

Overview: This week, our fiscal policy expert analyzes data on accrued-to-date pension entitlements to assess the future cost of pensions in Poland and selected other EU countries.

What Will Be the Future Cost of Pensions?

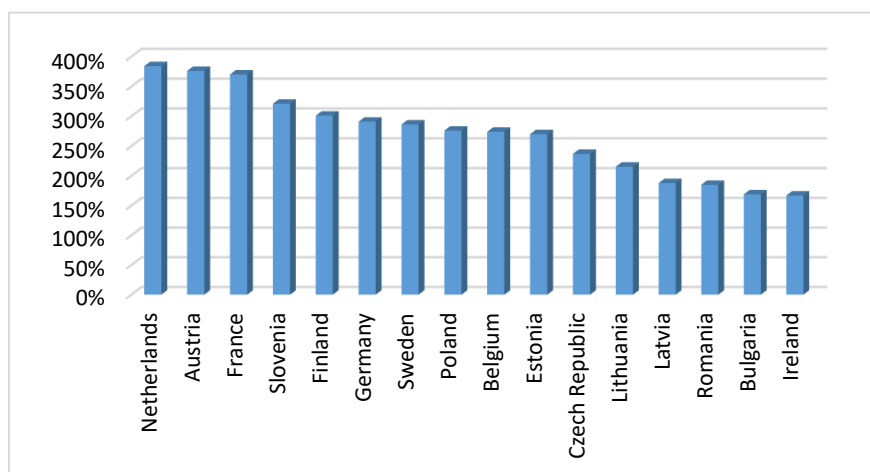
By: [Łukasz Janikowski](#), Fiscal Economist

According to the [data published](#) by the Polish Central Statistical Office (GUS), pension and disability pension entitlements of households accrued in social insurance as of December 31st, 2015 equaled PLN 4,959 billion (EUR 1,164 billion), which amounts to 276% of Poland's GDP. Pension entitlements are the most sizeable part of the so-called "hidden" (or "implicit") public debt. When compared to the "official" (or "explicit") public debt, which amounts to 50.6% of GDP, the "hidden" debt seems to be overwhelming. Is it something that we should be concerned about?

Before we answer this question, let us look more closely at what these numbers show. Accrued-to-date pension entitlements (ADPE) represent the present value of all pensions that will be paid in the future on the basis of accrued rights. Current and future pensioners obtain the rights to receive pension by paying pension contributions. Importantly, this number shows entitlements that were accrued *to date*, meaning that no rights accrued after the reference year are considered. To put it differently, ADPE shows the cost of covering all commitments of the pension system in a theoretical case of closing it down immediately.

In case of Poland, this theoretical cost of closing down the pension system as of December 31st, 2015 would be 276% of Poland's 2015 GDP. The bulk of this cost, accounting for 225.5% of GDP, are pensions from general social security scheme (Social Insurance Institution – ZUS), followed by pensions for the military, police and other uniformed services (21.8%), and social security scheme for farmers (Agricultural Social Insurance Fund – KRUS; 18.1%). ADPE from Open Pension Funds (OFE), which are funded-pension schemes, account for only 7.8% of GDP.

Figure 1: Accrued-to-date pension entitlements as percentage of GDP in selected EU countries



Source: Statistical Offices of Member States.

The data published by the Polish Central Statistical Office is a part of an exercise initiated by the European Union. The European Commission is concerned with the costs of ageing of European societies, and it aims to collect comparable data on social security schemes in different EU countries. All Member States were obliged to send the data on ADPE to Eurostat by the end of 2017. Unfortunately, Eurostat did not publish data for all MSs yet, but some of them, including Poland, published the data through their statistical offices. Figure 1 presents ADPE as percentage of GDP in the countries for which data was available as of May 4th, 2018.

The value of the accrued-to-date pension entitlements, as a percentage of GDP, is the highest in the Netherlands (384%), Austria (376%), and France (370%). The countries with the lowest ADPE-to-GDP ratio are Ireland (167%), Bulgaria (169%), and Romania (185%). Poland, with 276%, is slightly above the unweighted average of 269%.

One very important thing to notice is that the estimations of ADPE are very sensitive to changes in underlying assumptions, for example of life expectancy of the current pensioners. The assumption that has the strongest effect on the estimated value of ADPE is the one regarding the discount rate. Since the value of money is not constant over time (money today is worth more than money in the future), the future pensions must be discounted in order to calculate their present value. The numbers presented above were calculated under the assumption that the nominal discount rate is 5%, which corresponds to a real discount rate of approx. 3% (the baseline scenario). In addition to the baseline scenario, the Member States were asked to perform sensitivity analyses by calculating ADPE for discount rates higher and lower by 1 pp. In case of Poland, an increase of the discount rate by 1 pp. resulted in a decrease of ADPE to 228% of GDP, while a decrease by 1 pp. – to an increase of ADPE to 320.5%.

Eurostat as well as national statistical offices insist that ADPE is not a direct measure of the sustainability of public debt or public finance, as it does not take into account future revenues of the pension system and pension entitlements that will be accrued in the future. Because it shows pension entitlements accrued to date, it is more a measure of past and current generosity of the pension system than of fiscal sustainability.

If the future revenues and expenditures balance-out in the long run, meaning that the ADPE-to-GDP ratio does not increase, there should be no threat to the sustainability of public finance. The dynamics of the ADPE-to-GDP ratio depends on demographic developments and the level of future pensions. According to the [European Commission's forecasts](#), working age population will sharply decline in Poland (from 70.5% of total population in 2013 to 54.1% in 2060), and elderly population will sharply increase (from 14.5% of total population in 2013 to 33% in 2060). At the same time, pension expenditures as percentage of GDP are expected to stay nearly constant (11.3% in 2013 compared to 10.7% in 2060), so the system should balance out in theory. This must, however, be at the expense of the level of pensions: the gross replacement rate at retirement is expected to decline from 53% in 2013 to 28.7% in 2060. This will result in an increase of a number of pensioners living in poverty, creating political pressure to increase pensions.

Such an increase, however, can only be secured by increasing taxes and/or social insurance contributions, increasing the retirement age, or expanding the public debt. In this context, the government's decision to reverse the increase of the retirement age seems particularly unfortunate, especially since a higher fraction of pensioners (especially women) will be eligible to receive the minimum guaranteed pension, which will automatically increase the costs and undermine the balance of the pension system in the long-run. The support of the general public for this change and its reluctance towards higher taxation suggests that there is a danger that a significant fraction of this "hidden" debt will become official in the future.



This week: Inflation in April increased to 1.6% y/y, narrowing the gap to the NBP's inflation target of 2.5%. The most important factor behind the increase was a growth of prices of food and non-alcoholic beverages (by 4%). Preliminary data on the public sector deficit were revised up from 1.5% to 1.7% of GDP. The NBP informed that in 2017, it incurred a loss of PLN 2.5 billion (EUR 0.6 billion) after earning PLN 9.2 billion (EUR 2.1 billion) in 2016. As a result, the Central Bank will not contribute any payouts to the central budget this year.

GDP (Q4 2017)

↓ 4.3% y/y (est.)

Down from 5.2 % in Q3 2017

Unemployment (Mar 2018)

↓ 6.6%

Down from 6.8% in Feb 2018

Inflation (April 2018)

↑ 1.6% y/y

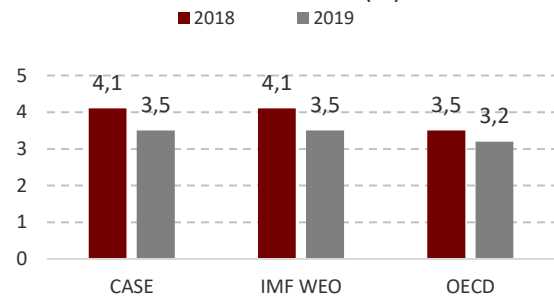
Up from 1.3% in Mar 2018

NBP Base rate

1.5%

From 2% in Mar 2015

Real GDP forecast (%)



This week: The Organizing Committee of the FIFA 2018 World Cup estimated that the tournament will increase the GDP of Russia by USD 31 billion over the period of 2013-2023 and create 220,000 jobs. According to another estimation, by McKinsey & Company, the tournament will increase Russia's GDP by 0.2% annually over the period 2013-2018, while the country will have spent USD 19.5 billion to organize it.

GDP (Q4 2017)

↓ 0.9% y/y

Down from 2.2% in Q3 2017

Unemployment (Mar 2018)

■ 5.0%

Unchanged since Feb 2018

Inflation (April 2018)

■ 2.4% y/y

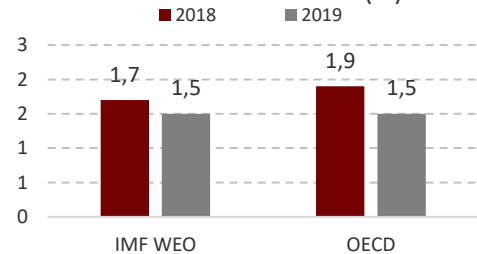
Unchanged since Mar 2018

CBR Base rate

7.25 %

From 7.5% in Feb 2018

Real GDP forecast (%)



This week: The pace of the price growth in Germany slipped in April according to an early reading from the Federal Statistical Office. Provisional data showed that inflation in April amounted to 1.4% y/y on the Europe-wide harmonized measure of consumer prices — the relevant metric for the European Central Bank's interest rate considerations.

GDP (Q4 2017)

↑ 2.9% y/y

Up from 2.8% in Q3 2017

Unemployment (Mar 2018)

↓ 3.5%

Down from 3.8% in Feb 2018

Inflation (April 2018)

↓ 1.4% y/y

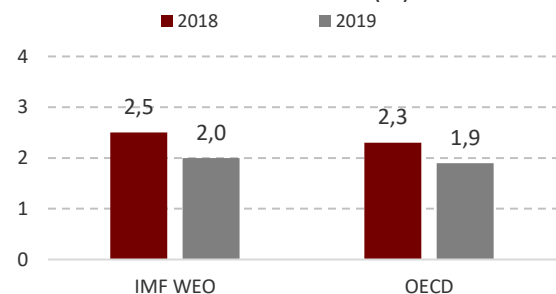
Down from 1.5% in March 2018

ECB Deposit rate

-0.4%

From -0.3% in Dec 2015

Real GDP forecast (%)





This week: The National Bank of Ukraine (NBU) informed that in March, the country's exports decreased by 4.1% y/y, while imports increased by 0.7%. On a different note, Ukraine repaid USD 80.7 million to the International Monetary Fund. According to the NBU, the country still needs to repay USD 7.4 billion of debt this year. Ukraine's Prime Minister Volodymyr Groysman said that within the next four years Ukraine should repay USD 27 billion.

GDP (Q1 2018)

↓ 2.2% y/y

Down from 2.4% in Q4 2017

Unemployment (Q1 2018)

↑ 9.9%

Up from 8.9% in Q4 2017

Inflation (March 2018)

↓ 13.2% y/y

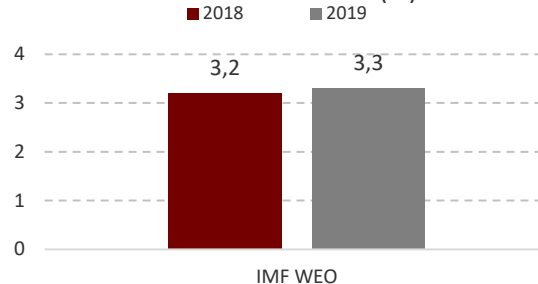
Down from 14.0% in Feb 2018

NBU Base rate

17.0%

From 16.0% in Jan 2018

Real GDP forecast (%)



This week: According to the Czech Statistical Office, the employment rate reached 74.2% in Q1 2018 (an increase by 1.4 pp. compared to Q1 2017), while the unemployment rate decreased by 1.1 pp., dropping to 2.4%. The highest growth in employment was noted for services (around 82,000 jobs), agriculture (5,000), and industry (3,000).

GDP (Q4 2017)

↑ 5.5% y/y

Up from 5.1% in Q3 2017

Unemployment (Q4 2017)

↓ 2.4%

Down from 2.8% in Q3

Inflation (Mar 2018)

↓ 1.7% y/y

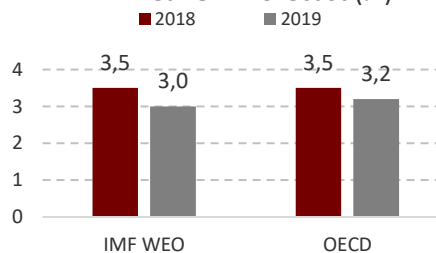
Down from 1.8% in Feb 2018

CNB Base rate

0.75%

From 0.5% in Jan 2018

Real GDP forecast (%)



This Week: The Hungarian Statistical Office published new forecasts, according to which the volume of sales in retail shops increased by 7.1% in March 2018 y/y (adjusted for calendar effects). The volume of sales increased by 7.0% in specialized and non-specialized food shops and by 7.8% in non-food retail shops.

GDP (Q4 2017)

↑ 4.4% y/y (est.)

Up from 3.9% in Q3 2017

Unemployment (Q1 2018)

■ 3.8%

Unchanged since Q4 2017

Inflation (March 2018)

↑ 2% y/y

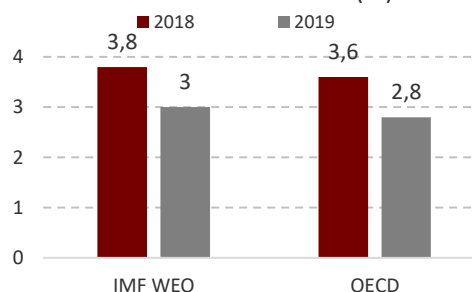
Up from 1.9% in Feb 2018

MNB Base rate

0.9%

From 1.05% in May 2016

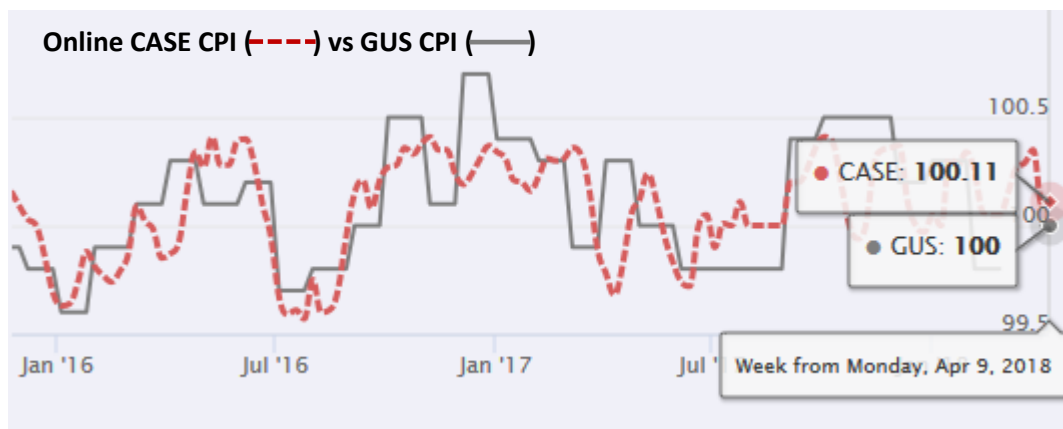
Real GDP forecast (%)



The weekly online CASE CPI

The online CASE CPI is an innovative measurement of price dynamics in the Polish economy, which is entirely based on online data. The index is constructed by averaging prices of commodities from the last four weeks and comparing them to average prices of the same commodities from four weeks prior. The index is updated weekly.

Our weekly online CASE CPI



Monthly CASE forecasts for the Polish economy

Every month, CASE experts estimate a range of variables for the Polish economy, including future growth, private consumption, and foreign trade, current account balance, and the CPI.

CASE economic forecasts for the Polish economy *(average % change on previous calendar year, unless otherwise indicated)*

	GDP	Private consumption	Gross fixed investment	Industrial production	Consumer prices
2018	4.1	4.0	4.9	3.7	2.5
2019	3.5	3.6	3.3	3.8	2.3
	Nominal monthly wages	Merchandise exports (USD, bn)	Merchandise imports (USD, bn)	Merchandise trade balance (USD, bn)	CA balance (USD, bn)
2018	4.5	233.4	235.2	-1.8	-3.9
2019	3.7	242.7	244.6	-1.9	-4.1

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Contributions: Stanislav Bieliei, Krzysztof Głowacki, Łukasz Janikowski, Katarzyna Sidło, Sara Skejo, Klaudia Wolniewicz-Słomka
Editors: Katarzyna, Sidło, Krzysztof Głowacki

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