The Impact of Accounting Standards Utilisation on Internal Credit Rating

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Abstract:

The article addresses the possible impact of utilising different accounting standards used in credit scoring on a client's internal credit rating. This impact is represented in the article by a change in the credit score achieved as a result of the application of data from financial statements compiled based on IFRS, in comparison with the values based on statements compiled under the Czech Accounting Standards [CAS].

The intention rests in identifying possible changes of a company's internal credit rating.

The objective of this article is to demonstrate changes in the internal credit rating of a company, depending on the utilisation of the financial statements prepared under the Czech Accounting Standards and IFRS.

When using data from IFRS statements in credit scoring, lower scoring values were obtained for the companies surveyed compared to the values that were found when utilising data from the financial statements compiled according to the CAS.

Keywords: *Credit scoring, IFRS, CAS, internal credit evaluation, financial statements, asset valuation.*

JEL classification: *G 32, M 41, M 42.*

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1. Introduction

Direct credit risk is still the most significant risk on the financial market, as it represents the risk of loss resulting from a client's failure. Before credit financing is provided, banks screen and evaluate their clients, using various methods and processes. That creates a so-called internal credit rating, based on which it is then decided whether credit is provided at all, as well as on its line or maturity.

A client's creditworthiness review based on accounting statements is the basis for credit risk prevention and mitigation. The main source of information for credit analysis is the applicant's financial statements, and the client's creditworthiness (financial standing) review based on these statements is one of the most important instruments, both prior to credit being provided and during the duration of the credit relationship (Kašparovská, 2006; Mahboud, 2017).

However, the financial statements are compiled based on individual national accounting legislations, and there are still differences between national accounting legislations and the accounting legislation of the European Union, despite the ongoing harmonisation process, which logically has a different scope of impact on the reported accounting values of a company's performance and stability. Harmonisation in the EU takes the form of a gradual transposition of the International Financial Reporting Standards (hereinafter the "IFRS" only) into the accounting legislation of Member Countries.

In the Czech Republic, the state of harmonisation is as follows. There is a significant number of contact points between the basic principles of IFRS and Czech accounting legislation, but significant differences between individual sub-principles continue to exist. These are those which have an impact on the final accounts and may also impact an entity's credit provision decision. Compared to the "Czech" final accounts, statements compiled based on IFRS may significantly differ in terms of the assets and liabilities structure and, therefore, it can be deduced that the valuation (value) or financial position of the same company may differ considerably from these two viewpoints (Simberova and Rekova, 2016).

The objective of this article rests in demonstrating changes in the internal credit rating of a company based on the analysis of differences between the two accounting systems in the selected area of long-term assets, depending on the utilisation of accounting statements compiled according to Czech Accounting Standards (hereinafter "CAS" only) and IFRS.

The hypothesis is that when using data from IFRS statements in credit scoring, scoring of financial indicators will result in lower scoring values for the companies surveyed, compared to the values that will be determined when using data from the financial statements according to CAS.

2. Literature review

Valuation of assets according to IFRS and according to Czech Accounting Standards still has significant differences that affect the amount of the balance sheet, the structure of assets, influence the amount of costs and hence the amount of the profit. The different valuation and reporting then results in very significant differences that are reflected in the financial statements, which are the basic sources for accounting data. In this so-called double reporting, there arise the differences between the financial statements under IFRS and the CAS. If this is not the case, even if such a case can occur in a situation where the company only shows the elements that are consistent in both systems, the two accounting systems would have to be identical and then the whole of this double reporting process would be nonsense (Averina *et al.,* 2016). It follows that there is already a significant number of interconnection points between the basic principles of IFRS and Czech accounting legislation, but significant differences between individual sub-principles still persist (some issues are not even dealt with in the Czech law at all). These are the ones that then have a significant impact on the financial statements (Dlaskova and Havlicek, 2013).

The existence of these differences is confirmed by Dvořáková (2017) who states that the application of IFRS in practice is not an easy matter, especially in relation to significant differences between IFRS and Czech accounting regulations. She also states that some areas cannot be relevantly compared because such an issue is not addressed in CAS at all (Kubíčková and Jindřichovská, 2016).

Paseková *et al.* (2012) has been undertaking similar research in the long-term. In her long-term study, she compares the impact of reporting under the Czech and international accounting standards on a company performance. The study shows the impact on the value of individual performance indicators. Two accounting periods and eighteen indicators were examined, and significant deviations between the two accounting systems were identified (Paseková, 2012).

Also, Hinke (2013) in her publication on business performance assessment notes that most of the results of the indicators evaluated based on the two accounting systems show differences, but she does not consider the differences to be significant. At the same time, she states that in order to assess business performance, it will be necessary to choose an individual approach in each case in order to ensure the comparability of the values found.

The Czech National Bank's chief expert, Jílek, has been studying IFRS in the long-term, in relation to the management of financial institutions. He states (Jílek, 2013) that the accounting rules are "softening", primarily because accounting allows for the overestimation of assets and underestimation of liabilities. Our simulation of internal credit rating is derived from his publication, Financial Markets and Investments.

3. Methodology

Methodologically, the article is based on a descriptive method that enabled us to analyse the current state of scientific knowledge and accounting legislation in this field, which is dealt with in more detail in the obtained results and discussion, as well as on the comparison method, through which the differences between the examined area of IAS/IFRS CAS were determined. Since this article's aim is to demonstrate on the basis of this analysis, the possible changes of a company's internal credit rating based on the use of the financial statements compiled according to CAS and IFRS, we selected a sample of 20 Czech manufacturing companies, which use bank credits in their financing structure and whose final accounts will be used for this demonstration.

Jílek (2009) states that credit risk management in large banks is gradually disappearing and is replaced by statistical methods that, in his opinion, only measure existing credit risk and do not represent its management; however, he adds that internal credit rating or credit scoring is performed for clients by each bank, as the stability and credibility of a client are derived from it. The internal credit rating, as well as credit scoring, is based on determining the evaluated criteria, which are then weighted. The financial area is one of the key evaluation areas, and this article undertakes to evaluate it for selected companies in the context of values used in both accounting systems. To demonstrate the impact of the differences, we have created our own scoring system, in which we selected evaluated criteria (financial indicators) of the financial nature and assigned points and weights to them. For each company, we performed the evaluation of the values entered from the financial statements compiled based on CAS and further evaluation based on the values of the financial statements compiled based on IFRS.

The selection of the analyzed companies was mainly based on the availability of financial statements. The first problematic issue in the selection process was the fact that domestic companies registered in the Commercial Register, which are legally obliged to publish the financial statements in the collection of documents, do not always do so. The second problem while selecting companies, which further narrowed the already limited selection, was the absence of the so-called second set of IFRS-compiled statements. The above complications have led to a reduction in the selection of suitable businesses and only 20 compliant companies have been selected.

4. Results and Discussions

IFRS accurately defines assets and in accounting the assets are accounted for only if they meet this definition. These are sources arising from the past events, and they are measurable, controlled by the accounting entity and reported when it is probable that they will yield economic benefits, i.e. it does not matter whether the entity is the owner of the asset or a mere lessee and is at the sole discretion of the accounting

entity to recognize that the asset qualifies for recognition and reporting. The CAS does not know the concept of asset recognition and there is no definition for it, in the law the individual types of assets are enumerated and included in the relevant groups, except for isolated cases owned by the unit, otherwise they can not be reported, which is one of the differences between the two approaches.

Czech Accounting Standards require three mandatory parts of the financial statements - balance sheet, income statement and notes. According to IFRS, the financial statements have five mandatory parts - the balance sheet, the income statement, the statement of cash flows, the statement of changes in equity and the commentary, and only set the mandatory components of the statements. Further in IFRS the terms of recognition, valuation and reporting for each of the accounts are reviewed in detail. The exact conditions under which an asset or liability can be recognized are determined. This situation is dealt with in the CAS by the exhaustive appointment of items that fall within the individual parts of the financial statements in Decree No. 500/2002 Coll. Profit / loss statement is a mandatory part of both financial statements. The CAS regulates the arrangement and marking of individual items, but the general conditions for recognition are not specified. According to IFRS, the exact structure of the income statement is not set, but the items are prescribed that must obligatorily contain this statement. The comment is also a mandatory part of the financial statements according to both IFRS and the CAS (Annex).

4.1 Reporting of fixed assets

When an asset is measured at the time of acquisition, the cost of an asset under IFRS also includes the estimated costs associated with the asset's disposal and is depreciated as part of the cost. The revaluation model uses overvalued asset values and frequent revaluations of fixed assets are necessary. According to the CAS, however, the cost of dismantling, removal costs and the cost of restoring the original conditions are not included in the valuation. Interest expense (borrowing costs) during the construction of fixed assets is capitalized if the accounting entity decides so. After the asset is put into use, the activated interest expense is depreciated over the useful life of the asset.

Other significant differences can be found, for example, in the coding approach. When depreciating tangible fixed assets under IFRS, a component approach applies, each item of property, buildings and equipment, the cost of which is significant in relation to the asset's fair value, must be depreciated separately. According to Czech Accounting Standards, the asset is depreciated as a whole, and according to IFRS, for example, all spare parts are not classified as inventories, but major spare parts are directly included in the item of property, buildings and equipment and amortized. According to the CAS, spare parts are classified as stocks and enter into costs during consumption. Czech Accounting Standards require, in line with the principle of prudence, as well as IFRS, to capture impairment of assets. However,

there is a significant difference in how to find out if that happened. Czech Accounting Standards require a simple comparison of the net book value and the current market price of the asset, i.e. they do not take into account the value of the utilization and do not require its collateral, as opposed to IFRS. The CAS creates a provision for the temporary decrease of the asset's value and the asset is permanently impaired by means of allowances. IFRS does not distinguish between temporary and permanent impairment of an asset.

4.2 Reporting of leasing

Leasing is a very significant difference between the two systems. Reporting of a lease in IFRS is based on the principle of the preference of the content before the form. Therefore, if the lease is merely a special form of financing the asset acquisition (financial leasing), since the most important criterion for distinguishing between financial and operating leases is whether the risks and benefits associated with the asset are transferred to the lessee, it is recorded as the acquisition of the asset and the long-term liability in the balance of the lessee and, of course, the lessee will also depreciate it.

The lease liability under IFRS is initially equal to the fair value of the leased asset or the present value of the minimum lease payments and is subsequently reduced by the lease payments. The landlord does not account for the leased asset as its property and does not depreciate it. It only manages a leasing claim, which should be in the amount of costs associated with asset management and is continuously reduced by the paid lease payments. The lessor's share of the lease payments is accounted for as interest.

On the other hand, Czech Accounting Standards do not respect the principle of the preference of content before the form and do not respect as well as do not allow reporting of the leased asset. They distinguish the lease based on the legal form of the leasing contract and the fact whether the leased property is leased to the lessor at the end of the lease term and that the finance lease is treated as a long-term lease of the asset, which, of course, leads to a distortion of the explanatory power of the financial statements. Therefore, it is necessary to "modify the financial statements prior to the financial analysis with the items related to the leasing" (Dvořáková, 2008).

The asset is kept only in the off balance sheet records and is not depreciated. The lease is accounted for in accrual principles (usually the first incremental installment) with the subsequent dissolution into costs. Other payments are treated as operating liabilities. As a result of the above mentioned procedure, there also appears different amount of operating and financial income, when using IFRS. The lessor charges in its assets the leased assets and depreciates them. The first increased installment is accounted for in the accruals of liabilities with the gradual dissolution into revenue. Then the proceeds are leasing installments.

4.3 Reporting of reserves

Understanding of reserves is similar in both systems, yet there are several significant differences between IFRS and Czech Accounting Standards. One of them in the Czech law's legal reserves is based on the so-called legal reserves created with regard to the future costs of repairs of tangible fixed assets. The creation and use of these reserves is governed by the Reserve Act and their creation is not limited by the general accounting definition of the reserve. Here again, there is a must to recall the high degree of influence by the tax laws, and only the creation of these statutory reserves is a tax deductible expense. Such reserves are not permitted in IFRS, they are not recognized as future liabilities under IFRS and therefore are not reported in accordance with IAS 37, Reserves, Contingent Liabilities, and Contingent Assets.

Furthermore, the issue of liabilities related to the present value of the costs of dismantling, removal or restoration resulting from legal or contractual obligations is not resolved in the Czech legislation. In practice, there are multiple ways of accounting for liabilities from removing assets. The carrying amount of tangible fixed assets can not be increased as a result of the creation or change in liabilities from removing of assets. In addition, for businesses, the area of discounted reserves is not being dealt with at the present value, and therefore some units have undiscounted reserves.

Method of valuation of assets and their subsequent accounting treatment in accordance with IFRS therefore shows differences from valuation and accounting in accordance with the CAS and thus affects the amount of the economic result, its cost structure, but also the amount and structure of the assets themselves. The resulting financial statements have logically different explanatory power and value than the financial statements prepared in accordance with Czech Accounting Standards. This situation brings another picture of the same company in the assessment of financial health and stability using methods of financial analysis according to the accounting statements generated as outputs of different accounting systems, and it is therefore crucial to identify the system in which the financial statements were created, i.e. source of accounting data.

Different reporting of leases in both systems have the most significant impact on the amount and structure of assets as well as liabilities. Czech Accounting Standards do not allow the recognition of long-term lease liabilities in the financial statements, which has a significant effect on, for example, debt ratios. When performing financial analyzes, the value of this indicator is distorted. In addition, the explanatory power of all the indicators for which the sum of total or long-term assets is used is calculated. As a result of the different lease reporting, there is also a different amount of depreciation (cost), which may lead, for example, to a complete misstatement of an enterprise's valuation when the enterprise is valued by the discounted cash flow method. In the calculation, the depreciation level and the change in payables are decisive (Dlaskova and Havlicek, 2013).

Discounting asset values to the current IFRS value also affects the amount of the financial result (e.g. deferred payment). The CAS does not demand such discounting, except for financial institutions, as a result of which, for example, calculations may lead to significant differences between the values of the cost of foreign capital and the related indicators. Of all the above circumstances, it is clear that the financial statements prepared in accordance with IFRS and the results of the financial analysis based on it "will provide a different picture about the company's profit, its financial stability, but also its market value than the "Czech" financial statements". This different explanatory power of financial statements should therefore be taken into account by the users of financial statements, especially investors, banks and other creditors.

The financial analysis area, which works with ratios determined from the individual financial statement items, so-called one-dimensional models, is a good starting point to demonstrate the impact of the aforementioned credit scoring differences. In order to create our own scoring system, we selected for our analysis the indicators shown below, which are commonly used in banking practice and assigned weight to them according to the significance of their impact on the stability determination.

5. Analysis

A total of 20 final accounts of accounting units that are mainly doing business in the production sector were used for the analysis (Table 1). In this sector, it is possible to assume a high share of asset financing through leasing, use of deferred payments, etc.

Table 1. *Balance Sheet Items and Their Values Based on IFRS and CAS*

Balance sheet item	Valuation and recognition under IFRS in mil. CZK	Valuation and recognition under CAS in mil. CZK
Long-term assets	77 770	60 067
Short-term assets	69 015	69 015
Own equity	15 017	12 298
Long-term laibilities	23 987	9 002
Undivided profit	12 654	10 254
Total revenues	17 487	19 995

Source: *The authors' own data.*

To demonstrate the differences between CAS and IFRS principles, the sums of some selected absolute indicators per the whole evaluated file are already shown in Table 1. This table provides the basic idea of the possible impacts of the utilisation of different accounting standards on the absolute indicator values. We also used these selected individual company indicators to calculate the defined ratios. The table already clearly shows the differences in total assets, equity, and long-term liabilities.

The actual scoring model is shown in Table 2. The first column shows the examined criteria. The second column shows the number of points attributed to the achieved values, the assigned weight is shown in the third column, and the weighted points under IFRS and CAS are recorded in the fourth and fifth columns.

Table 2. *The Scoring Model*

Examined criteria		Scoring	Assigned weight	IFRS scoring	ČÚS scoring
Current Ratio	2,5 or more	20	0,2	1	1
	1,5-2,5	10			
	1,4 -1	5			
Quick ratio	1,5 or	20	0,15	1,5	1,5
	1-1,5	10			
	0,9 -0,6	5			
Return on Assets	10 % or more	20	0,1	2	1
	5,9-9,9 %	10			
	5,8-5,0 %	5			
Total Debt to Total Assets	60 % or more	0	0,2	0	2
	40-59 %	10			
	0-39 %	20			
Times Interest Earned Ratio	5 or more	20	0,25	1,25	2,5
	3-4,9	10			
	2,4-2,9	5			
Return on Sales	15 % or more	20	0,1	1	0
	8-14,9 %	10			
	7,90%	0			
			TOTAL	**6,75**	**8**

Source: The authors' own data.

6. Final Evaluation Impacts

The weighted points were then used to evaluate and rate the surveyed company into the appropriate group assigned as follows. Group A is a group of companies with the

weighted point values of 20 to 15 that, according to the financial results, should not pose a risk from a financial stability aspect. In Group B, there are companies with values between 8 and14, 9 points, which we have identified as average risk. Group C contains companies with a value of 7, 9 or less, which, in terms of financial stability, pose increased risk. The table below shows a clear increase in the number of companies rated based on IFRS into Group B and C and a decrease in Group A. From this, it can be derived that in terms of financial stability, evaluation under IFRS statements provides a different picture of the same company, which we can perceive as a risk in terms of providing credit (Table 3).

Table 3. *Results of the Companies Scoring Based on CAS and IFRS*

Credit Rating	IFRS - the number of accounting units	CAS - the number of accounting units
A 15-20	1	3
B 8-14,9	6	8
C 0-7,9	13	9

Source: *The authors' own data.*

7. Conclusion

Based on the results obtained, the assumed hypothesis can be accepted, and it can be stated that the use of the financial statements compiled under IFRS changes the rating of the company under review. This situation can be assumed in all EU member countries, depending on the degree of the accounting legislation harmonisation, which is at different stages in the individual EU countries.

The most significant impact, both on the scope of change in the economic result and the scope of change and structure of assets and liabilities, is resulting, as expected, from different types of leasing accounting. For these reasons, financial statements are first "cleaned" of any leasing entries in some international comparison cases. Czech accounting regulations do not allow for the accounting of long-term leasing liabilities. When performing financial analyses, there is a significant distortion, for example, in the indebtedness indicator. Also, the reporting capacity of all the indicators, for which the sum of total or long-term assets is used, is also reduced. The scope of change in profit or loss may also affect reporting of provisions. It is problematic to determine under CAS whether the item is an actual provision.

Therefore, it depends very much on the accounting unit, as well as on experience of the accountant and their willingness to adapt their accounting practice to possible changes and their sufficient knowledge on whether the financial statements would provide a realistic picture of a company's situation.

It is derived from all of the aforementioned conclusions that the financial statements prepared under IFRS and their analysis would provide a different picture of a company's performance, financial stability, and market value than the "Czech" financial statements. This different reporting ability of financial statements may, of course, be risky for all users of financial statements, not just banks.

Acknowledgment:

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