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WAYS TO STRENGTHEN THE SOLIDABILITY OF BUSINESS ENTITIES AND FUTURE FORECASTS

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Abstract
This article presents studies on the theoretical and methodological issues of assessing the solvency of business entities, the economic content of the concepts of solvency and creditworthiness, and the relationship between solvency and other economic indicators, and draws conclusions as a result.

Keywords: Solvency, bank , credit, collateral, liquidity ratio , funds.

Introduction

In a market economy, increasing the solvency of economic entities is one of the important issues. High solvency of economic entities, firstly, means the continuous fulfillment of their obligations to commercial banks, and secondly, it ensures stability in the entire economy and, in turn, ensures the well-being of the population. Because in a market economy, the production of goods, employment, and economic development largely depend on the high level of solvency of economic entities.

Therefore, we analyzed the factors affecting the solvency of business entities, and also considered the forecast indicators of the factors affecting it. To achieve this goal, we conducted economic analyses.

LITERATURE REVIEW

At the same time, a number of authors have tried to link solvency with the profitability of the enterprise. In particular, A. Kanaan and A. Saud argue that "Profitability is the main goal that companies strive to achieve in order to ensure their viability and continuity. Therefore, increasing the profitability of companies depends on their ability to optimally manage their financial resources."

A. Dahiyat, "In order for companies to achieve their desired performance, they must maintain an acceptable level of liquidity, achieve a balance between internal

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and external sources of financing. Companies must also work to ensure the smooth operation of their business, reinvest funds in profitable projects for continuity, and maintain a competitive position," he said, emphasizing that in order to maintain the constant solvency of the enterprise, they should not lose money, but rather invest in profitable sectors and areas.

According to H. Yusoff, "Liquidity is one of the important elements that ensure the continuity of the activities of companies. Because companies that do not have sufficient liquidity cannot pay their short-term obligations to their suppliers, and cannot provide services and goods on time, which can affect their reputation. It leads to bankruptcy due to the company's inefficiency in optimally managing its assets."

RESEARCH METHODOLOGY

In the process of organizing and conducting the research work, methods such as expert assessment, comparative analysis, content and inventory analysis, systematic and factor analysis were used based on accounting methods.

ANALYSIS AND DISCUSSION OF RESULTS

As endogenous factors influencing the solvency of economic entities ($SofE_t$), indicators such as the inflation rate in the economy (CPI_t), changes in the real value of the money supply in circulation ($RM2_t$), changes in the Central Bank's key interest rate ($RINR_t$), changes in the interest rate in the money market (MMR_t), and changes in the interest rate on commercial bank loans (RLR_t) were selected. The above indicators directly affect the solvency of economic entities. In particular, an increase in the inflation rate in the economy has a negative impact on the solvency of economic entities, while an increase in the money supply in circulation has a positive impact on the solvency of economic entities by increasing aggregate demand. Interest rates in the economy also affect the solvency of economic entities. In particular, an increase in interest rates in the economy leads to an increase in the debt burden of economic entities and a decrease in their solvency.

Statistical data for the selected indicators for the period 2020M3-2024M01 were obtained in monthly terms, in real terms, and in growth .

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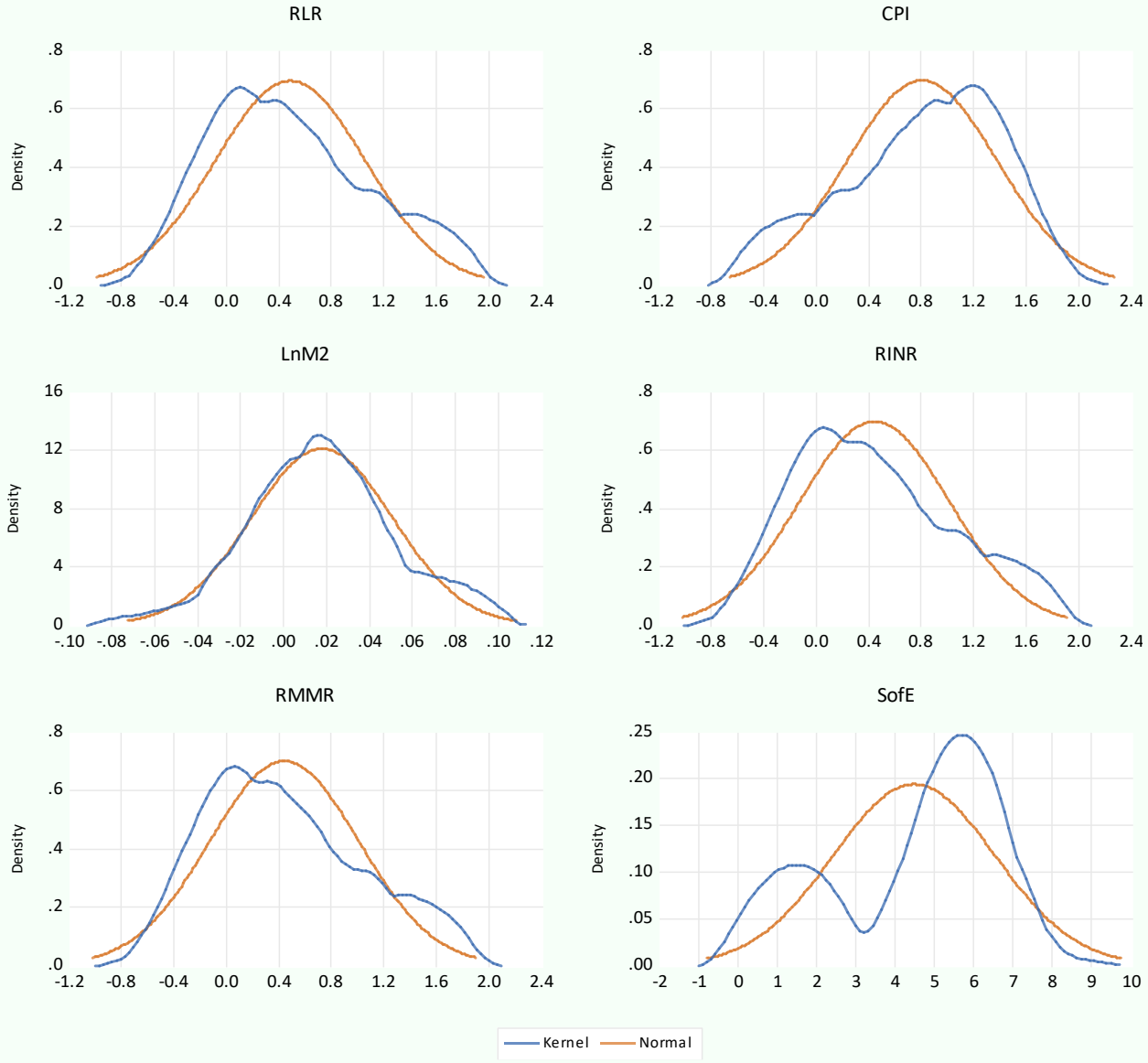

Figure 1. Normal distribution of selected indicators

At the initial stage of the econometric analysis, we performed a number of statistical calculations. These were descriptive statistics of the selected data, that is, indicators such as the average, maximum and minimum indicators, and standard deviation (standard deviation) of the data were analyzed. We also analyzed the normal distribution of the indicators selected in our scientific work. The Jacques Bera coefficient was used to check the normal distribution of the data. The analysis shows that all indicators, except for the Central Bank's key interest rate, the interest rate in the money market, and the interest rate on commercial bank loans, have a normal distribution. Because it was found that the

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Jacques-Bera coefficient calculated for all selected indicators is reliable and their probability is less than 0.05.

45 observations were made using the selected indicators. Below, we analyze the descriptive statistics of the nine selected indicators.

Table 1 Descriptive statistics of indicators

	CRI	LnM2	RINR	RMMR	RLR	SofE
Mean	0.795556	0.017873	0.454163	0.452226	0.497989	4.528353
Median	0.900000	0.017399	0.345979	0.339605	0.389090	5.271297
Maximum	1.700000	0.086556	1.553163	1.554608	1.597098	7.788405
Minimum	-0.300000	-0.064792	-0.446837	-0.433115	-0.398194	0.950474
Std. Dev.	0.574439	0.032978	0.573665	0.571178	0.575823	2.059102
Skewness	-0.483853	0.080747	0.486525	0.486160	0.476652	-0.740004
Kurtosis	2.213606	3.056844	2.214626	2.206908	2.207804	2.024735
Jarque-Bera	2.915383	0.054960	2.931826	2.952002	2.880681	5.890431
Robbability	0.232773	0.972894	0.230867	0.228550	0.236847	0.052591
Sum	35.80000	0.804305	20.43736	20.35017	22.40950	203.7759
Sum Sq. Dev.	14.51911	0.047854	14.48000	14.35473	14.58917	186.5556
Observations	45	45	45	45	45	45

According to the results of the observation, the average indicator of the solvency of business entities, which is considered an exogenous variable , was 4.53, and the monthly change of this indicator during the observed period was a maximum of 7.76 and a minimum of 0.95. The standard deviation of this indicator was 2.06. If we consider the state of endogenous indicators, then the inflation rate in the economy was 0.79 percent on a monthly basis, with a maximum of 1.70 percent and a minimum of -0.30 percent during the period under review. The standard deviation of this indicator was 0.57 percent. The average monthly change in the money supply in the economy was 0.02 percent, with a maximum of 0.07 percent and a minimum of -0.06 percent during the period under review. The standard deviation of this indicator was 0.03. At the same time, the state of key interest rates in the economy was also analyzed, and it was found that the change in the selected interest rates and the standard deviation are very close to each other.

Also, the relationship between the solvency of economic entities and the money supply in circulation is positive, with a correlation of 0.13. The relationship

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between the solvency of economic entities and interest rates in the economy is also positive.

Taking into account that the impact of selected indicators on the solvency of business entities occurs after a certain "lag", we conduct our econometric analysis using the SVAR (Structural vector autoregression models) model. When conducting the analysis based on this model, we first conduct the Augmented Dickey-Fuller Test on the selected indicators.

Using this Augmented Dickey-Fuller Test model, we test the indicators for a unit root and draw conclusions about whether these indicators are stationary or nonstationary.

Table 2 Augmented Dickey-Fuller Test result

	Indicators	t-Statistic	Robbability	Conclusion
1	**CRI**	-4.969427	0.0002	I(0)
2	**LnM2**	-6.421675	0.0000	I(0)
3	**RINR**	-4.968533	0.0002	I(0)
4	**RMMR**	-4.949969	0.0002	I(0)
5	**RLR**	-4.937572	0.0002	I(0)
6	**SofE**	-1.082739	0.7146	I(1)

As can be seen from the data in the table above, only the solvency of business entities is in a non-stationary state among the selected indicators. All other selected indicators are in a stationary state. We can also see this from the data in the figure below.

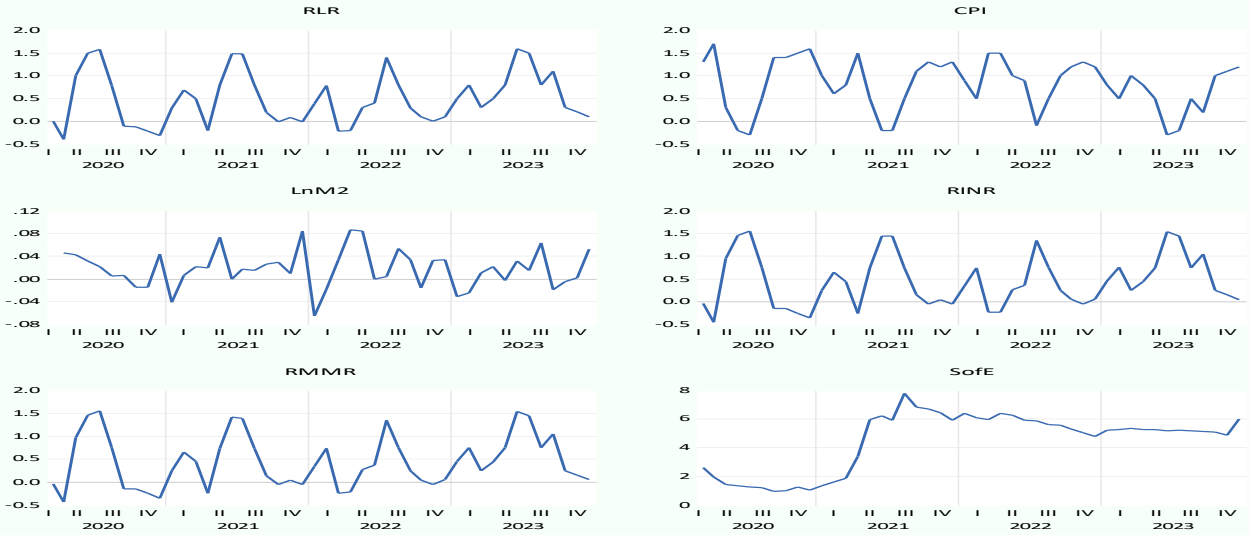

Figure 2. Dynamics of changes in selected indicators

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From this we can conclude that since the indicators in the non-stationary case have a logical relationship with the remaining indicators, the SVAR model can be used. In the next stage of our analysis, we need to choose the optimal "lag" for the SVAR model. For this, we use the Lag Length Criteria method.

Table 3 Optimal "lag" selection method (Lag Length Criteria) for the SVAR model, which assesses the impact of selected indicators on the solvency of business entities

VAR Lag Order Selection Criteria
Endogenous variables: CRI LNM2 RINR RMMR RLR SOFE
Effective: 2020M03 2023M12
Included observations: 42
*Note: selection calculation does not imrose restricted VAR coefficient restrictions

Lag	LogL**	LR	FRE	AIC	SC	HQ
0	433.9122	What?	5.70e-17	-20.37677	-20.12853	-20.28578
1	549.9528	193.4010	1.28e-18	-24.18823	-22.45056	-23.55130
2	584.2094	47.30677*	1.55e-18*	-24.10521	-20.87811*	-22.92235*
3	626.4266	46.23787	1.56e-18	-24.40127*	-19.68473	-22.67247

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FRE: Final rediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

As can be seen from the table, the optimal number of lags for our model is 2 based on the Final Regression Error (FRE), Schwarz Information Criterion (SC), and Hannan-Quinn Information Criterion (HQ) tests. However, the optimal number of lags based on the Akaike Information Criterion (AIC) test is 3. Therefore, we can choose 2 lags for our model.

Using the above analysis, to study the impact of selected indicators on the solvency of business entities, a correlation was created for the period 2020M03:2023M12,

$$SofE_t = \alpha_1 + \sum_{i=1}^{2} \beta_i SofE_{t-i} + \sum_{i=1}^{2} \gamma_i CPI_{t-i} + \sum_{i=1}^{2} \mu_i \Delta M2_{t-i} + \sum_{i=1}^{2} \delta_i RINR_{t-i} + \sum_{i=1}^{2} \theta_i RMMR_{t-i} + \sum_{i=1}^{2} \partial_i RLR_{t-i} + \varepsilon_t$$

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The results of the SWAR model, formed on the basis of the selected "lag", showing the impact of selected indicators on the solvency of business entities, can be seen in the table below.

CONCLUSION

From the model results, we can see that the solvency of business entities is significantly affected by changes in the inflation rate and money supply in the economy. However, changes in interest rates in the economy do not affect this indicator.

Further clarifying the econometric analysis, the impact of the selected indicators on the solvency of business entities is as follows:

A one percent increase in the inflation rate in the economy reduces the solvency of business entities by -0.42 percent after two months;

A one percent increase in the money supply in circulation increases the solvency of economic entities by 1.04 percent after just two months.

There is also autocorrelation in the changes in the solvency of business entities, in which a one percent increase in the solvency of business entities a month ago increases this indicator by 1.08 percent in the following month.

Below is an impulse response of factors affecting the solvency of business entities.

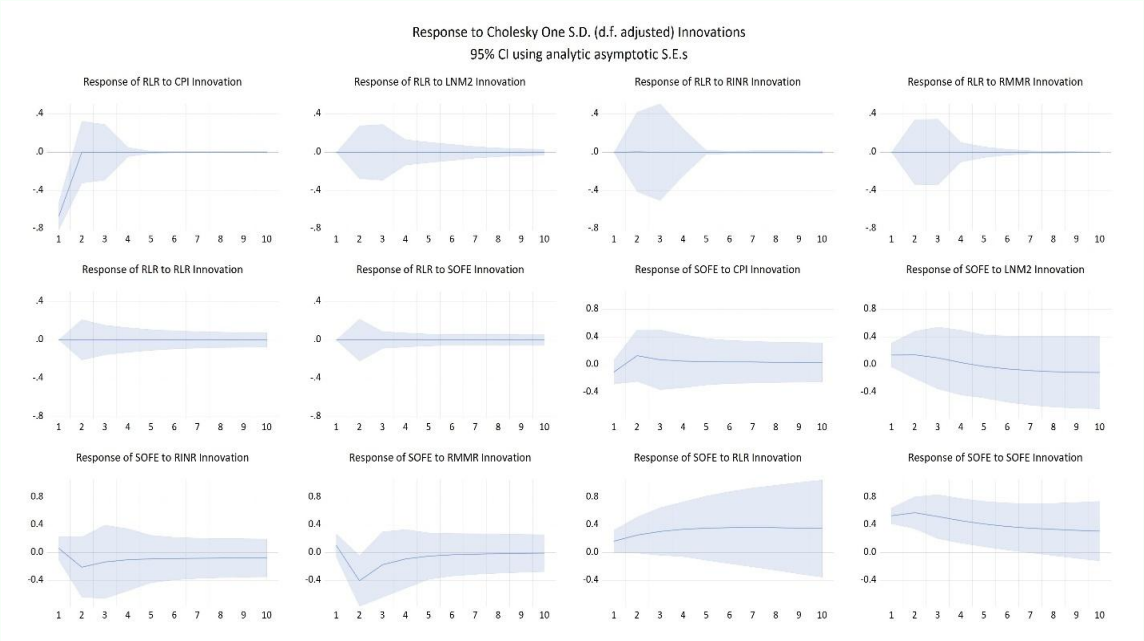

Figure 3. Impulse response of factors affecting the solvency of business entities

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In econometric analyses, the impact on the percentage of loans of commercial banks was also studied. For this, we used statistical indicators on the example of JSCB Microcreditbank. According to the results of the analysis:

A one percent increase in the inflation rate in the economy increases the interest rate on bank loans by 1.49 percent from the following month;

A one-percentage-point increase in the central bank's key interest rate will increase bank lending rates by 0.63 percentage points starting next month;

There is also autocorrelation in changes in bank lending rates, in which a one percent increase in bank lending rates one month ago can lead to an increase in this indicator by 0.85 percent the following month.

References

1. Republic of Uzbekistan “ On Amendments and Additions to the Law of the Republic of Uzbekistan “ On Banks and Banking Activities ” . No. O'RQ-580 , – T.: “ O'zbekiston ” , 05.11.2019. https://lex.uz/docs/4581969
2. President of the Republic of Uzbekistan No. PF-60 dated January 28, 2022 “ On the Development Strategy of the New Uzbekistan for 2022-2026 ” .
3. Abryutina N.S. Analyz finansovo-ekonomicheskoy deyatelnosti predpriyatiya. M.: "Delo i servis", 2000g. - 256 p.
4. Abryutina N.S. Analyz finansovo-ekonomicheskoy deyatelnosti predpriyatiya. M.: "Delo i servis", 2000g. - 256 p.
5. Moulton, H. G (1918). Commercial banking and capital formation. The Journal of Political Economy. 26 (7). 32–38. https://doi.org/10.1086/253118
6. Udoka, CO, & Anyingang, R. (2012). An analytical and theoretical investigation of the determinants of deposit money bank's investment in treasury bills in Nigeria. European Journal of Business and Management, 4(21), 42–48. https://www.iiste.org/Journals/index.php/EJBM/article/view/3615
7. Emmanuel, NR (1997). Commercial banking in an era of deregulation (3rd ed.). Westport, CT: Greenwood Publishing Group.
8. Azizov U.O. Issues of improving the financing of small and medium-sized businesses by commercial banks. Dissertation of the title of the candidate of economic sciences.– Tashkent: Uzbek Academy of Sciences, 2004. 100, 101 pages.

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9. Abrorbek K. ORGANIZATION OF TAX ACCOUNTING IN ACCORDANCE WITH INTERNATIONAL FINANCIAL REPORTING STANDARDS //International Journal of Education, Social Science & Humanities. - 2024. - T. 12. – no. 7. - S. 58-67.
10. Kazak o andN . A. , Lukyan and A. V. Vyyavl e ni e ianalizk o lich ec tv e nny x ikach ec tv e nny x fakt o r o vkr e dit oc p oco bn oc tiza e mshchik o vvu c l o viya x vy co ki x bank o v c ki x ri c k o v . M e t o dikait ex n o l o giya . 2015. No. 1.92c.
11. Klim o and N . V. Analyzkr e dit oc p oco bn oc ti organizatsii . This x uch e tv c tr o it e lny organization x. 2012. No. 8.24-27c.
12. M akhmudov CK A ksiy a dorlik j a miy a tl a rid a m a buririy a tl a r lisniv a t a hlilinit a kommill a shtirish .
13. P a rd a evM.Q. Iktisodiyotnierkinl a strishishsh a roitid ekonomika hlilinn az riyv methodologicalmu a mmol a ri :ifddissert a tsiy a tsii a si a tsiy a tsii a si a si a m a rq a nd -S a m a rq a nd -2001y. Page 228.