

UKRAINIAN ENTERPRISES' EQUITY CAPITAL FINANCIAL MONITORING AND ANALYSIS OF ITS IMPACT ON PROFITABILITY INDICATORS

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ABSTRACT

One of the prerequisites for the enterprise's successful operation is the effective capital structure and assets construction. The financial stability of Ukrainian enterprises was significantly affected during the pandemic and during the period of martial law. Financing of economic sectors in Ukraine is currently rather limited, since it is especially relevant for enterprises of various scales to maintain an optimal equity structure to ensure a sufficient financial independence level. Therefore, the article presents the research results into the financial monitoring aspects of the enterprises' equity capital, which serves as a tool for monitoring the capital formation, use and preservation, as well as its impact on the enterprises' financial outcomes. Based on the statistical data for 2015-2022, the dynamics and structure analysis of Ukrainian enterprises' equity capital, as well as its efficiency indicators was carried out. It was found that there is a non-deterministic relationship between the equity capital value and the enterprises profitability indicator, and therefore a correlation-regression analysis was conducted to reveal the reliability of the relationship between these parameters. The calculated correlation coefficient indicates the existence of a significant relationship between equity and the profitability indicator of enterprise activities. Thus, the created regression model of the equity capital influence on the resulting profitability indicator shows the nature in characteristics change and can be used to analyze the enterprises' profitability increasing factors. The study found that in the conditions of martial law, it should be strategically important for enterprises to find profitability increased reserves through capital management.

Keywords: *financial monitoring, equity capital, enterprise's financial result, enterprise's profitability, correlation-regression analysis.*

1. INTRODUCTION

In the conditions of today's challenges, business entities in Ukraine must adapt to the realities that were affected by the pandemic at first, and later by the military-political situation. Under the influence of these negative factors, a large number of enterprises were forced to suspend their activities, relocate, or even liquidate. This means that during the last period practically no new enterprises were created in Ukraine, however, due to state support and lending programs, enterprises are trying to maintain their activities by attracting investments and loan funds (Ahmić, & Isović, 2023).

During the last year, the equity capital of large, medium and small enterprises significantly decreased by 50% in total compared to 2021. Moreover, in 2022 the average profitability of enterprises reached a negative value, and compared to 2020, when the pandemic began, it decreased by almost 6%.

The problems of maintaining profitability remain quite relevant. Therefore, it is an important issue to monitor the impact of optimizing the enterprises' equity capital size and structure on the financial results of their activities and to identify reserves for increasing profitability through the effective use of the company's own financial resources.

In this regard, the purpose of the article is to study the enterprise's equity capital financial monitoring system, and to identify the nature of equity capital influence on the enterprise's profitability.

2. RELATED WORKS

The main research in the field of enterprises' equity management was carried out by such Ukrainian economists as [Buhai \(2016\)](#), [Dekhtiar \(2015\)](#), [Chebanova \(2018\)](#), [Yepifanova \(2015\)](#), who fragmentarily paid attention to the equity capital structure, the factors influencing equity capital for the purpose of increasing the enterprise's financial stability.

[Utkina \(2022\)](#) considered the urgent issue of financial monitoring information support. The problems in the context of making changes to the current legislative framework in connection with the martial law on the territory of Ukraine were considered.

In many scientific works of Ukrainian economists, the economic and legal essence of equity capital concept and its evolution in world and Ukrainian science are highlighted. The article by [Buhai \(2016\)](#) presents theoretical aspects of equity capital as a financial system component, the main problematic issues of practical nature of equity capital certain necessary measures and ways of solving them.

[Kruhlova and Kozub \(2022\)](#) pay considerable attention to the study of factors affecting the Ukrainian enterprises profitability. The authors use the financial leverage ratio, solvency ratio and the enterprises size ratio as economic factors of profitability level changes. The research states that non-economic factors affecting profitability include the effectiveness of management activities, the principles of social business responsibility implementing into the enterprise activity.

[Kovalchuk \(2016\)](#) studies the profitability dynamics of enterprises in different regions of Ukraine under the macroeconomic factors influence. However, this work does not concern the current conditions of the martial law in Ukraine.

The [State Statistics Service of Ukraine \(2023\)](#) annually conducts an activities analysis of different scale Ukrainian enterprises, in particular their assets, equity, loan funds and profitability in terms of activity types. Therefore, the issue of equity capital financial analysis, its dynamics and structure is sufficiently studied, but the problems of creating the financial monitoring system and mechanism at the enterprise, optimizing equity capital and the effectiveness of its use in order to identify its impact on profitability remain unsolved and require further consideration. This study will allow to expand the existing works in the field of research the equity capital use efficiency as an important factor affecting the Ukrainian enterprises profitability indicator.

3. METHODOLOGY AND DATA

The article uses comparison methods, the coefficients method, the method of analytical tables, graphic methods for the schematic representation of the equity capital financial monitoring system and mechanisms, as well as for the representation of the enterprises' equity capital, profitability structure and dynamics.

For researching of the company's own capital use effectiveness, the loan and equity capital ratio, the financial dependence ratio and the equity capital share in the balance amount of the company were used. Loan and equity capital ratio (debt to capital ratio) is calculated by dividing the total debt of the enterprise by its own financial resources. The normative value of this indicator should not exceed 1. Financial dependence ratio (assets to equity ratio) is calculated by dividing the amount of the enterprise assets by its equity (the normative ratio level is within 1.67-2.5). The share of equity capital in the balance sheet of enterprises structure is the result of dividing equity capital by the balance amount and is expressed as a percentage (the normative value is within 40-60%) ([Volkova et al., 2016](#)).

Profitability indicators are represented by the percentage of operational activity profitability and profitability of all activity of enterprises, which were determined according to the average level of enterprises profitability of various types of economic activity (code NACE) .

The method of correlation-regression analysis is carried out in order to identify the influence of the size of the enterprises' own financial resources (X) on their profitability level (Y).

The average values of the factors of the equity capital amount (x) and the enterprises profitability (y) were determined according to data for 2012-2022.

The main closeness and direction indicator of the model factors relationship is the correlation coefficient (r):

$$r = \frac{\sum[(X-x)(Y-y)]}{\sqrt{\sum(X-x)^2 \sum(Y-y)^2}} \quad (1)$$

The correlation coefficient value in the range of 0.66-0.99 indicates a significant and direct connection between the factors.

Correlation coefficient validity criterion (t_r) is calculated based on the standard correlation error (S_r):

$$t_r = \frac{r}{S_r} \quad (2)$$

Correlation coefficient error (S_r) takes into account the number of periods ($n=11$) during which the data for the study were obtained:

$$S_r = \sqrt{\frac{1-r^2}{n-2}} \quad (3)$$

The number of degrees of freedom (v_r) is applied to determine the validity of the relationship between the equity capital amount parameter (X) and the enterprises profitability level (Y) for the period of 2012-2022:

$$v_r = n - 2 \quad (4)$$

Correlation coefficient validity criterion should exceed the corresponding theoretical values of the significance level (Student's test) for v_r at the significance levels of 5% and 1%.

The relationship between considered parameters is expressed through the regression equation, which has the following form:

$$Y = y + R_{yx} (X-x) \quad (5)$$

Using the regression coefficient (R_{yx}), it is possible to determine the level of change in all enterprises' activities profitability when the equity capital amount changes by UAH 1 billion.

$$R_{yx} = \frac{\sum[(X-x)(Y-y)]}{\sum(X-x)^2} \quad (6)$$

The two-factor model is presented graphically in the form of the profitability indicator and the equity capital amount linear dependence and is constructed on the basis of empirical and calculated data ([Ulanichuk 2020](#)).

4.EQUITY CAPITAL FINANCIAL MONITORING SYSTEM

Equity capital is the main part of the balance sheet liabilities, and it is at the enterprise's disposal after deducting the amount of all obligations. Equity capital is financed by funds contributed by the owners or founders and supplemented by the company's own financial resources (Liubar et al., 2019). The equity capital augmentation is possible at the expense of obtaining a positive enterprise's activity financial result. In turn, the predominance of equity capital in the balance structure contributes to the enterprise's financial stability, increases its competitiveness and attractiveness for investments, the reliability of long-term financial investments and ensures the possibility of profit obtaining without significant insolvency risks. However, in order to company's financial resources

effectively use, one should not just increase the company's own resources, but optimize the capital structure, also using the borrowed funds potential.

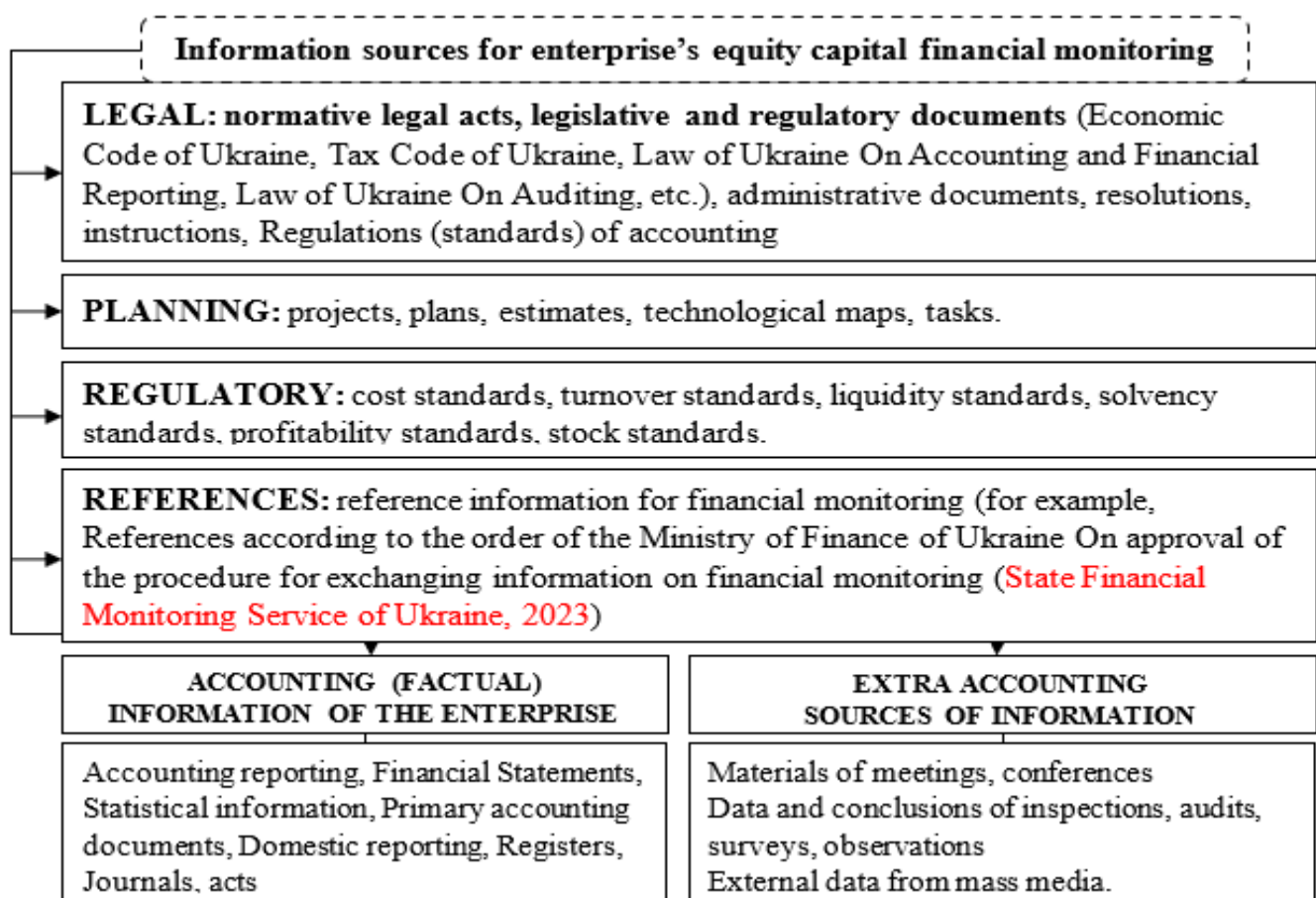
The National Bank of Ukraine and the State Financial Monitoring Service (2023) define the enterprise's equity capital as an important object for monitoring. Since a small amount of the company's equity or share capital is an indicator of an unsatisfactory financial condition it may serve as a sign of the counterparty unreliability, cooperation with which may have negative consequences. Therefore, the capital structure and interrelation checks are often carried out because business entities must transparently disclose the beneficiaries and the ownership structure (Tadić, 2016).

Financial monitoring tools are used in order to track the factors of formation, use and preservation enterprise's own capital. The financial monitoring system significantly adjusts the equity analysis methodology and implements means to identify factors of negative deviations in its structure, determines the impact of equity capital components on the financial result (Babich et al., 2022).

The legal, directive, reference, regulatory sources of information, as well as accounting and non-accounting data should be used in the process of enterprise's own capital financial monitoring (Fig. 1). Legal, regulatory and reference information support of financial monitoring serves as a methodical basis for its implementation. Planned sources of information can be the target project indicators, planned amount of revenues and expenses of the company, planned estimates, which are used for monitoring purposes as a reference point for calculating deviations of actual and planned indicators (Utkina, 2022).

The analysis of data on changes in equity capital is carried out with the use of the Equity Report, which contains information on the balance of equity capital at the beginning and end of the year, the income amount and capital use, as well as its structural elements. Financial monitoring entities should pay considerable attention to the comparison of the equity capital receipt and use coefficients in order to monitor whether the enterprise is increasing its capital (Kudina et al., 2017).

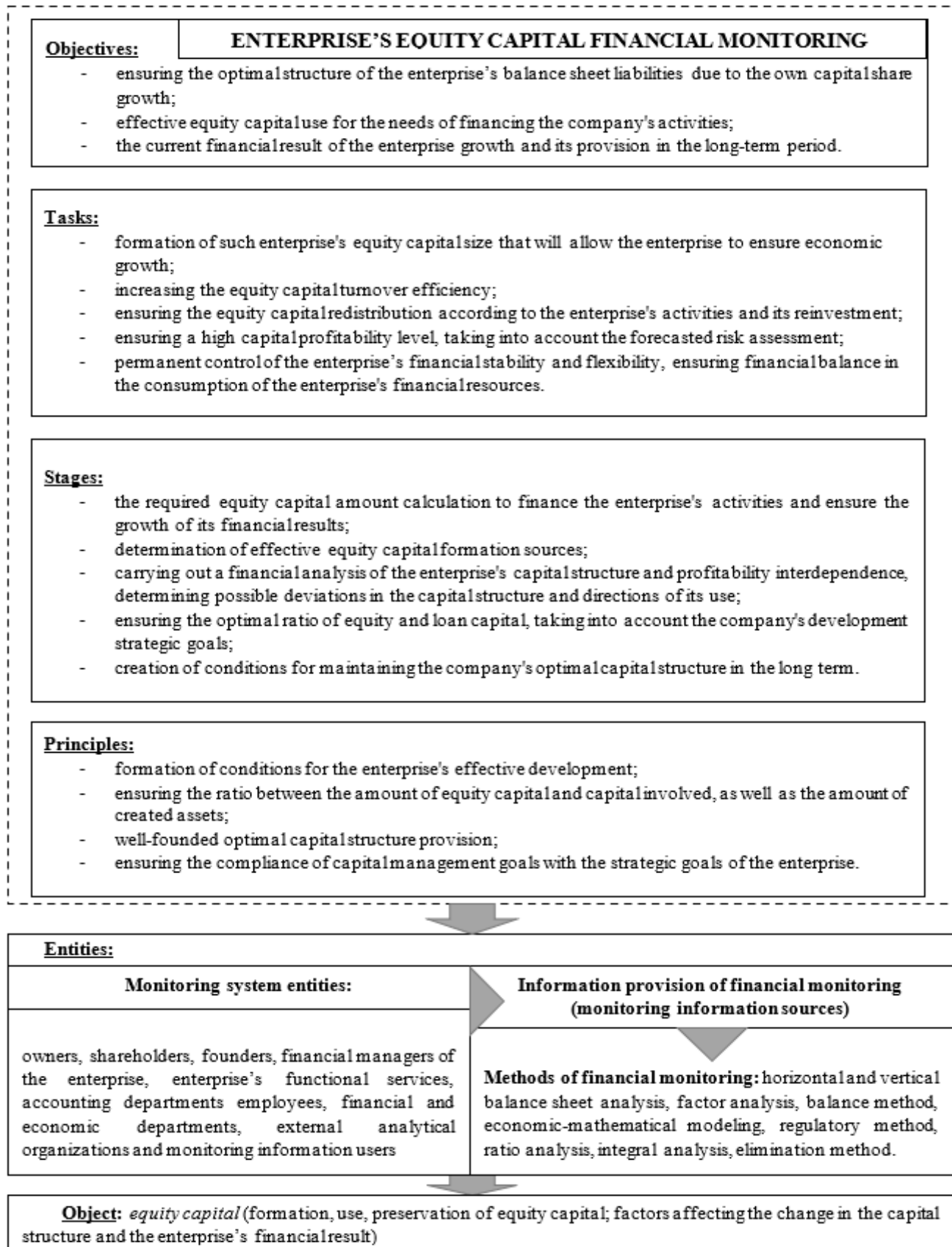
Figure 1. Information support for financial monitoring of the enterprise's equity capital



Source: created by the authors

The quality of monitoring conclusions depends on the information completeness; therefore it is worth investigating not only the main sources of factual information reflected in financial statistical reporting, but also analyzing in detail the data of internal economic reporting, primary accounting documents, registers, acts, registers that complement the analysis (Utkina, 2022). Information support for financial monitoring is part of the enterprise's equity capital monitoring system (Fig. 2).

Figure 2. The enterprise's equity capital financial monitoring system



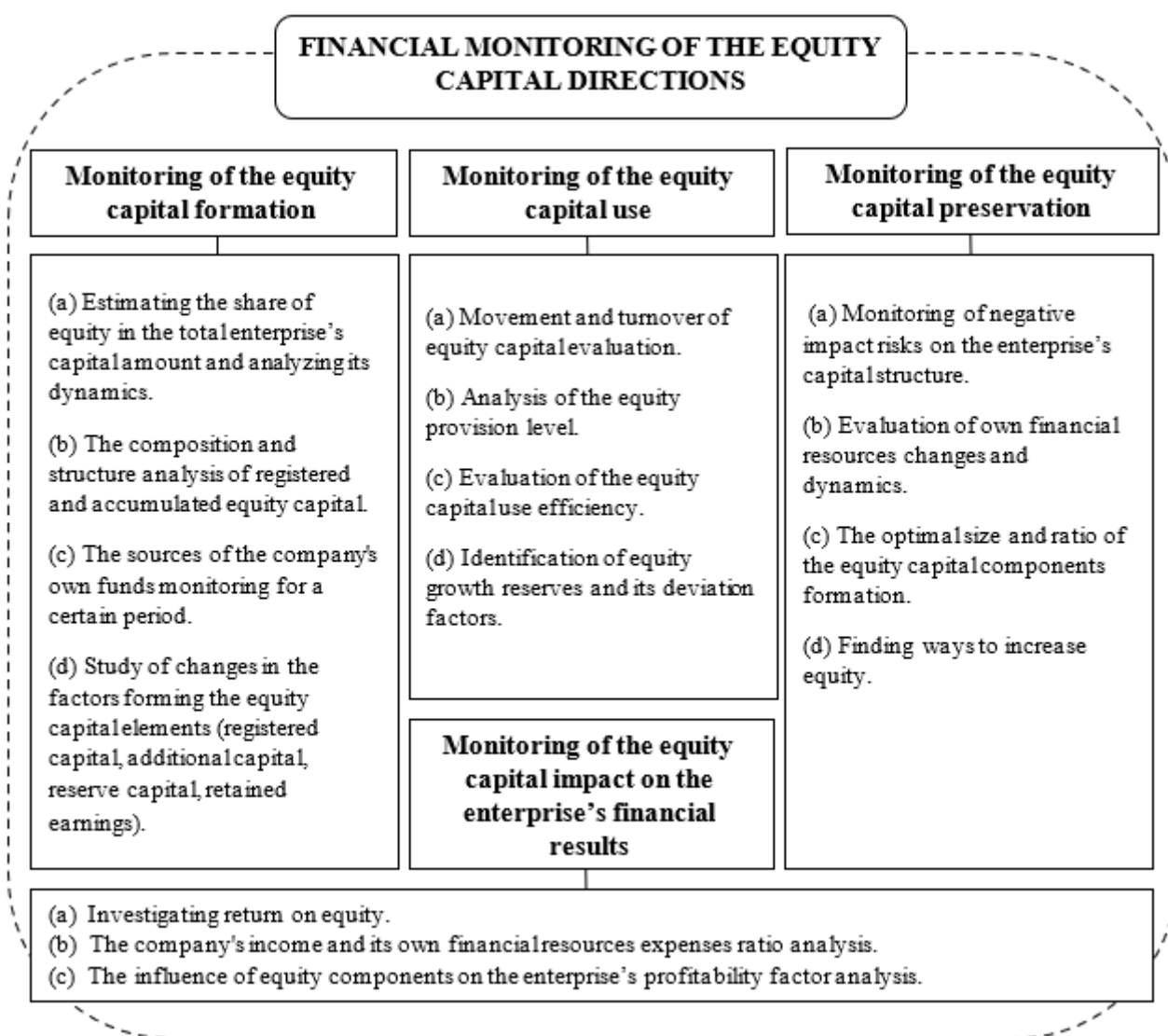
Source: created by the authors

The combination of goals, tasks, stages, principles, the presence of entities, and objects interaction in a single system allows to implement the financial monitoring directions and ensure its effective organization. The system elements cooperation ensures the formation of the correspondence between the available own resources and their strategic investment, the mechanism formation for diagnosing the risks of a crisis situation development and potential bankruptcy (Dekhthiar, 2015).

The equity capital financial monitoring system also includes directions for its implementation (Fig. 3). Depending on the goals and tasks that the monitoring entities set, the following areas of equity capital financial monitoring can be distinguished:

- monitoring of the equity capital formation;
- monitoring of the equity capital use;
- monitoring of the equity capital preservation;
- monitoring of the equity capital impact on the enterprise's financial results.

Figure 3. Financial monitoring of the enterprise's equity capital directions



Source: created by the authors

The capital structure directly affects the financial stability of the enterprise. Monitoring entities conduct an analysis of sources that increase equity capital, analysis of its changing factors, evaluate the available equity capital structure (in terms of registered and accumulated) during investigating the equity capital formation (Babich et al., 2022). Also in this direction, the monitoring entities observe the dynamics of the share of equity capital in the total amount of liabilities and its correlation with the borrowed funds (Table 1).

The efficiency of equity capital use is related to its dynamics and turnover at the enterprise, as well as the own financial resources and income from the sale of products ratio growth. A system of financial ratios which includes financial independence ratio (percentage of equity capital in the enterprise's total capital), financial risk ratio (the capital raised to equity capital ratio), the financial dependence ratio (shows how much loan funds the company has attracted for UAH 1 of equity) is applied to analyze the equity capital use involving methods of comparative analysis (Yepifanova, 2015).

The evaluation of the preservation equity capital possibilities is an important financial monitoring direction. Therefore, based on the analysis of changes occurring in the liabilities of the balance sheet structure, the monitoring entities perform a risks analysis that negatively affect the capital structure and determine the optimal equity capital amount and its ratio with loan resources (Kruhlova et al., 2022).

5. RESULTS

The study of the influence degree of the structure and equity capital size on the enterprises' financial results and their profitability is carried out in the context of reserves for the enterprise' profit growth analysis due to changes in the equity capital elements, including an increase in retained earnings. In addition, in this monitoring direction, an integral profitability analysis is used to assess the level of funds invested in equity capital profitability (Chebanova, 2018).

Analytical data in Figure 4 reflect the dynamics and structure of equity capital at the Ukrainian enterprises during 2015-2021 and effectiveness of its use indicators (Table 1). During the researched period, the equity amount was constantly increasing and from the end of 2015 to the end of 2021 it increased by 80%. A significant increase took place in 2021 compared to the previous 2020 year by UAH 773.5 billion, that is by 23.2%. At the same time, during 2015-2021, the growth of enterprises' loan capital (by 72%) and the balance sheet amount (by 74%) is also monitored.

Table 1. The efficiency of equity capital use indicators of Ukrainian enterprises, 2015-2022

Indicators	Period								Deviation (2022 I-III qtr./2021)	
	2015	2016	2017	2018	2019	2020	2021	2022 I-III qtr.	Abs.	Growth rate, %
Loans and equity capital ratio	2.53	3.09	3.05	3.02	2.72	2.80	2.42	2.60	0.2	6.9
Assets to equity ratio (financial dependence ratio)	3.5	4.1	4.1	4.0	3.7	3.8	3.4	3.6	0.2	5.5
The equity capital share in the assets, %	39.6	32.4	32.8	33.2	36.8	35.7	41.3	27.9	-13.4	-32.5

Source: authors' calculations based on the data of the State Statistics Service of Ukraine

However, during the first three quarters of 2022, total equity is down 48% compared to 2021. At the same time, the total balance amount also decreased by 40%, which is due to the enterprises' activities termination in the occupied territories.

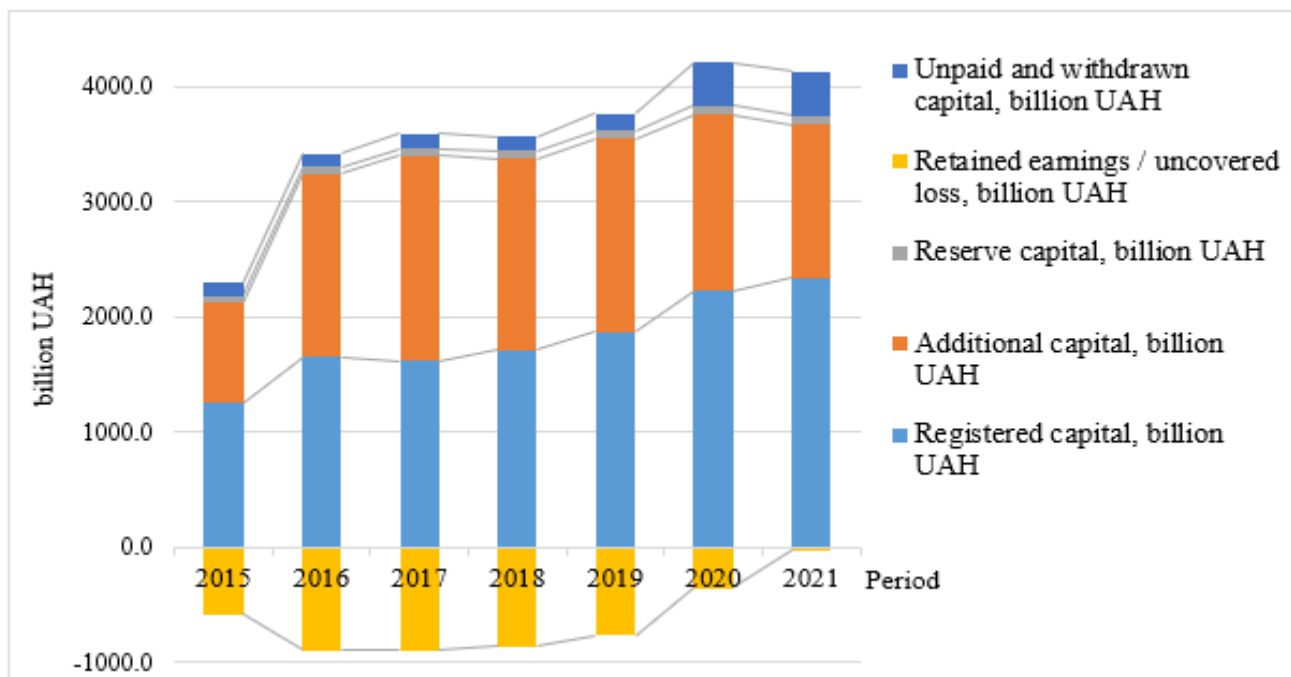
Analyzing the enterprises' loans and own funds ratio, it should be noted that during the 2015-2021 period, the ratio ranged from 2.42 (in 2021) to 3.09 (in 2016). Since the normative value of this ratio is ≤ 1 , its actual values indicate a significant attraction of loan capital by domestic enterprises in comparison with accumulated own resources, and therefore liabilities prevail in the balance sheet structure (Yepifanova, 2015).

The equity capital share in the balance sheet liabilities, which is characterized by the financial autonomy coefficient, had an upward trend during 2015-2021, and in 2022, compared to 2021, it decreased by 32%. The optimal value of this coefficient is 0.5, and therefore, during the analyzed period, the enterprises' dependence level on external loans is quite significant. However, the lowest share of equity in the balance structure was in 2022.

The structure of equity capital of enterprises includes registered capital, additional capital, reserve capital, retained earnings (or uncovered loss), unpaid and withdrawn capital (Fig. 4) (Dekhtiar, 2015).

During 2015-2021, the Ukrainian enterprises equity capital structure was dominated by registered capital (Fig. 4), which includes authorized and other registered capital, share capital and contributions to registered authorized capital. Ukrainian enterprises' registered capital was UAH 2340.4 billion in 2021, which is by UAH 110.3 billion more than in the previous 2020 year and by 86% more compared to 2015 (corresponding data for 2022 has not been published due to the postponement of the publication due to martial law) (State Financial Monitoring Service of Ukraine, 2023).

Figure 4. Business entities equity capital structure and dynamics in Ukraine, 2015-2021



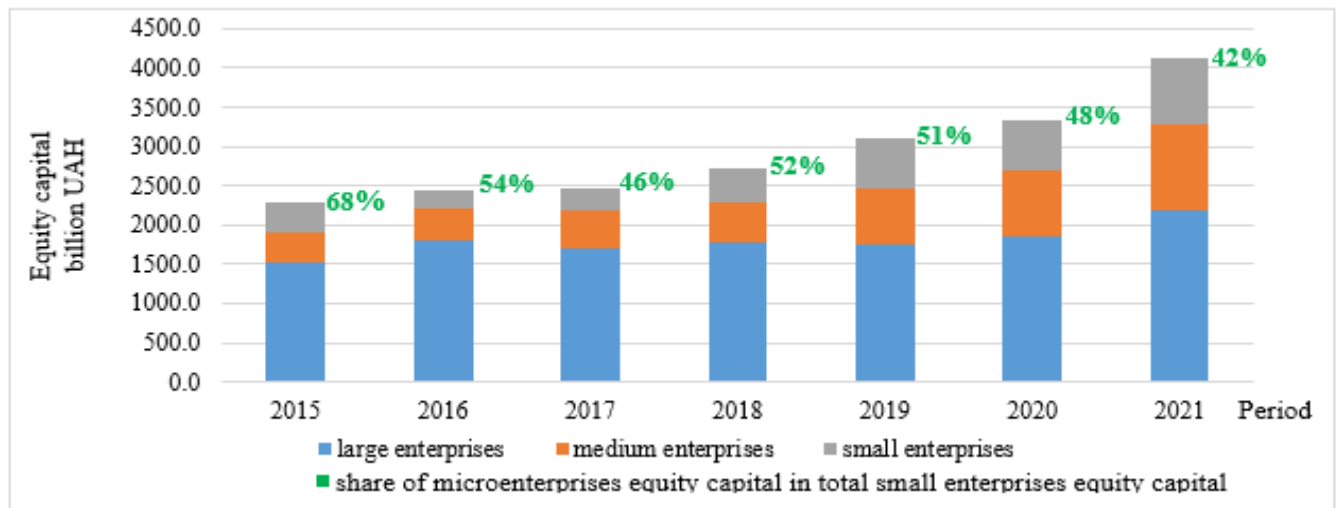
Source: developed by the authors based on the data of the State Statistics Service of Ukraine

Additional capital was contributed in excess of the authorized capital amount and includes the amounts of non-current assets revaluation, the financial assets value received free of charge. It also constitutes a significant enterprises' equity capital share and did not have a clear growth trend, but in 2021 it amounted to UAH 1329.7 billion, which is 53.5% more compared to 2015. Reserve, unpaid and withdrawn capital are insignificant enterprises' equity capital share and show unstable dynamics during the analyzed period.

The part of the income that remains at the enterprise disposal from the economic activity conduction is included in the equity capital composition in the form of retained earnings. However, during 2015-2021 domestic enterprises generally received an uncovered loss, which absolute value was the largest in 2016 when amounted UAH 893.8 billion, as shown in the graph (Fig. 4). Since 2017, the uncovered loss had a downward trend and in 2021 had the smallest value (UAH 20.5 billion), that is it decreased by 17 times compared to 2020.

The study includes data on the equity capital of large, medium and small enterprises in Ukraine (Fig. 5). In 2021, the share of equity capital in the balance sheet structure prevailed in large enterprises and amounted to 41%. In medium and small enterprises, it was 23% and 22%, respectively. That is why large enterprises are more resistant to macroeconomic factors than small and medium-sized business entities. As can be seen in Figure 5, the equity capital of large enterprises during 2015-2021 grew at insignificant rates in contrast to the equity capital of small enterprises, which more than doubled during this period (State Statistics Service of Ukraine, 2023).

Figure 5. Equity capital of large, medium and small enterprises in Ukraine, 2015-2021

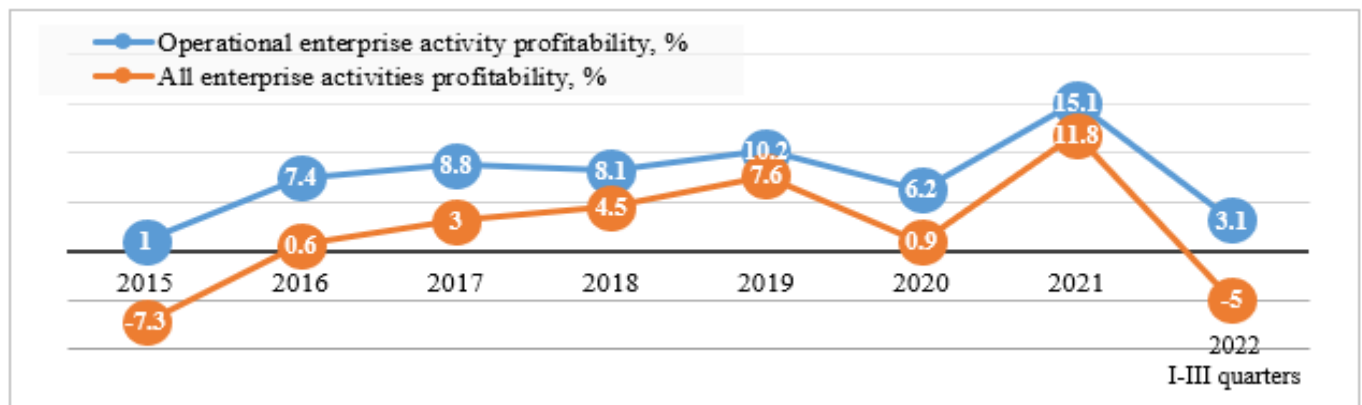


Source: developed by the authors based on the data of the State Statistics Service of Ukraine

The connection between the enterprise's equity capital and its financial result is that if the enterprises have a loan capital predominance, the insolvency threat appears in the enterprises. It requires additional expenses of the enterprise for the credit facilities use, which also affects the assets liquidity and prevents the enterprise from obtaining the following loans in the future (Kruhlova et al., 2022). If the company has retained earnings, its own capital structure improves, which is also reflected in the increase in the enterprise's financial results. Since profitability ratios are the key financial condition indicators of enterprises, they are highly dependent on the equity capital size, as well as on its structure, i.e., the retained earnings or uncovered losses reflection (Novichenko, 2021).

The Ukrainian enterprises' profitability indicators, the dynamics of which for the 2015-2022 period are shown in Figure 6, indicate that these ratios were the lowest in 2015. The unprofitability of all enterprise activities in 2015 was -7.3%, although the profitability of operating activities was at the level of 1%.

Figure 6. Business entities profitability dynamics in Ukraine, 2015-2022



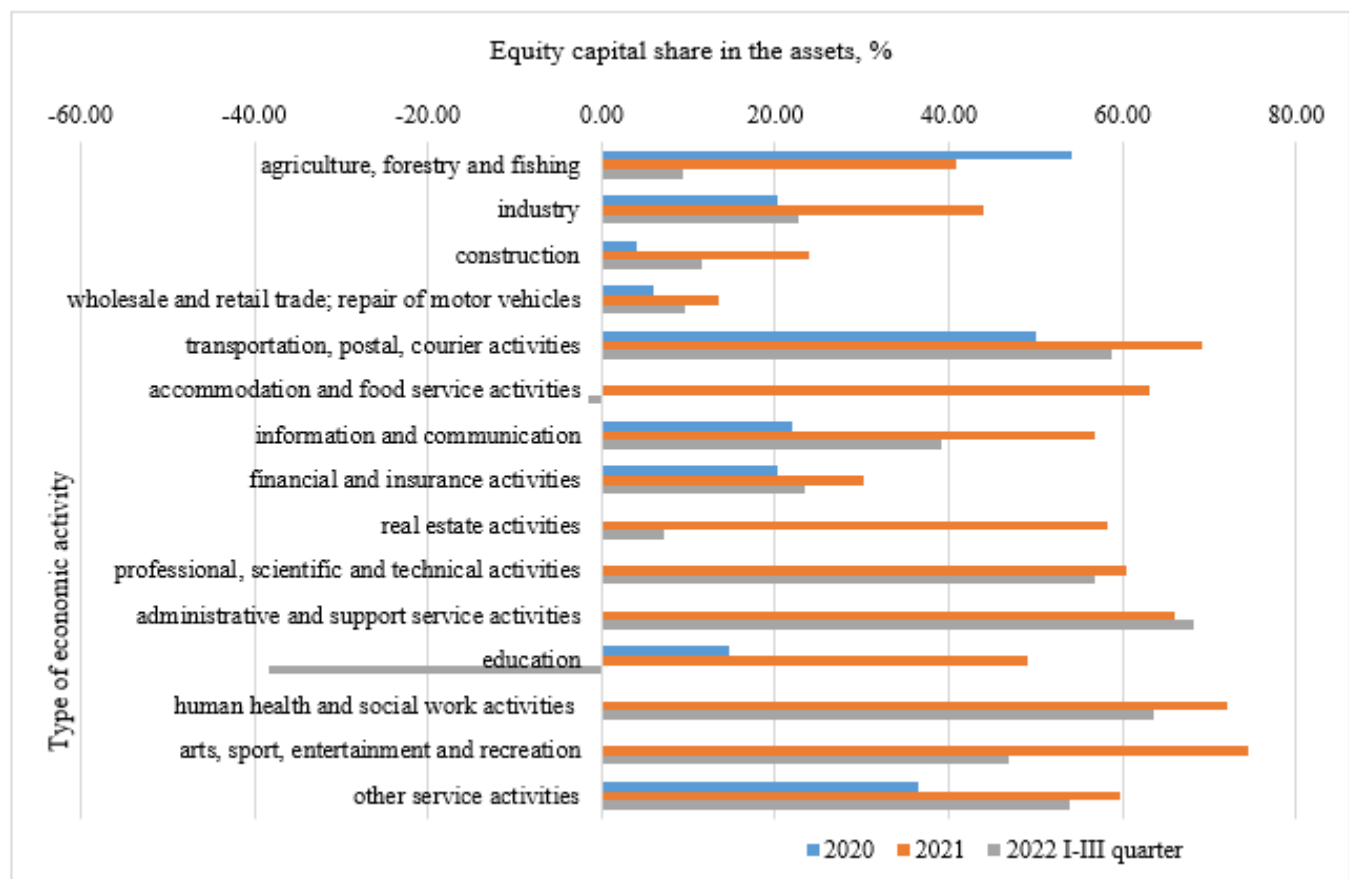
Source: developed by the authors based on the data of the State Statistics Service of Ukraine

During 2016-2019, all enterprises' activities profitability increased by 12.7 times. At the same time, there was an increase in equity capital and a decrease in the undistributed loss of enterprises. However, in 2020, compared to 2019, there is a sharp decrease in all enterprise activities and operational activities profitability by 6.7% and 4% accordingly, which is due to the pandemic impact and the suspension of a large part of economic entities. In 2021, there was an increase in all activities and operational activities profitability, the value of which was 11.8% and 15.1% accordingly. The equity capital value of enterprises also increased significantly in 2021, compared to 2020, and the undistributed loss value was the lowest for the analyzed period (Kovalchuk, 2016).

In 2022, the financial results of Ukrainian enterprises suffered significant losses. The average profitability of all activities of large, medium and small enterprises during the first three quarters of 2022 compared to 2021 decreased by 16.8%, and the profitability of operational activities decreased by almost 5 times (KorFor Analytical Group, 2023).

Evaluating the official statistical information on enterprises of various activity types for the I-III quarters of 2022 (Fig. 7), it should be noted that compared to 2021, the share of equity capital in the assets of agricultural, industrial enterprises, construction enterprises, enterprises engaged in operations with real estate, accommodation and food service activities enterprises decreased significantly. During the period of I-III quarters of 2022, only the share of equity capital in the balance of enterprises in the field of administrative and support service activities increased by 2.2%.

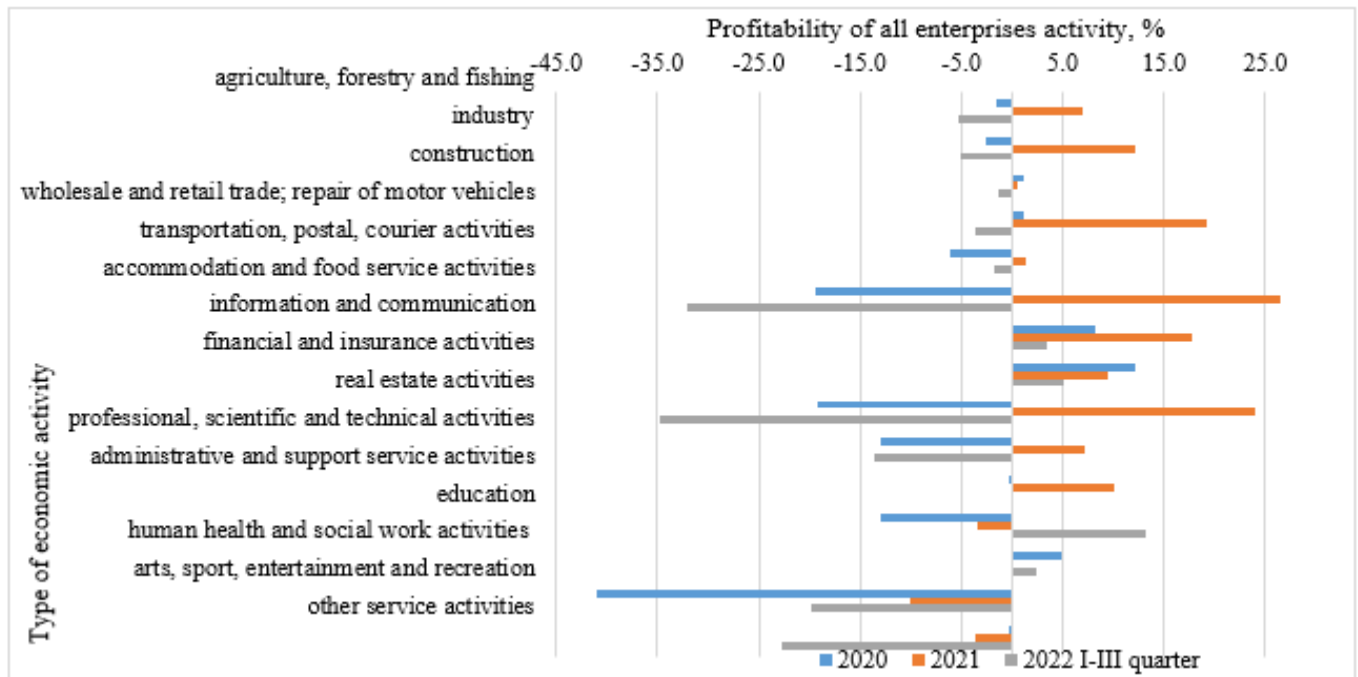
Figure 7. The equity capital share in the assets of enterprises by economic activity type, 2020-2022



Source: developed by the authors based on the data of the State Statistics Service of Ukraine

A significant decrease in the share of the company's own capital affected the profitability of those types of activities that were most sensitive to the martial law conditions or were located in the occupied territories. The dynamics of the profitability of Ukrainian enterprises by type of activity during 2020-2022 is shown in Figure 8. The most clearly decrease in profitability of enterprises in the field of accommodation and food service activities and real estate activities by 58.5% and 58.6%, respectively, can be observed on the diagram.

Figure 8. Profitability of enterprises by economic activity types, 2020-2022



Source: developed by the authors based on the data of the State Statistics Service of Ukraine

Since there is a non-deterministic relationship between equity capital and profitability indicators of large, medium and small enterprises, we will use correlation-regression analysis to identify the relationship density between these parameters and to build a regression economic-mathematical model of the capital factor value influence on the resulting characteristic. Table 2 shows estimated data for calculating correlation interdependence and the equity capital amount (X) impact on all enterprises activities profitability in Ukraine (Y) during 2012-2022.

Table 2. Calculation of the correlation between the equity capital amount and the Ukrainian enterprises' profitability, 2012-2022

Period	Equity capital, billion UAH X	Activities profitability, % Y	X-x	Y-y	(X-x)(Y-y)	(X-x)²	(Y-y)²
2012	1904.94	1	-673.41	0.28	-188.56	453485.24	0.08
2013	1950.37	-0.70	-627.98	-1.42	891.73	394356.91	2.02
2014	1480.66	-14.20	-1097.70	-14.92	16377.61	1204935.04	222.61
2015	2288.74	-7.30	-289.61	-8.02	2322.69	83875.07	64.32
2016	2445.80	0.60	-132.55	-0.12	15.91	17569.40	0.01
2017	2458.53	3.00	-119.83	2.28	-273.20	14358.21	5.20
2018	2708.58	4.50	130.22	3.78	492.25	16958.18	14.29
2019	3092.77	7.60	514.41	6.88	3539.16	264620.19	47.33
2020	3339.81	0.90	761.45	0.18	137.06	579810.32	0.03
2021	4113.34	11.80	1534.99	11.08	17007.64	2356180.09	122.77
2022	2226.8	-5.00	-319.57	-5.20	1661.76	102124.25	27.04
n = 11	x = 2546,40	y = 0.20	Σ = 0	Σ = 0	Σ(X-x)(Y-y)= = 42150.22	Σ(Y-y) ² = = 5498485.32	Σ(X-x) ² = = 508.40

Source: developed by the authors based on the data of the State Statistics Service of Ukraine

According to the calculations results carried out in Table 2, we determine:

1. Correlation coefficient:

$$r = \frac{42150.22}{\sqrt{5498485.32 \cdot 508.40}} = 0.8 \quad (7)$$

2. The correlation coefficient error:

$$S_r = \sqrt{\frac{1-0.8^2}{11-2}} = \sqrt{\frac{1-0.64}{9}} = 0.20 \quad (8)$$

3. Correlation coefficient validity criterion:

$$t_r = \frac{0.80}{0.20} = 4.00 \quad (9)$$

To determine the validity of the relationship between the equity capital amount parameter (X) and the enterprises profitability level (Y) for the considered period, we determine the number of degrees of freedom:

$$v_r = 11 - 2 = 9 \quad (10)$$

The corresponding theoretical values of the significance level (Student's test) for $v_r = 9$ are $t_{0.99} = 2.26$ and $t_{0.95} = 3.25$ (Ulanchuk, 2020).

Thus, since the correlation coefficient between factorial and functional features is in the range of 0.66-0.99 and is 0.8, the relationship between the change in the parameters is considered direct and strong. Taking into account the correlation coefficient validity criterion, which is 3.66, and comparing its value with the theoretical values, it can be concluded that since the calculated value is greater than the theoretical value at the significance levels of 5% and 1% (2.26 and 3.25 accordingly), then the relationship between own financial resources of economic entities amount and their profitability is reliable at both probability levels.

Having investigated that for the 2012-2022 period, the equity amount owned by domestic enterprises had a significant impact on their profitability level, and characterizing the relationship between these variables as strong and reliable, it is also worth conducting a regression analysis to assess the possibility of predicting the changes in the enterprises' profitability in perspective.

Using the calculated data in Table 2, we will define the regression coefficient (R_{yx}), which allows showing the value of the change in all enterprises' activities profitability when the equity capital amount changes by UAH 1 billion.

$$R_{yx} = \frac{42150.22}{5498485.32} = 0.0077 \quad (11)$$

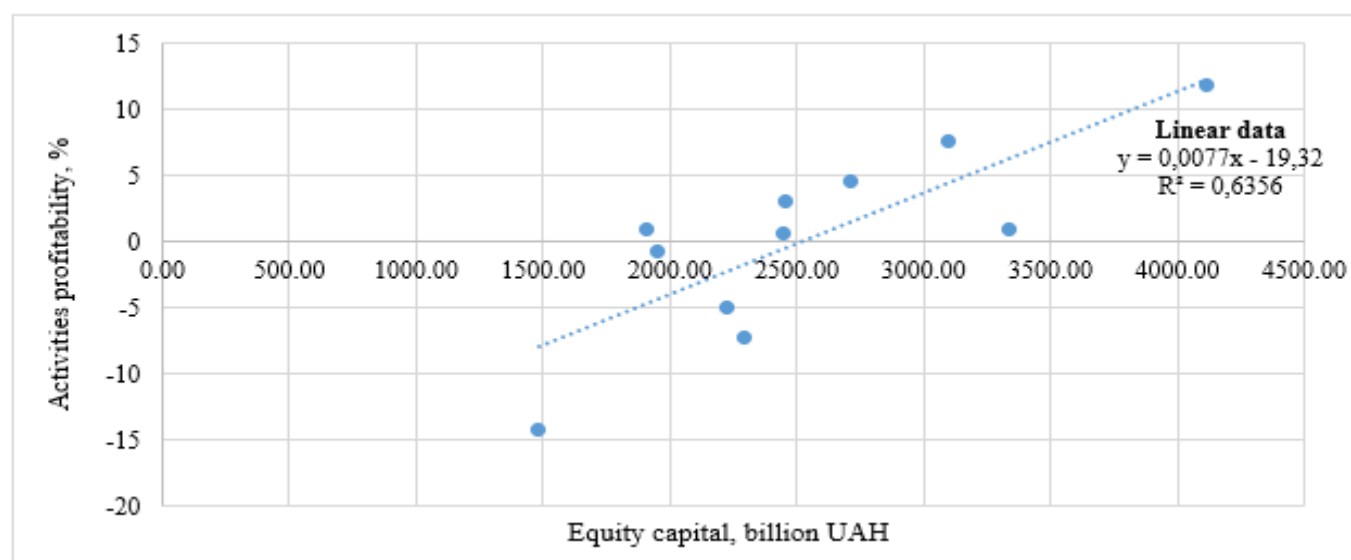
The regression coefficient value can be interpreted as follows: when the amount of equity capital changes by UAH 100 billion the enterprise activity profitability will change by 0.77%.

The equity capital average value at the business entities disposal during 2012-2022 was UAH 2546.40 billion. After substituting the obtained regression coefficient value into the equation, we will obtain a function with which it is possible to get a forecasted profitability (Ulanchuk, 2020).

$$Y = 0.20 + 0.0077(X - 2546.40) = 0.0077X - 19.32 \quad (12)$$

Figure 8 shows a linear regression that characterizes the enterprise profitability dependence on the total amount of equity capital. The change in equity regression model makes it possible to estimate how it will cause an increase or decrease in the domestic enterprises' profitability.

Figure 9. Graph of regression model and correlation field



Source: constructed by the authors based on results of correlation-regression analysis

Using the regression equation, monitoring entities have the ability to analyze the studied parameters by 0.8 level of correlation coefficient. The forecast value of Ukrainian enterprises profitability will depend on the capital structure in 2023, as well as on investment inflow, state and international business support programs. According to the regression equation (Figure 8), if the level of equity reaches the value of 2509.09 billion UAH, then the forecasted profitability will be at the level of 0%. The linear dependence also shows that if the amount of equity capital of enterprises in 2023 reaches the value of the pre-war period (3339.81 billion UAH), then the forecast value of profitability will be 6.4%, excluding other factors.

On the conducted correlation-regression analysis basis, it is possible to establish a strong and reliable dependence between the two characteristics, therefore, the equity capital amount increase, and its structure optimization is a favorable factor for improvement the enterprises' profitability indicators.

6.DISCUSSION

With the beginning of the full-scale invasion and the declaration of martial law on the territory of Ukraine, statistical information was not made public by the State Statistics Service, so most of the data on the activities of enterprises and their financial results were not published on time. At the end of 2022, the State Statistics Service began to post part of the data (the publication date of which was postponed due to martial law) on the official portal. Therefore, the available research and data analysis covers the period from 2015 to the third quarter of 2022, and the correlation-regression analysis was carried out taking into account the data sample for the 2012-2022 ([Ukrainian Center for Economic and Political Research named after O. Razumkov, 2023](#)).

In the research, a significant attention was paid to the financial monitoring system of the enterprise, the tasks of which are to identify the efficiency degree of the equity capital use, justify the optimal capital structure, and determine the level of enterprises profitability dependence on the amount of equity capital ([Utkina, 2022](#)). That is why the loan and equity capital ratio, the financial dependence ratio and the equity capital share in the balance amount of Ukrainian enterprises were calculated during the period from 2015 to the I-III quarters of 2022.

The research results show that the efficiency of Ukrainian enterprises largely depended on general economic and political factors. Starting from 2015, when the military conflict was launched in the Eastern Ukraine, during the restrictions of the pandemic in 2020 and after the full-scale invasion in 2022, the share of equity in the balance amount of large, medium and small enterprises of Ukraine did not exceed 41.3%. That is, this indicator did not reach the normative value of 50%, which shook the financial stability of enterprises ([Ristic, 2020](#)). In 2022, the share of equity capital in the balance amount of such enterprises activities as agriculture, wholesale trade, accommodation and food ser-

vice activities, real estate activities and education did not even reach the level of 10%. This is due to the fact that the number of small enterprises in these areas is quite significant, and therefore they are more dependent on macroeconomic changes.

Publicized statistical information during 9 months of 2022 shows that the percentage of profitable enterprises was 59.5%, despite more negative expectations. However, the average profitability of domestic enterprises during this period was -5%, which is even 5.9% lower than the indicator of 2020 during the pandemic period ([State Statistics Service of Ukraine, 2023](#)).

The developed correlation-regression model confirmed the fact that the growth of the company's equity capital affects the increase in its profitability. At the same time, the closeness and direction of the relationship between the factor of equity capital amount (X) and the resulting factor of the profitability level (Y) is characterized by the correlation coefficient, which is 0.8 and is in the range of 0.66-0.99, that is, it is an indicator of a significant factors' relationship. A regression model was developed to forecast the profitability level depending on the equity capital amount, and predicts that if the amount of equity capital increases by 100 billion UAH, profitability will increase by 0.77%. Unpublished statistics for the fourth quarter of 2022 and the first quarter of 2023 will reflect the negative impact of the military conflict, electricity shortages on business activity and the enterprises' capital structure ([The Center for Economic Strategy, 2023](#)). Therefore, the changes at the end of 2022 may exceed the negative financial results of enterprises received during the I-III quarter, and additional economic losses will lead to a further decrease in profitability.

7. CONCLUSION

Existing researches in the field of equity capital use efficiency are mostly devoted to the problem of accounting and optimizing the structure of the company's own financial resources and assets. A variety of studies confirms equity capital importance in business activity, which determines the level of independence and owners influence on the enterprise. Therefore, this article raised the issue of formation a financial monitoring system at the enterprise, which tasks include determination, observation, and measurement the equity capital impact on profitability indicator.

It can be argued that effective construction of company's equity capital monitoring system is an important aspect in its management. Such a system should include not only the tasks related to increasing the equity capital amount, determining the factors resulting its formation, monitoring its use efficiency indicators, but also the search for opportunities to optimize its structure and the equity capital share in the total balance amount.

The study of Ukrainian enterprises' equity capital and profitability dynamics during 2015-2022 made it possible to reveal a direct relationship between these parameters, and therefore to conduct a correlation analysis and to form a regression model that characterizes the effect of a change in the enterprises' own resources factor value on a deviation of the profitability indicator. The relationship between these factors will be weak if the share of the enterprise's debt burden is more than 70%. Therefore, it is worth monitoring such indicators as loans and equity capital ratio and assets to equity ratio.

During 2020-2022, Ukrainian enterprises were significantly affected by the consequences of the pandemic and the harsh activity conditions in the realities of martial law. Many enterprises were not provided with a sufficient level of financial independence and stability, and therefore the profitability of their activities in 2020 and 2022 decreased sharply.

Thus, in the direction of increasing the enterprises' profitability, an important task is the constant capital structure monitoring, the financial resources distribution efficiency, and the reserves identification for increasing the enterprise's retained earnings.

Taking into account the results of the obtained regression model, the financial monitoring entities can determine the prospects of obtaining the planned profit amount, as well as determine reserves in the equity capital structure that ensure its growth. In the conditions of Ukrainian enterprises insufficient financing, the basis of future research should be deep monitoring and the correlation analysis of equity capital profitability ratios and indicators of financial risk at the micro level.

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