

Economic analysis methodology for the qualifying countries FIFA World Cup 2018

1. Group gameplay: the first part of the analysis is based on three indexes - average growth GDP in 2014-2018, change in the unemployment rate in this time range and average debt to GDP in a given period. Macroeconomic data is taken from the International Monetary Fund (IMF) database. In the case of several readings, they were complemented with the World Bank database or with local statistical offices.
2. Each country starts group matches with a specific number of macroeconomic points and plays the standard "everyone plays everyone" matches within its group (A to H).
3. GDP points are allocated as follows: the period 2014-2018 (5 years in total) is used for the analysis. Although 2018 is not over, the IMF's short-term projections are being taken into account. For 1% economic growth, we awarded 10 macroeconomic points. Thus, if in the period 2014-2018 the country recorded an increase of 10%, it receives 100 points. Poland received 186 points.
4. Debt to GDP points. The analysis included also the period of 2014-2018 and the average debt of the public finance sector in the period described. No country achieved a positive result in this category, as one macroeconomic point was subtracted for each percentage point of debt. For example, we subtracted 52 points from Poland and 99 points from Spain.
5. Unemployment points. The start-up point for unemployment was the average level in 2014 and the end of the IMF estimates for 2018. The difference between these periods was scored. If unemployment fell by e.g. 3 percentage points in that period, the country received 30 macroeconomic points (1 point for 0.1 percentage point of change in the rate of unemployment). Poland received 49 points, Croatia 72 points and Spain 89 points. Nigeria lost the most, with unemployment rising by almost 9 percentage points (a loss of 86 points).
6. In the knockout stage, we added two criteria for macroeconomic stability - inflation and the current account (D/A). Macroeconomic points from the group stage passed further. In total, therefore, in the second part, we took into account five indexes.
7. Inflation was calculated as the average of all the analysed years. The inflation rate between 0 and 2% was considered neutral, i.e. it did not influence the score. Inflation outflow above or below this fluctuation range resulted in negative points (1 point for 0.1 percentage points). Inflation was neutral for most countries, but in the case of Egypt, for example, it subtracted 130 points (average inflation of 15%), and Iran took 97 points (inflation of 11.7%).
8. Current account balance (D/A) against GDP, which is most affected by the balance of external trade. Balanced trade is equal to zero points. The surplus was positive (1 point for 0.1 percentage point of the average surplus over the period), and the deficit was negative (1 point for 0.1 percentage point of the average surplus over the same period). Poland had minus 8 points. Positive balance clearly helped, for instance, Korea (plus 62 points) or Iceland (plus 47 points), but it clearly harmed Panama and Senegal, which lost less than 80 points each.

Q&A

1. Why these indexes and not others? First of all, unemployment, economic growth and debt to GDP are among the most popular economic measures used in economic analyses. Of course, they are not perfect, as has been stressed many times in our analyses (e.g. a decrease in unemployment does not mean an increase in employment.) However, any analysis must involve simplification.

2. Why do we sometimes use an average and sometimes a change? The average softens the individual readings, allowing for a certain trend. As in the case of a football team, it is not possible to assess a team after one match. On the other hand, with regard to the change in unemployment, we wanted to show how the economic form has improved since the last World Cup in Brazil. The analogy to the team's form since the last World Cup.

3. Why did we add stability criteria? And why only in the knockout phase? The stability criteria are very important. It is easy to stimulate the economy (a decrease in unemployment, strong economic growth), e.g. with cheap credit and fiscal expenditure. On the other hand, it is much more difficult to do this by keeping inflation under control and remaining competitive abroad. Turkey, which is not present here, is a good example of this, where strong growth is driven by double-digit inflation and a huge trade deficit (D/A as well). The positive criteria in the second round were to simulate in a better way the stability of the economy/team. The players may do their best in two or three matches, but then they wouldn't have the strength to leave the locker room in the following days. Stability criteria reflect good tactics and the distribution of forces throughout the Mundial, not just in the group stage.

4. Why is Germany out at an early stage when it has one of the strongest economies in the world? First of all, since the last World Cup, their condition has improved less than that of other teams, which was one of the criteria for leaving the group (e.g. change of unemployment). Germany was also burdened with high debt, which is obviously falling, but not as fast as its average value was lower than that of its competitors. The increase was also not spectacular during the period considered. The Germans were also unlucky because they ended up against very strong economic opponents (Sweden, South Korea), although they were developed countries, they kept up with the development and change of unemployment in the emerging countries. A very good D/A result would have helped Germany in the knockout phase, but it wasn't achieved in this phase.

5. How many points did Poland score? In the group phase, Poland scored 183 points (186 for GDP, 49 for the labour market and lost 52 points for debt). It scored 6 football points, winning against Japan and Colombia, but losing against Senegal. In the knockout phase, inflation did not change Poland's result and the current account deficit subtracted 8 points from it. In total Poland had 175 points in the final phrase.

6. How did this extra time and penalty with Korea come about? This is a result of the very similar result achieved by Korea (173 points) and Poland (175 points). Korea, leaving the group phase, had 111 points, but gained a lot from a high current account surplus (as much

as 62 points). Extra time and penalty activities are a fictionalised version of a fierce economic battle, which Poland won this time.