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ТЕОРИЯ ФИНАНСОВЫХ КРИЗИСОВ (ЧАСТЬ 3)

THEORY OF THE FINANCIAL CRISES (PART 3)

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АННОТАЦИЯ

В статье предлагается теория экономических кризисов, которые постоянно развиваются в современном обществе и охватывают в большей или меньшей степени практически все страны мира. На основе расчетов автор построил двух и трехмерные графики, которые более точно показывают влияние различных переменных на ВВП страны. Произведенные расчеты позволили построить таблицы и выявить варианты выхода из экономического кризиса.

ABSTRACT

There is the theory of financial crises, which are constantly evolving in modern society and cover more or less almost all countries of the world, proposed in this article. Under the calculations made, the author has built two and three-dimensional graphics that show more accurately the influence of various parameters on the country's GDP (gross domestic product). The performed calculations made it possible to build a table and identify scenarios for overcoming the financial crisis.

Ключевые слова: теория финансовых кризисов, расчеты, ВВП, 2D и 3D графики, варианты выхода из финансовых кризисов.

Keywords: theory of financial crises, calculations, GDP, 2D and 3D figures, options out of financial crises.

Earlier in his articles the author has shown that in order to describe the economic processes that occur in the economy of a country it is possible to apply the shell theory, in its application to the spheres [1, 3, 4]. Besides, the author has also described in the articles the boundaries of existence of economic shells of small-, medium- and big-sized businesses which may be influenced by both external and internal pressures [2]. The author suggests in the following article to employ ellipsoidal economic shell, and, to be more specific – its volume which will make it possible to use six different variables during calculation of the GDP.

Gross domestic product can be calculated by the three following methods:

1. as the sum of gross value added (production method);
2. as the sum of end–use components (end–use method);
3. as the sum of primary income (distribution method).

In this case the various variables may be used in the calculation, in particular such as: consuming capacity, investments, governmental expenditures, exports, imports and the like. In the material presented below the calculation formula of volume of the economic shell V_{eu} was used, to which corresponds the GDP of the country, that is V_{eu} (GDP_{eu}) = f(X1, X2, X3, X4, X5, X6). Here X1, X2, X3, X4, X5 and X6 are the variables which have an impact on the GDP of the country.

By analysing the formula it is possible to identify the variables' characteristics which influence on the V_{eu} (GDP_{eu}), and which will be as follows:

• where the X1 variable is increased, the economic shell volume V_{eu} GDP_{eu} increases too;

• where the X2 variable is increased, the economic shell volume V_{eu} (GDP_{eu}) increases more profoundly compared to the increase of variable X1;

• where the X3 variable is increased, the economic shell volume V_{eu} (GDP_{eu}) decreases;

• where the X4 variable is increased, the economic shell volume V_{eu} (GDP_{eu}) increases. In such a case the X4 variable may approach to numeral one only asymptotically;

• where the X5 variable is increased, the economic shell volume V_{eu} (GDP_{eu}) decreases;

• where the X6 variable is increased, the economic shell volume V_{eu} (GDP_{eu}) increases less profoundly compared to the increase of variable X4. In such a case the X6 variable may approach to numeral one only asymptotically.

It should immediately be noted that during calculation and plotting of construction drawings, the parameters X1, X2, X3, X4, X5 and X6 could be constant values, increase or decrease by 10 times. On the basis of the calculations made, 82 graphics were built, which can be divided into the four following groups:

• parameter values X1, X2, X3, X4, X5 and X6 increase and are constant;

• parameter values X1, X2, X3, X4, X5 and X6 decrease and are constant;

• parameter values X1, X2, X3, X4, X5 and X6 decrease and increase;

• parameter values X1, X2, X3, X4, X5 and X6 are constant, they decrease and increase.

It is worth mentioning here in this context that the number of the graphs that may be plotted with the six variables is significantly greater. Therefore the author has selected such options of the variables' values which will more precisely show the variables' influence onto the GDP calculation.

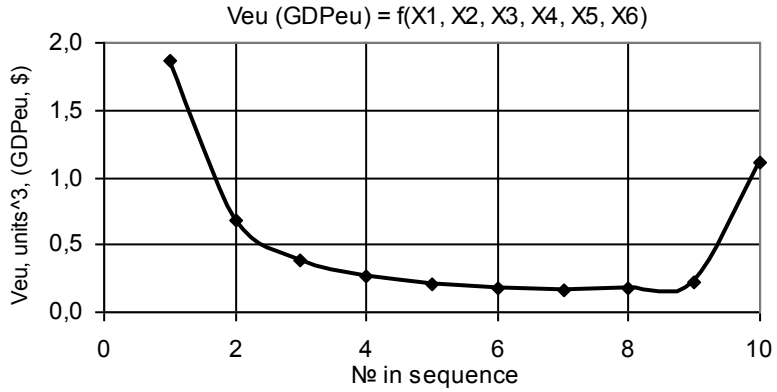
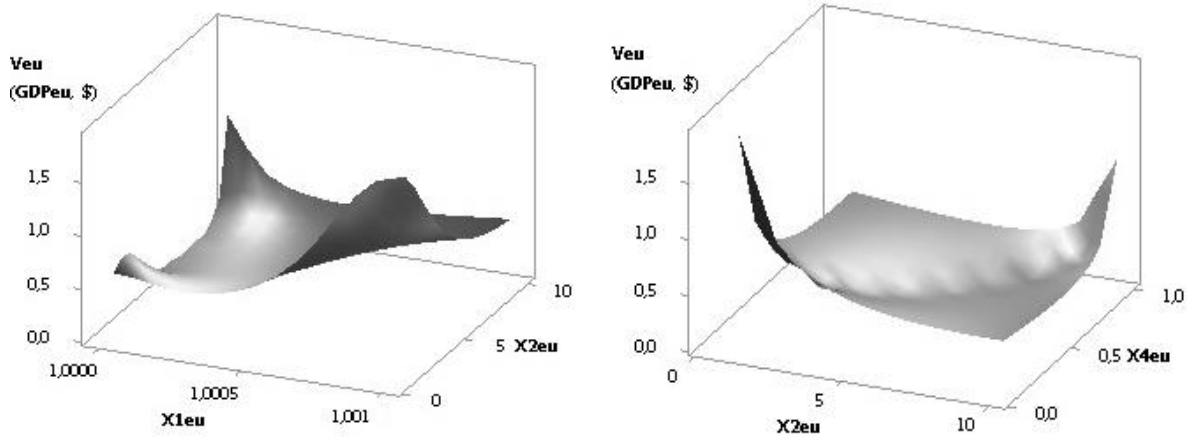


Fig. 1. Dependence V_{eu} (GDP_{eu}) = f(X1, X2, X3, X4, X5, X6) при X1 = 1, X2 = X3 = X5 = 1…10, X4 = X6 = 0.1…0.99

Figure 1 shows the 2D graph of V_{eu} (GDP_{eu}) dependency with X1 = 1, X2 = X3 = X5 = 1…10, X4 = X6 = 0.1…0.99 from which it is clear that the V_{eu} values initially decrease by 11.42 times, and afterwards increase by 6.77 times. The minimal value of the V_{eu} (GDP_{eu}) falls on point 7, and is equal to 0.16. Figure 2 shows two 3D-graphs which give the possibility to more illustratively present the changes in the V_{eu}. In this particular case it is essential to have the values of the extreme points, since with such values the V_{eu} value, and finally the GDP_{eu}, will be maximal.



a *b*

Fig. 2. 3D–graphics: a – V_{eu} (GDP_{eu}) = f(X1, X2); b – V_{eu} (GDP_{eu}) = f(X2, X4) при X1 = 1, X2 = X3 = X5 = 1…10, X4 = X6 = 0.1…0.99

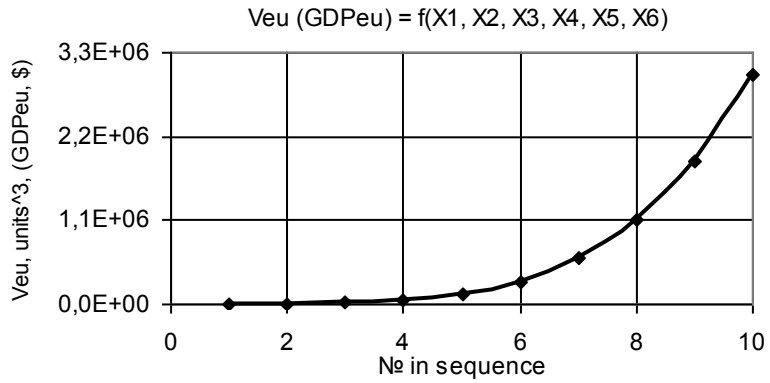
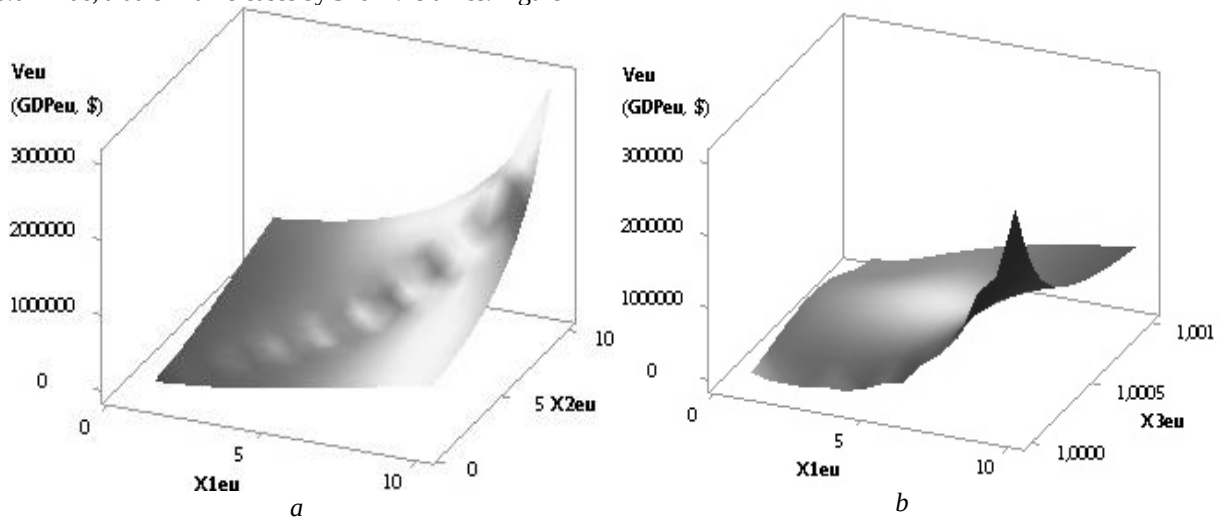


Fig. 3. Dependence V_{eu} (GDP_{eu}) = f(X1, X2, X3, X4, X5, X6) when X1 = X2 = 1…10, X3 = X5 = 1, X4 = X6 = 0.99

From the next Figure 3 it is clear that when X1 = X2 = 1…10, X3 = X5 = 1, X4 = X6 = 0.99 the plotted curve V_{eu} grows in full swing from the value 95.27 up to 3.01E+06, that is – it increases by 31622.78 times. Figure 4 shows two types of the present dependency in way of 3D-graphs. Such option is the most preferred one, since the biggest increase of the values V_{eu} (GDP_{eu}) takes place under the influence of external forces.



a *b*

Fig. 4. 3D–graphics: a – V_{eu} (GDP_{eu}) = f(X1, X2); b – V_{eu} (GDP_{eu}) = f(X1, X3) при X1 = X2 = 1…10, X3 = X5 = 1, X4 = X6 = 0.99

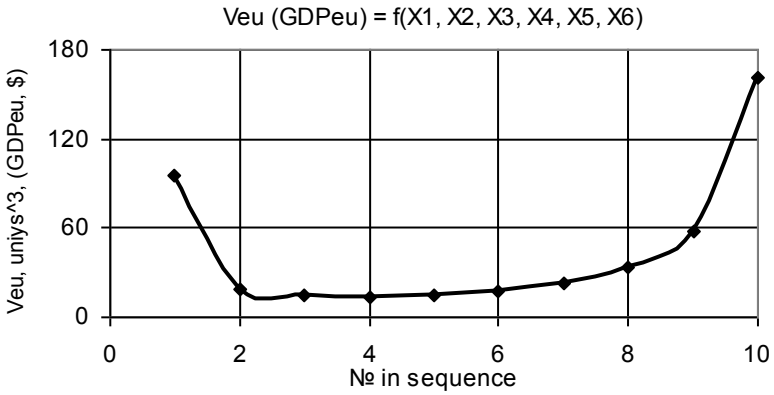
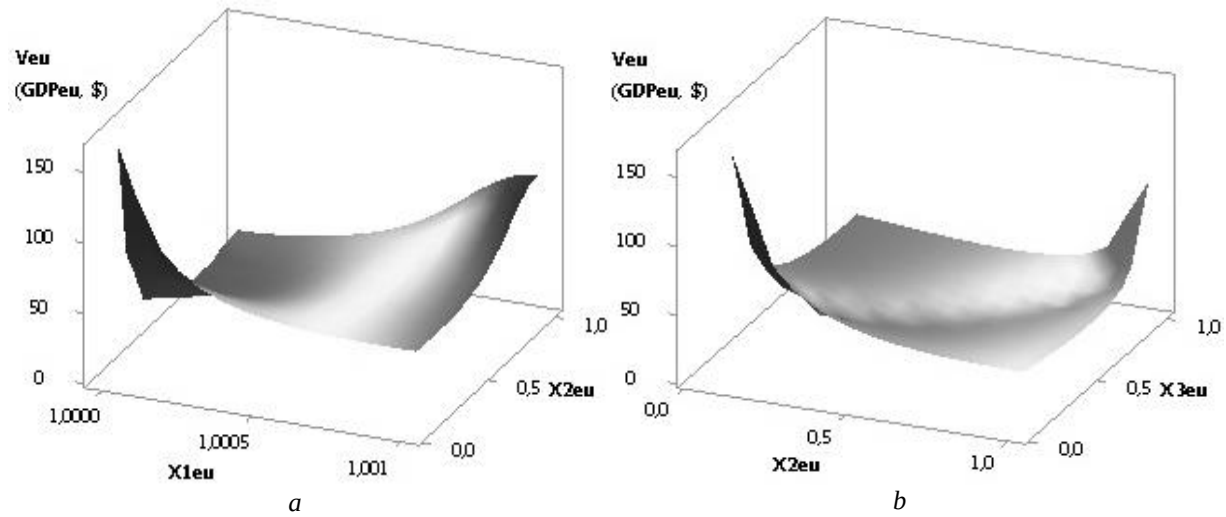


Fig. 5. Dependence V_{eu} (GDP_{eu}) = f(X1, X2, X3, X4, X5, X6) when X1 = 1, X2 = X3 = X5 = 1…0.1, X4 = X6 = 0.99…0.1

In Figure 5 we may see that the V_{eu} curve plotted has also the minimum of 14.08 in point 4, after which its values increase. This figure was plotted under the following values of the variables: X1 = 1, X2 = X3 = X5 = 1…0.1, X4 = X6 = 0.99…0.1. Here, it is also important to select the variables in extreme points, since in this case the economy of the country in question will have the maximal values of the V_{eu}. The depicted V_{eu} curve plotted in Figure 5 is presented by two 3D-graphs in Figure 6.



a *b*

Fig. 6. 3D–graphics: a – V_{eu} (GDP_{eu}) = f(X1, X2); b – V_{eu} (GDP_{eu}) = f(X2, X3) when X1 = 1, X2 = X3 = X5 = 1…0.1, X4 = X6 = 0.99…0.1

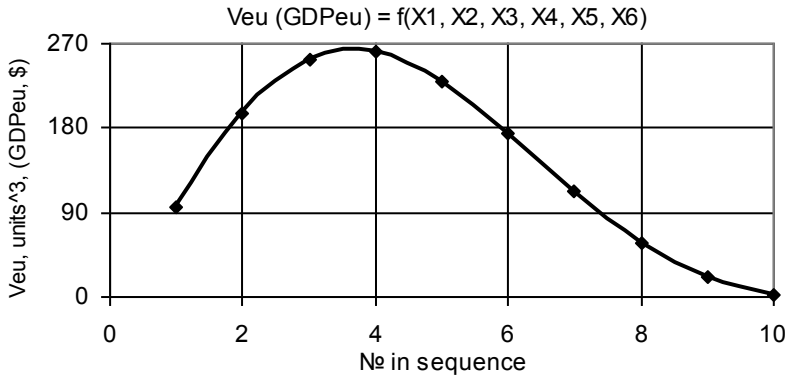
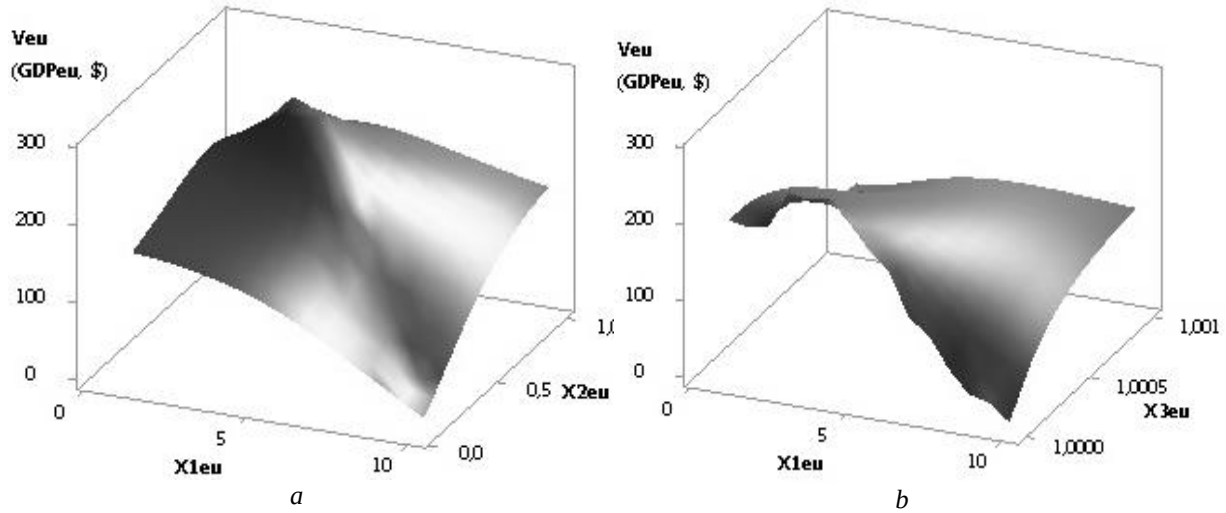


Fig. 7. Dependence V_{eu} (GDP_{eu}) = f(X1, X2, X3, X4, X5, X6) when X1 = 1…10, X2 = 1…0.1, X3 = X5 = 1, X4 = X6 = 0.99



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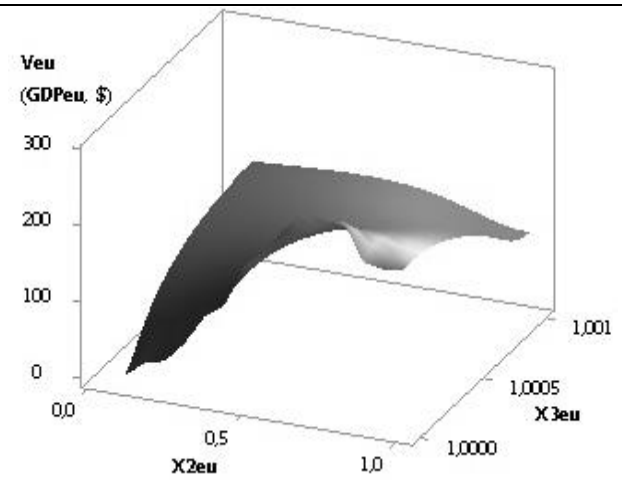


c

Fig. 8. 3D–graphics: a – V_{eu} (GDP_{eu}) = f(X1, X2); b – V_{eu} (GDP_{eu}) = f(X1, X3)
c – V_{eu} (GDP_{eu}) = f(X2, X3)
when X1 = 1…10, X2 = 1…0.1, X3 = X5 = 1, X4 = X6 = 0.99

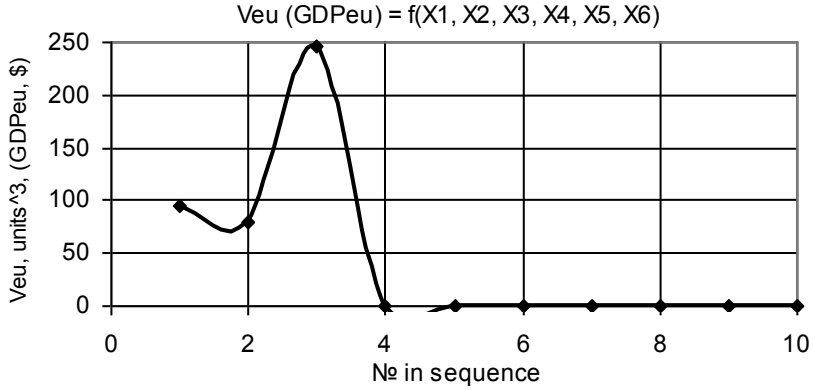
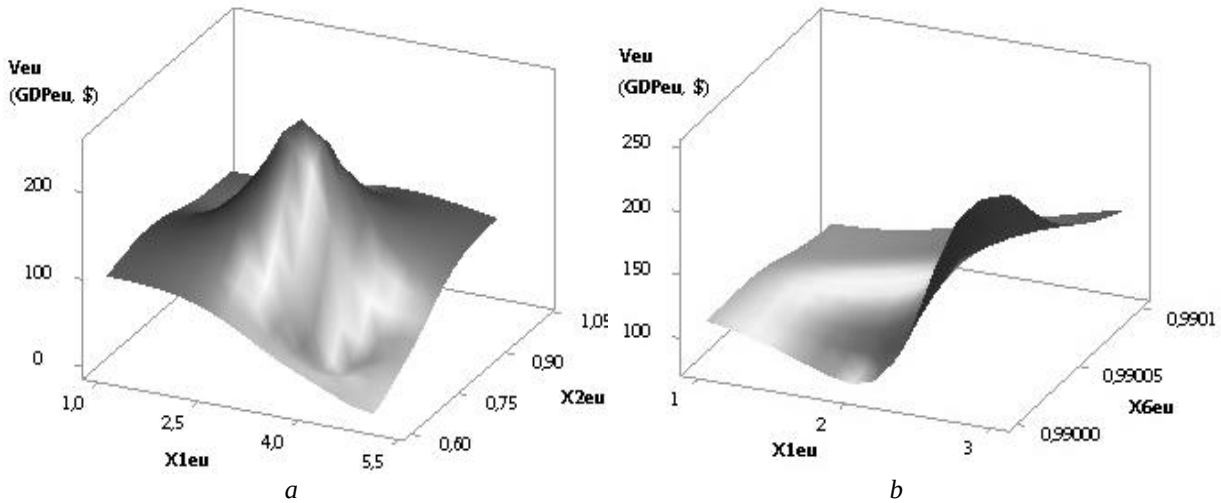


Fig. 9. Dependence V_{eu} (GDP_{eu}) = f(X1, X2, X3, X4, X5, X6)
when X1 = 1…10, X2 = X3 = X5 = 1…0.1, X4 = 0.99…0.1, X6 = 0.99

Figure 7 depicts the V_{eu} curve which has its maximum of 261.41 in point 4. Consequently, use of the following values of variables X1 = 1…10, X2 = 1…0.1, X3 = X5 = 1, X4 = X6 = 0.99 is quite expedient at the values which are close to the maximal ones. Figure 8 shows three examples of 3-dimensional surfaces V_{eu} (GDP_{eu}) = *f*(X1, X2, X3, X4, X5, X6).

As it is clear from Figure 9, here the V_{eu} values have their minimum of 80.18 in point 2, after which they grow up to 246.73, and then drop down to zero, since the V_{eu} calculations have no solutions with the subsequent values of the variables. During plotting of Figures 9 and 10 the following variables were used: X1 = 1…10, X2 = X3 = X5 = 1…0.1, X4 = 0.99…0.1, X6 = 0.99. Here, the four types of 3D-graphs are shown, which are presented in Figure 10.



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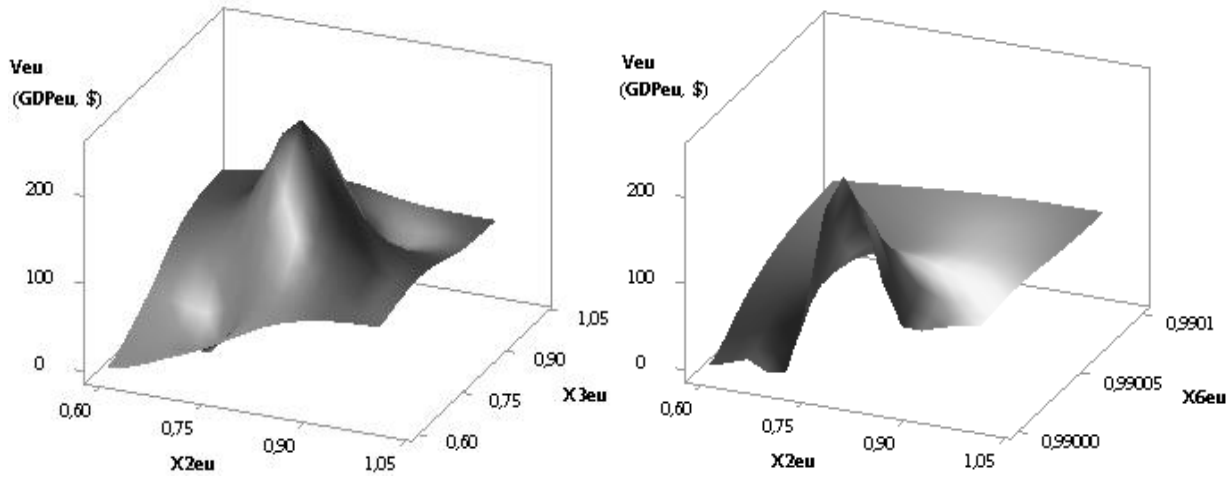


c *d*

Fig. 10. 3D–graphics: a – V_{eu} (GDP_{eu}) = f(X1, X2); b – V_{eu} (GDP_{eu}) = f(X6, X1); c – V_{eu} (GDP_{eu}) = f(X3, X2); d – V_{eu} (GDP_{eu}) = f(X2, X6); when X1 = 1…10, X2 = X3 = X5 = 1…0.1, X4 = 0.99…0.1, X6 = 0.99

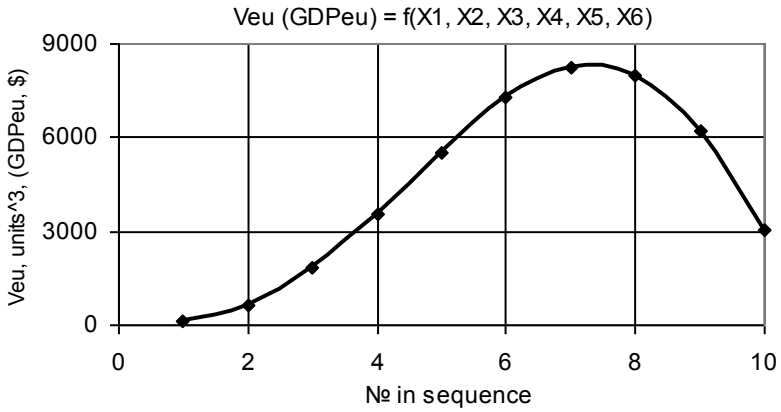
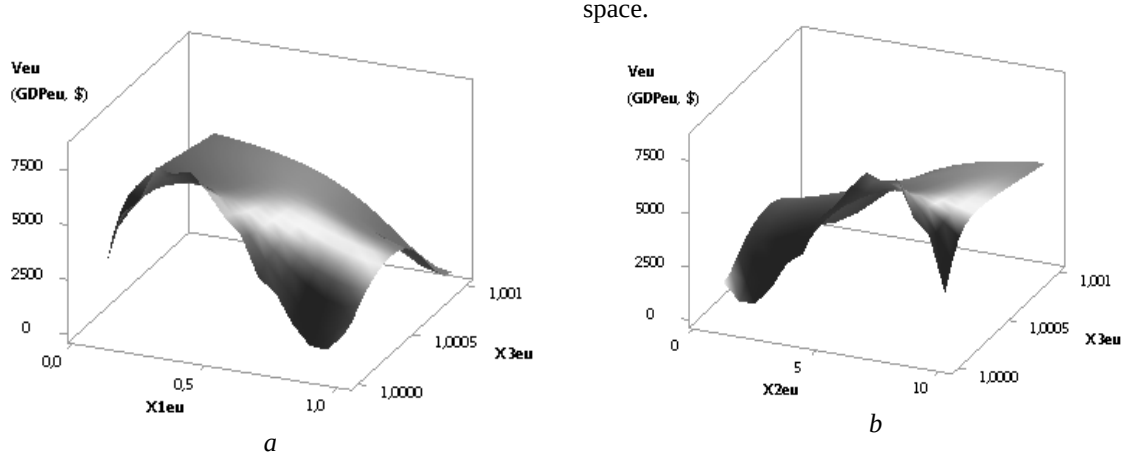


Fig. 11. Dependence V_{eu} (GDP_{eu}) = f(X1, X2, X3, X4, X5, X6) when X1 = 1…0.1, X2 = 1…10, X3 = X5 = 1, X4 = X6 = 0.99

From the following Figure 11 it is obvious that the plotted V_{eu} – curve has its maximal value of V_{eu} = 8266.58 in point 7. This particular Figure was plotted with X1 = 1…0.1, X2 = 1…10, X3 = X5 = 1, X4 = X6 = 0.99. The two Figures 12 show the way how the presented V_{eu}-curve changes in the three-dimensional space.



a *b*

Fig. 12. 3D–graphics: a – V_{eu} (GDP_{eu}) = f(X1, X3); b – V_{eu} (GDP_{eu}) = f(X2, X3) when X1 = 1…0.1, X2 = 1…10, X3 = X5 = 1, X4 = X6 = 0.99

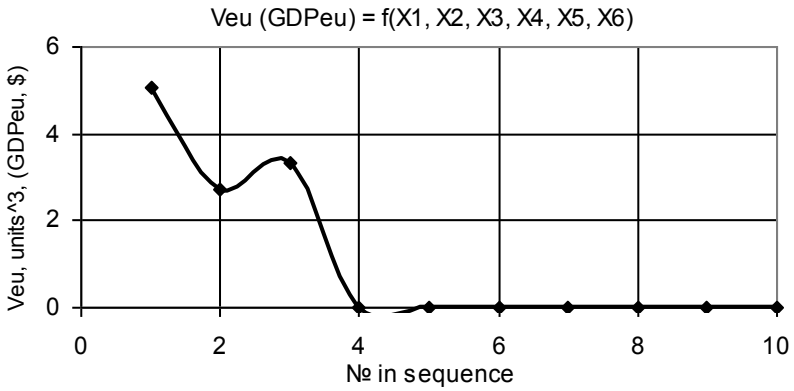


Fig. 13. Dependence V_{eu} (GDP_{eu}) = f(X1, X2, X3, X4, X5, X6) when X1 = 1, X2 = X5 = 1…0.1, X3 = 1…10, X4 = 0.1…0.99, X6 = 0.99

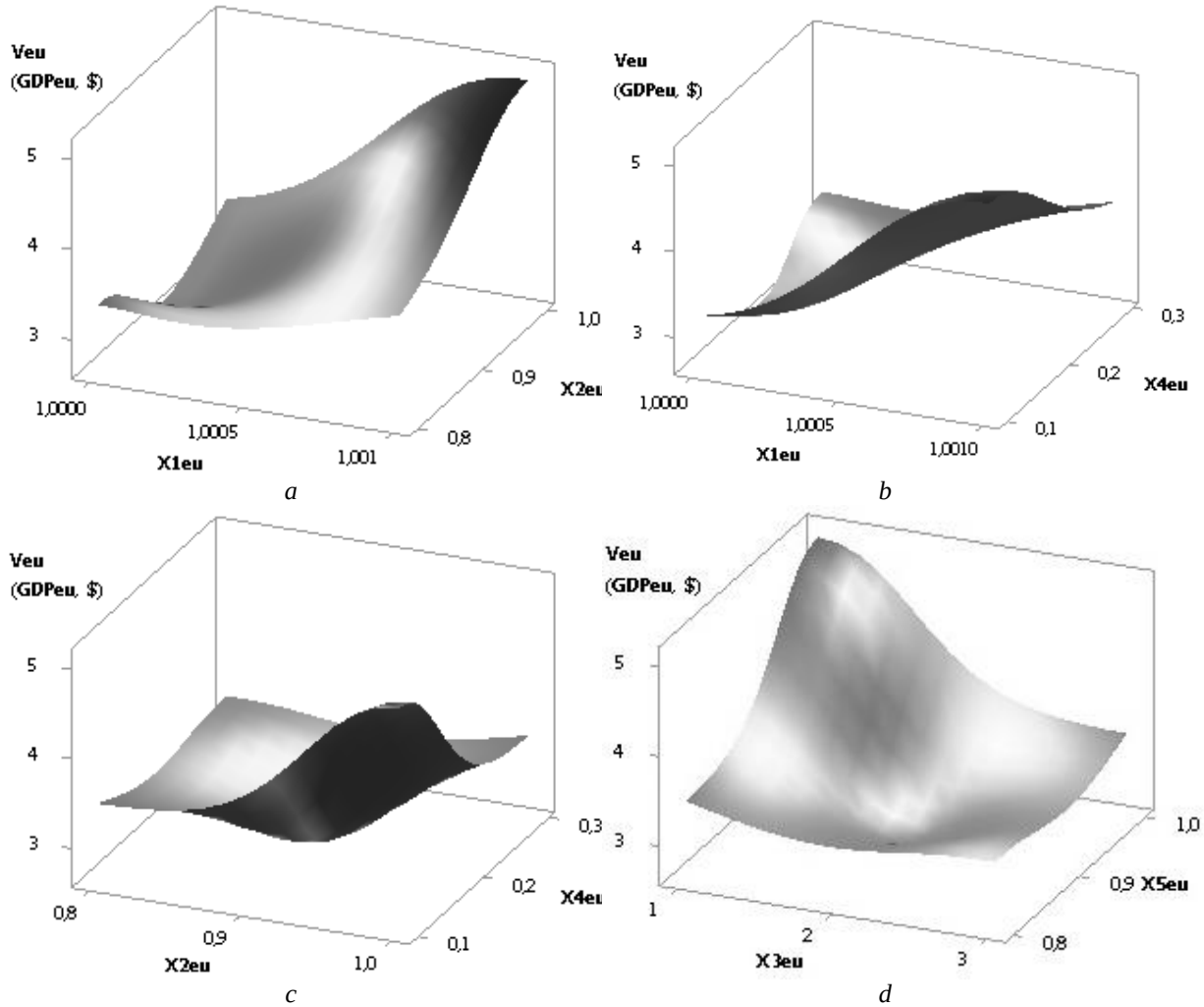


Fig. 14. 3D–graphics: a – V_{eu} (GDP_{eu}) = f(X1, X2); b – V_{eu} (GDP_{eu}) = f(X1, X4); c – V_{eu} (GDP_{eu}) = f(X2, X4); d – V_{eu} (GDP_{eu}) = f(X3, X5); when X1 = 1, X2 = 1…0.1, X3 = 1…10, X4 = 0.1…0.99, X5 = 1…0.1, X6 = 0.99

The following Figure 13 represents the V_{eu} (GDP_{eu}) curve when X1 = 1, X2 = X5 = 1…0.1, X3 = 1…10, X4 = 0,1…0.99, X6 = 0.99. From this 2D-graph it is seen that the plotted curve has its minimum of 2.7 in point 2, after which is gets its maximum of 3.34 in point 3, and next their values drop down to zero. The last Figure 14 displays the four types of three-dimensional surfaces V_{eu} (GDP_{eu}) for the curve plotted in Figure 13.

After the calculations were completed, their results were combined into the summary table, which gave totally 109 lines, in spite of the fact that only 82 two-dimensional graphs have been plotted. This resulted from the fact that a number of the plotted graphs had their maximums and minimums. The relationships were introduced into this summary table as the following:

• $V_{eub}…V_{euf}$, where V_{eub} – is the initial volume value of financial shell, unit^3; V_{euf} – is the final value of the volume of financial shell, unit^3;

• V_{euf}/V_{eub} – is the relation of financial shell final volume value to its initial value.

The ratio of finite volume of the economic shell V_{euf} to the initial V_{eub} shows by how many times the volume of the economic shell increased (decreased), that is V_{eu} (GDP_{eu}), under the influence of various external forces onto the one. Hence, by obtaining these data we may choose such values of variables X1, X2, X3, X4, X5 and X6, with which the volume of the economic shell remains invariable, or even grows further under influence of external forces. This means that in case of economical crisis, the selected values of the variables will make it possible to stay on the previous level, or even to increase the GDP of the country. After the Table had been plotted with its 109 lines available, it was converted in the following way, by having left only those values where $V_{euf}/V_{eub} \geq 1$. On the basis of such conversion the final table had been obtained, which contained 62 lines, which then was shortened down to 40 lines where the values of the ratio V_{euf}/V_{eub} in column 8 were located in descending order (refer to Table 1). As it is seen from the calculated data in Table 1 the ratios $V_{euf}/V_{eub} \geq 1$ start with 53 and end up with 1.4. This indicates that for the example in question the economy may maximally increase even under the pressure onto the ellipsoidal economic shell as by 53376.24 times, as compared to the initial state with the following values of the variables, being X1 = X2 = 1…10, X3 = X5 = 1, X4 = X6 = 0.99. Yet maximal growth of the economic shell will take place in this particular case with 1.49 at X1 = 1, X2 = X3 = 1…0.1, X4 = 0.1…0.99, X5 = 1…10, X6 = 0.99.

The next Table 2 was plotted on the basis of Table 1 in which the data obtained were split into groups by the number of variables used. As it is seen from Table 2 the data presented in it were grouped into 6 groups, starting from the group with one variable, and ending up with the group where all the variables were used. It is also seen from this table that the biggest group was presented by the group containing four variables.

Due to the fact that variable X2 characterises the thickness of the economic shell it means that if it was accepted as the single unit (X2 = 1) then Table 2 will change into Table 3 where there will be only 15 lines instead of 40. The X2 variable may be characterized as the ratio of national currency exchange rate to a currency used in international settlements (US dollar, Euro, etc.).

As a result the following conclusions may be made:

1. Utilization of different values of the variables makes it feasible to increase the GDP of the country, and in a number of instances to increase quite significantly and to lift the economy out of crisis;

2. During selection of the variables' values it is necessary to select such group in which the number of variables under consideration is minimal;

During selection of the variables' values it is necessary to select such variables which are less subject to changes.

Table 1.

Statistics of theoretical relation V_{euf}/V_{eub}, where $V_{euf}/V_{eub} \geq 1$ in descending order

No. in sequence	X1	X2	X3	X4	X5	X6	$V_{eub}…V_{euf}$ ($GDP_{eub}…GDP_{euf}$. $)	V_{euf} / V_{eub} (GDP_{euf}/ GDP_{eub})
	1	2	3	4	5	6	7	8
1.	1…10	1…10	1…0.1	0.99…0.1	1	0.99	95.27…5.08E+06	53376.24
2.	1	1…10	1…0.1	0.99…0.1	1…0.1	0.99…0.1	95.27…5.08E+06	53376.24
3.	1…10	1…10	1	0.99	1	0.99	95.27…3.01E+06	31622.78
4.	1	1…10	1…0.1	0.99	1	0.99	95.27…3.01E+06	31622.78
5.	1	1…10	1…0.1	0.1…0.99	1	0.99	5.08…95266.87	18734.93
6.	1…10	1…10	1…10	0.1…0.99	1	0.99	5.08…95266.87	18734.93
7.	1…0.1	1…10	1…0.1	0.1…0.99	1	0.99	5.08…9.5E+04	18734.93
8.	1	1…10	1…0.1	0.1…0.99	1…0.1	0.1…0.99	1.87…27568.22	14778.39
9.	1	1	1…0.1	0.99…0.1	1…0.1	0.99…0.1	26.51…1.61E+05	6065.80
10.	1…10	1	1…0.1	0.99…0.1	1…0.1	0.99…0.1	64.02…1.61E+05	2511.77
11.	1	1…10	1…10	0.1…0.99	1	0.1…0.99	1.87…3012.60	1614.95
12.	1	1	1…10	0.1…0.99	1…0.1	0.99…0.1	2.03…3012.60	1481.61
13.	1…10	1	1…0.1	0.1…0.99	1…0.1	0.1…0.99	1.87…1875.78	1005.54
14.	1	1…10	1	0.99	1	0.99	95.27…95266.87	1000.0
15.	1	1	1	0.99	1…0.1	0.99…0.1	95.27…95266.87	1000.0
16.	1…10	1…10	1…10	0.99	1	0.99	95.27…95266.87	1000.0
17.	1	1…10	1…0.1	0.99…0.1	1…0.1	0.1…0.99	34.95…24559.53	702.73
18.	1…10	1	1…10	0.99…0.1	1	0.99	3012.60	592.45
19.	1	1	1	0.99…0.1	1…0.1	0.99…0.1	20.67…5084.99	246.05
20.	1	1…10	1…0.1	0.1…0.99	1…0.1	0.99	5.08…916.0	180.14
21.	1…10	1…0.1	1…0.1	0.99…0.1	1…0.1	0.99…0.1	54.66…5084.99	93.03
22.	1…0.1	1…10	1	0.99	1	0.99	95.27…8266.58	86.77
23.	1	1	1	0.1…0.99	1…0.1	0.1…0.99	1.87…127.63	68.42

24.	1…10	1…10	1…10	0.99…0.1	1	0.99	95.27…5084.99	53.38
25.	1	1	1	0.99	1…0.1	0.1…0.99	34.95…1738.10	49.73
26.	1	1…0.1	1…10	0.1…0.99	1…0.1	0.99	5.08…176.28	34.67
27.	1	1	1…0.1	0.1…0.99	1…10	0.99…0.1	0.034…1.10	32.72
28.	1	1…10	1…10	0.99	1	0.99	95.27…3012.60	31.62
29.	1…10	1…0.1	1…0.1	0.1…0.99	1	0.99	5.08…95.27	18.73
30.	1	1	1	0.99…0.1	1…0.1	0.1…0.99	8.38…113.70	13.57
31.	1	1…0.1	1…0.1	0.99…0.1	1…0.1	0.99…0.1	14.08…160.80	11.42
32.	1	1…10	1…0.1	0.99…0.1	1…10	0.99	5.37…58.99	10.98
33.	1	1…10	1…10	0.1…0.99	1…10	0.99	0.16…1.11	6.71
34.	1	1	1…10	0.99…0.1	1…0.1	0.1…0.99	1.42…7.74	5.44
35.	1…10	1…0.1	1…0.1	0.99	1	0.99	95.27…495.02	5.20
36.	1	1	1	0.1…0.99	1…10	0.99…0.1	0.0075…0.03	4.61
37.	1	1	1…10	0.1…0.99	1…10	0.1…0.99	0.00031…0.001	3.59
38.	1…10	1…0.1	1…0.1	0.99…0.1	1…0.1	0.99	80.18…246.73	3.08
39.	1	1	1	0.99	1	0.1…0.99	34.95…95.27	2.73
40.	1	1…0.1	1…0.1	0.1…0.99	1…10	0.99	0.0007…0.0011	1.49

Table 2.

The statistics of variable parameters for V_{euf}/V_{eub}, where $V_{euf}/V_{eub} \geq 1$ in descending order for groups

No. in sequence	X1	X2	X3	X4	X5	X6	$V_{eub}…V_{euf}$ ($GDP_{eub}…GDP_{euf}$. $)	V_{euf} / V_{eub} (GDP_{euf}/ GDP_{eub})
	1	2	3	4	5	6	7	8
1 variable								
1.	1	1…10	1	0.99	1	0.99	95.27…95266.87	1000.0
2.	1	1	1	0.99	1	0.1…0.99	34.95…95.27	2.73
2 variables								
3.	1…10	1…10	1	0.99	1	0.99	95.27…3.01E+06	31622.78
4.	1	1…10	1…0.1	0.99	1	0.99	95.27…3.01E+06	31622.78
5.	1	1	1	0.99	1…0.1	0.99…0.1	95.27…95266.87	1000.0
6.	1…0.1	1…10	1	0.99	1	0.99	95.27…8266.58	86.77
7.	1	1	1	0.99	1…0.1	0.1…0.99	34.95…1738.10	49.73
8.	1	1…10	1…10	0.99	1	0.99	95.27…3012.60	31.62
3 variables								
9.	1	1…10	1…0.1	0.1…0.99	1	0.99	5.08…95266.87	18734.93
10.	1…10	1…10	1…10	0.99	1	0.99	95.27…95266.87	1000.0
11.	1…10	1	1…10	0.99…0.1	1	0.99	3012.60	592.45
12.	1	1	1	0.99…0.1	1…0.1	0.99…0.1	20.67…5084.99	246.05
13.	1	1	1	0.1…0.99	1…0.1	0.1…0.99	1.87…127.63	68.42
14.	1	1	1	0.99…0.1	1…0.1	0.1…0.99	8.38…113.70	13.57
15.	1…10	1…0.1	1…0.1	0.99	1	0.99	95.27…495.02	5.20
16.	1	1	1	0.1…0.99	1…10	0.99…0.1	0.0075…0.03	4.61
4 variables								
17.	1…10	1…10	1…0.1	0.99…0.1	1	0.99	95.27…5.08E+06	53376.24
18.	1…10	1…10	1…10	0.1…0.99	1	0.99	5.08…95266.87	18734.93
19.	1…0.1	1…10	1…0.1	0.1…0.99	1	0.99	5.08…9.5E+04	18734.93
20.	1	1	1…0.1	0.99…0.1	1…0.1	0.99…0.1	26.51…1.61E+05	6065.8
21.	1	1…10	1…10	0.1…0.99	1	0.1…0.99	1.87…3012.60	1614.95
22.	1	1	1…10	0.1…0.99	1…0.1	0.99…0.1	2.03…3012.60	1481.61
23.	1	1…10	1…0.1	0.1…0.99	1…0.1	0.99	5.08…916.0	180.14
24.	1…10	1…10	1…10	0.99…0.1	1	0.99	95.27…5084.99	53.38
25.	1	1…0.1	1…10	0.1…0.99	1…0.1	0.99	5.08…176.28	34.67
26.	1	1	1…0.1	0.1…0.99	1…10	0.99…0.1	0.034…1.10	32.72
27.	1…10	1…0.1	1…0.1	0.1…0.99	1	0.99	5.08…95.27	18.73
28.	1	1…10	1…0.1	0.99…0.1	1…10	0.99	5.37…58.99	10.98
29.	1	1…10	1…10	0.1…0.99	1…10	0.99	0.16…1.11	6.71
30.	1	1	1…10	0.99…0.1	1…0.1	0.1…0.99	1.42…7.74	5.44

31.	1	1	1…10	0.1…0.99	1…10	0.1…0.99	0.00031…0.001	3.59
32.	1	1…0.1	1…0.1	0.1…0.99	1…10	0.99	0.0007…0.0011	1.49
5 variables								
33.	1	1…10	1…0.1	0.99…0.1	1…0.1	0.99…0.1	95.27…5.08E+06	53376.24
34.	1	1…10	1…0.1	0.1…0.99	1…0.1	0.1…0.99	1.87…27568.22	14778.39
35.	1…10	1	1…0.1	0.99…0.1	1…0.1	0.99…0.1	64.02…1.61E+05	2511.77
36.	1…10	1	1…0.1	0.1…0.99	1…0.1	0.1…0.99	1.87…1875.78	1005.54
37.	1	1…10	1…0.1	0.99…0.1	1…0.1	0.1…0.99	34.95…24559.53	702.73
38.	1	1…0.1	1…0.1	0.99…0.1	1…0.1	0.99…0.1	14.08…160.80	11.42
39.	1…10	1…0.1	1…0.1	0.99…0.1	1…0.1	0.99	80.18…246.73	3.08
all the variables								
40.	1…10	1…0.1	1…0.1	0.99…0.1	1…0.1	0.99…0.1	54.66…5084.99	93.03

Table 3.

The statistics of variable parameters for V_{euf} /V_{eub}, where V_{euf} /V_{eub} ≥ 1 and X2 = 1 in descending order for groups

No. in sequence	X1	X2	X3	X4	X5	X6	$V_{eub}…V_{euf}$ ($GDP_{eub}…GDP_{euf}$. $)	V_{euf} / V_{eub} (GDP_{euf} / GDP_{eub})
	1	2	3	4	5	6	7	8
1 variable								
1.	1	1	1	0.99	1	0.1…0.99	34.95…95.27	2.73
2 variables								
2.	1	1	1	0.99	1…0.1	0.99…0.1	95.27…95266.87	1000.0
3.	1	1	1	0.99	1…0.1	0.1…0.99	34.95…1738.10	49.73
3 variables								
4.	1…10	1	1…10	0.99…0.1	1	0.99	3012.60	592.45
5.	1	1	1	0.99…0.1	1…0.1	0.99…0.1	20.67…5084.99	246.05
6.	1	1	1	0.1…0.99	1…0.1	0.1…0.99	1.87…127.63	68.42
7.	1	1	1	0.99…0.1	1…0.1	0.1…0.99	8.38…113.70	13.57
8.	1	1	1	0.1…0.99	1…10	0.99…0.1	0.0075…0.03	4.61
4 variables								
9.	1	1	1…0.1	0.99…0.1	1…0.1	0.99…0.1	26.51…1.61E+05	6065.8
10.	1	1	1…10	0.1…0.99	1…0.1	0.99…0.1	2.03…3012.60	1481.61
11.	1	1	1…0.1	0.1…0.99	1…10	0.99…0.1	0.034…1.10	32.72
12.	1	1	1…10	0.99…0.1	1…0.1	0.1…0.99	1.42…7.74	5.44
13.	1	1	1…10	0.1…0.99	1…10	0.1…0.99	0.00031…0.001	3.59
5 variables								
14.	1…10	1	1…0.1	0.99…0.1	1…0.1	0.99…0.1	64.02…1.61E+05	2511.77
15.	1…10	1	1…0.1	0.1…0.99	1…0.1	0.1…0.99	1.87…1875.78	1005.54

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