ИНСТИТУТ ЗА ИКОНОМИЧЕСКИ ИЗСЛЕДВАНИЯ НА БЪЛГАРСКАТА АКАДЕМИЯ НА НАУКИТЕ
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MISUNDERSTANDING OF CORPORATE INSOLVENCY AND SOLVENCY ASSESSMENT METHODOLOGY – HOW DID THE LOGIC RUN AWAY?[4]

The paper shows that there is a need in most of the Balkan countries to change the law governing the insolvency issue by clearly defining insolvency and thereby removing the confusion surrounding it from the legislation. It is also essential to harmonize the legal provisions so that the term insolvency is used consistently throughout the legal text. The paper also shows the need to define solvency properly in textbooks and present the correct methodology to assess solvency. In this way, it can be expected that neither the term (in)solvency nor the (in)solvency indicator(s) will be incorrectly used by scholars from the Balkan region.
Keywords: insolvency law; solvency; solvency ratio; solvency analysis; firm performance
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1. Introduction

While the effect of the crisis caused by the COVID pandemic has not yet been fully explored and understood, a new global crisis has been spreading across the globe from the Ukraine battlefield. At this moment, it is clear that no one can predict the effect of this crisis on the world economy. Each crisis highlights the insolvency topic among business people, regulators, and scholars, and this topic will likely be actual for a while.

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Still, there is a widespread misunderstanding about the meaning of corporate insolvency, i.e., corporate solvency, and consequentially about the assessment of solvency in Roman law countries, particularly those from former communist East-European countries and especially from those from the Balkan Peninsula (Pavlović et al., 2022).

The inadequate semantic content of words leads to misunderstanding in communication and the loss of the language's cognitive, expressive, accumulative, and communicative functions. When such a term represents a fundamental corporate law, accounting, and business finance term, which is the case with (in)solvency, the potential confusion could have very significant consequences.

Since there is a misunderstanding among university professors about (in)solvency and how to assess it, it is essential to point out this issue. The fact that the effect of this misunderstanding spreads out in the legislation of the Balkan Peninsula's countries makes this task even more significant. The appropriate changes in the legislation and the awareness of business people about the meaning of solvency and the methodology to assess it could be done only after the education of scholars and relevant changes in the university textbooks.

While the confusion on the semantic content of solvency has been explained (Pavlović, Milačić, 2013; Pavlović et al., 2022), it seems that there is a need to explain the purpose and the methodology of the solvency analysis. That is because the inadequate methodology for assessing solvency contributes to the incorrect understanding of solvency, i.e., to the solvency conundrum.

2. The Solvency Conundrum

Recently, an analysis grounded on papers published in journals indexed in the Web of Science (WOS – SSCI) revealed that scholars from Common Law countries (USA, UK) generally do not use the term (in)solvency in another context than in the bankruptcy and failure context. Contrary, among authors from Roman law countries, particularly those from former communist East-European countries, (in)solvency is widely used in a non-failure context. It appears that these scholars used solvency to describe "a firm characteristic," "an indicator of credit capacity," "a variable for the economic value calculation," or an "objective of business operation." (Pavlović et al., 2022) The solvency conundrum has spread out from the definition field to the solvency assessment area as well. All in all, solvency ratio(s) appears among several other financial indicators used to assess the firm's health.

Solvency is an accounting term, i.e., a company law term, but also a term used by insolvency law because bankruptcy or restructuring occurs when a company becomes insolvent. Therefore, (in)solvency should be defined in both laws.

Like all accounting terms, the term (in)solvency should be defined by Law on Accounting or Company Law in countries where provisions on financial reporting are not given in a separate law. In all Balkan countries, provisions on accounting are given in a separate law, named Law on Accounting or Law on Accounting and Auditing. However, in countries where the International Financial Reporting Standards (IFRS) are applied instead of the national

accounting regulation, which is the case in all Balkan countries, definitions of the terms are not given in the Law of Accounting but are prescribed by the International Accounting Standard Board (IASB). Because only accountants are familiar with IFRS, scholars from other fields are unaware of how solvency is defined. But accountants could face the problem of what solvency is as well. That is because contrary to the former Framework for the Preparation and Presentation of Financial Statements (IASC, 1998), the revised Conceptual Framework (IASB, 2018) does not define the term solvency even though it mentions it three times. Probably because most IASB members are from the Anglo-Saxon system, they are not even aware that different attitude on the meaning of (in)solvency exists. The additional problem is that the Conceptual Framework for Financial Reporting (IASB, 2018) is primarily intended for the IASB members. In some countries applying the IFRS, the Conceptual Framework for Financial Reporting is not even translated, or the translation occurs with a significant delay. Therefore, most scholars from the Balkan region, even from the accounting and corporate finance field, are unfamiliar with the Conceptual Framework for Financial Reporting (IASB, 2018) and the former Framework for the Preparation and Presentation of Financial Statements (IASC, 1998).

Thus, neither Law on Accounting nor IASB defined solvency, although IASB (2018, 1.12-1.13) claims that the general purpose of financial reports is to provide information about the financial position, which should help assess the entity's liquidity and solvency (1.12-1.13), and that information about cash flows helps users assess entity's liquidity or solvency (1.20).

As Pavlović et al. (2022) suggested, the nonawareness of the legal meaning of insolvency lay in the fact that the laws on insolvency in most of these countries do not contain the term insolvency in the title, nor is adequately used in the text of the law, contrary to the Common Law countries, where that law is called "Insolvency Law."

Namely, the name of the laws governing companies insolvency is "Zakon za stečaj" in North Macedonia, "Zakon o stečaju" in Serbia, "Zakon o stečaju" in Montenegro, "Stečajni zakon" in Croatia, "Zakon o stečaju" in the Republic of Srpska, "Zakon o stečaju" in the Federation of Bosnia and Herzegovina.

The term "stečaj" is officially translated as "bankruptcy" in the English translation of these laws in all the mentioned above states, and this fact contributes to the huge misunderstanding of the term "insolvency." That is because, even though the official translation of "stečaj" is bankruptcy, "stečaj" is not a synonym or could be a translation of "bankruptcy." The term "stečaj" refers to a process in the case of a company's insolvency. But, in the case of insolvency, a company must not go bankrupt; it could also be restructured. That means the process of "stečaj" could end with bankruptcy or restructuring. The common point of these two processes is a company's insolvency. Since bankruptcy is not the adequate translation of the word "stečaj," the term "stečaj" will not be translated henceforward.

The regulations mentioned above have in common that they do not contain the definition of insolvency, although these laws apply in the event of a company's insolvency. The confusion is even bigger because the term solvency is sometimes mentioned in these laws but inappropriately.

Instead of explaining that the law applies to entities facing insolvency and defining what insolvency is, the Law in Croatia mentions the term "insolvency" only in some articles related to EU regulations (Directive 2019/1023 of the European Parliament and of the Council of June 20 2019 on preventive restructuring frameworks, on discharge of debt and disqualifications, and on measures to increase the efficiency of procedures concerning restructuring, insolvency and discharge of debt, and amending Directive 2017/1132 – Directive on restructuring and insolvency) and articles concerning data collection, and the effect of exemption from remaining obligations; in the Republic of Serbia, Republic of Srpska and Montenegro, only in the chapter relating to the "international stečaj"; in the Federation of Bosnia and Herzegovina the term "solvency" is mentioned in an article concerning the goal of a financial and operational restructuring of a company and another one concerning the expert opinion (the term insolvency is not even mentioned as it is not a low applying on insolvent entities); and in North Macedonia only once in the title of the article "Simultaneous insolvency of heirs ".

Furthermore, the regulator in Croatia has not decided whether to use the term "insolventnost" or "nesolventnost"; Therefore, both are used in the same Law. One could get the impression that different translators translated different provisions incorporated in the Law.

However, not all countries in the Balkans fell into insolvency's terminological trap. For example, in Slovenia (Zakon o finančnem poslovanju, postopkih zaradi insolventnosti in prisilnem prenehanju) and Bulgaria (Търговски закон, Част четвърта – Несъстоятелност), the laws regulating insolvency have the term "insolvency" in the very title of the Law.

The case of Montenegro is quite interesting. Although a law governing bankruptcy issues was enacted in 2002, which under the influence of Anglo-Saxon law had been called "Company Insolvency Law," insolvency was neither defined nor mentioned in the first article, which prescribed the conditions and procedure for insolvency (Pavlović et al., 2022). Parliament passed a new law in 2006 repealing the previous Insolvency Law, which paradoxically avoided the term "insolvency" not only in the title of the Law but throughout the text of the Law, except for the chapter "International stečaj" (Pavlović et al., 2022).

The legislative paradox regarding (in)solvency in these countries is even more emphasized by the fact that insolvency is mentioned in some other laws that do not treat bankruptcy issues, such as the Company law. This phenomenon that, a legal term is widely present in the legislation of a Balkan state but not in the law that regulates the issue directly, is not only specific to insolvency (Pavlović et al., 2022). This phenomenon is present mainly as the consequence of accepting provisions from the Anglo-Saxon regulations in the national legislation of these countries. Scholars use the term harmonization, mostly unconsciously, to describe integrating some legal solutions from more developed and powerful states. However, "harmonization" comes from "harmony," which does not mean acceptance but means mutual coordination of two or more parties or compliance with some agreed-upon standards (Pavlović, Knežević, 2021).

As a consequence of the practice of translating provisions from the English language, which are to be incorporated into national laws of the member states and candidate countries as part of the EU legal harmonization, it seems that lawmakers in the analyzed countries are unaware of the meaning of (in)solvency. That conclusion derives from the fact that the interpreted

insolvency laws do not mention the term (in)solvency where it should but mentions it in additional added provisions. However, the lack of defining (in)solvency does not affect the legal proceedings. The bankruptcy procedure is clear, as well as the procedure in the case of restructuring. As a consequence of harmonizing the legal system with the EU, those procedures align with the developed countries' bankruptcy and restructuring procedures, and therefore, foreign investors and creditors can rely on them.

Despite the Law on Accounting, and the Insolvency Law of the analyzed countries, as well as the IASB, do not define the term (in)solvency, looking at the provisions where in(solvency) are mentioned reveals that lawmakers and the IASB consider (in)solvency in the same manner, equal with the Anglo-Saxon laws where (in)solvency is defined. However, this is expected since two laws cannot define a term differently. That means that scholars who define the term (in)solvency differently from what laws consider (in)solvency are not defining this term correctly. That is, (in)solvency is not a term with different meanings in different scientific fields. Some scholars use this term properly, and others do not.

However, since the laws do not define (in)solvency, scholars and business people suffer from misusing the term (in)solvency and, consequently, solvency assessment methodology. In most Balkan countries, the term solvency is widely used in university corporate finance and accounting textbooks and, thus, among business people. Still, it is not used appropriately in legislation and many accounting and corporate finance textbooks. Defining (in)solvency contrary to its legal sense led to the nonsense of considering a company to be solvent even though a court had declared the insolvency of that company. (Pavlović, Milačić, 2013)

Not mentioning insolvency in the title of the Insolvency law nor defining it, and giving multiple nonsensical definitions of insolvency in various textbooks (Pavlović, Milačić, 2013) resulted in a huge misunderstanding of the meaning of (in)solvency. Pavlović et al. (2022) suggested that a misunderstanding stemming from the financial analysis contributed to the solvency conundrum among scholars from East-European countries by defining solvency in terms of the solvency ratio that they used.

Namely, many textbooks, particularly in the Balkan region, mention "the solvency ratio," Probably adopted from textbooks, many scholars from the Balkan region use it, and therefore this ratio appears as well in scientific journals, including those indexed in WOS and Scopus.

3. The Insolvency Assessment as the Root of the Solvency Conundrum

Pavlović et al. (2022) noted that in articles published in journals indexed in WOS – SSCI (Social Science Citation Indexed), which is widely considered with Scopus as the most prominent index base, various indicators are used to assess a company's solvency. Their results show that some scholars mention the solvency ratio while some use a set of ratios to evaluate a company's solvency. Among them, some use a set of solvency ratios based on balance sheet items, while others use a set of solvency ratios based on the balance sheet and income statement items.

Most of those using the solvency ratio use a ratio based on balance sheet items. That means these scholars, together with scholars utilizing a set of solvency ratios based on balance sheet items, assess solvency without considering the firm's profitability.

Furthermore, some scholars use the solvency ratio, or a set of solvency ratios, to evaluate the ability of a company to cover its long-term obligations; some use it in bankruptcy and failure context, some mention it in none bankruptcy and failure context, while the majority does not explain the context.

Table 1. Solvency assessment in papers published in WOS – SSCI categories "Economics," "Business," Business Finance," and "Management"

<table>
<tr><td rowspan="2">Set of solvency ratios</td><td>Solvency ratios based on balance sheet items</td><td>Total assets/Total equity; Total liabilities/Total assets; Current liquidity and Indebtedness</td></tr>
<tr><td>Solvency ratios based on the balance sheet and income statement items</td><td>Interest coverage ratio; Debt-to-equity ratio; Short-term-debt-to-total-debt ratio</td></tr>
<tr><td rowspan="4">Solvency ratio</td><td rowspan="3">Solvency ratio based on balance sheet items</td><td>Total liabilities to total assets</td></tr>
<tr><td>Equity to total assets</td></tr>
<tr><td>Equity to total liabilities</td></tr>
<tr><td>Solvency ratio based on the balance sheet and income statement items</td><td>(Net Income + Depreciation) / Liabilities</td></tr>
</table>

Source: According to Pavlović et al., 2022.

Pavlović et al. (2022) found a link between the incorrect definition of solvency and the solvency ratio(s) used. They found that Anglo-Saxon scholars, in the papers published in SSCI-indexed journals, speak about insolvency only in the bankruptcy context and do not mention the solvency ratio(s). On the other hand, scholars from developed Roman Law countries sometimes use the solvency ratio(s) but are completely clear about the meaning of (in)solvency. It appears that scholars from former communist East-European countries, particularly authors from the Balkan Peninsula, mention the solvency ratio(s) and inappropriately define (in)solvency. Pavlović et al. (2022) concluded that these scholars have incorrectly understood the meaning of (in)solvency as the consequence of the incorrect interpretation of the leverage ratio, which was a long time ago used for assessing (in)solvency and was therefore known as the solvency ratio.

Defining (in)solvency from the leverage ratio naturally leads to misunderstandings of this term.

4. Is the (In)Solvency Analysis Really Needed To Declare Insolvency?

Before explaining if the solvency analysis is needed to declare insolvency and the methodology for assessing solvency, it is necessary to clarify when a company has to be declared insolvent. International legislation, national legal regulations, and professional accounting regulations unambiguously define insolvency as a state of being unable to pay debts as they come due. Therefore, an entity is considered insolvent in the case of (a) illiquidity (Liquidity insolvency) and (b) future illiquidity (Balance sheet insolvency/ Accounting insolvency) (Pavlović et al., 2022). The etymology of the word solvency also

indicates that illiquidity leads to insolvency. Namely, the term solvency comes from the Latin legibus solvi – to settle obligations; pecuniam solvere – to pay (Gaffiot, 2000, p. 1476).

There is no need to assess illiquidity in the insolvency context. Namely, if a company fails to meet its obligations within the prescribed period, which can be differently determined by national legislation, the entity is considered insolvent.

That indicates that only future illiquidity has to be assessed. That is probably the cause of why numerous textbooks define solvency as the ability to pay long-term debts, particularly among European Continental scholars. Numerous scholars seem to have adopted the definition of solvency based on the purpose of the solvency analysis, which relates only to the ability to meet long-term obligations.

Since the future is always uncertain and insolvency assessment is not time-constrained, assessment of insolvency is not an easy task. The more turbulent global conditions are, the more difficult it is to predict local macroeconomic factors, which means assessing the probability of a company's future illiquidity is more complicated. The actual world situation makes predicting future illiquidity an extremely challenging task. However, although future illiquidity refers to the foreseeable future, the Going concern principle, which represents the fundamental principle for compiling financial reports, restricts this period to one year from the financial statement issue date, according to the Financial Accounting Standards Board – FASB (ASU No. 2014-15), or the date of the financial statements, according to the International Accounting Standards Board – IASB and the International Auditing and Assurance Standards Board – IAASB (Pavlović, Knežević, 2022).

Despite limiting the foreseeable future to 12 months and using advanced models for bankruptcy predictions, auditors have never had much success warning their clients about insolvency, even in the most accounting-advanced countries (Kuruppu et al., 2012; Clikeman, 2018; Pavlović, Knežević, 2022).

Declaring that future illiquidity will occur in a situation where it is not highly probable is unacceptable because this declaration will lead to a self-fulfilling prophecy. That is why only the case of negative net worth is legally valid as a reason for insolvency caused by future illiquidity.

However, insolvency is not needed to be assessed in this case as well. The situation where the liabilities exceed the value of assets, i.e., the net worth is negative, is presented in the Statement of financial position (Balance sheet); therefore, no assessment is needed. Truly, insolvency occurs when the total liabilities exceed the fair value of the firm's assets, and the earning power determines that fair value (Altman, 1968, p. 595). However, in the case of insolvency, due to the impairment principle, the fair value will, at the same time, be the book value of assets.

Still, numerous stakeholders are deeply interested to know if the firm might face difficulties meeting its liabilities, i.e., if it might face liquidity problems.

Analysis conducted to assess whether the company might face difficulties meeting liabilities due within a year is commonly referred to as a liquidity analysis. On the other hand, an

analysis of whether the entity may have difficulty meeting liabilities that will be due in a period longer than a year is not mentioned uniformly in the scientific literature.

Furthermore, in contrast to the analysis of liquidity, where general agreement exists on the methodology used to assess it, the assessment methodology for evaluating the capacity to meet long-term liabilities differs significantly in the literature.

5. How to assess solvency?

As Pavlović et al. (2022) pointed out, Anglo-Saxon authors rarely and unwillingly use the term solvency in their research papers. Therefore, solvency assessment and solvency ratios are almost not mentioned by them.

A logical assumption is that scholars use concepts and terminology learned in accounting and corporate finance textbooks. Therefore a look into these textbooks is needed.

Consulting the Anglo-Saxon accounting and corporate finance textbooks, we find out that only Horngren et al. (2002, p. 575) mention the solvency analysis. In contrast, other scholars in textbooks discuss the ability to meet debts when due (Higgins, 2007), the analysis of short and long-term liquidity risks (Damodaran, 2005), the analysis of long-term solvency (Alexandar, Nobes, 2007), the ratio analysis for the long term creditors (Garrison et al., 2006), the analysis of long term liquidity risk (Weil, Schipper, 2006), or the financial structure analysis (Palepu et al., 2007) and the financial leverage analysis (Peterson, Fabozzi, 2006; Harper, 2002). Although those scholars mention different analyses, they all assess the likelihood of being illiquid in the foreseeable future, i.e., the likelihood of being insolvent. In Anglo-Saxon textbooks, the term "solvency ratio" is avoided, even among the authors who mentioned the term "solvency." So, the assumption that Anglo-Saxon textbooks do not mention the solvency analysis has been principally confirmed.

It does not matter if the syntagma "solvency analysis" is used or not; in all cases, the likelihood of being illiquid in the foreseeable future is assessed using the coverage and debt indicators. That is, a company is likely to be liquid in the foreseeable future if it can cover interest expenses with the earnings generated by the business operations and if it has a lower leverage ratio. In other words, a company is exposed to a lower risk of not generating enough cash to pay its debts on time.

Although, the indicators used in the analysis are not uniform in those textbooks. Many Anglo-Saxon authors measure the ability to pay long-term debts using interest coverage ratios and debt ratios. However, the interest coverage ratio exists in several forms simultaneously. Some textbook authors (Horngren et al., 2002; Alexander, Nobes, 2007; Palepu et al., 2007; Peterson, Fabozzi, 2006) use a ratio with EBIT (Earnings Before Interest and Taxes) as the numerator and Interest expense as the denominator (EBIT/Interest expense), while some others, like Damodaran (2005), add the principal amount to the interest expense (EBIT/ interest expense + principal). In line with this perspective, Higgins (2007) points out that both coverage ratios should be used, while Brealey et al. (2007) add an additional coverage ratio

in which EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization) is used in the numerator while interest expense is in the denominator (EBITDA/Interest expense).

Almost all authors use traditional debt ratios based on financial statement items. In contrast, Higgins (2007, p. 396) introduces debt ratios based on the market value of capital and the market value of debts. That is not surprising, as Higgins (2007) is the only textbook author among the analyzed Anglo-Saxon scholar who mentions and defines solvency in his textbook in line with legal text and professional accounting regulation. But even Higgins (2007), who mentions solvency in his textbook, does not mention the solvency analysis. According to the legislation, a company is insolvent if the market value of assets cannot cover the debts. However, as it is explained, in the case of insolvency, the fair values of assets are simultaneously their book values. But, if the company generates a sufficient operational profit, the book values will be less than their fair values in several balance sheet items. Yet, that kind of analysis cannot be run by most stakeholders who cannot obtain the market values of capital and debts.

The various coverage ratios based on earnings encourage the debate on the appropriateness of using each of them.

In other words, why do so many textbook authors assess the ability to meet long-term obligations by analyzing the coverage of interest expense by EBIT, while others consider the coverage of the interest expenses together with the principal amount by EBIT or even EBITDA? The question is how to interpret these differences in the instruments used to assess the company's ability to meet long-term obligations. The answer to this question can lead to a more profound understanding of the solvency concept itself.

EBIT must cover the interest expenses. Otherwise, the company will undoubtedly face liquidity problems if it lasts for some time. That is the logic behind the EBIT/interest expense ratio.

Still, as previously pointed out, solvency means the ability to pay obligations as they come due, and the obligations consist of the principal amount and interest. Therefore, a coverage ratio using the sum of principal plus interest as the denominator might seem logical.

Following that logic, Van Horne and Wachowicz (2007, p. 139) find that the coverage ratio, which considers EBIT's coverage of interest and principal on all long-term loans and other fixed obligations, is a more realistic measure of solvency than the coverage ratio, which only considers coverage of the interest expense.

However, considering the ability of a company to cover only its interest expenses is quite logical as well. Although solvency means meeting all obligations (principal amounts and interest) when they come due, a company could be treated solvent if it could pay interest on the debt. That is because companies are trying to optimize the debt structure, meaning that long-term debts that come due will be substituted by a new loan or by issuing additional bonds to maintain the set rate of indebtedness. Namely, companies are interested in constantly revolving long-term loans used to finance net working capital and long-term assets, and banks have the same interest in lending money. Therefore, a constant substitution of long-term obligations is common in business practice. However, that is possible only if

the company's ROCE (Return on Capital Employed) exceeds the average interest rate, which means the company is profitable.

That evidence suggests that the solvency concept can be seen from another perspective when ROCE exceeds the average interest rate. It turns out that the main question is whether the company can pay interest, not whether the company can repay the principal amount on long-term borrowings. That is why the distinguished French dictionary "Le Robert & Collins Business" (Duval, 2006, p. 455) considers an entity solvent not only if it pays its debts but also if it can re-draw another debt". That is also why solvency (la solvabilité) is in this dictionary translated in English as "creditworthiness" (Duval, 2006, p. 638).

However, the mechanism for maintaining the determined financing structure does not work simultaneously with the maturing of the annuities. That is, substituting the mature principal amount with a new loan cannot be made at the time when the annuities are due. That means that a company should generate enough cash from the business to cover not only the interest but also the principal amount. Furthermore, it is unlikely that a company that does not generate enough cash over the long term to cover the mature principal amount and interest would be able to borrow money to substitute the loan due with a new one.

So, even if the paid-back principal amount is not an expense, it must also be repaid to the lender, and the company should also earn that amount. Otherwise, it is unlikely that the company would be able to borrow again to maintain the projected financial structure.

Brealey, Mayers, and Marcus (2007) state in their textbook that solvency should be evaluated using the third type of coverage ratio: EBITDA/ Interest expense.

The logic behind that cover ratio is that depreciation and amortization do not generate a cash outflow and, therefore, should not be considered when a company's ability to service debt has been evaluated. Therefore, EBITDA is often used to approximate (operating) cash flow. However, for all the arguments mentioned above, in a long-term perspective, EBITDA should exceed the interest expenses. If EBITDA just covers the interest expenses, that means that the company ran with operational losses in the amount of the amortization and depreciation costs and would not be able to renew its fixed assets. If the company cannot renew the due principal amount, it will not be able to pay the entire annuity but only the interest, i.e., it would suffer illiquidity.

The textbook authors do not explain which ratio number of various ratios should indicate that a company will face problems meeting long-term obligations, probably due to their conviction that the readers know the basics of financial analyses. Namely, precise ratio numbers which indicate insolvency do not exist, and these ratios could not even be used to determine a company's ability to meet obligations precisely. All of these ratios are useful for identifying the variations and magnitude of risk to which long-term creditors are exposed. All mentioned ratios should be understood in that context. An isolate ratio number usually means nothing, which is why the trend has to be observed.

An isolated ratio could mean something exclusively if it shows that earnings could not cover the interest expenses. But in that case, the company is facing a loss, so no ratios are needed to know that the company is facing potential problems in meeting obligations. A company's ability to meet its long-term obligations when they come due depends on how long the

company is unprofitable, whether shareholders are willing to invest additional funds, and how long creditors are willing to lend it money.

Among European Continental textbook authors mentioning a leverage ratio as a solvency ratio is quite common. That is because, back in time, when the term solvency appeared, accounting was not developed enough to analyze the ability to meet long-term obligations based on the earning approach (Pavlović, Milačić, 2013; Pavlović et al., 2022). Consequently, even today, the most diverse solvency definitions exist among them (Pavlović, Milačić, 2013; Pavlović et al., 2022).

But while textbook authors from developed European countries whose legal systems emphasize that mentioning the leverage ratio as the solvency ratio is a consequence of inertia in corporate financing and, therefore, cannot be justified (Vernimmen et al., 2010), in a considerable number of textbooks from the Balkan region, the leverage ratio is incorrectly referred to as the solvency ratio with the firm conviction that that indicator really shows solvency.

As the leverage ratio appears in various forms (Debt to assets ratio; Debt to equity ratio; Debt to capital ratio; and Asset to equity ratio), the solvency ratio also appears under these forms, additionally contributing to the vast misunderstanding of solvency. And that is why scholars from the Balkans used to mention solvency in a non-failure context, describing that term as "a firm characteristic," "an indicator of credit capacity," "a variable for the economic value calculation," or an "objective of business operation." Namely, when they declared the leverage ratio as the solvency ratio, they naturally could not state that the firm's ability to meet long-term obligations could be assessed by observing that ratio(s).

However, the solvency conundrum in the Balkan region could be surprising when it is known that the vast majority of scholars primarily read Anglo-Saxon literature. As it is shown, Anglo-Saxon scholars rarely use the syntagma "solvency ratio(s)." The answer could be that this syntagma is often present on the accounting and corporate finance websites from the Anglo-Saxon region (Investopedia; AccountingTools; Financial Modeling Guide; My Accounting Course; Ready Ratios; Intuit QuickBooks; The Balance; Value Based Management; etc.). It seems that websites influenced more non-Anglo-Saxon scholars, particularly from the Balkan region, than Anglo-Saxon textbooks. In every case, it is much easier to google "solvency ratio(s)" than to find and read Anglo-Saxon textbooks, particularly considering their prices and the purchasing power of scholars from the Balkan region.

6. Conclusions

As a Roman law heritage, the solvency conundrum is present in European Civil law countries (Vujović, 2017; Pavlović et al., 2022). Still, the solvency confusion is far more significant in the Balkan countries, where it extends to the field of legislation and textbooks from the accounting and corporate finance fields

An overlook of the papers published in WOS-indexed journals reveals a new paradox in the Balkan area. Scholars from the Balkan region consider solvency even differently than in

textbooks written by Balkan authors. While in textbooks, all definitions of solvency refer to default, but with a different explanation when insolvency occurs (Pavlović, Milačić, 2013), in scientific papers, the term solvency starts to be used in the non-default context. Obviously, the misuse of leverage ratio(s) as solvency ratio(s) has additionally contributed to the solvency conundrum, giving (in)solvency new meanings that are not even present in textbooks where the confusion already exists.

Our paper highlights several points.

First is the necessity of adding an article at the beginning of the laws governing the default and bankruptcy issues, stating that "stečaj" is related to insolvency entities and using the term insolvency consistently in all articles where it should be used.

Second is the necessity of correcting the accounting and corporate finance textbooks. The (in)solvency concept should be clearly and unambiguously defined according to its legal meanings. We highlight the need to not consider the leverage ratio(s) as the solvency ratio(s) in accounting and corporate finance textbooks. We also recommended omitting the solvency analysis and introducing the analysis, which could be alternatively called: Analysis of short and long-term liquidity risks, the ratio analysis for the long-term creditors, or the analysis of long-term liquidity risk.

If the textbook authors would rather keep the name "solvency analysis," we strongly recommend explaining the purpose of the solvency analysis and the methodology for evaluating the likelihood of being insolvent and emphasizing that earnings primarily and indebtedness secondly determine the risk of being insolvent.

Keeping in mind that the confusion with (in)solvency will not disappear quickly and easily, we strongly recommend that textbook authors pay adequate attention to explaining the (in)solvency concept, making it clear that insolvency leads to bankruptcy.

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