDI	-	Foreign Direct Investment
GDP	-	Gross Domestic Product
IB	-	International Business
ICT	-	Information and Communication Technology
IR	-	International Relations
M&A	-	Merges and Acquisitions
MNC	-	Multinational Corporation
MNE	-	Multinational Enterprise
OECD	-	Organization for Economic Cooperation and Development
PPP	-	Purchasing Power Parities
R&D	-	Research and Development
TFP	-	Total Factor Productivity
UNCTAD	-	United Nations Conference on Trade and Development

References

1. The Impact of Foreign Direct Investment on Wages and Working Conditions. (2008). OECD Conference Centre. 23-24 June. Paris. France. https://www.oecd.org/investment/mne/40848277.pdf
2. World Employment and Social Outlook. Trends. (2022). International Labour Organisation. URL: https://www.ilo.org/global/research/global-reports/weso/trends2022/WCMS_834081/lang–en/index.htm

3. Bogheana, C.; State, M. (2015) The relation between foreign direct investments (FDI) and labour productivity in the European Union countries. - *Procedia Economics and Finance* 32(2015)278-285.
4. Key Indicators of the Labour Market (KILM): 2001-2002. (2002). - International Labour Organisation, Geneva, 2002 - 621 p.
5. Gomez-Salvador, R.; Musso, A.; Stocker, M.; Turunen, J. (2006) Labour Productivity Developments in the Euro Area. - Occasional Paper Series. No.53. European Central Bank. October. - http://www.ecb.int
6. Bulkley, N.; Van Alstyne, M. (2004) Why Information Should Influence Productivity - A Research and Education Initiative at the MIT Sloan School of Management, Paper 202.
7. Grodzicki, M.J.; Moldzen, M. (2022) GFC and regime shift in Central and Eastern Europe? A structural approach to labour markets of dependent market economies. - September 23, 2022.
8. Kuntze, P.; Martin Mai, C. (2020) Labour Productivity – Slower Growth in Germany and Europe. - Federal Statistical Office (Statistisches Bundesamt) 2 (2020)
9. Eurostat data - https://ec.europa.eu/eurostat/databrowser/view/tesem160/default/table?lang=en
10. World Economic Outlook: Countering the Cost of Living (2022) - International Monetary Fund.
11. Reforms for Recovery (2022) World Bank East Asia and the Pacific Economic Update. October. International Bank for Reconstruction and Development / The World Bank - https://issuu.com/world.bank.publications/docs/9781464819216.
12. Labour Productivity Growth by Country Comparison (2022) - https://www.ceicdata.com/en/indicator/india/labour-productivity-growth
13. Nosova, O.; Nosova, T. (2019) The Innovations Effects at Company's Labour Productivity - *Bulletin of Kharkiv National University named after V.N. Karazin* Series "Economics". 97(2019) 6-15. - DOI: 10.26565/2311-2379-2019-97-01
14. UNCTAD, World Investment Report (2022) - *International Tax Reforms and Sustainable Investment* - United Nations, New York, and Geneva.
15. OECD. Better Policies for Better Lives (2022) - https://www.oecd.org/
16. Scharpf, F.; Schmidt, V. (2000) Welfare and Work in the Open Economy. Vol. 1. - Oxford University Press, 2000.
17. Geishecker, I. ; Hunya, G. (2005) Employment Effects of Foreign Direct Investment in Central and Eastern Europe. - *WIIW Research Report* N321 (2005).
18. Walkenhorst, P. (2004) Economic Transition and the Sectoral Patterns of Foreign Direct Investment. - *Emerging Markets Finance & Trade* 40(2) (2004) 5–26. - http://www.jstor.org/stable/27750380
19. Zheng, Li; Shan, Gao; Shunfeng, Song (2022) Labor Protection, Labor Costs, and China's Outward Foreign Direct Investment. *International Review of Economics & Finance* (2022) - https://doi.org/10.1016/j.iref.2022.11.022.
20. Nosova, O. (2022) The Impact of Foreign Direct Investment in the High-Tech Sector Economy. - *Applied Business: Issues and Solutions* 1(2022) 3-9. - https://doi.org/10.57005/ab.2022.1.1
21. EUROSTAT - https://ec.europa.eu/eurostat/databrowser/view/bop_fdi6_geo/default/table?lang=en
22. Desbordes, R.; Franssen, L. (2019) Foreign Direct Investment and Productivity: A Cross-Country, Multisector. - *Asian Development Review* 36(1) (2019) 54–79. - https://doi.org/10.1162/adev_a_00123
23. Eurostat - https://ec.europa.eu/eurostat/databrowser/explore/all/all_themes?lang=en&display=list&sort=category
24. FDI in Figures (2022) OECD. October 2022 - https://data.oecd.org/fdi/fdi-flows.htm
25. UNCTAD, World Investment Report (2021) - *Investment and the Digital Economy* (2021) - United Nations, New York, and Geneva.
26. Nosova, O. (2021) Effects of Foreign Direct Investment on Labour Productivity. - In the book "Productivity of Contemporary Economics. Theory and Evidence." Eds. O.M. Moskalenko, A.S. Filipenko, Y.K. Zaitsev. - Cambridge Scholar Publishing, 2021. - Chapter 7.
27. UNCTAD, World Investment Report (2005) Transnational Corporations and the Internationalization of R&D. - United Nations, New York, and Geneva. - P. 136.
28. UNCTAD, World Investment Report (2006) FDI from Developing and Transition Economies. - *Implications for Development* (2006) - United Nations, New York, and Geneva.
29. Blomström, M.; Kokko, A. (2001) FDI and Human Capital: A Research Agenda. - OECD Development Centre. December 2001. - https://www.oecd.org/dev/2699493.pdf
30. Karahan, O.; Colak, O. (2021) Foreign Direct Investment and Productivity Growth in Eastern European Countries. - *International Journal of Business and Economic Sciences Applied Research* 14(3)(2021)26-34.