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RATE OF CURRENCY EXCHANGE IMPACT ONTO COUNTRY'S GDP

The present article deals with influence of six and five variables onto the country's GDP. In so doing, only one of these, specifically X2, changes its values while the others remain invariable. Therefore, the following dependencies are taken into consideration: GDP = *f*(X1, X2, X3, X4, X5, X6) and GDP = *f*(X1, X2, X3, X4, X5), as well as GDP1 (GDP2) = *f*(X1, X2, X3, X4, X5, X6) and GDP1 (GDP2) = *f*(X1, X2, X3, X4, X5). On the basis of the executed calculations, the 2D and 3D graphs were plotted which give illustrative representation of the X2 variable onto the GDP of any country.

Fig. 1 represents the GDP curve when X1 = X3 = X4 = X5= X6 = 1, X2 = 1…10. As seen from the graph the GDP curve, at these particular variables' values, increases very substantively from 95,27 and up to 95266,87, that is by 1000 times.

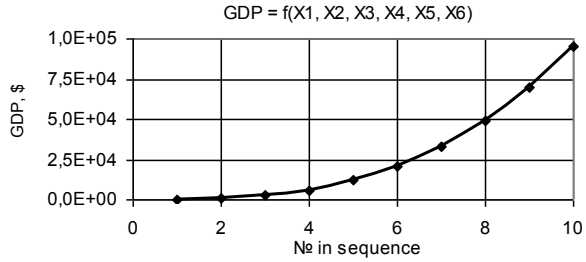

Fig. 1. GDP = f(X1, X2, X3, X4, X5, X6)
X1 = X3 = X4 = X5 = X6 =1, X2 = 1…10

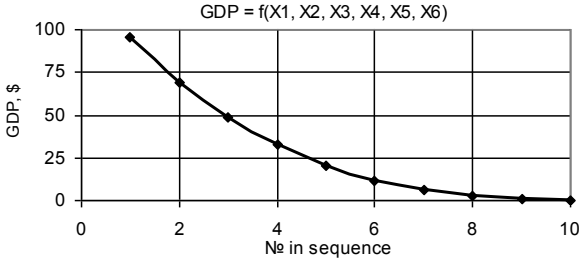

Fig. 2. GDP = f(X1, X2, X3, X4, X5, X6)
X1 = X3 = X4 = X5 = X6 =1,
X2 = 1…0,1

The next Fig. 2 shows that in case the X2 variable is decreased by 10 times, the economic shell values have been decreased from value 95,27 and down to 0,1, that is by 1000 times. Here, the variables in question were the following: X1 = X3 = X4 = X5 = X6 = 1, X2 = 1…0,1.

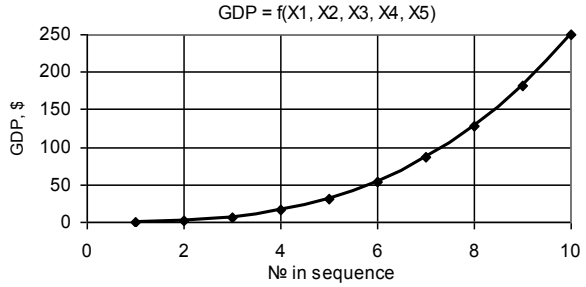

Fig. 3. GDP = f(X1, X2, X3, X4, X5)
X1 = X3 = X4 = X5 = 1, X2 = 1…10

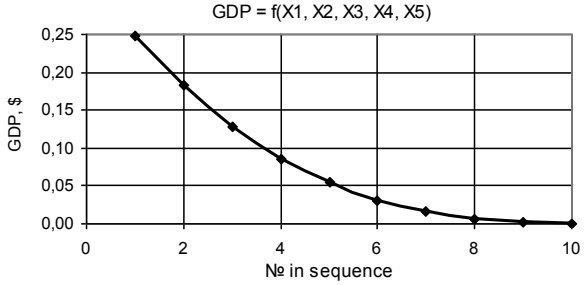

Fig. 4. GDP = f(X1, X2, X3, X4, X5)
X1 = X3 = X4 = X5 = 1, X2 = 1…0,1

Figures 3 and 4 represent GDP = *f*(X1, X2, X3, X4, X5) dependencies at the following values of the variables: X1 = X3 = X4 = X5 = 1, X2 = 1…10 and X1 = X3 = X4 = X5 = 1, X2 = 1…0,1 accordingly. It is obvious from the figures that in Fig. 3 at the current variables' values the economic shell is increasing from 0.25 up to 250,62, that is by 1009,6 times, and in Fig 4 it has decreased from 0,25 down to 0,0003, that is by 990,5 times.

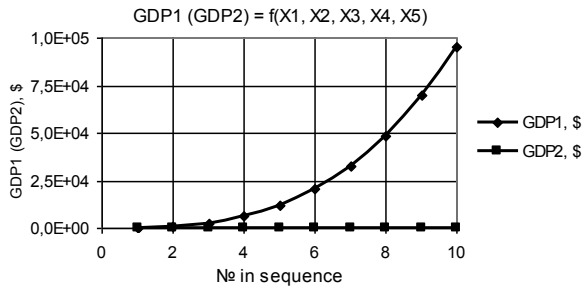

Fig. 5. GDP1(GDP2)=f(X1,X2,X3,X4,X5)

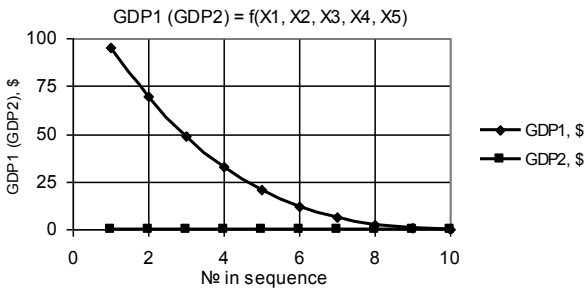

Fig. 6. GDP1(GDP2)=f(X1,X2,X3,X4,X5)

X1 = X3 = X4 = X5 = 1, X2 = 1…10

The next two Figures 5 and 6 clearly indicate that the plotted GDP1 and GDP2 curves either significantly increase (Fig. 5), or decrease (Fig. 6). Here, the GDP1 and GDP2 values represent the upper and the lower boundaries of economic shell. Consequently, the figures which show two curves indicate the area in which economic shell may exist under the influence of external forces. These figures were plotted under the following values of the correspondent variables: X1 = X3 = X4 = X5 = 1, X2 = 1…10 and X1 = X3 = X4 = X5= 1, X2 = 1…0,1.

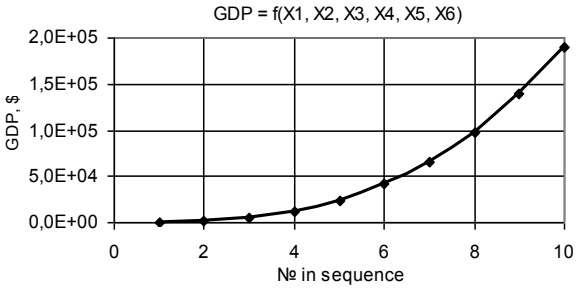

Fig. 7. GDP = f(X1, X2, X3, X4, X5, X6)
X1 = X3 = X4 = X5 = X6 =1, X2 = 1…10

The plotted GDP curves with the variables' values of X1 = X3 = X4 = X5 = X6 = 1, X2 = 1…10 and X1 = X3 = X4 = X5 = X6 = 1, X2 = 1…0,1 are either increasing from 194.89 and up to 1.91E+05, that is by 978.57 times (Fig. 7), or decreasing from value 194.89 and down to value 4,37, that is by 44,58 times (Fig.8) and are demonstrated in Figures 7 and 8.

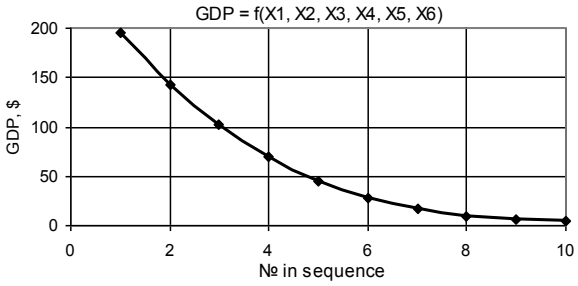

Fig. 8. GDP = f(X1, X2, X3, X4, X5, X6)
X1 = X3 = X4 = X5 = X6 = 1, X2 =1…0,1

Under the following values of variables X1 = X3 = X4 = X5 = 1, X2 = 1…10 the plotted GDP dependency in Fig. 9 is being increased from value 4,68 to value 505,98, that is by 1009,6 times.

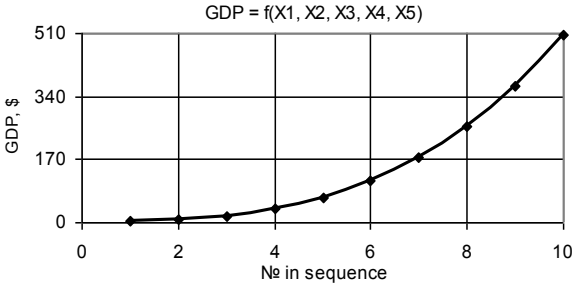

Fig. 9. GDP = f(X1, X2, X3, X4, X5
X1 = X3 = X4 = X5 = 1, X2 = 1…10

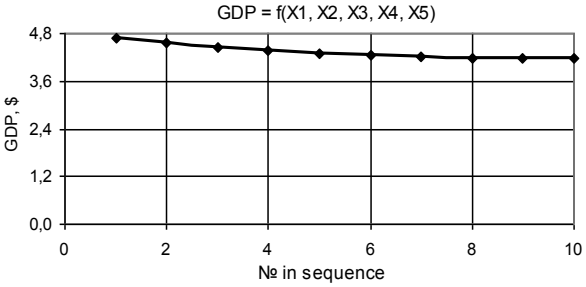

Fig. 10. GDP = f(X1, X2, X3, X4, X5
X1 = X3 = X4 = X5 = 1, X2 = 1…0,1

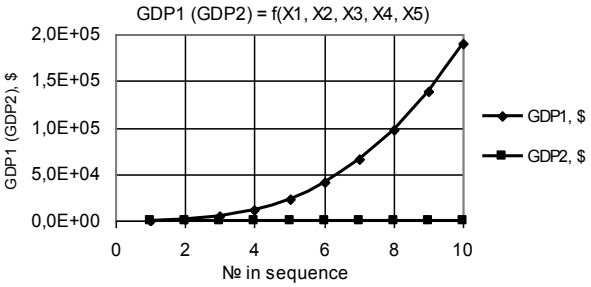

Fig. 11.GDP1(GDP2)=f(X1,X2,X3,X4,X5)
X1 = X3 = X4 = X5 = 1, X2 = 1…10

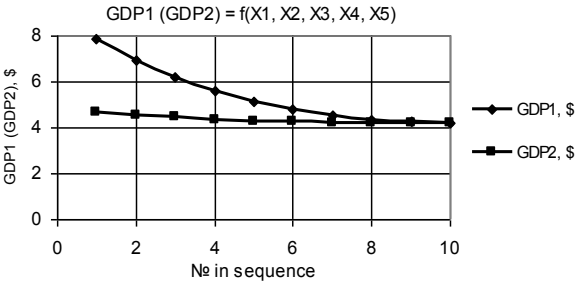

Fig. 12. GDP1(GDP2)=f(X1,X2,X3,X4,X5)
X1 = X3 = X4 = X5 = 1, X2 = 1…0,1

The next Fig. 10 clearly indicates that the plotted GDP dependency with the variables of X1 = X3 = X4 = X5 = 1, X2 = 1…0,1 is increasing slightly from 4,68 down to 4,18, that is by 1,12 times.

On the latter two 2D figures, being Figures 11 and 12, the values of the plotted GDP1 and GDP2 curves are increasing greatly in Fig. 11, and decreasing in Fig. 12. In such way for instance, GDP1 and GDP2 values increase in both cases by 978,54 and 108,03 times with X1 = X3 = X4 = X5= 1, X2 = 1…10 (Fig. 11), and decrease by 1,88 and 1,12 times accordingly with X1 = X3 = X4 = X5 = 1, X2 = 1…0,1 (Fig. 12) .

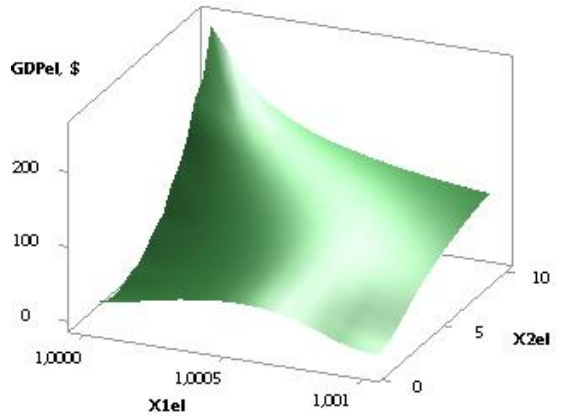

Fig. 13. GDP = f(X1, X2, X3, X4, X5)
X1 = X3 = X4 = X5 = 1, X2 = 1…10

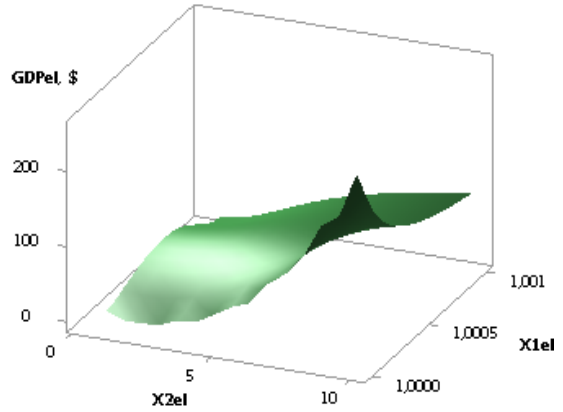

Fig. 14. GDP = f(X1, X2, X3, X4, X5)
X1 = X3 = X4 = X5 = 1, X2 = 1…10

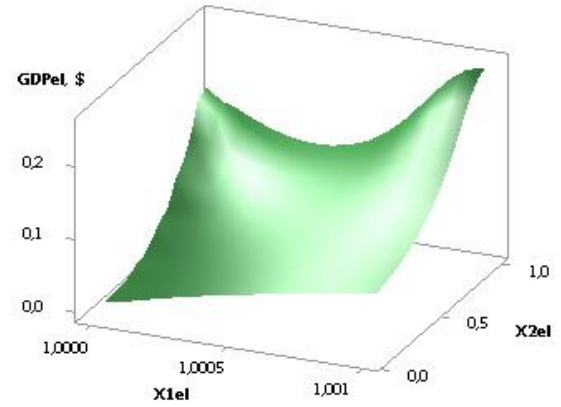

Fig. 15. GDP = f(X1, X2, X3, X4, X5)
X1 = X3 = X4 = X5 = 1, X2 = 1…0,1

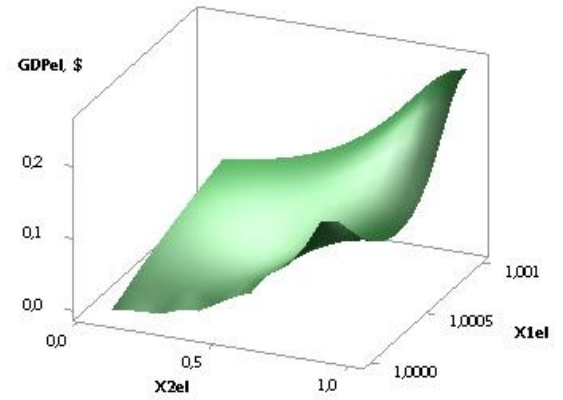

Fig. 16. GDP = f(X1, X2, X3, X4, X5)
X1 = X3 = X4 = X5 = 1, X2 = 1…0,1

In case of using 3D imaging it will more visually descriptive in comparison with above mentioned 2D figures. As can be seen from these two figures, the appearance of the 3D image depends on position of the X1 and X2 axes. Thus Figures 13 and 14 display the two types of identical 3D images, when the X2 variable's values increase by ten times (X2 = 1…10), however in this particular case the X1 and X2 axes' values have been reversed. Figures 15 and 16 display similar 3D dependencies, however in this case the X2 variable's values have already decreased by ten times (X2 = 10…0,1).

Now we shall interpret the X2 variable. As it comes from the shells theory, the X2 variable is the thickness of the economic shell which may be interpreted as the value of a national currency with regard to the generally-acceptable one, namely to US dollar or Euro.

In this particular case the X2 variable may take on the following three values: X2 = 1; X2 > 1; X2 < 1.

Let us evaluate all these three options individually.

1. When X2 = 1 it indicates that one single unit of a national currency, e.g. ruble, corresponds to one single unit of convertible currency, e.g. US dollar or Euro. In this case the country wins where the standard of living is higher, and, consequently, the average salary of the population is also higher, and as a result the prices of products produced and services rendered will also be higher. That is why both the contractor companies and the population at large will find it economically advantageous to buy products and services abroad. Similarly, the companies will find it beneficial to place their enterprises in the countries with lower salaries, surely in case, when the logistic prices to deliver products and services will be less compared to production costs of the similar products and services, produced by domestic companies, while the quality of these items is comparable.

2. When X2 > 1 this means that for one unit of convertible currency one will have to pay more than one unit of a national currency, for instance, as per October 2016, one US dollar corresponded to 63 rubles in average, while one Euro corresponded to 69 rubles. With that said, those companies, which supply their products or services for export, take their interest in the fact that the value of their national currency is not getting stronger, and on the contrary is dropping down, which means that in such particular case they will get more profit during conversion of the foreign currency into the national one. That is why those companies which supply their products or services for export will have a possibility to modernize and expand their production facilities, to increase salaries to their employees and so on. All these factors will have a positive effect on the GDP of the country, which will grow up in fact. In this case it is necessary to maintain at the previously available level production activity of companies which promote products and services to domestic market shall. Here, yet another condition have to be fulfilled, specifically the price of the products produced and the services rendered have to re-

main on the previously available level or grow minimum proportionally to the growth of the inflation rate. In other words, it is necessary to fulfill the in equation $Pri+1 \geq Pri$, where $Pri+1$ is a company's profit in the year under consideration, and Pri is the company's profit in the previous year. This option will also have a positive effect on development of those industries which deliver their products and services to domestic market, since most of the population will switch over to buy domestic products and services due to rising prices of the imported ones. Such an option will influence on the companies which are oriented to domestic market and utilize imported equipment in a negative way, because they will have to pay more to procure new equipment in the event that domestic equivalents are not available, or it is inferior with regard to characteristics compared to the equipment produced abroad. As a matter-of-fact, this will reduce the profit of such companies.

Thus, such variant will help to solve a task of phase-out of imported technical equipment and food products, except for those which are not spread or do not grow in our climate. This variant was executed by government of Russian Federation. It is worth to mention here that 30% of enterprises have informed that they will have to reduce physical share of imports during procurement of equipment in the second quarter of year 2015 compared to the second quarter of the year 2014. In so doing 6% of the companies/enterprises have totally refused to import (however they had purchased it in the past), while 24% have already decreased their share, but not down to 0% though [2]. As the Russia's statistics show the two-times increase in prices for currency in 2015 resulted in reduction in people's travel abroad for vacations, and in this case they have spent 30% of money during such travels less than it was before [3]. Appreciation of the hard currency by two times resulted positively to a tourist segment development inside the country, as well as on food products. This issue has also given an impulse to replace the imports and to growth of a number of industries, what is evident from Table 1. Table 2 represents the advantages of the phase-out of imports growth in Russia both for the public at large and for business [1].

Table 1.

Phase-out of imports according to the industries

Industry	Current share of import	Objective by year 2020
Civil aircraft	over 80%	40%
Heavy engineering	around 70%	35%
Oil-and-gas equipment	60%	40%
Power-generating equipment	about 50%	30%
Agricultural machine building (depending on products' category)	from 50% to 90%	20%

Table 2.

Benefit resulting from implementation of phase-out of imports in Russia

Who will get a benefit?	How?
Ordinary citizens of Russia	Systematic increase in work places in regions of development; Competition between employers will lead to increase of salaries; Demand for focused-specialization specialists in the market.
Small and medium-sized business	Increase in employers' share due to growth of agriculture and other medium-sized business; Obtaining of subsidies from the state; Increase in volumes of sales due to increase of market share in Russia; Tax break for business for a few years.
Banks	Increase in profits due to growth of number of borrowers.
State	GDP growth, increase in tax deductions; Reduction of dependency from western goods, development of domestic market.

3. When $X2 < 1$, this means that the national currency is getting stronger. In this case the exporting companies will loose their profit which will have immediate negative impact on the foreign currency inflow. Only those companies take an interest in strengthening of the foreign currency which employ imported equipment, since they will be able to more frequently update it. This will also positively tell on the companies which are involved in importing products/services since they will be capable to increase supply of various imported products. This option will also positively affect segment of the population who prefers to spend their holidays abroad, as well as on that part of the population who used to travel abroad to get inexpensive and qualitative medical services.

Thus, the policy of the central bank of a country have to seek for a balance in the currency rate as per a specific moment of time, in such a way in order to increase or to maintain GDP first of all depending on the world economy condition. In this case the bank interest rate established by the central bank is also of essential issue.

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УДК 330. 342. 17

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ПЕРСПЕКТИВНЫЕ МОДЕЛИ ЭКОНОМИЧЕСКОГО РАЗВИТИЯ РОССИИ

Основой решения проблем перспективного развития страны принята идея развития миллионов творческих людей в условиях системной демократизации отношений собственности. Только миллионы творческих людей способны обеспечить неограниченные интеллектуальные ресурсы, многократное повышение общественной и индивидуальной производительности труда, коренное изменение экономики страны.

Цель исследования состоит в определении краткосрочных и долгосрочных перспектив развития экономики страны в условиях системной демократизации отношений собственности. Достижение цели исследования предполагает решение следующих задач: во-первых, определить содержание системной демократизации отношений собственности; во-вторых, обосновать формирование демократической модели экономики как краткосрочную перспективу развития страны; в-третьих, определить необходимость формирования креативной модели экономики как долгосрочную перспективу развития российского общества.

Системная демократизация отношений собственности как основа перспективных моделей экономики

Необходимость демократизации собственности в современных условиях определяется потребностями демонополизации собственности, доходов, экономической и политической власти; особенностями инновационного развития экономики, которая нуждается не столько в исполнительских, сколько в творческих, интеллектуальных функциях работников; творческие, интеллектуальные работники могут появиться только в условиях нового качества жизни, когда человек становится целью общественно-экономического развития, а это возможно только на основе демократизации отношений собственности.

Концепцию системной демократизации отношений собственности выдвинул автор данной статьи. [1, с. 39-43] Системная демократизация отношений собственности означает единство демократизации собственности на средства производства и демократизации собственности в экономической системе; это единство демократизации экономической собственности и демократизации юридической собственности; это единство демократизации отношений собственности и демократизации общественной системы.

Демократизация экономической собственности формирует качественно новое содержание отношений собственности. Демократизация экономической собственности выражает не отношения присвоения-отчуждения, а отношения присвоения-наделения. Отношения наделения означают определение доли, части собственности отдельного члена общества. Размер доли собственности и доли дохода от собственности каждого зависит от эффективности трудовых, интеллектуальных усилий отдельного человека.

Сущность системной демократизации отношений собственности представляет собой последовательную, всеохватывающую совокупность отношений по перераспределению продукции, доходов и богатства в интересах широких слоев населения. Воспроизводственная система демократизации экономической собственности проявляется в перераспределении объектов собственности в интересах населения через конкретные категории и отношения на всех стадиях общественного воспроизводства. Демократизация воспроизводственных отношений собственности опосредует процессы непосредственного соединения рабочей силы со средствами производства, прямого и опосредованного участия работников в управлении предприятиями, территориями, регионами и государством в целом, участия работников в распределении совокупных доходов, в том числе доходов от собственности. Демократизация воспроизводственных отношений собственности означает присвоение разных форм доходов широкими массами трудящихся в процессах производства, распределения (перераспределения), обмена и потребления материальных благ и услуг в обществе. Обязательным условием системной демократизации