THE THEORY OF PURCHASING POWER PARITY: CAUSES OF CURRENCY UNDERESTIMATION

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This article considers the causes of currency underestimation according to the purchasing power parity theory. The hypotheses under study are supported by empirical research. The purpose of the research is to identify the causes of currency underestimation.

Key words: purchasing power parity theory; currency underestimation.

Nowadays international trade is a source of life for almost all countries of the world. Many centuries ago, people realized that it was more beneficial for them to purchase goods that were hard and expensive to produce. Later Ricardo approved that international trade is beneficial for each unit participating in it.

The first form of trade was represented by natural goods exchange which was called «barter». Later token money gained popularity and one question appeared: «How to evaluate the goods in different currencies?» This question was significant, especially for international trade. People from different countries didn’t know anything about the prices and currencies of other countries directly. For that reason, the decision to make the only measure for all the currencies was made.

The first attempt to implement this idea was using metal money, made from different precious metals. The most developed and popular system, based on this principle, was the «Golden Standard». The essence of this theory was that all the currencies had their golden equivalent. And that is the way, we can measure the price of a currency in another currency. This equivalent for each currency was called «absolute PPP (Purchasing Power Parity) » by Swedish economist Gustav Cassel who did research concerning the crash of the Golden Standard which was caused by the crisis after the I World War. Despite the long history of the term «Purchasing Power Parity» and the theory they are still alive and have been developing for more than a hundred years.

The modern interpretation of PPP is based on many factors, which influence parities between currencies. The most influential among them is the level of inflation in the country which affects the purchasing power of a currency inside and outside the country.

Let’s define a useful and practical side of this theory. In the situation of global instability and market fluctuations economies of all countries are damaged. Some of them – more, another – less. The main criterion of a weak economy is an underestimated national currency. With the help of the purchasing power parity theory let's define three causes of currency underestimation.

The first cause is hidden in the Balassa-Samuelson effect. This effect was firstly described by two extraordinary economists in the middle of the 20th century. They are Bela Balassa and Paul Samuelson. The idea of this effect is that countries with a lower level of social and economic development are more prone to economic fluctuations, inflation and, as a consequence, to currency underestimation. This effect could be proved empirically.

Table

Comparison of nominal GDP per capita with GDP per capita by PPP for 2020

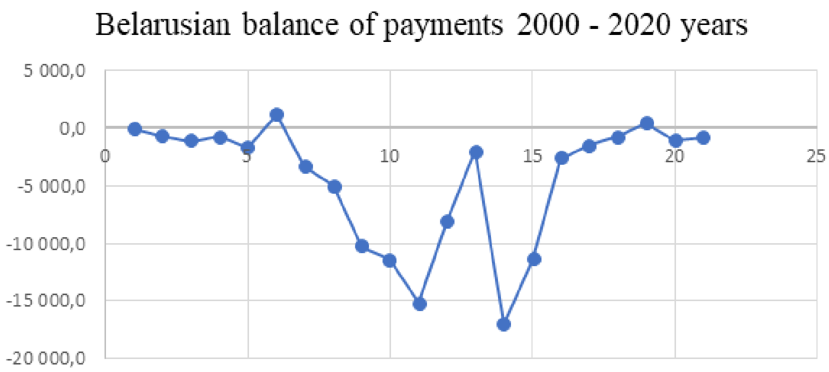
Country	GDP per capita (US doll.)	GDP per capita PPP (US doll.)	Underestimation of currency (%)
Developed economies			
Australia	51 812	55 097	6.34
Belgium	44 594	51 968	16.54
Great Britain	40 285	44 916	11.5
Canada	43 242	48 073	11.17
Luxembourg	115 874	118 360	2.15
Norway	67 294	63 198	-6.09
Developing economies			
Belarus	6 411	20 200	215.08
Bulgaria	9 976	24 367	144.26
Kazakhstan	9 056	26 729	195.15
Russia	10 127	28 213	178.59
Turkey	8 538	28 119	229.34
Afghanistan	509	2 088	310.22
Bolivia	3 143	8 367	166.21
Somalia	309	875	183.17
Myanmar	1 400	4 794	242.43
Mozambique	449	1 297	188.86
Chad	614	1 603	161.07

Note – Source: [1, 2]

From Table 1, we can conclude using the Balassa-Samuelson effect: the level of social and economic development affects purchasing power of a currency.

The next cause of underestimation is the dynamics of the balance of payments. The balance of payments represents all the economic activities of a country in the international trade arena. It shows the inflow and outflow of money and assets. When the balance of payments is negative it means that our country has spent more foreign currency, than it has earned. It causes a shortage in international currencies and the price of these currencies rises inside the country. In conclusion, we have an underestimation of national currency.

This theory could be proved by using the example of the Republic of Belarus, which is characterized by an underestimated currency and an almost permanent negative balance of payments, as shown in the picture below.



Belarusian balance of payments 2000–2020 years
Note – Source: https://www.nbrb.by/statistics/balpay

The last point is government action. This issue consists of two parts: political actions and macroeconomic policy. Both of them influence the flow of goods, money and other assets inside and outside the country, which define many macroeconomic variables including exchange rates and purchasing power of a national currency.

References

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