

A construction company's financial portfolio

MIRKO MALINOVIĆ¹, DRAGAN GNJATIĆ²

1. VISOKA ŠKOLA "AKADEMIJA ZA POSLOVNU EKONOMIJU" ČAČAK

2. TRADE UNION OF EDUCATION, SCIENCE AND CULTURE OF REPUBLIKA SRPSKA

ABSTRACT

In this paper, the author talks about the way of securing funds, i.e. the costs of construction materials, as well as about price analysis, i.e. calculations in construction. Moreover, the paper refers to the sources of financing, the bill of quantities and the cost estimate, as well as financial indicators of investments, naturally, from an economic standpoint, while respecting the uniqueness of operations in a construction company, reflected in both the workload of these companies, and the risks of such operations.

Keywords: fixed assets, depreciation, calculation, cost estimate, price

Introduction

Securing construction materials is the prerequisite for conducting operations and implementing projects in construction. It is completely logical that, in construction projects, it is important to perform the corresponding calculations related to the cost estimate, both for fixed assets and the depreciation and machinery costs. In this paper, it is attempted to talk about a construction company's financial portfolio, precisely from the aspect of securing construction materials, funding the materials, the cost estimate, etc.

construction machinery operating cost is calculated by the hours of use. For the purpose of determining the prices of construction units with mechanised work, this price, calculated by the hours of use, is reduced to the construction unit's measurement unit. Two important parameters affect the analysis of choosing construction machinery - practical performance U_p and the cost of the hour of use K_h .

The cost price structure of an effective machine hour, when all costs of mechanised work are taken into consideration, is as follows:

Securing funds/costs of construction materials

The price of a material is composed of the cost (factory) price and the transportation and storage costs. When choosing a material, i.e. the supplier of certain materials, two important pieces of data are considered in the calculation: the factory price and the price of transportation from the factory to the construction site. Usually, this price is called the Franco construction site price of materials. The Franco construction site price (Italian: Franco - transportation included, carriage paid to the place of destination) implies the provision of materials and transportation to the construction site. The

$$K_h = \frac{J_t}{h_{gr}} + (E_E + E_{os}) \cdot (1 + \varphi)$$

where:

J_t - one-off costs,

h_{gr} - the planned machine hours on a construction site,

E_E - operating costs,

E_{os} - costs for the fixed asset,

j - the factor of calculating overhead costs and profit.

One-off costs are costs of transporting the machine to and from the construction site, as well as the costs of placement, assembly, disassembly and commissioning.

They are usually calculated as a share (%) of the machine's purchase value.¹ In the formula (2.1), one-off costs are calculated in relation to the total planned machine hours on a construction site (the time spent on using the machine on a construction site - in the time interval between assembly and disassembly).

Operating costs consist of:

E_{RS} - costs of operators and support staff,

E_{EN} - costs of energy sources (electrical energy, fuel),

E_{MAZ} - costs of lubricants,

E_{TO} - costs of machine maintenance during operations (costs of ongoing repairs),

E_{HAB} - costs of wear parts; i.e.:

$$E_E = E_{RS} + E_{EN} + E_{MAZ} + E_{TO} + E_{HAB}$$

Costs for the fixed asset are comprised of:

E_{AM} - depreciation costs,

E_{INV} - investment maintenance costs,

E_{KIOS} - interest rates and insurance costs, i.e.:

$$E_{OS} = E_{AM} + E_{INV} + E_{KIOS}$$

The factor of calculating overhead costs and profit for multi-annual projects (dams, roads and the like) with an employed machine has the value of $\varphi = (0.30 \div 0.35)$, while for annual ones (e.g. buildings), it has the value of $\varphi = (0.20 \div 0.25)$. Usually, its value is, in general, adopted within the time frame $\varphi = (0.30 \div 0.50)$.²

Based upon the model (2.1) and those similar to it, each company forms its own price list for construction machinery operations.

Typically, a price list per hour is drawn up for all machines owned by the company, and it is valid for a specified period of time in line with the market conditions affecting the prices, elements upon which the cost price structure of a machine hour depends on.

Approximate prices of an operating hour for hiring certain machines are known on the market.

¹ Trbojević, B., Prašćević, Ž. (1991). Građevinske mašine, Građevinska knjiga, Beograd

² Ivković, B., Arizanović D. (1990). Organizacija i tehnologija građevinskih radova sa rešenim problemima, Građevinski fakultet, Nauka, Beogra

Price analysis - calculations in construction

The notion of calculation (New Latin: calculatio) means computation, calculating, estimate.

Calculation/price analysis implies determining:

- the cost price/selling price (a priori analysis), as well as
- economic effects achieved in production (a posteriori analysis), specifically in construction.

According to this, a calculation can be:

- technical and
- accounting.³

The selling price for construction works (operations, material and mechanisation) is determined through *technical calculation*, while respecting project documentation and the technology of executing the works. This means that an a priori analysis is in question before the planned costs actually occur.

This analysis implies that the necessary provisions and supplying for the construction site will be carried out according to the needs defined in the planned dynamics of executing construction works.

Material and financial recording of material and cash flows, i.e. incurred costs and cash inflow based upon the work done is performed through the accounting calculation. Unlike the previously stated, a posteriori consideration is obviously dealt with here.

Based upon this, a balance (Latin: bilanx - a scale having two pans; Italian: bilancio) is made. It is a periodical comparison between revenues and expenses, that is, a conclusion of the work done. A balance can be made on a monthly, quarterly and yearly basis. A monthly balance on a construction site provides an accurate cross section on the state of material and labour costs. A balance made at the end of a year in the form of a financial statement is an official document.

³ Ćirović, G., Luković, O. (2004). Građevinska ekonomija, Viša građevinsko-geodetska škola u Beogradu, Beograd, p. 49.

Price analysis

A cost estimate/calculation for construction works is preformed through a detailed analysis of costs for operations and materials necessary to execute a construction unit for a facility. The basis for conducting this analysis are construction standards defining:

- the number and qualification structure of executors for creating a unit of measurement for a specific construction unit,
- the average time needed per executor, i.e. per machine for creating a unit of measurement for a specific construction unit,
- the necessary material for creating a unit of measurement for as specific construction unit.

A unit of measurement for a construction unit, depending on the construction unit, can be, e.g. m³ - for construction units related to earth or concrete works; m² - for construction units related to masonry or concrete works; kg - for construction units related to reinforcement works, and the like. The analysis, when done manually, is usually conducted on a price analysis form, and can also be conducted by using computer programmes. In both cases, a calculation of the material and labour costs is performed individually for each of them, but the gross labour cost is multiplied by a calculative factor. The sum provides the price of a unit of measurement for a construction unit.

Calculative factor

A calculative factor encompasses all ancillary costs of production not included in the calculation of the construction product's construction unit price. In price analysis/calculations, these costs are, through the calculative factor, ascribed to the labour cost, i.e. charged to the labour cost. They cover the following costs: material costs, office supplies, transportation services, postage costs, representation expenses, various charges and taxes, sick pay, etc.

The calculative factor F represents a value that needs to be multiplied with the gross earnings of production workers so as to, in the price analysis of construction units (or all operations conducted on the facility), include all ancillary costs.

Usually, F is determined on the company level, but it can be determined for individual (especially larger) construction sites.

Sources of financing

In the stage of securing financial resources, before making a final decision on the financial mechanism, it is necessary to:

- identify the necessary resources,
- determine the sources of financing: internal financing, external financing,
- assess and create a financial cost estimate.

Determining the amount of necessary funds is conducted on the basis of business revenue analysis and the attachment of money to certain types of assets. On the other hand, based on predictions, additional funds are determined for certain periods of business activities.

A company's internal financing

Financing represents a dynamic process including:

1. acquiring funds,
2. investing money,
3. retrieving money and
4. harmonising the sources of financing with investments.

By acquiring funds for ongoing and developmental needs of the company, financial relations are established with internal and external sources of financing. Acquiring funds is the basic component of financing which is why certain authors only consider acquiring funds as financing. However, in our opinion, the financing process does not end when the funds are acquired, but it is continued through other stages of financing, investing and retrieving money. The funds are acquired so as to invest them in material, financial and other assets. In this way, the money is temporarily immobilised, transformed and attached to different forms of fixed and liquid assets.

The acquired funds have to be rationally invested and used for the needs considered optimal. In the stage of retrieving money, the invested money is released from the circular flow of business activities and reinvested in line with the company's needs. Within business activities, changes in assets and resources always occur. These changes have to be shaped and the sources of financing have to be harmonised in liabilities with investments in assets according to the volume and time limit. This happens within the dynamic process of harmonising the sources of financing with investments according to the volume and time limit. In this process, the time limits of immobilising (attaching) money are harmonised

with an availability deadline for corresponding sources. The goal to be achieved is to harmonise the time limits related to sources and investments, which should lead to synchronising cash receipts and costs so as to secure the company's solvency. Financing is a dynamic process, not a condition, since it pervades all stages of reproduction. In order for a company to start the reproduction process, a certain amount of money must be secured. The supply management uses this money to provide the resources necessary for operations (business premises, machines, etc.), the subject of labour (raw materials and supplies), labour, etc. Then, the production management organises production. In the end, the sales management sells the manufactured products and collects accounts receivable from buyers. This ends the circular flow of the reproduction process. The invested money is released and used for financing a new reproduction cycle. If the money released at the end of a cycle is greater than the money invested at the beginning of a reproduction cycle, the company has conducted profitable⁴ operations.

Internal financing of a company implies financing from internal sources:

- positive cash flow,
- profit,
- calculated and unpaid depreciation,
- capital reserves,
- the sale of fixed assets,
- a decrease in final products in stock,
- a reduction of accounts receivable and
- an increase in obligations.

Internal financing of a company or self-financing is the primary form of financing a company.

Positive cash flow

Information provided in the financial plan are of special significance to financial managers. By comparing the planned cash inflow and outflow we get the net cash flow. With respect to the initial cash flow, depending on cash inflow and outflow, the net cash flow will be either positive or negative. A positive cash flow occurs when a company has cash at disposal.

⁴The principle of productivity keeps track of labour costs for a certain production. The principle of cost-effectiveness has a broader meaning since it measures the total costs for conducting a certain production. However, the company is interested in considering the total outturn. The principle of profitability is precisely the one to cover that gap since it demands earning as large an income (profit) as possible with as low utilisation of engaged resources as possible. Radočaj, A. (2004). *Ekonomija profita*, Viša poslovna škola, Prijedor, p. 181.

Cash always circulates in the reproduction process and generates new values to the company. If this flow is halted, the company suffers serious consequences. The company then becomes insolvent and faces bankruptcy proceedings or liquidation. The primary cash inflow for the company comes from accounts receivable. The primary cash outflow is performed based on:

- paying obligations, i.e. paying the suppliers and
- paying earnings (salaries).⁵

Profit and depreciation

An increase of cash in circulation is brought forth by: profit and depreciation. Profit affects the increase of cash in circulation since final products are sold at a price exceeding the cost price. E.g. if a product has the cost price of KM 10.00 and the selling price of KM 12.00, then the profit of KM 2.00 quickly enters the company in the form of cash.⁶ However, depreciation as a source of financing has certain particularities. For most companies, depreciation is only a cost item in the income statement that has no contact with cash outflow. Simply put, the cash outflow has occurred when procuring fixed assets. From the stated emerges the fact that with each completed cycle, the amount of cash in circulation increases based upon the realised gain and calculated depreciation.

Reserves

Here we talk about the amounts a company reserves from realised gain. They are also called: general reserves and retained earnings. In time, they increase the value of the income statement and, for the company, represent a way to increase business resources, are easily available and are not often used in dividend distribution to shareholders. In time, they usually become a part of the company's permanent capital.

Capital reserves

The name "capital reserves" represents financial resources of the shareholders. They are not generated as a result of business activities and their sources are:

- revaluation of fixed assets and
- issue of shares at premium, at a cost greater than the nominal value.

These resources cannot be given to shareholders in the form of dividend!

⁵ Mikić, Đ. (2008). *Poslovne finansije*, Koledž za informatiku i menadžment, Janjoš, Prijedor p. 49.

⁶ Ibid

Generally, in most countries, there are legal reserves where it is the company's legal requirement to set aside a certain amount of profit (realised gain) for special purposes. Similarly, there are the so-called statutory reserves, i.e. allocations of a certain amount of profit determined by the company's (organisation's) corporate bylaws. The legal and statutory reserves are treated as capital reserves.

Capital reserves

The name "capital reserves" represents financial resources of the shareholders. They are not generated as a result of business activities and their sources are:

- revaluation of fixed assets and
- issue of shares at premium, at a cost greater than the nominal value.

These resources cannot be given to shareholders in the form of dividend! Generally, in most countries, there are legal reserves where it is the company's legal requirement to set aside a certain amount of profit (realised gain) for special purposes. Similarly, there are the so-called statutory reserves, i.e. allocations of a certain amount of profit determined by the company's (organisation's) corporate bylaws. The legal and statutory reserves are treated as capital reserves.

Decrease in inventory

A decrease in final products and goods in stock is conducted through sale. In this way, additional resources are provided for the company's internal financing. Namely, immobilised resources in final products and goods in stock negatively affect the company's liquidity.

Reduction of accounts receivable

Here, the task of the financial management is to efficiently collect accounts receivable. By reducing the accounts receivable, there is an increase in internal sources of financing and a decrease of the financial resources immobilised by buyers.

Increase in obligations

This concerns an increase in the company's obligations towards suppliers. Obligations are increased by procuring goods and services. In this way, the internal sources of financing are increased. When it comes to the company's private financing or self-financing, it is important to emphasize that there are also the so-called "hidden forms of self-financing". It is actually about latent or hidden forms of financing, that is, self-financing forms that are not seen in the balance sheet.

Actually, latent reserves are created by⁷

- underestimating assets in the balance sheet and
- overestimating liabilities in the balance sheet

A company's external financing

External financing of a company implies financing from external sources⁸

- equity capital - owners,
- credit,
- equity and loan capital - a combination
- subsidies and
- specific forms - surrogates: leasing, factoring and forfeiting.

When choosing a form of financing, the financial manager must take into account the following criteria⁹

- availability,
- time period,
- appropriateness of the amount,
- liquidity and liquidity risks,
- voting rights and independence,
- financing costs:

1. procurement costs: notary, commissions,
2. operating costs: interest rates, warranties,
3. repayment costs.

Issuing securities for capital acquisition

Basic solutions for all forms of securities are given in the general part of the Law on Securities. Every issuer (emitter) of securities can decide to issue (emit) a form of securities, divided into¹⁰:

- long-term: shares and bonds
- short-term: treasury bills, trust certificate, commercial paper.

The goal of issuing securities is to acquire capital for financing the company's (organisation's) business activities. Through a Security Agreement, the company - issuer assumes two types of obligations, namely:

⁷ Mikić Đ., op. cit. p. 50.

⁸ Op. cit. p. 51.

⁹ Ibid.

¹⁰ Ibid.

the obligation to pay the interest rate, most frequently calculated on a semi-annual basis in a fixed rate in relation to the nominal value of the bond - the nominal yield and the principal repayment at the maturity date, depending on whether the bond in question has a single or a serial maturity date.¹¹ Selling shares in order to acquire money is called *equity financing* or capital increase. Issuing and selling shares increases number of owners in a company (organisation) and changes the capital structure in favour of equity capital. The sale of bonds to acquire money is called *debt financing*. By issuing bonds, the number of creditors is increased and the capital structure changed in favour of loan capital. The choice - shares or bonds is conditioned by a series of factors, and the most important are:

- capital structure: the ratio of equity and loan capital,
- the risk level related to the financial result achievement,
- treatment of the interest rate and dividend in the tax balance sheet,
- the shareholders' preparedness to accept the company's (organisation's) needs for accumulating a share of net profit into their own capital, and
- the capital market's level of development.

Basic features - shares and bonds

The process of ownership transformation through which our economy is transformed from the so-called "planned" into market economy is still under way. During the process of transforming the state into private ownership, companies are organised in the form of joint-stock companies. A joint-stock company belongs to a limited company whose capital stock is divided into shares of certain nominal value. The existing practice implied that the share is defined as an equity security or a written document of participation in ownership over permanently invested funds into the company's share capital (capital stock). However, the development of information technology resulted in the fact that this approach is considered obsolete. Namely, shares are issued as incorporeal, in the form of an electronic record. Nevertheless, until another name for a security is rooted in practice, we will stick with the common phrase - securities. The term portfolio securities is often mentioned with regard to activities related to issuing, trading and converting securities.¹² Within business finances,

the term portfolio, as mentioned in the introduction of this paper, implies a combination of different financial instruments to which an investor has committed his/her financial resources. In order to avoid investment risks, it is necessary to invest in different financial instruments. Such an investment, investing in different financial instruments, is called portfolio diversification. Portfolio diversification can be explained through a proverb often quoted in financial literature: "Don't put all your eggs in one basket". Indeed, if we have not diversified our portfolio, that is, if it is composed out of one or several securities with similar characteristics, a drop in its value will significantly affect the loss of the portfolio's value. The word share is used with several different meanings. Sometimes, shares represent a stake, a part of share capital, through which an individual member participates in a joint-stock company, and therefore, payment of such parts generates the share capital. Likewise, a share sometimes implies a collection of mandates, that is, the rights resulting from a stake. The stakeholders' membership rights are, among other things, a possession of a share in profit in the form of a dividend. Each share has its nominal and exchange value. The nominal value of a share is the value written on it, while the exchange value is the one at which a share is bought and sold. In that regard, the exchange value of a share can be below, above or equal to the nominal value of a share, that is, a stock. Shares are issued in a determined number where each share has the same nominal - par value. Usually, initial sales are conducted at a nominal - par value, whereby increasing hard cash in the balance sheet assets on the one hand, and the share capital in the balance sheet liabilities on the other hand.¹³ Owners of common stock achieve the status of the company's (joint-stock company's) co-owner in proportion to the nominal value of shares, whereby acquiring management rights. Management is conducted under the principle one share - one vote. Net profit distribution is a very important relationship category with participation of all shareholders in proportion to the nominal (par) value of a share. This implies that common shareholders completely bear the risk of achieving the company's (joint-stock company's) financial result. *Bonds* are documents containing a liability recognition and serve the lender as evidence that the debtor has assumed the obligation. Apart from documents serving only as documentary evidence, bonds imply those documents where a certain obligation is closely connected

¹¹ Božić D., Todorović T. (2011). *Finansiranje preduzeća putem bankarskog sektora u uslovima razvijenog tržišta dužničkih hartija od vrednosti*, Škola biznisa, p. 99.

¹² Mikić Đ., op. cit. p. 53.

¹³ Ibid.

with a certain security, it does not cease without the document, and, without the document, a corresponding claim cannot be collected. Among others, those are the bonds issued by a joint-stock company that individuals (legal or natural persons) obtain based upon making a payment. Issuing bonds enables the joint-stock company to, easily collect the necessary long-term capital by selling bonds. In that regard, it is necessary to make a comprehensive financial analysis of the joint-stock company. It is necessary to, through the financial analysis, quantitatively determine the total long-term capital that has to be secured by issuing and selling bonds, as well as specify the repayment deadline. With the consent given by its common shareholders, a joint-stock company decides on bond issuance, thereby determining¹⁴

- the nominal interest rate,
- interest rate calculation and payment deadlines,
- principal repayment dates,
- securing debts by pledging (mortgaging) assets.

When determining the nominal interest rate, the interest rate level at the capital market has to be taken into account with the goal to make it attractive to potential bond buyers. The payment deadlines can be: semi-annual and annual, while the principal repayment dates can be successive, with or without the grace period. This means that repayments are made in the form of annuity or without delay at the final maturity. Regarding collateral (mortgage) for securing debts, it can be in the form of fixed assets (buildings, etc.) or securities (e.g. shares for capital invested in another joint-stock company).¹⁵ The time when the debt principal will be repaid directly depends on the possibility of substituting the loan capital acquired through issued bonds with accumulated realised gain from the net profit.¹⁶ That is exactly why share capital acquired through issuing stock is permanent capital that does not mature. On the other hand, the loan capital based on issuing bonds is considered as long-term loan capital that has to be repaid at maturity dates. This means that, in order to sustain long-term financial balance, it is necessary to substitute the repaid bond principal with accumulated net profit.

¹⁴ Mikić Đ., op. cit. p. 54.

¹⁵ Ibid.

¹⁶ Accumulated income can be defined as internal, equity and permanent capital of the company acquired by reinvesting a share of net profit into the company's business. In a company having an ordinary course of business and taking into account its growth, the total amount of net profit cannot be paid out to shareholders in the form of dividends. Ivaniš, M. (2012). Elementi strukture kapitala korporativnog preduzeća, Pravno-Ekonomske Pogledi, br. 2.

The point of substitution is important, depending on where the funds provided by selling bonds have been invested. If the funds have been invested in fixed assets with depreciation at the bond maturity date, substitution is performed in the amount equal to the difference between the accrued principal and depreciation. Upon the final maturity date, substitution is performed in the amount equal to the difference between the total amount of bond debt and the substitution that has already been executed during repayments.

It is exactly why this begs the question of whether capital should be acquired by issuing shares or bonds in today's economic conditions. The basis for making a decision and thereby the financial result achievement lie in the business risk factor.

If a joint-stock company has high expenditures that are fixed (e.g. depreciation), it cannot decrease the business risk, but it can decrease the total risk if greater financing comes from equity capital and fewer from long-term loan capital with calculated interest. The cost of finances deserves special attention. In that regard, the dividend yield is, in principle, higher than the interest rate since the yield achievement risk is greater, and it is acquired at the beginning of the current year for the previous year, while the interest rate is fixed and does not depend upon the financial result.

Based upon the previously stated, shares and bonds differ in the following¹⁷

1. The shareholder is a partial owner of the company (joint-stock company) that sold the share,
2. The bondholder is a lender of the company (joint-stock company) that issued the bond and
3. The shareholder has the right to get a share in the profit of the company (joint-stock company) that sold the share. The bondholder has the right to receive interest payments from the company (joint-stock company) that issued the bond.

Simply put, a share - unlike a bond - carries greater risk for the owner, but also a potentially greater benefit.

¹⁷ Mikić Đ., op. cit. p. 56.

Credit financing

Financing a company through a loan represents a form of a company's external financing. Through the development of capital market, loans are most frequently approved by commercial banks and other financial institutions with a fund structure. Credit operations represent active banking operations where the bank functions as a creditor, i.e. lender. Different forms of bank loans are encountered in practice: A *discount credit* is an active banking operation, and it is highly significant. The bank buys promissory notes and other securities in the portfolio of a company. Interest and commission are deducted from the promissory note value from the date of promissory note purchase to its maturity date. *Rediscount credit* is the credit whose renewal is set in advance, in part or completely, with the same deadline and under the same conditions. It is also a significant type of short-term credit for financing working capital needs which is underrepresented around here. An investment loan is typically a long-term (medium-term) loan. Credit facilities are intended for financing investments in common stock funds and also the so-called liquid assets. They are awarded through an agreement between the bank and the investor.

Specific forms of financing a company

Leasing is a form of financing the acquisition of fixed assets. It is a transaction based upon which a company, instead of buying equipment or other investments for cash on hand, acquires fixed assets through a long-term lease. The lessor is a legal entity authorising the lessee to use the leased asset for a specified time with an adequate compensation determined by an agreement. During that time, the lessor retains ownership of the leased asset. The financial market in Republika Srpska has not yet reached a sufficient level of development that would enable introducing financial derivatives:

- forwards and
- futures.

The bill of quantities and the cost estimate

The bill of quantities and the cost estimate are one of the main documents defining the technical characteristics of a facility in construction, its price, and, consequently, the financial relations between the investor and the contractor.¹⁸

¹⁸ Bučar, G. (2003). Normativi i cijene u graditeljstvu, Ergomatic, Omišalj

The total amount of work estimated in the technical documentation - the facility's main project is calculated in the *bill of quantities*. The bill of quantities is formed based on graphic documentation of the project - drawings with defined dimensions and descriptions of materials/assemblies or parts of a facility. The *bill of quantities* structure corresponds with the type of work that has to be done for the facility.

A facility - commercial, residential or industrial is usually comprised of rough construction works, construction craft works and installation works. Depending on the type or level of treatment regarding the facility, the corresponding equipment is installed. The construction process consists of conducting a series of activities defined by the planned technology.

An activity represents a series of actions or construction units through which a technological unit is completed. These construction units are actually items in the bill of quantities. The function of a bill of quantities is an overview of the types and amounts of material by construction units serving as a foundation for creating the bill of quantities.

The *works cost estimate* determines the estimated value of construction, that is, construction costs consisting of the costs of rough construction works, construction craft works and installation works. Apart from the construction cost, the total price also comprises the value of contributions, preparing and equipping the location, as well as works on the infrastructure. Unit prices for items in the cost estimate are calculated by means of price analysis. An individual corresponding price analysis is conducted for each item in the cost estimate.

The sum of all item values in the cost estimate provides the total price of construction. The works cost estimate is a basis for creating offers when bidding on contracts - procuring work. The bill of quantities and the cost estimate are the principal components of each main construction project. Their creation is the final part in writing a project, and, together with the technical report, it represents an engineering outlook on project implementation. The engineering cost estimate is an integral part of the project.

However, when considering the contractual price for executing the works which is one of the fundamental provisions of a construction contract between the investor and the contractor, the contractor creates a contractor's cost estimate based upon the price

analysis. The contractor's cost estimate reflects the real, actual market conditions, as well as the technological, organisational and staff capacities of the contractor. Based upon this cost estimate, as a document for considering the contractor's price, tender documentation is prepared for bidding.

Financial indicators of investment

Investment cost estimation is a responsible job. Determining the time value of money, a long-term assessment of the investment value, as well as recognising the risks are highly complex to analyse.¹⁹

The future/final value of an investment represents the value of the existing amount of money or a series of payments in the future, estimated alongside the corresponding/determined interest rate. In that regard, the present value of the project also practically represents the present value of a future amount of money or a series of payments alongside the defined interest rate. A financial cost estimate is a key activity in choosing the method for the financial implementation of a project.

The time value of money represents a devaluation of money over time. That is why it is usual for the future effects of an investment to be reduced to the present value.

Owing to the previously stated, apart from analysing and assessing development, market assessment, a representation of facilities and the possibilities for their construction, analysis of spatial and locational aspects and the environment, as well as organisational and staff aspects, for considering whether to start implementing the project, it is also necessary to analyse certain financial and economic indicators of an investment. They are presented hereinafter:

Economic and financial analysis:

- an estimate of the necessary investments in fixed and liquid assets,
- the sources of financing and obligations towards the sources,
- calculation of operating results (total revenue,

- material costs, depreciation, salaries, etc.),
- income statement of the project,
- financial flow of the project,
- economic flow of the project,
- social flow of the project,

Financial (commercial) assessment:

- static assessment - efficiency and equipment indicators,
- dynamic assessment,
- net present value,
- unit net present value,
- internal profitability ratio,
- epayment dates,
- liquidity assessment

Social assessment:

- economic yield rate,
- effect on employment,

Assessment under conditions of uncertainty:

- static assessment - the project breakeven point method,
- dynamic assessment,
- vulnerability analysis,
- probability analysis,
- qualitative indicators,
- cost-benefit analysis/factor.

Conclusion

It can be concluded that, from an economic standpoint, the construction company's financial portfolio, in the sense in which it is represented in the paper, does not greatly differ from the portfolio of companies doing some other business activity.

This is only relatively speaking since business risks differ from a business activity to a business activity, just like the resources themselves, which are necessary for performing construction works and implementing the project. Economically speaking, the essence is the same. The basic postulates of economics can indeed be applied to both the construction companies and the companies practicing some other business activity.

¹⁹ Novaković, V. (2003). Menadžment u savremenom građevinarstvu, Beograd

References

1. Božić D., Todorović T. (2011). Finansiranje preduzeća putem bankarskog sektora u uslovima razvijenog tržišta dužničkih hartija od vrednosti, Škola biznisa.
2. Bučar, G. (2003). Normativi i cijene u graditeljstvu, Ergomatic, Omišalj.
3. Čirović, G., Luković, O. (2004). Građevinska ekonomija, Viša građevinsko-geodetska škola u Beogradu, Beograd.
4. Ivaniš, M. (2012). Elementi strukture kapitala korporativnog preduzeća, Pravno-Ekonomske Pogledi.
5. Ivković, B., Arizanović D. (1990). Organizacija i tehnologija građevinskih radova sa rešenim problemima, Građevinski fakultet, Nauka, Beograd.
6. Mikić, Đ. (2008). Poslovne finansije, Koledž za informatiku i menadžment, Janjoš, Prijedor.
7. Novaković, V. (2003). Menadžment u savremenom građevinarstvu, Beograd.
8. Radočaj, A. (2004). Ekonomija profita, Viša poslovna škola, Prijedor.
9. Trbojević, B., Prašćević, Ž. (1991). Građevinske mašine, Gradjevinska knjiga, Beograd

Finansijski portofolio građevinskog preduzeća

SAŽETAK

U ovom radu autor govori o načinu osiguravanja sredstava, tj. o troškovima građevinskog materijala, kao i o analizi cijena, tj. izračunima u građevinarstvu. Štoviše, rad se odnosi na izvore finansiranja, troškovnik i procjenu troškova, kao i na finansijske pokazatelje ulaganja, naravno, s ekonomskog stajališta, uz uvažavanje jedinstvenosti poslovanja u građevinskom poduzeću, što se odražava i na opterećenja tih tvrtki i rizike takvih operacija.

Ključne riječi: dugotrajna imovina, amortizacija, obračun, procjena troškova, cijena

Received: February 11, 2018 / Accepted: February 22, 2018

Correspondence to: Mirko Malinović, PhD - Visoka škola "Akademija za poslovnu ekonomiju" Čačak

Dragan Gnjatić, MSc- Trade Union of Education, Science and Culture of Republika Srpska

E-mail: onk@inecco.net