

TOWARD THE "NEW NORMAL" AFTER COVID-19 - A POST-TRANSITION ECONOMY PERSPECTIVE

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8. The impact of Covid-19 on the finances of multinational enterprises from the perspective of Balance of Payments transactions



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Abstract

Purpose: The analysis of the impact of the Covid-19 pandemic on the finances of economic entities from the perspective of the structure of financing, investments and dividend policy.

Design/methodology/approach: The research covered the countries of the EU, due to the specific type of ties between these countries. Research stages: 1. Classification of countries in terms of the selected IIP and the BP statistics and macroeconomic data in 2018–2019 (pre-pandemic period), average levels for 2018–2019 in relation to GDP; 2. Presentation of the development of selected monthly BP statistics during the pandemic period (from January 2020), in terms of: (i) changes in the share of GDP (first half of 2020 in relation to the first half of 2019); (ii) year on year changes. Research methodology: data source: Eurostat, annual, quarterly, and monthly data in million EUR, the collected statistics were adjusted to the Harmonised Index of Consumer Prices (HICP).

Findings: At the end of November 2020, it is difficult to identify the pattern of changes to the flows of the discussed categories based on the analysis of information from the pre-pandemic period.

Practical implications: The creation of a "new" division between the EU countries as a result of Covid-19 may result in a change in the priorities of functioning within the entire Union and in a change in the rules of redistribution of the EU funds.

Originality and value: An original way of framing decisions on capital structure, investment decisions and dividend policy through the prism of the Balance of Payments flows.

Keywords: the Balance of Payments, financial decisions, European Union, Covid-19 pandemic.

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8.1. Introduction

Corporate finance revolves around fundraising, allocating investments, and paying dividends. The accumulation of funds boils down to acquiring funds for starting and continuing operations and determining the proportion between equity and external capital, i.e. the capital structure. Investing means making decisions about acquiring resources from the marketplace to generate income. A company determines the proportions in the distribution of profit between payments due to owners (dividends) and retained earnings. The choice of a financing strategy determines investment profitability, influencing the level of generated profit and dividend policy. The dividend payout rate affects investment decisions and the capital structure. Misguided investments can lead to bankruptcy. Each of the aforementioned areas of the company's finances affect each other, and they largely depend on external factors, i.e. the company's environment that is divided into a closer micro- and further macro-environment (Bak, 2011, pp. 26-27; Misztal, 2015, p. 68). From the point of view of entities operating in the international arena, macro-annual significance is of particular importance, which includes e.g. the level and the rate of the GDP growth, the monetary and credit policy implemented by the state, the fiscal policy, the unemployment level and the employment policy implemented by the state, but also the pace of general price increases. In addition to monitoring domestic macroeconomic factors, multinational enterprises must include in their decisions the factors of the country of investment. Increasing the free flow of production factors facilitates changes in the location of investments, but it also favors the contagion, as exemplified by the 2007–2009 crisis and many earlier ones. At the turn of 2019/2020, contagion gained special importance: the inhabitants of most countries of the world were literally infected with the Covid-19 virus. At the moment of writing these words, in November 2020, we know that the effects of Covid-19 have not only affected the health of citizens but also destabilized the functioning of most of the world's economies. Hence the need to study the impact of Covid-19 on the individual aspects of economic life.

This study attempts to present the impact of the Covid-19 pandemic on the finances of economic entities from the perspective of the structure of financing, investments and dividend policy. The assessment of changes was made through the prism of flows recorded in the International Investment Position (the IIP) and in the Balance of Payments (the BP) of the analyzed countries. The financing structure has been reduced to the structure of international capital flows, the value of which is included in the IIP, and changes in balances in the BP in the Financial Account (the FA). Investments were considered through the prism of their results, i.e. the flows of goods and services booked in the goods and services account of

the BP. The dividend policy is presented using the income and expenditure on investments, which are included in the Primary Income account (the PI) in the BP.

A particularly interesting area of research in this case are the economies of the European Union (the EU), which are economically interconnected. The aim of the study is to present the impact of Covid-19 on changes in the structure of international flows, goods and services as well as investment income from the EU countries.

The impact of macroeconomic factors on companies' financial decisions is presented in part 8.2. The presentation of the research sample and research methodology is included in the part 8.3. Parts 8.4 and 8.5 present the BP flows and macroeconomic indicators, which are the subject of further research against the background of the economic situation of the EU countries in the pre-pandemic period. Part 8.6 presents changes in international flows during the pandemic. The conclusions are presented in part 8.7.

8.2. Influence of selected macroeconomic factors on decisions concerning capital structure, investments, and dividend payments

Macroeconomic factors strongly affect the operating conditions of enterprises, which cannot change them, but must adapt to them. The role of macroeconomic factors is of particular importance in times of crises such as pandemics, which disrupt the functioning of mechanisms. The aim of this part of the study is to present the effects of the impact of selected macroeconomic factors on selected aspects of financial decisions of entities operating in the international arena, related to the shaping of capital structure, the allocation of investments, and the payment of dividends under so-called "normal conditions" of functioning, i.e. in conditions without a pandemic. Thus, the exchange rate was taken into account as the key parameter for international enterprises, GDP, monetary policy including the policy of interest rates and changes in the money supply, inflation, fiscal policy focusing on taxes, revenues and expenses of the state budget, public deficit and debt, and the situation on the labor market (unemployment, labor productivity).

Capital structure decisions are critical to the formation and survival of an entity. In international enterprises this structure may be altered as a result of changes in the exchange rate, which changes the value of components expressed in a foreign currency. A depreciation of a country's currency results in an increase in the value of liabilities denominated in a foreign currency, while appreciation produces the opposite effect. The probability, scale, and frequency of depreciation/appreciation are derived from the currency regime adopted in the countries of operation of a given international enterprise. In floating exchange rate systems, enterprises usually have a large scope of freedom in shaping the capital structure, as these solutions are used in countries with developed financial markets. Mixed and fixed rate systems are associated with the risk of speculative attacks on the country's currency and a sudden outflow of capital that destabilizes financial markets, limiting the company's ability to finance business activities. The research results of Demirgüç-Kunt and Maksimovic (1995) indicate that with the development of the financial market, the difference in the cost of obtaining capital from various sources decreased, whereas companies gained access to a wider range of products and the share of bank loans decreased. The development of international corporations increased the possibilities of financing enterprises. Not only do they have an easier access to financing sources (various markets and financial instruments), but they can also use the so-called intra-corporate financing (mutual financing of entities related by capital, being a part of the same international corporation), which may be a source of their competitive advantage (Duliniec, 2007, p. 59).

A high GDP growth usually goes hand in hand with a recovery in the stock market. The stock market boom is conducive to planning subsequent and new issues, and also results in an increase in share prices, i.e. the value of equity capital. In the period of GDP growth and bull market on the stock exchange, the capital structure should change toward a greater share of equity, but good prospects for the economy are also associated with an increase in investments and an increase in demand for loans (foreign capital). An increase in interest rates results in an increase in the costs of obtaining debt capital. In the case of enterprises, the increase in interest amounts may be weakened by the effect of the tax shield,¹ but for its customers, it could shift consumption over time, especially in the durable goods sector. Periods of high interest rates coexist with periods of relatively high interest rates on treasury bonds, which weakens the tendency of some investors to invest in the stock market, limiting the possibility of increasing equity capital by issuing shares. This, in turn, raises the borrowing premium and results in companies' spending cuts or the search for alternative sources of financing (Białek-Jaworska, Dzik & Nehrebecka, 2014, p. 95). An increase in interest rates translates into an increase in the value of debt in the company's liabilities due to larger interest amounts, the need to refinance, or the need to consolidate various types of liabilities. As a result of the changes in costs and relations between equity and debt, the level of the weighted average cost of capital (WACC) changes: WACC $= s_e \times r_e + s_d \times r_d \times (1 - T)$ [1], in which: s_e, s_d - share of equity and foreign capital in financing the enterprise, r_{e} , r_{d} – cost of equity and foreign capital. The WACC

¹ The actual (real) cost of the debt to the enterprise (c_r) is less than nominal cost (c_n), because interest on the loan is a cost that reduces the amount of income tax (T): $c_r = c_n(1 - T)$. This phenomenon is called a tax shield.

is a parameter necessary to assess the risk of the company's operations. Those with a short history and risky business profile usually have limited opportunities to obtain capital, hence a relatively higher cost.

The impact of monetary policy may be weakened by the size of the domestic capital market, which determines the availability of alternative sources of external financing. Cecchetti (1999) suggests that interest rate movements have a greater impact on companies operating in countries with weak capital markets, where companies are more dependent on bank financing and where small banks predominate.

Inflation affects the level of the risk-free rate, determined by the yield on government bonds and, thus, the cost of capital and company valuation. The rise in inflation has effects similar to that of the rise in interest rates. Investing in a country with high inflation entails a relatively higher risk.

The fiscal policy affects the capital structure, among others through the tax channel. Thanks to the tax shield, foreign capital becomes a relatively cheaper component than own capital. However, small and micro enterprises pursue a strategy of maximizing tax deductible costs in order to minimize the amount of income tax, limiting their creditworthiness. Entities related by capital may, in order to bypass taxation, use the so-called indirect financing such as parallel and facade loans.² The transfer of capital then takes place through an independent financial institution or another unrelated company (Duliniec, 2007, p. 60).

Investment decisions of multinational enterprises come down to the choice of investment location that allows minimization of costs (or maximization of effects). Costs can be reduced by investing in a country with a relatively weak or undervalued currency. The appreciation of the currency of the country of investment results in a relative decrease in the prices of imported goods, improving the situation of importers and worsening the situation of exporters. Investment decisions are also influenced by the exchange rates in which the main commodities, such as crude oil, are denominated. Choosing a relatively cheap labor force means a location in a country with a relatively low level of GDP *per capita* and a theoretically higher growth potential.³ A high rate of the GDP growth means that there is an opportunity to increase the demand for the company's products and services. The smaller the original size of the local market, the larger its

² Parallel loans: their term allow for replenishing the amount of the loan taken; façade loans: the parent company places a deposit with a bank in its own country or in the country of the subsidiary's location and the bank grants a loan to the daughter company, the amount of which depends strictly on the amount of the deposit (Duliniec, 2004).

³ If the growth in labor productivity in a developing country exceeds the growth in prices in the economy, then in line with the Ballasa-Samuelson effect, despite the general increase in prices in the longer term, the currency should appreciate in real terms.

absorptive capacity, that is, in theory, it increases in countries with a low GDP *per capita*. The choice of an investment location may also be determined by the creation of special economic zones aimed at attracting home and foreign investors. An increase in interest rates affects the cost of financing the investment, and thus the level of the required rate of return on investment. In such a situation, when planning undertakings, the enterprise may: obtain foreign capital more expensively and include it in the investment cost, finance the investment with equity, or abandon the investment (in part or in whole). Making a decision to invest requires an estimation of the minimum required rate of return, which should exceed the WACC. Thus, an increase in interest rates usually increases the WACC and the required rate of return. The tightening of the monetary policy can result in the appreciation of the domestic currency. Producers then have limited opportunities to raise prices, as there is a substitution effect of replacing the "more expensive" domestic product with the "cheaper," imported one.

From the point of view of an enterprise's investment policy, an increase in inflation is associated with a greater level of uncertainty and the expectations of a higher rate of return on investment. Decisions are largely determined by the possibility of anticipating the direction and scale of price changes, as the expected rate of increase/decrease in prices translates into the remuneration and sales policy (the purchase of materials, fixed assets, and services). Deflation can lead to a situation in which the cost of purchasing raw materials exceeds the price a company can negotiate on the market for its products or services. Therefore, a fall in prices is regarded to be as unfavorable for the economy as hyperinflation.

From the point of view of the company's situation, maintaining a competitive advantage depends on increasing labor productivity⁴ in excess of wage growth. Excessive wage demands or welfare benefits can lead to a wage growth exceeding the surge in productivity, undermining competitiveness. International enterprises operating in industry locate their investments in countries with relatively low labor costs and lower productivity. Investments requiring employees to have advanced knowledge (high productivity) are associated with the need to incur relatively higher employment costs. For this reason, enterprises diversify investment locations by adjusting the level of staff (and costs) to the needs of a given product or service.

The fiscal policy of the state affects the level of labor costs – the main component of enterprise costs, it also affects the property tax whose rates may be lowered by local authorities, and the rules and rates for depreciation (appreciation) of fixed assets and intangible fixed assets.

⁴ Labor productivity measures the efficiency of employees and is calculated as the production volume per one employee or per unit of work.

Enterprises try to minimize costs in this area by choosing locations with relatively competitive tax rates, thanks to which they can gain a cost advantage. Public investments (reconstruction or construction of infrastructure, investments related to events, e.g. sport events) play an important role in terms of investment decisions. In a market economy, the state outsources these tasks to private entities through the public procurement system. As a result, these activities stimulate economic activity at home or abroad.

The impact of changes in exchange rates on decisions concerning **dividend payments** depends on the size of the enterprise. Corporations have a greater ease when transferring profits among subsidiaries, limiting currency risk. Smaller enterprises may, in the event of unfavorable changes in exchange rates (currency depreciation causes a decrease in the value of dividends expressed in foreign currencies), limit the dividend payout rate, increasing equity.

Forecasts of a high rate of the GDP growth justify, on the one hand, greater optimism and a higher dividend payment rate. They also justify an increase in investment and the need to enlarge the amount of retained earnings. Regardless of the dividend policy adopted by the company, the possibilities of any choice in this regard are determined by the need to generate a net profit, which is more likely in good economic times.

An increase in interest rates may reduce dividend payments in favor of retained earnings, in order to increase equity and maintain the WACC at a level close to the assumptions made. Limiting investments or increasing their cost due to an increase in interest rates usually translates into a decrease in net profit, which in turn reduces dividend payments, even if the rate is kept constant.

Fiscal policy affects the profit-sharing policy. Taxing dividends results in a tax burden on a given amount of money twice: the first time for the entire enterprise EBT - taxes = EAT [2], and once again for the owner receiving the dividend: [net profit × (dividend payout rate)] – income tax [3]. Taxation of dividends may force reinvestments and contribute to increasing equity capital from internal sources. On the other hand, it may contribute to shaping international transfers in large enterprises in order to minimize taxation of the distributed profit.

The discussed macroeconomic factors are interrelated. Gross domestic income can be considered a key category. The pace of changes in GDP depends on the pace of price growth, the level of interest rates, fiscal policy and the situation on the labor market. Monetary and fiscal policies affect the level of interest rates, the exchange rate and employment, which translates into the future level of GDP. In turn, the direction and instruments of these policies are determined by the levels of the past and the current GDP, but also its forecasts.

As a result, the part of the study aimed at comparing the situation of the studied countries from the period before the pandemic applies a limited set of

variables. Macroeconomic factors represent GDP per capita and the GDP growth rate (an aggregate of the remaining factors, a variable treated as a barometer of the country's economic situation).

Additionally, in order to analyze the effects of the pandemic, the unemployment rate was taken into account, as the lockdown resulted in the loss of jobs and the debt of the general government (GG) sector, as the aid programs required a future increase in this debt.

8.3. Justification for the selection of the research sample: Research methodology

The research covered the countries of the EU. This choice was dictated, on the one hand, by the specific type of ties between these countries: they are all part of the single market characterized by the free movement of goods, services, people and capital, and some of them function within the European Monetary Union (EMU) with a common currency (euro) and a single monetary policy. Disruptions in the functioning of one economy affect the functioning of the others. The Covid-19 pandemic not only disrupted the functioning of each of them separately, but it also disrupted the functioning of the single market, significantly limiting the flow of goods, services, people and capital. This had an impact on changes in the BP statistics. The surveyed countries are presented in Table 1 below.

Research stages:

- Stage 1. Classification of countries in terms of the selected BP statistics and macroeconomic data in 2018–2019 (pre-pandemic period) part 4 and 5. The study presents average levels for 2018–2019 in relation to GDP, Eurostat data.
- Stage 2. Presentation of the development of selected monthly BP statistics during the pandemic period (from January 2020) part 6, in terms of: changes in the share of GDP (first half of 2020 in relation to the first half of 2019); year on year changes.
- Stage 3. Confrontation of the results of stages 1 and 2
- Stage 4. Conclusions

Research methodology:

- Data source: Eurostat, annual and monthly data in million EUR.
- The collected statistics were adjusted to the HICP.

| Country | Code | Belonging to EMU | Currency (the date of the EUR introduction) |
|-------------|------|------------------|--|
| Belgium | BE | Y | EUR (1999) |
| Bulgaria | BG | N | BGN |
| Czechia | CZ | N | CZK |
| Denmark | DK | N | DKK |
| Germany | DE | Y | EUR (1999) |
| Estonia | EE | Y | EUR (2011) |
| Ireland | IE | Y | EUR (1999) |
| Greece | EL | Y | EUR (2001) |
| Spain | ES | Y | EUR (1999) |
| France | FR | Y | EUR (1999) |
| Croatia | HR | N | HRK |
| Italy | IT | Y | EUR (1999) |
| Cyprus | CY | Y | EUR (2008) |
| Latvia | LV | Y | EUR (2014) |
| Lithuania | LT | Y | EUR (2015) |
| Luxembourg | LU | Y | EUR (1999) |
| Hungary | HU | N | HUF |
| Malta | MT | Y | EUR (2008) |
| Netherlands | NL | Y | EUR (1999) |
| Austria | AT | Y | EUR (1999) |
| Poland | PL | N | PLN |
| Portugal | РТ | Y | EUR (1999) |
| Romania | RO | N | RON |
| Slovenia | SI | Y | EUR (2007) |
| Slovakia | SK | Y | EUR (2009) |
| Finland | FI | Y | EUR (1999) |
| Sweden | SE | N | SEK |

Table 1. The list of countries, their codes, and their currencies covered by the study

Source: Own elaboration.

- Variable shares in GDP parts 4 and 5 Eurostat data, part 6 own calculations: the monthly share in GDP was calculated as the quotient of the monthly BP statistics and 1/3 of the quarterly GDP.
- Statistics on international capital flows for part 4 (due to the lack of the monthly IIP data) come from the BP, which presents changes in balances of the value of capital flows in the analyzed period.

8.4. Pre-pandemic flows of international capital, goods and services, and investment income

Starting an investment activity requires acquiring sources of investment financing, i.e. the capital. Cross-border capital flows are presented in the balance of payments broken down into outgoing capital, i.e. assets (A) denoting the investments of residents abroad and incoming capital liabilities (L) denoting non-resident investments.

The difference between these flows over the period allows for the calculation of the country's net investment position included in the IIP: $IIP_{net} = assets - liabilities$ [4] and the balances of the FA in the BP: $FA_{net} = \Delta assets - \Delta liabilities$ [5].

Assets and liabilities include direct, portfolio, and other investments.⁵ The foreign direct investment (FDI) covers capital flows between entities related to a direct investment relationship – where one entity has the right to at least 10% of the votes in the body of the other entity. The portfolio investment (FPI) includes cross-border investment not classified as FDI and official reserve assets and includes equity or debt securities. Other investments (FOI) refer to cross-border transactions not included in the FDI and FPI categories and in the official reserve assets. They mainly include various forms of debt capital and are referred to as bank capital (IMF, 2009, pp. 99–111). Their form (FDI, FPI, and FOI) indicates the size and structure of capital flowing between multinational enterprises. Presentation of the pre-pandemic situation of the EU countries will be limited to the balances of FDI, FPI, and FOI flows from the IIP. A positive balance proves that the country was a capital donor and a negative one – a recipient.

⁵ Assets and liabilities are broken down functionally into direct investments, portfolio investments, other and derivatives and reserve assets (only assets). The IIP and the BP also account for: (1) derivative instruments that include the value of transactions between residents and non-residents in derivatives not classified as official reserve assets and employee options; (2) official reserve assets which are foreign assets controlled by monetary authorities. The purpose of their collection is meeting BP's financial needs, interventions in the currency markets, and strengthening confidence in the currency and the national economy. Reserve assets include actual currencies, instruments, and financial assets.

Investments undertaken are the result of financial decisions, and their measurable effect is the flow of goods and services. The result of the investment activity of multinational enterprises is the sale of specific goods and services in the country of investment and abroad, i.e. export. The activities of entities also require the acquisition of certain goods and services from abroad, i.e. import. The difference between exports (transactions recorded on the credit account), and imports – the debit account, affects the overall balance of the goods and services accounts: *credit* – *debit* = *balance* [6].

Cross-border dividend flows are recorded in the PI account of the BP⁶ in the part related to investment income. The income of the PI account is posted to the credit account and represents the cash flows received on the overseas assets involved, the expenses of this account show the flows paid to non-residents and are posted to the debit account.

Foreign assets give rise to amounts recorded on the credit side of the PI and liabilities on the debit side. These relations usually result in positive balances of the PI account in countries investing abroad and negative balances of the said account in countries that are capital recipients from abroad.

The comparison of the situation of countries in the period before the pandemic will be made based on the results of the balance of international capital flows from the IIP: FDI net, FPI net, FOI net, balance of the goods and services accounts, and balance of the PI account. All values were compared to GDP of the surveyed countries.

The studied countries in 2018–2019 can be divided according to the following criteria:

- Countries which were the exporters of: (1) goods Belgium, Czech Republic, Denmark, Germany, Ireland, Italy, Luxembourg, the Netherlands, Austria, Slovenia, Finland, Sweden; (2) services – Bulgaria, Czech Republic, Denmark, Estonia, Greece, Spain, France, Croatia, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Sweden.
- Countries with a positive PI account balance: Belgium, Denmark, Germany, Spain, France, Italy, the Netherlands, Finland, Sweden.
- Countries with the share of balance above 10% of GDP: (1) trade Ireland, Greece, Croatia, Cyprus, Malta; (2) services – Ireland, Luxembourg, Greece, Croatia, Cyprus, Malta. Greece, Croatia, Cyprus and Malta had a negative balance for goods and a positive balance for services (Ireland the opposite).

⁶ The PI account is a statement of the income and expense related to the allocation of flows due to investment entities for the performance of work, financial assets, or natural resources (IMF, 2009, pp. 184–185).

| | | % of GDP a | s 2018–2019 a | average | | |
|----|---------------|------------------|---------------|--------------|---------------|-------------|
| | Goods balance | Services balance | PI balance | FDI net | FPI net | FOI net |
| BE | 0.30 | -0.15 | 1.05 | 0.12 | 0.21 | 0.04 |
| BG | -4.75 | 7.70 | -3.95 | -0.73 | 0.06 | -0.10 |
| CZ | 3.90 | 2.00 | -5.20 | -0.50 | -0.14 | -0.17 |
| DK | 4.35 | 2.30 | 2.90 | 0.32 | 0.16 | 0.01 |
| DE | 6.55 | -0.60 | 2.70 | 0.18 | 0.21 | 0.23 |
| EE | -3.95 | 7.25 | -2.05 | -0.57 | 0.40 | -0.12 |
| IE | 33.45 | -13.10 | -21.90 | -0.19 | -1.43 | -0.18 |
| EL | -12.45 | 11.10 | -0.95 | -0.10 | 0.36 | -1.77 |
| ES | -2.30 | 5.15 | 0.15 | -0.10 | -0.38 | -0.33 |
| FR | -1.95 | 0.95 | 2.30 | 0.25 | -0.35 | -0.14 |
| HR | -18.95 | 18.35 | -1.60 | -0.46 | -0.10 | -0.33 |
| IT | 2.90 | -0.15 | 0.95 | 0.06 | 0.11 | -0.26 |
| CY | -21.00 | 21.20 | -3.90 | 0.54 | -0.20 | -1.68 |
| LV | -8.75 | 7.90 | -1.50 | -0.46 | 0.21 | -0.33 |
| LT | -5.45 | 9.00 | -3.30 | -0.29 | 0.06 | -0.15 |
| LU | 4.70 | 35.65 | -35.35 | <u>12.21</u> | <u>-18.15</u> | <u>6.38</u> |
| HU | -1.70 | 5.45 | -3.10 | -0.34 | -0.26 | -0.07 |
| MT | -12.00 | 26.70 | -8.25 | <u> </u> | <u>8.79</u> | <u>1.20</u> |
| NL | 8.85 | 1.65 | 0.75 | 1.29 | -0.60 | 0.01 |
| AT | 0.60 | 2.55 | -0.20 | 0.10 | -0.16 | 0.09 |
| PL | -0.50 | 4.35 | -3.95 | -0.36 | -0.21 | -0.17 |
| РТ | -7.75 | 8.30 | -2.40 | -0.42 | 0.02 | -0.73 |
| RO | -7.50 | 4.00 | -1.60 | -0.39 | -0.13 | -0.09 |
| SI | 2.75 | 5.75 | -1.80 | -0.20 | 0.00 | 0.02 |
| SK | -0.65 | 1.15 | -1.95 | -0.54 | 0.04 | -0.24 |
| FI | 0.50 | -0.90 | 0.40 | 0.22 | -0.29 | 0.02 |
| SE | 2.75 | 0.20 | 2.15 | 0.09 | -0.16 | 0.08 |

Table 2. Average values of selected categories of the international flows in the period before the pandemic

Source: Own elaboration of the Eurostat data.

- Countries with a positive FA net balance (in the IIP): Belgium, Denmark, Germany, Luxembourg, Malta, the Netherlands, Austria, Sweden. Positive balances of FDI, FPI and FOI were recorded in Belgium, Denmark and Germany.
- Countries with a balance of international capital flows exceeding their GDP: Ireland (FPI–), Luxembourg (FDI+; FPI–; FOI+); Greece (FOI–), Cyprus (FOI–), Malta (FDI–; FPI+; FOI+), the Netherlands (FDI+)

8.5. Selected macroeconomic indicators before the pandemic

The aim of the study is to present the changes caused by Covid-19 on the selected categories of international flows, representing the effects of financial decisions of entities operating in the international arena. The methodology of the conducted research needs to be supplemented with a presentation of the macroeconomic situation of the studied countries in the pre-pandemic period in order to show the sources of their potential advantages in the process of eliminating the effects of the pandemic. One of the most important parameters for comparing the situation between economies is GDP. The real GDP changes show the pace of economic development. Countries with a high development potential – usually relatively less capital-rich - are characterized by a high GDP growth rate. Typically, a high GDP growth rate correlates with a low GDP per capita level, which reflects the level of economic development. For comparison purposes, the version of GDP per capita based on PPS⁷ was used here. It shows the wealth of the country taking into account the purchasing power of its inhabitants. According to the intertemporal theory of the BP (Obstfeld & Rogoff, 1995), countries with a relatively low level of GDP per capita need an inflow of capital for further development. In theory, they should be more affected by the effects of Covid-19 on the changes in the statistics in their balances of payments.

Another variable included in the study is unemployment. Covid-19 has forced a complete lockdown or restriction of selected types of economic activity in many countries. Theoretically, this should contribute to an increase in unemployment. However, the change in the lifestyle of societies has forced the emergence of new needs and new professions, which is why some industries are flourishing.

The last variable is the GG gross debt, whose high-level forces incurring significant expenditure on debt servicing, limiting expenditure from the state budget for other purposes, including expenditure related to the fight against the effects of Covid-19.

The table below presents the average level of the discussed variables in 2018–2019. The GDP per capita is presented as a percentage of the EU average, the GDP

⁷ PPS – Purchasing Power Standards.

| | 2018–2019 average | | | | | | | | |
|----|--------------------------|----------------------|----------------------|---------------|--|--|--|--|--|
| | GDP per capita in PPS | GDP real growth rate | Unemployment rate | GG gross debt | | | | | |
| BE | 117.50% | 1.64% | 5.70% | 98.95% | | | | | |
| BG | 52.00% | 5.50% | 4.70% | 21.25% | | | | | |
| CZ | 91.50% | 5.05% | 2.10% | 31.15% | | | | | |
| DK | 129.00% | 2.29% | 5.05% | 33.65% | | | | | |
| DE | 122.00% | 1.19% | 3.25% | 60.70% | | | | | |
| EE | 83.00% | 5.55% | 4.90% | 8.30% | | | | | |
| IE | 191.00% | 8.01% | 5.40% | 60.20% | | | | | |
| EL | 68.00% | 1.10% | 18.30% | 183.35% | | | | | |
| ES | 91.00% | 2.22% | 14.70% | 96.45% | | | | | |
| FR | 105.00% | 1.04% | 8.75% | 98.10% | | | | | |
| HR | 64.00% | 3.74% | 7.55% | 73.55% | | | | | |
| IT | 96.00% | 0.58% | 10.30% | 134.55% | | | | | |
| CY | 89.50% | 4.56% | 7.75% | 96.60% | | | | | |
| LV | 69.00% | 3.57% | 6.85% | 37.00% | | | | | |
| LT | 81.50% | 4.93% | 6.25% | 34.80% | | | | | |
| LU | 262.00% | 3.83% | 5.60% | 21.50% | | | | | |
| HU | 72.00% | 3.99% | 3.55% | 67.25% | | | | | |
| MT | 99.00% | 5.54% | 3.65% | 43.90% | | | | | |
| NL | 129.00% | 2.58% | 3.60% | 50.55% | | | | | |
| AT | 127.50% | 1.91% | 4.70% | 72.25% | | | | | |
| PL | 72.00% | 4.97% | 3.60% | 47.25% | | | | | |
| РТ | 78.00% | 3.57% | 6.80% | 119.35% | | | | | |
| RO | 67.50% | 4.87% | 4.05% | 35.00% | | | | | |
| SI | 87.50% | 4.19% | 4.80% | 67.95% | | | | | |
| SK | 73.50% | 2.65% | 6.15% | 49.20% | | | | | |
| FI | 111.00% | 2.01% | 7.05% | 59.45% | | | | | |
| SE | 120.50% | -2.43% | 6.60% | 37.00% | | | | | |

Table 3. Average values of the selected macroeconomic indicators before the pandemic

Source: Eurostat (access: 13.11.2020).

growth rate has become real, the unemployment rate relates to active population between the ages of 15–74 and the GG gross debt was expressed as a share in GDP.

The studied countries can be divided according to the following criteria in 2018–2019:

- Countries with a relatively high level of GDP per capita (above the EU average): Belgium, Denmark, Germany, Ireland, France, Luxembourg, the Netherlands, Austria, Finland, and Sweden.
- Countries with a relatively high rate of economic return (a level of 5% or more was assumed): Bulgaria, Czechia, Estonia, Ireland, and Malta.
- Countries with unemployment exceeding 10%: Greece, Spain, Italy.
- Countries with the GG gross debt not exceeding 60% (Maastricht Treaty): Bulgaria, Czechia, Denmark, Estonia, Lithuania, Latvia, Luxembourg, Malta, the Netherlands, Poland, Romania, Slovakia, Finland, and Sweden.
- Countries with a relatively high rate of the GDP growth and a low GG debt: Bulgaria, Czechia, Estonia, and Malta.

8.6. Changes in the scale and directions of international capital flows, goods and services, and investment income during the pandemic

In the study, the pandemic period began in January 2020. There are several reasons: (1) the Covid-19 virus destabilized the functioning of Asian countries with which the EU is economically tied as early as at the end of 2019; (2) Covid-19 is likely to have entered the EU before it was officially identified; (3) the adoption of the period from January 2020 in the study will present changes in the studied values in the period of the first peak wave of the pandemic, i.e. in the second quarter of 2020.

Monthly data was taken into account, whereas the information on changes in the structure of international capital (section 8.6.1, 8.6.2), flows of goods and services and dividends (section 8.6.3, 8.6.4) were presented as percentage of GDP. In section 8.6.5, monthly changes in real values in 2020 were presented in relation to analogous ones from 2019. However, due to the occurrence of negative values of assets and liabilities, the analysis was limited to goods, services, and income. Due to the lack of data on monthly IIP statistics, all information comes from the BP. Since in the second quarter of 2020, all surveyed countries recorded real GDP decline, an increase in the share of a variable in the creation of GDP is not the same as an increase in its real value.

8.6.1. Changes in the share of balances of selected asset categories in GDP during the pandemic

The information contained in Table 4 below comes from the BP and shows changes in the amount of capital outgoing from the country during the pandemic in relation to GDP.

| | FDIA average share | | FDIA change | FPIA average share | | FPIA change | FOIA average share | | FOIA change |
|----|--------------------|----------|----------------|-----------------------|---------|----------------|-----------------------|---------|----------------|
| | 2019 | 2020 | 2020/2019 | 2019 | 20202 | 2020/2019 | 2019 | 2020 | 2020/2019 |
| BE | -15.13% | -1.20% | 92.10% | 2.12% | 14.87% | 600.16% | 13.01% | 18.68% | 43.62% |
| BG | 0.51% | 0.61% | 18.06% | 1.85% | 4.08% | 120.94% | 3.04% | -7.20% | -336.33% |
| CZ | 3.44% | 0.03% | -99.20% | -0.14% | -0.02% | -83.16% | 1.21% | 0.17% | -85.89% |
| DK | -9.35% | 2.39% | 125.60% | 6.10% | 15.35% | 151.76% | 6.21% | 12.80% | 106.21% |
| DE | 4.92% | 3.34% | -31.99% | 4.03% | 4.31% | 6.76% | 4.14% | 13.19% | 218.65% |
| EE | 11.64% | -0.15% | -101.33% | 1.69% | 31.42% | 1757.56% | 11.16% | 0.16% | -98.57% |
| EL | 0.14% | 0.46% | 221.48% | 3.77% | 24.20% | 542.08% | -2.77% | 2.47% | 189.31% |
| ES | 3.29% | 2.63% | -20.20% | 2.26% | 8.85% | 292.14% | 7.55% | 10.21% | 35.35% |
| FR | 2.31% | -1.01% | -143.89% | 8.71% | 8.22% | -5.63% | 29.09% | 14.31% | -50.81% |
| HR | 0.35% | 0.71% | 101.14% | 0.88% | 0.10% | -89.16% | -2.56% | 5.76% | 325.18% |
| IT | 1.55% | -0.12% | -107.61% | 0.60% | 5.25% | 775.56% | 1.75% | 0.89% | -49.18% |
| LV | 0.18% | 0.44% | 140.50% | 1.96% | 14.39% | 635.94% | -1.89% | -0.52% | 72.67% |
| LT | 1.70% | 0.56% | -66.70% | 1.25% | 0.04% | -96.85% | -5.54% | 14.22% | 356.73% |
| LU | -206.27% | -389.23% | -88.70% | 164.40% | 115.98% | -29.45% | 222.12% | 301.92% | 35.93% |
| HU | 11.50% | -3.33% | -128.99% | 0.83% | 0.31% | -61.96% | 1.84% | -0.54% | -129.30% |
| MT | -45.35% | -48.40% | -6.72% | 38.01% | 54.43% | 43.20% | 24.23% | 24.27% | 0.19% |
| NL | -1.67% | -18.22% | -988.91% | 4.16% | 2.93% | -29.64% | 7.48% | 19.20% | 156.75% |
| PL | 0.67% | -0.64% | -195.54% | 0.30% | 0.68% | 127.92% | 0.14% | 1.31% | 838.94% |
| РТ | 0.31% | -0.72% | -334.67% | 3.51% | 4.84% | 37.91% | -0.35% | -0.47% | -35.40% |
| RO | 0.35% | -1.09% | -406.87% | 1.13% | -0.03% | -103.01% | 0.79% | 1.57% | 100.16% |
| SI | 1.87% | 0.94% | -50.07% | 1.50% | -0.44% | -129.17% | 9.06% | 23.24% | 156.46% |
| FI | 1.94% | 2.71% | 40.10% | -2.46% | 2.74% | 211.34% | 43.33% | 24.22% | -44.10% |
| SE | 6.47% | 6.03% | -6.77% | 3.25% | -3.14% | -196.40% | -7.22% | 11.43% | 258.26% |

Table 4. Relationship of selected asset categories to GDP and its changes over time during the pandemic

Source: Own elaboration of the Eurostat data.

Findings:

- Countries characterized by an increase in the share of balances of the asset categories in the creation of GDP: (1) FDI Belgium, Bulgaria, Denmark, Greece, Croatia, Latvia, and Finland; (2) FPI Belgium, Bulgaria, Denmark, Germany, Estonia, Greece, Spain, Italy, Latvia, Malta, Poland, Portugal, and Finland; (3) FOI Belgium, Denmark, Germany, Greece, Spain, Croatia, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Romania, Slovenia, and Sweden.
- The countries in which the balances of all analyzed asset categories increased in relation to GDP were: Belgium, Denmark, Greece, and Latvia.

8.6.2. Changes in the share of balances of selected liability categories in GDP during the pandemic

The information in the table below comes from the BP and shows changes in the amount of capital outgoing from the country during the pandemic.

| 1H19 | FDIL average share | | FDI change | FPIL average share | | FPIL change | FOIL average share | | FOIL change |
|------|--------------------|--------|---------------|-----------------------|---------|----------------|-----------------------|--------|----------------|
| | 2019 | 2020 | 2020/2019 | 2019 | 20202 | 2020/2019 | 2019 | 2020 | 2020/2019 |
| BE | -19.59% | 0.79% | 104.03% | 11.97% | 15.85% | 32.50% | 8.24% | 14.64% | 77.56% |
| BG | 1.69% | 1.89% | 11.74% | -0.24% | -0.11% | -53.53% | 0.81% | -0.74% | -190.76% |
| CZ | 4.60% | 1.67% | -63.64% | 5.90% | 2.43% | -58.78% | -8.04% | -6.31% | 21.51% |
| DK | -10.82% | 1.13% | 110.43% | 7.42% | 15.39% | 107.51% | 2.90% | 18.41% | 534.78% |
| DE | 2.46% | 1.84% | -24.96% | 3.93% | 6.54% | 66.33% | 2.91% | 10.98% | 277.59% |
| EE | 12.98% | 6.71% | -48.26% | 2.95% | 15.21% | 414.80% | 8.27% | 6.86% | -17.11% |
| EL | 2.19% | 2.02% | -7.46% | 5.35% | -10.37% | -293.88% | -3.31% | 45.05% | 1 460.46% |
| ES | 2.39% | 1.98% | -17.33% | 8.74% | 5.12% | -41.42% | 0.01% | 13.22% | 91 744.58% |
| FR | 2.35% | -1.28% | -154.31% | 7.85% | 13.48% | 71.70% | 31.29% | 13.51% | -56.84% |
| HR | 1.76% | 1.72% | -2.38% | 2.91% | 8.35% | 186.61% | 5.25% | -1.89% | -136.03% |
| IT | 1.34% | -0.36% | -126.45% | 7.04% | -5.63% | -179.94% | -5.78% | 11.61% | 301.09% |
| LV | 1.73% | 2.19% | 26.16% | 6.80% | 3.70% | -45.49% | -10.75% | 2.94% | 127.35% |

 Table 5. Relation of selected liabilities categories to GDP and its changes over time during the pandemic

| 1H19 | FDIL average share | | FDI change | FPIL average share | | FPIL change | FOIL average share | | FOIL change |
|------|--------------------|----------|---------------|-----------------------|---------|----------------|-----------------------|---------|----------------|
| | 2019 | 2020 | 2020/2019 | 2019 | 20202 | 2020/2019 | 2019 | 2020 | 2020/2019 |
| LT | 3.48% | 0.82% | -76.49% | 7.10% | 0.14% | -98.03% | -15.43% | 3.96% | 125.66% |
| LU | -342.18% | -215.55% | -37.01% | 250.82% | 131.31% | -47.65% | 287.97% | 179.89% | -37.53% |
| HU | 11.98% | 0.56% | -95.31% | -0.95% | 0.39% | 140.78% | 2.50% | 3.01% | 20.53% |
| MT | 26.78% | 29.65% | 10.71% | 1.75% | 1.64% | -6.04% | -22.02% | 0.14% | 100.66% |
| NL | -4.11% | -35.93% | -773.52% | -1.73% | 15.14% | 973.19% | 7.46% | 19.84% | 166.02% |
| PL | 2.69% | 1.30% | -51.65% | -1.36% | -3.73% | -173.50% | -1.44% | -1.65% | -14.54% |
| РТ | 3.38% | 0.07% | -98.04% | 1.77% | 1.20% | -32.23% | 0.85% | 5.63% | 565.58% |
| RO | 2.82% | 0.05% | -98.07% | 1.93% | 6.67% | 245.89% | -0.93% | -1.20% | -29.77% |
| SI | 4.02% | 2.39% | -40.52% | -0.42% | 16.77% | 4140.57% | 2.98% | 1.81% | -39.22% |
| FI | 3.46% | 2.20% | -36.41% | 18.34% | 7.86% | -57.12% | 22.76% | 24.90% | 9.42% |
| SE | 4.30% | 3.93% | -8.45% | 2.20% | -0.02% | -100.78% | -2.16% | 4.30% | 299.16% |

Table 5 cont.

Source: Own elaboration of the Eurostat data.

Findings:

- Countries characterized by an increase in the importance of balances of the liability categories in the creation of GDP: (1) FDI Belgium, Bulgaria, Denmark, Latvia, and Malta; (2) FPI Belgium, Denmark, Germany, Estonia, France, Croatia, Hungary, the Netherlands, Romania, and Slovenia; (3) FOI Belgium, Czechia, Denmark, Germany, Greece, Spain, Italy, Latvia, Lithuania, Hungary, Malta, the Netherlands, Portugal, Finland, and Sweden.
- The countries where the balances of all analyzed liability categories increased in relation to GDP were Belgium and Denmark.

8.6.3. Changes in the share of exports of goods and services and primary revenues in GDP during the pandemic

Exports of goods and services and primary income (including investment income) are recorded in the BP on the credit side.

| 1H19 | Goods credit 1H19 average share | | Goods change | Services credit average share | | Services change | PI credit average share | | PI change |
|------|------------------------------------|--------|-----------------|----------------------------------|---------|--------------------|----------------------------|---------|-----------|
| | 2019 | 2020 | 2020/2019 | 2019 | 2020 | 2020/2019 | 2019 | 2020 | 2020/2019 |
| BE | 60.43% | 58.44% | -3.30% | 21.82% | 22.69% | 3.96% | 14.27% | 14.06% | -1.40% |
| BG | 46.10% | 43.41% | -5.83% | 13.71% | 10.37% | -24.34% | 1.97% | 1.25% | -36.23% |
| CZ | 63.96% | 57.13% | -10.67% | 11.78% | 11.13% | -5.51% | 5.22% | 5.49% | 5.13% |
| DK | 33.91% | 33.98% | 0.19% | 23.38% | 20.51% | -12.27% | 9.01% | 8.47% | -5.97% |
| DE | 38.28% | 34.70% | -9.35% | 8.67% | 8.06% | -7.11% | 6.77% | 6.32% | -6.61% |
| EE | 48.64% | 46.80% | -3.78% | 24.04% | 20.35% | -15.35% | 4.82% | 5.01% | 3.89% |
| EL | 17.27% | 16.53% | -4.32% | 16.72% | 12.03% | -28.06% | 3.91% | 4.38% | 12.00% |
| ES | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 4.86% | 4.59% | -5.54% |
| FR | 22.19% | 18.63% | -16.05% | 10.45% | 9.56% | -8.46% | 8.50% | 8.10% | -4.72% |
| HR | 22.98% | 22.40% | -2.54% | 18.61% | 10.95% | -41.18% | 3.51% | 4.16% | 18.67% |
| IT | 25.55% | 23.89% | -6.53% | 5.49% | 4.23% | -23.00% | 4.20% | 4.31% | 2.53% |
| LV | 41.09% | 42.51% | 3.47% | 17.51% | 15.03% | -14.15% | 3.98% | 3.73% | -6.25% |
| LT | 52.25% | 48.78% | -6.65% | 23.07% | 21.76% | -5.72% | 1.90% | 1.23% | -35.19% |
| LU | 42.19% | 34.93% | -17.22% | 157.46% | 153.69% | -2.39% | 481.43% | 401.20% | -16.66% |
| HU | 64.38% | 61.19% | -4.96% | 17.58% | 11.32% | -35.60% | 9.42% | 8.94% | -5.16% |
| MT | 24.26% | 21.09% | -13.08% | 108.42% | 108.54% | 0.11% | 71.01% | 74.43% | 4.83% |
| NL | 60.85% | 57.47% | -5.56% | 22.14% | 21.73% | -1.87% | 38.24% | 34.19% | -10.59% |
| PL | 44.08% | 41.72% | -5.37% | 11.29% | 10.60% | -6.08% | 3.01% | 2.64% | -12.48% |
| PT | 27.91% | 24.78% | -11.23% | 14.70% | 10.13% | -31.10% | 3.97% | 3.95% | -0.47% |
| RO | 29.23% | 24.83% | -15.07% | 11.62% | 10.77% | -7.32% | 3.50% | 3.17% | -9.47% |
| SI | 67.74% | 63.15% | -6.77% | 16.19% | 14.29% | -11.70% | 3.74% | 3.44% | -8.14% |
| FI | 26.83% | 24.44% | -8.90% | 12.54% | 10.58% | -15.63% | 8.88% | 8.70% | -2.01% |
| SE | 33.62% | 31.74% | -5.58% | 13.67% | 12.89% | -5.73% | 11.32% | 8.89% | -21.50% |

Table 6. Average share of the credit account in the country's GDP in 2019and 2020 (first half of the year)

Source: Own elaboration of the Eurostat data.

Findings:

- Countries that increased the share of exports in GDP: goods Denmark and Latvia; services Belgium and Malta.
- Countries that increased the share of revenues from investments in GDP: Czechia, Estonia, Greece, Croatia, Italy, and Malta.

8.6.4. Changes in the share of imports of goods and services and primary expenditure in GDP during the pandemic

Imports of goods and services as well as primary expenditure are recorded in the BP on the debit side.

| Goods de 1H19 average sh | | s debit e share | GoodsServices debitchangeaverage share | | Services change | PI debit average share | | PI change | |
|-----------------------------|--------|--------------------|--|---------|--------------------|---------------------------|---------|-----------|-----------|
| | 2019 | 2020 | 2020/2019 | 2019 | 2020 | 2020/2019 | 2019 | 2020 | 2020/2019 |
| BE | 60.56% | 58.66% | -3.14% | 21.98% | 22.02% | 0.16% | 12.64% | 12.82% | 1.42% |
| BG | 50.96% | 45.17% | -11.37% | 8.17% | 6.05% | -25.96% | 5.14% | 3.67% | -28.53% |
| CZ | 58.64% | 53.50% | -8.76% | 9.28% | 8.73% | -5.97% | 9.74% | 7.25% | -25.63% |
| DK | 29.33% | 28.47% | -2.93% | 21.32% | 19.97% | -6.35% | 6.61% | 5.98% | -9.48% |
| DE | 31.89% | 29.75% | -6.69% | 9.01% | 7.90% | -12.32% | 4.63% | 3.89% | -15.88% |
| EE | 51.02% | 47.06% | -7.76% | 17.24% | 14.00% | -18.77% | 7.90% | 6.14% | -22.32% |
| EL | 29.64% | 27.51% | -7.17% | 9.53% | 9.46% | -0.66% | 3.75% | 4.13% | 10.38% |
| ES | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 4.94% | 4.47% | -9.52% |
| FR | 24.48% | 22.34% | -8.73% | 9.74% | 9.49% | -2.51% | 6.48% | 5.42% | -16.36% |
| HR | 43.68% | 42.45% | -2.81% | 9.05% | 5.73% | -36.66% | 5.49% | 5.98% | 8.93% |
| IT | 22.87% | 20.78% | -9.15% | 5.75% | 5.13% | -10.90% | 3.76% | 3.63% | -3.65% |
| LV | 49.36% | 47.71% | -3.36% | 9.89% | 8.47% | -14.34% | 5.77% | 4.15% | -28.16% |
| LT | 58.05% | 50.25% | -13.43% | 13.61% | 11.80% | -13.31% | 5.76% | 3.64% | -36.79% |
| LU | 36.80% | 30.62% | -16.80% | 123.16% | 119.06% | -3.33% | 514.16% | 435.69% | -15.26% |
| HU | 64.96% | 62.69% | -3.49% | 12.20% | 8.37% | -31.41% | 13.31% | 11.47% | -13.77% |
| MT | 36.64% | 31.61% | -13.75% | 83.98% | 91.92% | 9.46% | 79.22% | 84.61% | 6.80% |
| NL | 52.62% | 49.26% | -6.38% | 20.04% | 19.63% | -2.08% | 38.60% | 34.66% | -10.21% |
| PL | 44.01% | 39.68% | -9.83% | 6.84% | 6.18% | -9.64% | 6.34% | 4.58% | -27.82% |
| РТ | 35.66% | 31.34% | -12.10% | 7.93% | 6.58% | -17.03% | 6.91% | 5.87% | -15.08% |
| RO | 36.31% | 33.06% | -8.95% | 7.91% | 6.53% | -17.45% | 4.36% | 3.71% | -14.87% |
| SI | 64.21% | 57.95% | -9.75% | 11.09% | 10.05% | -9.41% | 5.15% | 4.86% | -5.64% |
| FI | 26.10% | 23.61% | -9.52% | 13.53% | 12.22% | -9.65% | 10.42% | 8.64% | -17.12% |
| SE | 29.84% | 27.23% | -8.72% | 13.80% | 12.79% | -7.33% | 9.47% | 5.47% | -42.27% |

Table 7. Average share of the debit account in the country's GDP in 2019and 2020 (first half of the year)

Source: Own elaboration of the Eurostat data.

Findings:

- None of the surveyed countries increased the share of imports of goods in GDP.
- Countries that increased the share of service imports in GDP: Belgium, Malta.
- Countries that increased the share of PI expenditure in GDP: Belgium, Greece, Croatia, Malta.

8.6.5. Changes in the real volume of flows of goods, services, and income during the pandemic

Interesting information was provided by the analysis based on dynamics indicators, i.e. changes in values between the analyzed periods, covering the pandemic period: the first half of 2020 in relation to the first half of 2019. Unfortunately, due to negative values of assets and liabilities, it was only done in relation to flows of goods, services, and income. Changes in the share of value in the GDP presented in items 8.6.1.–8.6.4. were determined by changes in GDP. The analysis based on the dynamics indicators ignores this problem, pointing to increases/decreases in real figures in relation to the previous period, disregarding the impact of a possible decline in GDP (which occurred in most countries during the pandemic).

| | credit a | verage dyn y/y | in 2020 | debit average dyn /y in 2020 | | | |
|----|----------|----------------|---------|------------------------------|----------|------|--|
| | Goods | Services | PI | Goods | Services | PI | |
| BE | 0.91 | 0.97 | 0.92 | 0.91 | 0.93 | 0.97 | |
| BG | 0.93 | 0.71 | 0.65 | 0.88 | 0.74 | 0.62 | |
| CZ | 0.87 | 0.88 | 0.94 | 0.88 | 0.86 | 0.64 | |
| DK | 0.97 | 0.84 | 0.92 | 0.95 | 0.90 | 0.90 | |
| DE | 0.88 | 0.88 | 0.90 | 0.90 | 0.83 | 0.84 | |
| EE | 0.96 | 0.83 | 1.00 | 0.93 | 0.77 | 0.75 | |
| EL | 0.89 | 0.66 | 1.14 | 0.86 | 0.89 | 0.96 | |
| ES | n.a. | n.a. | 0.84 | n.a. | n.a. | 0.82 | |
| FR | 0.78 | 0.82 | 0.85 | 0.84 | 0.87 | 0.88 | |
| HR | 0.90 | 0.65 | 1.20 | 0.90 | 0.60 | 1.05 | |
| IT | 0.87 | 0.72 | 0.92 | 0.83 | 0.79 | 0.87 | |

Table 8. Average dynamics indicators (first half of the year 2020/2019)

| | credit a | werage dyn y/y | r in 2020 | debit average dyn /y in 2020 | | | |
|----|----------|----------------|-----------|------------------------------|----------|------|--|
| | Goods | Services | PI | Goods | Services | PI | |
| LV | 1.01 | 0.82 | 0.90 | 0.95 | 0.83 | 0.60 | |
| LT | 0.95 | 0.95 | 0.62 | 0.88 | 0.91 | 0.68 | |
| LU | 0.91 | 0.99 | 0.85 | 0.87 | 0.99 | 0.85 | |
| HU | 0.90 | 0.61 | 0.85 | 0.90 | 0.65 | 0.78 | |
| MT | 0.90 | 0.94 | 0.99 | 0.82 | 1.03 | 1.01 | |
| NL | 0.93 | 0.96 | 0.83 | 0.93 | 0.97 | 0.89 | |
| PL | 0.94 | 0.90 | 0.84 | 0.89 | 0.88 | 0.72 | |
| РТ | 0.87 | 0.64 | 0.99 | 0.84 | 0.77 | 0.90 | |
| RO | 0.87 | 0.89 | 0.81 | 0.92 | 0.81 | 0.81 | |
| SI | 0.91 | 0.82 | 0.94 | 0.87 | 0.85 | 1.01 | |
| SK | 0.87 | 0.83 | 0.90 | 0.87 | 0.82 | 0.87 | |
| FI | 0.90 | 0.80 | 0.93 | 0.89 | 0.86 | 0.99 | |
| SE | 0.92 | 0.92 | 0.78 | 0.90 | 0.93 | 0.68 | |

Table 8 cont.

Source: Own elaboration of the Eurostat data.

Findings:

- Countries with at least the same real value in relation to the corresponding months before the pandemic (dynamics index ≥1): export – only Latvia (goods); import – only Malta (services);
- Countries with at least the same level of real PI value as in the corresponding months before the pandemic (dynamics index ≥1): revenues Estonia, Greece, and Croatia; expenditures Croatia, Malta, and Slovenia.

8.7. Conclusions

The freezing of economic activity and the temporary closure of borders due to the Covid-19 pandemic influenced the changes in the value of flows recorded in the BP with different results. In the case of the international movement of goods and services, the lockdown resulted in their sudden limitation. None of the analyzed countries recorded a real increase in the value of exports of services, whereas in

the case of goods it was only Latvia. With regard to imports of goods and services, the increase in real value was only recorded in the case of Malta (services).

In countries often referred to as peripheral, there was an increase in flows in the category of the PI: Czechia, Estonia, Greece, Croatia, and Malta; except for Belgium that showed an increase in outlays.

In the case of international capital flows, their limitation concerned mainly FDI, considered the most stable and desirable category of foreign investment, while banking capital flows usually increased in relation to GDP.

At the present stage, it is difficult to identify the pattern of changes to the flows of the discussed categories based on the analysis of information from the pre-pandemic period. In the longer term, certain types of economic activity can be expected to be limited, while others will intensify.

The EU countries are not a monolith, they are often divided into central and peripheral countries (Śliwiński & Andrzejczak, 2019), however, due to the different course of the Covid-19 pandemic and its effects, changes in the balance sheets of countries that do not fit into this classification can be expected. This is demonstrated by data covering the first wave of the pandemic. Hence, there is a need for further research on the impact of the pandemic on the financial activities of all international enterprises operating in individual EU countries. The creation of a "new" division between the EU countries as a result of Covid-19 may result in a change in the priorities of functioning within the entire Union and in a change in the rules of redistribution of the EU funds.

References

- Bąk, M. (2011). Ekonomiczne czynniki otoczenia przedsiębiorstwa a składniki majątku niewidzialnego. Zeszyty Naukowe Uniwersytetu Szczecińskiego. Finanse, Rynki Finansowe, Ubezpieczenia, 668(41), 23–33.
- Białek-Jaworska, A., Dzik, A., & Nehrebecka, N. (2014). Wpływ polityki monetarnej na źródła finansowania przedsiębiorstw w Polsce w latach 1995–2012. *Materiały i Studia NBP*, 304, 95.
- Cecchetti, S. G. (1999). Legal structure, and the monetary policy transmission mechanism. *Economic Policy Review*, 5. Federal Reserve Bank of New York, 9–28.
- Demirgüç-Kunt, A., & Maksimovic, V. (1995). Stock market development and Firm Financing Choices (Policy Research Working Paper 1461). Washington: World Bank.
- Duliniec, A. (2004). Specyfika finansowania przedsiębiorstw w ramach korporacji międzynarodowej. Bank i Kredyt, 5, 38–39.
- Duliniec, A. (2007). Kierunki rozwoju zarządzania finansami w przedsiębiorstwach międzynarodowych. *International Journal of Management and Economics*, 21, 58–69.
- IMF (2009). Balance of Payments and International Investment Position Manual. Sixth Edition. International Monetary Fund. Washington, D.C.

- Misztal, A. (2015). Sytuacja gospodarcza Polski a rozwój małych i średnich przedsiębiorstw, 65–78. http://dx.doi.org/10.18778/1429-3730.40.04
- Obstfeld, M., & Rogoff, K. (1995). The intertemporal approach to the current account. In G. M. Grossman, & K. Rogoff (Eds.), *Handbook of international economics 3* (pp. 1731–1799). Elsevier.
- Śliwiński, P., & Andrzejczak, M. (2019). Determinants of the current account balances in the 'old' and the 'new' EA countries from the perspective of the absorption approach in years 2005–2017. Torun Business Review, 18(2).

CONTENTS

Foreword (*Ewa Mińska-Struzik, Barbara Jankowska*) https://doi.org/10.18559/978-83-8211-061-6/0

Part I CHALLENGES AT THE SUPRANATIONAL AND NATIONAL LEVEL

- 1. The economy battling Covid-19. A macroeconomic approach (*Tadeusz Kowalski*) https:// doi.org/10.18559/978-83-8211-061-6/I1
- 2. How Covid-19 impacted the European integration processes? The case of EU Cohesion Policy and budget (*Ida Musiałkowska, Piotr Idczak*) https://doi.org/10.18559/978-83-8211-061-6/I2
- 3. The European Union's Common Commercial Policy and the Covid-19 pandemic: reactions and challenges (*Grzegorz Mazur*) https://doi.org/10.18559/978-83-8211-061-6/I3
- 4. The future of the European Migration and Asylum Policy (*Judyta Cabańska*) https://doi. org/10.18559/978-83-8211-061-6/I4
- Central Bank policy toward the Covid-19 pandemic: Seeking patterns among the most powerful central banks (*Anna Matysek-Jędrych, Katarzyna Mroczek-Dąbrowska*) https:// doi.org/10.18559/978-83-8211-061-6/I5
- International portfolio diversification during the Covid-19 onset: A study of correlations among CEE post-transition and developed countries (*Pawel Śliwiński*) https://doi. org/10.18559/978-83-8211-061-6/I6
- Foreign direct investment and the Covid-19 pandemic: the real economy perspective and theoretical implications (*Marian Gorynia, Piotr Trąpczyński*) https://doi.org/ 10.18559/978-83-8211-061-6/I7
- The impact of Covid-19 on the finances of multinational enterprises from the perspective of Balance of Payments transactions (Monika Andrzejczak) https://doi.org/ 10.18559/978-83-8211-061-6/I8

Part II CHALLENGES FOR BUSINESS SECTORS AND INDUSTRIES

- Internal substitution in the tourism market: Effects of the Covid-19 pandemic (Agnieszka Niezgoda, Ewa Markiewicz, Klaudyna Kowalska) https://doi.org/10.18559/978-83-8211-061-6/II1
- Effects of the Covid-19 pandemic on sport, video game, and tourism industry: Sentiment analysis of press, Internet articles and Twitter data (*Łukasz Bryl, Justyna Majewska, Szymon Truskolaski*) https://doi.org/10.18559/978-83-8211-061-6/II2
- 3. Goods road transport sector facing pandemic crisis (*Piotr Banaszyk, Sylwia Konecka, Anna Maryniak*) https://doi.org/10.18559/978-83-8211-061-6/II3
- 4. The Polish logistics real estate market as a link in international supply chains during the Covid-19 crisis (*Waldemar Budner*) https://doi.org/10.18559/978-83-8211-061-6/II4
- 5. Covid-19 disruption of European agri-food markets: The case of Poland (*Magdalena Śliwińska*, *Rafał Śliwiński*) https://doi.org/10.18559/978-83-8211-061-6/II5

- 6. Consumer acceptance of AR technology in e-commerce in the light of the Covid-19 pandemic: A conceptual perspective (*Malgorzata Bartosik-Purgat, Tomasz Grzegorczyk, Wiktoria Rakowska*) https://doi.org/10.18559/978-83-8211-061-6/II6
- 7. Challenges for innovation co-operation in the biopharmaceutical industry during the Covid-19 pandemic (*Lukasz Puślecki*) https://doi.org/10.18559/978-83-8211-061-6/II7

Part III CHALLENGES FOR COMPANIES

- The adoption of Industry 4.0 solutions as a remedy against the pandemic crisis-the case of Polish companies (*Barbara Jankowska, Ewa Mińska-Struzik*) https://doi.org/ 10.18559/978-83-8211-061-6/III1
- Future competences in times of an economic crisis (*Anna Łupicka*) https://doi.org/ 10.18559/978-83-8211-061-6/III2
- 3. The impact of the crisis on the maintenance of sustainable development initiatives: A comparative analysis of local and international companies (*Łukasz Małys*) https://doi. org/10.18559/978-83-8211-061-6/III3
- 4. Women's entrepreneurship in the Covid-19 pandemic (*Alicja Hadryś*) https://doi. org/10.18559/978-83-8211-061-6/III4
- 5. Challenges in currency derivatives management in the OTC market in Poland during the Covid-19 pandemic (*Piotr Wybieralski*) https://doi.org/10.18559/978-83-8211-061-6/III5
- 6. Donation crowdfunding as a source of relief for small businesses (*Marcin Wieczerzycki*) https://doi.org/10.18559/978-83-8211-061-6/III6