

CONSTRUCTION CONTRACT REVENUE RECORDING COMPARISON

H. Bohušová

Abstract

BOHUŠOVÁ, H.: *Construction contract revenue recording comparison*. Acta univ. agric. et silvic. Mendel. Brun., 2008, LVI, No. 3, pp. 241–250

Publicly traded companies prepare their consolidated accounts in conformity with the international accounting standards (IAS/IFRS) in accordance with the Regulation No. 1606/2002. This is obliged for all publicly traded joint-stock companies in the Czech Republic. Other companies prepare financial statements in accordance with national accounting standards. There are Accounting Act No. 563/1991 of Coll. and Regulation No. 500/2002 of Coll., Czech Accounting Standards in the Czech Republic. Both systems are based on different principles so there are many differences. The Czech Accounting System (CAS) is based on the rules while IAS/IFRS are based on principles (Kovanicová, 2005). These differences are mainly caused by the different philosophy. CAS prefers the fiscal policy to the economic substance while IAS/IFRS prefer the economic substance. One of the most significant differences is in the field of revenue recording. There are two standards concerning the revenues recording (IAS 18 – Revenue, IAS 11 – Construction Contracts) in IAS/IFRS. CAS 019 – Expenses and Revenue are dealing with the revenue recording in the Czech Republic.

The paper is aimed at the comparison of the methodical approaches for revenue recording used by IAS/IFRS and by CAS. The most important differences are caused by the different approach to the long term contracts (construction contracts, software development contracts) revenues recording.

construction contracts, International accounting standards, financial statements

There are about 100 publicly traded companies¹ in the Czech Republic. Publicly traded companies prepare their financial statements in accordance with the International Accounting Standards (IAS/IFRS) in accordance with the Council Regulation 1606/2002 and the Act on Accounting 563/1993 Coll. since 1. 1. 2005, but these companies are obliged to prepare their corporate income tax basis in accordance with the Czech Accounting Legislation (CAL) too. There are many differences between CAS and IAS/IFRS in each area of financial reporting. The Czech Accounting System (CAS) is based on rules and IAS/IFRS are based on principles.

Many of main differences arise in the field of recording revenues associated with construction contracts. It means contracts specifically negotiated for the construction of an asset or a group of inter-related assets. They are especially caused by different philosophy. CAS prefers the state fiscal policy

to the economic substance and IAS/IFRS prefer the economic substance.

METHODOLOGY

First the expenses (costs) and incomes (revenues) and construction contract revenues definition and recognition comparison between CAS and IAS/IFRS is done.

The next step of the comparison is concerned with the methodical approaches for measurement (real stage of contract completion, percentage of completion based on cost, zero-based approach) and recording costs and revenues used by IAS/IFRS and by CAS. The most important differences are caused by different approach to the long terms contracts (construction contracts, software development contracts) revenue recording.

There are two standards concerning with revenues recording (IAS 18 – Revenue, IAS 11 – Construction

1 Information of the Czech National Bank

Contracts) in IAS/IFRS. There is the Czech Accounting Standard No. 019 – Expenses and Revenues which concerns with the revenue recording in CAS.

The comparison is concerned with the methodical approaches used by IAS/IFRS and by CAS. The most important differences are caused by different approach to the long terms contracts (construction contracts, software development contracts) revenues recording.

The theoretical part is based on revenues definitions, moment or revenues recording definition and the possible methods of recording construction contracts revenues. It is focused on the methodical approaches comparison (IAS/IFRS and CAS) and its impact on the level of profit or loss.

The real construction contracts are examined. There are chosen representatives of typical examples of construction contracts – fixed price contract calculated with profit, fixed price contract calculated with loss, contract on the very beginning of completion. The comparison is done in three steps:

- Revenue and costs of contract in accordance with Czech Accounting Legislation (CAL) are recognized,
- Revenue and costs of contract in accordance with IAS/IFRS are recognized,
- The comparison of amount revenues and costs and the differences and their reasons determination.

RESULTS

There is CAS No. 19 – Expenses and Revenues in the Czech accounting legislation. The main objective of this standard is to prescribe the accounting treatment of expenses and revenues in the Czech Republic. There is no definition of incomes in the CAL, there are only defined particular components of Profit and loss statement (Regulation No. 500/2002 Coll.).

The revenue is recognised when the service is rendered or ownership of the goods or products is transferred in the CAS. Expenses and Incomes recording is based on the accrual principle (it means they are recognised in the period to match) regardless to the cash-flows. There is not special method for revenues allocation in case of revenues and cost associated with construction contracts. The outcome of a construction contract is recorded on the invoice basis during the accounting period (which is a result of contractual agreement). The part of construction contract which was not invoiced till the end of the accounting period is recorded as the amount of direct cost attributable to this part of contract. It is recorded as an increase of assets (Work in process) and revenues.

There are no differences between long time and short time revenue recognising in the CAS. The per-

centage of completion method is not allowed, there is not allowed to report expected profits in the CAS. When an expected loss is recognised the provision can be recorded. It is the different approach in comparison to IAS/IFRS, where the expected profit or loss is included in the recorded revenue in each accounting period during the construction of assets.

There are income and expenses defined in the Conceptual Framework of IAS/IFRS. The definition of income encompasses both revenues and gains. Revenue arises in the course of the ordinary activities of an enterprise and is referred to be a variety of different names including sales, fees, interest, dividends, royalties and rent.²

On the other hand the definition of expenses encompasses losses as well as those expenses that arise in the course of the ordinary activities of an enterprise.³ They are for example cost of sales, wages and depreciation. There are not any similar definitions of income and expenses in the CAS.

Recognition of Income and Expense

There are two standards dealing with accounting for revenue IAS 18 Revenue and IAS 11 Construction Contracts. The recognition of income occurs simultaneously with the recognition of increases in assets or decreases in liabilities. Revenue is recognised when it is probable that future economic benefits will flow to the enterprise can be measured reliably. The objective of IAS 18 is to prescribe the accounting treatment of revenue arising from certain types of transactions and events.

IAS 18 – Revenue identifies separate criteria for each transaction when revenue will be recognised. IAS 18 should be applied in case of:

- the sale of goods and products,
- the rendering of services,
- the use by others of enterprise assets yielding interest, royalties and dividends.

Revenue is defined in IAS – 18 as the gross inflow of economic benefits during the period arising in the course of the ordinary activities of an enterprise when those inflows result in increases in equity, other than increases relating to contribution from equity participants.

Revenue is recorded in fair value. Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.⁴ The amount of revenue is usually determined by agreement between the enterprise and the buyer or user of the asset. When the inflow of cash or cash equivalents is deferred, the fair value of revenue may be less than the nominal amount of cash or cash receivable. The fair value of the consideration is determined by discounting all future receipts using an imputed rate of interest.

2 IAS/IFRS Framework § 74

3 IAS/IFRS Framework § 78

4 IAS 18 § 7

Expenses arise when a decrease in future economic benefits related to a decrease in an asset or increase in a liability has arisen that can be measured reliably. In a case that economic benefits are expected to arise over several accounting periods and the association with income can only be broadly or indirectly determined, expenses are recognised on the basis of systematic and rational allocation procedures. These allocation procedures are intended to recognize expense in the accounting periods in which the economic benefits associated with these items are consumed or expire.

Some contracts for the rendering of services are which directly related to construction contracts are dealt with requirement for construction contracts. Revenue and costs associated with construction contracts are determined in IAS 11 Construction Contracts. The nature of activities undertaken in construction contracts is based on situation when the date at which the contract activity is entered into and the date when the activity is completed usually fall into different accounting periods. The main issue is to match the contract costs and revenue to the accounting periods in which construction work is performed. This is the accrual basis application, the effects of transactions and other events are recognised when they occur and they are recorded in the period to which they relate. The IAS 11 is used for recording costs and revenue of construction contract in the financial statement of contractors.

There is the construction contract defined in IAS 11. A construction contract is specially negotiated for construction of an asset or a combination of assets. There are two types of construction contracts:

1. A fixed price contract,
2. A cost plus contract.

A fixed price contract is defined as a contract in which the contractor agrees to a fixed contract price, which in some cases is subject to cost escalation clauses. A cost plus contract is a contract in which the contractor is reimbursed for allowable or otherwise defined costs, plus a percentage of these costs or a fixed fee. Some contracts may contain characteristics of a fixed price contract and a cost plus contract (agreed maximum price of a cost plus contract).

Contract revenue

Contract revenue comprises:

- The initial amount of revenue agreed in the contract,
- Variations in contract work, claims and incentive payments
 - To the extent that it is probable that they will result in revenue and
 - They are capable of being reliably⁵.

Contract costs comprise:

- Costs that relate directly to the specific contract,
- Costs that are attributable to contract activity in general and can be allocated to the contract
- Such other costs as are chargeable to the customer under the terms of the contract.

There are costs directly related to a contract (direct labour costs, costs of direct materials, depreciation of plant and equipment used directly on the contract, cost of hiring equipment, the estimated costs of rectification and guarantee work) and costs that may be allocated to a contract (insurance, costs of design a technical assistance, construction overheads). Some costs cannot be attributed to contract activity or cannot be allocated to a contract costs (general administration costs for which reimbursement is not specified in the contract, selling costs, research and development costs for which reimbursement is not specified in the contract, depreciation of plant and equipment that is not used on a particular contract) in accordance with IAS 11.

In case that the outcome of a construction contract can be estimated reliably, contract revenue and costs associated with the construction contracts should be recognised as revenue and costs by reference to the stage of completion of the contract activity at the balance sheet date. An expected loss should be recognised as an expense immediately (as a provision).

Percentage of completion method

This method for revenue defining can be used when the outcome of construction contract can be estimated reliably. There are following conditions:

- Contract on a fixed price
 - In this case the outcome of a construction contract can be estimated reliably when all the following conditions are satisfied:
 - Total contract revenue can be measured reliably,
 - It is probable that the economic benefits associated with the contract will flow to the enterprise,
 - Both the contract costs to complete the contract and the stage of completion at the balance sheet day can be measured reliably,
 - The contract costs attributable to the contract can be clearly identified and measured reliably so that actual contract costs incurred can be compared with prior estimates.
- Costs plus contract
 - In this case the outcome can be estimated reliably when all the following conditions are satisfied:
 - It is probable that the economic benefits associated with the contract will flow to the enterprise
 - The contract costs attributable to the contract, whether or not specifically reimbursable, can be clearly identified and measured reliably.

The stage of completion of a contract can be determined in a variety of ways: including the proportion

⁵ IAS 11 §11

that contract cost incurred for work performed to date of bear to the estimated total contract costs, surveys of work performed, or completion of a physical proportion of the contract work. Progress payments and advances received from customers do not reflect the work performed. The percentage of completion method is applied on a cumulative basis in each accounting period to the current estimates of contract revenue and contract cost.

Under the percentage of completion method, contract revenue is matched with the contract costs incurred in reaching the stage of completion. Contract revenue is recognised as revenue in the income statement in the period in which is the work performed. Costs are recognised in the periods in which the work to which they relate is performed. The income (revenue and gains) is recognised during the performance of contract and the revenue is matched to the incurred costs, not to collection of payments. The recognised revenue is calculated by the next method:

$$R = (P \cdot C) - R_L \quad (1)$$

where

R – recognised revenue

P – price contract

C – percentage of completion

R_L – Revenue recognised in last periods.

$$C = \frac{C_T}{C_T + C_E} \quad (2)$$

where

C – percentage of completion

C_T – total costs since the contract beginning

C_E – estimated costs for the contract completion.

Any expected excess of total contract costs over total contract revenue is recognised as an expense immediately and the provision is recognised and recorded. The amount is calculated by the next method:

diately and the provision is recognised and recorded. The amount is calculated by the next method:

$$PA = TL + G, \quad (3)$$

where

PA – provision amount

TL – total estimated loss

G – all gains recognised in the last years of the contract.

Zero – profit method

This method revenue defining is used when the outcome of construction contract cannot be estimated reliably. When the outcome of a construction contract cannot be estimated reliably:

- Revenue should be recognised only to the extend of contract costs incurred that it is probable will be recoverable, and
- Contract cost should be recognised as an expense in the period in which they are incurred.

An expected loss on the construction contract should be recognised as an expense immediately and the provision should be recognised and recorded. The amount of the provision is equal to the total expected loss.

This method should be used during the early stages of a contract when the outcome of the contract cannot be estimated reliably. Contract revenue is recognised only to extend of costs incurred that are expected to be recoverable. When the outcome of the contract cannot be estimated reliably and it may be probable that total contract cost will exceed total contract revenues an expense should be recognised immediately and the provision should be recognised and recorded. When the uncertainties do not occur any more revenue and expenses should be recognised in accordance with the percentage of completion method.

Recording of construction contracts

CAL		Expenses		Revenues		Accounts Receivable	
	1)				2)		
					3)		
Cash, Payables		Work in Process					
	1)		3)				

Description of operations:

1) costs of contract

2) invoices after completion each stage of a contract

3) in the end of accounting period is not issued the invoice.

IAS/IFRS		Cash, Payables		Accounts Receivable	
Work in Progress					
1)		3)	1)	2)	3)
4)					
	5)				
Progress Billings		Revenues		Expenses	
	2)		4)	4)	
5)					

Description of operations:

- 1) costs of contract
- 2) invoices during period
- 3) collecting of payments
- 4) expenses and revenues recording (profit is recorded during construction on Work in Progress)
- 5) recording of completion of construction contract.

DISCUSSION

The real construction contracts were used for the comparison. There were common cases of construction contracts examined. That means cases when the contract price is equal to real contract revenue and contract whose price was changed during the contract realization (calculation was changed due to the contract appendix). The comparison of these contracts is the best way of solving of this problem. The comparisons were done during first two years of contract realization.

Contract calculated with profit (fixed price contract)

I: Main characteristics of contract

Contract price	1 037 089
Years of construction	3
Calculated costs	860 000
Profit before taxation	176 443

Source: Real construction contract

The contract price has increased in the second year, its price was 1 040 844, calculated costs were 865 980 and profit before taxation was calculated on 174 864.

Czech Accounting Legislation

There is revenue is recorded on the invoicing basis (invoices are issued on real completed construction phases) in accordance with the CAL. The amount of recognized revenue is independent on character

of contract (calculated profit or loss) and phase of completion.

The revenue is recorded on 60th accounts group – Revenues from own products and services. When the invoice was not issued in the period which belongs to, revenue is recorded on the account of the group 61st – Change in inventory of own products. The revenue is recorded in amount of own incurred costs without profit or loss in this case.

II: Revenue and costs related to the contract (CAL)

Year	Costs	Revenue	Profit
1. year	559 935	685 742	125 807
2. year	207 502	250 071	42 569
Total	767 437	935 813	168 367

Source: Real construction contract

IAS/IFRS

The calculated costs have to be estimated exactly on the supplier calculation. The revenue amount of the not completed construction contract is based on the revenue defining method (percentage of completion or zero-profit method). Recording revenue process is quite independent on contract invoicing process in accordance with IAS/IFRS.

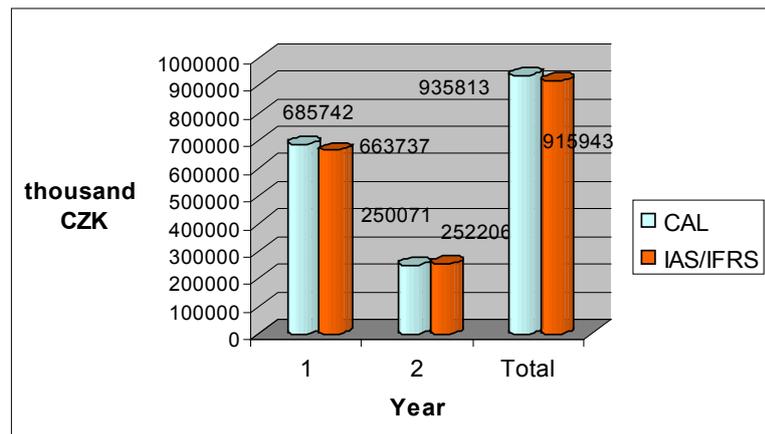
The percentage of completion method was used for this contract. There was found out that 64% of contract was completed in the first year. The amount of revenue was defined. The percentage of completion and contract price were multiplied.

III: Revenue and costs related to the contract (IAS/IFRS)

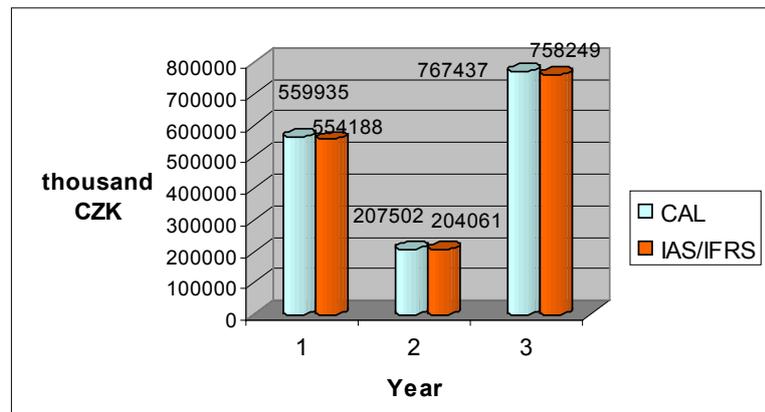
Year	Costs	Revenue	Profit
1. year	554 188	663 737	109 549
2. year	204 061	252 206	48 145
Total	758 249	915 943	157 694

Source: Real construction contract

It appears that estimated construction contract revenue recorded in accordance to CAL is higher than revenue recorded in accordance to IAS 11. The main reason is the different approach to the costs allocation to the contract. There are not included some costs which are not calculable in accordance to IAS 11.



1: Contract revenue comparison



2: Contract costs comparison

The revenue recorded by IAS 11 is higher in the second year. The increase is caused by increase of contract price and its influence on the contract percentage of completion. The revenue and profit recorded in accordance to IAS 11 are lower in first two years of contract completion in the sum. It is caused by different principles and rules used by CAL and IAS/IFRS. In CAL is preferred fiscal point of view to real economic substance.

Construction contract calculated with loss

IV: Main characteristics of contract

Characteristics	Original amount	Increased amount ⁶
Contract price	223 498	244 498
Years of construction	3	3
Calculated costs	253 700	273 453
Profit before taxation	-30 202	-28 955

Source: Real construction contract

6 The construction contract price was increased in the second year.

Czech Accounting Legislation

The construction contracts calculated with loss are recorded in the same way as contracts calculated with profit in the CAL. The loss is recorded in the moment when it appears, when the costs exceed revenue. The provision can be recorded for expected loss.

V: Revenue and costs related to the contract (CAL)

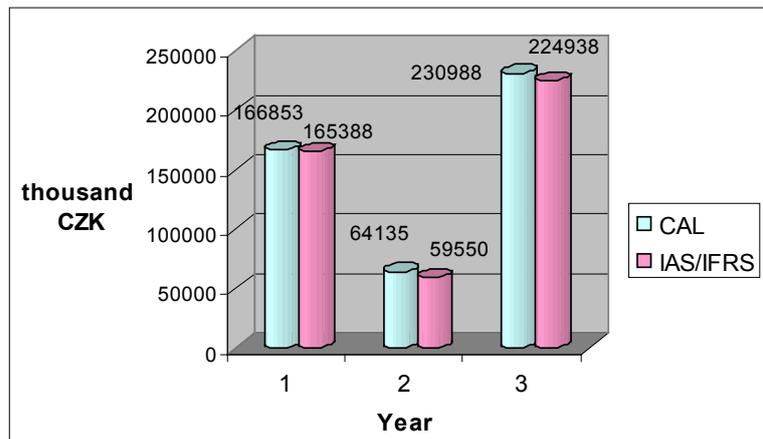
Year	Costs	Revenue	Profit
1. year	196 742	166 853	-29 889
2. year	65 349	64 135	-1 214
Total	262 091	230 988	-31 103

Source: Own calculation

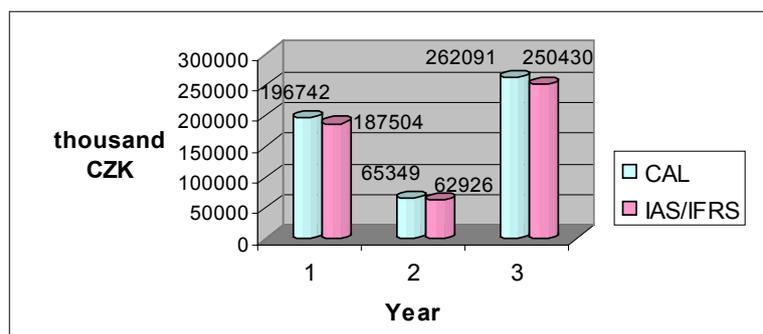
VI: Revenue and costs related to the contract (IAS/IFRS)

Year	External costs	Internal costs	Total costs	% of completion	Revenue	Provision	Profit or loss
1. year	152 853	34 651	187 507	74 %	165 388	8 086	-30 202
2. year	56 999	5 957	62 926	92 %	59 550	-4 622	1 246
Total	209 852	40 578	250 430		224 938	3 464	-28 956

Source: Own calculation



3: Contract revenue comparison



4: Contract costs comparison

IAS/IFRS

There can be the percentage of completion method used for the revenue recording. There is necessary provision recognising a recording immediately in the beginning of the construction in the case of expected loss. The amount of provision is calculated as a difference between expected revenue and calculated costs.

There was found out that the contract was of 74% completed in the first year (based on incurred costs). Revenue was calculated on the percentage of completion method. The contract was considered as the contract with loss from the very beginning. The provision was recorded before starting works on the construction. The first year loss is covered with the part of the provision. The preliminary costs cal-

ulation was increased because the price of the contract increased in the second year and the expected loss decreased and the provision was decreased too. The sum of the provision represents expected loss.

The difference in the revenue recorded in accordance with CAL and in accordance with IAS/IFRS is caused by different way of determining revenue and costs connecting with the contract in both systems and by the decreasing of provision in the second year.

Construction contract calculated with loss – young contract

VII: Main characteristics of contract

Characteristics	Original amount	Increased amount ²
Contract price	55 217	62 103
Years of construction	3	3
Calculated costs	57 118	65 313
Profit before taxation	-1 901	-3 211

Source: real construction contract

Czech Accounting Legislation

This construction contract is calculated with loss. The provision in the amount of expected loss was made. 20% of the contracts were completed only in the first year, the contract can be called “young” contract. The zero-profit method was used. The revenue was recorded only in amount of costs and the provision in amount of expected loss must be made immediately when the loss is recognised.

VII: Revenues and costs related to the contract (CAL)

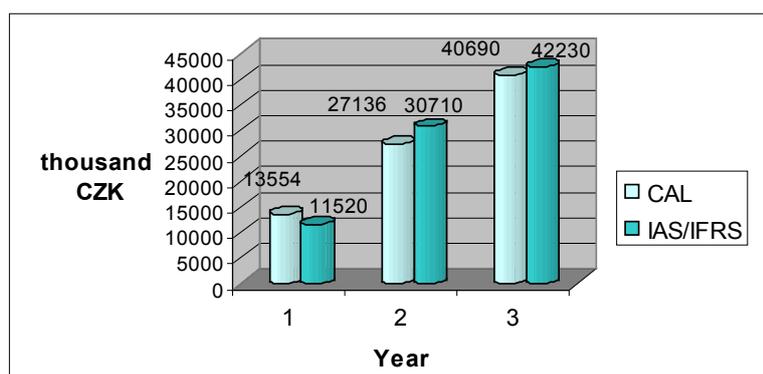
Year	Costs	Revenue	Profit
1. year	16 829	13 554	-3 275
2. year	31 888	27 136	-4 752
Total	48 717	40 690	-8 027

Source: Own calculation

IX: Revenues and costs related to the contract (IAS/IFRS)

Year	External costs	Internal costs	Total costs	% of completion	Revenue	Provision	Profit or loss
1. year	9 247	2 273	11 520	20 %	11 520	1 901	-1 901
2. year	28 037	4 979	33 016	68 %	30 710	1 310	-1 310
Total	37 284	7 252	44 536		42 230	3 211	-3 211

Source: Own calculation



5: Contract revenue comparison

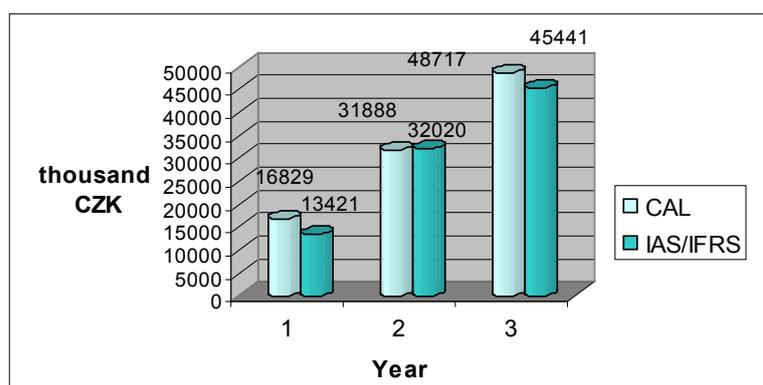
IAS/IFRS

The loss in the amount of recognized provision was the result of this construction contract in the first year. The provision was increased in the second year and the result of this construction contract is loss

too. Recorded revenue was equal to costs in first two years of contract. Only part of loss which was realized in the particular year of construction was recorded there

The higher amount of costs recorded in accordance with CAL is caused by the different approach

7 The construction contract price was increased in the second year.



6: Contract costs comparison

to the costs of contract allocation. The administration overheads (depreciation of common plans and equipment, salaries of management, loss exchange rate) can be allocated in the CAL. This approach is forbidden in the IAS/IFRS.

CONCLUSION

The profit or loss recorded in accordance with CAL and IAS/IFRS is different. There are different approaches for costs and revenue determination and the moment of their recording in CAL and IFRS. The main reason for differences is based on the methodical approaches in the long time revenue area (especially construction contracts, long time services rendering). There are two basic ways to revenue determination in IAS/IFRS (the percentage of completion method, the zero-profit method). There are no similar procedure allowed in CAL. CAL are very depending on the tax legislation and the revenue is recorded on real invoicing base. Expected profit or loss of that contract is not considered.

The prudence principle is more applied in IAS/IFRS, especially in the revenue recording. The full

amount of revenue is recorded only in case when the profit of the contract can be reliably expected and the contract is nearly completed. Other contracts revenue is recorded only in the incurred costs level.

Recording of the revenue apportioned to each construction period is the main aim of IAS/IFRS. The expected loss must be respected immediately a provision must be done.

There are not any significant differences between the sum of revenue and costs recorded in accordance with CAL and IAS/IFRS in the whole time of construction. Revenue is often divided into periods in a different way. The difference in revenue recording can be minimised by the issuing invoices until the accounting period.

There are revenues recorded up to incurred costs in the case of young contracts and contracts calculated with loss. IFRS are focused on the equivalent revenue recording during the whole construction contract. Expected loss must be recognized and provisions must be recorded.

SOUHRN

Komparace zachycování výnosů v České republice a podle IAS/IFRS

V České republice existuje přibližně 100 obchodních společností, kterým ze zákona vyplývá povinnost sestavovat účetní výkazy v souladu s IAS/IFRS. Pro účely zdaňování výsledků hospodaření jsou však tyto společnosti povinny dodržovat Českou účetní legislativu (ČÚL). Oba systémy zachycování informací se významně liší a to především z důvodů uplatňování odlišných filozofií. V ČÚL je přednostním zájmem fiskální politika, zatímco v IAS/IFRS je preferována ekonomická podstata. Příspěvek je zaměřen na jednu z oblastí, která se významně v obou systémech odlišuje – rozpoznání a zachycování výnosů. Jedná se zejména o výnosy, které vznikají při realizaci dlouhodobých zakázek (stavební smlouvy, tvorba software na zakázku apod.).

ČÚL nerozlišuje v zachycování výnosů týkajících dlouhodobých zakázek, výnosy vznikají v okamžiku vystavení faktury po dokončení dílčích celků zakázek, případně po dokončení celé zakázky. V případě, že vznikly příslušné náklady a do konce účetního období nebyla vystavena faktura za příslušnou část zakázky, vzniká nedokončená výroba oceněná na úrovni vlastních nákladů (účetní jednotka z této části nevykazuje zisk, pokud by byla vystavena faktura až po dokončení celé zakázky, je výsledek hospodaření ze zakázky realizován v okamžiku fakturace).

IAS/IFRS uplatňuje pro vykazování výnosů z dlouhodobých zakázek zcela odlišný přístup. Jednou z možností IAS/IFRS je, že výsledek hospodaření může být vykazován po celou dobu trvání zakázky, z návaznosti na skutečnost, z jaké části je zakázka dokončena.

V příspěvku je provedena komparace zachycení skutečně realizovaných stavebních smluv (jedná se o vybrané stavební smlouvy reprezentující typické případy z praxe) s ohledem na výši vykázaného výsledku hospodaření.

stavební smlouva, mezinárodní účetní standardy, finanční výkazy

The paper was written as part of research project MSM 6215648904, carried out by the Faculty of Business and Economics, Mendel University of Agriculture and Forestry Brno, Czech Republic, under the name "The Czech Republic in the processes of integration and globalization, and the development of the agriculture and service sector in the new conditions of the integrated European market"

REFERENCES

- IASB: The preliminary View on Accounting Standards for SMEs, London, 2004. pp. 95, ISBN 1-904230-63-6.
- IASB: International Financial Reporting Standards Bound Volume, London 2005. pp. 2400, ISBN 1-904203-98-9.
- České účetní standardy pro podnikatele, Ostrava, Sagit 2004, ISBN 80-7208-467-4
- KOMÁRKOVÁ, E., 2005: Harmonizace účetnictví v oblasti investiční výstavby. Diplomová práce. Brno: PEF MZLU, 92 s.
- KRUPOVÁ, L., LOJA, R., PELÁK, J., 2003: IAS v příkladech, 2. díl. Praha:Vox, 190 s..
- KRUPOVÁ, L., VAŠEK, L., ČERNÝ, M. R., 2005: IAS/IFRS – Mezinárodní standardy účetního výkaznictví. Praha: Vox, 1050 s. ISBN 80-86324-44-3.
- KOVANICOVÁ, D., 2005: Finanční účetnictví – světový koncept. IFRS/IAS, Praha, Polygon, 526 s., ISBN 80-7273-129-7

Address

Ing. Hana Bohušová, Ph.D., Ústav účetnictví a daní, Mendelova zemědělská a lesnická univerzita v Brně, Zemědělská 1, 613 00 Brno, Česká republika