

New aspects of revenues and expenses accounting for construction contracts

Lilia Grigoroï

The Academy of Economics Studies of Moldova, Accounting and Audit Department
e-mail: lilia@grigoroï.com

Angela Popovici

The Academy of Economics Studies of Moldova, Accounting and Audit Department
e-mail: tigrú@rambler.ru

DOI: 10.12846/j.em.2014.03.26

Abstract

In this article, the problems of the accounting of contract revenues and expenses, which are the main elements of any building organization, shall be examined. A range of issues appear when reporting these revenues and expenses, the most important of which, are the identification of the contract revenues and expenses composition, the recognition and evaluation of the contract revenues and expenses, the documentation and record keeping of the revenues and expenses in special accounts, the information presentation of the contract revenues and expenses in the financial statements.

Keywords

contract expenses, construction contracts, costs, recognition, evaluation, financial situation, contract revenues

Introduction

Revenues and expenses accounting is one of the most difficult and important part of record-keeping of any entity including the building organizations. All categories of investors are interested in the authenticity of revenues and expenses determination:

owners, employees, suppliers, customers. Also, the information on revenues and expenses is used as the basis for determining the accounting and the fiscal result.

The general method of revenues and expenses accounting for construction contracts is regulated by the National Accounting Standards (NAS) „Construction contracts” that came into force on January 01, 2014. These standards are developed on the basis of the European Union (EU) Directives and International Accounting Standards (IAS) 11 „Construction contracts”. The objective of the Standards is to establish the method for determination, recognition and accounting treatment of revenues, costs and expenses associated with the construction contracts and presentation of the relevant information in the financial statements of contractors (Nederița, 2007, p. 87). The NAS „Construction contracts” are applied for accounting treatment of revenues, costs and expenses associated with the construction contracts, including rendering of services related directly to major assets construction (for example, the services of project managers and architects); the assets demolition as well as restoration of the environment following the demolition of assets.

1. Construction contract's theory review

When accounting revenues and expenses associated with the construction contracts arise different problems, the main of which are:

- identification of the contract revenues, costs and expenses composition;
- recognition and evaluation of revenues and expenses associated with the construction contracts;
- documenting and recording contract revenues and expenses in accounting records;
- disclosure of information on contract revenues and expenses in financial statements.

According to the NAS „Construction contracts” *contract revenues* represent the „value of the initial revenue, the value of the revenue from the contract variations, from claims and incentive bonuses received as a result of the execution of the construction contract” and *contract expenses* represent an „amount of actually incurred costs associated with the construction contract as a whole or as stages of its completion, correlated with the recognized contract revenues” (Nederița, 2007, p. 87).

It is worth mentioning that besides the contract expenses the notions of the contract costs are also used in the NAS. These costs include „the amount of the used resources and personnel costs associated with the execution of one or more construction contracts for the purpose of obtaining income and that are to be reimbursed by

the customer” (Nederița, 2007, p. 87). Thus, we note that in building organizations contract costs are transformed into the contract expenses during the handover process of the construction and assembly works (CAW).

Analyzing the notions of revenues and expenses used in a specialized literature and accounting regulations the local scientist Nederița defines revenues as „increases in economic benefits during the accounting period in the form of inflows/enhancements of assets or decreases/extinctions of liabilities that influenced the net result (profit/loss) of the current accounting year, and expenses as decreases in economic benefits during the accounting period in the form of outflows/decreases of assets or occurrence/growth of liabilities that influenced the net result (profit/loss) of the current accounting year (International ..., p. 15).

According to the NAS „Construction contracts” and IAS 11 „Construction contracts”, the composition of the contract revenues, costs and expenses are submitted in tab. 1.

Tab. 1. Composition of contract revenues, costs and expenses according to new NAS and IAS 11

Item name	Composition according to	
	NAS	IAS 11
Contract revenues	initial revenue revenue from contract variations revenue from claims revenue in the form of incentive bonuses	initial amount of revenues agreed in the contract variations of contract works; payments of compensation and incentives
Contract costs	direct costs indirect contract costs construction overhead costs recoverable by the customer	direct costs associated with this contract costs attributable to the contract activities in general and that can be allocated to the contract any other costs specifically chargeable to the customer according to the terms of this contract
Contract expenses	amounts of actually incurred costs for the executed works associated with the construction contract as a whole or stages of its completion handed over to the customer construction overhead costs unrecoverable by the customers are directly attributed to the current costs contractor’s costs that cannot be attributed to any specific construction contracts are recognizes as current expenses	contract costs that are not probable of being recovered are recognized as immediate expenses

Source: elaborated by the author on the basis of the NAS „Construction contracts” (Nederița, 2007, p. 6, 88-90).

It is worth mentioning that the composition of the contract revenue of the NAS „Construction contracts” differs from the IAS 11 „Construction contracts” composition. Thus, according to article 11 of IAS 11 „contract revenues include initial amount of revenues agreed in the contract, as well as the variations in contract works, payments of compensation and incentives to the extent that it is probable that they will result in revenues that can be reliably measured” (*National ...*, 2013). The NAS „Construction contracts” provide including in the composition of the contract revenues (Nederița, 2007, p. 88), the following:

- initial revenue – an amount of revenue agreed on conclusion of the construction contract between the contractor and the customer;
- revenue from contract variations result from the rectification of the initial amount of the construction contract on which the contracting parties have agreed due to changes in the contract provision in respect of the project, implementation of some additional constructions or denial of certain works or objects, as well as other contract specifications;
- revenue from claims – is the amount required (claimed) by the contractor from the customer or a third person to reimburse the caused damage. Complaints can be submitted, for example, in case of errors in specifications or projects and non-compliance with the contract clauses by the customer;
- revenue in the form of incentive bonuses – are the additional amounts paid to the contractor if certain provisions of the contract have been observed or specified standards have been achieved or exceeded. For example, an incentive bonus to the contractor for early completion of the contract, high quality of the executed works, reduction of costs or other results stipulated in the contract.

Contract costs according to IAS 11 include (*National ...*, 2013):

- costs directly associated with this contract include:
 - labor costs on the construction site, including the construction site supervision,
 - materials costs used in construction,
 - depreciation of technical facilities and equipment used in the contract,
 - costs for transportation of technical facilities, equipment and materials to and from the construction site specified in the contract,
 - rental costs for technical facilities and equipment,
 - cost of projects and technical assistance directly associated with the contract,
 - the estimated costs of repairs and guarantee works, including the expected guarantee costs,

- claims from third parties;
- costs that can be attributable to the contract activities in general and that can be allocated to this contract include:
 - insurance,
 - costs of projects and technical assistance that are not directly associated with the specific contract,
 - construction overhead costs;
- any other costs that can be specifically charged to the customer under the terms of this contract include:
 - 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 idle technical facilities and equipment that are not used in a particular contract.

However the NAS „Construction contracts” stipulate to include the costs attributable to the contract (Nederița, 2007, p. 89) the following:

- direct contract costs include costs that can be directly related to the construction contract costs, including:
 - pre-contract costs associated with the concluded contracts, including the costs of delegation, representation, costs of participation in tenders for obtaining the contract and other similar costs,
 - direct costs for materials, including the costs of the construction materials, fuel, electricity, heating, compressed air, steam and water, as well as of other materials used in the construction process,
 - direct personnel costs,
 - direct operating costs of construction machines and mechanisms, technical installations, machinery and equipment directly used in the contract execution,
 - other costs directly associated with the contract;
- indirect contract costs – costs associated with other construction contracts that cannot be directly included into their costs, covering the following:
 - costs related at least to the goods and personnel associated with other contracts in case when they are not included in the overhead construction costs,
 - costs of projects and technical assistance associated with other contracts in case when they are not included in the overhead construction costs,

- borrowing costs associated with other contracts capitalized in accordance with the NAS „Borrowing costs”; and operating costs of machines and mechanisms that are used during other contracts execution in the reporting period.

Construction overhead costs recoverable by the customer – costs associated with management, organization and servicing of one or more contracts in the entity as a whole and separate construction sites. Overhead costs are divided into recoverable and non-recoverable costs by the contractor.

Overhead construction costs non-recoverable by the contractor include:

- general and administrative costs;
- costs for the construction personnel servicing;
- costs for the work organization on the construction sites;
- other costs of general character.

Overhead recoverable costs are included in the construction contract costs and are taken into consideration when calculating the overhead construction costs share that are used in the preparation of cost estimates for each contract.

According to the IAS 11 provisions contract costs which reimbursement is not possible are immediately recognized as expenses (*National ...*, 2013). They include the following contracts:

- that are not fully enforceable, that is their validity is quite doubtful;
- the completion of which depends on the outcome of pending litigation or legislation;
- relate to the properties the requisition or expropriation of which is very possible;
- where the customer is unable to comply with the obligations;
- where the contractor is unable to complete the contract or comply with the obligations otherwise than stipulated in the contract.

Contract expenses according to the NAS „Construction contracts” include (Nederița, 2007, p. 90):

- costs actually incurred for the completed works associated with the construction contract as a whole or stages of its completion handed over to the customer;
- overhead construction costs non-recoverable by the contractor are directly attributed to the current expenses and include:
 - research and development activities costs;
 - taxes and duties stipulated by legislation;
 - increasing of the entity employees salaries stipulated by legislation;

- recovery costs for damages caused to employees by reason of accidents at workplaces;
- payments to employees made redundant related to the reorganization of the entity, reduction in the number of employees; and other costs.
- costs incurred by the contractor that cannot be attributed to some definite construction contracts are recognized as current expenses and include:
 - distribution expenses;
 - depreciation of machines and mechanisms that are not used under specific contracts;
 - stationery losses;
 - fines, penalties and compensations related to the contractor's activity;
 - actual overhead construction costs, in the case the contractor does not perform construction works during the accounting period;
 - expenses exceeding the established norms in the case when these will not be recovered by the customer;
 - other expenses not related to the contract execution.

Concluding, we mention that the definitions and the composition of revenues, of costs and contract expenses contained in NAS differ from those set in IAS, are incomplete and do not correspond to the international requirements.

The recognition consists in the establishing of the accounting period in which they can be recorded in accounting and in financial statements. According to the NAS „Construction contracts” „contract revenues and expenses are recognized based on the accrual accounting, during the accounting period in which they appeared, regardless of the time of actual collection or cash payment or other forms of compensation” (Nederița, 2007, p. 91).

The recognition of the contract revenues and expenses is directly correlated to their evaluation which represents the process of determination of the amounts of revenues and expenses of the current accounting period that will be reflected in the accounting and financial statements.

2. Contracts revenues and expenses evaluation

Contract revenues and expenses are recognized in the case the contract result can be evaluated with certainty. The contractor can evaluate with certainty the contract revenues and expenses if the concluded contract sets:

- the rules and obligations of each party regarding the asset to be constructed;
- the contract value that will be received by the contractor; and

- the methods and the terms of payment.

During the term of the contract execution the contractor checks, and if necessary, revises the estimates of the contract revenues and expenses using an efficient system of internal financial forecasting and management.

The financial result of a construction contract is determined by the difference between the revenues and the expenses associated with it, according to the contract type concluded: with a fixed price, „cost plus” or mixed.

The recognition of the contract revenues and expenses is performed resulting from the duration of the construction contract execution that can meet or exceed the accounting period.

If the construction contract was executed in one accounting period, the contract revenues and expenses are recognized in that period on completion of this contract.

The intermediate payments and advances received from customers do not influence the stage of completion of the contract and aren't recognized as revenues.

In case the construction contract is executed during many accounting periods, the contract revenues and expenses are recognized by applying the contract execution stage method. On the basis of this method, the contract revenues and expenses are recognized for each execution stage.

The stage of the contract execution is confirmed by the customer and can be determined by using one of the following variants:

- the „cost-to-cost” variant;
- the volume of the works effectively executed; or
- the degree of completion of the physical proportion of the contract works.

In case of application of the cost-to-cost variant the contract stage of execution is determined through the relation:

$$\text{The percentage of the contract completion} = \frac{\text{Contract costs actually incurred at the reporting date}}{\text{Estimated total contract costs}} \times 100\% \quad (1)$$

the contract costs actually incurred on the reporting day/the total contract estimated costs x 100% (1).

This variant is typically applied for the determination of the contract revenues associated with the fixed cost contracts. In this case, in the composition of the costs actually incurred are not included the costs associated with the future activity, like the value of the materials located on the construction site and intended for subsequent use, the payments to subcontractors made until the execution of subcontract works.

The contract revenues recognized in the current accounting period based on the „cost-to-cost” variant are determined in the following way:

$$\begin{array}{l} \text{The contract revenues recognized} \\ \text{in the current accounting period} \end{array} = \begin{array}{l} \text{the initial amount of} \\ \text{the contract} \end{array} \times \begin{array}{l} \text{the per-centage of} \\ \text{the con-tract exe-cution} \end{array} - \begin{array}{l} \text{the contract} \\ \text{revenues recog-nized in the} \\ \text{preceding ac-counting period} \end{array} \quad (2)$$

On applying the volume of the works effectively executed variant, the size of the contract revenue which should be recognized depends on the type of the contract. In case of fixed price contract:

$$\text{The contract revenue} = \begin{array}{l} \text{the volume of the actually executed works on} \\ \text{the reporting date} \end{array} \quad (3)$$

In case of a „cost plus” contract:

$$\text{Contract revenue} = \begin{array}{l} \text{Sum of the contract costs} \\ \text{actually incurred} \end{array} + \begin{array}{l} \text{Supplementary} \\ \text{stipulated in the contract} \end{array} \text{ rewards} \quad (4)$$

The recognition of the revenue according to the degree of completion of the physical proportion of the contract works variant stipulates the determination of the degree of completion of the physical proportion of works as a whole or stages by the relation:

$$\begin{array}{l} \text{The degree of com-} \\ \text{pletion of the phys-} \\ \text{ical proportion of} \\ \text{all works on the ob-} \\ \text{ject} \end{array} = \frac{\begin{array}{l} \text{The physical volume of construction} \\ \text{works completed at the reporting date} \end{array}}{\begin{array}{l} \text{The total volume of work under the contract} \end{array}} \times 100\% \quad (5)$$

= the physical proportion of the construction works completed at the reporting date / the total volume of works stipulated in the contract x 100% (5)

Such a solution is applied for the fixed price contracts.

In these cases the contract revenue is determined by the following relation:

$$\begin{array}{l} \text{The contractual} \\ \text{revenue recog-} \\ \text{nized in the ac-} \\ \text{counting period} \end{array} = \begin{array}{l} \text{the contract} \\ \text{value} \end{array} \times \begin{array}{l} \text{the degree of completion of the} \\ \text{physical proportion of works as a} \\ \text{whole} \end{array} \quad (6)$$

The contract revenues and expenses recognized have to be confirmed through primary documents, which include invoices, shipping invoices, accounting notes and handover minutes of the CAW. The information in the primary documents is generalized in the accounting registers.

It is worth mentioning that actually there are not established standard forms of accounting records. In this context, the entity has the right to develop independently the register forms in accordance with the peculiarities of the activity and with the proper informational necessities. Simultaneously, the developed registers have to be approved by the entity manager and to include the obligatory elements provided by The Accounting Law:

- the register name;
- the name of the entity which prepared the register;
- the date of the beginning and of the finishing of the register keeping and/ or the period for which it is prepared;
- the date of the economic facts performance, grouped in chronological and/or systematic order;
- standards of evidence of the economic facts;
- function, name, surname and the signatures of the persons responsible for the registers preparation.

The recognized contract revenues and expenses are recorded in accounting records. It is worth mentioning that the accounting record Plan does not stipulate specific methods of recording the contract revenues and expenses in accounts. In this context we consider that each building organization has to establish by itself the correspondence of the accounting records associated with the economic facts generalizing revenues and expenses. Thus, the contract revenues represent the revenues from sales and have to be recorded in the 611 account „Revenues from sales”, which is a liability account. In the credit of this account the recognition of the revenues from rendering the services and from the execution of the CAW are recorded during the accounting period, and in debt - income settlement of the revenues from sales, at the end of the accounting period.

3. Ways of recording of the contract revenues and expenses

For accounting treatment of the rendered services costs of the executed works within the building organizations it is reasonable to apply the assets account 711 „The sales cost”. In the debt account the recognized sales cost is recorded during the accounting period, and in credit account - the settlement of the sales cost at the end of the accounting period. We will examine the way of recording of the contract revenues and expenses according to example.

Example 1. In February 2014 a contractor concluded a fixed price contract which provided to construct a building worth 2 700 000 lei. The construction works were

executed during 6 months (March- August 2014) and were confirmed by the customer. The parties have negotiated the final payment on the date of the object commissioning and the advance payment in the amount of 1 220 000 lei. The actual contract costs – 2 400 000 lei.

On the basis of data from example 1 the accounting formulas have to be prepared and presented in tab. 2.

Tab. 2. The accounting formulas associated with contract revenues and expenses [Lei]

No.	The operation content	The amount	Correspondent accounts	
			debit	credit
1.	Recording of the advanced amount received from the customer in the account of the construction works execution	1 220 000	242	523
2.	Calculation of VAT associated with the received advance	203 370	225	534
3.	Reflection of the actual contract costs	2 400 000	711	811
4.	Reflection of the revenue obtained from the construction contract execution	2 700 000	221	611
5.	Calculation of VAT associated with the revenue obtained from the construction contract execution	540 000	221	534
6.	Mutual compensation of receivables and of debts associated with the construction contract	1 220 000	523	224
7.	Cash collection from the customer as payment of the difference between the amount of the calculated receivables and the advance amount previously received(3 240 000 -1220 000)	2 020 000	242	221
8.	VAT returns associated with the received advance amount	(203 370)	225	534
9.	Clearance of the actual contract amount at the end of the accounting period	2 400 000	351	711
10.	Clearance of the amount of revenues obtained from the execution of the construction contract at the end of the accounting period	2 700 000	611	351
11.	Reflection of the financial result obtained from the hand-over of the executed works to the customer (of the profit)	300 000	351	333

Source: own research.

Further, we will examine how to determine the contract revenues and expenses at the end of each accounting period in accordance with the percentage of completion of the contract on the basis of a conventional example.

Example 2. In 2013 a building organization concluded a fixed price contract for a three years period which provides the building of the railroad worth 62 000 000 lei. The initial size of the estimated contract costs constitutes 51 000 000 lei.

On July 1 2014 the contractor and the customer agreed on some variations to the contract which provide the additional building of 5 km of railroad, which leads to the increase of the contract revenues by 400 000 lei, and of estimated contract costs - by 200 000 lei.

According to the contractor's accounting policies, the contract revenues and expenses are determined at the end of each accounting period.

The information regarding the execution of the construction contract every year and the calculation of the percentage of the contract execution is presented in tab. 3.

Tab. 3. Calculation of the contract execution percentage

No.	Indicators	Year 2013	Year 2014	Year 2015
1.	Total value of the contract, lei	62 000 000	62 400 000	62 400 000
2.	Current contract costs actually incurred, lei	20200 000	19300 000	11 700 000
3.	Cumulative contract costs actually incurred until the reporting date, lei	20200 000	39 500 000	51 200 000
4.	Totally estimated contract costs, lei	51 000 000	51 200 000	51 200 000
5.	Contract execution percentage [%] (r. 3 : r. 4 x 100%)	39,61	77,15	100

Source: own research.

Calculation of the contract expenses, revenues and profits (losses), taking into account the initial dates and the calculation results from tab. 3, is presented in tab. 4.

In 2013 the recognized revenues are determined through the multiplying of the total value of the contract by contract execution percentage and constitute 24 558 200 lei (62 000 000 lei x 0, 3961). The contract expenses are recognized in the size of the contract costs actually incurred at the date of the preparation of the profit and loss situation and are equal to 20 200 000 lei. The profit is determined like the difference between the contract revenues and expenses and constitutes 4 358 200 lei (24 558 200 lei - 20 200 000 lei).

Tab. 4. Calculation of revenues, expenses and of financial result [lei, %]

Indicators	The contract total value, [lei]	Percentage of the contract execution, [%]	Revenues, expenses and financial result, lei		
			at the reporting date with cumulative total at the beginning of the contract execution	recognized in the previous years	recognized in the reporting period
1	2	3	4 = 2 x 3 : 100	5	6 = 4 - 5
Year 2013					
Revenues	62 000 000	39,61	24 558 200	-	24 558 200
Expenses	-	-	20200 000	-	20200 000
Profit (loss)	-	-	4 358200	-	4 358200
Year 2014					
Revenues	62 400 000	77,15	48 141 600	24 558 200	23 583 400
Expenses	-	-	39 500 000	20200 000	19300 000
Profit (loss)	-	-	8 641 600	4 358200	4 283 400
Year 2015					
Revenues	62 400 000	100,00	62 400 000	48 141 600	14 258 400
Expenses	-	-	51 200 000	39 500 000	11 700 000
Profit (loss)	-	-	11 200 000	8 641 600	2 558 400

Source: own research.

In 2014 the total contract revenues at the beginning of the execution of the contract constitute 48 141 600 lei (62 400 000 lei x 0,7715). The contract revenues recognized in this year are determined by the difference between the cumulative total of the contract revenues during two years and the contract revenues recognized in 2013, being equal to 23 583 400 lei (48 141 600 lei - 24 588 200 lei).

The contract expenses recognized in 2014 are determined by the difference between the cumulative total of the contract costs actually incurred during two years and the contract costs recognized in 2013 and constitute 19 300 000 lei (39 500 000 lei - 20 200 000 lei). The recognized profit in this year is equal to 4 283 400 lei (8 641 600 lei - 4 358 200 lei).

In 2015 the total contract revenues at the beginning of the execution of the contract constitute 62 400 000 lei. The contract revenues recognized this year are equal to 14 258 400 lei (62 400 000 lei - 48 141 600 lei), the contract recognized expenses – 11 700 000 lei (51 200 000 lei - 39 500 000 lei), and the recognized profit- 2 558 400 lei (11 200 000 lei - 8 641 600 lei).

The information associated with the contract revenues and expenses has to be presented in financial statements. According to the NAS „Construction contracts” this information includes (Nederița, 2007, p. 92):

- the amount of the contract revenue recognized in the accounting period;
- the methods used for the evaluation of the contract revenue recognized during the accounting period;
- the receivables amount for the contract works;
- the amount of debts to the customer appeared after the contract works;
- regarding the contracts in progress at the reporting date:
 - the variants used for the determination of the execution stage,
 - the cumulated amount of the costs incurred,
 - the cumulated amount of the revenues recognized,
 - the cumulated recognized profit,
 - the advance amounts received,
 - the amount of the retentions for the performed works which are not paid in accordance with the contract conditions until the date set or until the defects are not eliminated.

Conclusion

In conclusion, we mention that the contract revenues and expenses constitute the fundamental accounting elements of any building organization.

The nomenclature of the information associated with the contract revenues and expenses set in the NAS „Construction contracts” has a general character and does not reflect in full the specific of building organizations. As a result, the requirements of disclosure of the information in financial statements do not guarantee the presentation of some truthful, reliable and transparent information which is necessary for all categories of users for making managerial and economic decisions.

For this propose it is recommended that in the enclosures of the financial statements the information be more detailed disclosed, including those associated with the revenues and expenses.

Literature

1. Accounting Law 113-XVI of April 27, 2007, <http://www.minfin.md> [23.01.2014]
2. *General plan of accounting records* (2013), The Official Gazette of the Republic of Moldova 233-237
3. International Financial Reporting Standards. <http://www.minfin.md> [23.01.2014]
4. *Methodological guidelines on the production cost accounting and cost estimation of the products and services* (2013), The Official Gazette of the Republic of Moldova 233-237
5. *Methodological recommendations on the transition to the new National Accounting Standards* (2013), in: The Official Gazette of the Republic of Moldova 291-296
6. *National Accounting Standards „Construction contracts”* (2013), The Official Gazette of the Republic of Moldova 233-237
7. Nedeřița A. (2007), *Revenues and expenses accounting of the enterprise: theory and practice*, Publishing house of AESM, Chișinău

Nowe aspekty przychodów i kosztów rachunkowych w konstrukcji umów

Streszczenie

W artykule przeprowadzono analizę problemów związanych z rozliczaniem przychodów i kosztów umów. Badaniu poddano umowy zawierane w przedsiębiorstwach budowlanych. Przedmiotem badania były zagadnienia dotyczące zagadnień związanych z: ewidencjonowaniem przychodów i kosztów, identyfikacją przychodów kontraktowych i kompozycji wydatków, rozpoznawaniem i oceną przychodów i kosztów umów, dokumentacji oraz prowadzeniem ewidencji przychodów i kosztów w systemie kont, a także prezentacją informacji w sprawozdaniu finansowym.

Słowa kluczowe

kontrakty budowlane, wydatki, koszty, ewaluacja, sytuacja finansowa, przychody z umów