Volume **11** / 2023
Issue 3 / **October** 2023
ISSN 2344-102X
ISSN-L 2344-102X

THE SITUATION OF FIRMS IN FINANCIAL DIFFICULTY IN ROMANIA - A BRIEF INTROSPECTION

Ana-Maria BORES
Ștefan cel Mare University Suceava, 720229, Romania
anamaria.bores@usm.ro

Abstract
In an increasingly complex and dynamic international economic environment, disruptive factors can inevitably arise and negatively influence the business of companies, which can incur significant financial losses. Early identification of the causes of these and the identification of the necessary corrective measures is thus becoming a pressing need for transnational and national bodies and for company management. Thus, the aim of this paper is to analyse companies in financial difficulty in Romania, in order to identify the causes that led to this situation, as well as to identify the corrective measures that are required. In order to achieve this aim, the research methodology chosen is a quantitative and dynamic analysis over the period 2018-2022, based on data provided by the National Trade Registry Office. The results reveal that the COVID 19 pandemic has hit the national economy hard, along with the energy crisis and the military conflict in Ukraine, these factors leading to an increase in entities in financial distress or bankruptcy. The results can be useful to the state, which needs to undertake national policies to combat the effects of the crisis that has also affected Romania, to investors, who can inform themselves about their investments, and to management, which needs to take the necessary corrective measures.

Keywords: *financial difficulty; bankruptcy; economic crisis; dynamic analysis.*

JEL Classification: G01,G33, F65

I. INTRODUCTION

In the complex and constantly changing economic environment, commercial companies often face significant financial difficulties, which can endanger their long-term viability and survival, i.e. the continuity of their business in the medium and long term, i.e. in line with the going concern principle (Socoliuc, 2020). The COVID-19 pandemic has also had a huge impact of a devastating nature, both on national and global economies.

Companies can experience periods of financial difficulty before filing for bankruptcy, and these financial difficulties can occur repeatedly within the same firm.

A study by Zhou et al. (2022) shows that accounting and market-based variables have limited power to predict the recurrence of financial distress within companies, while the duration of recovery, restructuring events, and the terms of their interaction with accounting and macroeconomic factors significantly affect recurring risk.

In such situations, insolvency proceedings become a crucial option to manage these problems and allow companies to recover and regain financial stability. However, insolvency is not necessarily a dead end, but can also provide opportunities for economic recovery and reinvention of the company.

From an economic point of view, De Oliveira (2021) considers that an efficient bankruptcy procedure will allow the rapid restructuring of viable companies, i.e. companies that use their resources efficiently, generating economic value.

The aim of this research is to present theoretical considerations on financial distress and insolvency proceedings and focuses on the statistical analysis of the situation of firms that faced financial difficulties in the period 2018-2022. We will also examine relevant statistical data to understand the evolution and trends in this area.

Overall, the paper aims to highlight the importance of understanding and applying the insolvency procedure correctly and the potential and opportunities for economic recovery that it can offer to a company in financial difficulty. Proper knowledge and understanding of these issues can be crucial for managers, practitioners and business decision-makers in their efforts to navigate through difficult situations and ensure a sustainable future for commercial companies.

II. LITERATURE REVIEW

The study by Vale and Zenzerović (2016), extends existing research that focuses on designing predictive models for companies facing financial distress and serves as a diagnostic tool to distinguish healthy companies

DOI: 10.4316/EJAFB.2023.11318

Volume **11** / 2023 ISSN 2344-102X
Issue 3 / **October** 2023 ISSN-L 2344-102X

from those facing severe financial distress. The results of the research that was conducted on 191 companies listed on the Zagreb Stock Exchange confirm that the diagnostic model proposed by the authors was statistically sufficient and also validated its use as a diagnostic tool in recognizing companies facing financial difficulties.

In a recent study, Kalash (2023) examines how financial crisis risk and currency crisis affect the relationship between financial leverage and financial performance. The author's results show that financial leverage has a negative and significant effect on financial performance and that this effect is stronger for firms with higher risk of financial distress.

According to Li et al. (2023), the reason why most firms face a serious financial crisis is that they do not pay full attention to the initial financial problems and do not take effective measures to deal with the crisis in time. The authors believe that financial risk warning is an important part of modern enterprise financial management. In this context, Li et al. (2022) state that the COVID-19 pandemic showed more severity in economic activity than the global financial crisis experienced. In the study of Sun et al. (2014), the authors referring to the classical literature, mention that financial difficulties include inability to pay debts or dividends and possible consequences such as overdraft of bank deposits, liquidation of creditors' interests and even entering into legal bankruptcy proceedings.

The study by Back (2005) presents evidence that the financial difficulties faced by small and medium-sized firms can be explained on the basis of non-financial variables. As the results of the study indicate that non-financial variables measuring the number of late payments were the most statistically significant, these embrace important information in attempts to explain financial distress, this is important because payment behaviour variables such as late payments may occur more frequently than intermittent publication of financial distress. In another study by Sun et al. (2023) focusing on tax planning behavior with beneficial effects on alleviating a firm's financial constraints, they suggest that minimizing taxes produces immediate cash flow benefits by alleviating financial constraints in the short run, but nevertheless, it is advisable for firms to adopt sustainable financing strategies in the long run.

Research by Lin and Ansell (2012) introduces a series of risk assessment models for UK small businesses that apply an accounting-based approach and use financial ratios to predict corporate bankruptcy. Hlaciuc et al. (2008) also agree with these findings, demonstrating the overwhelming importance of accounting information derived from financial reports in assessing the state of bankruptcy risk and, implicitly, the measures that management must take by referring to them in order to avoid the company entering insolvency proceedings.

The scope of insolvency regulation has been extended to include both provisions relating to insolvency proceedings (general provisions applicable to common law entities, as well as special provisions applicable to insolvency proceedings for certain categories of debtors and insolvencies with an element of foreignness) and provisions relating to insolvency prevention proceedings, such as ad hoc mandamus and composition.

Insolvency can be defined in simple terms as a situation where a company no longer has sufficient financial resources to pay its debts to creditors, financial institutions, employees or business partners. Under current legislation, insolvency occurs 60 days after payments to creditors are due.

In legal doctrine, inability to pay is referred to as insolvency, representing the absence of funds necessary to pay the due obligation. The state of insolvency is independent of the ratio of liabilities to assets, in the sense that it does not necessarily imply that the assets are less than the liabilities. The cause of insolvency may be an inappropriate ratio of a debtor's property assets to its financial liquidity, an imprudent investment policy which does not produce cash at the rate required to make payments when due, the locking up of liquidity in long-term operations or simply the carrying on of business which results in financial losses (Lebedinschi, 2016).

It is therefore very important to note that insolvency should not be confused with bankruptcy. By entering into insolvency, a company can opt for a reorganisation procedure (see Lege nr. 85/2014). Bankruptcy is only one form of insolvency, in which the debtor's assets are liquidated in order to pay debts and to have the company struck off the Commercial Register.

Reorganisation proceedings are remedial in nature, as they aim to pay off the debtor's liabilities by putting the company in order. At this stage, the procedure offers support and the possibility of terminating disadvantageous contracts. Bankruptcy proceedings, on the other hand, are enforcement proceedings, since they aim to discharge the debtor's liabilities by liquidating his assets.

At this stage, the interest of creditors becomes paramount and the bankrupt debtor's assets must be converted into money in the most advantageous way for creditors, respecting the principle of maximising the value of assets and the recovery of claims by creditors (Ţăndareanu, 2012).

III. Research Methodology

In order to achieve the purpose of the research, we used a quantitative and dynamic analysis for the period 2018-2022, in order to identify an evolution trend for companies in financial difficulty or bankruptcy in Romania. Thus, a database was developed, through manual collection, using for this purpose the data, publicly available and provided by the National Trade Registry Office (ONRC).

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The data thus obtained were processed using Microsoft Excel, in order to be subsequently analysed and dynamically interpreted for each county in Romania, indicating the economic sectors most affected by the state of financial difficulty.

IV. Results And Discussions

The COVID-19 pandemic has affected the economic environment with multiple effects on all industries to a greater or lesser extent. An example would be companies operating in the tourism, hospitality, leisure and retail industries. Some of these companies have experienced major declines in revenues due to quarantine measures, school closures, and changes in consumer behaviour due to social distancing.

The economic impact felt is embodied in a general economic slowdown including, but not limited to, financial market volatility and erosion, credit deterioration, liquidity concerns, continued increase in government intervention, rising unemployment, overall decline in consumer discretionary spending, rising inventory levels, reduced production due to declining demand, layoffs, and other restructuring activities.

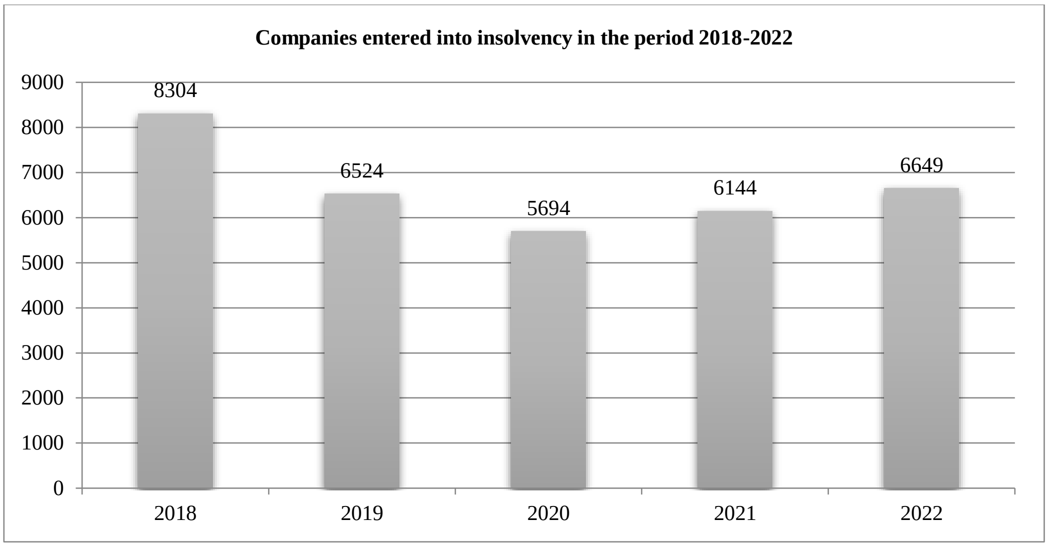

Figure 1. Insolvent companies in the period 2018-2022
Source: Prepared by the author based on data collected from ONRC, 2023

Figure 1 shows that the number of companies in financial difficulty after the pandemic has resumed its growth. No concrete data are available on the re-entry of companies into the economy after reorganisation. This is also due to the long implementation periods of the reorganisation plan, which can last for years.

The number of companies and authorised individuals entering into insolvency decreased by 8.77% in 2018 (see Figure 2), compared to the same period of the previous year, to 8304, according to data published on the website of the National Trade Registry Office (ONRC). Most companies and PFAs entering into insolvency were registered in Bucharest, namely 1637, down by 17.66% compared to the same period in 2017.

According to Biz Magazine, compared to difficult times in the economy the significant waves of insolvencies have come with a lag of a few years. For example, after the 2008 crisis, the peak of the insolvency period was in 2013-2015.What is different from then is that there are now new restructuring mechanisms that can streamline or help distressed companies recover much more easily.

At the same time, the business environment can benefit from clear, efficient procedures, namely the restructuring agreement and the composition agreement, where they have freedom to negotiate with creditors and to suspend enforcement, and at the same time, creditors of companies can benefit from a higher degree of debt recovery by using these restructuring mechanisms from the first signs of difficulty (see Biz, 2023).

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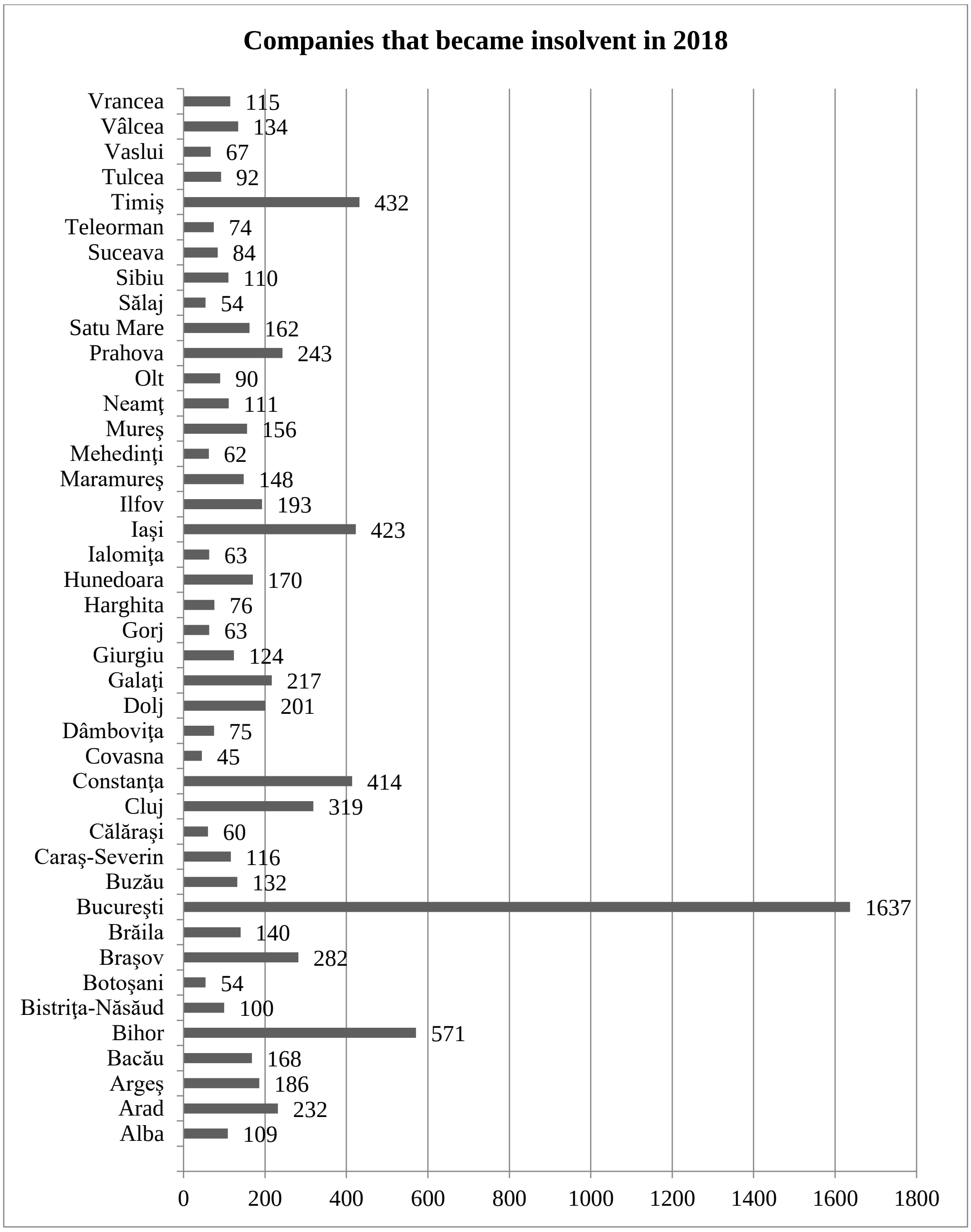

Figure 2. Companies that became insolvent in 2018
Source: Prepared by the author based on data collected from ONRC, 2023

The hierarchy continues with Bihor county - with 571 insolvencies (+10.87%), Timis - with 432 (+6.93%), Iasi - with 423 (-27.44%) and Constanta - with 414 (+4.28%). 588 companies and PFAs became insolvent in December.

By sector of activity, the highest number of insolvencies was recorded in the first 10 months of 2018 in wholesale and retail trade, repair of motor vehicles and motorcycles, respectively 2606 (minus 7.69%) (according to Ziar MM, 2019).

The number of insolvent companies in 2019 (Figure 3), at the onset of the COVID pandemic, was 6384 companies, down however from the level recorded in the previous year and still at the minimum of the last decade.

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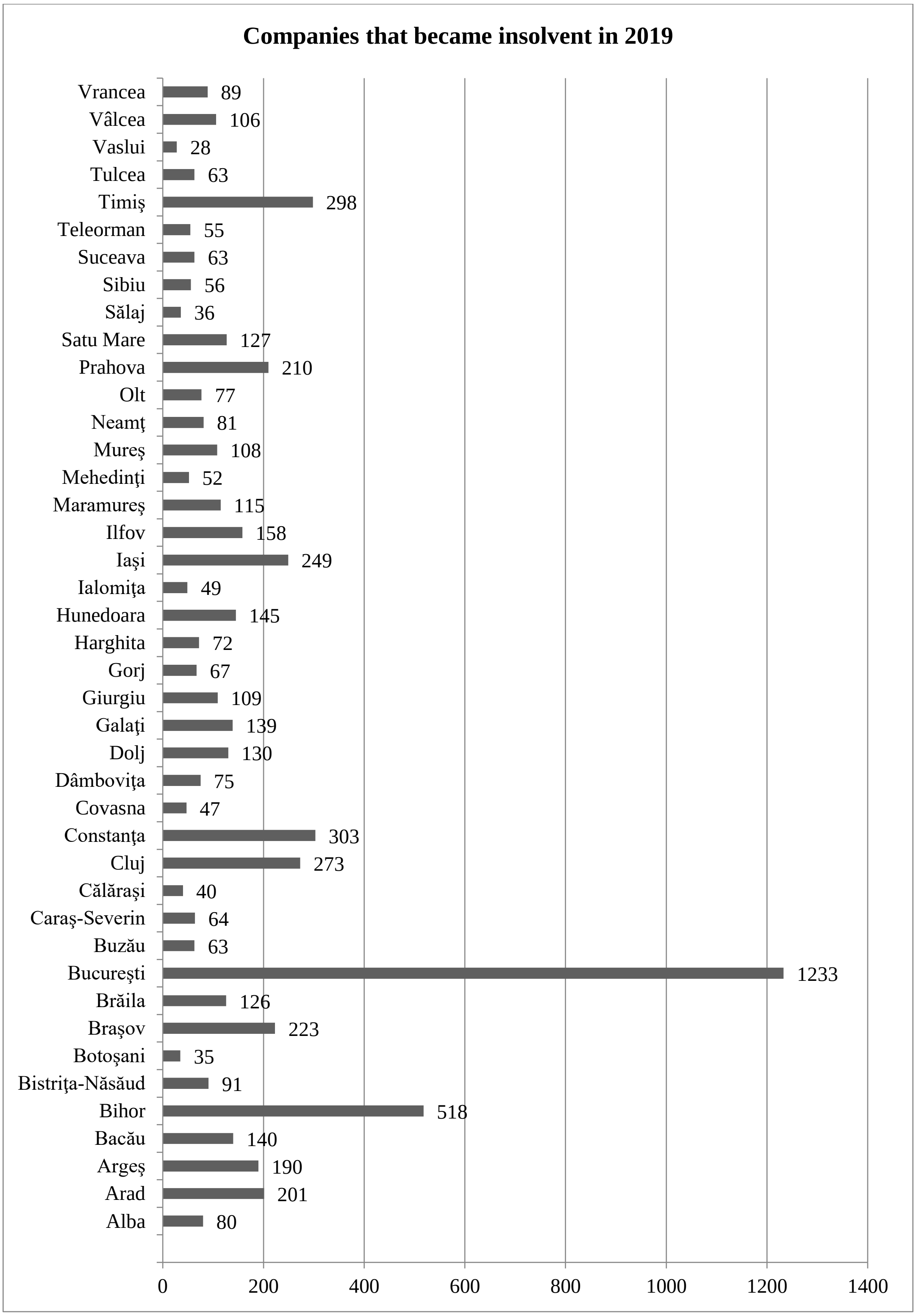

Figure 3. Companies that became insolvent in 2019
Source: Prepared by the author based on data collected from ONRC, 2023

Financial losses caused by insolvent firms in 2019 were 4.6 billion lei, half the average of the last 3 years and 3 times lower than the level reported in 2014-2015. The most affected sectors were: wholesale trade and distribution (1,037 firms), construction (936 firms), retail trade (899 firms).

Analysing the territorial distribution of insolvencies, we can see that Bucharest remained on the first position from this perspective, followed by N-V, with the other areas keeping close values.

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According to the data published by the National Trade Registry Office, the number of firms that suspended their activity decreased by 21.16% in 2019 compared to the previous year. The most cases were in Bucharest (538 firms), followed by Bihor (279 firms), Cluj (268 firms), Neamt (210 firms). The counties with the fewest suspensions were Giurgiu (47 firms), Braila (44 firms), Ialomita (25 firms).

The number of insolvent companies in 2020 (Figure 4) in Romania was 5,564, 13% less than in the previous year. Although 2019 was a rather difficult year from an economic point of view, the Covid19 pandemic did not leave very deep traces in the country's economy. Financial losses due to firm insolvencies did not increase either, in fact, if in 2019, losses reached 4.6 million. Ron, in 2020 they fell to 3 bn. Ron.

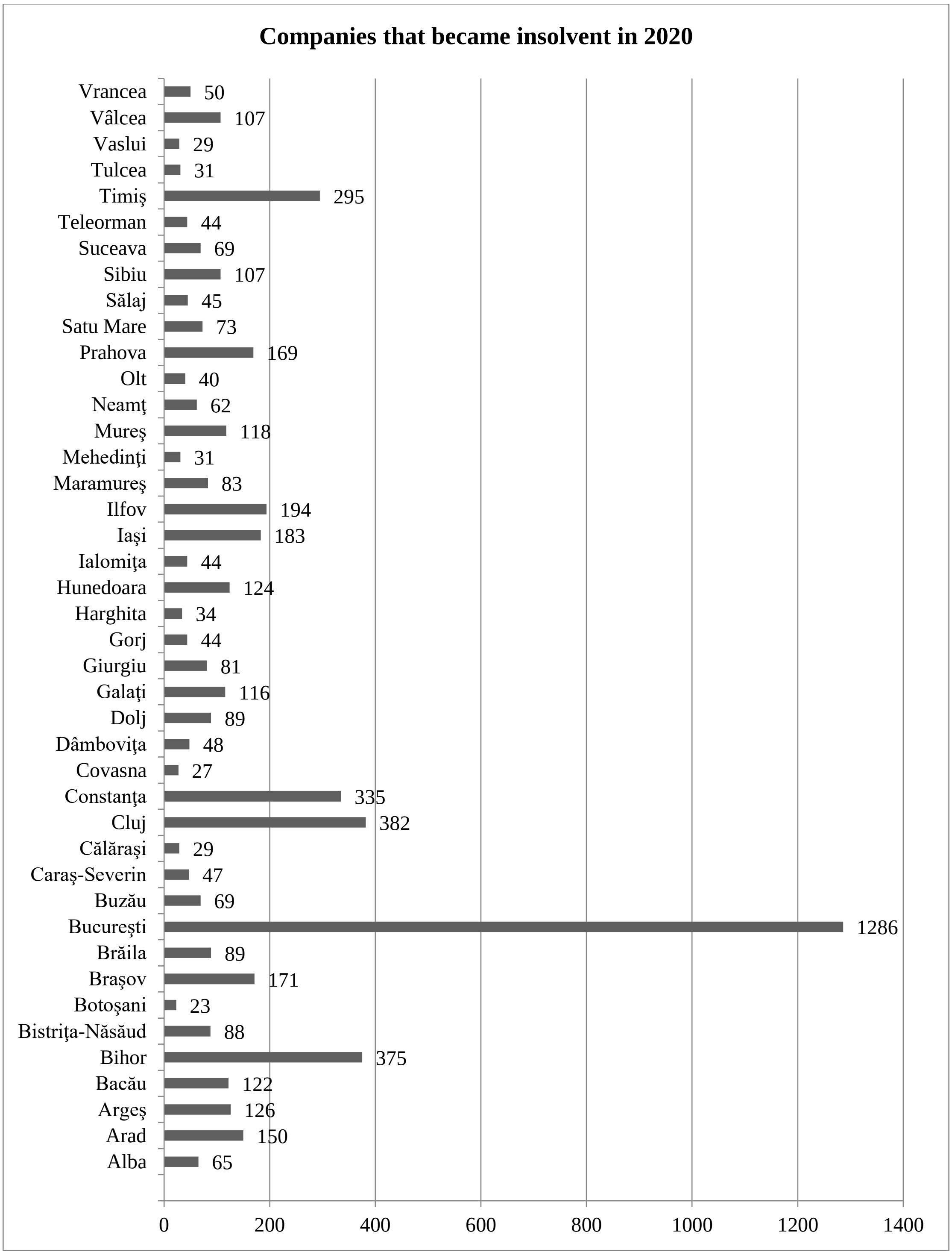

Figure 4. Companies that became insolvent in 2020
Source: Prepared by the author based on data collected from ONRC, 2023

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Issue 3 / October 2023 ISSN-L 2344-102X

The three sectors affected remain the same as in the previous year: wholesale trade and distribution (905 firms), construction (810 firms), retail trade (807 firms).

In 2020, we have two new, quite unexpected situations. The textiles, clothing and footwear sector has a much higher than normal insolvency rate, reaching 4 times the national average. The second surprising situation is found in the construction sector, where, although the volume of activity increases by 20%, it is in second place in the insolvency ranking.

Analyzing the territorial distribution, Bucharest records an increase in the number of insolvent companies, reaching a total of 591 companies, 53 more companies than in 2019, followed by Cluj (382 companies), Constanța (335 companies) and Bihor (345).

The years 2020 and 2021 were an exception to the classic course of a crisis: in 2020 there was a strong recession, but with the number of insolvencies falling (to an all-time low), and the recovery in 2021 was an unprecedented economic one, above expectations and with a highly volatile environment. The context has affected the business environment, generating many insolvencies, but there is still a difference from previous crises. The challenges faced by businesses have increased as a result of rising inflationary pressures (costs of raw materials, energy, gas, fuel or rising interest rates). These pressures will continue to manifest themselves as 2021 was just a prelude to a normalising environment in 2022, accentuated by inflation that will continue to rise, but also by the amplification of political and geopolitical risks. Given the current economic context, this year will most likely see insolvencies rise to a higher level than before the COVID-19 pandemic. The severe social and economic impact of the COVID-19 pandemic is not new. In addition to the crisis generated by the uncontrolled spread of the virus, its effects on the business and financial environment are being felt globally. In an attempt to address this unprecedented situation, countries around the world have declared states of emergency or alert on their territory and implemented a series of crisis measures, including providing financial and legal support to affected businesses.

The variety of measures considered with the common aim of supporting companies affected by the global crisis induced by the COVID-19 pandemic, including those with a significant potential for insolvency, as well as to support debtors already in insolvency proceedings, led to the adaptation of some measures in our country's legislation. Thus, Law No 55/2020 on certain measures to prevent and combat the effects of the COVID-19 pandemic entered into force. This law contains, among other things, a special chapter on insolvency.

The diversified measures adopted with the common aim of supporting companies affected by the global crisis generated by the COVID-19 pandemic, including those at significant risk of insolvency, and supporting debtors already in insolvency proceedings, have led to the adaptation of such measures in national legislation. In this context, Law No 55/2020 on some measures to prevent and combat the effects of the COVID-19 pandemic was adopted. This law includes, among other things, a special chapter on insolvency.

In 2021 (Figure 5), an increase in the number of insolvent companies with revenues above €0.5 million (medium and large) was observed. Thus, their number reached 322 in 2021, up from 301 in the previous year. This development is also reflected in the increase in financial losses, which reached approximately 5.3 billion lei in 2021, compared to 3 billion lei in 2020, and has a significant social impact. While in 2020 companies going into insolvency had around 20,000 employees, the number of employees increased to around 30,000 in 2021.

According to the data published by CIP (Payment Incident Centre) provided by the National Bank of Romania, the amounts refused for payment with debit instruments during 2021 totalled 1.2 billion lei, half the level of the previous year and about eight times less than the peak level recorded during the previous financial crisis (2009-2010). While the number of payment incidents during the same period under analysis decreased proportionally to their amount, the average amount of payment incidents recorded during 2021 decreased to 42,000 lei, almost one third less than the previous year.

The most insolvency cases opened were recorded in the construction sector (1,115), followed by retail trade (847) and wholesale trade (833). Thus, the share of the three sectors with the most insolvency cases ranged from 50% to 54% over the last 5 years, and for the top five sectors ranged from 65% to 70%.

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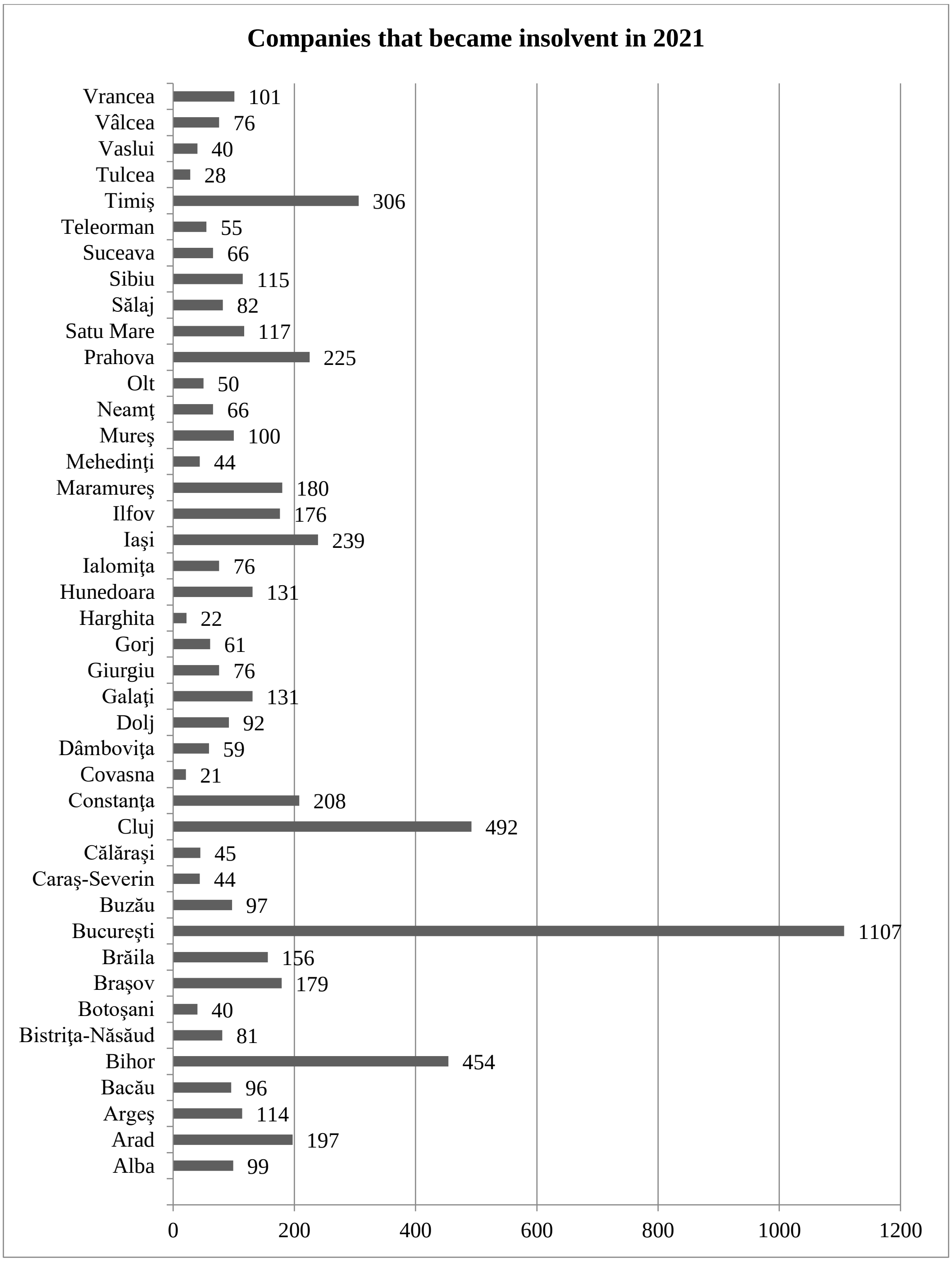

Figure 5. Companies that became insolvent in 2021
Source: Prepared by the author based on data collected from ONRC, 2023

The top five sectors with the highest number of insolvencies also cover a similar share in terms of the total number of active firms. From this perspective, the most affected sector is the manufacture of textiles, clothing and footwear, which recorded an insolvency rate of 54 companies per 1,000 active firms. The construction sector recorded 34 insolvencies per 1,000 active companies in 2021, of which 90% are small companies with revenues below €0.5 million that have not been able to resist rising raw material costs and increasing wage pressures. According to a study by Coface Romania (2022), the HoReCa sector completes the podium of industries with the most insolvencies per 1,000 active companies, being the activity most strongly affected by the restrictions imposed in the context of the COVID-19 pandemic. After the Covid pandemic, the year 2022 (Figure 6) brings a new problem that destabilises the economy both nationally and globally.

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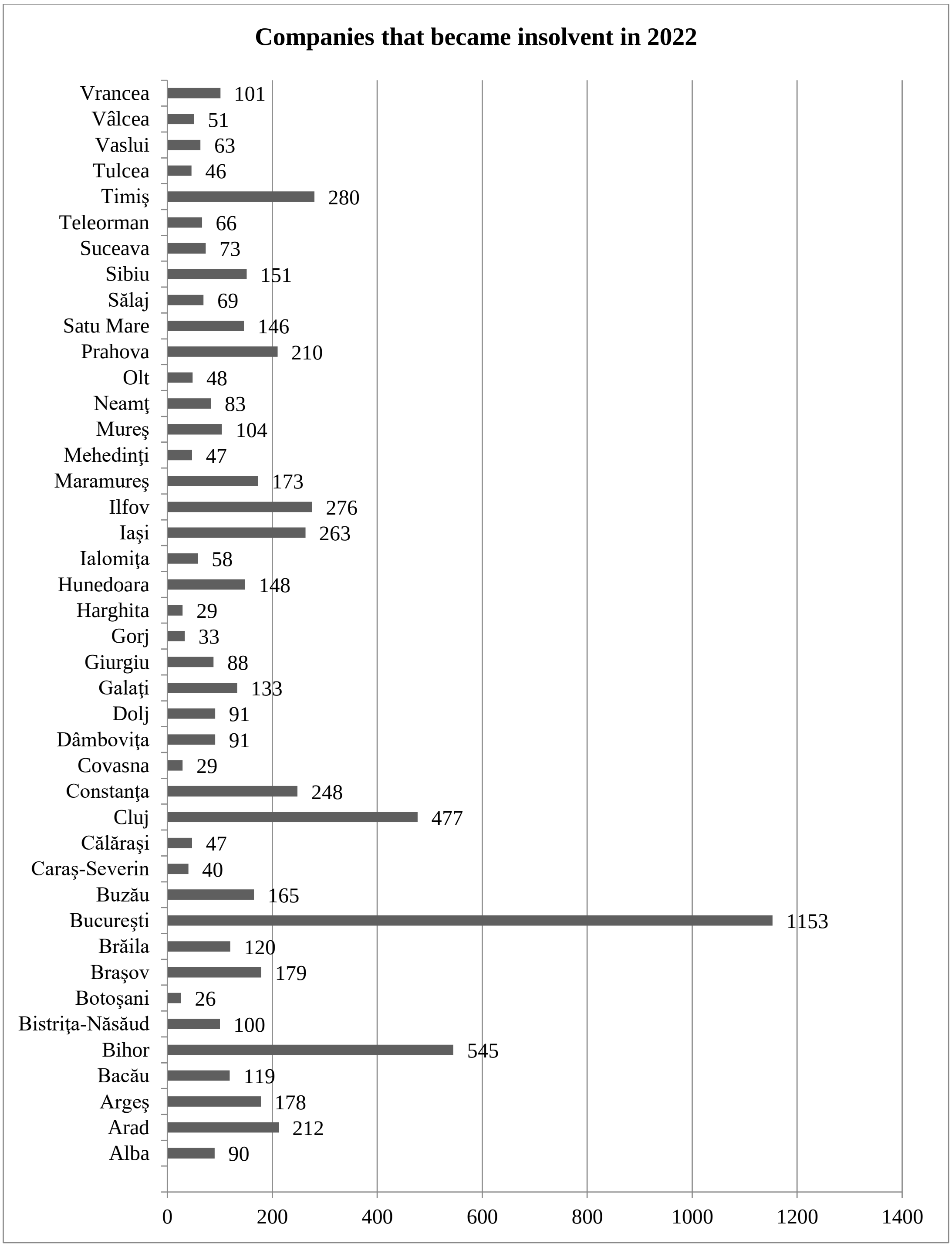

Figure 6. Companies that became insolvent in 2022
Source: Prepared by the author based on data collected from ONRC, 2023

Russia's war in Ukraine is having a number of negative effects, affecting supply disruptions for several sectors of activity and price increases for several market segments. The pace of price increases has outpaced the national average wage dynamics, with purchasing power falling considerably. The analysis reveals more than 6,700 companies entered insolvency in 2022, a 10% increase compared to 2021 (6,144). Of these, 67 are impact companies with more than 5,500 employees, assets worth more than 1.5 billion lei and debts to the state budget of more than 170 million lei.

According to a study conducted by CITR, the leading insolvency and restructuring market in Romania, the trade, construction and manufacturing sectors remained the most affected areas in 2022, with more than 60% of the total number of companies entering insolvency in 2022 being from these areas, and as a region, most insolvencies were in Bucharest, Bihor and Cluj are the regions with the most insolvencies (Stan, 2023).

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V. CONCLUSIONS

This research examines the situation of companies in Romania that faced financial difficulties in the period 2018-2022, generated by the COVID 19 pandemic but also by the energy and military crisis at the Romanian border.

The results of the study revealed that there is an increasing trend in the number of companies in financial difficulty from year to year, which means an exacerbation of a difficult macroeconomic situation for both the European and Romanian economies.

From the available data, for the year 2023, the trend of financial instability for firms in Romania has remained relatively constant compared to 2021 or 2022, with the trade, construction and manufacturing sectors remaining the most affected areas in 2023, as in 2022.

We predict a worsening of the economic situation for the following years, 2024 or even 2025, as the European economy is hit by an economic recession. We therefore believe that measures are needed to combat these causes of financial instability, at international, European and transnational level, coupled with immediate measures that effective management can identify and implement with the utmost urgency.

Therefore, we believe that during the course of the company's business, management should pay close attention to signals that may indicate a state of financial difficulty. These signals may include difficulties in paying debts on time or recovering receivables, including the opening of insolvency proceedings against business partners, which may make it difficult or even impossible to recover receivables, inability to obtain financing or refinancing, accompanied by worsening financial indicators, the conclusion of a contract that has a significant impact on turnover or generates a large portion of revenue, declining sales volume, dependence on certain business partners, supply difficulties, declining trading margins and others.

It is also very important for management to be aware of the options available to the business through the new restructuring mechanisms, such as flexibility, negotiation, specialised assistance and prevention. A good understanding of the current economic context will help management to prepare for difficult times and will contribute to choosing the right options to overcome the impasse.

We believe that the results presented can be useful to national bodies, since we have identified the economic sectors most affected by financial difficulties and can take concrete measures, for example of a fiscal nature, for them, but also to management, which can take immediate measures to alleviate these difficulties or, failing that, to initiate the judicial reorganisation procedure or, as a last resort, to declare bankruptcy for these companies.

REFERENCES

1. Back, P. (2005). Explaining financial difficulties based on previous payment behavior, management background variables and financial ratios. European Accounting Review, 14(4), 839-868.
2. Biz. 2023. Câte companii de impact au intrat în insolvență în 2022. Retrieved September 20, 2023 from: https://www.revistabiz.ro/cate-companii-de-impact-au-intrat-in-insolventa-in-2022/.
3. Coface Romania. (2022). Crestere de 10% a numarului de insolvente in 2022, dupa +10% in 2021. Retrieved September 20, 2023 from: https://www.agendaconstructiilor.ro/files/afaceri-juridic-finante-impozite/coface-crestere-de-10-a-numarului-de-insolvente-in-2022-dupa-10-in-2021.html.
4. De Oliveira F., N. (2021). Bankruptcy Policy—An Instrument for the Economic Recovery from the COVID Crises. *Journal of Business and Economics*, 615.
5. Hlaciuc, E., Socoliuc, M., & Mateş, D. (2008). Bankrupty risk analyzis through financial management. *Buletin Ştiinţific*, Anul XIII nr, 2(26), 2008.
6. Kalash, I. (2023). The financial leverage–financial performance relationship in the emerging market of Turkey: the role of financial distress risk and currency crisis. *EuroMed Journal of Business*, *18*(1), 1-20. https://doi.org/10.1108/EMJB-04-2021-0056.
7. Lebedinschi, A. (2016). Corelaţia definitorie dintre starea de încetare a plăţilor, incapacitatea de plată, insolvenţă, insolvabilitate, faliment, bancrută. *Legea şi Viaţa*, *296*(8), 27-34.
8. Lege nr. 85 din 25 iunie 2014 privind procedurile de prevenire a insolvenței și de insolvență, Retrieved September 20, 2023 from: https://legislatie.just.ro/Public/DetaliiDocumentAfis/159286.
9. Li, X., Wang, J., & Yang, C. (2023). Risk prediction in financial management of listed companies based on optimized BP neural network under digital economy. *Neural Computing and Applications*, *35*(3), 2045-2058. https://doi.org/10.1007/s00521-022-07377-0.
10. Li, Z., Farmanesh, P., Kirikkaleli, D., & Itani, R. (2022). A comparative analysis of COVID-19 and global financial crises: evidence from US economy. *Economic Research-Ekonomska Istraživanja*, *35*(1), 2427-2441. https://doi.org/10.1080/1331677X.2021.1952640.
11. Lin, S. M., Ansell, J., & Andreeva, G. (2012). Predicting default of a small business using different definitions of financial distress. *Journal of the Operational Research Society*, 63(4), 539-548.
12. ONRC. 2023. Oficiul Național al Registrului Comerțului. Retrieved September 20, 2023 from: https://www.onrc.ro/index.php/ro/statistici?id=252.
13. Socoliuc, M. I. (2020). Considerations concerning the implications of the COVID 19 pandemic on the role of the corporate governance in the ensurance of the continuity of the activity. *Annales Universitatis Apulensis: Series Oeconomica*, 22(2), 126-138.
14. Stan, A. (2023). Comerțul rămâne în topul domeniilor afectate de insolvențe și în 2022. Retrieved September 20, 2023 from: https://revistaprogresiv.ro/stiri/comertul-ramane-topul-domeniilor-afectate-de-insolvente-si-2022.
15. Sun, J., Li, H., Huang, Q. H., & He, K. Y. (2014). Predicting financial distress and corporate failure: A review from the state-of-the-art definitions, modeling, sampling, and featuring approaches. *Knowledge-Based Systems*, *57*, 41-56.
16. Sun, J., Makosa, L., Yang, J., Yin, F., & Sitsha, L. (2023). Does corporate tax planning mitigate financial constraints? Evidence from China. *International Journal of Finance & Economics*, *28*(1), 510-527. https://doi.org/10.1002/ijfe.2433.

DOI: 10.4316/EJAFB.2023.11318

Volume **11** / 2023 ISSN 2344-102X
Issue 3 / **October** 2023 ISSN-L 2344-102X

17. Ţăndareanu, N., (2012). *Insolvenţa în reglementarea legii 85/2006, Comentarii, Doctrină. Jurisprudenţă*. Universul juridic. București, Roamnia.
18. Vale, M. V., & Zenzerović, R. (2016). Diagnosing companies in financial difficulty based on the auditor's report. Croatian Operational Research Review, 147-158.
19. Zhou, F., Fu, L., Li, Z., & Xu, J. (2022). The recurrence of financial distress: A survival analysis. I*nternational Journal of Forecasting*, 38(3), 1100-1115. https://doi.org/10.1016/j.ijforecast.2021.12.005.
20. Ziar MM. (2019). Retrieved September 20, 2023 from: https://ziarmm.ro/onrc-numarul-insolventelor-a-scazut-cu-877-in-2018-suspendarile-si-dizolvarile-au-crescut-cu-1012-respectiv-cu-1013/.

DOI: 10.4316/EJAFB.2023.11318