

The Real Wage as Indicator of Wealthy: Comparative Analysis Between Russia and Other Countries

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Abstract— The article is part of an experiment concerning the study of the level of wealth in the Russian Federation using the real wage system. The premise is that traditional economic indicators such as nominal GDP are not able to explain the level of real economy and its trend; other indices such as human capital or unemployment levels are not exhaustive. For this reason, authors believe that there is the necessity to find a model of measurement that takes in greater consideration life style of their inhabitants, namely: the cost of products and the monthly salary. This method of measurement revolutionizes the traditional one because it does not take into account some factors such as national borders (the level of wealth varies from city to city) even if it presents some technical problems that are the basket of assets to be taken into account and volatility of prices and salaries. In any case, the new measurement method wants to visualize the level of economic well-being based on the real standard of living that people, according to their salary, can afford.

Keywords— *real wage; economic analysis; Russia; price of goods*

I. INTRODUCTION

Economic analysis is essential to determine the situation in which the economy is considering any period of time. However, is necessary to take in account the fact that different indices can indicate a different economic situation, especially when economists try to compare the economic level of different countries. Samuel Jung believes that the concept of real GDP helps to explain the real economic situation of any nation, because it is able to measure the real result of a specific geographical area[1].

However, one of the leading economists who does not agree with the real economic indicators is the Indian economist and nobel prize, Amartya Sen. As Claudio Cordouas wrote, in 2008, Sen and 30 different economists (including Joseph Stiglitz) tried to formulate an alternative index able to take the place of GDP [2].

In 2010, Sen, Stiglitz and Jean-Paul Fitoussi published a new research paper showing the inefficiency of GDP as an economic indicator. For example, to demonstrate the inefficiency of GDP, they used transport: the malfunction of an obsolete vehicle can lead to numerous accidents, which entail costs for repairs, and even medical expenses will increase. These costs will lead to an increase in GDP.

The problem connected with trend of GDP in the European Union is much more practical and actual; many states including Italy, in order not to run into economic sanctions by the European Union following the GDP trend, have changed the calculation of the index itself, adding certain illegal expenses (such as profits from the sale of drugs and from prostitution).

It can be argued that Sen was an opponent of the liberal economy and the welfare theory, based only on the concept of production and the utilitarian and materialistic concept of happiness. Today it is impossible to imagine economic evolution only through mathematics theories. In 1974, Richard Easterlin proposed the Easterlin paradox: "the highest level of gross domestic product per capita in the country was not correlated with a higher level of happiness among the citizens of the country" [3].

Happiness can not be bought for money, moreover, it can be argued that GDP cannot be an indicator of happiness, of course, in an economic sense. Sen proposed one of the ways to solve the problem of economic analysis with the help of GDP, referred to as the "Human Development Index". This is a new type of index that is able to measure people's standard of living.

On the other hand, most economists feel the need to use economic data to compare the indicators of different countries, helping to determine the growth or decline of the national economy. Therefore, we believe that it is necessary to use such an indicator as the level of real wages to more effectively determine the economic level of the country.

Looking the nominal GDP ranking in 2016, the situation is that the USA are on the 1st position followed by China, Japan and Germany, India is on the 7th place, Italy is 8th and the Russian Federation is 12th [4]. So it is possible to conclude that Russia is the 4th economy in Europe looking at this economic indicator, but if the reader decides to take in consideration the GDP per capita, so the situation it will be very different. Indeed, the first country is Qatar, followed by Luxembourg and Switzerland; the USA are 11th, Germany is 15th, Japan and Italy are 28th. The BRICS are had an important change considering that Russia is only 49th, China is 79th and India is 100th [5]. Two economic indicators with two different conclusions; the problem connected with the GDP as economic indicator is also that it uses the American Dollar as currency. Looking at Russian GDP trend, for example, the negative trend of 2015 and 2016 is influenced by the decision to study it in dollars; indeed, if the reader look statistics in Rubles, is possible to affirm that the same trend is not negative as it is shown with Dollars. It happened because of the financial crisis and the the collapse of the Ruble Dollar exchange. In all cases, the real problem about these indicators is that they don't take in consideration life of people and differences in their society. Taking Russia as example, is clear that today this country has a very huge difference between poor and rich; so is possible to affirm that positive economic results of '00 years gave more advantages to a social class, while other classes didn't receive neither a part of these advantages. For this reason, the following study, wants to show that economic differences between countries are different considering a good instead of another as well as also work profession is also a determinant factor.

II. REAL WAGE INSIDE RUSSIA AND KAZAKHASTAN

To show first results of the new model that authors are creating in order to understand real economic trend, they decide to reduce number of variables in order to give an immediate demonstration of the model. For this reason, in the following paragraphs, authors will show economic differences in three "example countries", Russia and Kazakhstan. The methodology consists to consider as sample factors six different kind of profession, seven different goods and three cities (from different geographical areas). The authors will calculate, considering monthly wage of every profession in every city, the quantity that they can buy for every product in consideration of their local price. The coefficient will indicate the level of wealthy for that profession in correlation for that precise good; the highest value represent the richest city, vicversa the lowest is the poorest city.

A. Russia

To study the case "Russian Federation", authors took in consideration three cities very different each other: Moscow, Chelyabinsk and Vladivostok. The following table shows the monthly wage for every profession in every city

TABLE I.

Wage in Rubles (2017 year)			
<i>City</i>	<i>Moscow</i>	<i>Vladivostok</i>	<i>Chelyabinsk</i>
General doctor	87 300	35 000	30 000
Economist in a Bank	55 200	40 000	26 000
Agronom	42 500	33 000	30 000
Translator (for Eng.)	60 000	41 000	35 000
Casher	50 000	36 000	17 850
Waiter in a restaurant	40 000	23 000	20 000

The following table shows price of goods in April 2018

TABLE II.

Price list (2017 year)			
<i>City</i>	<i>Moscow</i>	<i>Vladivostok</i>	<i>Chelyabinsk</i>
Bread 1000 kg	37 000	24 000	23 000
1000l. gasoline 95	45 000	37 000	42 000
Potatoes 1000 kg	32 000	21 000	23 000
1000 tickets for public transport	55 000	19 000	25 000
Cost of 1 year of University, in thousands Rubles	MGU 370	DFVU 150	CHelGU 75
Rent 1 month flat	39500	20 000	12 000

So considering this these data, is possible to procede to count index of wealthy for Moscow, Vladivostok and Chelyabinsk considering these goods and these profession. Results are shown in the following table.

TABLE III.

RESULTS: wealth economic index (sum of the quantity of products that can be purchased)			
<i>City</i>	<i>Moscow</i>	<i>Vladivostok</i>	<i>Chelyabinsk</i>
General doctor	13.11	9.96	10.79
Economist in a Bank	8.29	11.34	9.3
Agronom	6.34	9.41	10.79
Translator (for Eng.)	9.05	11.68	12.55
Casher	7.53	10.4	6.32
Waiter in a restaurant	6.02	6.55	7.12
<i>TOTAL</i>	50.34	59.34	56.87

Results shows that actually people from Vladivostok can buy more goods than people from Chelyabinsk; in the end citizens from Moscow are those who can buy less items that other. Two goods penalized decisively people from Moscow: education and rent of a flat. Both these factors, vice versa, favourite sensibly people from Chelyabinsk who are penalized for the cost of gasoline and public transports; vice versa, these two factors advantage people from Vladivostok.

B. Kazakhstan

The analysis concerning Kazakhstan takes in consideration the following cities: Astana, Almaty and Kostanay. Goods and Professions are the same of the Russian case, in this mode it will be possible to compare results. An important factor that must be considered is that analysis of Kazakhstan will be made in their local currency, namely Tenge and not in Roubles or in other currency. The following tables will show monthly wage and cost of products as it was for the Russian case [6].

TABLE IV.

Wage in Tenge (2017 year)			
<i>City</i>	<i>Astana</i>	<i>Almaty</i>	<i>Kostanay</i>
General doctor	205 100	171 100	179 200
Economist in a Bank	269 500	222 100	119 200
Agronomist	151 000	200 000	140 500
Translator (for Eng.)	150 000	100 000	70 000
Casher	110 000	60 000	70 000
Waiter in a restaurant	120 000	100 000	75 000

The following table shows price of goods in 2017 [7].

TABLE V.

Price list (2018 year)			
<i>City</i>	<i>Astana</i>	<i>Almaty</i>	<i>Kostanay</i>
Bread 1000 kg	84 000	88 000	89 000
1000l. gasoline 95	179 000	167 000	165 000
Potatoes 1000 kg	162 000	145 000	115 000
1000 tickets for public transport	93 000	89 000	80 000
Cost of 1 year of University, in thousands Tenge	ENU 690	KAKZNU 560	KGU 343
Rent 1 month flat	112 900	93 700	65 000

Results are the following:

TABLE VI.

RESULTS: wealth economic index (sum of the quantity of products that can be purchased)			
<i>City</i>	<i>Astana</i>	<i>Almaty</i>	<i>Kostanay</i>
General doctor	11.82	10.93	14.83
Economist in a Bank	15.52	14.22	10.05
Agronomist	8.69	12.69	11.36
Translator (for Eng.)	8.63	6.64	5.78
Casher	6.32	3.82	5.78
Waiter in a restaurant	6.91	6.64	6.21
<i>TOTAL</i>	57.89	54.94	54.01

Look at results is possible to affirm that considering such goods and professions, Astana is the richest city even if the difference between Almaty and Kostanay is not so huge. Moreover, it seems that the difference between Kostanay and Almaty is really few; Kostanay is on the first position for general doctor but is the last for economist in a bank and for translators. Almaty is better for agronomists but is the last for cashers.

III. COMPARISON BETWEEN RUSSIA AND KAZAKHSTAN

The comparison between nation using this model has different variants. The first is to count value of different cities, the total amount it will be the final result for every nation. In this process, reader has to take in consideration some rules: the first is that number of cities must be the same, as well as professions and goods. Moreover, to have a real comparison, is better to use local currency and not a neutral as the American dollar; this is important because the internal economy is taken in examine.

So looking at this variant of comparison, taking in example the practical example of the article, is possible to conclude that Russia has 166.55 points while Kazakhstan 166.84, so is possible to conclude that people in Kazakhstan are just a bit richer than in Russia.

Anyway, this method is too much reductive because doesn't explain some variants that effectively influence the result. For example Russia is penalized by Moscow because it has only 50.34, so considering Vladivostok and Chelyabinsk, is possible to affirm that in these cities people are richer than in Almaty and Kostanay.

Looking at data in every nation there are some correlations as the factor Education at University that penalizes capitals and favourite cities with a not so famous university; the same fact happens when the rent for a flat is taken in consideration.

Professions, vice versa, do not have a correlation between nations, indeed translators in Russia have more possibilities in big cities than in the capital, vice versa in Kazakhstan translators from Astana are richer than in Almaty and Kostanay.

Another important result that this model can explain is which power people have to buy some goods, depending of nation and city. In this practical case, for example is possible to affirm that Russian people can buy more gasoline that Kazakhstan independently of profession and city; at the same time Kazakhs can use much more often public transports than Russians can.

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