

FAIR VALUE AND FINANCIAL PERFORMANCE OF AGRICULTURAL ENTERPRISES: CHALLENGES AND IMPLICATIONS OF ITS APPLICATION

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Abstract: Financial reporting by agricultural enterprises aims to provide an objective representation of their financial position and earning capacity, primarily to protect their interests and meet the information needs of potential investors. Given that historical cost accounting does not ensure sufficient transparency in financial reporting, fair value accounting has been introduced into the regulatory framework, placing emphasis on the measurement of net assets, assets, and liabilities at fair value. This study examines the specific characteristics of measuring biological assets from the perspective of the application of International Accounting Standards. Based on the research conducted, the authors highlight the challenges associated with measuring biological assets under the fair value concept, particularly due to the need to adjust their carrying amounts at initial recognition and at the end of the reporting period. However, the application of the fair value concept still does not fully resolve the issue of high-quality financial reporting because of subjectivity and the potential for manipulation, which may result in an unrealistic presentation of financial performance. The research was conducted

using descriptive statistics and financial analysis based on publicly available data. Finally, the results indicate that more effective management measures are required to increase returns on capital and enhance the market value of enterprises operating in the agricultural sector.

Keywords: agriculture, biological assets, fair value, IAS, IFRS, financial performance

Introduction

High-quality financial reporting by agricultural enterprises aims to provide users with reliable and relevant financial information that serves as a valid basis for making decisions regarding the allocation of resources (Mitrović et al., 2024). Accordingly, emphasis is placed on preparing financial statements in compliance with International Accounting Standards and national regulations, which should assist users in assessing an enterprise's financial strength, liquidity, solvency, and need for additional financing (Petrović & Milošević, 2025; Petrović et al., 2025). Based on the operating results of agricultural enterprises, users of financial statements determine the level of returns to assess future cash flows (IASB, 2018). Therefore, the primary objective of financial reporting is to protect investors' interests, which has contributed to the replacement of the historical cost concept by the fair value concept as a market-based approach to the valuation of biological assets (Roychowdhury et al., 2019; Pantelić, 2020). However, a shortcoming of financial reporting by agricultural enterprises is that financial statements do not provide a sufficiently detailed analysis of biological assets in terms of their structure, meaning that users may be misled by incomplete information. In particular, biological assets are not classified separately in the statement of financial position but are presented on an aggregated basis. Additional explanations are provided in the notes to the financial statements and depend on the accountant's professional judgement, which is inherently subjective and may likewise lead to misleading interpretations by users of financial information.

Agriculture represents a key sector for economic development and is based on the biological transformation of perennial plantations and biological assets intended for processing into agricultural produce, sale, or the generation of additional biological assets. Agricultural activities include livestock farming, crop production, fruit growing, vegetable production, forestry, aquaculture, and horticulture (IASB, 2020; Lefter & Roman, 2007). Biological assets are characterised as living organisms and may be classified as consumable biological

assets, such as livestock intended for slaughter, or bearer biological assets, such as livestock from which milk is obtained. They may also be classified according to their stage of maturity as mature or immature biological assets. Biological transformation refers to a process involving changes in such assets, such as sheep, trees, and grapevines, through growth, degeneration, or reproduction, as well as the production of agricultural produce such as wool, timber, and grapes. With regard to the accounting recognition of biological assets, an enterprise recognises a biological asset when it controls the asset, when it is probable that future economic benefits associated with the asset will flow to the enterprise, and when its cost or fair value can be measured reliably.

The achievement of future net economic benefits through the biological transformation of biological assets into agricultural produce represents a complex process that contributes to the growth of gross domestic product and, consequently, gross value added (Mičić, 2017). National regulations stipulate that Sector A comprises agriculture, forestry, and fishing and includes changes in biological assets arising from the cultivation of crops and plantations, as well as the breeding of animals on agricultural land during the reporting period (Official Gazette, 2010). According to the Rulebook on the Chart of Accounts, biological assets are recorded in accounts within Group 03, comprising the following categories: 030 – forests, 031 – perennial plantations, 032 – other perennial plantations, 033 – breeding livestock, 037 – biological assets under development, and 038 – advances for biological assets (Official Gazette, 2020).

The research problem concerns the specific characteristics of the valuation, accounting treatment, and disclosure of biological assets, which have a heterogeneous composition of plant or animal origin and undergo a transformation process involving several stages, ranging from cultivation, growth, and development to the production of agricultural produce intended for sale. Biological assets are living organisms exposed to various types of natural risks, including drought, hail, floods, soil quality risks, and the risk of various diseases (IASB, 2020), as they undergo quantitative and qualitative changes over the observed period.

The research aims to examine, based on the specific accounting treatment of biological assets and their impact on enterprises' operating results, the performance of agricultural enterprises whose portfolios include biological assets and to determine the efficiency of their operations, both on average over the observed period and for each year. Accordingly, the authors will conduct a comparative financial analysis of their operations. The results obtained will

indicate whether these enterprises are managed adequately, i.e., whether they achieve the fundamental objective underlying agricultural activities—generating profit and increasing capital.

In accordance with the research objective, three research questions were formulated:

1. How does the existence of an active market for agricultural products affect the accounting treatment and reliability of the fair value measurement of biological assets?
2. How does the management of biological assets and their transformation into agricultural produce affect the generation of future economic benefits in agricultural activities?
3. To what extent do financial indicators derived from financial statements enable the assessment and comparison of the performance of agricultural enterprises over a given period?

Literature Review

The transformation process in agricultural activity involves several stages, including biological assets (perennial plantations and livestock), agricultural produce, and products resulting from processing after harvest (Mijić et al., 2011; Bakmaz et al., 2024). Biological assets include plants used to grow agricultural produce intended for further processing or sale. Accordingly, biological assets are used for more than one year and are therefore classified as non-current assets and accounted for in accordance with IAS 16. Agricultural produce, on the other hand, is used for less than one year and is accounted for as current assets in accordance with IAS 2 *Inventories*. However, IAS 16 applies only to bearer plants in agriculture, which raises the question of how livestock that is also used for more than one year should be accounted for. Nevertheless, when adjusting the value of biological assets, gains or losses should not be recognised in profit or loss, since such assets are intended to generate produce over several years rather than to be disposed of. Any increase or decrease in value should therefore be accumulated in equity through revaluation reserves and recognised in other comprehensive income.

The accounting treatment of perennial plantations is prescribed by IAS 16 *Property, Plant and Equipment*, which defines a bearer plant as a living plant, such as those found in orchards, vineyards, and hop plantations, that is used in the production of agricultural produce, is expected to bear produce for more than one period, and has only a remote likelihood of being sold as agricultural produce. The

same standard defines depreciation of biological assets as the amount that gradually reduces their value over the useful life of the assets. According to this standard, a bearer plant is recognised at cost if its value can be measured reliably and if future economic benefits are expected to flow to the entity (Savić & Obradović, 2020). Following recognition, however, an enterprise chooses between two subsequent measurement models: the cost model or the revaluation model. Under the cost model, the carrying amount after initial recognition is reduced by accumulated depreciation. In contrast, the revaluation model requires biological assets to be carried at a revalued amount representing their fair value at the date of revaluation, less subsequent accumulated depreciation and accumulated impairment losses.

In practice, agricultural produce harvested from a biological asset, for example grapes harvested from grapevines, is measured at fair value less costs to sell at the point of harvest (IASB, 2020). After harvest, for example when grapes are processed into wine, such products are measured in accordance with IAS 2 *Inventories*, which requires inventories of agricultural produce and products resulting from post-harvest processing to be measured at the lower of cost and net realisable value (IASB, 2003). Cost comprises purchase costs, conversion costs, including direct labour costs, import duties, and other costs directly attributable to the acquisition of agricultural produce. Net realisable value, in turn, represents the estimated selling price less the estimated costs of completion and the estimated costs necessary to make the sale, while changes in net realisable value affect profit or loss for the relevant reporting period.

The fair value of agricultural produce is measured on the basis of current market conditions between market participants at the measurement date (IASB, 2016; Petrović et al., 2023). This means that, when an active market exists, fair value is determined on the basis of the quoted selling price in that market (Mijić & Petković, 2015; KPMG, 2023). Conversely, if no active market exists, fair value may be determined using the price of the most recent market transaction, market prices for similar assets, or sector benchmarks, such as the price of fruit or vegetables per crate. Furthermore, changes in the fair value of a biological asset may arise both from changes in market supply and demand and from physical changes in the asset itself (IASB, 2020). Gains or losses arising on initial recognition of a biological asset and agricultural produce, as well as from changes in fair value less costs to sell, are recognised in profit or loss; for example, gains resulting from the birth of lambs (PricewaterhouseCoopers, 2009). Where fair value cannot be measured reliably, the asset is measured at cost less accumulated

depreciation and any accumulated impairment losses. The resulting amount is subsequently adjusted for costs to sell. Such costs represent incremental costs directly attributable to the disposal of the asset and may include transport costs, dealer and broker commissions, customs duties, and other costs directly attributable to the sale (PricewaterhouseCoopers, 2009; Roychowdhury, Shroff, & Verdi, 2019). When such assets are intended for disposal, the relevant biological assets and agricultural produce are classified as assets held for sale (IASB, 2016).

It is important to emphasise that costs directly attributable to the production or acquisition of a biological asset may be capitalised, thereby increasing its carrying amount until the asset is ready for its intended use or sale, in accordance with IAS 23 *Borrowing Costs* (IASB, 2017). This means that other costs that are not directly related to the acquisition of the asset cannot be included in its cost. These may include veterinary services, irrigation costs, harvesting costs, picking costs, and similar expenditures (Savić & Obradović, 2020). Accordingly, other costs that cannot be directly associated with the acquisition of a non-current asset are treated as period expenses and recognised in the income statement. It should be emphasised that historical cost may be of limited usefulness in the analysis because the agricultural maturation process may extend over a long period. Consequently, historical costs at the time of harvest or maturity may not provide an appropriate indication of the value of biological assets or perennial plantations. This is due to the biological transformation of such assets, which entails variations in their fair values arising from changes in prices in active markets for biological assets. In the case of perennial plantations, this period extends from planting to harvest, while in the case of livestock and other biological assets it extends from birth to maturity and eventual sale (Vasilić & Savić, 2025; Wahyuni et al., 2024).

Data and Methods

The research will analyse data obtained from general-purpose annual financial statements publicly available on the website of the Serbian Business Registers Agency. The research sample comprises 44 of the largest agricultural enterprises in the Republic of Serbia whose statements of financial position include biological assets, covering the period from 2022 to 2024. The data will be analysed using descriptive statistics, as well as grouping and comparison methods (Artikovich, 2023). Descriptive statistical analysis is intended to provide information that makes the business performance of enterprises clear and transparent to different groups of stakeholders (Setyanto et al., 2024).

The analysis will be based on financial indicators such as ratios related to changes in biological assets, efficiency, liquidity, and profitability (Knežević et al., 2021). Ratios related to changes in biological assets are analysed because biological assets represent a specific component of non-current assets whose level and changes affect liquidity, efficiency, and profitability in the agribusiness sector (Oliveira et al., 2019). The concept of materiality in financial reporting will also be applied to biological assets. This concept is based on the accounting assumption that an item is material if its omission could influence the decisions made by users of financial statements (IASB, 2021). The present research will be based on the assumption that an item is material if its amount exceeds 1% of total assets. Particular emphasis will therefore be placed on analysing the biological assets of agricultural enterprises, and only those enterprises in which biological assets exceed the relevant materiality threshold for decision-making will be included in the analysis. In accordance with these criteria, it will be determined whether biological assets represent a materially significant proportion of an enterprise's total assets (Trivunac-Beke, 2015).

Liquidity is an indicator of an enterprise's financial condition and represents its ability to maintain continuous operations while settling its due short-term liabilities promptly (Lee, 2023). Illiquidity represents one of the major problems faced by agricultural enterprises in the Serbian economy. For enterprises to remain liquid, it is essential to ensure an appropriate matching of the maturities of liabilities and assets. In addition to difficulties associated with meeting short-term obligations, agricultural enterprises are also exposed to problems related to the settlement of long-term financial liabilities. If an enterprise becomes insolvent, this indicates serious financial difficulties that may ultimately result in bankruptcy.

Assessing the operating efficiency of enterprises in the agribusiness sector is important for management in order to improve managerial processes, establish effective control mechanisms, and identify potential bottlenecks promptly. Efficiency therefore indicates whether an enterprise's resources are being used effectively, i.e., whether they are deployed appropriately in order to achieve their optimal utilisation in the market (Artikovich, 2023; Petrović et al., 2023). However, the management of agricultural enterprises in Serbia is often inefficient due to inadequate management of resources such as labour, land, biological assets, equipment, and their transformation within the production process. This indicates a need to improve resource utilisation in order to achieve the maximum

possible growth in revenue while minimising both time and costs (Bakmaz et al., 2024; Knežević & Milojević, 2024).

The objective of every agricultural enterprise is to maximise profit, which depends on management capabilities and reflects the level of profitability achieved by the enterprise. Profitability represents a primary business objective of agricultural enterprises and an important indicator of their earning capacity, both for management and for potential investors whose decisions are based on expected returns (Hamzah, 2024). In order for these enterprises to remain profitable, management must use resources efficiently in generating output, i.e., minimise costs while maximising revenues (Srebro et al., 2019). Target profit represents a measure reflecting the increase in the value of invested capital, while at the same time serving as an indicator of enterprise efficiency and financial security for potential creditors and investors. A higher return on capital indicates that their investments are more justified. Accordingly, profit represents a key criterion affecting the allocation of resources within agricultural enterprises.

Research Results and Discussion

By combining statistical indicators, the results of a comparative financial analysis of agricultural enterprises were obtained. Accordingly, the criteria used as the starting point for the preliminary analysis were descriptive statistical indicators, followed by financial indicators representing key measures of enterprise performance.

Table 1. Descriptive Statistics of Financial Statement Items (RSD million)

Description (RSD thousand)	Average	Standard Deviation	Maximum	Minimum
Non-current assets	8,902,464	22,384,278	136,647,981	9,351.33
Intangible assets	62,056	257,619	1,571,293	0
Biological assets	3,735,932	17,483,655	111,976,053	21
Inventories	1,108,833	2,041,246	7,936,542	183
Equity	8,342,551	19,137,463	113,808,133	0
Net profit	142,304	628,551	2,061,534	-1,512,237

Source: Authors' elaborations



Figure 1. Annual Values of Financial Statement Items

Source: Authors' elaborations

Table 1 presents the average value of non-current assets, amounting to approximately RSD 8.9 billion, of which intangible assets account for RSD 62.056 million and biological assets for approximately RSD 3.7 billion. Equity amounts to approximately RSD 8.3 billion, while net profit amounts to RSD 142 million. Figure 1 provides an overview of changes in the values of the above-mentioned statement of financial position and income statement items over the three years from 2022 to 2024 (APR, 2025). The analysis considers average movements at the level of the agricultural sector. Based on the values presented, the figure shows no major annual deviations in the values of biological assets, non-current assets, equity, net profit, intangible assets, and inventories. As illustrated in the figure, the values of all items remain relatively stable from year to year, without substantial deviations, indicating stability and continuity without major fluctuations. This is consistent with the going concern principle, which assumes that an enterprise will continue its operations in the foreseeable future (Pantelić, 2020; Goncalves et al., 2017). The exception is net profit, which declined sharply from RSD 311.814 million to RSD 85.759 million in 2023 and continued to decrease to RSD 29.337 million in 2024. The decline in net profit was caused by decreasing sales revenues over the three years and losses reported by eight of the enterprises included in the sample.

Table 2. Descriptive Statistics of Biological Assets

Indicator	Average	Standard Deviation	Maximum	Minimum
Operating return on biological assets	1.02	3.81	32.25	-3.82
Biological assets-to-equity ratio	0.66	3.00	9.86	0
Biological assets / Total assets	0.55	0.30	4.64	0
Biological assets / Non-current assets	0.60	0.30	0.70	0

Source: Authors' elaborations

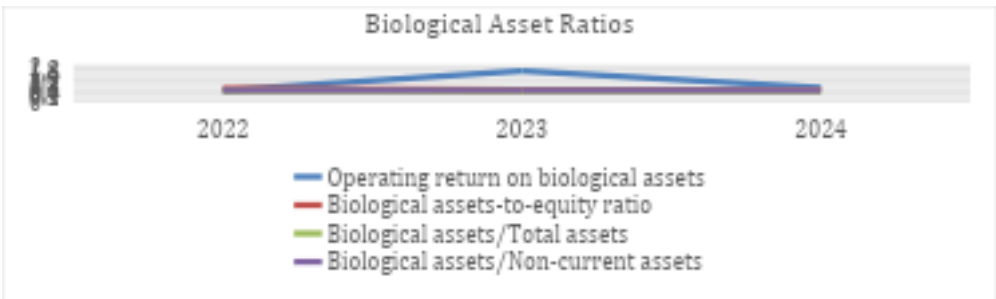


Figure 2. Biological Asset Ratios (2022-2024)

Source: Authors' elaborations

Table 2 presents a more detailed financial analysis of biological assets over the observed period. The average operating return on biological assets amounts to 1.02, indicating that, on average, each monetary unit invested in biological assets generated RSD 1.02 of profit. This ratio reflects the earning capacity of enterprises resulting from the use of biological assets.

The biological assets-to-equity ratio amounts to 0.66, indicating that, on average, for every RSD 1 of own funds invested, an enterprise held RSD 0.66 in biological assets. It should be noted that approximately half of the observed enterprises have a very low value of this ratio. Accordingly, the ratio indicates the importance of relying to the greatest possible extent on internal sources of financing for biological assets; otherwise, greater reliance on borrowed funds may indicate a higher level of enterprise indebtedness.

The average ratio of biological assets to total assets amounts to 0.55, which exceeds the 1% threshold defined in this study as the materiality threshold. This is consistent with IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*, which addresses the materiality of financial statement items (IASB, 2021). The standard allows entities to exercise judgement in determining whether an item is material. In this study, an item is considered material if its amount exceeds 1% of total assets. In this case, the average amount of biological assets exceeds the materiality threshold in relation to total assets, indicating that biological assets represent a significant component in the analysis of agricultural enterprises.

The average share of biological assets in non-current assets amounts to 0.60. Of the enterprises analysed, 15 have a share exceeding 20%, while all the remaining enterprises have a relatively low share. There is no predetermined benchmark indicating whether such a level is appropriate; however, the result may be compared with previous years in order to determine whether changes in biological assets were accompanied by an increase or decrease in sales revenue.

Figure 2 presents the annual averages of the analysed ratios. As shown in the figure, the most pronounced increase was recorded in the operating return on biological assets, which reached 1.73 in 2023. This increase was driven by several enterprises that recorded a substantial rise in operating returns generated by biological assets, thereby significantly affecting the overall average. However, in 2024, this ratio decreased to approximately 0.74, as nine enterprises recorded a negative rate of return.

The biological assets-to-equity ratio, the ratio of biological assets to non-current assets, and the ratio of biological assets to total assets remained at approximately the same levels, with only minor fluctuations over the observed period. This indicates relative stability, although without evidence of substantial additional financial investment.

Table 3. Descriptive Analysis of Efficiency

Indicator	Average	Standard Deviation	Maximum	Minimum
Total asset turnover ratio	0.02	0.02	0.13	0
Inventory turnover ratio	0.27	0.55	3.03	0
Accounts receivable turnover ratio	41.02	182.17	1,195.03	0
Debt ratio	0.44	1.11	7.52	0
Debt-to-equity ratio	1.24	1.92	7.67	0
Equity ratio	0.53	0.26	0.94	0

Source: Authors' elaborations



Figure 3. Efficiency Ratios (2022-2024)

Source: Authors' elaborations

As shown in Table 3, the average total asset turnover ratio amounts to 0.02 and indicates how efficiently assets are used to generate sales revenue. The objective is for this ratio to be as high as possible. Since its average value is low, this indicates that assets are not being used efficiently to generate sales revenue. The inventory turnover ratio amounts to 0.27 and indicates the number of times average inventory is turned over during the year. Accordingly, a higher turnover ratio is desirable. A low value of this ratio indicates a risk that inventories may become obsolete or slow-moving (Knežević et al., 2019). A more detailed analysis should therefore examine the inventory holding period to draw more reliable conclusions.

The average accounts receivable turnover ratio amounts to 41.02, indicating that enterprises collect their average receivables 41.02 times per year. The objective is for the accounts receivable turnover ratio to increase from year to year and to be aligned with the accounts payable turnover ratio so that enterprises can regularly settle their liabilities as they fall due. The debt ratio indicates the

proportion of total assets financed by total liabilities. Given that this ratio is relatively low, averaging 0.44, agricultural enterprises finance their activities predominantly from their own sources of financing. The minimum level of indebtedness is 0, while the maximum amounts to 8.74 for an individual enterprise.

The equity ratio indicates the share of equity in an enterprise's total assets or, viewed from another perspective, the extent to which the enterprise relies on debt financing. The average value of this ratio is 0.53, indicating that enterprises are predominantly financed from their own sources. However, the difference compared with borrowed sources of financing is relatively small, meaning that liquidity, solvency, and ultimately the sustainability of their operations should also be monitored.

Figure 3 shows that the total asset turnover ratio, the debt-to-equity ratio, and the equity ratio remained at approximately the same levels over the observed period. This indicates that management maintained a relatively stable asset base, financial risk did not increase substantially, and agricultural enterprises continued to rely predominantly on their own sources of financing. The accounts receivable turnover ratio followed an upward trend, with an increase in receivables from year to year observed in 16 enterprises. In contrast, the inventory turnover ratio remained low, indicating a risk of inventory obsolescence and the need for more efficient inventory management.

Table 4. Descriptive Analysis of Liquidity

Indicator	Average	Standard Deviation	Maximum	Minimum
Current ratio	0.07	0.09	0.51	0
Quick ratio	0.04	0.05	0.29	0
Cash ratio	0.01	0.02	0.09	0

Source: Authors' elaborations



Figure 4. Liquidity Ratios (2022-2024)

Source: Authors' elaborations

The current ratio is a measure commonly used by enterprises to assess liquidity and indicates whether an enterprise may encounter difficulties in meeting its short-term obligations. A traditional rule originating from U.S. banking practice suggests that the ratio of current assets to current liabilities should be 2:1. During the observed three-year period, the average current ratio amounted to 0.07, confirming that the enterprises have a weak liquidity position, since the ratio is below 1. Therefore, certain measures should be undertaken to improve the current ratio, as its low value raises concerns as to whether all of the analysed enterprises are capable of meeting their short-term liabilities as they fall due.

The quick ratio, also known as the acid-test ratio, excludes inventories from the numerator because they are considered the least liquid component of current assets (Rodriguez & Shikida, 2021). As a general rule, the ratio of liquid monetary assets to current liabilities should be at least 1:1 (Ševkušić et al., 2022). Accordingly, the results also indicate difficulties in meeting short-term obligations, since the average quick ratio over the three years amounts to only 0.04. This may signal either a decline in liquid assets or an increase in current liabilities at the level of the agricultural sector.

Furthermore, the cash ratio, also referred to as the absolute liquidity ratio, includes highly liquid assets such as cash and cash equivalents and marketable securities. Its average value of 0.01 is extremely low, confirming that, at the sector level, agricultural enterprises have insufficient highly liquid assets and marketable securities to cover short-term financial liabilities. A total of 36 observed enterprises have a value of this ratio below 1, which contributes to such a low overall average. It may therefore be concluded that all three analysed liquidity ratios have average values below 1, raising concerns regarding the ability of enterprises to settle due short-term liabilities because of insufficient liquid assets. Nevertheless, when their annual movements are considered, the ratios exhibit an upward trend, indicating an increase in the level of liquid assets held by the enterprises.

Table 5. Descriptive Analysis of Profitability

Indicator	Average	Standard Deviation	Maximum	Minimum
Net profit margin	-0.19	5.21	9.19	-29.83
Return on assets (ROA)	0.53	2.32	12.45	-3.71
Return on equity (ROE)	0.51	2.71	15.75	-4.85

Source: Authors' elaborations



Figure 5. Annual Profitability Ratios

Source: Authors' elaborations

Based on Table 5, the net profit margin represents the relationship between net profit and net sales revenue. On average, among the analysed agricultural enterprises, this ratio is negative and amounts to -0.19, indicating the lack of profitability of their business activities. The low level of net profit suggests high expenses, while eight of the observed enterprises recorded a negative net profit margin.

Return on assets (ROA) indicates the amount of profit generated per monetary unit invested in operating assets. In this case, the average rate of return is relatively low and amounts to 0.53, indicating that each monetary unit invested in operating assets generates approximately half a monetary unit of operating profit. Such a result may represent an unfavourable signal to potential investors. As many as 40 of the observed enterprises recorded ROA values close to zero, indicating the need for a more detailed analysis of the costs associated with the utilisation of operating assets.

Return on equity (ROE) is also relatively low, amounting to 0.51, and indicates the average level of net profit generated per unit of equity invested. This indicator is particularly important for managerial decision-making because it helps determine the minimum acceptable level of enterprise performance (Setyanto et al., 2024). Accordingly, a higher ROE indicates that a greater amount of net profit is generated from invested equity. Of all the enterprises analysed, only one recorded an exceptionally high ROE, while the values for the remaining enterprises were relatively close to the overall average. This may indicate that management does not use investors' equity efficiently enough to generate additional returns.

Conclusion

This paper examines the specific characteristics of the accounting treatment and measurement of biological assets in agricultural enterprises. Biological assets are living animals or plants whose growth and development result in quantitative and qualitative changes, leading to biological transformation and changes in the condition and value of such assets. In the statement of financial position, biological assets are presented within account group 03, while the Notes to the financial statements provide a breakdown into breeding livestock and perennial plantations. In addition, the Notes disclose the value of biological assets at the beginning of the year, changes during the year—including value adjustments resulting from changes in market prices, livestock mortality, transfers to work in progress, depreciation, and the removal of perennial plantations—and their value at the end of the year.

Based on the research conducted, the authors conclude that additional financial investment in agricultural activities is required, as the current level of investment is relatively low. It may also be concluded that long-term financial security is not at a satisfactory level, exposing potential investors to considerable long-term risks when investing capital. Management should therefore implement more effective measures to increase returns on capital and enhance the market value of enterprises. Such measures should aim to strengthen the financial position of enterprises and improve existing production activities by renewing the product portfolio to reduce slow-moving and obsolete inventories. A key factor in effective management is the formulation of strategies that improve business processes, reduce unnecessary resource consumption, enhance performance, and increase enterprise value over the long term.

The research results provided answers to the research questions formulated in the study. First, the observed enterprises operating in active markets measured biological assets at fair value less costs to sell. Second, all agricultural enterprises whose biological assets were analysed control the transformation of these assets into agricultural produce with the objective of generating sales revenue. Third, the findings indicate that financial indicators provide a consistent basis for assessing business performance from year to year through the application of the same group of indicators. Accordingly, the comparative analysis makes it possible to assess the operating performance of enterprises engaged in agricultural activities.

The application of the fair value concept to biological assets, as well as the adjustment of changes in their carrying amounts at initial recognition and at the

end of the reporting period, has long represented a challenge in the agricultural sector. Accordingly, where fair value cannot be measured reliably, biological assets should be measured at cost less accumulated depreciation and accumulated impairment losses, if any. Where fair value can be measured reliably in the market, biological assets are measured at fair value less costs to sell. However, a degree of subjectivity remains inherent in the application of fair value, which may lead to an unrealistic presentation of financial results and may also create opportunities for manipulation in financial statements. Finally, information disclosed in the Notes is prepared based on accountants' professional judgement and may therefore not fully reflect the actual financial position of an enterprise. Consequently, the application of the fair value concept alone does not resolve the issue of the reliability of financial statements. Nevertheless, it is important to emphasise that fair value represents a cornerstone of investment decision-making, the development of accounting standards by professional institutions, and the continuous improvement of regulations by regulatory authorities.

From a critical perspective on the current situation in Serbia, insufficiently regulated markets and inefficiencies in the operation of regulatory bodies may contribute to a decline in the quality of financial reporting. The issue of measuring biological assets remains relevant, as does the question of how to measure the transformation of biological assets into agricultural produce, since different levels of transformation costs affect both the measurement of agricultural produce and the amount of reported financial results. One of the key dilemmas concerns how perennial plantations and unharvested agricultural produce should be measured. One possible solution is to treat them as a single unit up to the point of harvest. Further challenges concern which costs should be capitalised as part of the value of biological assets and the point in time up to which such costs should be capitalised.

Ultimately, the objective is to ensure high-quality financial reporting. Therefore, the authors conclude that consideration should be given to introducing a unified standard that would integrate methods for accounting for the transformation of biological assets and, from this perspective, promote greater harmonisation in reporting methods relating to biological transformation.

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FER VREDNOST I FINANSIJSKE PERFORMANSE POLJOPRIVREDNIH PREDUZEĆA: IZAZOVI I IMPLIKACIJE PRIMENE

Apstrakt: Finansijsko izveštavanje poljoprivrednih preduzeća ima za cilj da objektivno prikaže njihovu finansijsku i prinosnu snagu, da bi se prvenstveno zaštitili interesi i zadovoljile potrebe potencijalnih investitora. Zbog činjenice da računovodstvo istorijskog troška ne obezbeđuje transparentnost finansijskog izveštavanja, u normativu je uvedeno računovodstvo fer vrednosti gde je akcenat na vrednovanju neto imovine, sredstava i obaveza po fer vrednosti. U ovoj studiji prikazana je specifičnost odmeravanja bioloških sredstava iz ugla primene Međunarodnih računovodstvenih standarda. Na osnovu izvršenog istraživanja, autori su ukazali na izazov vrednovanja bioloških sredstava primenom koncepta fer vrednosti, zbog usklađivanja njihove knjigovodstvene vrednosti prilikom početnog priznavanja i na kraju izveštajnog perioda. Međutim, primena koncepta fer vrednosti i dalje ne rešava u potpunosti problem kvalitetnog finansijskog izveštavanja zbog subjektivizma i mogućih manipulacija, što može dovesti do nerealnog iskazivanja finansijskog rezultata. Istraživanje je sprovedeno korišćenjem metoda deskriptivne statistike i finansijske analize pomoću javno dostupnih podataka. Konačno, izvedeni rezultati ukazuju da su potrebne efikasnije mere upravljanja kako bi se uvećao stepen oplodnje kapitala i porasla tržišna vrednost preduzeća u sektoru poljoprivrede.

Ključne reči: poljoprivreda, biološka sredstva, fer vrednost, MRS, MSFI, finansijske performanse

