Accounting treatment of revenues and expenditures for construction contracts under IAS 11

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Abstract: - This article aims at showing the impact of construction contracts (long term contracts) on financial statements according to the international accounting standard IAS 11. The company must choose to record in accounting the construction contracts as the works advance towards completion. There are presented types of constructions contracts and their influence in the accounting treatment of revenues and expenses incurred.

Key-Words: - percentage of completion method, contract price, contract cost, revenue, accountancy, expenditures, outcome

1 Introduction

For many enterprises, income and expenses can be easily identified during the entire period of a financial year. For some activities (construction contracts) the traditional acknowledgement of revenue, when it is done, is a delicate issue.

The main problem in the accounting regarding construction contracts is the allocation of contract revenue and cost to the accounting periods in the building activity is performed, given that these contracts are extended, generally over several years.

Some construction contracts may be executed entirely in a single financial year, while others take longer periods of time. Profit or loss related to such contracts will be reflected in the income or loss account of that year, or an extension will be attempted according to some objective practical methods.

The contract related profit will be recognized when the contract outcome can be estimated reliably and meets the criteria set out in IAS 11. Practice acknowledges two ways: the percentage of completion method or completed method. Using the method of **works completion percentage** means that the financial statements present the background of economic transactions and events recorded by a company clearer and faster than the financial statements which postpone acknowledging income and profits until the contract is completed.

2 Concepts and delimitation on construction contracts

A construction contract for purposes of IAS 11 is a contract negotiated in a specific way to build an asset or a combination of assets closely related or interdependent in terms of design, technology and function or purpose and use. These assets can be objective such as investments in infrastructure: roads, bridges, dams, boat, a cleaning station, tunnel, etc.

The contractual revenues for the entrepreneur should include the following elements, insofar as they are probable and can be measured reliably:
(a) The initial revenue agreed in the contract
(b) Any changes and incentive payments agreed;

Contractual costs should include:
(a) Specific contractual costs (direct costs)
(b) The costs attributable to contract activity and which may be distributed for (allocated) it
(c) Other specific contractual costs attributable to the beneficiary (stipulated in terms of the contract)

The costs of obtaining the contract may be included in contract costs to the extent that they have not been recorded as expenditure in an earlier period.

The stage of completion of a contract may result in several ways. The enterprise must use the method that best assesses the work performed. The following are included among the most used methods:
- Costs incurred to date / total contract costs
- Studies on the activity performed (evaluated in man-hours work)
- Completion of a part (portion) of the objective to be built
- Another method that proves to be reliable.

If the stage of completion of the contract is determined based on contract costs recorded until that time, the costs to date include only those contract costs that reflect work performed. They will not include costs such as those for materials delivered to the construction site, but still unused. Note that IAS 11 Standard clearly prohibits the use of ***completed contract method***, ***by means which profits are not recognized until the end of the contract***.

3 Types of construction contracts and implications regarding the allotment of profits during the performance of the contract

Construction contracts are, in general, ***fix price contracts*** or ***plus cost contracts***. Also, we may encounter combinations of the two types of contracts.

3.1 Fix price contracts (the price is established at the beginning of the contract)

The contract result (profit or loss) can be estimated reliably when all the following conditions are met:
i) The total contract revenue can be measured reliably;
ii) It is probable that the company will record economic benefits related to the contract;
iii) The contract costs necessary for the completion of the contract and the execution stage upon the balance sheet date can be measured reliably;
iv) The contract costs attributable to the contract can be clearly identified and reliably measured, so that contractual costs actually recorded by the company can be compared with their previous estimates.

Example: The Company Construct S.A. is building a new motorway between Brasov and Ploiesti. The contract price has agreed to the amount of 1,200,000,000 Euros. The duration of contract execution is 3 years. Below, we detail how the contract is recorded in accounting registers by means of the method of the percentage of works completion.

At the end of first year, the costs amount to 400,000,000 Euros. Additional costs anticipated to be recorded until the contract amount to 600,000,000 Euros so that the total cost is anticipated to 1,000,000,000 Euros.

At the end of the second year, the negative costs actually recorded by the company amount to 798,000,000 Euros. The costs anticipated to be recorded until the completion of the contract amount to EUR 252,000,000. (The total anticipated cost is now 1,050,000,000 Euros).

In the third year the construction is completed. The total costs amount to 1,080,000,000 Euros.

The percentage of completion was calculated as follows:
- First-year - 400.000.000/1.000.000.000 = 40% and
- In the second year - 798.000.000/1.050.000.000 = 76%.

Revenues have been determined by multiplying the total contract price 1.200.000.000 Euros with the

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percentages above.

Table 1

Explanations	**Year 1**	**Year 2**	**Year 3**
Up – to –date income	480.000	912.000	1.200.000
Up-to-date expenses	400.000	798.000	1.080.000
Current result – up-to-date profit	*80.000*	*114.000*	*120.000*
Unknown income from the previous period	0	480.000	912.000
Known expenses in the previous period	0	400.000	798.000
Acknowledged result in the previous period	*0*	*80.000*	*114.000*
Acknowledged income during the period	480.000	432.000	288.000
Acknowledged expenses during the period	400.000	398.000	282.000
Acknowledged result during the period	**80.000**	**34.000**	**6.000**

3.2 Cost plus contracts: (Cost plus a percent from the profit)

The result (profit or loss) related to the contract may be reliably assessed when:

i. It is likely for the company to register economic benefits related to the contract; and

ii. The contract costs related to the contract may be clearly identified and reliably assessed whether they are explicitly reimbursable or not.

Example: The ALFA S.A. Company is building a stadium. The price established for the contract is the cost plus 20%. The execution term of the contract is 3 years. We detail below how the contract is registered in accountancy during the execution terms. The incurred costs are:

At the end of the first year, the incurred costs amount to Euro 6,000,000. Additional costs to be incurred by the completion of the contract amount to 11,000,000 Euros. (Thus, the total expected cost is Euros 7,000,000.)

At the end of the second year, the incurred costs amount to Euros 10,000,000. Additional costs to be incurred until the completion of the contract amount to Euros 8,000,000. The stadium is completed. The total costs amount to Euros 18,500,000.

Table 2

Explanations	**Year 1**	**Year 2**	**Year 3**
Up – to date income	7.200	12.000	22.200
Up-to-date expense	6.000	10.000	18.500
Current result – Up-to-date profit	*1.200*	*2.000*	*3.700*
Acknowledged income in the previous period	0	7.200	12.000
Acknowledged expenses in the previous period	0	6.000	10.000
Acknowledged result in the previous period	*0*	*1.200*	*2.000*
Acknowledged income during the period	7.200	4.800	10.200
Acknowledged expenses during the period	6.000	4.000	8.5000
Acknowledged result during the period	*1.200*	**800**	**1.700**

Usually, the standard is applied distinctly for each construction contract. If a contract envisages several assets, each of them must be settled as a distinct construction contract when:

a. Distinct offers are submitted for each asset;

b. Each individual assets is subject to distinct negotiations;

c. Costs and income may be identified for each asset.

Example: The BETA S.A. Company wins a contract for the construction of a purification plant for waste water in Mamaia Resort, in order to increase the number of tourists per season. The construction of the plant involves two distinct projects, each of them having a separate auction. Beta Company therefore has to submit to the municipality two distinct offers, and the authority will decide who receives the contract. In this case, the contracts will be accounted for separately, since each of them is won independently from the other.

Under certain circumstances, a group of contracts must be seen as a single construction contract:

i. The group of contracts is negotiated as a whole;

ii. The contracts are so closely related that they represent, in fact, sections of a single project with a unique profit margin, and

iii. The contracts are performed simultaneously or sequential.

Example: The Gama S.A. Company wins a contract to build, in Kluges, a series of connected roads. The roads will be built one after another. A condition stipulated prior organizing the bid is that the group of contracts to be awarded to a single company. In this case, the contracts should be treated as a single construction contract.

Prudence - If the outcome related to the contract cannot be assessed reliably, the revenue will be recognized only within the limit of the incurred recoverable costs. If the total contract costs exceed the total contract revenue likely, the loss will immediately recorded as expense. The anticipated loss will immediately be recorded, in full, as expenditure even if the method used is the percentage of contract completion. We should notice that in the two examples above, the Standard does not allow the choice of accounting. If criteria are met, the contract will be treated either separately or as a group of contracts.

4 Amendment of estimates and information presentation

According to IAS 8, it may be necessary for an estimate to be reviewed if there have been changes in conditions that the estimate was based on, if new information or subsequent events occur or if more experience is accumulated. By nature, the revision of the estimate does not mean for the adjustment to fall within the definition of an extraordinary item or a fundamental error.

In the financial statements, the following information will be provided:

a) The value of the contract income recorded as period related income;

b) Methods used to assess contract income recorded in the respective period;

c) Methods used to assess the completion degree of on-going contracts.

The following will be presented with regard to contracts under execution upon the date of the balance sheet:

a) Total value of incurred costs and recorded profits (less incurred loss);

b) Value of received down-payments; and

c) Value of withholdings.

Also:

i) Gross amount owed by beneficiaries for contract works, recorded as asset, for all on-going contracts for which the incurred costs plus recorded profits (less recorded losses) exceed current charges;

ii) Gross amount payable to beneficiaries from the contract works, considered as debt, for all on-going contracts for which current charges exceed the recorded costs plus recorded profits.

Example: The DUNAREA S.A. Company produces ships for goods transportation. A ship is built in 2 years. The following assumptions apply to all contracts for the construction of ships described below and in each case there is presented the profit and loss account and the balance at 31 December 2008

Assumptions:

- 2008 is the first year for contract execution
- All payments have been made in cash
- All incurred costs have been paid in cash
- The information provided is on December 31st, 2008, in millions of Euros.
- Any financing needs are covered by bank loans on overdrafts.

Table 3 Example Contract 1

Turnover	200
Cost of sales	180
Payments in account	200
Incurred costs	210
Income statement	
Turnover	200
Cost of sales	180
Gross profit	20
Statement of financial position extract	
Current assets	30
On-going production	30

Table 4 Example Contract 2

Turnover	560
Cost of sales	450
Payments in account	500
Incurred costs	550
Income statement	
Turnover	560
Cost of sales	450
Gross profit	110
Statement of financial position extract	
Current assets	160
On-going production	100
Clients	60

Table 5 Example Contract 3

Turnover	400
Cost of sales	380
Payments in account	450
Incurred costs	390
Income statement	
Turnover	400
Cost of sales	380
Gross profit	20
Statement of financial position extract	
Current assets	
On-going production	10
Current liability	
Down-payments from clients	50

Table 6 Example Contract 4

Turnover	400
Cost of sales	450
Payments in account	300
Incurred costs	450
Income statement	
Turnover	400
Cost of sales	450
Provision for foreseeable losses	50
Gross loss	-100
Statement of financial position extract	
Current assets	100
Clients	100
Provisions for risks	
Provision for loss on long term contracts	50

Table 7 Example Contract 5

Turnover	80
Cost of sales	80
Payments in account	100
Incurred costs	120
Provision for foreseeable losses	40
Income statement	
Turnover	80
Cost of sales	80
Provision for foreseeable losses	40
Gross loss	-40
Statement of financial position extract	
Current assets	
On-going production	40
Provisions for risks	40
Received down-payments	20

5 Recording the estimated losses from contracts

When the current estimate of the total cost of the contract exceeds the current estimate of the total revenue of the contract, a provision should be made for the entire loss of the contract. Provisions for losses should be done in the period when they occur.

The loss that occurs during the performance of a construction contract should be recorded immediately as expense. The provision should be calculated on account of all costs estimated to complete the contract (cost made at a certain date plus estimated costs to complete the contract). The provision should be emphasized as current debt in the balance. In any year in which the contract accounted for using the *percentage of completion* method incurs some loss, the amount of the loss reported in that year can be calculated as follows:
Reported loss = total expected loss minus the profit recorded previously.

Let's consider the following example for an investment which is developing for 3 years. The value of the investment is 500,000 Euros with an initial cost estimated at 405,000 Euros. For the respective period, we have the following data:

Table 8

Explanations	Year 1	Year 2	Year 3
Current costs (euro)	150.000	360.000	506.000
Costs to be incurred until the end of the third year	300.000	148.000	0
Costs to be incurred for the completion of the investment	450.000	508.000	

We can conclude that, at the end of the second year, the total loss would be 500,000 Euro (360,000 euro + 148,000 euro) = 8,000 euro. Total loss reported in the second year would be equal to the calculated loss of 8000 Euros to which we add an amount to cancel the profit registered in the first year. In the first year, the profit amounted to the value of (500,000 * 150.000/450.000-150.000) = 16,667 Euros. In other words, the total reported loss in the second year should be 8.000 euro + 16,667 euro = 24,667 euro. According to the method for contract completion, the recorded loss is the total estimated loss, 8000 euro.

6 Conclusion

Recording the revenue during the execution of a construction contract is a more justified approach than upon the completion of the contract, because we must take into account the legal side of the contract. Both the buyer and the manufacturer obtain rights which may arise during the execution period. The buyer is entitled to demand a certain performance from the contractor and the contractor has the right to request payment in installments during the construction period, therefore revenue is obtained as the construction is performed. Some countries like USA, Canada and Japan allow both methods for accounting the income: the percentage of completion method and the method of completion of contracts. National accounting standards in England, Australia and New Zealand recognize only the percentage of completion method. For Romania, trying to implement international accounting standards since 2001 has been a new field of research and study. We believe that the implementation of international accounting standards requires time and efforts from the academic environment, the Romanian regulators and the openness of accounting practitioners.

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