

## **NEW APPROACHES REGARDING INDICATORS AT GLOBAL LEVEL**

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### **Abstract**

This paper is trying to present the most important indicators at a global perspective. We have use data from 45 countries, studying 19 indicators form European Union an other European states, the North American Free Trade Agreement (Canada, Mexico, US), the Eurasian Economic Union , Austalia, other states in the world(Japan, China, India, Brazil, North Korea, South Korea).

The methodology that we used quantitative method of research, data analysis. The conclusions are presenting the most important elements that are relevant for each region. We have used a multidimensional approach taking into consideration the fact that 88 indicators from the World Bank database were grouped in 11 dimensions(Military, Demography, Communications, Health, Land, Public Sector, Environment & Energy, Social, Agriculture, Transport) and used for each country/region analysis.

### **Keywords**

Indicators, globalization, policy, global economy.

### **JEL Classification**

E6

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### **Introduction**

Nowadays, indicators are an important part of our lives and usually they determine how and which public policies will come forward in a present situation. USAID tells us, as we may be aware, that in different contexts we have different meanings of this word and sometimes this can lead to great confusions especially if we think at indicators like some sort of statistical data or parts of a standard index. USAID defines indicators “as variables whose purpose is to measure change in a given phenomenon or process.” (USAID, 1989, p.4).

One of the best definitions for this term is provided by OECD which tells us that an indicator is a “quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect changes connected to an intervention, or to help assess the performance of a development actor. An indicator can also be a measure of an aspect or dimension of change that is unrelated to any particular policy, programme, or project. Governments use social and economic indicators to monitor national

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developments, and international organizations use indicators in the same way to monitor change regionally and globally.” (OECD, 2007, p. 20)

Globalization is one of the most used words in our century, one that has a great number of definitions but is still vague and complex. Some people see it like a good thing for the humanity, some are afraid of that this will lead to the fall national identity and this will create a standardized world.

The word that best highlights what is globalization is interdependence and when we speak about this term we don't refer only to interdependence between states but also between the different dimensions of the globalization. We have to see that “Globalization has emerged as a result of political, economic, social and cultural processes which have become global problems that the state cannot solve alone.” (Ciurcanu, p. 86, 2004).

We have selected the following indicators (Table no. 1)

**Table no. 1: Global Indicators**

<i>Indicators</i>	<i>Year</i>
Expense (% of GDP)	2012
Foreign direct investment, net inflows (% of GDP)	2013
Cash surplus/deficit (% of GDP)	2012
Central government debt, total (% of GDP)	2012
General government final consumption expenditure (% of GDP)	2013
General government final consumption expenditure (current US\$)	2013
Government expenditure on education, total (% of GDP)	2012
Government expenditure on education, total (% of government expenditure)	2012
Social contributions (% of revenue)	2012
Military expenditure (% of central government expenditure)	2012
Military expenditure (% of GDP)	2012
Health expenditure per capita (current US\$)	2012
Health expenditure, total (% of GDP)	2012
Labor tax and contributions (% of commercial profits)	2014
Tax revenue (% of GDP)	2012
Taxes on goods and services (% of revenue)	2012
Taxes on goods and services (% value added of industry and services)	2012
Taxes on income, profits and capital gains (% of revenue)	2012
Taxes on income, profits and capital gains (% of total taxes)	2012
Taxes on international trade (% of revenue)	2012

*Source: own processing of data from Eurostat, World Bank*

## **1. Methodology**

In the analysis we will use data from 45 countries, which will provide us a maximum of 19 indicators for each one of them. The large majority of countries were chosen because they are part of an international economic organization like the European Union (28 countries which were filtered using geographic criteria as those used by the United Nations Statistics Division, and then after some common characteristics that will be explained later), the North American Free Trade Agreement (Canada, Mexico, US), the Eurasian Economic Union (Kazakhstan, Belarus, Armenia, Russia, without Kyrgyzstan because they only ratified in May 2015 the accession treaty and their full membership is expected to take place at the end of the summer). We used quantitative research method, data analysis.

For the rest of the countries we used data from well developed countries like Japan, or developing countries like China, India or Brazil. North Korea and South Korea were chosen to make a short parallel between capitalism and communism, but as you will see the data wasn't so helpful in this regard.

Ukraine appears here because we wanted to compare a non-EU member with the states from Eastern Europe and Norway and Switzerland were selected because they are OECD members and also they aren't members of the EU.

Australia takes part of this research in order to have a more global view of the countries all around the world. No African state was analyzed especially because they aren't so developed like the others and just a few are making progress towards development.

Data analysis, comparisons and observations will follow us in the next pages where we will use the data from World Bank as a mean to generate an economic global overview. We must mention that at the time of the selection of data we had some limitations like the fact that we used data from 2012 and 2013 especially because those were the last available, not all the countries reported the data for all indicators in these years with North Korea as the leader with the most missing data.

## **2. Results**

**Eastern Europe.** All the states have big costs regarding imports and exports with the exception of Hungary and Poland. In all the cases the percentage of foreign direct investments as percentage of GDP increased with the same exceptions from above. There is a deficit in all the seven countries analyzed. Speaking about employment we have to emphasize on the fact that surprisingly Ukraine has the lowest long term unemployment rate. Bulgaria and Romania have the lowest rate of social contributions and if we look at the small wages from these states we can say that the pressure on the social system is high. As the percentage of GDP annual growth, Romania has the best performance

**Northern Europe.** One aspect that has to be definitively highlighted is the value of the foreign investments in Ireland which is huge compared with every other country, as a direct consequence of their relaxed fiscal policy which determined a scandal with the European Commission not a long time ago. In the Scandinavian states very low percentage of money coming from foreign investments as part of their GDP. Denmark has very small rate of social contribution, Norway is the singular case where we can find a serious surplus and in Sweden we encounter a deflation phenomenon. In all the Scandinavian countries the Internet is available for almost every person, in some of them the internet is seen as a right and it is free. Combustible renewable and waste as percent of total energy are high in this

part of Europe, with the exception of Norway which uses their oil reserves from the North Sea a lot.

**Southern Europe.** The economic crisis affected this part of Europe and we all know which the impact on the Euro zone was because of this situation. Even now after Spain and Italy are doing better, we have the case of Greece that still is a problem for the European economy and maybe even for the global one. All the Southern countries have deficit, but the most accentuated ones are in Greece, Portugal and Cyprus. Another aspect that has to be mention here is the value of the debt from this states which is very high, especially in Greece. Long-unemployment as percent of unemployment is a problem everywhere in the world and in this part of Europe it seems to be more accentuated. Density is very big in Malta compared with the other seven states that were analyzed.

**Western Europe.** Luxembourg seems to be the Heaven for foreign investors and this may be a consequence of the fact that some EU institutions are there and also of the openness of the economy. All the countries have a high GDP, with Germany and France coming in front and also registered a growth with the exception of Netherlands. Belgium is the most urbanized state from Europe which acts as a consequence for the low number of people employed in agriculture. In the military field France has the biggest army and Luxembourg the smallest, even the one from Malta is greater. Regarding surplus or deficit we have to say that only Germany and Switzerland registered a surplus, all the other have a deficit.

**The North American Free Trade Agreement-NAFTA.** The states aren't comparable in terms of GDP because US GDP is the biggest from the world if we don't sum up all the GDPs from the European Union. Only Canada has a surplus, all the other states have a deficit which is high in net numbers if we look at US because it represents 5% of its GDP. All three states are very interested in education so they spend more 10% of their GDP in this direction. US has one of the biggest armies from the world which seems to be almost the size of the entire population of Bucharest for example or bigger than other states like Estonia or Cyprus. Medicare or Medicaid health programs are very important in US and besides that they cost a lot of money and we can see that US spends 17% of its GDP in this direction which is an enormous amount.

**Eurasian Economic Union.** In this part of the Globe the cheap working force is attractive for the foreign investors so we can see in all the states a serious net inflow of money going to the GDP as part of foreign investments. We all know that Russia and even Kazakhstan are some of the biggest exporters of natural resources including fuel which is primordial for their economy and merchandise. All the states registered a growth in terms of GDP, all have an alarming inflation and with the exception of Armenia, all have a surplus which seems a good thing for their economies. In the case of the army the Russians stay were good in terms of men power and also in investment in that area, it seems that they prepared their future actions in advance and we can see nowadays why they do that. Adolescent fertility rate is big in all the states because of the lack of education and development but also because of the relatively young population.

**Australia.** Foreign investors are attracted by well developed countries which have a stable economy so we can observe that the high rate of foreign investments from this states isn't a coincidence. Inflation is low and we may add normal for such a developed country, but what is also interesting is the fact that the number of patent applications made by nonresidents is nine times higher than those coming from the residents. As the vast majority of the states, Australia has a deficit which seems to be a trend at the global level and also the debt of this country isn't very high. Education is an important sector and a good part of

the GDP is redirected in this direction by the Australian government. The army is small because this state has a natural defense that is coming from the sea and it doesn't have any neighbor that could invade the country unexpected but we must say that the people are well equipped.

**Other states in the world.** In this section we had some severe limitations in terms of data accessibility because the North Korean communist regime didn't reported many of the indicators that were selected. China, Brazil and India seem to be very attractive for the foreign investors maybe because of their cheap working force. India has the lowest GDP per capita from all the 45 states that were analyzed until now. As we can see in figure no.1 Japan is a very interesting case as they don't have almost no resources and have a low surface but they have a GDP that is more than half of the one from China. In terms of inflation India and Brazil have the highest value, China a normal one like one of the developed states from Europe and the lowest values can be encountered in Japan and South Korea. We all know that China, Japan, and South Korea are investing in research and technology and the data shows us that they use a good part of their GDP in this direction. Japan has an alarming deficit and a debt that is almost double than its GDP. The biggest army from the world comes from the most populated states but we can see that the army of North Korea is almost the same size as the one from US. India and North Korea have some problems regarding communications, especially if we look at the Internet spread.

When we speak about the globalization and the global economy we have to take into consideration lots of dimensions and indicators in order to have a better overview of the current situation of a country, a group of country or the entire world.

Indicators can be a good mean to assess such things and to discover some pattern of development or other interesting facts that are around us, but we need to use data in order to conceptualize and understand what is really happening.

Looking at all the 45 countries that were analyzed we cannot ignore the fact that almost 80% of them have a deficit and we can assume that this percentage can be higher because we don't have data for this indicator for all the states. Only 6 states have a very small surplus and one of them that is Norway has a good percentage in terms of surplus.

If we look also at the debts of these states we can see that some of the very developed countries from the World has a debt that is almost double than its GDP, this is the case of Japan, but we also have very high values for Greece, Ireland, US, UK, Portugal, Cyprus or France. The situation regarding GDP per capita, in presented in the following graph:

Greece situation may start a long series of negative events that will affect at first the European Union and the entire global market. But this isn't all, we have the Ukrainian crisis or the ISIS threat that can generate lots of damage and also other economies that can fall, Japan can be in any moment the next US for example, which can lead to another economic crisis.

One of our objectives was to observe some patterns that come in front from this indicators used at a worldwide scale we might say. In terms of population density the Western side of the continent has the best values from Europe that are above 100 people per square kilometer in any of the states analyzed, and as another observation it seems that also we have high population densities in the Southern part of Asia usually if we look at India, South Korea, Japan, China or North Korea.

In terms of foreign investments growth as a percentage of the GDP we must observe the fact that the values aren't very high even if they go into a positive or a negative way, but the cases of Ireland, Luxembourg are out of the order because they have 21.53% and 50%

of their GDP generated from foreign investments. Another situation that is worth mentioning is the one from Malta where we have a very serious decrease that accounts almost 20% of their previous year GDP.

Another pattern shows up in terms of energy consumption per capita where the Scandinavian states are some of the greatest consumers, alongside with Canada, US, Australia and South Korea.

Moving forward to the age dependency ratio we observed the fact that in almost all the situations poorer countries have a lower age dependency ratio, a bigger difference between genders in the case of life expectancy at birth and also between survival rates of the genders.

Romania is still the leader in the case of the incidence of tuberculosis from entire the European Union, our country could fit perfectly in the ex-soviet states from EAEU which have the same problem. In this situation is also Ukraine, but we register high values in Asia, even in developed states like South Korea. Their neighbors, North Korea have the greatest incidence from all the 45 countries should be very alarming for this country.

Only five states encounter a deflation phenomenon (Ukraine, Sweden, Cyprus, Greece and Switzerland) so we can observe that it doesn't really matter how well developed a state is because it can fall anytime on the path of deflation. Belarus has the biggest inflation of all which is 18.31% so we can say that the buying power of these people is very low.

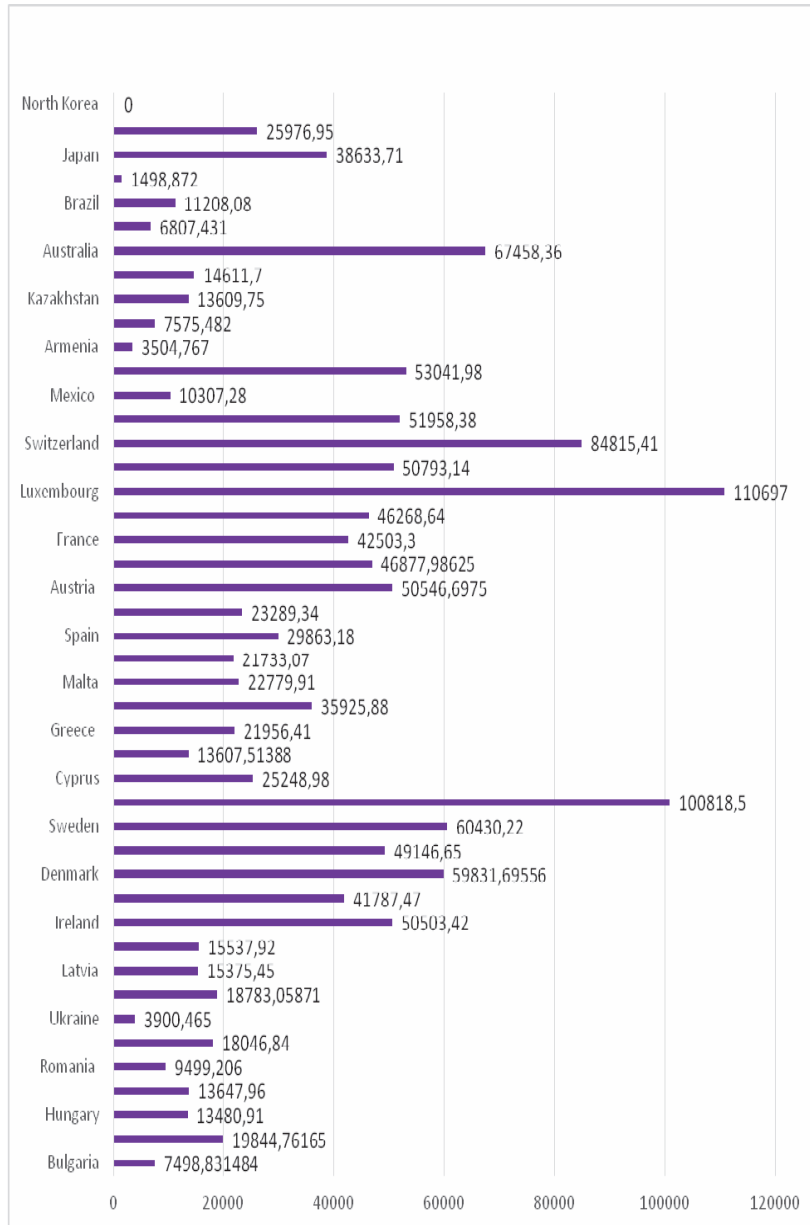
China has an extremely high number of patent applications which is bigger than all that we saw until now even if US, Japan or South Korea have their generous numbers. Also we have to mention the fact that there are only a few states in the world where the nonresidents registered more patents than the residents. These countries are Cyprus which is the single state from EU in this situation (they also have a very low appetite for innovation so their total number of patents consists of 8 coming from nonresidents and 4 from residents which aren't some great numbers at all), then we have Canada, Australia, Brazil and India with very big differences.

Data shows us a known fact that in terms of GDP per capita the states from the Northern and Western parts of Europe have the highest values from the world so this is why they are very attractive for emigrants.

States from the European Union have to pay the biggest prices for fuel from all the world, in some cases the number are almost double because of the different taxes that have to be paid to the state especially.

The other objective was to see if there is a correlation between different indicators used from the World Bank database, which was achieved in the previous chapter as a mean to test different observations made in the times of writing this research.

Globalization is a process that won't stop and this tightens the links between the countries but even so the equilibrium is fragile in the economic field as we stated in the first part of the conclusions. As a consequence if one of the states gets in collapse the domino effect will affect all the countries worldwide so people, governments, companies have to think about solutions to reduce such a risk because the effects are on a long term and can be disastrous.



**Figure no. 1: GDP/capita at global level (current US\$)**

*Source: own processing of data from Eurostat, World Bank*

## Conclusions

Even if different regions have different characteristics, the instability from any state can influence the welfare from another. Globalization is a good thing but only if the states can become more interdependent than they are now. Dependence on other states or international creditors can't provide a good, free and adaptive global market, as it should have been from a long time ago. As a conclusion of the paper, a worldwide analysis can provide a great amount of information and can help researchers to understand better the influence and the regional profile of a country and also integrate it more easily in a broader plan.

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