

Two decades of macroeconomic changes in the context of Poland's membership in the European Union

Jacek Biatek, *Ministry of Development Funds and Regional Policy*
(Warsaw, Poland)

E-mail: jacek.bialek@mfi.gov.pl

<https://www.orcid.org/0000-0001-7623-8195>

Adam Oleksiuk, *SGH Warsaw School of Economics*
(Warsaw, Poland)

E-mail: aoleksi2@sgh.waw.pl

<https://www.orcid.org/0000-0003-1796-8125>

Abstract

The aim of the article is to examine the major aspects of Poland's economic situation as reflected in the main macroeconomic indicators during the country's twenty-year membership in the European Union (EU). The analysis is based on reports prepared by the International Monetary Fund (IMF), the National Bank of Poland (NBP), the Organisation for Economic Co-operation and Development (OECD), and statistical data provided by Eurostat and the Central Statistical Office of Poland (Statistics Poland). The article discusses issues related to the growth of Gross Domestic Product (GDP) and the improvement in the standard of living of Polish citizens, which were significantly stimulated by Poland's accession to the EU. Membership in the European Union brought Poland many tangible economic benefits. It became a key factor stimulating economic development through access to the single European market and EU structural funds, supporting investment, development, and infrastructure improvement. EU membership opened new trading opportunities for Poland, facilitating the export of goods and services to European markets. EU membership also enabled the free movement of citizens between the Member States. These benefits have helped modernise the country and enhance Poland's position on the international stage.

Keywords: Poland, European Union, Polish economy, macroeconomic changes, economic growth, EU accession

Dwie dekady przemian makroekonomicznych w kontekście członkostwa Polski w Unii Europejskiej

Streszczenie

Celem artykułu jest zbadanie głównych aspektów sytuacji gospodarczej Polski przy użyciu wybranych wskaźników makroekonomicznych na tle dwudziestoletniego członkostwa Polski w Unii Europejskiej (UE). Analizę przeprowadzono na podstawie raportów Międzynarodowego Funduszu Walutowego (IMF), Narodowego Banku Polskiego (NBP), Organizacji Współpracy Gospodarczej i Rozwoju (OECD) oraz danych statystycznych udostępnianych przez Eurostat i Główny Urząd Statystyczny (GUS). W artykule omówiono kwestie wzrostu Produktu Krajowego Brutto (PKB) oraz poprawy poziomu życia polskich obywateli, co stało się zauważalne po wstąpieniu Polski do UE. Przynależność do Unii Europejskiej przyniosła Polsce wiele wymiernych korzyści ekonomicznych. Stało się to kluczowym czynnikiem stymulującym rozwój gospodarczy dzięki dostępowi do jednolitego rynku europejskiego oraz funduszy strukturalnych UE, które wspierają inwestycje, rozwój oraz modernizację infrastruktury. Członkostwo w UE otworzyło Polsce nowe możliwości handlowe, ułatwiając eksport towarów i usług na rynki europejskie, a także umożliwiając swobodne przemieszczanie się obywateli między państwami członkowskimi. Korzyści te przyczyniły się do unowocześnienia kraju i wzmocnienia pozycji Polski na arenie międzynarodowej.

Słowa kluczowe: Polska, Unia Europejska, gospodarka Polski, zmiany makroekonomiczne, wzrost gospodarczy, akcesja do UE

Twenty years ago, Poland, along with nine other countries, joined the European Union, which was an act of historical significance for Poland. It should be emphasised that the accession had been preceded by many years of preparations, initiated with the socio-economic transformation efforts of the early 1990s. Undoubtedly, EU membership has brought tangible benefits: the effective use of EU funds, increased confidence among foreign investors, and domestic enterprises' access to the single market. However, EU membership also stimulated the migration of over 2 million of Polish citizens, including highly creative, educated people, to more developed Member States. Even though part of this cohort returned to their home country thanks to an improving situation in the Polish economy and because of deteriorating conditions in the receiving countries (e.g. Brexit), a significant part will probably never return to the domestic labour market, irreversibly reducing the country's demographic potential.

The authors of the article attempt – by presenting their perspective on the 20 years of Poland's membership in the EU seen through the lens of selected macroeconomic developments recorded in that period – to address the following **research questions (RQ)**:

RQ1: What constituted main challenges for the Polish economy in the year of the accession to the EU?

RQ2: What were the main aspects of the economic recovery that took place after Poland's EU accession, and which factors allowed it to exhibit relatively high resilience in the face of the global financial crisis and the Eurozone crisis?

RQ3: How has Poland's economy changed in the face of the COVID-19 pandemic,

and what were the main achievements and challenges it encountered both during the pandemics and subsequently in the period 2022–2023?

RQ4: How extensive was Poland's progress in terms of convergence towards the EU average level of development, as measured by GDP per capita and Actual Individual Consumption figures, in the period of the country's EU membership to date?

Analysing the changes in key macroeconomic indicators (related to the real economy, current account, inflation, and fiscal developments) and drawing on the insights derived from selected analytical reports prepared over the last two decades by IMF, OECD and European Commission, the authors try to demonstrate that Polish economy – which was the first one in the region of Eastern and Central Europe to undergo the profound “post-communist” economic transformation – not only successfully survived the period of the global financial crisis but also showed remarkable resilience by relatively quickly overcoming the economic consequences of the COVID-19 pandemic.

Materials and methods

The study was conducted on the basis of a selection of statistical data collected by *Statistics Poland* (Central Statistical Office) and Eurostat, covering the period selected for the research. The authors, upon choosing the relevant macroeconomic categories, conducted a query of relevant databases. The obtained data selections served to formulate (in text, graphs and tables) the relevant observations pertaining to the study's objectives. When it comes to the presentation of Poland's convergence in the field of GDP per capita (in PPS) and Actual Individual Consumption (in PPS), the authors went beyond the usual presentation in terms of the EU-average figures for given data points, and additionally analysed changes in relative position of Poland *vis-à-vis* either all EU Member States (GDP) or selected countries (AIC) at the beginning (2003, the year preceding EU accession) and end of the data sample (respectively 2023 and 2022).

The observations obtained during the data analysis stage were subsequently juxtaposed with selected analytical reports (prepared by the International Monetary Fund, OECD and the European Commission) for respective subperiods covered by the research to verify the authors' initial observations. When it comes to the presentation of Poland's convergence in the field of GDP per capita (in PPS) and Actual Individual Consumption (in PPS) the authors went beyond the usual presentation in terms of the EU-average figures for the given data points, and presented changes in relative position of Poland *vis-à-vis* either all EU Member States (GDP) or selected countries (AIC) at the beginning (year 2003 preceding the EU accession) and end of the data sample (year 2023).

Research results

From accession to the initial years of Poland's membership in the EU

Discussing the developments in the Polish economy in the period of UE membership, it should be emphasised that Poland was the first country in the “post-communist” world

to commence economic transformation, thus paving the way for other countries' rapid price liberalisation, deregulation and privatisation. Poland in the late 1980s and early 1990s experienced a deep recession (in 1990–1991 the average annual rate of GDP decline exceeded 7%), hyperinflation, restructuring of foreign debt and a sharp increase in unemployment (Oleksiuk, Biątek 2015). Due to the loss of traditional sales markets, producers of consumer goods faced enormous difficulties. However, it managed to retain its traditional role of an exporter of raw materials and of semi-processed products (Bakker, Kligen 2012). The quick implementation of ambitious reforms paid off. Poland was the first of the "transformation countries" to achieve, as early as 1996, a "pre-transformation" level of real GDP. Restructuring of the processing industry turned out to be effective, while in case of heavy industry adaptation to new conditions proved much more complicated. Poland quickly reoriented exports towards Western countries, and with EU accession in 2004, it increasingly became an element of the production networks of Western enterprises.

Significant progress was also recorded in the fight against inflation, with the average annual growth in prices slowing down from 585.8% in 1990 to 27.8% in 1995, to 10.1% in 2000, and to mere 0.8 % in 2003. Subsequently, until 2020, inflation remained below 5%. In 2000, Poland introduced a floating exchange rate mechanism of the zloty, and since 2004 has pursued a direct inflation target (NBP 2005).

In addition to the benefits stemming from the inflow of EU funds, and the EU freedoms (i.e. free movement of people, capital, goods and services between Member States), EU membership signified access to a large common market, as well as common economic regulations and technical standards, which contributed to accelerating Poland's socio-economic development (Biątek, Oleksiuk 2010).

In 2004, real GDP growth accelerated to 5.0% (from 1.3% in 2001, 2.0% in 2002 and 3.5% in 2003). Economic activity was stimulated by consumption and accumulation of inventories, with a decreasing contribution of net external demand. However, in mid-2004 there was some weakening of the demand-related sources of growth. At the end of the year, a dynamic recovery in exports took place – despite the weakening demand on Western European markets and the appreciation of the Polish zloty in the second half of the year (International Monetary Fund 2005). The economic recovery began to translate into the creation of new jobs, but the employment rate was still low, due to the economy's "rigid" structure and demographic pressures. It should be emphasised that the Russian crisis and the appreciation of the Polish zloty in 2001 led to two significant waves of job losses, while the baby boom generation was entering the labour market (International Monetary Fund 2005: p. 6). Job creation was hindered by difficulties on the supply side of the economy, such as the mismatch between employee skills and employers' expectations or the lack of interregional mobility of employees, while the demand for labour was weakened by infrastructure shortages (especially visible in regions with high unemployment) and high non-wage labour costs. Thus, the employment rate, which until 1998 had stayed close to the euro area average level started to decline and in 2004 amounted to mere 52%, the lowest in the EU (International Monetary Fund 2005). On the other hand, during the period of

economic recovery, high productivity gains were recorded, with high unemployment being conducive to maintaining a low rate of wage growth and a decline in unit labour costs.

The acceleration of nominal wage growth, combined with a significant increase in food prices and with high oil prices, stimulated price pressures. The Monetary Policy Council raised the NBP interest rates by 125 basis points from June to August 2004, which, combined with moderate inflation expectations and decelerating demand, allowed for a slowdown in inflation and in the rate of growth of salaries' (International Monetary Fund 2005). Nevertheless, the average annual price growth rate in 2004 (3.5%) was visibly higher than in 2003 (0.8%) and in 2002 (1.9%), although noticeably lower than in 2000 (10.1%) and in 2001 (5.5%) (Statistics Poland 2024). In 2004, a relatively loose fiscal policy was maintained (despite the improvement in the ratio of the result of the sector of government and self-government institutions to GDP from -6.0% in 2003 to -5.0%). The increase in fixed ("non-discretionary") expenditures translated into a significant pro-cyclical increase in the sector's deficit. Intensive efforts of the authorities to obtain parliament's acceptance of fiscal reforms (Hausner Plan) allowed only for the partial implementation of actions aimed at restoring fiscal rectitude. However, accession to the EU, the formation of the pro-reform government of Marek Belka and signs of a more favourable than expected budget situation (including progress in privatisation) improved the financial markets' sentiment, and at the beginning of 2005, a 4-year-long appreciation of the zloty began.

At the same time, the need for actions aimed at activating the full potential of the national economy through the fiscal and structural reforms targeted at ensuring the long-term stability of public finances, increasing the flexibility of the economy (especially of the labour market – e.g. reducing "fiscal wedge" on labour) and improving the business climate – was emphasised.

For example, the OECD in the study *Economic Survey, Poland 2004* underlined that the decline in employment observed since 1998 was a sign of continuing serious macroeconomic difficulties, which required to stimulate productivity growth, raise employment and consequently boost the GDP per capita, which in 2004 amounted to 41% of the OECD average.

Between 1998 and 2003 the number of people working in the national economy decreased from 16.3 million to 12.6 million people, with the registered unemployment rate jumping from 10.4% in 1998 to 20% in 2003 (Statistics Poland 2024).

OECD experts also pointed out that unless the process of "improving" the economic situation was accelerated, the country's convergence towards the average level of GDP per capita in the OECD (and therefore also in the EU) would probably be "disappointingly slow" (OECD 2004). They suggested that accelerating convergence and ensuring the widest possible access to the "fruits" of this process would require successfully facing four main challenges:

- a) in the short term, restoring appropriate balance between fiscal policy and monetary policy, and introducing solid macroeconomic framework (low inflation and stable public finances) perceived as a prerequisite for "healthy" economic growth;
- b) in the medium and long term, raising employment (especially among young people and the older workers), as a condition for returning to the path of dynamic growth;

- c) improving investment conditions to boost labour demand, employment, productivity, and international competitiveness;
- d) accelerating the restructuring of rural areas.

OECD experts noted that each of the above-mentioned interrelated challenges was critical for the country's return to the path of a long-term economic growth. With regard to the labour market, the need to intensify efforts to break people out of the "dependency traps" was underlined, including strengthening fiscal incentives for taking up gainful employment and reducing non-wage labour costs. Moreover, it was pointed out that expanding and improving the "targeting" of fiscal expenditures should help ensure the consolidation of public finances, which in turn – together with stronger GDP and employment growth – would allow to obtain additional funds to stabilise public sector investments in infrastructure and human capital (OECD 2004).

At the same time, the International Monetary Fund emphasised the need to continue the privatisation process (especially in the financial and energy sectors), in order to ensure the ability of enterprises to operate in the competitive EU market. The Fund's recommendations also included one suggesting Poland's relatively quick accession to the Economic and Monetary Union (International Monetary Fund 2005). In this case, the further course of events (the Eurozone crisis) demonstrated that it was the flexible exchange rate of the national currency that turned out to be beneficial for the resilience of the national economy, while the countries of the "Southern Europe" painfully felt the lack of flexibility in monetary policy (Stiglitz 2016).

In the period preceding the Global Financial Crisis, Poland's macroeconomic performance was very favourable and, unlike other countries in the region, it managed to avoid the development of significant imbalances thanks to appropriately restrictive policies. The average annual economic growth rate in 2004–2008 amounted to 5.2%, which was related to the increase in investments along with the growing investors' confidence in the domestic market in the context of EU membership. The National Bank of Poland adhered to a strongly anti-inflationary monetary policy paradigm, not only "cooling" demand, but also building trust in monetary policy, thus, expanding its room for maneuver during the economic downturn (Bakker, Klingen 2012). As far as fiscal policy is concerned, significant progress was achieved, with the deficit of the sector of government and self-government institutions shrinking from 6% in 2003 to 1.9% in 2007, which both prevented the economy's overheating in the growth phase of the cycle and allowed to build a "buffer" for more difficult times. Disciplined macroeconomic policy was accompanied by an appropriate macro-prudential policy (Bakker, Klingen 2012).

Polish economy in the face of the global financial crisis

The reforms implemented and the benefits of EU membership allowed Poland to face the Global Financial Crisis much more effectively than most "emerging European economies", and it was the only EU Member State that avoided recession during this period, thanks to a flexible internal demand and a lower – than in the case of neighboring countries – dependence on foreign trade. It should also be noted that the IMF's Flexible Credit Line

strengthened investor confidence in the Polish economy and promoted access to international capital markets. However, immediately after the collapse of *Lehman Brothers*, there was an evident decline in economic activity, reflecting the impact of the crisis – transmitted through real and financial channels. Due to the recession in Poland's key export markets, in Q4 2008, exports decreased by approximately 20% year-on-year, which – despite being lower than in the neighbouring countries the share of exports in GDP – had a significant impact on the Polish economy (especially on industrial production) (Bakker, Klingen 2012). However, private consumption remained at a relatively robust level (despite a significant weakening of retail sales dynamics). More significant was the transmission of the crisis through the relatively large and globally integrated Polish financial market, which – similarly to other countries in the region – recorded large declines in asset prices related to a sharp slowdown in capital inflows. Although Western banks, even in the most intense phase of the crisis reduced their presence in Poland only slightly, the sudden stop in the inflow of new funds was painfully evident (by February 2009, the zloty's exchange rate weakened by 30%), and the collapse of turnover on the interbank market contributed to the difficulties of many banks with liquidity (in foreign currencies) to finance mortgage loans denominated in Swiss francs and other currencies (International Monetary Fund 2012).

However, the authorities had an adequate margin to implement counter-cyclical economic policy, which mitigated the scale of the economic downturn and played a key role in avoiding a recession. From the fiscal policy side, tax cuts (PIT and disability insurance contributions) – introduced before the crisis – constituted a strong stimulus for the economy. Moreover, at the end of 2008, the authorities introduced several anti-crisis measures (including employment subsidies and support for mortgage loans for the unemployed). As a result, the ratio of the general government deficit to GDP widened to 7.3% in 2009 and 7.5% in 2010 (CSO). The use of fiscal space generated in the pre-crisis period played a key role in supporting domestic demand during the economic downturn. Monetary policy (NBP interest rates and the level of required reserves were significantly reduced) also served to boost the economic activity during the crisis. The highest priority for the authorities during the acute phase of the crisis was to ensure the stability of the financial system – the Financial Stability Committee was established in the fall of 2008 (Bakker, Klingen 2012). In 2009, the peak of the GFC, GDP in Poland increased by 2.8% (as opposed to a 4.3% decrease in the EU-28), while, during the deep phase of the Eurozone crisis (2012–2013), Poland's GDP increased by 1.5% and 0.9%, while in the EU it declined by 0.7% and 0.1% (Eurostat database W/W).

Poland's return to the path of faster growth

The positive rate of economic growth recorded in 2012–2013 stemmed from the strong foundations of the economy, appropriate economic policies, and the impact of EU funds. The slowdown was cyclical in nature, compounded by the weakness of the Eurozone economy, which, by dampening demand from Poland's main export partners, affected the sentiment of domestic enterprises and consumers. This, in turn, had an adverse impact on private sector investments and consumer demand.

During the period 2014–2015, the domestic economy returned to a path of dynamic growth – with an annual average GDP growth of 4.1%, compared to 1.9% in the EU. This expansion was driven by strong domestic demand, stimulated by improvements in the labour market and improved access to financing. The average annual inflation stood at 0.9% in 2013 but slowed to 0% in 2014, thanks in part to low commodity prices. Additionally, the current account deficit as a percentage of GDP improved from -5.1% in 2011 to -1.3% in 2015, primarily thanks to a dynamic increase in exports (Statistics Poland 2024).

In 2016–2019, the average annual GDP growth rate (4.6%) was more than twice the EU average of 2.2%. This strong performance resulted from socio-economic policies aimed at increasing disposable income and supporting enterprise investments through EU funds. Rising wages and the expansion of social programmes stimulated consumption, which remained the primary driver of economic growth until the early months of 2020.

The COVID-19 pandemic and the economic slowdown

Poland entered the COVID-19 crisis in relatively strong macroeconomic condition, with a diverse range of value-added sectors. Notably, the economy had a relatively limited reliance on the automotive industry and a small contribution of leisure and tourism to GDP, which helped mitigate the impact of the pandemic.

In February 2020, the European Commission indicated in its *Country Report* that although Poland's economic growth was slowing, it remained solid and provided a strong foundation for implementing reforms to address socio-economic challenges (European Commission 2020). However, the "pandemic shock", which hit Poland since mid-March 2020, necessitated a fundamental reassessment of economic assumptions and projections. By the end of 2020, the state of the Polish economy differed significantly from the optimistic expectations formulated at the year's beginning. Nevertheless, the 2% GDP contraction recorded in 2020 – compared to an average decline of 5.6% in the EU and 6.0% in the euro area – was relatively mild and highlighted economy's resilience. Proactive economic policy helped limit the scale of the decline in economic activity and maintain the economy's development potential (i.a. employment).

The negative impact of the pandemic on the economy was mitigated by the government's anti-crisis programmes, which were also partially financed from EU funds, as well as by significant loosening of monetary policy by the National Bank of Poland (see: NBP 2005). Large-scale anti-crisis measures were implemented in the second quarter of 2020, when the strictest restrictions on business activities were in place. Most of the support was structured as grants or preferential repayable financing for enterprises. These measures included funds from the *Financial Shield* programme of the Polish Development Fund (PFR), exemptions from ZUS social security contributions, co-financing of labour costs by the Guaranteed Employee Benefits Fund, and PLN 5,000 loans for micro-entrepreneurs (Biatek, Tyc 2023).

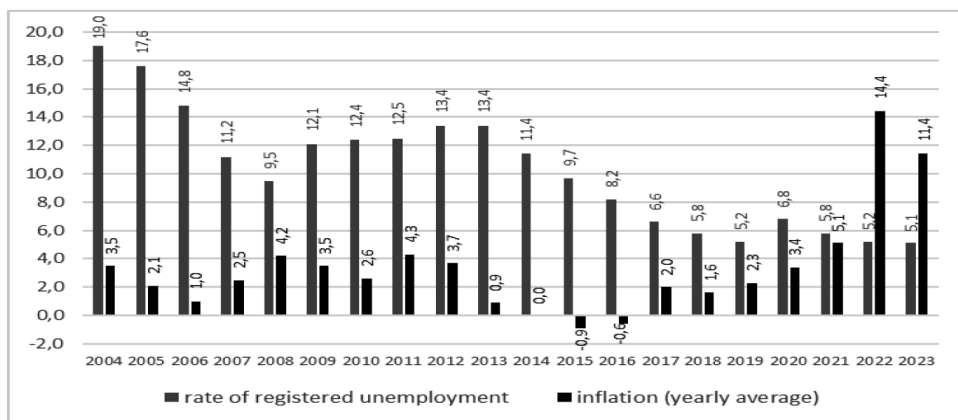
The relatively favourable situation in public finances before the crisis (in 2018 the deficit of the sector of government and self-government institutions to the GDP amounted to 0.2%, and in 2019 – to 0.7%, according to *Statistics Poland*) allowed for a wide-scale fiscal

policy response. As a result, employment levels were maintained, and significant increase in bankruptcies in the real economy was avoided. Experts from the IMF emphasised that the scale of support provided to the economy in Poland was relatively higher than in most EU countries (International Monetary Fund 2022). Notably, GDP returned to a path of dynamic growth as early as 2021, expanding by 6.9% compared to 6.0% in the EU, surpassing its pre-pandemic level in real terms, despite the continued presence of some pandemic-related restrictions. By 2022 these restrictions were practically lifted allowing for a continuation of the economic recovery. In that year Poland's GDP grew by 5.6%, outpacing growth in both the EU and Eurozone (3.5%).

Polish economy in the period 2022–2023

In February 2022 the economy once again had to face challenging external conditions. Severe turmoil in the financial markets, disturbances in the energy commodities market and the massive inflow of war refugees to the EU (with the vast majority coming to Poland, either to stay or in transit) necessitated deep and rapid economic policy adjustments. The increase in energy prices was the key reason for the significant acceleration of inflation (which was also driven by the inflow of "liquidity" into the real economy, resulting from measures taken after the outbreak of the pandemic by the government and by the National Bank of Poland to protect the economic activity). In December 2022, the average price level of consumer goods and services stood 16.6% higher than in December 2021 (compared to an increase of 2.4% year-on-year in December 2020). Since April 2021, the growth rate of consumer goods and services prices (year-on-year) has continuously exceeded the fluctuation range permitted under the NBP inflation target (set at 2.5% +/-1 percentage point), and from March 2022 to August 2023, it remained at the "double-digit" levels.

Figure 1: The growth rate of prices of consumer goods and services (annual average) and the registered unemployment rate (end of the period).



Source: authors' own elaboration based on data by *Statistics Poland*.

The persistently high inflation continued for a significant part of 2023. In February 2023, Poland recorded the highest year-on-year growth rate in consumer goods and services prices since December 1996 – 18.4%. However, the following months of 2023 brought a gradual slowdown in inflation, which by September of 2023 returned to a single-digit level (8.2%) and further decreased to 6.2% in December (Statistics Poland 2024). However, the GDP growth rate slowed to 0.1% (compared to the EU and the Eurozone average of 0.4%). It should be emphasised that the situation in Ukraine exerted deep pressure on the Polish economy – with the increase in commodity prices having a negative impact on both real household disposable incomes and consumption (due to high share of energy prices in the consumer price basket). High levels of uncertainty, deteriorating business sentiment, and higher *loan costs* (as interest rates increased following *monetary policy tightening*) affected economic activity, especially investments, leading to a dramatic slowdown in *GDP growth* in 2023.

Nevertheless, the unemployment rate remained at a historically low level of around 3% (one of the lowest in the EU) and the labour market continued to experience deep labour shortages. The low participation of some population groups in the labour market and the decline in the working-age population continued to negatively impact labour supply. At the same time, surveys conducted among managers highlighted difficulties in finding employees with required skills – indicating a significant skills mismatch in the national labour market (International Monetary Fund 2023). It is estimated that the tax reforms under the “Polish Deal” introduced in 2022, have reduced the tax burden on labour, benefiting lower-income workers and encouraged older workers to postpone retirement. At the same time, these reforms have led to an increase in the tax burden (“tax wedge”) for self-employed people with higher incomes. However, it is estimated that in the medium term, these reforms should contribute to an increase in labour supply (European Commission 2023a).

Regarding the structural conditions of the labour market, the successful integration of refugees from Ukraine has proven beneficial for the Polish economy. By the end of 2022, it had increased labour supply by 2.1%, helping alleviate workforce shortages – particularly in the service sector. However, significant challenges remain. The sharp rise in Poland’s population has driven increased demand for housing and placed pressure on public services, including education and healthcare (European Commission 2023a).

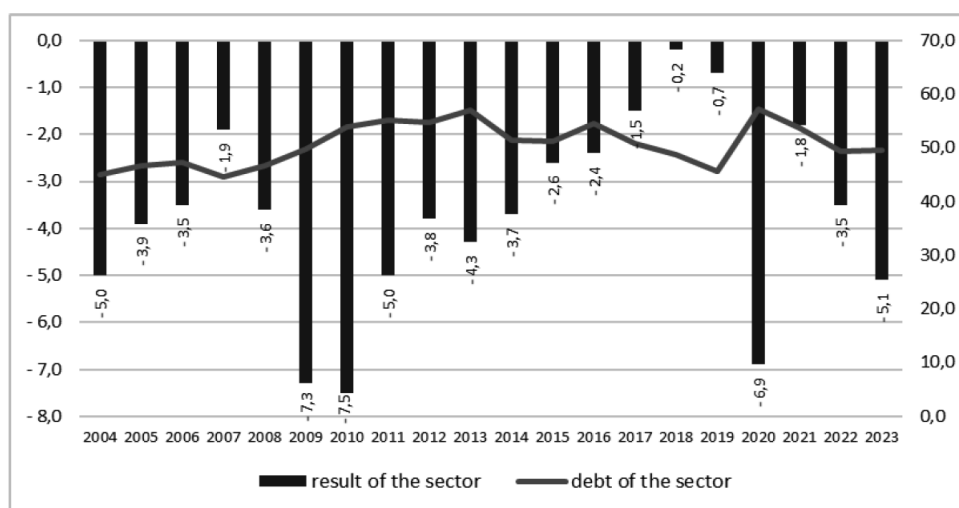
It is estimated that the competitiveness of the Polish economy has not suffered significantly due to the shock caused by rising energy prices and labour costs. While higher global energy commodity prices led to a significant deterioration in Poland’s current account balance in 2022, cost competitiveness remained stable thanks to zloty depreciation and increased labour productivity (with Poland maintaining one of the lowest labour costs in the EU). This was reflected in dynamic export growth (including an increase in Poland’s share in the global market), as well as a strong inflow of foreign direct investment (Eurostat database W/W/W).

The banking sector demonstrated resilience and recorded a rapid post-pandemic rebound, driven by high growth rates in 2021–2022. In a higher interest rate environment, banks’ profitability improved but remains threatened by financial burden associated with foreign currency mortgage loans.

Regarding the fiscal situation, the government and local government sector's deficit widened from 3.5% in 2022 to 5.1% in 2023, primarily due to rising defense spending and continued energy-related consumer support. The deficit-to-GDP ratio was forecast to increase to 5.4% in 2024, while the sector's debt-to-GDP ratio was expected to remain well below 60% in the same year (European Commission 2024).

Challenges persist regarding the sustainability, efficiency, and transparency of public finances. Maintaining a low retirement age poses a significant risk – in the face of a rapidly aging society – of either increased poverty among older people or substantial future rises in public spending on the pension system. Additionally, it may create mid-term and long-term pressures on the sustainability of public finance. Regarding the revenue side of public finances, in recent years, more effective tax enforcement has contributed to higher budget revenues. However, both independent oversight of fiscal policy and the medium-term budget framework remain limited in importance.

Figure 2: The ratio of the general government's result and debt to GDP



Source: authors' own elaboration based on data by *Statistics Poland*.

Overcoming structural challenges will support sustainable economic growth, as Poland's growth potential is limited by a low investment rate and low innovativeness, as well as issues inherent in the educational system (European Commission 2023b).

Labour productivity in Poland is among the fastest-growing in the EU, driven by the country's integration into global value chains, technology transfer, and a relatively well-educated workforce. At the same time, the relatively high rate of business creation and failure in Poland suggests low barriers to resource allocation. However, labour productivity levels remain well below the EU average, with large regional disparities. Both "green" and digital transitions are hindered by underdeveloped digital skills among employees and low adult participation in education. The low percentage of STEM gradu-

ates negatively impacts the country's research and innovation potential. The adoption of technology in enterprises also remains low compared to the EU average, and SMEs are characterised by relatively low innovation levels. Moreover, the educational system continues to struggle with teacher shortages in certain subjects, which negatively affects teaching outcomes and exacerbates inequalities among students in this regard (European Commission 2023b).

The instability of the business environment and regulatory burdens on economic activity have limited investment and pose a barrier to the growth of private sector entities, where the investment rate is lower than both the average one in the EU and the figure for countries with a comparable level of development. Administrative efficiency and digitisation also lag behind relevant EU averages.

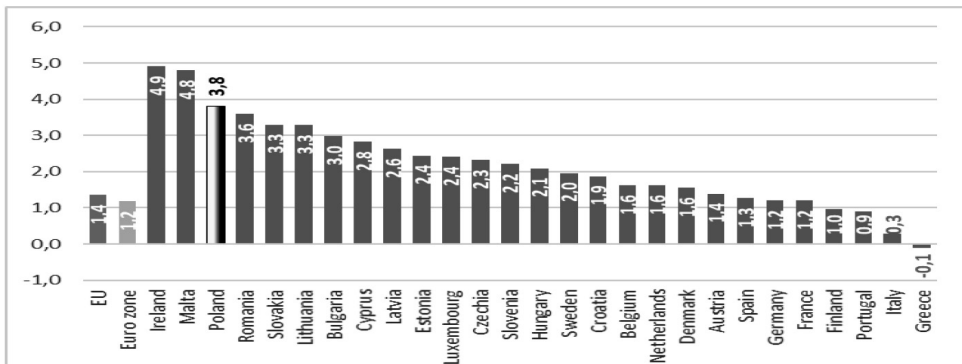
As the public health situation deteriorated, challenges persisted in the health care and long-term care systems. The pandemic caused a sharp decline in life expectancy and a high mortality rate relative to EU averages. The health care system struggled with primary care and a wide range of unmet needs for health care and long-term care.

Experts concluded that putting the Polish economy on a more sustainable growth trajectory would require accelerating transformation in the energy mix and environmental sphere. The country's energy mix was still dominated by fossil fuels as of the end of 2022, it remained largely dependent on imports from Russia. To effectively decarbonise the economy, enhance energy security and ensure affordable energy supplies in line with the EU's climate and energy goals, Poland must increase the scale of use of renewable energy sources (European Commission 2023b).

A view of Poland's convergence in the period 2004–2023

In the years 2004–2023, the first 20 years of Poland's membership in the EU, the average GDP growth rate amounted to 3.8%, being one of the highest in the EU (surpassed only by Ireland and Malta) and almost three times higher than the EU average (Eurostat 2024b).

Figure 3: Average annual GDP growth rate in the period 2004–2023

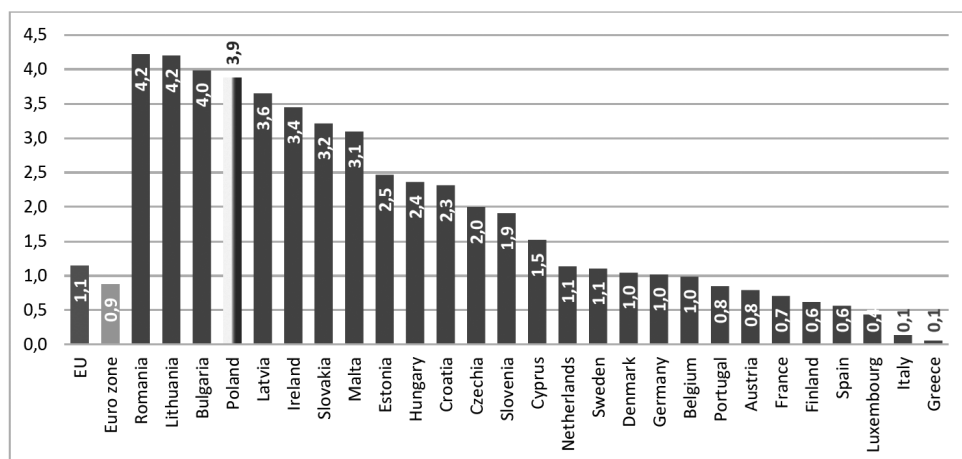


Source: authors' own elaboration based on Eurostat's data (see: Eurostat 2024b).

When discussing the outflows of population in the wake of the EU membership, we adverted to demographic challenges faced by Poland, therefore we would also like to show the GDP growth against the background of these demographic changes. In the years 2004–2023, the annual average GDP per capita growth rate in Poland amounted to 3.8%, being one of the highest in the EU (after Romania, Bulgaria and Lithuania) and being over 3 times higher than average figure for the euro area (1.2%).

As a result, the difference between the value of GDP per capita (in PPS) in Poland and the EU average figure has narrowed noticeably – while in 2003 the ratio of GDP per capita (in PPS) in Poland to the EU average stood at about 50% (exactly 49.6%), in 2023 it amounted to 77.3%. In other words, in the period 2004–2023, Poland reduced the gap to the EU average level by 27.6 percentage points.

Figure 4: Average annual GDP per capita growth rate in the period 2004–2023.



Source: authors' own elaboration based on Eurostat's data (see: Eurostat 2024c).

In 2003, the ratio of GDP per capita to the EU average ranged in the countries of the Central and Eastern European region from 30.4% (Romania) to 84.2% (Slovenia). In the period 2004–2023, the countries of this region were dynamically catching up with both the EU average and the level of "old EU" (EU-15) countries. In *Table 1* we present (column 6) the convergence (in percentage points) recorded by individual countries between 2003 and 2023 in relation to the EU average figure. The greatest strides were made by Romania, which reduced the gap to the EU average by 47.5 percentage points, Lithuania (37.9 p.p.) and Bulgaria (30.1 pp.). In the case of Poland, the convergence amounted to 27.6 p.p. and was slightly faster than in Estonia (27.2 p.p.) but at the same time marginally slower than the one achieved by Latvia (27.9 p.p.). Because of the different starting points (i.e. different levels of the GDP per capita ratio to the EU average in 2003 – see: *Table 1*, column 2), one should not view the table in a mechanical way, by directly comparing the distance (in p.p.) narrowed by individual countries. Taking into account the impact

of decreasing marginal growth of the GDP (the intensification of the capital factor by subsequent units increases production to a lesser extent), we would like to underline that countries with a lower initial level of development may, generally, post a higher rate of convergence than countries closer to the "technological frontier".

We also draw attention to the fact that in the case of as many as 12 EU Member States, the ratio of their GDP per capita to the EU average was lower in 2023 than in 2003. The greatest decline was recorded in the countries of Southern Europe (e.g. in Greece by 24.5 p.p. – from 93.6% to 69.1% of the EU average). Also, in the case of Italy, Spain and France, the analysed ratio decreased from over 100% to a level below the EU average.

An alternative method – in view of the progress of the country's convergence in relation to the average level of GDP per capita (in PPS) in the European Union – is to directly compare changes in the relationship in the analysed period in relation to other EU Member States. In *Table 1* (in columns 3, 5 and 7), we present the ratio (%) of GDP per capita in Poland to the value for individual countries in 2003 and 2023, as well as the change in this ratio in percentage points during this period. For example, in 2003, GDP per capita generated in Poland corresponded to 36.0% of GDP in the Netherlands (and 40.2% of the value for Germany). At the same time, comparing the GDP per capita of Poland with the reading for Romania, we obtained a ratio of 163.5% and for Bulgaria 147.5%. An analogous comparison based on data for 2023 demonstrates that the ratio towards the Netherlands' level increased in the case of Poland to 58.0% (i.e. by 22.9 percentage points), and in relation to Germany's GDP per capita to 66.6% (i.e. by 26.4 percentage points). It is also worth emphasising that in 2023 GDP per capita in Poland was lower than in Romania (amounting to 99.2% of that country's level), while being higher than the respective figure for Bulgaria.

When analysing the values from column 7 in *Table 1*, it should be emphasised that the sign (-) should not be interpreted unambiguously as it may mean:

- a) making up the development gap with Poland by countries with lower GDP per capita in 2003 as a percentage of the EU average, while in 2023, their GDP per capita was still lower – but to a lesser extent – than the value for Poland (Bulgaria, Latvia);
- b) a situation, in which in 2003, Poland had a higher GDP per capita in relation to the EU average than a given country, while in 2023 the opposite situation was observed (Lithuania, Romania).

In the period 2004–2023, Poland's annual average convergence rate can be estimated at around 1.4 percentage points). Assuming that in the coming years Poland will maintain the average annual pace of catching up, the EU average level would be achieved around 2040.

Table 1: Change (in p.p.) of the ratio of Poland's GDP per capita (at PPS) to the EU average and to the level of EU Member States in the period 2003–2023.

1	2	3	4	5	6	7
	2003		2023		2003–2023	
	GDP per capita (EU-27=100)	GDP per capita - Poland as a % of a given country	GDP per capita (EU-27=100)	GDP per capita - Poland as a % of a given country	Change in the ratio (p.p.) vs EU-27	Change in the ratio (p.p.) Poland vs given country
Belgium	124,5	39,9	117,6	65,7	-6,9	25,8
Bulgaria	33,7	147,5	63,8	121,2	30,1	-26,3
Czechia	78,9	63,0	90,4	85,5	11,5	22,5
Denmark	124,3	40,0	125,4	61,6	1,1	21,7
Germany	123,5	40,2	116,0	66,6	-7,5	26,4
Estonia	52,7	94,3	79,9	96,7	27,2	2,4
Ireland	146,1	34,0	213,0	36,3	66,9	2,3
Greece	93,6	53,1	69,1	111,9	-24,5	58,8
Spain	100,9	49,3	90,5	85,4	-10,4	36,2
France	113,2	43,9	99,2	77,9	-14,0	34,0
Croatia	55,1	90,2	76,0	101,7	20,9	11,5
Italy	117,8	42,2	98,4	78,6	-19,4	36,4
Cyprus	97,8	50,8	97,3	79,4	-0,5	28,6
Latvia	42,5	116,9	70,4	109,8	27,9	-7,1
Lithuania	48,7	102,1	86,6	89,3	37,9	-12,8
Luxembourg	242,0	20,5	236,8	32,6	-5,2	12,1
Hungary	62,3	79,8	76,7	100,8	14,4	21,0
Malta	83,8	59,3	107,2	72,1	23,4	12,8
Netherlands	138,1	36,0	133,2	58,0	-4,9	22,0
Austria	128,7	38,6	119,9	64,5	-8,8	25,9
Poland	49,7	100,0	77,3	100,0	27,6	0,0
Portugal	84,0	59,2	80,5	96,0	-3,5	36,9
Romania	30,4	163,5	77,9	99,2	47,5	-64,3
Slovenia	84,2	59,0	91,8	84,2	7,6	25,2
Slovakia	56,7	87,7	73,8	104,7	17,1	17,1
Finland	116,9	42,5	105,2	73,5	-11,7	31,0
Sweden	128,0	38,8	113,7	68,0	-14,3	29,2

Source: authors' calculations based on the Eurostat's data (see: Eurostat 2024a).

Since we would like not to confine our presentation of the convergence process towards the EU average level of development solely to the GDP per capita (at PPS) figures, below we present the convergence in terms of actual individual consumption (AIC per capita) in Poland as a ratio of the EU average figure.

In our opinion, the latter indicator reflects more thoroughly than GDP per capita the situation of Polish consumers (as a proxy of their quality of life) in comparison to the EU counterparts. Actual Individual Consumption "refers to all goods and services actually consumed by households. It encompasses consumer goods and services purchased directly by households, as well as services provided by non-profit institutions and the government for individual consumption (e.g. health and education services). In international comparisons, the term is usually preferred over the narrower concept of household consumption, because the latter is influenced by the extent to which non-profit institutions and general government act as service providers." (Eurostat 2017: p. 26).

In 2003 the level of Actual Individual Consumption per capita in Poland constituted 55% of the EU-27 average (i.e. excluding the United Kingdom) and amounted to 44% of Germany's level, while the respective GDP per capita (at PPS) amounted to 49.7% of the EU-27 average and to 44.2% of the figure for Germany, respectively. In our opinion, it is also worthwhile to underline that in 2003 AIC in Poland stood at 61.8% of Portugal's level and at 54.5% of that of Spain. However, by 2023 Poland has not only reached 83% of the EU-27 average figure (*vis-a-vis* 77.3% in case of the GDP per capita), but also significantly converged towards the AIC's per capita levels of Spain (increasing to 91.2% of that country's level) and Portugal (97.6%). At the same time, Poland's AIC declined in relative terms when measured against Romania's level – from 157.1% to 96.2% (Eurostat database W/W). It should be stressed that in the period 2003–2023 Poland's convergence to the EU-27 average in GDP per capita amounted in case of AIC to 28 p.p. and was marginally faster than in case of GDP per capita (27.6 p.p.). If we look at the AIC data for Poland in the context of the decreasing poverty and inequalities – as discussed below in the section devoted to the *Strategy for Responsible Development* – it attests to the significant improvements in the living standards in Poland.

Finally, we would like to refer briefly to the seven years (2017–2023), in which Poland was implementing the mid-term *Strategy for Responsible Development* (see: Ministry of Development 2017). In 2020 we have characterised the main futures of the said Strategy in the article published in *L'Industria*, where we asserted that: "The Strategy for Responsible Development constitutes an evidence-based approach to elaborating on the mid-term strategy of economic development. Upon identifying five development traps that adversely affect the long-term development prospects, the strategy calls for a more activist approach by the state to stimulating development processes. The comprehensive reforms envisioned in the discussed document appear to address the majority of challenges faced by the Polish economy" (Biatek, Oleksiuk 2020: p. 2). Since the implementation of the Strategy in question has been discontinued after the new coalition government came to power (December 2023), we would like to present our short assessment of the 7 years of the SRD implementation, underlining that the second half of that period was dominated firstly by the COVID-19 pandemics and secondly – by the situation in Ukraine.

Taking this context into account, one should underline that Poland has weathered the economic crisis related to COVID-19 relatively better than many other EU countries,

largely thanks to the implemented package of anti-crisis solutions. The GDP decline of 2.0% recorded in 2020 was almost three times less deep than the one recorded in the EU-27 (where GDP shrank by 5.6%). Moreover, in the years 2021–2022, there was an intensive reconstruction of economic activity in Poland, which resulted in GDP growth in real terms (i.e. in constant prices) by 6.9% (compared to an increase in the EU-27 by 6.3%) in 2021 and by 5.3% (compared to 3.5% in the EU-27) in 2022. Despite the significant headwinds faced in the course of the Strategy's implementation, numerous indicators were in line with the objectives espoused in the document. Half of the indicators reached the intermediate values set for 2020, while as much as 1/4 of the indicators reached – well in advance – the target values for 2030. The indicators of the main objective of the Strategy¹ are particularly favorable.

The area, in which the greatest progress has been achieved, is the reduction of poverty and inequality, where significant progress has been achieved since 2015 (International Monetary Fund 2022). The risk of poverty or social exclusion rate dropped from 22.5% in 2015 to 17.0% in 2020, almost reaching the value assumed for 2030, while in 2022, it dropped further – to 15.9%. The readings of the Gini coefficient were also on the declining path. In 2020, this indicator decreased to 27.2 (compared to 29.8 in 2016), and in 2021 it decreased further – to 26.8 (more than attaining the level set for 2030). Progress recorded in this area resulted mainly from the introduction of many social programs during the Strategy's implementation period (Statistics Poland 2023).

However, there were also areas where the Strategy's ambitious goals were not attained. In the case of the investment rate (i.e., the ratio of gross fixed capital formation expenditures to GDP) the SRD set the goal of 22–25% for 2020 (and 25% for 2030). Neither of the levels has been achieved in any of the years of implementation of the Strategy. The highest value of the discussed indicator (19.1%) was reached in 2019, while in 2023 it amounted to only 17.7%. Therefore, the "investment engine" of growth assumed in the Strategy did not materialise.

Conclusions

Over the two decades of Poland's membership in the European Union, the country's economy has undergone significant transformation. Integration with the EU opened up new opportunities and created new challenges for the Polish economy, having a profound impact on the changes that took place in its structure. The article analyses these changes and their consequences for Poland's economic development. The authors focus on aspects such as economic growth, inflation, unemployment, public finance and the trade balance. It is worth noting that these indicators have undergone significant fluctuations since Poland's accession to the EU.

¹ The main Strategy's objective is "to create conditions for increasing incomes of the Polish citizens along with increasing cohesion in the social, economic, environmental and territorial dimension" (Ministry of Development 2017: p. 5).

After looking at two decades of Poland's membership in the EU against the background of macroeconomic changes, several important conclusions can be drawn. Poland recorded impressive economic growth after joining the EU, thanks to integration with the single market and to an increase in the inflow of foreign investments. Integration with the EU accelerated the process of convergence with Western European economies, reducing differences in the level of development and in quality of life. Poland had to undertake significant structural reforms to adapt to EU standards and boost the economy's competitiveness. Despite numerous economic benefits, EU membership was also associated with social challenges, such as labour migration and deepening social inequalities. These conclusions emphasise the importance of Poland's membership in the European Union for the country's economic development, while drawing attention to the need for continuous adaptation and modernisation.

Jacek Bialek – PhD in Economics, civil servant (currently at the Ministry of Development Funds and Regional Policy). Graduate of the Faculty of Journalism and Political Science at the University of Warsaw, and of an MBA studies (joint degree from the University of Warsaw and University of Illinois at Urbana Champaign). He completed the Applied Economic Policy Program at the Joint Vienna Institute (JVI) followed by several specialist courses (sponsored mostly by the International Monetary Fund) at the JVI. He is an author or co-author of numerous publications related to economics, geopolitics and management science. His research interests include global economic development, the European Cohesion Policy, and socio-economic transformation in the region of Central and Eastern Europe.

Jacek Biatek – doktor nauk ekonomicznych, urzędnik służby cywilnej (obecnie w Ministerstwie Funduszy i Polityki Regionalnej). Absolwent Wydziału Dziennikarstwa i Nauk Politycznych Uniwersytetu Warszawskiego, a następnie studiów MBA (wspólny program Uniwersytetu Warszawskiego i *University of Illinois at Urbana Champaign*). Ukończył kilkumiesięczne szkolenie z zakresu „stosowanej polityki gospodarczej” w *The Joint Vienna Institute (JVI)*, a następnie kilka dwutygodniowych specjalistycznych kursów (sponsorowanych głównie przez Międzynarodowy Fundusz Walutowy) w JVI. Autor lub współautor licznych publikacji z zakresu ekonomii, geopolityki i nauk o zarządzaniu. Jego zainteresowania badawcze obejmują m.in. rozwój światowej gospodarki, europejską politykę spójności oraz transformację społeczno-gospodarczą w regionie Europy Środkowo-Wschodniej.

Adam Oleksiuk – PhD in Economics, lecturer and researcher at the SGH Warsaw School of Economics. Graduate of the Faculty of Management at the University of Warsaw, followed by Foreign Policy Studies at the Polish Institute of International Affairs and several managerial postgraduate studies. He had academic internships abroad at the University of Cambridge, Stockholm School of Economics in Riga, Saxion University. He was also a scholarship holder of the *Erasmus* and *Erasmus+* programmes, a participant of courses organised by The Joint Vienna Institute and The Vienna Institute for International Economic Studies. He is an author or co-author of approximately 150 publications. His research interests include the economic transformation taking place in Central and Eastern European countries.

Adam Oleksiuk – doktor nauk ekonomicznych, wykładowca i pracownik naukowy Szkoły Głównej Handlowej w Warszawie. Absolwent Wydziału Zarządzania Uniwersytetu Warszawskiego, następnie Studium Polityki Zagranicznej Polskiego Instytutu Spraw Międzynarodowych oraz kilku menedżerskich studiów podyplomowych. Miał naukowe staże zagraniczne w *University of Cambridge*, *Stockholm School of Economics in Riga*, *Saxion University*. Wielokrotny stypendysta programów *Erasmus* oraz *Erasmus+*. Uczestnik kursów organizowanych przez *The Joint Vienna Institute* oraz *The Vienna Institute for International Economic Studies*. Autor lub współautor około 150 publikacji. Zainteresowania badawcze dotyczą m.in. przemian gospodarczych zachodzących w krajach Europy Środkowej i Wschodniej.

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