Use of fair value in agriculture

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Abstract

Agricultural activity is largely different from other business activities and can be classified into one of the areas that are diversely regulated by various national accounting adjustments. The reason is the national accounting conventions, but also agricultural activity itself and its specifics. We can also identify differences in the reporting of agricultural activities according to Czech accounting adjustments and International Financial Reporting Standards that govern agriculture in the separate standard IAS 41 - Agriculture. Significant differences can be found mainly in the area of reporting and valuation of biological assets and agricultural produce. The aim of this paper is to identify significant differences between the two systems and make recommendations for the valuation and reporting of biological assets and agricultural produce according to Czech accounting adjustments and International Financial Reporting Standards, while the paper is primarily focused on consumable assets.

Key Words

IFRS, biological assets, valuation, fair value, agriculture

Introduction

Agriculture is a specific sector of the national economy and for many years it was one of the most important economic activities on account of the fact that it employed most of the population. However this situation changed after the Second World War, especially in developed countries, when the proportion of workers in agriculture began to gradually decrease. At present, agriculture is an important branch of the national economy primarily in developing countries. Although according to Hinke (2006) a number of businesses operating in the agricultural sector are small and medium-sized companies which do not have securities
listed on the regulated market of the European Union, the Council for International Accounting Standards decided to begin work on standards designated for agricultural companies in 1994. Standard IAS 41 was issued in 2000 and entered into force in 2003. Currently, it is one of the few industry-focused projects within the framework of the International Financial Reporting Standards. Two major reasons, according to Dvořáková (2012), led to the creation of a separate standard. The first reason was that biological transformations that modify biological assets are difficult to capture in traditionally used accounting models, which are based on historical costs. Mainly due to their specificity biological assets were also always excluded from the scope of other standards. The second reason was the fact that the particularities of agricultural activities led to the fact that within the framework of national accounting adjustments in this area different and mutually incompatible solutions occurred, which did not contribute to the comparability of financial statements of companies from different countries of the world.

The subject of IAS 41 is biological assets, agricultural produce at the point of harvest and government grants, which are directly related to agricultural activity. The main objective of IAS 41 is to regulate the valuation and accounting treatment of biological assets used for agricultural activities, furthermore to adjust their reporting in the financial statements of companies and establish requirements for their disclosure. Biological assets for the purposes of this standard mean live animals or plants, which are characterized by biological transformation that causes qualitative and quantitative changes in the biological assets. Biological transformation involves the process of growth, degeneration, production and reproduction. Agricultural produce according to IFRS (2005) is production harvested from biological assets, which will subsequently be sold, processed or consumed. Under IAS 41 the need arose for a different approach to the valuation of biological assets than what is used in industry enterprises during the valuation of products and works in progress. In the process of biological transformation, factors such as weather conditions, which can completely affect the operation of a business entity, have an effect and primarily for this reason biological transformation is difficult to treat in accounting models based on historic costs, which are applied in Czech accounting adjustments. Under IFRS it is also required to apply a uniform way of valuating and reporting of all biological assets and agricultural produce, which is a big problem because the nature of the activities in the field of agriculture are significantly different, in particular we find differences in the length of production cycles or in the nature of biological assets and agricultural produce. Methodological procedures may also be largely
influenced by the established national accounting adjustment of individual states, where the greatest emphasis on the specific characteristics of agriculture is placed by the law in Australia, as evidenced by the fact that the Australian Accounting Standard Board began work on a separate standard governing agriculture in 1995 and published it in 2000.

**Objectives and methodology**

The main objective of this paper is to identify significant differences in the reporting and valuation of biological assets and agricultural produce according to Czech accounting adjustments and International Financial Reporting Standards, while the paper deals primarily with consumable assets. This article is based on IAS 41 - Agriculture and focuses primarily on the use of fair value during the valuation of agricultural activities. In the introductory part of the paper the method of description is used, through which theoretical knowledge is processed. Subsequently, the method of comparison to compare the reporting and valuation of biological assets and agricultural produce in accordance with the International Financial Reporting Standards and Czech accounting adjustments is used. Then we analyze the impact of different ways of valuing agricultural activities in the values of individual items of financial statements, i.e. balance sheets (statement of financial position) and income statements (statement of comprehensive income). It can be assumed that the chosen method of valuation will lead to other balance sheet growth and the course and structure of revenue will also be different, which is related to agricultural activity. The work will result in a recommendation for the valuation and reporting of biological assets and agricultural produce according to Czech accounting adjustments and IAS 41 – Agriculture.

**Results**

In the Czech Republic, the accounting of agricultural companies is governed by Act No. 563/1991 Coll., on accounting, as amended. The implementing decree of the Ministry of Finance of the Czech Republic is connected to this law. Decree No. 500/2002 Coll., applies to agricultural companies and is intended for companies active in production, trade, services and also for entities engaged in agricultural activities. The accounting of companies is also subject to Czech accounting standards, which elaborates on the accounting methods and accounting procedures specified in the Accounting Act. At present, there are 23 standards in force in total. According to Valder (2008), mainly two standards are important for the farming
community, namely standard number 013 - Intangible and tangible fixed assets and standard number 015 - Inventories. In Czech legislation, assets specific to agricultural activities aren’t defined in any way and are subject to the same regulations as other assets held by an entity.

These assets can be divided into short-term (current) assets and fixed assets. For purchased assets in the Czech Republic, the acquisition price, which consists of the purchase price and incidental acquisition costs, in which you can include transport costs, customs, trader and broker fees and others, are used for the purposes of valuation. Assets acquired free of charge are valued at replacement cost. If the assets are acquired by one’s own work, their valuation is based on the amount of one’s own costs incurred. Precisely the valuation of one's own costs is the most common method of valuation of assets in companies engaged in agricultural activity. Actual costs include the direct costs expended on production and the portion of indirect costs (overhead costs) and are primarily used for the valuation of plants cultivated or newly born animals. If an accounting entity is carrying out the valuation of property through the actual costs, they can base it on the actual costs incurred, which are quantified in the final calculation, or the pre-defined costs, which are listed in the preliminary calculation. Unlike final calculations, which operate on the costs actually incurred, preliminary calculations are based on consumption standards and indirect costs budgets. In order to respect the principle of prudence in Czech GAAP, the accounting entities are entitled to reduce the balance sheet date, the value of assets through provisioning.

Within the scope of the full IFRS and IFRS for small and medium-sized companies, biological assets are divided into consumable (animals for fattening, fish, wheat, corn, etc.) and bearer (fruit trees, grapevines, dairy cattle, forests, etc.) and within each group into mature and immature assets. The key difference from Czech accounting adjustments is primarily the IFRS requirement to assess biological assets and agricultural produce at fair value, which is based on the assumption of the existence of active markets, at the time of recognition of the asset. However, the presumption that fair value can be reliably estimated for all biological assets and agricultural produce is very unrealistic. An active market exists only for mature products and it is for example impossible to reliably assess fair value of production before harvest, which is the main reason for speaking against the use of fair value in agriculture. Another disadvantage in determining fair value is the fact that market prices fluctuate. Also, the authors Knechtle and Attenslander (2000) consider fair value to be unreliable. According to several authors it is also necessary to separate the impact of the biological transformation and fluctuations in the market when determining fair value. When
creating IAS 41, which is part of the full IFRS, there was already open discussion about the appropriateness of assessing the fair value of biological assets for which there is no active market. IAS 41 requires the reassessing of biological assets and agricultural produce at current fair value at each balance sheet date. However, the determination of fair value is difficult and burdensome for companies and can lead to an increase in costs associated with creating final accounts and their subsequent auditing.

Despite the requirement to assess the value of biological assets and agricultural produce primarily at fair value, it can be said that the IFRS for small and medium-sized companies is rather benevolent compared to the full IFRS. The IFRS for SMEs requires the use of fair value for assessing value only if it is easily identifiable and ascertainable without undue cost and effort. In the opposite case, agricultural companies belonging to the group of small and medium-sized businesses and drawing up financial statements in accordance with the IFRS for SMEs, can continue to use the historical cost model (acquisition price).

In the valuation of biological assets and agricultural produce at fair value we can encounter a lot of advantages and disadvantages, which are summarized in the following table.

**I: Advantages and disadvantages of the valuation of biological assets and agricultural produce at fair value**

<table>
<thead>
<tr>
<th>Advantages of valuation at fair value</th>
<th>Disadvantages of valuation at fair value</th>
</tr>
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<tbody>
<tr>
<td>• The fair value of biological assets and agricultural produce is directly related to changes in the expected economic benefits of the company</td>
<td>• If there is no active market, fair value is not reliably ascertainable,</td>
</tr>
<tr>
<td>• On account of the regular revaluation of biological assets and agricultural produce, revenues are already reported during each period and not at the point of harvest and subsequent sale</td>
<td>• for biological assets with a long production cycle, there often isn’t an active market,</td>
</tr>
<tr>
<td>• Fair value for the valuation of biological assets and agricultural produce is more reliable than valuation at historical cost.</td>
<td>• market prices quoted in an active market are often unstable and have a seasonal character</td>
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<td></td>
<td>• the assessment of fair value can lead to the reporting of unfeasible gains or losses from overestimation</td>
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<tr>
<td></td>
<td>• the prices of biological assets and agricultural produce are often affected by the grant policies of individual countries and the subsidy policy of the European Union and those interventions decisively shape the market price.</td>
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</tbody>
</table>
The valuation of biological assets and agricultural produce at fair value will have a significant impact primarily on the amount of reported income from agricultural activities. Reporting companies will be obliged to reassess the amount of those assets to the current fair value as of the date of the financial statement. When comparing the current valuation with the newly established fair value, a positive or negative difference will arise. If a decrease in the fair value of biological assets and agricultural produce occurs, costs are incurred by the accounting entity, which will lead to a reduction in income. In the event of an increase in the value of biological assets and agricultural produce, revenue will be generated, which will in turn increase profit. Based on these facts, the revaluation of these assets significantly affects the reporting of results.

Since the company incurred unrealizable gains or losses from the revaluation of biological assets and unrealizable gains or losses from the revaluation of agricultural produce, the question remains whether these gains or losses should be subject to redistribution and subsequent taxation. The use of fair value in accounting could also significantly affect some indicators of financial analysis of agricultural companies, because there will be changes to the balance sheet of the company. With the increase in the fair value of the assets, the improvement of the financial situation of the company can occur, which can help to facilitate the acquisition of foreign sources of funding, this situation may also provide greater ease of getting grants and other financial aid. In the event of a decline in fair value, however, the effect on the reporting company will be reversed.

**Discussion**

The reporting and valuation of biological assets and agricultural produce under the International Financial Reporting Standards and Czech accounting adjustments contains significant differences, which are summarized in the following table (Table 2), which also provides options on how to proceed when carrying out the valuation of certain assets. The table lists only examples of consumable assets. The main difference can be seen in the IFRS requirement to assess the value of these assets at the time of recognition at fair value, based on prices listed on active markets for the commodity, and consequently to reassess the current fair value at each balance sheet date.

The paper also identifies the main advantages and disadvantages associated with the use of fair value valuation. The main disadvantage can be seen in the absence of active
markets for biological assets, which have not completed biological transformation and agricultural produce before the time of harvest. When using fair value it is further necessary to increase attention when reporting unrealizable profits, which are related to revaluation. In the event of an increase in fair value, one can assume that there will be improvements to the financial situation of the company, which may help the agricultural holding in obtaining external sources of financing in the form of loans or investments, and also in obtaining grants and other financial support from the state budget and the budget of the European Union.

**II: Differences in reporting and valuation of biological assets and agricultural produce according to Czech accounting adjustments and IFRS**

<table>
<thead>
<tr>
<th>Consumable assets</th>
<th>Czech accounting adjustment</th>
<th>IFRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finished goods (agricultural production)</td>
<td>Finished products are, at the discretion of the accounting entity, valued at actual cost or at pre-determined costs, based on consumption standards and the budget of indirect costs.</td>
<td>For finished products there is an active market, and therefore the accounting entity proceeds from this information when carrying out valuation and subsequently reduces the fair value by the cost of sales.</td>
</tr>
<tr>
<td>Works in progress and semi-finished products</td>
<td>Works in progress and semi-finished products are, at the discretion of the accounting entity, valued at actual cost or at pre-determined costs, based on consumption standards and the budget of indirect costs.</td>
<td>Due to the incomplete biological transformation of unfinished and semi-finished products it is impossible to determine fair value from information from an active market and when carrying out these valuations, it is advantageous to proceed from the calculation of the present value of expected future net cash flows.</td>
</tr>
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</table>

*Source: Own processing*

**Conclusion**

Agriculture is a specific sector of the national economy and is largely different from other business activities. The specifics of farming are significantly reflected in the financial statements of agricultural companies. Yet financial reporting in many countries (including the Czech Republic), does not reflect these specifics. The opposite is the International Financial
Reporting Standards that govern agriculture in the separate International Accounting Standard No. 41 - Agriculture. The object of this standard is the reporting of biological assets and agricultural produce and there is also a need to carry out their valuation at fair value which may be difficult to detect especially in the absence of an active market. In this case, it is necessary that the reporting entity proceeds from other data when assessing fair value such as calculating the present value of expected future net cash flows. The procedure for determining fair value may, however, be largely subjective, and for this reason it is necessary to document notes to the financial statements of all the facts which led to the determination of fair value.

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References


