

Method of Component Depreciation of Fixed Assetsts and Its Comparision with Traditional Methods

Stárová M., Čermáková H.

Czech University of Life Sciences Prague, Faculty of Economics and Management, Department of Trade and Finances

Abstract

This contribution analyzes, based on specific examples, accounting procedures and tax implications of depreciation of tangible fixed assets. It compares the component method, which has recently appeared in the Czech legal regulations, with the traditional methods. To compare the effects that the traditional methods have on profit or loss, or rather on the tax base, also the generation of provisions is used.

The use of component depreciation is governed solely by the accounting regulations while the Income Tax Act has not been changed in this respect. Profit of loss has to be adjusted by a difference amount between accounting depreciation and tax depreciation in tax return.

Key words

Component depreciation, tax depreciation, accounting depreciation, profit or loss, costs, expenses; provisions.

Anotace

Příspěvek na základě konkrétních příkladů analyzuje účetní postupy a daňové dopady odpisů dlouhodobého hmotného majetku. Srovnává komponentní metodu, která se nově objevuje v českých právních předpisech s metodami tradičními. Pro porovnání vlivu tradičních metod na výsledek hospodaření, respektive základ daně z příjmů je použito i tvorby rezerv.

Použití komponentních odpisů upravují pouze účetní předpisy, zatímco zákon o daních z příjmů nedoznal v tomto smyslu změny. O rozdíl mezi výší účetního odpisu a odpisu pro účely stanovení daně z příjmů je nutné upravit výsledek hospodaření v daňovém přiznání.

Klíčová slova

Komponentní odpisy, daňové odpisy, účetní odpisy, výsledek hospodaření, náklady, rezervy.

Introduction

It is the task of the accounting to provide information about the financial situation of a company and its profit or loss for the given period of time. From the accounting records, it can also be seen how successful the company management is in ensuring the financial management of the entity, whether it is achieving a reasonable return on investment, whether the entity is able to continuously repay its debts and whether the long-term stability of the entity is ensured. Increasingly, the emphasis is on the forecasting of the financial situation of an entity in the future.

In December 2008, Decree No. 469/2008 Coll. was published in the Collection of Laws which is an amendment of Decree No. 500/2002 Coll. for entrepreneurs applying the system of double-entry bookkeeping. The amendment is effective from 1 January 2009 while some of the enactments may be used by accounting entities in accounting periods commencing on 1 January 2010 and beyond. The amendment allows, inter alia, to determine the residual value of fixed assets and to apply the component depreciation of assets. [5] The above changes are the result of a gradual harmonization of global accounting. Similar principles are already incorporated and used in the long term in international accounting standards such as

International Financial Reporting Standards IAS/IFRS and the U.S. Generally Accepted Accounting Principles, U.S. GAAP [8]. IAS/IFRS [7] define component depreciation as the systematic allocation of the cost of each part of an item of property, plant and equipment when this cost is significant in relation to the total cost of the item. An entity should allocate the amount initially recognized as an item of property, plant and equipment to its significant parts and depreciate separately each such part.

Material and Methods

Depreciation of Fixed Assets

The existence of depreciation of tangible and intangible fixed assets is a result of two factors. The first factor is the economic and accounting expression of the (functional and physical) wear and tear of assets depending on their nature and use. The second factor stems from the fact that in the acquisition of fixed assets, it is not possible to include their cost into corporate costs. Depreciation is a tool by the means of which the acquisition cost of assets enters the corporate costs. The creation of depreciation can also be seen as the accumulation of resources to fund other assets. Depreciation is an internal source of funding (self-funding) of an entity.

In the area of depreciation, the requirements of accounting diverge from fiscal aspects. While the **accounting depreciation** should correspond to the actual wear and tear of assets and therefore the method of its calculation is the responsibility of the entity, **tax depreciation** does not take into account specific (operational, financial, etc.) conditions of the entity. In practice, a situation is no exception, especially in smaller companies, whereby tax depreciation enters the accounting system. However, this procedure is contrary to the requirement of fair presentation of facts that the accounting should provide.

Tax Depreciation of Fixed Assets

Depreciation which is in compliance with Act No. 586/1992 Coll. on Income Tax, as amended (hereinafter referred to only as the "Income Tax Act"), is called "tax depreciation". It is recognized as an expense incurred to generate, ensure and maintain taxable income and, in a tax return, it may be included in the tax base. Art 26 to Art 33 of the

Income Tax Act provides generally applicable rules and procedures for the depreciation of tangible and intangible assets.

The Income Tax Act requires the taxpayer, in the first year of depreciation, to classify fixed assets, in compliance with the Annex to the Act, into six depreciation groups.

In tangible fixed assets, it is possible to choose straight-line depreciation (Art 31 of the Income Tax Act) or accelerated depreciation (Art 32 of the Income Tax Act). Calculated amounts of tax depreciation are rounded up to whole crowns. The taxpayer is not required to apply depreciation of tangible fixed assets for the purposes of the Income Tax Act. Tax depreciation may be suspended but, when continuing in it, it is necessary to maintain the original method of depreciation. In tax depreciation, what is applied is the so-called half-year convention. Tax depreciation does not take into account in which part of the year assets were acquired. Depreciation is always the same as if the assets were acquired in the middle of the year. [2]

Accounting Depreciation of Fixed Assets

The rules for determining the accounting depreciation of tangible and intangible fixed assets are set out in Art 28 of Act No. 563/1991 Coll. on Accounting, as amended, and in Art 56 of Decree No. 500/2002 Coll. implementing certain enactments of the Accounting Act, as amended, for accounting entities that are entrepreneurs applying the system of double-entry bookkeeping, as amended, (hereinafter referred to only as the "Decree"). Basic accounting practices of tangible and intangible fixed assets are processed in the Czech Accounting Standard for Entrepreneurs No. 013.

The calculation of the amount of accounting depreciation may be based either on a method taking for basis the estimated useful life of assets (time depreciation) or the method based on output (output depreciation). In time depreciation, it is possible to choose either straight-line or accelerated depreciation. In straight-line depreciation, the same amount is included in expenses each year, in accelerated depreciation, the depreciated amount gradually decreases. The depreciation base is the acquisition cost of assets or the acquisition cost less the residual value. [4]

Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Book value of the machine at the end of the accounting period	3,300	3,000	2,700	2,400	2,100	1,800
Annual depreciation of the machine	300	300	300	300	300	300
Replacement of the clutch (material consumption)				200		
Effect on profit or loss	(300)	(300)	(300)	(500)	(300)	(300)

table continued:

Item	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Book value of the machine at the end of the accounting period	1,500	1,200	900	600	300	0
Annual depreciation of the machine	300	300	300	300	300	300
Replacement of the clutch (material consumption)		200				
Effect on profit or loss	(300)	(500)	(300)	(300)	(300)	(300)

Source: own."

Note 1: Calculation of straight-line depreciation includes model example 1 (tab. No.1, tab. No.2).

Table1: Straight-line depreciation without a provision being generated (in CZK '000).

Residual value is defined by Art 56, par 3 of the Decree as a positive estimated amount justifiable by the accounting entity that the accounting entity could obtain at the time of the anticipated disposal of assets, for example by sale, after deducting the expected costs associated with the disposal. When an accounting entity decides to take into account the residual value of an asset, it should, in compliance with the Decree, update its depreciation schedule. The application should be made prospectively which means that it does not correct the amounts of reported depreciation and accumulated depreciation from the previous accounting periods. Residual value can be used by accounting entities in the accounting period beginning on 1 January 2009 and later. [6]

Decree No. 469/2008 Coll., amending Decree No. 500/2002 Coll., introduces, in new Art 56a the component depreciation method. The method may be applied to tangible fixed assets from 1 January 2010. The component depreciation method may be used by an accounting entity, with regard to the materiality and true and fair view of the accounting, in buildings, flats and non-residential premises, separate movable assets and sets thereof. [5] What

we mean by a component (a major replacement part) is that part of an asset in which the amount of valuation is material in comparison with the amount of the valuation of the whole asset (set of assets) and whose useful life is significantly different from the useful life of the whole asset (set of assets). The component is then seen, in terms of depreciation, as a separate long-term asset which is depreciated over a period of anticipated use. When replacing the component, the valuation of assets is reduced by the value of the disposed component and increased by the valuation of a new component (the value of spare parts plus costs associated with the exchange). According to Stronová [9] the component can be replaced and therefore purchased separately, due to its different useful life compared to the life of the whole asset. Valuation of components should therefore not cause problems. The assets are accounted for as a single whole including the value of accumulated depreciation and, thus, also in the balance sheet, the assets depreciated by components are recognized as a whole. The component depreciation method is applied prospectively, i.e., the amounts of accumulated depreciation and depreciation of the previous periods are not corrected.

Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Book value of the machine at the end of the accounting period	3,300	3,000	2,700	2,400	2,100	1,800
Annual depreciation of the machine	300	300	300	300	300	300
Generation of the provision {drawdown of the provision}	50	50	50	{(150)}	(50)	50
Replacement of the clutch (material consumption)				200		
Effect on profit or loss	(350)	(350)	(350)	(350)	(350)	(350)

table continued:

Item	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Book value of the machine at the end of the accounting period	1,750	1,400	1,050	700	350	0
Annual depreciation of the machine	300	300	300	300	300	300
Generation of the provision {drawdown of the provision}	50	{(150)}				
Replacement of the clutch		200				
Effect on profit or loss	(350)	(350)	(300)	(300)	(300)	(300)

Source: own.

Note 2: Calculation of the component depreciation includes model example 1 (tab. No. 3).

Table 2: Straight-line depreciation and generation of the provision (in CZK '000).

Provisions

Decree No. 500/2002 Coll. in Art 57 says about provisions:

(1) Provisions are intended to cover future obligations or expenditure in accordance with Art 26 of the Act (on Accounting, author's note), in which the purpose is known, it is likely that they will occur, however, the amount or the date as at which they will occur are uncertain. In provisions according to special legal regulations (Act No. 593/1992 Coll., on Provisions, author's note), it is proceed in accordance with these regulations.

(2) Generation of provisions is debited to costs, their utilization, reduction or cancellation for redundancy is credited to costs.

(3) Provision balances are carried forward to the next accounting period.

(4) Provisions must not have a credit balance.

(5) Provisions may not be used to adjust the amount of asset valuation.

(6) The amount of the generated provisions and their justification are verified by the accounting entity at least during every stock-taking. [6]

In order to achieve harmony in using accounting methods by accounting entities, basic accounting procedures concerning the generation and use of provisions are stipulated by Czech Accounting Standard for Entrepreneurs No. 004 Provisions. The Standard breaks provisions down to the following items: Provisions according to special regulations, Provision for pensions and similar obligations, Provision for the income tax and Other provisions. It includes among other provisions e.g. provisions for restructuring, provisions for risks and losses. [4]

The Income Tax Act recognizes the generation of provisions defined by the law as tax deductible expense. These are provisions defined by Act No. 593/1992 Coll., on Provisions for the Purposes of Determining Income Tax Base (hereinafter referred to only as the "Act on Provisions"). [2]

For the provisions which are expenditures (expenses) incurred to generate, ensure and maintain income, i.e., tax-deductible provisions, the designation of statutory provisions is used. Provisions that do not meet the definition of the Act on Provisions are not tax-deductible expenses and are designated as accounting provisions. A statutory provision can be considered a provision for cultivation activities in forests, a provision for pond mud removal, provision for redevelopment of lands affected by mining and, last but not least, a provision for repairs of tangible fixed assets. [3]

Provision for Repairs of Tangible Fixed Assets

According to Art 7 of the Act on Provisions, it is possible to generate a tax-deductible provision for the repair of tangible fixed assets provided that the provision is made in respect of assets for which the depreciation period is stipulated by the Income Tax Act for five years or more. A provision is not generated in respect of assets which are in

liquidation or in respect of which the repairs are involved that are regularly repeated every year.

For provisions whose generation started in 2009, the tax deductibility is subject to the depositing of funds in the full amount of a provision appertaining to one fiscal period on a separate bank account (located on the territory of a member state of the European Union, maintained in crowns or euro, which is designed exclusively for depositing provisioning funds), namely no later than as at the deadline for filing a tax return. Funds on the account itself may be drawn only for the purposes for which the provision has been created. A provision for repairs of an individual tangible fixed asset must not be generated only for one fiscal period. The maximum period for which a provision is made is, in fixed assets classified under the 2nd depreciation group, 3 fiscal periods; in the 3rd depreciation group, 6 fiscal periods; in the 4th depreciation group, 8 fiscal periods; and, in the 5th and 6th depreciation groups, 10 fiscal periods. [3]

Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Book value of the whole machine at the end of the accounting period	3,266	2,932	2,598	2,464	2,130	1,796
Annual depreciation of the machine without the clutch	284	284	284	284	284	284
Annual depreciation of the clutch	50	50	50	50	50	50
Effect on profit or loss (total annual depreciation)	(334)	(334)	(334)	(334)	(334)	(334)

table continued:

Item	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Book value of the whole machine at the end of the accounting period	1,462	1,328	994	660	326	0
Annual depreciation of the machine without the clutch	284	284	284	284	284	276**
Annual depreciation of the clutch	50	50	50	50	50	50
Effect on profit or loss (total annual depreciation)	(334)	(334)	(334)	(334)	(334)	(326)

Source: own.

Note 3: The generation of a provision for a repair of fixed assets includes model example 1 (tab. No. 2).

Table 3: Component Depreciation (in CZK '000).

** Cost of the machine without the safety clutch less depreciation for the previous eleven years.

Depreciation of year one to year eleven was rounded up to units, therefore the depreciation of the last, twelfth year will have a (negligibly) lower value. $(3,600 - 200) - (11 * 284) = 3,400 - 3,124 = 276$ in CZK '000

The depreciation of the machine is calculated based on the cost without the clutch: $(3,600 - 200) / 12 = 284$ (in CZK '000, rounded up) and, unless the conditions change, it will remain the same throughout the whole period (except for the last year, see **). The value of the clutch is spread, in depreciation, over the anticipated four years of the life of the clutch, i.e., $200 / 4 = 50$ (in CZK '000). In drafting the above depreciation plan, it is necessary not to forget to increase the book value of the machine, each year when the replacement of the replacement part takes place, by CZK 200,000. In the given example, these years are the fourth and eighth year. For example, at the end of the fourth year, the book value of the whole machine is calculated as follows: the book value of the machine at the end of the third year of operation less total depreciation plus the value of the new clutch, i.e., $2,598 - 334 + 200 = 2,464$ (in CZK '000). The procedure at the end of the eighth year of the machine's operation will be analogous.

Results

Effect of Chosen Depreciation Methods on Profit or Loss

The choice of the accounting method of depreciation of fixed assets will affect the amount of accounting depreciation in individual years when assets are used and therefore the amount of the reported profit or loss.

Comparison of the effect of traditional accounting depreciation and that of component depreciation on profit or loss

Starting from 1 January 2010, the accounting entity will be able to decide whether, when determining the amount of accounting depreciation, to follow the existing rules in force or whether to use the new option of accounting depreciation of tangible fixed assets which is allowed by the amendment of Decree 500/1992 Coll., i.e., whether to choose component depreciation.

Both methods of accounting depreciation are compared by the following model example.

Model Example 1

An entity manufacturing and distributing technical glass acquired a machine for pressing glass beads worth CZK 3,600,000. The anticipated useful life of the whole machine is 12 years. However, a safety clutch, which is part of the machine, has life of 4 years and it therefore needs to be replaced after the elapse of the given period. The anticipated cost of the clutch is CZK 200,000

The accounting entity decides whether to consider the safety clutch a so-called major replacement part or not. It must consider whether the value of the clutch is material in respect of the total value of the machine and whether the life of the clutch is materially different from the life (useful life) of the

machine. In the event that the entity finds both the value and the life of the clutch immaterial, it chooses the traditional method of depreciation. In the event that the accounting entity identifies the clutch as a material replacement part, it will proceed in accordance with the rules of component depreciation.

Traditional Accounting Depreciation

The accounting entity does not consider the cost of the clutch and the difference between the life of the clutch and the useful life of the machine material. A replacement clutch, in replacement every four years, is considered, from the accounting point of view, an immaterial and its replacement thus enters the operating expenses as consumed material. The accounting entity proceeds in line with the rules of the "traditional" depreciation method.

For the model example, straight-line accounting depreciation was chosen.

Option A shows the calculation of the traditional straight-line depreciation and its effect on the profit or loss. The accounting entity does not generate a provision for repairs of tangible fixed assets (see tab. No. 1).

Option B shows the calculation of traditional straight-line depreciation, the generation of a statutory provision for repairs of tangible fixed assets and their effect on the profit or loss (see tab. No. 2)

A) Traditional Depreciation without a Provision Being Generated

The replacement of the clutch worth CZK 200,000 will be displayed in the accounting within costs as ordinary material consumption. Every fourth year after starting to use the machine, the value of the acquisition cost of the clutch will thus increase, by step, costs and, ultimately, it will decrease, by step, the profit or loss by CZK 200,000.

B) Traditional Depreciation and Generation of the Statutory Provision

As in the previous example, the replacement of the clutch worth CZK 200,000 will be charged against expenses and, by step, it will reduce the profit or loss every fourth year. The accounting entity uses the provisioning system. It can, by generating a provision for a repair of tangible fixed assets, spread the costs of the replacement of the clutch over several years. This will prevent fluctuations in the profit or loss due to the replacement of a spare part. While adhering to all rules stipulated by the law, it thus also regulates the fluctuations in the income tax base because the generation of the provision will also be a cost of generating, ensuring and maintaining income.

Component Depreciation

The accounting entity considers the clutch a material replacement part. The clutch is a component of the acquired asset, it is regarded as a fixed asset. According to the anticipated life of the clutch and the useful life of the whole machine, depreciation of the clutch and that of the machine are calculated separately (based on the value without the clutch). The accounting entity proceeds in compliance with the component depreciation rules (see tab. No. 3).

Comparison of Consequences of Selected Methods of Accounting Depreciation

One of the basic tasks of the accounting is the true presentation of facts. In continuous (regular) use of the machine, its wear and tear is relatively even. Components which have a significantly shorter life than the entire machine transmit their value to manufactured products during the period of their being used. They are then put out of service and replaced with new parts. Their value, at the time of the acquisition, will increase the value of the machine and will be gradually transferred to expenses again. Therefore, the component depreciation method, even on the basis of the above examples, seems like the one that presents the facts in the most fair a realistic way. Depreciation of fixed assets is, while using this method, spread evenly throughout the whole period of use of the assets and is also evenly charged against the profit or loss. Of course, a question arises of whether the accounting entity can reasonably estimate the

period in which individual components are used. However, the risk brought about by making estimates poses a threat also in other methods of accounting depreciation. It seems practical to depreciate material parts of movable assets separately over their estimated useful lives.

When applying traditional accounting depreciation of tangible fixed assets, it is possible to ensure the spreading of expenses related to the replacement of a replacement part (qualified as a repair) by generating provisions. The task of the provision generation is to retain resources needed for an estimated future expenditure of the entity. The generation of a provision is charged against operating expenses, reduces profit or loss and thus does not allow using the required funds for other purposes such as the payout of dividends. However, this tool will resolve only the even distribution of expenses. The amount of depreciation applied each year remains somewhat misrepresented. The generation of provisions as per special regulations (the Act on Provisions) which are a tax-deductible cost, is subject to depositing funds on a separate bank account. This condition is restrictive for entities; they cannot dispose of the long-term deposited money. The situation may result in an entity getting into debt.

Relationship of Accounting and Tax Depreciation

Accounting depreciation enters (as an expense) into the accounting profit or loss. When adjusting the accounting profit or loss to the tax base, however, it is necessary to consider whether the amount accounted for is a tax deductible expense under the Income Tax Act. If the accounting depreciation exceeds the amount of tax depreciation, it is necessary to add the calculated difference to the profit or loss. The income tax base will thus be higher by the calculated amount than the profit or loss. In the case that the accounting depreciation is lower than the tax depreciation, the amount of the difference will be deducted from the profit or loss; the tax base will be lower by the deducted amount than the profit or loss.

In the accounting units defined by the law, the differences between the amount of the accounting and tax depreciation in individual years lead to the accounting for deferred tax. The generation of deferred tax works on the principle of generation of

provisions. The deferred tax liability enters into the expenses of the current year and, in the balance sheet, it is shown as a liability. Also an opposite situation may occur whereby it is accounted for a deferred tax receivable. In this case, expenses of the current period are reduced and, mostly, the tax liability from previous years is reduced.

Calculation of Straight-line and Accelerated Tax Depreciation

Model Example 2

An entity manufacturing and distributing technical glass acquired a machine for pressing glass beads worth CZK 3,600,000. As per Annex 1 to the Income Tax Act, this machine is classified under depreciation group 2, therefore, it will be depreciated, for tax purposes, for 5 years. The accounting entity selects A) a straight-line tax depreciation, B) a straight-line tax depreciation with 10% increase of the first year of depreciation. ¹

The following tables show the amount of the annual depreciation for each year and the tax book value of fixed assets at the end of each fiscal period, with using the straight-line method (table No.4) and with using the straight-line method with 10% first year increase (table No.5).

Model Example 3

An entity manufacturing and distributing technical glass acquired a machine for pressing glass beads worth CZK 3,600,000. The machine is classified under depreciation group 2, therefore, it will be depreciated, for tax purposes, for 5 years. The accounting entity selects A) the accelerated tax depreciation, B) the accelerated tax depreciation with 10% first year increase.

The following tables show the amount of the annual depreciation for each year and the tax book value of fixed assets at the end of each fiscal period with using the accelerated method (table No.6) and with using the accelerated method with 10% first year increase (table No.7).

¹ According to Act No. 586/1992 Coll. on Income Tax, the first owner of the tangible fixed asset classified under depreciation group 2 can increase first year depreciation by 10% (exceptions are named), §31, (1), d) – rules for straight-line method, §32, (2), a) 3., b) – rules for accelerated method. [2]

The Effect of the Difference in the Value of Accounting and Tax Depreciation on the Tax Base

In this example, the period of depreciation of assets is stipulated by the Income Tax Act at 5 years. The entity estimates that it will use the assets for the period of 12 years. The difference in the amount of depreciation accounted for and depreciation considered the expense of generating, ensuring and maintaining taxable income (tax deductible expenses) will affect the amount of the income tax base and thus the income tax itself or rather the net profit. In the event that the value of accounting depreciation exceeds tax depreciation, the difference between them increases the profit or loss when adjusting to the tax base and vice versa. When analysing the model examples, it can be concluded that, in individual years, adjustments of the profit or loss to the income tax base will be made in the same direction, irrespective of the choice of the accounting method. If the accounting entity chooses straight-line tax depreciation, it will, in the first five years, always subtract the amount of the difference between accounting and tax depreciation from the profit or loss and, after five years, when the assets are already tax-depreciated, the amount of accounting depreciation will be added. When choosing accelerated depreciation, the profit or loss, in the transformation to the tax base, will be subtracted for the first four years and the situation will be reversed already as from the fifth year. In the fifth year, when applying any of the above accounting methods (straight-line and component ones), accounting depreciation exceeds tax depreciation.

Discussion

From the above example, it may seem that the differences in the reported depreciation as a result of the selection of different methods of depreciation are negligible. However, it is necessary to realize that it is possible to proceed similarly also in assets worth tens and hundreds of millions crowns. Such assets may be buildings (with components like elevators, roof, windows, ...), aircraft (engines), etc. The choice of the depreciation method affects the amount of depreciation accounted for each year and, subsequently, also the value of the profit or loss of each year, namely in a fundamental manner. Of course, this concerns the spreading of the total depreciated amount throughout the years.

Item	Year 1	Year 2	Year 3	Year 4	Year 5
Tax book value of the machine at the end of the accounting period	3,204	2,403	1,602	801	0
Annual tax depreciation of the machine	396	801	801	801	801

Calculation of depreciation - Year 1: $3,600 * 0.11 = 396$ in CZK '000

Calculation of depreciation - Year 2-5: $3,600 * 0.2225 = 801$ in CZK '000

Table 4: Straight-line tax depreciation.

Item	Year 1	Year 2	Year 3	Year 4	Year 5
Tax book value of the machine at the end of the accounting period	2,844	2,133	1,422	711	0
Annual tax depreciation of the machine	756	711	711	711	711

Calculation of depreciation - Year 1: $3,600 * 0.21 = 756$ in CZK '000

Calculation of depreciation - Year 2-5: $3,600 * 0.1975 = 711$ in CZK '000

Table 5: Straight-line tax depreciation with 10% increase of the first year depreciation.

Item	Year 1	Year 2	Year 3	Year 4	Year 5
Tax book value of the machine at the end of the accounting period	2,880	1,728	864	288	0
Annual tax depreciation of the machine	720	1,152	864	576	288

Calculation of depreciation - Year 1: $3,600 / 5 = 720$ in CZK '000

Calculation of depreciation - Year 2: $2 * (3,600 - 720) / (6 - 1) = 1,152$ in CZK '000

Calculation of depreciation - Year 3: $2 * (2,880 - 1,152) / (6 - 2) = 864$ in CZK '000

Calculation of depreciation - Year 4: $2 * (1,728 - 864) / (6 - 3) = 576$ in CZK '000

Calculation of depreciation - Year 5: $2 * (864 - 576) / (6 - 4) = 288$ in CZK '000

Table 6: Accelerated tax depreciation.

Item	Year 1	Year 2	Year 3	Year 4	Year 5
Tax book value of the machine at the end of the accounting period	2,520	1,512	756	252	0
Annual tax depreciation of the machine	1,080	1,008	756	504	252

Calculation of depreciation - Year 1: $3,600 / 5 + 360 (10\% \text{ of } 3,600) = 1,080$ in CZK '000

Calculation of depreciation - Year 2: $2 * (3,600 - 1,080) / (6 - 1) = 1,008$ in CZK '000

Calculation of depreciation - Year 3: $2 * (2,520 - 1,008) / (6 - 2) = 756$ in CZK '000

Calculation of depreciation - Year 4: $2 * (1,512 - 756) / (6 - 3) = 504$ in CZK '000

Calculation of depreciation - Year 5: $2 * (756 - 504) / (6 - 4) = 252$ in CZK '000

Table 7: Accelerated tax depreciation with 10% increase of the first year depreciation.

Ultimately, the entire depreciation base is always depreciated. The depreciation base is either the acquisition cost of fixed assets or the acquisition cost less the estimated residual value of assets.

The use of the above methods of accounting depreciation of fixed assets is permitted by the Czech legal regulations starting from 1 January 2010. It is up to the accounting entity which method it chooses in order to ensure the as fair an accounting presentation of facts as possible. From the previous analysis, it ensues that the component

depreciation method is a suitable method in case of a significant difference in the life of spare parts and the whole asset. It better reflects the actual wear and tear of a fixed asset.

The value of accounting depreciation plays its non-negligible role in preparing a cash flow statement using the indirect method and in the financial analysis of the entity. In preparing an overview of the cash flow in the operational area using the indirect method, in addition to other adjustments, the value of depreciation is added to the entity's net

income. Depreciation of individual years thus affects the amount of the reported cash flow of the entity. Part of the entity's financial analysis which serves to evaluate the economic results of the entity in the past, in the present and on the basis of which the future results are expected, is the assessment of the entity's financial stability. The value of depreciation enters for example into the evaluation of the credit exposure of the entity or affects the assessment of the debt repayment period. From the above, it ensues that the as fair as possible accounting presentation of depreciation helps achieve a more realistic presentation of the entity's cash flows and of some financial analysis indicators of the entity's economic results.

It should be noted that the use of component depreciation is governed solely by the accounting regulations while the Income Tax Act has not been changed in this respect. Depreciation for tax purposes will continue to take place as per Art 26 and the following of the Income Tax Act and, if the amount of tax depreciation differs from the accounting depreciation of assets using the component depreciation method, it will be

necessary to adjust the profit or loss by such a difference in the tax return.

Conclusion

This contribution analyzes, based on specific examples, accounting procedures and tax implications of depreciation of tangible fixed assets. It compares the component method, which has recently appeared in the Czech legal regulations, with the traditional methods. To compare the effects that the traditional methods have on profit or loss, or rather on the tax base, also the generation of provisions is used. From the results, it ensues that the application of the component method of depreciation of assets provides, under certain conditions, a fairer presentation of the assets' wear and tear. However, it must be borne in mind that component depreciation is not respected by the Income Tax Act. The amount of accounting depreciation plays its role in drawing up an overview of the entity's cash flows and in the calculation of some indicators of the entity's financial analysis.

Corresponding author:

Ing. Helena Čermáková

Czech University of Life Sciences Prague, Kamýcká 129, 165 00 Praha 6 – Suchbátka

Tel.: 60521885 , e-mail: cermakovah@pef.czu.cz

References

- [1] Act No. 563/1991 Coll. on Accounting
- [2] Act No. 586/1992 Coll. on Income Tax
- [3] Act No. 593/1992 Coll., on Provisions
- [4] Czech Accounting Standards for Entrepreneurs No. 013.
- [5] Decree No. 469/2008 Coll.
- [6] Decree No. 500/2002 Coll.
- [7] Epstein B.J., Jermakowicz E.K.: Interpretation and Application of International Financial Reporting Standards. John Wiley & Sons, Hoboken, NJ, USA, 2009. ISBN 978-0470-28609-8
- [8] PricewaterhouseCoopers: IFRS a US GAAP similarities and differences, September 2009. Praha: pwc, 2009. [2010-07-15] http://www.pwc.com/en_US/us/issues/ifrs-reporting/assets/ifrs_us_gaapsep09.pdf
- [9] Stronová, D.: Metoda komponentního odpisování: Financial management 04/2010. Praha: Economia, 2010. ISSN 1803-389.