
USE OF ECONOMETRIC MODELING AND FORECASTING METHODS IN THE PROCESS OF ANALYZING FINANCIAL REPORTING INDICATORS OF AN ECONOMIC ENTITY

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Abstract.In this article, the ways of using econometric modeling and forecasting methods in the analysis of financial reporting indicators based on the data of the pulp and paper enterprise are researched. In particular, information from 2015-2021 served as panel data, and data from 2022-2025 served as a basis for socio-economic forecasting and future forecasting. based on the received information, scientific proposals and practical recommendations were developed for the future development of the enterprise.

Keywords.net asset value, long-term assets, current assets, long-term liabilities,current liabilities,net income

Introduction

Today, improving the financial condition of enterprises and developing them based on market principles is one of the important issues. The foreign enterprise of “Global Komsco DAEWOO” limited liability company (“Global Komsco DAEWOO” LLC) has been operating in our country since 2015. Analysis of the impact of net assets on the financial potential of this enterprise and forecasting for future periods is one of the main issues facing the enterprise today.

In this regard, it is important to create multi-factor econometric models for their forecasting in the short and long term by analyzing and evaluating the company's financial indicators. A multifactor econometric model helps to study the influence of a number of factors on the resulting factor [1, p.118; 2, p.145].

Literature Review

The joint Bayesian structure allows us to compute a joint predictive distribution for the output paths of these countries over the next 100 years. This predictive distribution can be used for simulations requiring projections into the deep future, such as estimating the costs of climate change. The model's pooling of information across countries results in tighter prediction intervals than are achieved using univariate information sets. Still, even using more than a century of data on many countries, the 100-year growth paths exhibit very wide uncertainty [3, p.2].

Economists prof. A. Ishnazarov and others suggest an alternative way to check the significance of the multiple regression model coefficient estimates made in the process of econometric modeling and forecasting of the economic entity's financial indicators - comparing the Probability value with the established critical level. If the r-value (p-significant) is less than the established critical level, then the null hypothesis (about the non-significance of model coefficients) is rejected, and it follows that the coefficient is significant [4, p.29].

Net income is the starting point for creating a statement of cash flows according to US GAAP (Generally Accepted Accounting Principles).Under IFRS, companies may use

different starting points to report operating cash flows indirectly. For example, operating profit or loss, profit or loss from continuing operations, profit or loss before tax [5].

Prof. Khasanov B.A. and other scientists say: "The right way is to calculate the positive and negative differences in the movement of funds from economic activity by the cash method. Accounting balance as the information supply for the analysis of funds in the curved method, the basis of the methodology is the balance method of analysis. In this method, the increase in liabilities and the decrease in assets of the balance sheet are reflected in the inflow of funds. In the outflow of funds, the balance sheet characterizes the increase of assets and the decrease of liabilities" [6].

Methodology

Such research methods as analysis and synthesis of scientific knowledge, systematic approach, comparison, classification, grouping, absolute and relative quantities of statistical and financial analysis have been widely used in this article.

Analysis and results

Based on the objectives of the research, the following factors were selected for the multifactor econometric model: as a result factor, the value of net assets of the enterprise, thousand soums (Y), and influencing factors - long-term assets, thousand soums (X_1), current assets, thousand soums (X_2), serving as long-term liabilities, (X_3), current liabilities, (X_4), and net income, (X_5).

The results of descriptive statistics on the factors influencing the value of net assets of "Global Komsco DAEWOO" LLC are presented in Table 1 below.

Table 1

Descriptive statistics on factors affecting the value of net assets of "Global Komsco DAEWOO" LLC

	Y	X1	X2	X3	X4	X5
Mean	59249907	29301933	42383717	84130795	12351242	18727458
Median	67431134	28572175	38268360	1.00E+08	13426799	19033460
Maximum	1.08E+08	39069614	87845124	1.16E+08	17365795	30574506
Minimum	14283215	21021453	10245369	30910910	5225783.	6021454.
Std. Dev.	31844463	4573853.	26511634	33825370	4644364.	9164083.
Skewness	-0.063151	0.429917	0.424602	-0.669532	-0.427789	-0.067834
Kurtosis	1.730387	3.382903	1.873080	1.665731	1.627382	1.530834
Jarque-Bera	0.813935	0.442964	0.995548	1.786682	1.308047	1.088428
Probability	0.665666	0.801330	0.607882	0.409286	0.519949	0.580298
Sum	7.11E+08	3.52E+08	5.09E+08	1.01E+09	1.48E+08	2.25E+08
Sum Sq. Dev.	1.12E+16	2.30E+14	7.73E+15	1.26E+16	2.37E+14	9.24E+14
Observations	12	12	12	12	12	12

The average value (mean), median (median), maximum and minimum values (maximum, minimum) of each factor can be seen from the table data. In addition, the standard deviation of each factor (std. dev. (Standard Deviation) - the coefficient of standard deviation shows how much each variable deviates from the average value) is presented.

Skewness is a coefficient of asymmetry, and if it is equal to zero, it means that the distribution is normal and that the distribution is symmetrical. If this coefficient is significantly different from 0, then the distribution is asymmetric (that is, not symmetrical). If the coefficient of asymmetry is greater than 0, that is, it is positive, then the normal distribution graph for the studied factor is shifted to the right. If it is less than 0, that is, it is negative, then the normal distribution graph for the studied factor is shifted to the left. Graphs of normal distribution functions of all factors are presented in Figure 1 below.

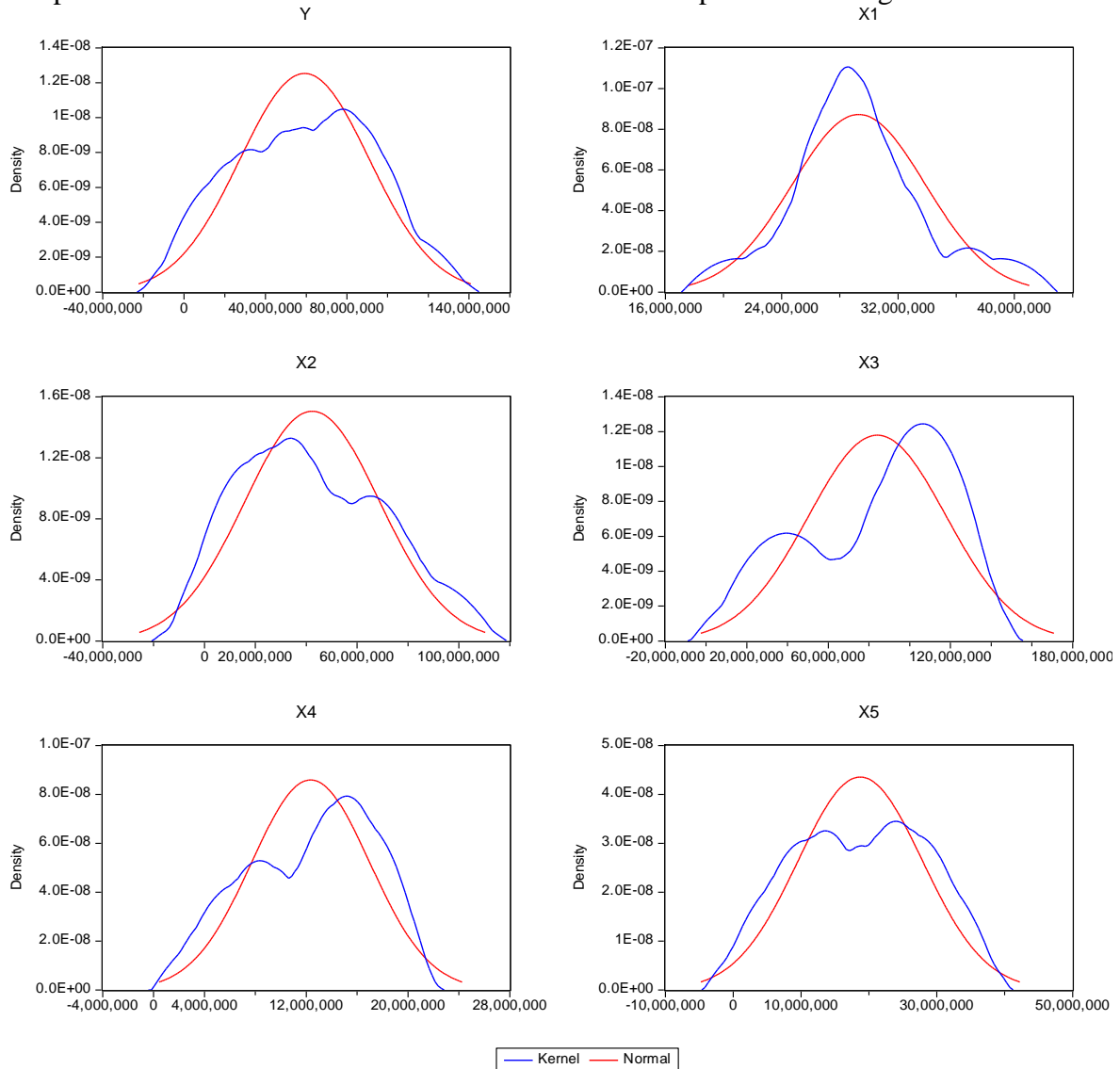


Figure 1. Graphs of normal distribution functions of factors

It can be seen from Figure 1 that almost all factors obey the normal distribution law. Since the asymmetry coefficients of the factors Y, X₃, X₄ and X₅ have negative values, the “left curve” in their graphs is longer than the “right curve”, and it can be seen that the graph of the distribution function is shifted to the right.

These shifts mainly indicate changes in the dynamics of the studied factors. In some years, some factors had a sharp increase, while others did not change significantly. In general, all the studied factors obey the law of normal distribution.

In addition, the values of the kurtosis index of the X₁ factor are greater than 3.0 (3.382903). This shows that the graph of this indicator function is “sharper” than the graph of the normal distribution function (Table 1).

A graph of the normal distribution of the resulting factor is presented in Figure 2 below.

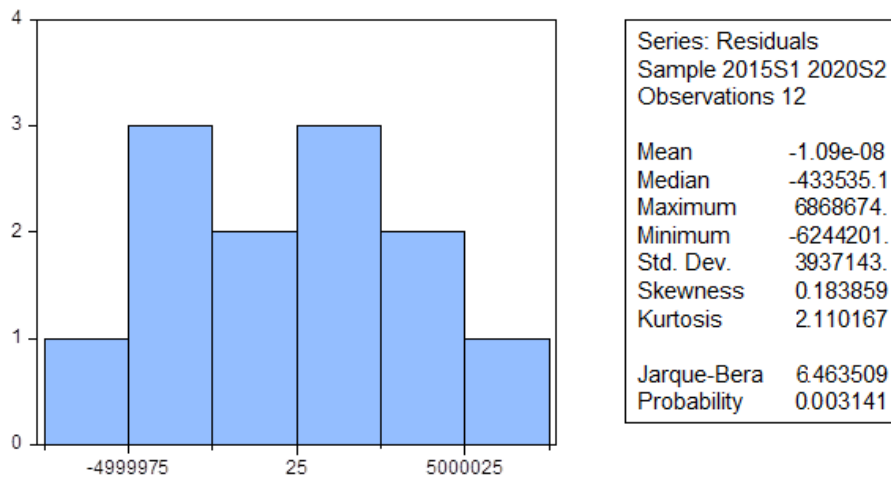


Figure 2. Checking whether the resulting factor obeys the normal distribution law

The Jacques-Bera test is used to test whether the outcome factor (Y) obeys the normal distribution law. This criterion is a statistical criterion that tests the errors of observations to a normal distribution with moments of the third moment (asymmetry) and fourth moment (excess) of the normal distribution and $S = 0$ and $K = 3$.

From Figure 2, it can be clearly seen that the resulting factor obeys a normal distribution. This is confirmed by the calculated parameters and criteria, that is, the calculated Jacques-Bera coefficient is equal to 6.46 and its probability is less than 0.05 (prob=0.003141).

In order to select factors for the multi-factor econometric model, which will be built on the factors affecting the value of the net assets of “Global Komsco DAEWOO” LLC, it is necessary to conduct a correlation analysis between the factors. For this, special and pair correlation coefficients are calculated between the factors [7, p.57]. The matrix of individual and pairwise correlation coefficients between the factors is presented in Table 2 below.

It can be seen from this table 2 that the private correlation coefficients show the density of connections between the resulting factor (Y) and the factors affecting it. Therefore, private correlation coefficients indicate the existence of various connections between the resulting factor - the value of net assets of the enterprise (Y) and the influencing factors.

Table 2**Matrix of individual and pairwise correlation coefficients between factors**

Covariance Analysis: Ordinary

Date: 06/03/22 Time: 23:14

Sample: 2015S1 2020S2

Included observations: 12

Correlation

SSCP

Probability

Y	1.000000					
X1	0.651320	1.000000				
	2.714347	-----				
	0.0218	-----				
X2	0.957822	0.609274	1.000000			
	10.54029	1.181747	-----			
	0.0000	0.0798	-----			
X3	0.920097	0.463659	0.606553	1.000000		
	7.428294	1.654849	2.314464	-----		
	0.0000	0.1290	0.0615	-----		
X4	0.959490	0.523580	0.407112	0.534843	1.000000	
	10.76925	1.943370	0.815405	1.325998	-----	
	0.0000	0.0806	0.1451	0.0739	-----	
X5	0.970596	0.594138	0.557981	0.606835	0.074855	1.000000
	12.75070	2.335795	1.56166	1.803714	0.83408	-----
	0.0000	0.0416	0.0784	0.0841	0.1412	-----

Therefore, the density of connection between the value of net assets (Y) and long-term assets (X_1) of the enterprise is equal to 0.6513. This shows that there is an average connection between these factors. Also, there is a moderately strong relationship between the company's net asset value (Y) and current assets (X_2), that is, the value of the private correlation coefficient between them is equal to 0.9578. There is a moderately strong relationship between the company's net asset value (Y) and long-term liabilities (X_3), that is, the private correlation coefficient between them is equal to 0.9200. There is a strong relationship between the company's net asset value (Y) and current liabilities (X_4), that is, the private correlation coefficient between them is equal to 0.9594. Also, there is a strong relationship between the company's net asset value (Y) and net income (X_4), that is, the private correlation coefficient between them is equal to 0.9905.

Therefore, the presence of strong connections between the resulting factors and the factors that influence it causes these factors to participate in the multifactor econometric model.

In addition to the correlations between the factors presented above, Table 2 also contains pairwise correlation coefficients, which show the correlation densities between the influencing factors (X_i and X_j). The most important thing here is that the influencing factors should not be closely related to each other. That is, there should be no multicollinearity between influencing factors. Multicollinearity is said to exist if the value of the pairwise correlation coefficient between two influencing factors is greater than 0.7. From the data of Table 2, it can be seen that the connection densities between the influencing factors are not greater than 0.7. Judging by the pairwise correlation coefficients in the correlation matrix, there is no multicollinearity between the influencing factors.

Also, in Table 2, coefficients for determining the reliability and probability of correlation coefficients were calculated (values in the rows below the calculated correlation coefficients). At the bottom of each correlation coefficient is its estimated Student's t-test value and probability.

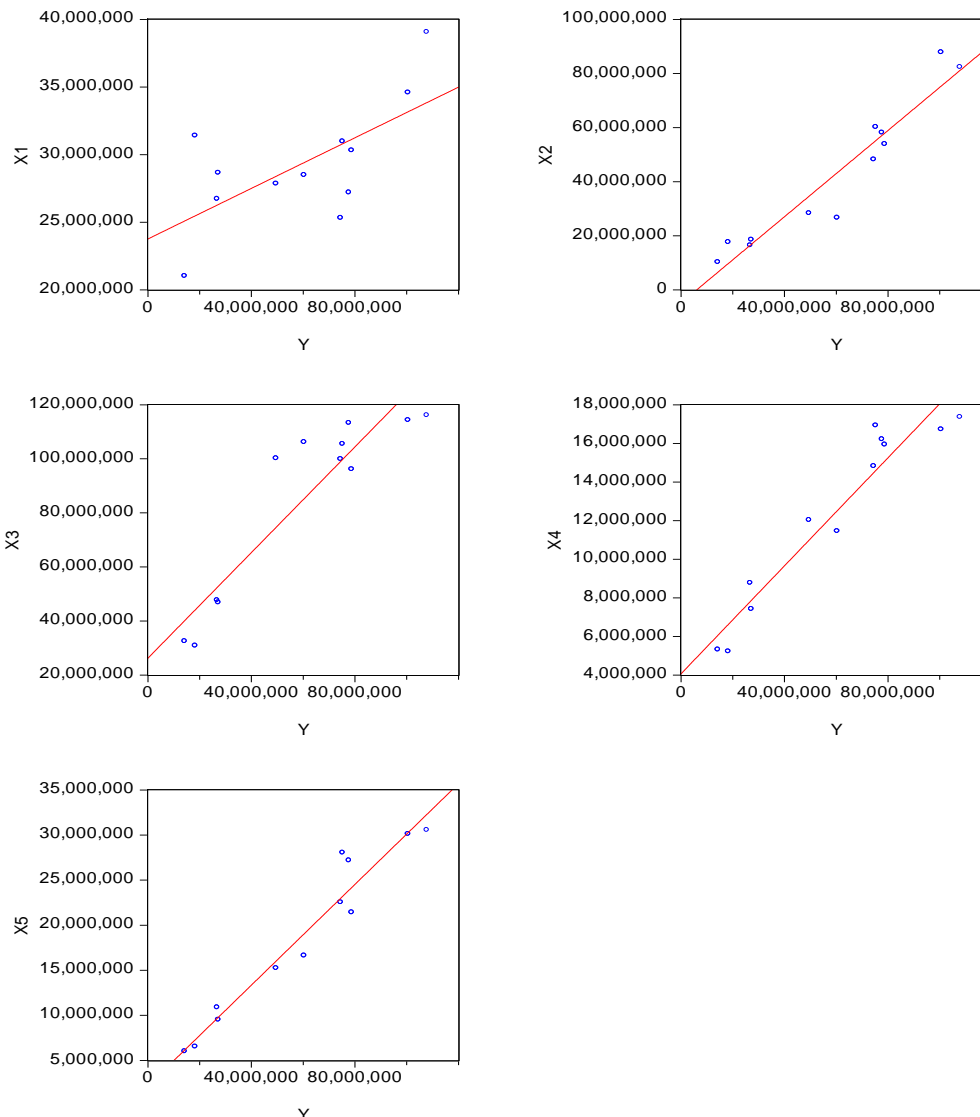


Figure 3. View of forms of communication on factors affecting the value of net assets of "Global Komsco DAEWOO" LLC

In checking the above, that is, in determining the densities and forms of connections between the factors, we look at their dot graphs to determine the relationship of each factor with the resulting indicator (Y) (Figure 3).

Visually in the graphs of Figure 3, it can be said that there is a correct relationship between the resulting factor (Y) and all influencing (X_i) factors. Therefore, the correlation coefficients between the factors included in the multifactor econometric model of the enterprise's net asset value (Y) fully meet the requirements for the calculated value and probability of Student's t-test.

This means that we include all factors in the multifactor econometric model of the value of net assets (Y) of Global Komsco DAEWOO LLC.

In general, a multifactor econometric model looks like this [2, p.89]:

$$\ln y = \ln a_0 + a_1 \ln x_1 + a_2 \ln x_2 + \dots + a_n \ln x_n + \varepsilon, \quad (1)$$

where $\ln y$ – logarithmic values of the resulting factor, $\ln x_i$ – logarithmic values of influencing factors, ε – random error.

The “method of least squares” is used to determine the unknown $a_0, a_1, a_2, \dots, a_n$ parameters in the multifactor econometric model (1).

We use the EViews program to calculate the unknown parameters of the multifactor econometric model, which is based on the value of the net assets of “Global Komsco DAEWOO” LLC. The calculation results are presented in Table 3 below.

Table 3

Parameters of the multifactor econometric model calculated on the value of net assets of "Global Komsco DAEWOO" LLC and factors affecting it

Dependent Variable: Y

Method: Least Squares

Date: 06/03/22 Time: 23:15

Sample: 2015S1 2020S2

Included observations: 12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1	0.341058	0.337451	3.010691	0.0412
X2	0.765884	0.274037	2.794818	0.0314
X3	0.351366	0.149000	2.358171	0.0264
X4	1.619561	1.883031	2.860082	0.0228
X5	-1.867450	1.492290	-3.251398	0.0174
C	-8010503.	6107756.	-1.311530	0.2376
R-squared	0.844731	Mean dependent var		11.26338
Adjusted R-squared	0.794146	S.D. dependent var		0.573909
S.E. of regression	0.408184	Akaike info criterion		1.177365
Sumsquaredresid	2.999051	Schwarz criterion		1.326582
Loglikelihood	-9.362330	Hannan-Quinn criter.		1.209749
F-statistic	107.6854	Durbin-Watson stat		1.911567
Prob(F-statistic)	0.000000			

Using the data of the table 3 above, we present in an analytical form the multifactor econometric model on the factors affecting the value of the net assets of “Global Komsco DAEWOO” LLC:

$$\hat{Y} = -8010503,1 + 0,3411X_1 + 0,7659X_2 + 0,3514X_3 + 1,6196X_4 - 1,8674X_5, \quad (2)$$

The calculated multifactor econometric model shows that if long-term assets (X_1) in the enterprise increase by an average of one thousand soums, the net assets of the enterprise (Y) increase by an average of 0.3411 thousand soums. If the value of current assets in the enterprise increases by an average of 1 thousand soums (X_2), the net assets of the enterprise (Y) increase by an average of 0.7659 thousand soums. In the enterprise, long-term liabilities (X_3) increased by 0.3514 thousand soums, and the average net assets of the enterprise (Y) increased by 0.3514 thousand soums. The company's current liabilities (X_4) increased by 1,6196 thousand soums, and the average net assets of the company (Y) increased by 1,6196,000 soums. The net income of the enterprise (X_5) increased by 1,000 soums, while the average net assets of the enterprise (Y) decreased by -1,8674,000 soums.

To check the quality of the multifactor econometric model (2) constructed on factors affecting the value of net assets of “Global Komsco DAEWOO” LLC, we examine the coefficient of determination. The coefficient of determination shows how many percent of the resulting factor is made up of the factors included in the model. The calculated coefficient of determination (R^2 - R-squared (Table 3)) is equal to 0.8447. This shows that 84.47 percent (2) of the company's net assets (Y) are made up of the factors included in the multifactor econometric model. The remaining 15.53 percent (100.0-84.47) show that it is the influence of factors that have not been taken into account.

The fact that the standard errors of the factors in the multifactor econometric model (2) composed of the factors affecting the value of the net assets of “Global Komsco DAEWOO” LLC took small values also indicates that the statistical significance of the model is high.

Fisher's F-test is used to check the statistical significance of the multi-factor econometric model (2) based on the factors influencing the value of the net assets of “Global Komsco DAEWOO” LLC. Fisher's calculated F-test value is compared with its value in the table. If $F_{\text{account}} > F_{\text{table}}$, then the multifactor econometric model (2) is called statistically significant, and the resulting indicator - the factors affecting the value of the net assets of "Global Komsco DAEWOO" LLC JSC (Y) can be used in forecasting for future periods.

So, we find the tabular value of the F-test to check the statistical significance of the multifactor econometric model (2) constructed on factors affecting the value of net assets of “Global Komsco DAEWOO” LLC. For this, we calculate the values of the degrees of freedom $k_1 = m$ and $k_2 = n - m - 1$ and α the level of significance. Given the level of significance $\alpha = 0,05$ and the degrees of freedom $k_1 = 5$ and $k_2 = 12 - 5 - 1 = 6$, the table value of the F-test is equal to $F_{\text{табл}} = 4,39$. The calculated value of the F-test is $F_{\text{account}} = 107.6854$ and the table value is equal to $F_{\text{table}} = 3.55$, and since the condition $F_{\text{account}} > F_{\text{table}}$ is fulfilled, the multifactor econometric model (2) can be called statistically significant, and from it the value of the net assets of JSC "Global Komsco DAEWOO" LLC influencing factors ($\ln Y$) can be used to forecast future periods.

Student's t-test is used to check the reliability of the calculated parameters of the multifactor econometric model (2) constructed on the factors affecting the value of the net assets of "Global Komsco DAEWOO" LLC. By comparing the calculated (t_{account}) and table (t_{table}) values of Student's t-test, we accept or reject the H_0 hypothesis. To do this, we find the tabular value of the t-test based on the conditions of the selected reliability probability (α) and degree of freedom (d.f. = $n - m - 1$). Here n - the number of observations, m - the number of factors.

The table value of t-test is equal to $t_{\text{табл}} = 2,4460$ when confidence probability $\alpha = 0,05$ and degree of freedom d.f. = $12 - 5 - 1 = 6$.

It can be seen from the calculations carried out on the creation of a multifactor econometric model that the calculated values of the t-test $\alpha = 0,05$ for all factors included in the free term and multifactor econometric model are higher than the table value in accuracy (Table 4). This means that all factors are reliable and allows these factors to participate in a multifactor econometric model.

We use the Darbin-Watson (DW) criterion to check the presence of autocorrelation in the residuals of the resulting factor ($\ln Y$) according to the multi-factor econometric model (2) based on the factors affecting the value of the net assets of "Global Komsco DAEWOO" LLC [2, p.95].

The calculated DW value is compared with the DW_L and DW_U in the table. Autocorrelation is said to exist in the resulting factor residuals if $DW_{\text{account}} < DW_L$. If DW_{account}

is greater than DW_U , the resulting factor residuals are said to be free of autocorrelation. The lower limit value of the Darbin-Watson criterion is $DW_L=1.13$ and the upper limit value is $DW_U=1.54$. $DW_{account} = 1.9116$. Therefore, since $DW_{account} > DW_U$, there is no autocorrelation in the residuals of the resulting factor (factors (Y) affecting the value of net assets of Global Komsco DAEWOO LLC).

The absence of autocorrelation in residuals of the resulting factor also indicates that the above-mentioned multifactor econometric model (2) can be used in forecasting.

In addition, multicollinearity was not detected when the factors affecting the value of the net assets of "Global Komsco DAEWOO" LLC JSC (Y) and each of the observations on the two factors affecting it were tested for autocorrelation (AC) and partial autocorrelation (RAC) analysis (in all observations, the probability (prob) it can be observed that it is equal to zero) (Fig. 4).

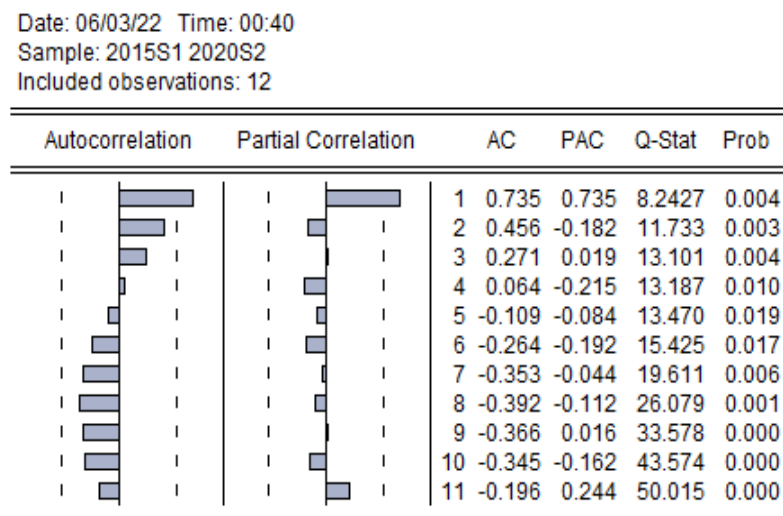


Figure 4. Testing the levels of the resulting series residuals for autocorrelation and partial autocorrelation

(2) the actual (Actual), calculated (Fitted) values of the multifactor econometric model and the differences between them (Residual) are presented in Figure 5 below.

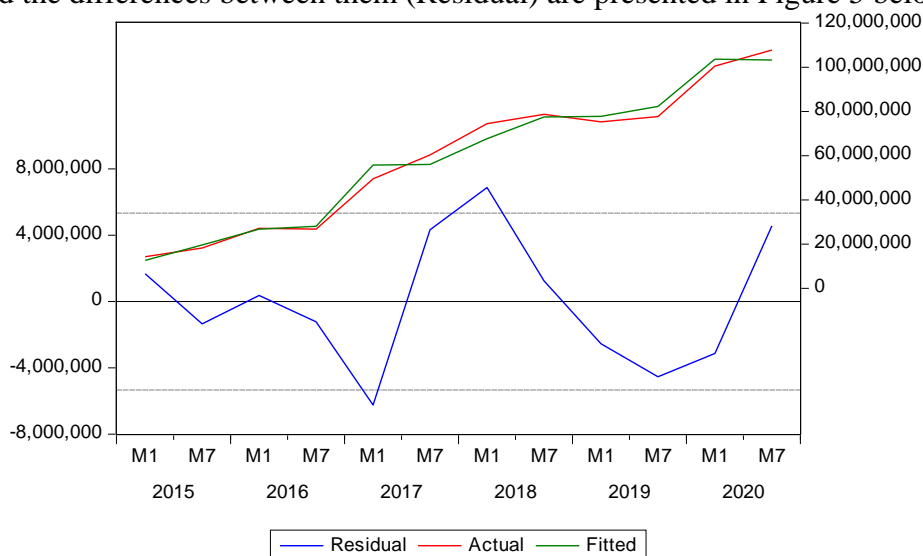


Figure 5. Chart of actual (Actual), calculated (Fitted) values and differences between them (Residual) of factors affecting the value of net assets of "Global Komsco DAEWOO" LLC

It can be seen from Figure 5 that (2) the graph of calculated values of the factors affecting the value of net assets of "Global Komsco DAEWOO" LLC, according to the multi-factor econometric model, is very close to the graph of its actual values, and the differences between them are not so great. This is another proof that (2) the multi-factor econometric model can be used to forecast the factors affecting the value of the net assets of "Global Komsco DAEWOO" LLC in future periods.

The coefficient of MARE (Mean absolute percent error) is calculated from the calculated (2) multifactor econometric model in forecasting the result indicator for future periods [4, p.28]. If the calculated MARE coefficient value is less than 15.0 percent, the model can be used to predict the resulting factor, otherwise it cannot be used. The value of the MARE coefficient for the number of passengers transported by buses in the Republic of Uzbekistan is 2.7556 percent (Fig. 6).

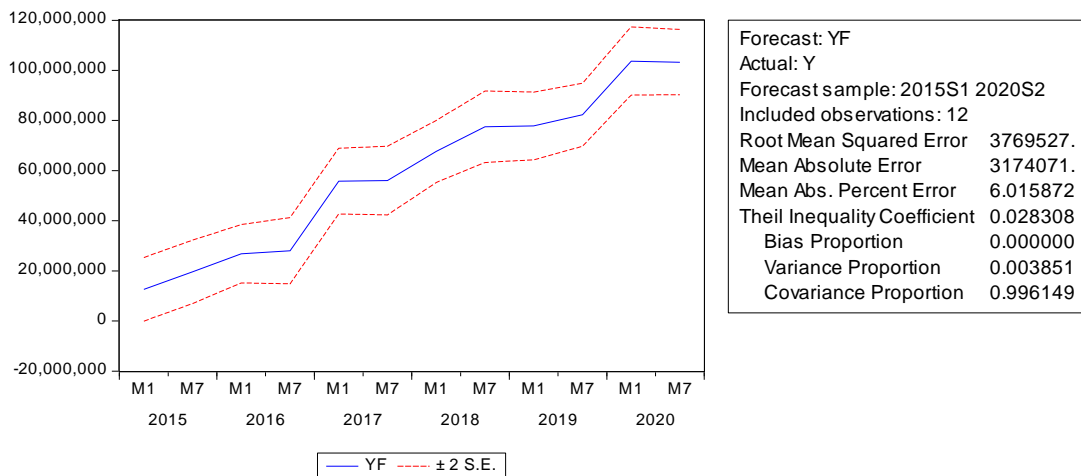


Figure 6. Indicators of using the calculated model in forecasting

This is less than 15.0 percent (MAPE=6.0158), that is, it is 6.0158 percent. Therefore, multi-factor econometric model (2) can be used to forecast the factors affecting the value of the net assets of "Global Komsco DAEWOO" LLC.

Using these cases (2) we make forecast calculations for future periods of factors affecting the value of net assets of "Global Komsco DAEWOO" LLC.

For this, we first create a trend model for each influencing factor. A trend model is a time-dependent function of an influencing factor, and it generally looks like this:

$$\ln X_i = \beta_0 + \beta_1 \cdot t + \varepsilon \quad (3)$$

The trend model for long-term assets (X_1) in the enterprise looks like this:

$$\hat{X}_1 = 23789337,67 + 878091,578 \cdot t \quad (4)$$

$$R^2 = 0,9963, F_{\text{account}} = 17,90, t_{\text{account}} = 4,3379$$

The trend model for the current assets of the enterprise (X_2) looks like this:

$$\hat{X}_2 = -3515377,571 + 7061399,224 \cdot t \quad (5)$$

$$R^2 = 0,9222, F_{\text{account}} = 118,6287, t_{\text{account}} = 10,8917$$

The trend model for long-term liabilities of the enterprise (X_3) looks like this:

$$\hat{X}_3 = 29467702,24 + 8409706,6 \cdot t \quad (6)$$

$$R^2 = 0,8035, F_{\text{account}} = 40,9069, t_{\text{account}} = 6,3958$$

The trend model for current liabilities of the enterprise (X_4) looks like this:

$$\hat{X}_4 = 4320428,271 + 1235509,76 \cdot t \quad (7)$$

$$R^2 = 0,9199, F_{\text{account}} = 114,9845, t_{\text{account}} = 10,7231$$

The trend model for the net income of the enterprise (X_5) looks like this:

$$\hat{X}_5 = 2443461,639 + 2505230,212 \cdot t \quad (8)$$

$$R^2 = 0,9715, F_{\text{account}} = 341,3688, t_{\text{account}} = 18,4762$$

The analysis of the trend models created between the influencing factors and the time factor shows that the statistical significance and reliability of all calculated coefficients in the trend models (4) - (8) were determined. So, we calculate the trend models (4) - (8) and put their calculated values into the multifactor econometric model (2), first we calculate the forecast values of the influencing factors, and then the forecast calculations of the resulting factor. As a result, we have the values of the factors affecting the value of the net assets of “Global Komsco DAEWOO” LLC (2) included in the multifactor econometric model during the forecast period (Table 4) (Figures 7-12).

Table 4

Values of forecast calculations of factors affecting the value of net assets of “Global Komsco DAEWOO” LLC JK*

Years	Net asset value, thousand soums (Y)	Long-term assets, thousand soums (X_1)	Current assets, thousand soums (X_2)	Long-term liabilities (X_3)	Current liabilities (X_4)	Net income (X_5)
2015.1	14283214,7	21021452,7	10245368,6	32547802,4	5321452,1	6021454,2
2015.2	18258063,6	31398411,5	17695908,5	30910910,1	5225782,7	6526442,1
2016.1	27165478,3	28654723,3	18524872,2	46875214,9	7425147,4	9512458,6
2016.2	26815697,9	26727070,4	16432728,7	47677889,9	8767134,5	10893533,6
2017.1	49524170,7	27854173,9	28322141,5	100215431,5	12032145,2	15232145,2
2017.2	60340482,8	28489627,5	26644803,7	106196747,9	11455569,3	16626769,5
2018.1	74521784,3	25321798,9	48214578,2	99874521,5	14821452,9	22545213,7
2018.2	78735688,5	30310145,2	53909403,9	96104903,5	15940412,1	21440150,2
2019.1	75263571,8	30984521,7	60254122,7	105452147,6	16923145,5	28042124,9
2019.2	77721371,9	27209531,3	58129814,1	113221732,4	16213208,9	27190119,7
2020.1	100548793,5	34582124,5	87845123,7	114328817,8	16723654,3	30124578,6
2020.2	107820567,2	39069614,2	82385742,8	116163422,2	17365795,4	30574505,9
2021.1	98327464,4	34814528,8	88282809,0	138793893,0	20382058,0	35011452,0
2021.2	104557438,0	35662620,4	95344208,0	147203600,0	21617568,0	37516682,0
2022.1*	110787411,5	36510712,0	102405607,0	155613307,0	22853078,0	40021912,0
2022.2*	117017385,1	37358803,6	109467006,0	164023014,0	24088588,0	42527142,0
2023.1*	123247358,6	38206895,2	116528405,0	172432721,0	25324098,0	45032372,0
2023.2*	129477332,2	39054986,8	123589804,0	180842428,0	26559608,0	47537602,0
2024.1*	135707305,7	39903078,4	130651203,0	189252135,0	27795118,0	50042832,0
2024.2*	141937279,3	40751170,0	137712602,0	197661842,0	29030628,0	52548062,0
2025.1*	148167252,8	41599261,6	144774001,0	206071549,0	30266138,0	55053292,0
2025.2*	154397226,4	42447353,2	151835400,0	214481256,0	31501648,0	57558522,0

Note: * in years is the forecast period

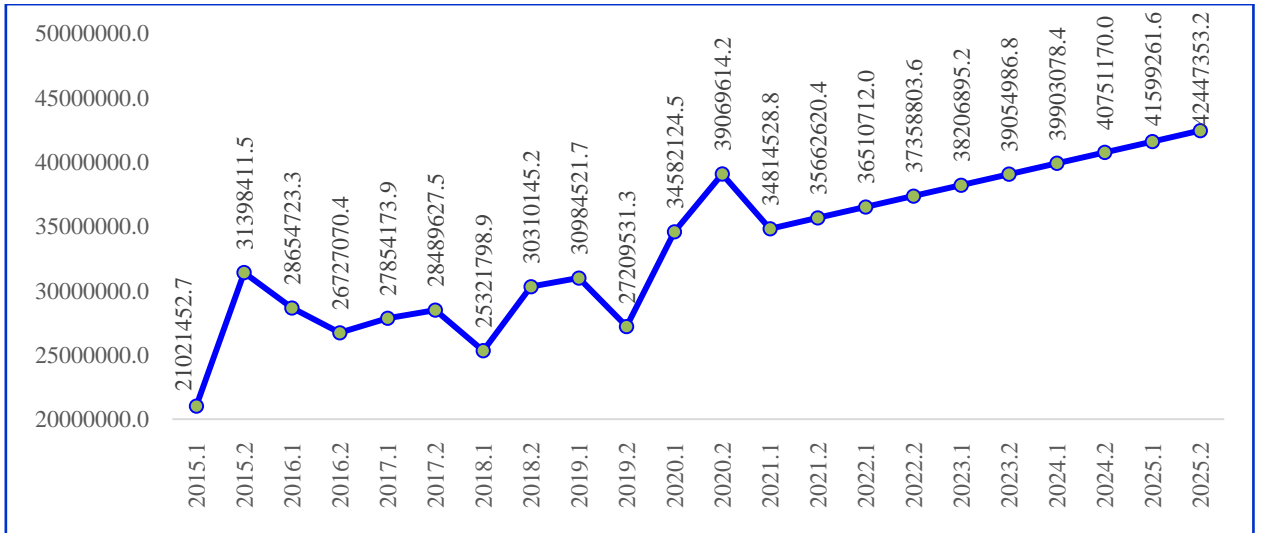


Figure 7. "Global Komsco DAEWOO" LLC JSC **long-term assets** semi-annual data for 2015-2021 and forecast indicators for semi-annual 2022-2025, thousand soums (X_1)

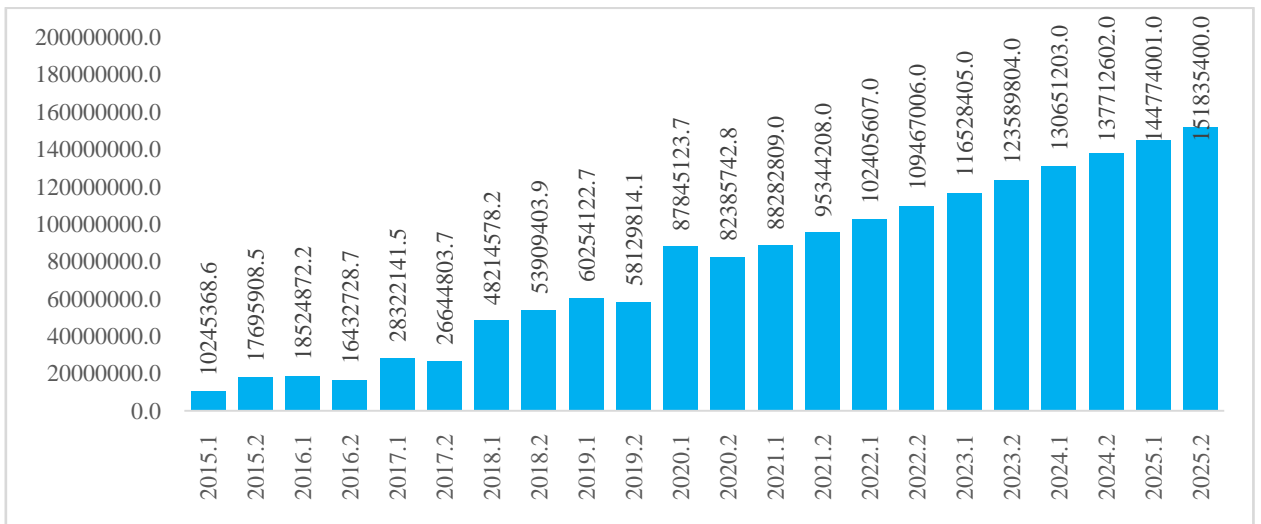


Figure 8. Half-yearly data of **current assets** of "Global Komsco DAEWOO" LLC in 2015-2021 and forecast indicators for half-years in 2022-2025, thousand soums (X_2)

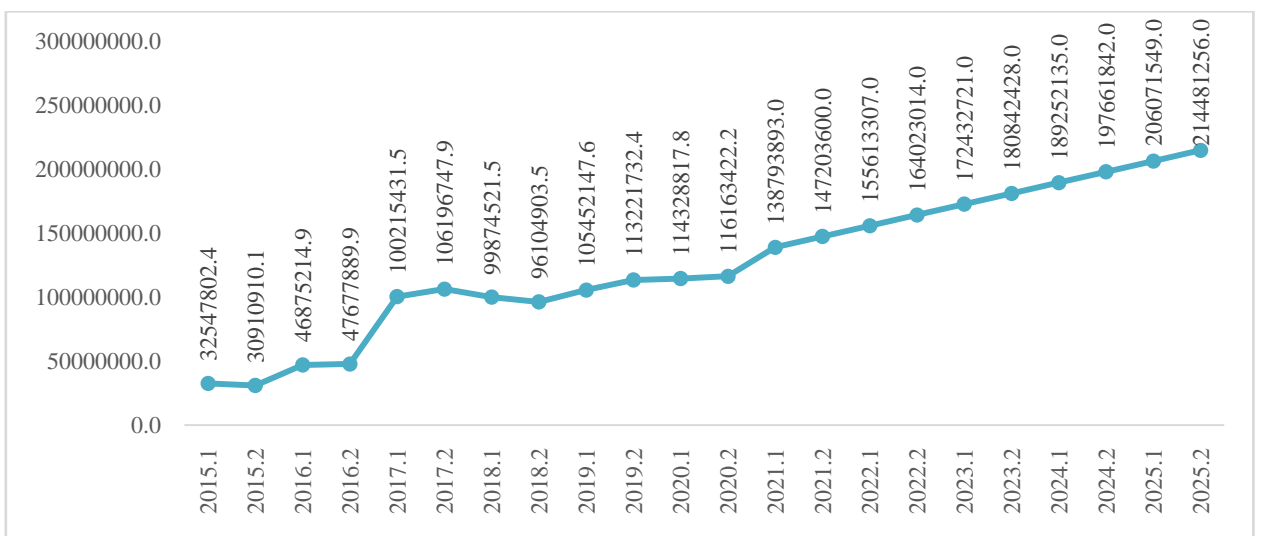


Figure 9. Half-year data of **long-term liabilities** of "Global Komsco DAEWOO" LLC JSC in 2015-2021 and forecast indicators for half-years 2022-2025, thousand soums (X₃)

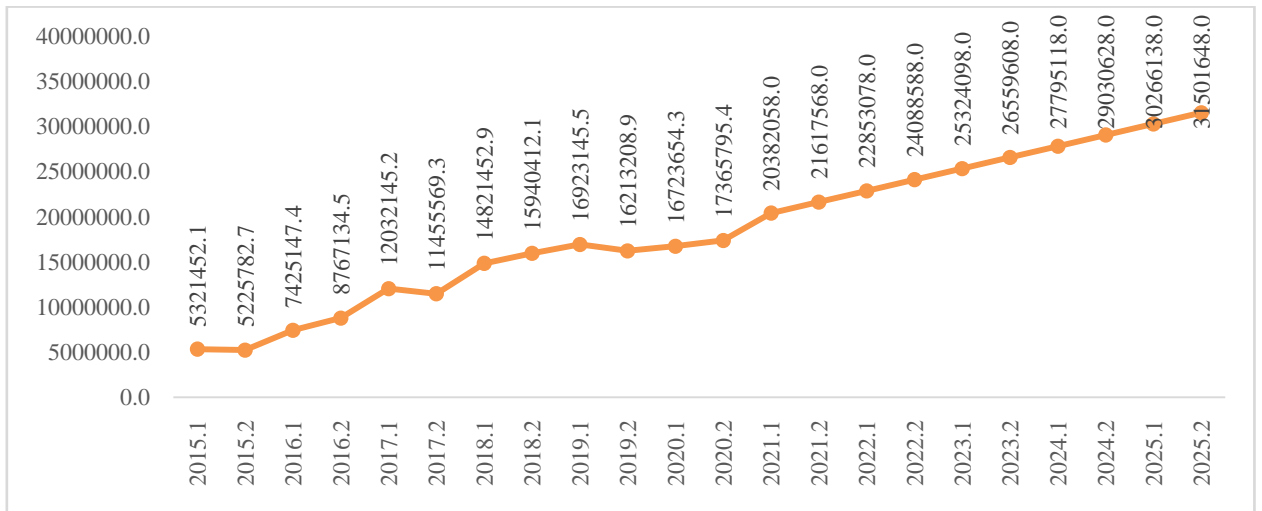


Figure 10. Half-year data of **current liabilities** of "Global Komsco DAEWOO" LLC in 2015-2021 and forecast indicators for half-years 2022-2025, thousand soums (X₄)

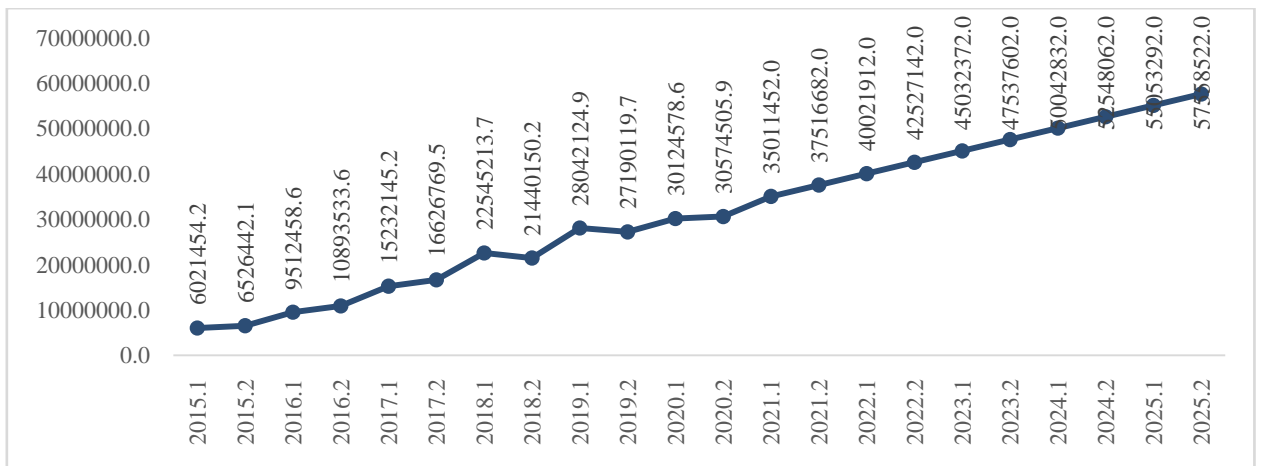


Figure 11. Half-year data of **net income** of "Global Komsco DAEWOO" LLC JSC in 2015-2021 and forecast indicators for half-years 2022-2025, thousand soums (X₅)

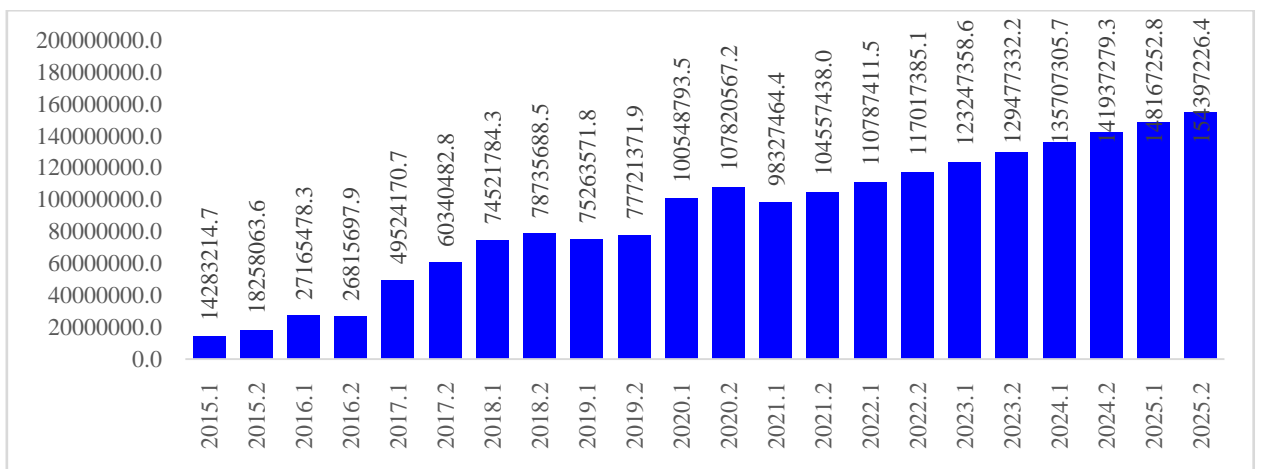


Figure 12. Half-year data of the value of **net assets** of "Global Komsco DAEWOO" LLC in 2015-2021 and forecast indicators for half-years 2022-2025, thousand soums (Y)

Conclusion and Recommendations

The multifactor econometric model calculated in the study shows that:

(i) long-term assets (X1) in the enterprise increase by an average of 1 thousand soums, while the net assets of the enterprise (Y) increase by an average of 0.3411 thousand soums;

(ii) if the value of current assets (X2) in the enterprise increases by an average of 1 thousand soums, while the net assets of the enterprise (Y) increase by an average of 0.7659 thousand soums;

(iii) the company's long-term liabilities (X3) increased by 1 thousand soums, while the average net assets of the company (Y) increased by 0.3514 thousand soums;

(iv) the company's current liabilities (X4) increase by 1,000 soums, while the average net assets of the company (Y) increase by 1,6196,000 soums;

(v) the company's net income (X5) increased by 1,000 soums, while the average net assets (Y) of the company decreased by -1,8674,000 soums.

During the research process, Fisher's calculated F-criterion value is compared with its value in the table. If $F_{hisob} > F_{zhadval}$, then it is clear that the multivariate econometric model (2) is statistically significant. When the above requirement is fulfilled, the factors affecting the value of net assets (Y) for the research object will be useful in forecasting for future periods.

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