

Macroeconomic Analysis of The Polish Economy and Mid-Term Forecasts. The Future's Bright?

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ABSTRACT: The paper shows main macroeconomic indicators, 2013-2018, structure of the Polish and the EU economy and GDP growth forecasts (2019-2023). In 2004-2018 Poland has recorded second-fastest average annual economic growth in the European Union. Data reveals that in terms of the level of the GDP per capita (at PPS) indicator, Poland occupied the 22nd position in the EU-28. In the short-term, the economy, which is growing at an above potential rate, should remain dynamic, thanks to the supportive monetary and fiscal policy as well as significant transfers from the EU. In this paper author describe also risk factors in the global economy for Polish economy.

KEYWORDS: –The Polish Economy, The European Union Economy, Economic Growth, Macroeconomic Indicators, Gross Domestic Product, Mid-Term Forecast

I. INTRODUCTION

The gross domestic product (GDP) is a major marker shows why some countries are more financially stable than others. A GDP can't make or break an individual business because it's the result of how a country's businesses are doing as a whole. Generally, the GDP is an indicator of how a country's economy is doing. This means a business can use it to predict whether their industry will grow or if it will falter. According to the data from the International Monetary Fund's World Economic Outlook (January 2019), in the period 2004-2018 Poland has recorded second-fastest – following Ireland- average annual economic growth in the European Union. Polish economy grew at a rate of 3.92% (compared to Ireland's 4.64%), which was much higher than the European Union average (1.48%), but at the same time slightly lower than the average growth rate for the World Economy (3.90%) and visibly lower than for emerging market economies (5.87%). The relatively high economic growth in Poland in the years 2004-2017 (amounting to 3.8% on an annual average basis, as against 1.2% in the EU-28) was to a large extent driven by the use of the EU funds. During the economic crisis, the EU funds allowed to cushion the effects of external shocks and contributed to the implementation of the national policy for the stabilization of public finances. The impact of the Cohesion Policy on the economic growth was positive throughout the entire analysed period – it is estimated that over 11% of the average annual growth resulted from the implementation of the EU co-financed projects. By stimulating the investment demand, the EU funds influenced the increase in both disposable income and consumer demand, thus contributing to the GDP growth.

II. DATA REVIEW

Analysis of the Eurostat's data reveals that in terms of the level of the GDP per capita (at PPS) indicator, Poland occupied the 22nd position in the EU-28 (in 2006 it was 26). At the regions – NUTS -2 level (voivodships), the GDP per capita ratio at the PPS ranged in 2015 from 47% of the EU-average in the Lubelskie Voivodeship to 109% in the Mazowieckie Voivodship. What should be underlined here, none of the voivodships of eastern Poland exceeded the level of 50% of the EU average and they are still in the group of the poorest EU NUTS 2 regions. In terms of productivity of the economy measured with gross value added (GVA) per working person in relation to the EU average, Poland with the ratio of 75.2% is at the 17th position in the EU (well above the place occupied in GDP per capita terms). As far as the GVA per hour worked is concerned, Poland occupies a much lower 25th position, with around 60 of the EU average. The overall level of productivity is positively related to such factors as the efficient use of labor resources and the large share of high-productivity activities, such as financial services, as well as oil and gas extraction and processing. On the other hand, a large share of agriculture, which is characterized by relatively low labor productivity, reduces the overall level of productivity.

Table 1. Structure of the Polish and the EU economy (%)

	2007	2018	2007	2018
	Poland		EU	
GVA				
sector I	3.4	2.4	1.7	1.5
sector II	33.2	33.4	26.4	24.6
sector III	63.4	64.2	71.9	73.9
EMPLOYED				
sector I	14.7	10.6	5.2	4.3
sector II	30.8	31.4	27.4	24.1
sector III	54.5	58	67.4	71.6

Source: Own calculations based on the Polish Central Statistical Office (CSO) data

The comparison in with the structure of the EU economy points to a nearly two times higher share of the agricultural sector in the Gross Value Added in Poland and almost three times higher share in the number of employed: in 2016, almost 11% of workers in sector I in Poland generated 2.4% of GVA (in the EU the respective figures amounted to 4.3% and 1.5%). The Polish agricultural sector is characterized by a very high labor intensity (measured by the share of employees) chiefly due to the large percentage of small individual farms. It needs to be highlighted that, that the desired changes in this area in Poland should be aimed at reducing the share of people working in this sector, while further improving the productivity of people employed in it. Productivity in particular types of activity is very diverse, both at the national level, as well as at the regional one. At the country level, productivity in industry and construction it exceeds productivity in agriculture by a factor of 7, while at the same time being almost 2 times lower than the productivity in the finance, insurance and real estate services.

An attempt to assess possible threats to the strong economic growth in Poland after 2018 should start with the depiction of the current economic situation. It should be, therefore, emphasized that in 2017, all components of domestic as well as external demand had a positive impact on GDP growth and that important macroeconomic indicators remained well-balanced. The Polish economy has effectively benefited from both internal development factors and the positive developments in the global and the European economy. The economy appears to be in internal and external equilibrium, as attested to be numerous key economic indicators.

The year 2017 brought about noticeable improvement in macroeconomic indicators. The GDP growth amounted to 4.6%, which was the second result in the EU, after Romania (European Commission, 2019). Polish economy was growing in this period twice as fast as the entire EU. However, this wasn't decisively underpinned by the rebound of investments, nevertheless moderate growth in investment expenditures signified noteworthy progress compared to previous years. Currently growth is based primarily on strong consumption (which increased by around 4%) and on the growth of exports (which grew at the rate of 8% - by 1 p.p. faster than the assumption of Strategy for Responsible Development) (Ministry of Economic Development, 2017). A noticeable consumption impulse undoubtedly stems from the demand stimulating actions of government, as in 2018 authorities added to the Family Plus Program of child benefits, mandated noticeable increase in the minimum wage – up to PLN 2 thousand, PLN (which exceeded even the proposals of trade unions) and introduced an hourly minimum wage rate, which blocked the possibility of employing workers on a short-term civil law contracts for few zloty per hour. These actions sustained a clear increase in wages.

Table 2. Poland, Main macroeconomic indicators, 2013-2017

Indicator	2013	2014	2015	2016	2017	2018
GDP growth (%)	1,4	3,3	3,8	3,0	4,8	5,1
Domestic demand, constant prices change (%)	-0,6	4,7	3,3	2,2	4,7	4,4
Consumption, constant prices change (%)	0,8	2,8	2,8	3,4	4,4	3,7
Households consumption	0,3	2,6	3,0	3,9	4,8	4,2
Public consumption**	2,5	4,1	2,4	1,8	3,4	3,1
Accumulation, gross, constant prices	-5,8	12,8	4,9	-2,4	6,2	-
Gross Fixed Capital Formation Expenditure (change - %)	-1,1	10,0	6,1	-8,2	3,4	-
Ratio of general government sector's result to GDP	-2,9	-2,3	-2,4	-2,5	-2,9	
Exports of goods (constant prices) %	6,5	6,7	7,7	6,7	6,4	6,8

change						
Imports of goods and services (constant prices) % change	2,9	10,4	5,3	6,4	8,6	7,1
Ratio of balance of goods turnover to GDP	-0,5	-0,6	0,5	0,9	0,1	0,4
Ratio of balance of goods turnover to official reserve assets	-2,6	-3,1	2,7	3,6	0,5	-
CPI, change over previous year (%)	0,9	0,0	-0,9	-0,6	2,0	1,8
Change in						
% Change in money supply	6,2	8,2	9,4	9,6	4,6	-
Average nominal monthly salary in the economy (% change)	2,8	3,2	4,5	4,3	3,4	-
Reference interest rate*						
Ratio of general government sector's debt to GDP	53,2	48,1	48,8	51,9	-	-
GDP per capita at PPS (EU-28 =100)	67	67	68	68	69	69
Current account's result to GDP (%)	-3,7	-1,3	-2,1	-0,6	-0,3	-1,0
NBP official exchange rate (PLN/EUR)	4,1975	4,1852	4,1839	4,3625	4,2576	4,2998
Rate of registered unemployment (at year's end)	13,4	11,5	9,7	8,2	6,6	6,3
Unemployment rate (LFS)	9,8	8,1	6,9	5,5	4,5	4,9

*minimum interest rate of 7 days open market operations

** sector of Government and Self-Government Institutions-

Source: Polish Central Statistical Office (CSO), Eurostat.

Following the substantial deterioration of fiscal outcomes in the period 2009-2012 - when the general government's deficit grew from 1.6% of the GDP in 2008 to respectively 3.7% in 2009, 5.9% in 2010 and 3.6% in 2011, - recent years have brought about noticeable improvement in fiscal situation. The deficit of the general government sector amounted in 2017 to 1.7% of GDP (as against 2.3% in 2016) and was lower than assumed in the budget act and far below the respective Maastricht criterion of 3% GDP, while the sector's debt decreased to 50.6% of the GDP. Under the baseline scenario presented in the 2018 update of Poland's Convergence Program, the deficit and debt of the said sector are projected to decline by 2021 to respectively 0.7% of the GDP and to 46% of the GDP (International Monetary Fund, 2019b; International Monetary Fund, 2019c) In my opinion the country's fiscal policy should be aimed at continuing fiscal consolidation measures in order to avoid future limitations resulting from the possible violation of the excessive deficit procedure in case of adverse business cycle developments. Unfortunately the fiscal consolidation achieved so far under the positive position within the business cycle could be insufficient when assessed from the perspective of the medium-term fiscal objective - defined as the ratio of structural deficit to GDP amounting to 1%. Authors of the Convergence Program forecast that in 2021 - the last year covered by their projection - the structural deficit of the sector will come down to 1.3% of the GDP. However, according to the database accompanying the January 2019 edition of the IMF's World Economic Outlook Update (International Monetary Fund, 2019d) the structural deficit (which in 2017 amounted to 2.3% of the GDP is going to shrink at much lower pace – it will come down to 1,3%, not earlier than in 2023)(International Monetary Fund, 2019a; International Monetary Fund, 2019d).

The rapidly decreasing unemployment rate reached record lows (according to the Polish Central Statistical Office in March of 2018 it amounted to 6.6%), which led to the transition from the so-called "employer's market" to the "employee market". On the one hand, thanks to increasing wages and hence the level of consumer optimism, such a "transition", stimulates domestic demand, while on the other it can constitute a barrier to dynamic economic growth in the future, taking into account the shortages of workers already being recorded in the labor market. It should be underlined here, that as far as the impact of potential labor market shortages on the capacity to implement the Strategy for Responsible Development (Ministry of Economic Development, 2017) is concerned, the labor market situation is usually determined by the economic development and economic growth. Therefore actions aimed at stimulating growth are simultaneously conducive to employment growth (even though the concept of so-called jobless growth is known in economics). Therefore, if the attempts at stimulating the economy envisioned in the Strategy for Responsible Development (Ministry of Economic Development, 2017), prove effective, they should lead to further improvement in the labor market situation. However, it is undisputed fact, that unemployment constitutes permanent feature of the market economy – such obvious observation causes dilemmas that are not clearly stated in the discussed Strategy. Namely, limiting the scale of unemployment requires either public sectors expenditures that are competitive with other tasks of the public sector or raising taxes with all attendant consequences. As of today, the

unemployment is relatively low, but since the private-market economy is subject to business cycles and economic downturns, higher unemployment rate will inevitably come. The Strategy should be addressing such a question in a more profound manner.

Inflation remained slightly below the monetary policy target of the Central Bank of Poland (2.5%), staying within the band of acceptable fluctuations (+/- 1p.p.). The pressure on the growth of prices of consumer goods and services remains limited. After a temporary acceleration of the CPI inflation in November of 2017 to 2.5% in YoY terms, it has been declined in the following months to March and despite a slight increase recorded in April of 2018 it amounted to 1.6%. The consumer prices' restraint is still supported by the moderate - despite a gradual strengthening - internal demand pressure, while the main factors which stimulate the prices' growth include the relatively high dynamics of food prices and rising prices of raw materials (mainly crude oil) on global markets. Under the current conditions, it is therefore appropriate to keep interest rates unchanged, while closely monitoring inflation processes in order to respond quickly in case of raising inflationary pressures as to keep inflation on the central bank's target. Seen in such a context, the recent statement by the President of the National Bank of Poland (NBP) that there will be no objective reasons to change interest rate until the end 2019 and possibly even in 2020, wouldn't be conducive to maintaining the central bank's credibility if the things were to change forcing the central bankers to raise interest rate earlier than announced now. Any analysis of internal threats should take into account that the possibly delayed reaction of monetary policy in the event of higher than expected inflation, could lead to possible overshooting of the inflation target. Consequently the weakening of the credibility of institutions responsible for economic policy and additionally possible deterioration of fiscal indicators could undermine the foreign investors' confidence. The reaction in the event of a possible materialization of threats will depend on the circumstances. The flexible exchange rate, high foreign exchange reserves and the presence of a diverse group of foreign investors in the country should allow to mitigate the negative financial consequences. In the event of an economic slowdown, it will be necessary to use fiscal policy's automatic stabilizers. Moreover, in case of a significant capital outflows the National Bank of Poland should be ready to support the liquidity of the banking sector and - if the outflows continued- to raise interest rates.

III. RESULTS & DISCUSSION

When it comes to assessing the economic development prospects of Poland on the basis on the latest available forecasts - both domestically produced and those presented by reputable international institutions - it appears that in the coming years the GDP growth rate should remain relatively high - though lower than 4.6% recorded in 2017.

It will be difficult to repeat in 2018 (and in the subsequent years) the GDP growth performance observed in 2017. One should not expect the income impulse - which was observed in the second half of 2016 and throughout 2017 - stemming from the introduction of the "Family 500 plus" program of family benefits. In 2018, the nominal payments under this program will be roughly the same as in the previous year, which - because of growing prices (despite low rate of their growth) will result in the benefits' slightly lower purchasing power. On the other hand, incomes - and hence consumption - will be boosted by high rate of growth of real wages and indexation of pensions.

Based on the Ministry's of Finance assumptions, I have estimated that the average annual GDP growth rate in the period 2018-2023 would amount to 3.61%, while according to the IMF's forecasts to 3.16%. This signifies that at the end of 2023, the real value of Poland's GDP will be higher than in 2017 by respectively 23.8% (on the basis of the Ministry's of Finance assumptions) and 20.6% (based on the growth path projected by the IMF) (International Monetary Fund, 2019d).

In the short-term, the economy, which is growing at an above potential rate, should remain dynamic, thanks to the supportive monetary and fiscal policy as well as significant transfers from the EU. However, if unfavorable demographic trends and structural barriers which adversely affect both the scale of investments and the total factor productivity growth (TFP) are not overcome, in the medium and long term this may reduce the potential GDP growth rate to approx. 2.7% by 2022, despite expect moderate improvement in the sphere of investment. Experts of the International Monetary Fund emphasized in 2017 that the TFP growth in Poland slowed down after the global financial crisis from an annual average of 2.4% recorded in the period 2003-2007 to slightly above 1% in the years 2013-2016.

Table 3. GDP growth forecasts in the years 2019-2023 (%)

Year	2019	2020	2021	2022	2023	Annual average 2019-23
Polish Ministry of Finance *	3.8	3.7	3.6	3.5	3.3	3.61
International Monetary Fund**	3.5	3.0	2.8	2.8	2.8	3.16

* Period 2018-2021. Convergence Program. Update 2018. period 2022-2023 Methodological Guidance on Applying Uniform Macroeconomic Indicators in Assessing Financial Impact of Projected Parliamentary Acts. Update – October 2017

** World Economic Outlook, database (January 2019).

Source: Polish Ministry of Finance, International Monetary Fund; own calculations.

Moreover, it should be emphasized that imports' rate of growth could – on account of expanding demand and rising prices of raw materials – become higher than that of exports, which in the medium term may result in a moderate widening of the current account deficit.

As far as investments are concerned, it should be expected that even if the desired recovery of the private sector's investment activity doesn't materialize, there will be an investment boom in the public sector, stimulated mainly by local government spending of the EU cohesion policy resources. Judging by numerous "leaks" related to the EU Multiannual Financial Framework, the Cohesion Policy allocation for Poland for the period 2021-2027 could be by 20-25% lower – in 2018 constant prices - than in the current financial perspective (2014-2020) (European Commission, 2019). Moreover, an additional investment impulse is possible to come from large state-owned companies as they start to address the developmental needs.

The undertaking of investment activities should be supported by the high utilization of productivity capacity, while the shortages of the sufficiently qualified employees (to be hired once the given investment projects are completed) may pull in the opposite direction. Despite the improvement in the propensity to invest recorded in 2017 - as evidenced by the higher growth rate of gross fixed capital formation than the GDP growth – Poland hasn't achieved a satisfactory level of investment rate - the 17,7% recorded in 2017 is not only one of the lowest in the EU, but also, and foremost, not congruent with the government plans to boost industrial production (especially of more competitive, high-tech goods).

In the medium term, the possibility of an economic slowdown is also related to the logic of business cycles. Since the Polish economy is becoming increasingly open to international trade, the negative impulses' may come from the global economy. Despite the growing importance of China and other BRIC countries in the global economy, the course of the global business cycles remains largely dependent on the situation in the US. The fact that the current business cycle is one of the longest the US. history of this country increases the likelihood of a slowdown (or even a possible recession) in the United States. Were events to take such a turn it would quickly translated into the worsening economic situation in the EU countries, and thus in Poland.

Another important risk factor in the global economy is related to the danger of materializing - on account of protectionist tendencies in the US, and the possibility of other countries' firm reactions - tensions in international trade. This could lead not only to the fully-blown "trade war", but - in an extreme case - to negating the legitimacy of the liberal and democratic post-war international order.

Moreover, regardless of the links between the economic situation in the EU and the American economy and the possibility of adverse developments in the global trade – the European Union itself is saddled with internal problems, such as high indebtedness of southern European countries, signs of slowing growth in the euro area and uncertainty regarding the ability of the European Central Bank to stimulate the Eurozone's economy in case of the latter's weakening development dynamics. Among important risk factors one has to enumerate also the stability of the Eurozone's financial system following the prolonged period of very low interest rates and a high share of non-performing loans on the balance sheet of some banks.

Quite visible signs of weakening development dynamics in leading EU economies are becoming evident – e.g. the falling leading economic indicators (or business cycle indicators) in Germany, which is accompanied by declining GDP growth rate in Europe. This should not be interpreted as a direct harbinger of the incoming recession, but points out to the fact that the peak of the post 2008 and 2012 business cycle is already the matter of the past (European Commission, 2018).

Regardless of the possible weakening of the demand for Polish exports due to the less favorable economic conditions in our largest trading partners, it is necessary to mention the risk of external imbalances in the Polish economy resulting from the accelerating imports dynamics. This creates the danger of reversing the highly favorable current account in 2017, when Poland - for the first time since 1995 - recorded a CA surplus of about 0.3% of GDP (thanks to both strong external demand for Polish goods and services and the continued cost

competitiveness of the Polish economy). If net exports begin to take negative values, it will have a negative impact on GDP growth.

Another significant external threat to Poland's development stems from the possibility of faster than expected "tightening" of financial market conditions worldwide, which - via an increase in borrowing costs - would exert a negative impact on Poland due to the country's relatively high needs for this type of financing. Attention should also be paid to the risk of economic, financial and political shocks in Europe. Any significant weakening of growth dynamics or financial shocks in Europe could affect Polish economy through the international trade channel, the global value-added networks and the financial channel.

In the long-term perspective, the diminishing wage differentials between Poland and our main trading partners (mostly Germany) may, over time, weaken the cost competitiveness of Polish exports. This very prospect attests to the importance that Polish authorities attach to the effective implementation of the Strategy for Responsible Development, aimed at stimulating non-cost factors of the economy's competitiveness (such as innovativeness and quality improvements).

As far as internal long-term problems of the Polish economy are concerned in the context of maintaining a dynamic growth rate, and thus accelerating the income convergence to EU average value, but also to the EU leading Member States, the labor market tensions come to the forefront as evidenced by mounting problems related to securing appropriately qualified employees and lack of enterprises' willingness to invest. The tightening of the labor market results from the decline in the working-age population, which will intensify in the coming decades according to the demographic forecasts, and up to year will 2050 the number of people in the analyzed group will have shrunk by 1/4.

In the last two years, the investment rate has been low, even though previously it was below expectations for the economy characterized by enormous development needs. Polish entrepreneurs did not invest on the expected scale, despite the economic upturn in Europe and the low cost of external financing in the environment of record low interest rates. In order to boost the enterprises' willingness to invest, the authorities strive to use the present good times for implement structural reforms under the auspices of the Strategy for Responsible Development. The development of innovativeness, improvement of infrastructure and investments in the employees' skills will be a decisive factor in this attempt. On the other hand, the growing shortages of employees, especially of highly qualified ones (but not only) motivate employers to internalize the need to intensify investments in training, while authorities should help to support entrepreneurs' efforts in this area.

IV. CONCLUSIONS

European Union as a whole, I have substituted in the real GDP growth figures for 2017 to calculate the respective ratio in 2017 – 69,3%. Subsequently I have used the IMF forecast of GDP growth for both Poland and EU till 2023, assuming that after 2023 it will stay – on average- the same as in the last year of the Fund's projection period. Making such an assumption I have arrive at the year 2050/2051 as the period in which Poland manages to meet the goal set in the Strategy for Responsible Development for 2030 (Ministry of Economic Development, 2017). Not being content with this outcome, I have performed sensitivity analysis based on assuming changing growth differentials between Poland and the EU. When assume that Poland's growth rate rises after 2023 to 3%, while that of the EU remains at the level predicted for 2023 (1.657%) Poland will "catch up" with the EU average around 2045/2046. Even when I make an assumption that Poland's growth after 2023 will amount on average to 3.5% (which is rather overly optimistic when long-term forecasts of potential growth published by renowned international organizations are taken into account), while the EU grows at the same rate as in 2023 (that is at over two times lower rate than Poland) the convergence takes place in 2039/2040. Going further, I have ascertained that for Poland to reach the 100% mark in 2030 – assuming the EU growth rates consistent with the IMF forecast- it should grow, after 2023, at an annual average rate of 6,1%.

On the other hand, I have to stress, that – as far as current developments are concerned - the encouraging economic results are to certain extent influenced by positive external developments, they are at the same time an effect of the government's economic policy. However, it should be underlined that in the IMF's nomenclature Poland - despite the progress achieved in the last quarter century - is still classified as an "emerging economy", while some other economies of the regions (Czech Republic, Estonia, Latvia, Lithuania, Slovak Republic and Slovenia) have been already accorded the "advanced economy" status.

In 2017 there was a very large drop observed in extreme poverty, which, according to the Central Statistical Office, decreased by 1/4, from 6.5% to 4.9%. At that time a 7% increase in household incomes was observed. The consumer confidence index calculated by the Central Statistical Office recorded in Januar 2019 the highest level in history (4.8%), signifying a year-on-year increase by 11.3 p.p. points. percent. (the index can take negative values. In 2017, the fiscal situation proved even better with the deficit going down to 1.7% of the GDP, thanks to VAT revenues spiking by 30%, CIT revenues growing by 14.3%, and PIT revenues expanding by 7.4%.

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