Abstract:
IAS 16 „Tangible fixed assets” is the basic standard governing the rules of accounting, valuation and presentation of tangible fixed assets. In terms of valuation, there are solutions for both initial valuation and valuation subsequent to initial recognition in this standard. When analysing the moment of transition to IFRS/IAS particular attention should be paid to the methods of initial valuation contained in this standard, and regulations contained in other standards should be also taken into account, such as IAS 23 and IFRS 1.

Purpose:
Purpose of this paper is the interpretation of the international standards’ content in terms of initial valuation of tangible fixed assets, as well as the comparative analysis with the requirements of Polish Accounting Act [pol. Ustawa o Rachunkowości] in that regard. There will be shown both similarities and differences between above mentioned acts, which entail the need to make some adjustments while changing the applied regulations. There will be also presented the impact of changed rules of the valuation on the individual items of the financial statement.

Conclusions and findings:
There are many discrepancies in the valuation of fixed assets between the regulations contained in IFRS/IAS and Polish Accounting Act. In order to improve the comparability and transparency of financial statements made in accordance with Polish and international regulations, it is necessary to gradually adapt domestic regulations to the international solutions.

Keywords: fixed assets, valuation of fixed assets, International Accounting Standards, financial statement
1. INTRODUCTION

The currently ongoing process of globalisation and thus the deepening of mutual interactions between and among the international economies significantly affect the directions of development of accounting. The confrontation of the diverse principles of financial accounting applied in various countries demonstrates their need to harmonise them at the international level in order to achieve more extensive comparability and transparency of financial statements. However, in spite of the gradual introduction of the principles set at the international level into the national systems, in many cases there have been still a lot of discrepancies between and among the specified regulations.

The objective of the study refers to the interpretation of the international standards in the scope of the initial valuation of tangible fixed asset items and the comparative analysis with the requirements set by the Polish Accounting Act in this respect. It will demonstrate both the similarities and differences between the specified acts which entail some adjustments to be made at the moment of changing the applied regulations. It also presents the initial valuation of tangible fixed assets at the moment of transition to the IFRS/IAS system and its financial implications based on KGHM Polska Miedź JSC.

2. LEGAL GROUNDS OF ACCOUNTING IN POLAND

The Accounting Act of 29 September 1994 has been the Polish fundamental legal act governing the principles of keeping accounting books and preparing financial statements. It has been supplemented and modified several times in order to adapt the Polish regulations to the international solutions. The Polish accounting regulations classifies entities in terms of the requirement of the IFRS/IAS application as follows:

- entities which prepare financial statements under the IFRS/IAS provisions and
- entities which prepare financial statements under the Accounting Act provisions.

The Accounting Act imposes an absolute obligation to apply the International Accounting Standards onto entities which are issuers of securities admitted to public trading and banks which prepare their consolidated financial statements.¹

In addition, entities applying or intending to apply for their admission to trading at any regulated market within the European Economic Areas and lower-level parent entities composing capital groups in which their higher-level entity prepares consolidated statements according to the IFRS/IAS may prepare financial statements in accordance with the international regulations. In such cases a decision is made directly by the approving body of the parent entity.²

Moreover, it is also significant that in case of matters which are not covered by the Accounting Act, entities reporting on the basis of this Act may apply the national accounting standards and in case of no relevant standard they may apply the international regulations. The Accounting Act does not impose their application but indicates that they may be applied. On the other hand, entities applying the international regulations may apply the national regulations in matters which are not covered by the IAS.

3. TANGIBLE FIXED ASSETS UNDER THE IAS 16

The IAS 16 - Property, plant and equipment components is the basic standard governing the principles of recognition, valuation and presentation of tangible fixed assets. Updated several times it constitutes now one of the most useful standards in practice.

The objective of this Standard is to regulate the accounting treatment of property, plant and equipment components in such a manner to provide users of financial statements - as much as possible - with information in the scope of entity’s investments in its property, plant and equipment components and any changes made within such investments.³

² Ibidem, article 55, clauses 6-8.
In accordance with the IAS 16, property, plant and equipment components include: "fixed assets which are held for use in the production or supply of goods or services, for rental to others or for administrative purposes and are expected to be used during more than one period".\(^4\)

There are, however, certain groups of assets which - although they satisfy the requirements contained in the definition of fixed assets, are excluded from the regime of the standard; they include:
- property, plant and equipment components classified as held for sale in accordance with the IFRS 5 - Non-current Assets Held for Sale and Discontinued Operations;
- biological assets related to agricultural activities covered by the IAS 41 - Agriculture;
- assets derived from the exploration for and evaluation of mineral resources covered by the IFRS 6 - Exploration for and evaluation of mineral resources and
- rights to mineral resources and minerals, such as crude oil, natural gas and other non-renewable sources of energy.\(^5\)

Although these assets are subject to the provisions contained in other Standards, then in accordance with the IAS 16, other fixed assets which are used in agricultural activities and for the exploration for and evaluation of mineral resources, are still subject to its regulations.

Investment real properties or fixed assets on lease with the specific principles of their recognition being discussed in the standard are treated differently.

Moreover, the standard allows to recognise individual, insignificant items of fixed property items in aggregates and to classify spare parts and stand-by equipment as fixed assets if they are used for a period longer than one year or in connection with particular tangible fixed assets items.\(^6\)

4. TANGIBLE FIXED ASSETS UNDER THE ACCOUNTING ACT

In accordance with the Accounting Act, tangible fixed assets include "tangible assets and their equivalents, with their expected useful life exceeding one year, complete in composition, usable and intended for entity's own use, in particular:
- real properties - including lands, rights to perpetual usufruct of land, structures and building together with premises to which an entity has a separate title of ownership, co-operative title of ownership to an apartment and co-operative title of ownership to usable premises,
- machinery, equipment, means of transport and other items,
- developments (improvements) in foreign assets, and
- livestock."\(^7\)

The IFRS/IAS and the Accounting Act regulations are compatible in the definition of tangible fixed asset items. Both legal regimes define the basic characteristics of fixed assets which are intended for use in primary operating activities with their period of useful life exceeding 12 months. In addition, both in first and second case it is possible to recognise same or similar fixed assets with their insignificant value as an single item.\(^8\)

The definition included in the Accounting Act is, however, more detailed in comparison to the definition set by the IAS/IFRS and indicates specific groups of asset items. In addition, in accordance with the Accounting Act, the balance-sheet item of tangible fixed assets also include: assets under constructions and advance payments made on fixed assets under construction.\(^9\) The international provisions refer to the concept of fixed assets in their definition.

A further difference between the Accounting Act and the IAS 16 results from the existence of specific forms within the Polish legal system which are qualified by the Polish accounting (balance-sheet) law to be tangible fixed assets: a right to perpetual usufruct of land, ownership title to an apartment and co-operative title to usable premises.\(^10\)

\(^4\) Ibidem, point 6.
\(^5\) Ibidem, point 3.
\(^6\) Ibidem, point 9.
\(^7\) Accounting Act, article 3, clause 1, point 15.
\(^8\) Winiarska K., IAS 16 Property, plant and equipment components, Difin, Warsaw 2007, p. 98.
\(^9\) Accounting Act, article 3, clause 1, point 16.
\(^10\) Winiarska K., op. cit., p. 98.
5. INITIAL VALUATION OF TANGIBLE FIXED ASSET ITEM ACCORDING TO THE IAS 16 AND THE ACCOUNTING ACT

In accordance with the IAS 16, tangible fixed assets which are qualified for recognition as fixed property components are initially valued at their acquisition price or production cost.\(^{11}\)

According to the IAS 16, an acquisition / purchase price or production cost consists all costs incurred by an entity in order to bring a specific asset to its intended condition and location. They include:

- "a purchase price, including import duties and non-refundable purchase taxes, upon deducting trade discounts and rebates,
- all other costs which can be directly attributed to bringing the asset to the location and condition required for it to be capable of operating in the manner intended by management;
- estimated costs of dismantling and removing the asset and restoring the site of its location, the obligation for which an entity incurs either when the item is acquired or as a consequence of having used the asset during a particular period for purposes other than to produce goods during the period." \(^{12}\)

Therefore, an acquisition price and production cost will include: costs of loading, unloading, installation and assembly, charges incurred for concessions, licences, costs of compensations, costs of indirect staff costs incurred in relation with the production or acquisition of a particular item of fixed assets. In addition, in accordance with the international standards, these categories also include: pre-estimated cost of dismantling of the asset as well as costs of restoring the site at which the asset is located for use.\(^{13}\)

The IAS 16 also enlists costs which are not a part of an acquisition price or production costs. They include: costs of opening a new facility, expenditures of introducing a new product or service, administration and other general overhead costs etc.\(^{14}\)

In the context of the initial valuation of tangible fixed assets, there is a relevant provision stating that an acquisition price or production costs of a particular asset ceases to be capitalised at the moment of bringing it to the location and condition required to start its operation. Then all costs incurred at the time when a given asset item is not used or operated at less than full capacity, in spite of its capability of operation, costs incurred while a demand for the item's output builds up as well as costs of relocation or reorganisation of entity's operations are not included in the carrying (balance-sheet) value of fixed asset items.\(^{15}\)

The IAS 16 also provides for situations in which an entity can incur costs or achieve benefits related to the construction or development (improvement) of a given asset item but which are not required to bring it the location and conditions needed to start its operation. These operations include for example a rental of premises prior to their development (improvement) or usage of a building site prior to staring the construction. All expenditures incurred and benefits achieved in this manner are qualified directly to current-period costs or revenues and presented in the total income statement.\(^{16}\)

The IAS 16 defines the categories of an acquisition price and production cost of a tangible fixed asset item as a price equivalent covered by cash at the recognition date. If a payment for a particular asset item is deferred beyond normal credit terms, the difference between the cash price equivalent and the total pay is recognised as interest costs over the period of crediting.\(^{17}\) However, in accordance with IAS 23 Borrowing costs if we deal with a so-called qualifying asset item (e.g. an item which requires an extensive period of preparation to be use, for example it can refer to factory installations or energy-production systems), then interest (together with other borrowing costs) are subject to activation, i.e. it becomes a component of its acquisition price / production cost.\(^{18}\)

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\(^{11}\) IAS 16, point 15.
\(^{12}\) Ibidem, point 16.
\(^{13}\) Ibidem, point 18.
\(^{14}\) See more: Ibidem, point 19.
\(^{15}\) Ibidem, point 20.
\(^{16}\) Ibidem, point 21.
\(^{17}\) Ibidem, point 23.
Moreover the IAS 16 regulates the principles of exchanging fixed asset items, which stands for situations in which the possessed fixed asset items are exchanged onto other items or groups of monetary and non-monetary assets. In such a transaction its acquisition price is measured at a fair value and otherwise - in case such a fair value cannot be measured or it lacks its commercial substance - it is measured at the carrying amount of the asset. Whether or not a particular transaction has got its commercial substance is measured individually considering the extent to which future cash flows by the transaction are expected. In case of situations when the fair value of an asset cannot be measured due to no comparable market transactions, the IAS 16 provides for certain simplifications stating that its valuation can be performed if the variability in the range of particular fair value estimates is not significant or the probabilities of accuracy of these estimates can be reasonably assessed and used in estimating the fair value.

The process of implementing the IAS 16 within an entity should also be preceded by certain operations such as: singling-out of investment real properties, separation of components which can constitute separate inventoried premises, in order to facilitate the registry of fixed assets and verification of depreciation rates of premises which are completely depreciated but still in operation. Such verification may result in making aback corrections and adjustments of current aggregated depreciation.

The initial valuation of tangible fixed asset items is also regulated by the provision of the IFRS 1 - First-time adoption of International Financial Reporting Standards. The IFRS 1 - First-time adoption of International Financial Reporting Standards provided for the possibility to apply by an entity certain exemptions at the implementation of the IFRS/IAS within its system. In accordance with Appendix D Exemptions from other IFRSs (point D 5), at the moment of transition to the IAS / IFRS system an entity may apply fair values of fixed assets as their deemed costs.

According to the Accounting Act the initial valuation of fixed assets is also performed on the grounds of their acquisition price or production cost increased by development (improvement) costs of a particular asset item. The definitions of an acquisition price and production costs included in the Accounting Act are consistent with the definitions contained in the IAS 16.

Some differences between the IAS 16 and the Accounting Act refer, however, to expenditures incurred at the moment of commissioning a particular asset item for use (service). In accordance with the IAS 16, any expenditures incurred at the moment of bringing a fixed asset to its usable condition increases its carrying value and are allocated directly onto the financial result. According to the Polish accounting (balance-sheet) law, a fixed asset is commissioned for use (service) at the moment when it is usable and complete. Thus, according to the Accounting Act all costs incurred until its qualification as a fixed asset are included in its carrying value. The IAS 16 also provides for government grants to be recognised in the initial value of fixed assets (which is not provided for by the Accounting Act). The IAS 16, in contrast to the Accounting Act, regulates the exchange of fixed assets.

There is also a relevant variance between the Accounting Act and IFRS/IAS regulations on the revaluation of fixed assets. On the basis of separate provisions, the Polish accounting (balance-sheet) law provides for the revaluation of tangible fixed assets. However, the value measured in this manner cannot be higher than their fair value. The IAS 16 allows only to increase or decrease the revaluation of asset values.

6. VALUATION OF TANGIBLE FIXED ASSETS AT THE MOMENT OF TRANSITION TO THE IFRS/IAS BASED ON KGHM JSC.

KGHM Polska Miedz S.A. is one of the world’s leading copper and refined silver producers. The company was established in 1961, since September 1991 it has been a joint-stock company and since July 1997 its shares are quoted at the Warsaw Stock Exchange. As the issuer of securities admitted to public trading, as on 1 January 2004, the company was obliged to transit to the International Financial

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19 IAS 16, point 25.
20 K. Winiarska, op. cit., p. 103.
21 Accounting Act, article 31.
22 Accounting Act, article 31, clause 3.
23 IAS 16, point 39-40.
Reporting Standards. The financial statements for the reporting year from 1 January to 31 December 2005 are the first ones which were prepared in accordance with the IFRS as adopted by the European Union, in force on the balance-sheet day of the financial statements.

As a result of the revision of its applicable regulations the entity was obliged to introduce a number of changes in the scope of the applied accounting policies. In accordance with the requirements of the IFRS 1 - First-time Adoption of International Financial Reporting Standards, the Group presented its arrangements explaining how the transition from the previously-applied principles of accounting based on the Polish accounting (balance-sheet) law to the principles by the IFRS affected the company standing and the financial results of its performance. All the adjustments concerning its fixed assets and their effects onto the company equity and financial results are presented in Table 1.

Table 1: Effects of changes of the applied principles of accounting in the scope of tangible fixed assets onto the company standing and financial results of KGHM JSC. performance

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<tbody>
<tr>
<td>1.</td>
<td>Elimination of capitalised interest</td>
<td>-30 428</td>
<td>1 804</td>
<td>-28 624</td>
</tr>
<tr>
<td>2.</td>
<td>Elimination of capitalised exchange rate variances</td>
<td>7 123</td>
<td>-716</td>
<td>6 407</td>
</tr>
<tr>
<td>3.</td>
<td>Revaluation of fixed assets in order to take into account hyperinflation</td>
<td>372 251</td>
<td>-19 464</td>
<td>352 787</td>
</tr>
<tr>
<td>4.</td>
<td>Adjustment of the value of fixed assets due to their valuation to their fair value recognised as their deemed cost</td>
<td>-5 916</td>
<td>976</td>
<td>-4 940</td>
</tr>
<tr>
<td>5.</td>
<td>Adjustment of the value of completely depreciated fixed assets</td>
<td>43 759</td>
<td>-2 814</td>
<td>40 945</td>
</tr>
<tr>
<td>6.</td>
<td>Adjustment of the value of fixed assets due to the separation of their components</td>
<td>7 958</td>
<td>-5 557</td>
<td>2 401</td>
</tr>
<tr>
<td>7.</td>
<td>Adjustment of the value of fixed assets due to the activation of costs of certification inspections</td>
<td>74</td>
<td>145</td>
<td>219</td>
</tr>
</tbody>
</table>

Equity and net financial result (net) according to the IFRS upon considering the adjustments of the value of fixed assets

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<tr>
<td>3 884 087</td>
<td>1 366 833</td>
<td>5 701 438</td>
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To adjust the value of tangible fixed asset items to the international solutions the entity made a number of adjustments and corrections of their values.

The first correction refers to the elimination of interest recognised in the carrying value of its fixed assets. The entity selected the model approach out of two possible manners of recognition of borrowing costs specified by the IAS 23. Borrowing costs incurred in order to finance the investment which increased the fixed asset prior to its commission for use (service) were then allocated onto the retained result of the previous years, thus decreasing it by the amount of 30 428 PLN as on 31.12.2003 and by 28 624 PLN as on 31.12.2004. Accordingly, these amounts also diminished the value of its fixed assets. As a result of changed costs of depreciation and interest, this adjustment also led to its increased financial result for 2004 by the amount of 1 804 k PLN.

The adoption of the model approach by the entity in the scope of activation of borrowing costs also made it necessary to eliminate its capitalised exchange rate variances. In this respect, the exchange
rate variances arising from the entity incurred liabilities which on the date of transition to the IFRS were activated at its fixed assets were allocated onto the retained result of the previous years increasing them by the amount of 7 123 k PLN. Accordingly, they also increase the net value of its fixed assets. The changed depreciation costs resulted in the reduction of the entity financial result for 2004 by the amount of 716 k PLN.

In view of the fact that a significant part of tangible fixed assets were acquired by the entity before 1997, so under hyperinflation, it was required to revalue their values in accordance with the IAS 29 - Financial Reporting in Hyperinflationary Economies. It led to the increase of the net value of tangible fixed assets as on 01.01.2004 by the amount of 372 251 k PLN and as on 31.12.2004 by the amount of 352 787 k PLN. The increase in the value of its assets entailed increased costs of depreciation, thus reducing the financial result for 2004 by the amount of 19 464 k PLN.

In accordance with the IFRS 1 - First-time adoption of International Financial Reporting Standards, KGHM JSC., in order to determine the value of its selected fixed assets - applied the valuation to their fair value as the so-called deemed (assumed) cost. As a result of their authorised valuation, as on the date of transition to the IFRS, the value of the entity fixed assets was reduced by the amount of 5 916 k PLN for 2013 and by the amount of 4 940 k PLN for 2004.

Prior to implementing the IAS 16 in the entity, it is required to verify depreciation rates of its fixed assets which are completely depreciated but still in operation. As for a part of the held fixed assets it was found that the complete depreciation of these fixed assets to the date of transition to the IFRS resulted from the fact that their depreciation rates did not reflect their period of use. In reference to these asset items their current aggregated depreciation was back adjusted. As a result of the adjustment, the net value of its fixed assets as on 01.01.2004 increased by 43 759 k PLN. At the same time it led to the entity increased depreciation and reduced financial result for 2004 by the amount of 2 814 k PLN.

Another measure undertaken in the process of implementing the IAS 16 concerns the separation of components which can constitute separate inventoried premises. It causes that it is required to write off its fixed assets to which - in accordance with the Polish accounting (balance-sheet) law - they were qualified. This adjustment led to the increased value of its fixed assets as on 01.01.2004 by 43 759 k PLN. As a result of this adjustment it also caused that the entity financial result for 2004 decreased by 2 814 k PLN.

The last adjustment of its fixed assets made by the Group in reference to implementing the IAS/IFRS regulations referred to the activation of costs of certification inspections. In accordance with the IAS 16, costs of certification inspections are recognised in the carrying value of fixed assets if they are run at regular intervals to prevent their potential defects. The Accounting Act does not contain such provisions - any costs incurred for this purposes were always directly allocated onto the financial result. By the activation of inspection costs the value of the entity fixed assets was increased by the amount of 74 k PLN as on 01.01.2004 and by the amount of 219 k PLN as on 31.12.2004. This correction also increased the consolidated financial result by the amount of 145 k PLN.24

The made adjustment of the value of the entity fixed assets led to significant changes of their carrying values. They led to the rise of the entity fixed assets by the amount of 394 821 PLN, which stands for about 11%. At the same time the value of the entity equities increased by the same amount. The presented figures show the extensive range of changes of the values shown in the financial statements as a result of the change of the applied regulations.

It is also significant that the made adjustments have a direct impact on the value of the held equities and the achieved financial result. The changed applied principles of accounting also affect the assessment on efficiency of running business operations. This impact is presented with the use of ROE index (Table 2).

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Table 2: ROE for KGHM JSC. within 2002-2004

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<th>2002</th>
<th>2003</th>
<th>2004</th>
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<tbody>
<tr>
<td>ROE = net profit / equity</td>
<td>-7%</td>
<td>19%</td>
<td>Accounting Act 26%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>IFRS/IAS 24%</td>
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The undertaken adjustments of the value of the entity fixed assets led to the increased value of its equities and a reduction in its financial results. As a result of the introduced adjustments, the profitability / return of equities was lower by about 2 percentage points which would be achieved by the Group if the applied accounting principles were not changed.

7. CONCLUSIONS

In Poland we have currently been observing the process of gradual adaptation of the national accounting (balance-sheet) law with the transnational regulations. However, in spite of the achieved significant convergence of the regulations covering the initial valuation of tangible fixed asset items contained in the Accounting Act and the IFRS/IAS, we can observe some slight variances. These discrepancies, however, made it necessary to make adjustments of the value of fixed assets by entities changing the applied principles of accounting which in turn entail changes in their financial statements. So the very change of the applied regulations can contribute to the substantial change of the entity standing and its achieved financial results. So in order to increase the comparability and transparency of financial statements prepared in accordance with the Polish and international regulations, it is required to consider further adaptation of the national regulations to the international solutions.

REFERENCE LIST

2. Kabalski P., (2006), Property, plant and equipment components, investment real properties, borrowing costs, fixed assets held for use and assets on lease, [in:] International Financial Reporting Standards. Key issues and practical solutions, ed. by A. Jaruga, Warsaw, SKwP.
6. Consolidated financial statements for 2005, KGHM JSC.