Data analysis

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May 25 2017

Contents

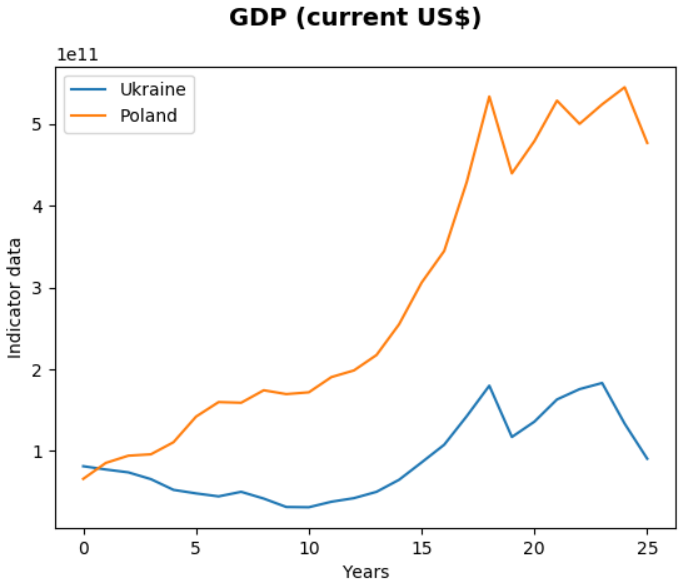
1 Indicators

The most convinient way to analyse the collected data is to examine the indicators on the graphs.

1.1 gdp

Gross domestic product (**GDP**) is a monetary measure of the market value of all final goods and services produced in a period (quarterly or yearly). - Wikipedia

Figure 1: The gdp indicator.

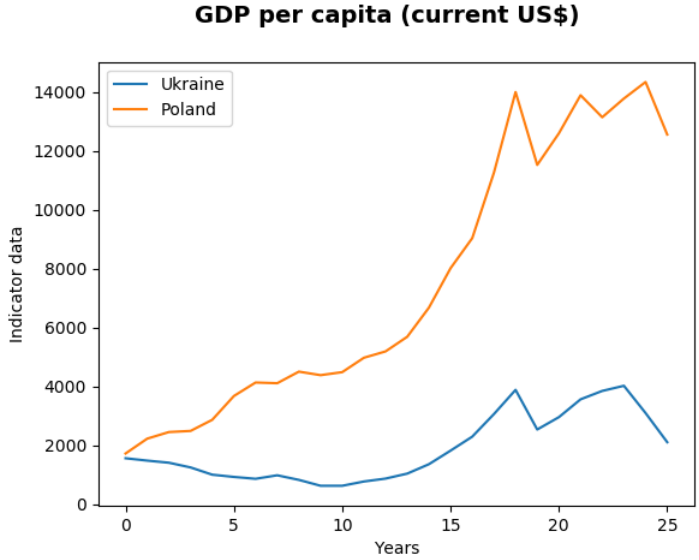


On this graph, we can see that in 1990 Poland's GDP was below Ukraine's GDP, but from 1991-1992 to our days Poland's GDP is high above ukrainian. It is due to the economic reform in Poland known as "Shock Therapy" - **Plan Balzerowicza**.

1.2 gdp_per_capita

Per capita GDP is a measure of the total output of a country that takes gross domestic product (GDP) and divides it by the number of people in the country. The per capita GDP is especially useful when comparing one country to another, because it shows the relative performance of the countries. - Investopedia

Figure 2: The gdp per capita indicator.

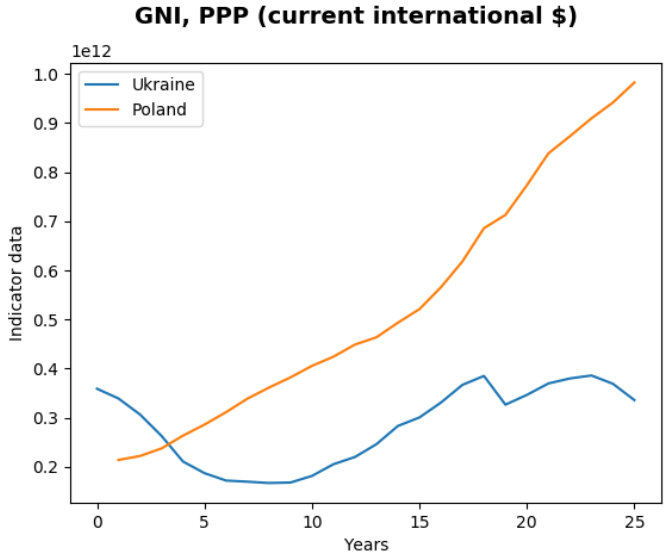


From this graph, we can notice that Ukraine and Poland started in 1990 from the nearly the same gdp per capita value. From that point the development of two countries took different paths.

1.3 gni

The gross national income (**GNI**) is the total domestic and foreign output claimed by residents of a country, consisting of gross domestic product (GDP) plus factor incomes earned by foreign residents, minus income earned in the domestic economy by nonresidents. - Wikipedia

Figure 3: The gni indicator.

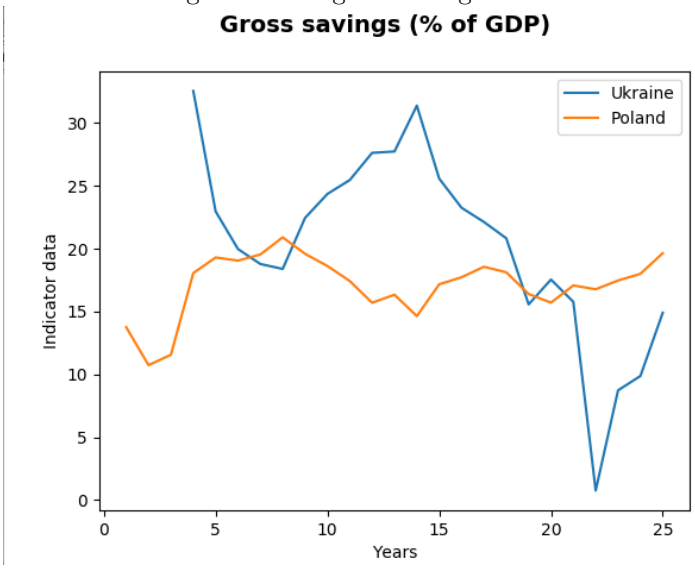


From this plot, we can say that Poland started with GNI value below Ukrainian. In 1993-1994 Poland's GNI is always growing and Ukraine's GNI is not stable but it is much lower than Poland's GNI, the GNI of Ukraine is rather declining.

1.4 gross_savings

Gross saving measures the portion of gross national disposable income that is not used for final consumption expenditure. - Eurostat

Figure 4: The gross savings indicator.

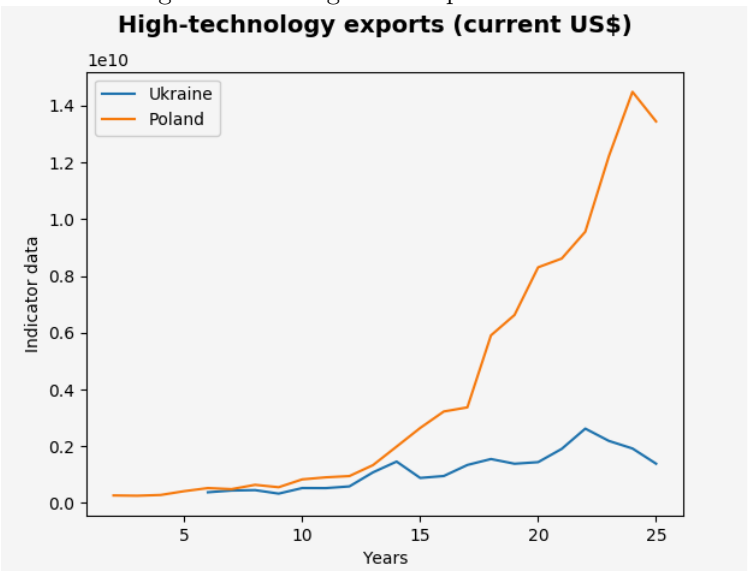


On this graph, we can see that Poland's gross saving is more stable than the Ukraine's gross savings.

1.5 high_tech_exports

High-technology exports are products with high R&D intensity, such as in aerospace, computers, pharmaceuticals, scientific instruments, and electrical machinery. Data are in current U.S. dollars. - knoema

Figure 5: The high tech exports indicator.



Two countries started from the same level of research & development in high-technology. From 2003-2004

Poland has taken a rapid boost in exporting technological products.

1.6 imports

Imports are foreign goods and services bought by residents of a country. - the balance

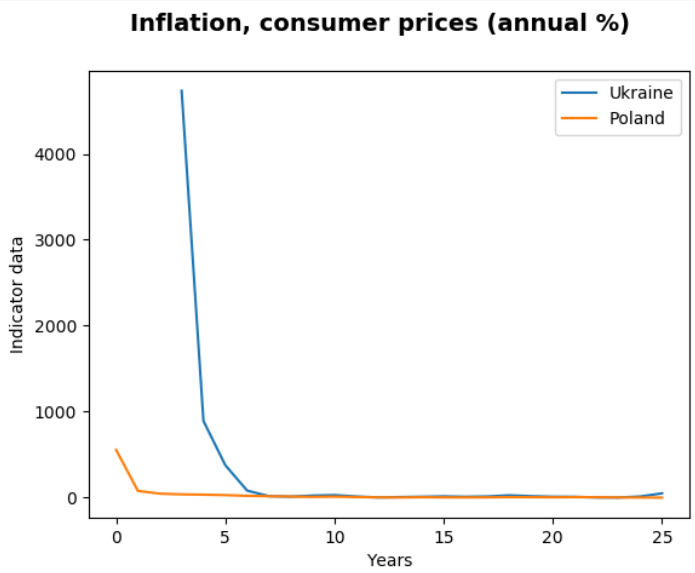
Figure 6: The imports indicator.

On this graph, Ukraine is always above Poland's import of foreign goods and services. This can indicate that in Ukraine there are not enough factories to provide the demand.

1.7 inflation_consumer_prices

Inflation measured by consumer price index (**CPI**) is defined as the change in the prices of a basket of goods and services that are typically purchased by specific groups of households. - OECD

Figure 7: The inflation consumer prices indicator.

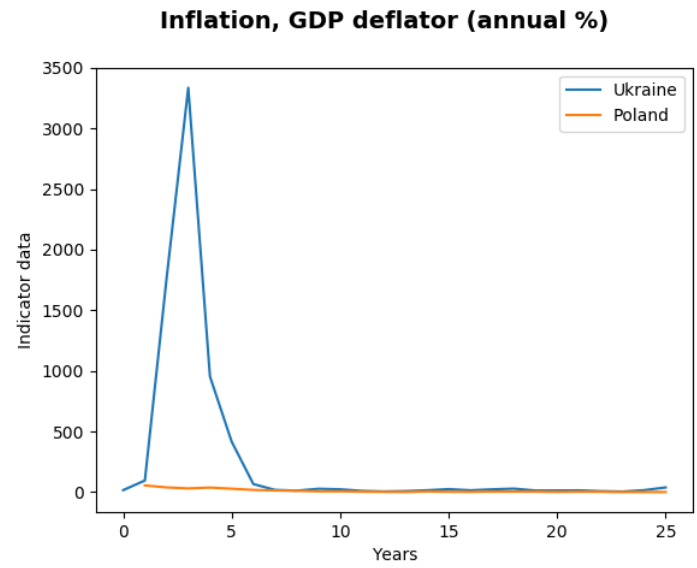


From 1990 to 1996-1997 Ukrainian consumer price index was high above the Polish. As we can see the inflation measured by consumer price indeces are stable since than.

1.8 inflation_gdp

Inflation as measured by the annual growth rate of the **GDP implicit deflator** shows the rate of price change in the economy as a whole. The GDP implicit deflator is the ratio of GDP in current local currency to GDP in constant local currency. - The World Bank

Figure 8: The inflation gdp indicator.

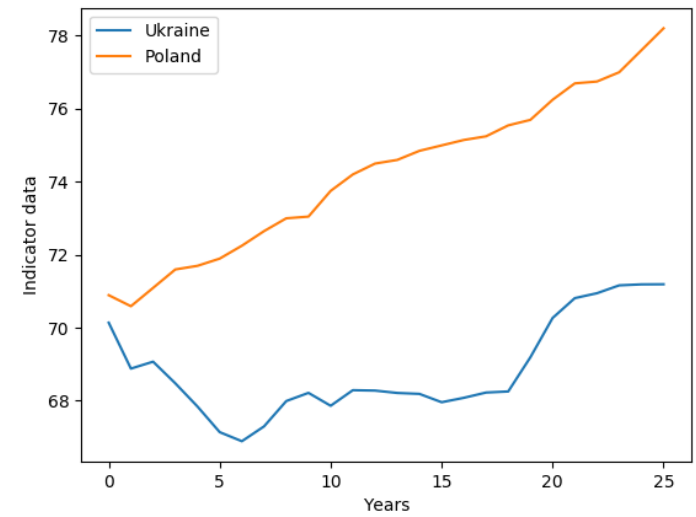


In the range between 1991 and 1997 Ukraine was in the inflation gap, but since than two countries are developing at the same gdp implocote deflator.

1.9 life_expectancy

Life expectancy is a statistical measure of the average time an organism is expected to live, based on the year of their birth, their current age and other demographic factors including gender. - Wikipedia

Figure 9: The life expectancy indicator.

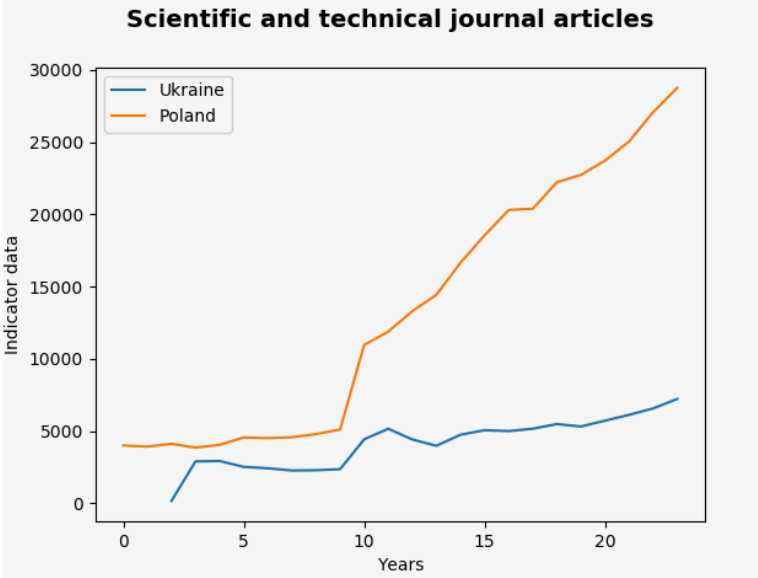


It can be seen that Poland and Ukraine started from nearly the same level of life expectancy, but from that time Ukrainian life expectancy is fallling and trying to be stable. However Polish life expectancy is stable and always growing up.

1.10 science_tech_articles

Scientific and technical journal articles refer to the number of scientific and engineering articles published in the following fields: physics, biology, chemistry, mathematics, clinical medicine, biomedical research, engineering and technology, and earth and space sciences. - The World Bank

Figure 10: The science tech articles indicator.

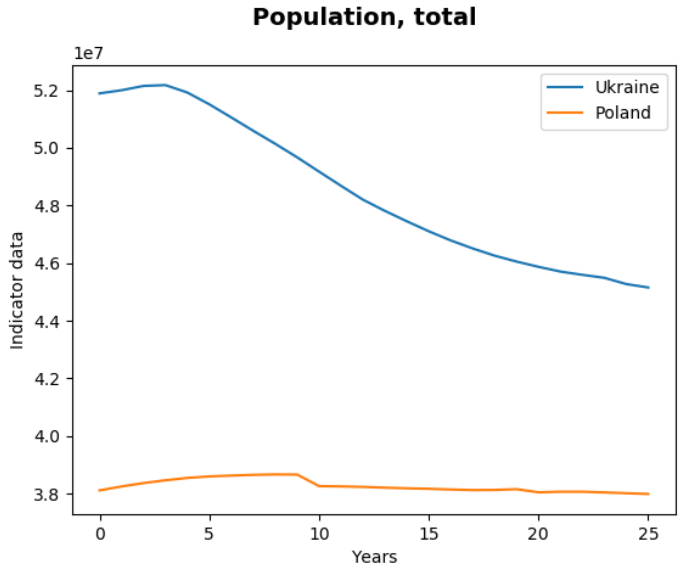


In this graph, Ukraine is always below the Poland. It is interesting, but it is clear indicator of the impact of science and engineering studies on the economic, societal and political situation.

1.11 total_population

Total population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship. - The World Bank

Figure 11: The total population indicator.



From this graph, we can say that Polish population is generally stable, maybe with little decline. However the Ukrainian population is always declining from 1993.