Testing the Compatibility between National and International Accounting: Case of Czech Republic

JIRI STROUHAL
Department of Financial Accounting and Auditing
University of Economics Prague
W. Churchill Square 4, 130 67 Prague 3
CZECH REPUBLIC
strouhal@vse.cz

Abstract: - There is a strong pressure from investors to report accounting items using fair value concept upon economic boom. The financial crisis period may raise an issue of revival of conservative concepts in financial reporting, e.g. historical costs measurement and application of prudence principle. Conceptual solution of valuation issues need not to come out from current economic situation and it is impossible to change this concept every time when economic conditions tend to change. Unsystematically changes of valuation concepts may conduce to instability of economic system. This paper performs a comparative analysis of reporting under national standards of Czech Republic and International Financial Reporting Standards. The results show significant compatibility of reporting under both regulations.

Key-Words: - Financial Reporting; IFRS; Investors; Czech Republic; Compatibility Tests; Comparative Analysis

1 Introduction and Literature Review

The globalisation and the expansion of markets as well as the general progress in the technologies available have brought new problems to the compilation of financial reports and to the ascertainmet of trading income of supranational corporations and groups in accordance with statutory regulations of countries involved.

Without common accounting standards, there could be 27 different national methods of accounting in addition to the use of IFRS and US GAAP, which are permitted by some EU countries [12]. [1] warn that “the future of the IASB is tied to the successful introduction of IFRS in Europe”.

In the year 2002, the European Parliament and the Council of the European Union issued Regulation 1606/2002 whereby it stipulated certain duties on the part of companies listed on European stock exchanges to compile their consolidated accounting statements in accordance with IFRS. Therefore, beginning from 2005, a large number of listed enterprises, exhibiting significant heterogeneity in size, capital structure, ownership structure and accounting sophistication, started to apply international standards for the first time. The demand for detailed application guidance will increase substantially, as will the demand for uniform financial reporting enforcement throughout the European Union.

In addition to the use of IFRS by listed companies, many countries adopt international standards for unlisted companies or model their domestic standards on the basis of international standards. This provides an interesting example for those who argue that accounting standards should be left to competition in the marketplace [11].

The requirements for group listed enterprises to prepare IFRS reports from 2005 were established in most transitional economies, but it is still unclear to what extent other enterprises will prepare IFRS financial statements. Concerns about the lack of suitably trained accountants and auditors and the lack of efficient markets to ensure reliable fair values for the IFRS financial statements, have already been expressed [10]. This may cast doubt on whether the financial statements issued under IFRS will be reliable. Indications are that in most of the transitional economies of Eastern and Central Europe, other non-listed enterprises will not have to prepare financial statements according to IFRS.

Firms with international stock exchange listings face additional capital market pressures and stock exchange requirements that may lead them to increase their level of disclosure. Investors demand information about the domestic operating environment and domestic accounting regulations of foreign listed firms. Many stock exchanges around the world allow foreign registrants to prepare their financial statements according to IFRS or US GAAP. Prior studies show that the level of disclosure [6] and the probability of using non-local GAAP [2, 5] are positively associated with the number of foreign stock exchange listings of a firm. The impact on financial reporting of cultural differences has been well documented [7]. There may be more disclosure by UK and US companies that have a culture of disclosure of information than by companies that have not
traditionally aimed to produce especially transparent financial statements (e.g. companies from transitional economies such as the Czech Republic).

2 Current Issues of Czech Reporting

From the year 2005, IFRS were given as a legal framework for the reporting of listed companies in all E.U. countries. The “target user” of the financial statements in the Czech Republic is still the tax authority, not the investor or owner. Moreover, unlike international standards, the Czech accounting regulations lack a glossary of definitions for basic elements of financial statements, which is why we shall use the definitions applied in IFRS standards, namely in the Framework. Reliable measurement is expected from all entries involved.

Concerning the initial recognition under Czech laws, the Accounting Act (Section 24) identifies the following valuation alternatives:

- historical costs, i.e. the cost of acquisition of the assets concerned, including the costs related to the acquisition itself;
- replacement/reproduction cost, i.e. the cost for which the assets would be obtained at the time of the accounting statement;
- production costs, which include all direct costs expended on the manufacturing or other activity and that part of indirect costs, which is related to the manufacturing or other activity involved;
- nominal value, i.e. the face value.

In the Czech Republic, items are usually measured at historical costs, while donated or gratuitously procured assets are measured by replacement costs, which are the approximate equivalent of the reproduction cost as defined by IFRS. Under certain circumstances, the realizable value and the fair value also may be used as the measurement bases for financial accounting. On the other hand, the Czech regulations virtually ignore measurement methods based on present value [8], which are required for measurement of long-term receivables, long-term payables and financial assets held to maturity (under IFRS).

2.1 Reporting of Assets and Liabilities

Intangible fixed assets are intangible assets, which the accounting entity intends to keep for more than one accounting period (the Income Tax Act also specifies that the input price of intangible fixed assets must exceed the sum of CZK 60 000). The value of intangible fixed assets is measured by historical cost (acquisition price) for assets purchased, by production costs for internally generated assets and by replacement price for assets obtained gratuitously. Intangible fixed assets are subject to amortization; the amortization period is stipulated by the Income Tax Act. The intangible fixed assets must be accounted for in compliance with the prudence principle as of the balance day, meaning that the accounting entity should disclose either the net book value of the intangible fixed assets, or the lower present market price. Unlike under the Czech regulations, under IFRS the incorporate expenses as well as research and development (R&D) should be accounted for under expenses. Under certain circumstances, R&D may also be capitalized in the balance sheet. Goodwill pursuant to IFRS 3 should be disclosed only in the event that the goodwill was generated by acquisition. Advance payments may be offset against debts from the same title.

Tangible fixed assets include tangible assets, which the accounting entity intends to keep for more than one accounting period (the Income Tax Act also specifies that the input price of the tangible fixed assets must exceed CZK 40 000). The value of the tangible fixed assets is measured by historical costs (acquisition price) for assets purchased, by production costs for processed production and by replacement price for assets obtained gratuitously. Tangible fixed assets are subject to depreciation; the accounting books should show the so-called book depreciation. The tangible fixed assets must be accounted for in compliance with the prudence principle as of the balance day, meaning that the accounting entity should disclose either the net book value or the lower present market price of the tangible fixed assets concerned.

Measurement at fair values is preferred by the international companies in the Czech Republic. We think that there is a good information background for the calculation of the fair value of property, plant and equipment (PPE) or investment property. On the other hand, the Czech Ministry of Finance prefers the prudence principle and also, for the Tax Authorities, it is much easier to find out the historical costs rather than to calculate the fair value.

Financial leases are treated totally differently under Czech GAAP. The “form over substance” principle is fully applied, as it is the leasing company, which reports the leased assets, not the lessee! We think that this is the main problem of Czech GAAP nowadays and has great consequences for financial decisions. Also, it should be stated here the unwillingness of the Czech Ministry of Finance to solve the problem with financial leases as under IFRS, where the traditional principle “substance over form” is used.

Inventories are current assets consumed by an entity during one year or within one operating cycle for generating revenues. Usually, we distinguish between inventory purchased and processed production. At the
time of acquisition, the value of inventories is measured by the historical costs (acquisition price for purchased inventories), replacement price (for inventories obtained gratuitously) and production costs (for processed production). For the measurement of the value of inventory decrement, the same cost formula should be used for all inventories with similar characteristics as to their nature and use to the enterprise. For groups of inventories that have different characteristics, different cost formulas may be justified, including FIFO, the weighted average cost formula, the fixed inventory price with independent disclosure of variations or the actual acquisition price. Accounting entities are entitled to choose from the continuous inventory system (method A) and the periodic inventory system (method B) for inventory records. In the continuous inventory system, accounting entities record inventories via account groups Materials, Processed Production and Goods and allocate inventory decrement to costs (Raw Materials, Resale of Raw Materials, Consumables and Purchased Finished Goods) or to income adjustments (group Change in Inventory (Stocks)). In the periodic inventory system, accounting entities record the purchased inventories in the relevant costs accounts and during the accounting period do not even use balance-sheet entries such as Inventory of Materials and Consumables or Inventory Purchased for Resale – In Storage. Instead, as of the balance day, the accounting entity transfers the initial status of the balance-sheet entries into costs and based on the stock-taking results transfers from the costs the final status of purchased inventories into the balance sheet. Inventories must be accounted for in compliance with the prudence principle as of the balance day, meaning that the accounting entity must record the inventories with their book value or with their lower present market value.

The short-term and long-term receivables constitute a part of current assets, while short-term and long-term payables are included among liabilities. Both receivables and payables should be measured by their nominal value, unless obtained in exchange for consideration, in which case they should be measured by their acquisition price. The impossibility to measure the long-term receivables and long-term payables at their present value (what is also possible e.g. in Slovakia) is quite surprising. Accounting entities must convert receivables and payables in foreign currencies as of the moment of their measurement to Czech crowns in accordance with the current exchange rate of the Czech National Bank or a fixed exchange rate. As of the balance date, the accounting entities must also convert the sum of pending receivables and payables to Czech crowns in accordance with the current exchange rate of the Czech National Bank. Foreign currency exchange losses and gains should be recognized in the income statement.

The deferred tax assets and liabilities arise from the differences between the accounting and taxation concepts of selected accounting entries. The accounting for the deferred taxes is based on the assumption that the accounting entity will apply the deferred tax in a later period than the due tax. The recognition and the accounting for the deferred tax are mandatory for entities, which form the consolidation units (i.e. enterprises within a group) and the accounting entities, which are obliged to compile the final accounts in their full extent. Other accounting entities may account for the deferred tax at their own discretion. The accounting for the deferred tax does not affect the tax liability. At the same time, it affects the sum of disposable profit, i.e. profit intended for allocation. The calculation of the deferred tax should be based on the balance-sheet approach. The deferred tax should be recognized for all temporary differences arising from the different accounting and tax views of entries included among assets and liabilities. It is also necessary to account for differences between the tax and tax residual price of the deductible tangible and intangible fixed assets as well as for other differences such as the reserves created beyond the scope of statutory duty, recognition of adjustments to inventories or receivables etc.

Credits and financial assistance should be measured at their nominal value. Short-term financial assets are included among the current assets of an enterprise. We distinguish between cash in hand, cash at bank and short-term securities. Cash items are measured at their nominal value, while short-term securities are measured by the historical costs (acquisition price). Short-term securities are measured at fair values, however it should be stated that it is quite difficult to measure the fair values of shares because of not very transparent stock exchange in the Czech Republic (Prague Stock Exchange).

The Accounting Act stipulates that only the genuine profits should be accounted for in the balance sheet, and that the accounting entity should take into consideration all predictable risks and possible losses affecting its assets and liabilities and known to the accounting entity at the time of balance sheet compilation. Also, it should include all devaluations regardless of the fact whether the accounting entity showed profit or loss in the accounting period. The accounting entity is entitled to use provisions, adjustment entries and write-offs for that purpose. Provisions are aimed to cover future expenses or liabilities, whose purpose is known and which are expected to occur, but whose timing or amount is
uncertain. However, provisions may not be used to adjust the value of assets. Provisions may be used only for the purpose for which they have been originally recognized. Logically, a provision may only be used to the maximum amount in which it was created; and a provision may not have a debit balance. The balance of reserves at the end of the accounting period should be transferred to the subsequent period. Accounting entities are obliged to review provisions entered in the books at the end of the accounting period, and assess their tenability and amount. If it is discovered that the reason for which the provision has been created has lapsed, the provision should be dissolved in its full extent. If it is discovered that the provision is for a different sum than it is due, it should be adjusted. In the balance sheet, provisions should be accounted for under liabilities.

The Accounting Act defines the following types of reserves: provisions for risks and losses, provisions for income tax, provisions for pensions and similar obligations, provision for restructuring, technical provisions or other provisions pursuant to special legal regulations (statutory provisions). The Provision Act stipulates three types of provisions for enterprises: provision for repairs of tangible assets, provision for cultivation of crops, other provisions (for the removal of mud from a pond, for the redevelopment of plots affected by mining, for the settlement of mine damage or provisions stipulated by special laws as costs required to achieve, ensure or maintain revenues).

3 Methodology
As mentioned before, having the belief that once regulatory bodies adopt a financial reporting paradigm, it becomes the guiding principle for accounting regulation [3], that is, standard setting, we began our research by first analyzing the foresights comprised within the IFRS concerning the matter of financial reporting and then moved forward to the national accounting system. An empirical analysis was performed by testing the similarities and dissimilarities between standards, taken two at a time in order to draw a well established conclusion regarding the comparability degree existent between them. The source of information for the empirical analysis was also the information gathered by closely analyzing the regulations mentioned above which were accordingly codified and assayed by using some statistical methods which are being detailed in the chapter dealing with the comparative approach of the national GAAP by reference to international reporting paradigms.

4 Comparative Analysis

With the aim of identifying the eventual shift on national GAAP towards international reporting paradigms there had been performed an empirical analysis with character of comparison between Czech standards and IFRS. In order to achieve the proposed comparison, we have considered that the best analysis, in the case of this type of approach, is represented by the nonparametric correlation and the association degree between two or more than two considered variables.

The most frequently used methods in trade literature when an analysis at the level of national accounting regulations is aimed are Jaccards’ association coefficients. The Jaccard coefficient [4] is defined as the size of the intersection divided by the size of the union of the sample sets:

\[
J(A, B) = \frac{|A \cap B|}{|A \cup B|}
\]  

(1)

The Jaccard distance is complementary to the Jaccard coefficient and measures the dissimilarities. It is obtained by dividing the difference of the sizes of the union and the intersection of two sets by the size of the union:

\[
I_6(A, B) = 1 - J(A, B) = \frac{|A \cup B| - |A \cap B|}{|A \cup B|}
\]  

(2)

In order to achieve a quantification of the similarity degree between the considered accounting referential there was developed an empirical analysis with character of comparison. Based on the methodology of previous studies dealing with formal harmonization [e.g. 9] there was identified a series of elements regarding financial reporting.

The two considered coefficients offer the possibility of quantifying both the association degree and the dissimilarity degree between different sets of accounting standards taken into consideration for analysis. So as to dimension the association or compatibility level between two or more accounting systems, the calculation formula for the Jaccards’ coefficients shows as follows:

\[
S_{ij} = \frac{a}{a + b + c}
\]  

or

\[
D_{ij} = \frac{b + c}{a + b + c} = 1 - S_{ij}
\]  

(4)

where:

\( S_{ij} \) represents the similarity degree between the two sets of analyzed accounting regulations; \( D_{ij} \) represents the degree of dissimilitude or diversity between the two sets of analyzed accounting regulations; \( a \) – the number of elements which take the 1 value for both sets of regulations; \( b \) – the number of elements which take the 1 value within the j-set of regulations and the 0 value for
the i-set of regulations; c – the number of elements which take the 1 value within the i-set of regulations and the 0 value for the j-set of regulations.

As a result of the effective measurement of the comparability degree between the Czech and International (IFRS) accounting referential based on Jaccard’s Coefficients there was reached the conclusion that there is a high degree of similarity between national GAAP of the Czech Republic and IFRS on the approached area (see Table 1). The major differences are given by the level of required disclosed information.

Table 1. Measurement of Similarities and Dissimilarities

<table>
<thead>
<tr>
<th>Reporting Area</th>
<th>CZE/IFRS</th>
<th>S_ii</th>
<th>D_ii</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Intangibles</td>
<td>0.667</td>
<td>0.333</td>
<td></td>
</tr>
<tr>
<td>2 PPE</td>
<td>0.667</td>
<td>0.333</td>
<td></td>
</tr>
<tr>
<td>3 Investment Property</td>
<td>0.667</td>
<td>0.333</td>
<td></td>
</tr>
<tr>
<td>4 Financial Lease</td>
<td>0.000</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>5 Inventories</td>
<td>1.000</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>6 Financial Assets and Liabilities</td>
<td>0.750</td>
<td>0.250</td>
<td></td>
</tr>
<tr>
<td>7 Financial Derivatives</td>
<td>1.000</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>8 Financial Statements</td>
<td>0.833</td>
<td>0.167</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>0.645</td>
<td>0.355</td>
<td></td>
</tr>
</tbody>
</table>

Source: own analysis

5 Conclusion

The most significant problem of the financial statements and items shown is the complete inconsistency of measurement bases and the application of the historic (acquisition) cost, the fair value and the present value. At present, the principle of measurement based on the historical cost is fading out as it is gradually being replaced by the IFRS trend of reporting fair values, which are, however, difficult to measure in less transparent markets. At the same time, the reporting based on the fair value includes the hidden danger of future volatility of such values and the consequent impact of the changes on financial statements.

The performed empirical analysis on aspects concerning reporting for financial instruments documented the existence of a high similarity degree among IFRS and Czech Regulation. It is clear that countries like Czech Republic are far from making themselves herd at international level just by considering the degree of development of their national capital market. Still we have European organism representing them and trying to keep feet with international developments.

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References: