GOVERNANCE RESPONSIBILITY IN ITALY TO MONITOR CORPORATE PERFORMANCE

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Abstract

The annual financial statement is the document that provides a "snapshot" of the effects of the management operations that have taken place during the fiscal year. The analysis derived from it is a tool that, over the years, is increasingly asserting its importance as a means of communicating, not only with internal shareholders but also with external stakeholders, who need to know the company's dynamics, its key points, and future effects. In this panorama, corporate governance is playing an increasingly fundamental role, which, through the instruments of control, exercises an important activity to protect not only the shareholders but also all the stakeholders. In Italy, the new corporate discipline is constantly addressing more responsibility to governance by giving them the task of monitoring and bringing out states of corporate crisis promptly. In order for these obligations to be put in place, the Code of Corporate Crisis and Insolvency was introduced, which provides a reporting system. Therefore, the corporate supervisory bodies and the auditor must proceed with the 5 alerts, i.e., verify that the ratios applied to the financial statement analysis do not exceed the thresholds provided as it would imply the presence of imbalances of an asset and financial nature. The proper and functional application of this alert procedure is only possible if governance equips the company with all the appropriate organizational and control arrangements to detect the necessary data in a timely manner in order to be able to analyze them and then take the appropriate corrective actions. In this study, we have analyzed a sample of companies to verify whether the indexes proposed by the National Council of Chartered Accountants and Accounting Experts (Consiglio Nazionale dei Dottori Commercialisti e degli Esperti Contabili, CNDCEC) can provide real help in managing a company's state of insolvency and are not merely theoretical management of the situation.

Keywords: Governance, Bankrupt, Corporate Crisis, Insolvency

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1. INTRODUCTION

Corporate governance, through the instruments of control, exercises an important activity to protect shareholders, whether they belong to the majority or minority, but also all stakeholders (Savioni & Franzoni, 2014). The board of directors, in order not to be unprepared, must think about the whole management system (the system of direction) to govern in the right way. In fact, it will be expected to

have all the necessary information to understand and be able to intervene without delay during difficult situations. Clearly, it remains essential to apply and comply with the accounting principles laid down in the legislation and to follow proper administrative practices.

In Italy, the new corporate discipline is constantly giving more responsibility to governance by delegating the task of monitoring and bringing out states of corporate crisis in a timely manner. Therefore, governance should equip the company with all the appropriate organizational and control arrangements to detect the necessary data due on time. These will allow them to analyze it and then take appropriate corrective action. In order for these obligations to be put in place, it was intended to introduce a reporting system so that corporate supervisory bodies and the auditor must ensure that the 5 alerts (thresholds of the indices applied to financial statement analysis) are checked and if necessary report to the Corporate Crisis Resolution Board. External public creditors may also be involved in this activity, such as the Internal Revenue Service (IRS), when it begins to detect systematic late payment, also a symptom of crisis alongside the 5 indexes.

The alert system envisioned by the Italian legislature is based on the analysis of data from the company's annual financial statements. The financial statements thus become a tool of great importance since they are responsible for monitoring the company's objectives, strategies and behaviors during management, through the use of accounting statements, providing useful information for both internal operators and interested third parties.

In this study, we want to understand how in Italy the introduction of certain financial statement alerts can help governance in detecting the state of a company's crisis early and be able to act on time. So, the purpose of this research (*RQ1*) is to understand whether the indicators proposed by the National Council of Chartered Accountants and Accounting Experts (Consiglio Nazionale dei Dottori Commercialisti e degli Esperti Contabili, CNDCEC)[1] actually allow a crisis situation to be detected in a timely manner, both by the company itself and by internal supervisory bodies and external users, in order to act in time to restore the company.

The remaining of this paper is organized as follows: Section 2 of this research paper presents the literature review. Then in Section 3, we discuss the research methodology used in this study. In Section 4, the results are presented. In Sections 5 and 6 we discuss the findings of this study and provide the conclusion and limitations of this study.

[1] The CNDCEC is a mandatory membership organization for professional accountants established by the Legislative Decree No. 139/05. Its members include Esperti Contabili (accountants who are authorized to deliver accounting services, perform tax fillings, and limited audit functions) and Dottori Commercialista (accountants who are authorized to perform the same services as Esperti Contabili and may also undertake company appraisals, insolvency procedures, defend clients before tax courts, and perform full scope audit and assurance services for non-statutory audits). According to Article 29 of the Legislative Decree No. 139/2005, the CNDCEC operates as the umbrella organization that coordinates territorial chapters.

2. LITERATURE REVIEW

Many studies have been carried out on the study of balance sheet indicators and how these can give indications in time of corporate crisis (Altman, 1968) going into more detail on how to assess with risk models bankruptcy or in general corporate crisis and identify the relevant elements of bankruptcy and recovery prediction models coming to the conclusion that many existing bankruptcy and recovery prediction models are very often inaccurate (Nwogugu, 2006; Gupton & Stein, 2002; Lau, 1987). Some studies, in particular, have analyzed those regulators in different countries that are able to effectively monitor failing firms (Bakar & Noordin, 2021). Some scholars examine firms starting one year before their bankruptcy filings and attempt to answer questions such as what are the common characteristics of firms that reach such a situation (Precourt & Oppenheimer, 2017) or the predictive powers of indicators of past firms entering such situations (Nyitrai, 2019).

Other studies have focused particularly on how accounting and market variables have limited power in predicting the recurrence of stress situations, while the duration of recovery, restructuring events, and their interaction terms with accounting and macroeconomic factors significantly affect recurrent risk (Zhou, Li, & Xu, 2022).

In Italy, the introduction of legislation has a decisive role in financial statement analysis in general, beyond civil rules. In general, the study of financial statement analysis has always served to highlight the weaknesses and strengths of the company, diagnosing its "state of health" (Baran, Pastyr, & Baranovà, 2016). Furthermore, it permits the comparison between different years and with the performance of competitors. In addition, it also allows for business-to-business communication with the resources surrounding the entity, enhancing strategic and operational credibility.

The discipline of financial statement analysis has distant origins in fact it was first employed in the early twentieth century in response to the increasing managerial complexity of some companies in the United States. These needed tools that could measure their performance, observe what course they were moving toward and whether there was an effective achievement of the goals they had set for themselves (Mazzini, 2009).

The first publication on the subject (Graham & Dodd, 1934), studied the use of the approach called "fundamental analysis", as it is based on the study of economic, industry, and corporate performance (Morgenson, 1998). Later scholars have then analyzed the comparability of financial statements at different stages of their life cycle (Biswas, Habib, & Ranasinghe, 2022; Habib & Hasan, 2019) and the rise and others have highlighted how the comparability of financial statements increases information to stakeholders (De Franco, Kothari, & Verdi, 2011).

We owe to Donaldson Brown the invention of the correlation between return on investment (ROI) and capital turnover and sales profits (Flesher & Previts, 2013; Anthony, 1989).

The interest in the topic, over the past few years, has become increasingly actual, as today such analysis allows for an accurate and prospective assessment of the company's ability to generate over time, and in a stable manner, a flow of wealth consonant with remunerating the factors of production that have been employed (Silvi, 2012). It is also configured as useful support for all stakeholders, as they are variously interested in management performance and in general all shareholders beyond the forms of corporate governance as has been addressed by some scholars (Raja & Kostyuk, 2016). One factor that caused a return to performance analysis was certainly the economic-financial crisis of past years, as it showed how important it is for corporate entities to constantly monitor their financial resources and economic activities (Andekina & Rakhmetova, 2013). If in the past the "navigation of the enterprise could be carried out by sight" (Pisoni & Devalle, 2016), the complexity of management, also related to the proliferation of endogenous and exogenous factors, has required qualitative implementation in the tools used by the enterprise for its management.

From this, it can thus be understood that analyzing financial statements is no longer just a useful activity: in fact, with the introduction of Basel II[2], it has become a necessary activity to establish a new relationship between a bank and a company, in which companies are continuously subjected to the assessment of their economic, financial and capital structure in order to be eligible for credit from banking institutions and in the reporting of any risks that emerge within the company (Bencini & Mancaruso, 2006; Azevedo, Oliveira, Sousa, & Borges, 2022; Barakat & Hussainey, 2013).

In Italy, the enactment of the Corporate Crisis and Insolvency Code (CCII or Crisis Code)[3] continues that process of implementing financial statement analysis as a means through which to monitor the "state of health", and in particular, in this case, we point out the task in charge of the administrative and supervisory body to analyze the indicators to assess the management of the company in the present and future, highlighting the sustainability of debts and the prospects for business continuity.

The enunciated alert system is activated based on specific indicators: these indicators constitute imbalances of an income, equity, or financial nature, and are detectable through indices that show the unsustainability of debts in the next six months and the absence of prospects for going concerned.

It is worth mentioning that the Italian legislature has delegated the development of alert indices to the (CNDCEC)[4] , which has opted for a "tree structure": the relevant state of crisis is diagnosed in the presence of a negative net worth, or below the legal limits for corporations, and six-month debt service coverage ratio (DSCR)[5] below 1. If the DSCR is not available, indicators such as sustainability of financial expenses in terms of the ratio of financial expenses to turnover, capital adequacy as the ratio of shareholders' equity to debt, return in the form of cash flow from assets, liquidity understood as the ratio of assets to short-term liabilities, and finally, social security and tax debt will have to be used.

In light of this, financial analysis is increasingly asserting its centrality as a corporate monitoring tool: not only internal but also external analysts must have all the relevant information at their disposal so that they can make their own judgments. This implies that, in order to avoid erroneous assessments or those without a solid basis, companies must proceed with the preparation of financial statements in a clear manner.

3. RESEARCH METHODOLOGY

Following the recommendations of the European Union and the internal requests of economic operators in Italy with the Corporate Crisis and Insolvency Code, the entire discipline of the insolvency procedures present in our legal system has been renewed with the aim of establishing a new system marked by the safeguarding of the company, and, therefore, of its value certainly economic, but also social for all stakeholders. Thus, the tools of alert and the assisted crisis resolution procedure were provided.

The chances of succeeding in safeguarding the values of an enterprise in crisis are greater if corrective action is taken in a timely manner. In fact, the business crisis is a degenerative process in which the sooner action is taken the less serious the economic-financial imbalance is and the probability of succeeding in overcoming the crisis will be greater, thus being able to continue to create value for the stakeholders. It is on these assumptions that the new rules come into play, which focuses on the governance's ability to equip the company with the organizational arrangements and above all aimed at control, in order to collect promptly, through periodic reports, the data necessary in order to verify that the thresholds provided for the 5 indexes are not exceeded.

Historically, in Italy, there has been a chronic delay in addressing the crisis by not allowing, at times, access to the procedures provided by the bankruptcy law precisely to avoid the dispersion of significant productive resources. The Legislature with the Reform wanted to revolutionize this past trend: it provided new organizational obligations on the part of the company and reporting obligations on the part of the supervisory bodies and the auditor. In addition, it proposed to identify the indicators of the crisis with the main purpose of detecting it according to schedule and immediately taking steps to overcome it. Thus, the problem of the study is represented by the following research question:

[2] Basel II is the short name by which the International Convergence of Capital Measurement and Capital Standards, signed in Basel in 2004, is known. It is an international prudential supervisory agreement, matured under the Basel Committee, concerning bank capital requirements, under which, banks in member countries must set aside capital ratios proportionate to the risk taken, assessed through the rating tool.

[3] Legislative Decree No. 14/2019 aimed at increasing the effectiveness of preventive restructuring procedures of the company that is in a state of crisis, which is closely related to that of insolvency, differing only in the temporal datum. And in fact, a state of crisis should be understood to mean not already a state of current difficulty of the subject but a situation in which, adopting a prospective view of the economic-financial situation, a future insolvency may probably occur.

[4] The CNDCEC prepared and issued the document *The indices of the alert pursuant to Art. 13, paragraph 2 of the Crisis and Insolvency Code* (Oct. 19, 2019).

[5] Debt service coverage ratio (DSCR) is a ratio that measures the financial sustainability of corporate debt, i.e., the future ability of a company to service its financial debts with cash flows generated from operations.

RQ1: Do the indicators proposed by CNDCEC actually allow a crisis situation to be detected in a timely manner, both by the company itself and by internal supervisory bodies and external users, in order to act in time to restore the company?

The present analysis was conducted by applying a quantitative methodology to performance (Voss, Chiesa, & Coughlan, 1994; Garengo, Biazzo, Simonetti, & Bernardi, 2005) develops as follows:

STEP 1: Analysis of the methodology introduced by the new legislation.

STEP 2: Evaluation of parameters to select a pool of companies to test the new methodology on.

STEP 3: Application of indices to selected companies.

STEP 4: Analysis of results and comparison with each other.

STEP 5: Evaluation of results and response to the research question.

The methodology with which this research question will be attempted to be answered will be characterized both by a theoretical approach, to highlight the most innovative features of the reform, and by a quantitative approach aimed at verifying whether through the help of the crisis indicators, identified by the Legislature in general terms and by the CNDCEC in operational terms, timely action against the state of crisis can be put in place aimed at overcoming it. In order to be able to answer the question posed at the outset, the financial statements of two samples of companies that have been in a state of crisis from 2014 to the present were selected and examined: ten bankrupt companies and ten companies that after the opening of bankruptcy proceedings aimed at reorganization managed to return to bonis and thus overcome their crisis. The last three financial statements prior to the opening of bankruptcy proceedings will be reread considering the methodology for identifying indications of crisis proposed by the CNDCEC: the set of 5 indices was analyzed since the data to be sourced for the calculation of the DSCR are data that can be gathered from internal control and are not so easily acquired by external users of financial statements. The study sample (Ulrich, 2000) was selected from Italian companies meeting the following requirements:

1) Turnover included up to 11 million.
2) Bankruptcy filing as of 2014 or opening of bankruptcy proceedings as of 2014 and closure of such proceedings by 2019.

4. RESEARCH RESULTS

Below are the results obtained, with reference to the *RQ1*. The set of 5 indicators proposed by the CNDCEC, was applied to the 3 financial statements of the fiscal years prior to the declaration of bankruptcy or the opening of bankruptcy proceedings, in the time horizon from 2014. The indices result in the following:

- The sustainability ratio of financial expenses, or the ratio of absorption of financial expenses on sales, is an extremely widely used indicator to check the coverage or absorption of the cost of debt capital on a company's sales. It is the result of the ratio of financial expenses to sales. This ratio should be in the range of 0–3% of turnover. In fact, significant absorption of financial charges on turnover could undermine the firm's ability to adequately remunerate other inputs and shareholders on a residual basis. The incidence of financial charges on turnover depends on several factors, including the company's ability to generate margin, its industry and stage of development.
- The capital adequacy ratio represents a capital performance indicator, the purpose of which is to verify the ratio between own financing sources, represented by equity, and externally sourced sources, constituted by debt capital: this index thus allows the main cause of imbalance to emerge, namely the ratio of shareholders' and lenders' contributions. It is the result of the ratio of shareholders' equity to total debt.
- The liquid return on assets ratio allows us to check the effectiveness of the management area of profitability, and it is the ratio of cash flow to total assets. Cash flow identifies the total financial resources that the enterprise is able to create through its activities. It considers the financial resources generated and absorbed by all activities of the enterprise, thus from the operating area, to the financial area, to the nonrecurring area, while it does not consider the distribution of dividends to shareholders.

Table 1. Alert threshold

Business sector	*Financial expenses/ Income, %*	*Equity/ Debt, %*	*Short-term liquidity (s.t.assets/ s.t.liabilities), %*	*Cash flow/ Assets, %*	*Tax & social security indebtedness/Assets, %*
A — Agriculture, forestry and fisheries	2.8	9.4	92.1	0.3	5.6
B — Mining industry C — Manufacturing D — Gas/energy production	3.0	7.6	93.7	0.5	4.9
E — Water supply, collecting systems, waste D — Gas/power transmission	2.6	6.7	84.2	1.9	6.5
F41 — Building construction	3.8	4.9	108.0	0.4	3.8
F42 — Civil engineering F43 — Specialist construction	2.8	5.3	101.1	1.4	5.3
G47 — Retail trade I56 — Restaurants and bars	1.5	4.2	89.8	1.0	7.8
H — Transportation and storage I55 — Hotel	1.5	4.1	86.0	1.4	10.2
JMN — Business services	1.8	5.2	95.4	1.7	11.9
PQRS — Services to people	2.7	2.3	69.8	0.5	14.6

Source: Elaborated by the author.

- The liquidity ratio consists of the ratio of total assets to total short-term liabilities. It is an indicator of financial performance and it shows the company's ability to meet its short-term commitments through the use of current assets alone and, therefore, the ability of short-term assets to cover short-term liabilities: a value greater than unity indicates, therefore, that the company is potentially able to meet its short-term commitments without affecting its financial structure and without resorting to third-party capital; values that are less than unity indicate a situation of potential difficulty in the short term.
- Social security and tax debt are aimed at sounding out the management area represented, according to the CNDCEC, by "other debt ratios". It consists of the ratio of total social security and tax debt to total assets. The social security or tax indebtedness ratio falls into the category of financial performance indicators, the purpose of which is to measure the company's degree of dependence on tax and social security operating debts: this type of indebtedness is often used by many companies as a source of financing, constituting an initial warning sign; directors and supervisory body must, therefore, monitor compliance with tax and social security payments.

The indices just analyzed from a theoretical point of view, were applied to the data of the companies analyzed and were compared to the thresholds given by the legislature represented below, parameterized to the company's industry.

The results of our sample of companies are represented in Tables 2 and 3 below.

Table 2. Companies declared bankrupt

Company	*Indicators*	*Alert threshold*	*n-1*	*n-2*	*n-3*
A SRL	financial expense/income, %	1.5	0.32	0.64	1.35
	equity/debt, %	4.1	4.30	4.28	5.72
Transportation and storage	short-term liquidity, %	0.4	3.44	2.01	3.75
	cash flow/assets, %	8.0	**82.05**	**63.47**	**85.28**
	tax and social security indebtedness/assets, %	10.2	**68.96**	**37.58**	**35.73**
B SPA	financial expense/income, %	3.8	**0.11**	**1.17**	1.24
	equity/debt, %	4.9	**-31.90**	**29.75**	52.27
Building construction	short-term liquidity, %	0.4	**-1.69**	**53.79**	1.22
	cash flow/assets, %	108.0	**53.01**	**56.45**	**84.55**
	tax and social security indebtedness/assets, %	3.8	**10.75**	**9.08**	**4.85**
	financial expense/income, %	3.0	**0.59**	0.22	0.10
C SRL	equity/debt, %	7.6	**-40.70**	7.71	**7.22**
	short-term liquidity, %	0.5	**-79.84**	1.31	1.57
Manufacturing	cash flow/assets, %	93.7	**57.44**	98.44	101.74
	tax and social security indebtedness/assets, %	4.9	**15.50**	3.51	0.03
	financial expense/income, %	3.0	1.68	1.53	1.85
D SRL	equity/debt, %	7.6	25.90	59.74	99.93
	short-term liquidity, %	0.5	**-28.93**	**-7.81**	0.96
Mining industry	cash flow/assets, %	93.7	**60.78**	**83.05**	**94.12**
	tax and social security indebtedness/assets, %	4.9	**21.90**	**12.89**	**7.38**
	financial expense/income, %	3	2.37	1.79	1.93
E SRL	equity/debt, %	7.6	9.73	**6.61**	**4.57**
	short-term liquidity, %	0.5	0.64	2.64	**-23.93**
Manufacturing	cash flow/assets, %	93.7	**53.13**	**61.98**	**53.15**
	tax and social security indebtedness/assets, %	4.9	**12.91**	**6.83**	3.41
	financial expense/income, %	2.1	1.58	0.02	0.02
F SRL	equity/debt, %	6.3	19.80	0.20	0.19
	short-term liquidity, %	0.6	**-0.02**	**-0.04**	0.02
Civil engineering	cash flow/assets, %	101.4	**21.19**	**0.24**	**0.18**
	tax and social security indebtedness/assets, %	2.9	**22.71**	**0.14**	**0.05**
	financial expense/income, %	1.8	**0.19**	**0.29**	0.25
G SRL	equity/debt, %	5.2	**-63.21**	**-18.44**	**3.98**
	short-term liquidity, %	1.7	**-81.54**	**-19.88**	**0.23**
Business services	cash flow/assets, %	95.4	**21.94**	**43.79**	**34.88**
	tax and social security indebtedness/assets, %	11.9	**4.13**	**1.75**	2.35
	financial expense/income, %	3.0	1.92	1.37	1.29
H SRL	equity/debt, %	7.6	24.57	38.91	39.90
	short-term liquidity, %	0.5	6.83	11.04	9.51
Mining industry	cash flow/assets, %	93.7	**56.65**	**33.33**	**69.42**
	tax and social security indebtedness/assets, %	4.9	**9.97**	n.d.	n.d.
	financial expense/income, %	3.0	0.06	0.04	0.04
I SRL	equity/debt, %	7.6	**6.55**	**4.87**	**3.65**
	short-term liquidity, %	0.5	19.49	25.03	27.39
Manufacturing	cash flow/assets, %	93.7	**16.77**	**7.59**	**22.19**
	tax and social security indebtedness/assets, %	4.9	0.27	0.66	0.23
	financial expense/income, %	3.0	0.31	0.38	0.32
L SRL	equity/debt, %	7.6	**5.33**	**4.99**	**5.24**
	short-term liquidity, %	0.5	7.54	10.23	4.80
Energy production	cash flow/assets, %	93.7	**87.85**	**45.11**	**59.64**
	tax and social security indebtedness/assets, %	4.9	**54.38**	**47.46**	**52.53**

Source: Elaborated by the author.

Table 3. Companies that as a result of bankruptcy proceedings have returned to "bonis"

Company	*Indicators*	*Alert threshold*	*n-1*	*n-2*	*n-3*
AB SPA	financial expense/income, %	3.0	**3.19**	2.70	2.88
Manufacturing	equity/debt, %	7.6	18.91	93.57	100.28
	short-term liquidity, %	0.5	**-44.12**	0.52	3.26
	cash flow/assets, %	93.7	**51.14**	**90.20**	**80.08**
	tax and social security indebtedness/assets, %	4.9	3.71	3.19	3.74
BB SPA	financial expense/income, %	1.5	1.21	**2.37**	1.11
Transportation and storage	equity/debt, %	4.1	4.52	5.12	18.44
	short-term liquidity, %	1.4	**-12.95**	**-8.25**	6.85
	cash flow/assets, %	86.0	**65.34**	**83.72**	**70.88**
	tax and social security indebtedness/assets, %	1.2	**46.25**	**41.32**	**32.07**
CB SRL	financial expense/income, %	3.0	**5.29**	3.69	2.59
Manufacturing	equity/debt, %	7.6	25.05	29.09	28.55
	short-term liquidity, %	0.5	**-0.92**	0.97	0.63
	cash flow/assets, %	93.7	133.49	601.21	557.70
	tax and social security indebtedness/assets, %	4.9	1.33	0.55	0.93
DB SRL	financial expense/income, %	3.8	**5.29**	3.69	2.59
Building construction	equity/debt, %	4.9	25.05	29.09	28.55
	short-term liquidity, %	0.4	**-0.92**	0.97	0.63
	cash flow/assets, %	108	133.49	681.21	557.78
	tax and social security indebtedness/assets, %	3.8	1.33	0.55	0.93
EB SRL	financial expense/income, %	1.8	**2.28**	**3.73**	**3.40**
Business services	equity/debt, %	5.2	13.63	16.18	11.98
	short-term liquidity, %	1.7	**-1.64**	**0.68**	**0.67**
	cash flow/assets, %	95.4	154.96	154.20	149.67
	tax and social security indebtedness/assets, %	11.9	**47.12**	**52.19**	**49.54**
FB SPA	financial expense/income, %	3.0	0.65	0.50	0.36
Manufacturing	equity/debt, %	7.6	22.74	61.06	53.12
	short-term liquidity, %	0.5	**-33.85**	3.80	2.46
	cash flow/assets, %	93.7	**54.62**	**59.91**	**57.52**
	tax and social security indebtedness/assets, %	4.9	1.19	1.17	0.72
GB SRL	financial expense/income, %	1.8	0.80	**2.40**	**1.92**
Business services	equity/debt, %	5.2	**4.96**	**1.47**	**0.95**
	short-term liquidity, %	1.7	15.20	10.97	6.80
	cash flow/assets, %	95.4	99.81	**52.84**	**44.01**
	tax and social security indebtedness/assets, %	11.9	**61.57**	**61.26**	**69.60**
HB SPA	financial expense/income, %	3.0	2.78	2.49	2.34
Manufacturing	equity/debt, %	7.6	**1.69**	32.61	23.43
	short-term liquidity, %	0.5	**-1.07**	**-1.70**	3.42
	cash flow/assets, %	93.7	**57.42**	**75.53**	**74.96**
	tax and social security indebtedness/assets, %	4.9	**7.80**	4.90	4.44
IB SPA	financial expense/income, %	3.0	**4.65**	2.52	1.72
Manufacturing	equity/debt, %	7.6	**-13.50**	25.15	46.32
	short-term liquidity, %	0.5	**-23.39**	**-0.50**	6.77
	cash flow/assets, %	93.7	**26.63**	**60.09**	**36.09**
	tax and social security indebtedness/assets, %	4.9	**6.44**	1.85	4.00
LB SPA	financial expense/income, %	2.1	**1.45**	**1.93**	1.55
Wholesale	equity/debt, %	6.3	**-60.87**	**-7.34**	**0.32**
	short-term liquidity, %	0.6	**-99.08**	**-5.09**	**-2.47**
	cash flow/assets, %	101.4	**35.38**	**90.58**	**87.88**
	tax and social security indebtedness/assets, %	2.9	**93.94**	**1.44**	**26.14**

Source: Elaborated by the author.

Table 2, for companies declared bankrupt, and Table 3 for companies that after undertaking bankruptcy proceedings have returned to bonis, highlight the results obtained by applying the set of 5 indices, to the values reported in the financial statements. Highlighted in bold are those values that exceed the reference thresholds and thus trigger a reasonable presumption of a state of crisis.

This analysis shows that, particularly for companies found to be bankrupt, the indices in the previous 3 years often indicated unbalanced situations.

From the analysis of Table 2, it is possible to state that the companies that initiated bankruptcy proceedings were characterized by imbalances regarding liquidity crisis, the first sign that control and management are not functioning in the correct way, and excessive weight of debts that are not in line with the company's equity, or more generally with the company's assets. These aspects are certainly linked to each other in that the liquidity crisis does not allow the company to find the necessary resources to be able to provide for the payment of its debts, making their deferment and the possibility that they will not be repaid increase more and more. In this very perspective, it can also be seen that the first ones not to be paid off are social security and tax debts, as initially there is a tendency to prefer the payment of operational debts in order to receive the resources to try to continue the characteristic activity with which to get some of the liquidity back.

Looking at Table 3 of the companies that initiated bankruptcy proceedings that enabled their reorganization, it is not possible to find a common characteristic of all of them, although in this case often the same liquidity imbalances are shown as referred to for bankrupt companies, indeed looking at the data of the company LB SPA this would seem to burden in a worse situation than the data shown by companies that later went bankrupt.

5. DISCUSSION OF THE RESULTS

In Italy, with the introduction of the Corporate Crisis and Insolvency Code (CCII) into our legal system, the legislature identified the preparation of organizational and control arrangements as the pivot around which the proper functioning of the new warning tools revolves, as much as to provide for their preparation within the corporate structure as a real obligation for governance and by including it in a legal provision.

Among the new measures that have been devised to carry out an early diagnosis of the state of difficulty of companies include the procedures of alert and assisted crisis settlement. These are aimed at encouraging the early emergence of the crisis and facilitating the conduct of negotiations between the debtor and creditors by entrusting the Crisis Resolution Body (a body of a non-jurisdictional nature and with adequate professionalism) established at each Chamber of Commerce. This procedure can be activated when a series of crisis indicators arise (imbalances of an income, equity or financial nature related to the specific characteristics of the company and the activity carried out by the debtor) at the request or report of the debtor himself, the corporate supervisory bodies or qualified public creditors (Revenue Agency, INPS[6] and collection agent).

The Legislature has also provided for crisis regulation tools, which consist of out-of-court negotiated solutions in order to guarantee the reorganization of debt exposure and ensure financial rebalancing. These mechanisms, such as agreements in the execution of attested plans, debt restructuring agreements and moratorium agreements, guarantee the entrepreneur the possibility of overcoming the state of economic difficulty by proposing to creditors a plan that allows corporate reorganization.

Other instruments regulated by the new CCII are two alternative forms of bankruptcy: the *first* one consists of a procedure by which the company has the option of satisfying its creditors through going concern, or through the liquidation of its assets; while the *second* one consists of a procedure aimed at liquidating the assets of the insolvent company, distributing the proceeds in favor of creditors based on the "importance" of their claims.

To avoid having to resort to such measures, it is a good idea for governance to examine its own company's performance to recognize when it is time to intervene with corrective measures to adjust its course. This can be done through crisis indicators, identified as income, asset and financial imbalances. The judgment on these indices and, consequently, on the imbalances, must be made taking into account the specific characteristics of the company and the entrepreneurial activity carried out by the debtor, as well as the date of incorporation and commencement of the activity. It should be noted that certainly the degree of inaccuracy that characterizes the prospective indices is directly proportional to the weakness of the planning and control culture present in the analyzed company. It is advisable, based on the established internal safeguards, to set up a management control system dedicated to monitoring the company's performance so that the governance carries out periodic checks for the presence of critical equity, economic or financial issues, based on the information derived from the monitoring activity.

The CNDCEC, for the index system, has adopted a structure that is simultaneously "tree-shaped" and combined, intending in this way to elaborate a path of self-diagnosis of the company's state of health: in fact, the working group wanted to integrate the set of indexes not only with a logical application path, which allows a unitary evaluation but also with methodological support which allows their critical use, that is, a homogeneous calculation of the indexes based on the analysis of the company's performance, from a forward-looking perspective[7].

The path can be described as hierarchical and, the application of the indices, must, therefore, take place according to the sequence indicated by the draft: only where the verification of the exceedance of the alert threshold of an index produces a negative result, the analysis continues with the next index in the "tree" system and combined.

First, however, it is necessary to go to ascertain that the company does not have negative equity or less than the legal minimum; following this check, we will proceed to verify the sustainability of the debt for at least the next six months, through the calculation of a special indicator represented by the DSCR[8].

The result of DSCR is given by the ratio between the expected cash flows in the chosen period and the financial debt to be paid in the same. In case data would not be available on time for calculating the DSCR or they are not considered adequately reliable, it is good to use the sectoral indices developed by the CNDCEC (Ricci, 2020). The set consists of five indices, namely: sustainability of borrowing costs index; capital adequacy index; liquid asset return index; liquidity index; and social security indebtedness index.

The CNDCEC, in its draft, defines the presence of negative shareholders' equity or, for corporations, below the legal limit, as an index of crisis that applies to all businesses. Shareholders' equity becomes negative or falls below the legal limit as a result of operating losses. Regardless of the financial situation, said circumstance, therefore, constitutes an impairment to going concern, as long as the losses have not been written off and the share capital restored to at least the legal limit.

The DSCR, the second "node" in the index tree developed by the CNDCEC, is the index that most closely identifies a crisis situation: being the ratio of expected free cash flows in the next six months to expected debts to be serviced in the same time frame, it relates very closely to "crisis". The DSCR is, therefore, the main tool for adopting a forward-looking view within the company: the obligation to constantly monitor the company's performance finds concretization in the elaboration of prognostic data, which will allow the evaluation of the management performance and the correlated

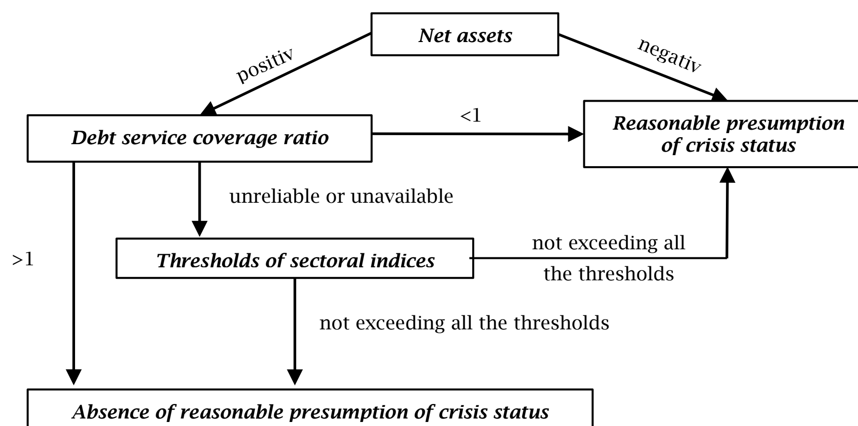
[6] National Social Security Institute (Istituto Nazionale Previdenza Sociale).

[7] https://www.cerved.com/modelli_forward_looking/#:~:text=%E2%80%9CIn%20generale%20nel%20contesto%20della,settori

[8] https://www.cerved.com/dscr-perche-e-cosi-importante-per-individuare-la-crisi-dimpresa/

state of health of the company. Among the fundamental information for the purpose of concretizing the forward-looking principle, the constant budgeting activity and, before that, the elaboration of prognostic data plays a crucial role: the DSCR, in fact, can be used only in the presence of prognostic data deemed reliable by the controlling bodies according to their professional judgment.

Figure 1. CNDCEC's method



Source: Elaborated by the author based on the CNDCEC (2019).

According to Bava and Devalle (2021), a DSCR value of less than 1 is synonymous with the inability of the cash flows generated by the company to meet the debt: evidence to the contrary is, in any case, admissible, which may be represented by extraordinary cash flows arising from nonrecurring transactions that are not part of the cash flow of operating activities; or, the evidence could be the obtaining of credit lines that make the debt prospectively sustainable at least in the six-month reference period.

As anticipated earlier, the index system finds differentiated applications based on the sector of economic activity to which the controlled company belongs: consequently, sector-specific alert thresholds have been identified for each identified index, which is summarized in Table 1 above, which was also used for the analysis of companies.

The results of the present study differ from previous ones as no author had tried to analyze the topic from this perspective, that is, the practical application of the methodology proposed by the CNDCEC to Italian business realities.

The proposed methodology represents a mechanism capable of catching signs of criticality to be remedied before they turn into pathology but it should be pointed out that the analysis suffers from certain limitations related, mainly, to the reference information base that remains the annual financial statements and that, consequently, does not already allow an analysis in a forward-looking perspective, as this is closed with final data and not in real time.

The results that emerged from the analysis of the bankrupt companies show that although the signs were there, the companies were unable to correct course because this analysis is applicable to final data, often available a few months later than the close of the company's fiscal year, thus, data that are obsolete now and which make awareness of the situation when it may now be not on time any longer. On the other hand, analyzing the companies that returned to bonis, it can be deduced that what may have worked in favor of this pool of companies, each characterized by different more or less serious imbalances, was the timely intervention that allowed them to correct course immediately: they did not wait for the final data but periodically through reports, one became aware of the situation thus being able to ask for help and rely on procedures that allowed them to return to bonis.

6. CONCLUSION

This research was conducted to verify whether theindicators proposed by the CNDCEC actually enable the company, internal control bodies or any stakeholders to detect a crisis situation in a timely manner in order to restore a company.

From the analysis conducted with the application of the guidelines prepared by the CNDCEC, with which the tables shown were prepared, it is easy to identify the area of alert but it is clear that it will be necessary to assess business risk on the basis of *ad hoc* reflections for which the suggested model will have to be supplemented by independent variables that only governance can really know since it is an integral part of the company and can obtain more detailed control data than those that become available to third parties with the annual financial statements.

That being deduced, it can be said that the operational analysis of the companies has made it possible to verify and demonstrate how constant monitoring of the company and a spatial and temporal comparison of its performance can be a valid approach to identifying signs of discontinuity, delimiting the areas of intervention and, in this way, accurately planning and controlling the actions to be taken. The suggestions and methodologies investigated here will also find usefulness for company administrators who will have to equip their corporate organizational systems with procedures and tools for analysis and control in order to respond to the regulatory provisions of the Crisis Code, but certainly, the same tools applied to planning and forecasting documents can better

respond to that need to anticipate the crisis by catching its signals in a timely manner in order to implement those necessary corrections "in the course" of the financial year, an intervention that cannot be carried out if one waits for the final data with the risk that one intervenes when it is already late.

The limitations of the present study are mainly due to the multiple business realities, each belonging to different sectors, so it is impossible to analyze every facet. In addition, information asymmetry plays a great role: the information made available to external users are mere "photographs" as the business reality, performance reasons and information flows are only available to internal users, who could thus interpret the data differently.

From these reflections, therefore, it can be concluded that indices function in the correct way only if underlying them is an organizational and accounting structure that has been well structured by governance and well-controlled by the bodies in charge.

This framework is constantly being updated as a result of the various regulatory update proposals that are being pursued in Italy. Therefore, it is a good idea to stay up-to-date on the subject and to supplement this contribution with any new developments that may be introduced.

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