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EFFICIENCY AND STABILITY RATIOS OF THE TRANSPORT CORPORATION BUSINESS

SUMMARY

Multidisciplinary character of traffic science in a wider sense and science about transport in a narrower sense stipulate the definition of semantic relation between the terms "transport" and "traffic", as well as the meaning of conventional, combined and multimodal transport, and some important types of traffic and transport.

Besides the definition of important subjects about traffic and transport, for better understanding of the importance of financial ratios of efficiency and stability for the transport corporation management, the following are relevant facts of financial policy. This means the concept and importance of financial policy which is composed of important subordinated policy. The most important objectives of financial policy are achieved by charging compensation for the given transport services. The compensation is determined based on tariffs as direct consequence of tariff policy.

Successful deduction (derivation) of financial ratios of efficiency and stability in the transport corporation business requires qualitative financial reports, composed and processed in such a way that they are adequate informational basis for further use.

Important ratios of efficiency and stability deduced from financial reports of transport corporation could be classified into the following groups: liquidity, debt, activity, economy, profitability and investment ratios. Finally, standardised ratios deduced from adequately prepared financial reports could be used by the management of the transport corporation as well as by other users.

KEY WORDS

traffic, transport, conventional, combined and multimodal transport, types of traffic and transport, financial policy and subordinated policies, tariffs, financial reports, ratios of efficiency and stability: liquidity, debt, activity, economy, profitability and investment

1. INTRODUCTION

The transport corporation as the essential part of transport and economy, national and international,

depends on very unstable and demanding surroundings. Financial ratios of efficiency and stability deduced from financial reports have an extreme importance for easier managing of transport corporation for managers of all levels.

Considering this, the problem of research as the possibility of using ratios of efficiency and stability to improve business of a transport corporation could be determined. The determined problem of research leads to the subject: to research and define the most important ratios of efficiency and stability of the transport corporation business, and to determine their influence on the production optimisation of the transport service. The problem and the subject of research lead to the work hypothesis: *Using consistent knowledge about important ratios of efficiency and stability of the transport corporation business, managers could directly influence the efficiency and effectiveness of transport services, continuance and development of transport corporation.*

This treatise divided into six parts scientifically considers all relevant facts about: traffic and transport, conventional, combined and multimodal transport, important types of traffic and transport (in the first chapter), financial policy and subordinated policies in transport corporation, tariffs and tariff policy (in the third chapter), importance of financial reports for management of transport corporation, as well as for other users (in the fourth chapter), and finally important ratios of efficiency and stability of transport corporation business (in the fifth chapter). Final synthesis of the treatise is given in the sixth chapter, i.e. conclusion.

During research, creation and presentation of cognition with the objective of proving hypothesis, various scientific methods in suitable combinations were used: methods of induction and deduction, analysis and synthesis, specialisation and generalisation, comparison, description, and methods of abstraction and concretisation.

2. THEORETICAL SIGNIFICANCE OF TRAFFIC AND TRANSPORT

Traffic sciences in the wider sense or transport sciences in the narrower sense could be observed uni-disciplinary which is less frequently or multidisciplinary which is more often. When these sciences are studied by applying multidisciplinary or interdisciplinary methods, it is necessary to etymologically and semantically define the most important terms of transport and traffic¹: 1) *the semantic relation of the terms "transport" – "traffic"*, 2) *conventional, combined and multimodal transport and* 3) *the most significant traffic types*.

2.1. Semantic relation of the terms "transport" – "traffic"

Transport is a specialised activity which enables traffic service production through traffic suprastructure and traffic infrastructure. Transport overcomes space and time distances by transporting goods (cargo, material goods, things, substances), people and energy from one place to another.

In Croatian language system, traffic as a broader term than transport, has three different meanings as follows:

Firstly, in the widest sense, the word "traffic" means the relations between people, so it could be called social traffic, traffic between people (...).

Secondly, in a little more specific meaning, the word "traffic" represents economic i.e. economic-financial category, so there are goods, non-goods, tourist, foreign currency, trade, money, conterminous traffic (...). The term traffic includes the real estate, e.g. the tax on real estate traffic.

Thirdly, "traffic" in a narrower sense includes the conveyance or transport, as well as operations related to transport of goods and passengers, and finally communications. This definition of "traffic" is founded on scientifically based logistics principles. Traffic, considered in this sense would be the object of this treatise. The analysis of defined term "traffic" requires an answer to the following question: Which operations (activities) are directly related to transport of goods (passengers) and what is the meaning of the term "communication"? Here is the answer: the operations (activities) related to transport of goods that include the term "traffic" are: loading (lading), unloading (unlading), reloading (transshipment), sorting, moving, signing (marking), location, composition, stuffing (filling) and emptying of containers and similar activities. These and similar operations are applied in passenger traffic and also in the postal and telecommunication traffic.

Communications in terms of traffic represent an activity which through specially organised technical

means transmit news, data, text, pictures (...). The term "communications" has other meanings as well, such as: announcement, reporting, lecturing, traffic, connection of two points, highway, transport means. The term "communications" originates from the Latin word "communicare" which means "to make something general (common)" (e.g. the communicative language is "general language").

The communicative traffic includes transfer or reception of signs, signals, written text, sound or announcements of any kind, using wire, radio, optical and other electromagnetic systems.

2.2. Conventional, combined and multimodal transport

Although in both scientific and specialised literature on traffic there are no standardised opinions about the meaning of conventional or unimodal transport, the traffic experts agree that they are two synonyms. The conventional or unimodal transport (or conveyance) is the transport (conveyance, transfer, moving...) of a transportation object (for example cargo) from one place to another, using only a means of transport from one transport branch (for example by ship, or wagon or lorry or plane...). Conventional or unimodal transport is based on one transport contract and unique transport document (for example bill of landing or waybill). Such transport is organised by only one organiser (for example forwarder).

The conventional or unimodal transport could be national (transport of goods by railway from Rijeka to Hong Kong). For such traffic it is not relevant if it carries unitised or general cargo (for example, goods are packed in cartons, boxes, bags) or so-called integrated manipulative-transport units (for example, more cartons with goods on a pallet i.e. more pallets with cartons or bags or bales in a container). In practice, conventional transport of goods has domination in the so-called integrated manipulative transport units, especially in containers.

The unimodal or conventional transport of goods used to dominate both in national and international traffic systems. With appearance and fast development of modern transport technologies, such as: palletisation, containerisation, RO-RO, LO-LO, RO-LO, FO-FO, PIGGYBACK and BIMODAL transport technologies, conventional transport of goods began to lose its meaning, leaving its decades old dominant position to combined and multimodal transport. Regardless of total technical, technological, organisational, legal and economic advantages of combined and multimodal transport, which can combine two or more modern transport technologies and it is impossible in conventional transport, the conventional transport of goods will have great importance in every na-

tional traffic and economic system, as well as in international traffic and economic system.

The semantic relation of the terms “combined transport” – “multimodal transport” is much more complicated than relation of the terms “conventional transport” or “unimodal transport”. This results from the fact that the first two terms are very often related with homogenous, similar, imprecise or even different terms, like: integral, integrated, intermodal, direct (or immediate), mixed combined, continuous, successive, multimodal, multi-purpose (...) conveyance (or transport). The substantial or etymological relation between the terms “combined transport” – “multimodal transport” are becoming more complex when they are inadequately mixed with modern transport technologies: palletisation, containerisation, RO-RO, LO-LO, RO-LO, FO-FO, PIGGYBACK and BIMODAL transport technologies.

Respecting different opinions, the fact is that in today's theory and practice the mostly used term is “multimodal transport” instead of all previously mentioned ones, and than the term “combined transport” which increasingly loses in its usage and meaning. On today's level of development of traffic science, especially of traffic technique, traffic technology, traffic organisation and traffic law, it is necessary to make the difference between combined and multimodal transport.

Combined transport. Combined transport has the following characteristics: 1) transport of goods (usually loose, bulk cargo) is performed by at least two different transport means within two different traffic branches, 2) in transport as many transport contracts are usually made as many traffic branches participate in it, 3) there are procured or delivered as many transport documents as many transport contracts were made, 4) the entire transport process can be organized by only one transport entrepreneur (Combined Transport Operator – abbr. CTO) or by several of them.

The combined transport operator has the function to unite forwarding and transport activities. The operator is responsible for the choice as well as for the work of participants engaged in transport undertaking. For each participant the following principle is applied: that each transporter is responsible for cargo on its part of the route according to the rules of national and international, obliging and autonomous legal sources of respective traffic branch.

Multimodal transport. For international multimodal transport, referring to UN Convention about international multimodal transport of goods from 1980, the following characteristics have great importance: 1) international multimodal transport operators and goods receivers are in two different states, 2) the transport of goods in international multimodal transport is performed with at least two different means,

i.e. with the participation of two various traffic branches, 3) for the whole international transport only one document of goods transport is provided (for instance FBL – negotiable FIATA Multimodal Transport Bill of Lading), 5) the whole international multimodal transport is carried out or organised by only one transport operator, i.e. *Multimodal Transport Operator* (abbr. MTO). In most cases this is an international forwarder who unites forwarding and transporting activities.

The Multimodal Transport Operator is also responsible for the choice and work of all employees (his servants or agents) engaged in the performance of the whole transport, and for his own activities and negligence. Due to this increased responsibility, the Multimodal Transport Operators should be extra cautious in choosing legal and natural persons who will be engaged in transport. In addition, they should provide their qualitative responsibility and therefore exclude possible damaging consequences (...).

2.3. Types of traffic

In scientific and expert literature, there are numerous criteria for determining particular branches of traffic (and transport). The basic reason for the lack of uniform criteria for specifying branches of traffic (and transport) is that traffic as science and economic and non-economic activity (functions and activities) is multidisciplinary and therefore represents extremely dynamic, technical, technological, organisational, economic, legal, and social system.

Considering relative object, purpose and objective of research and finding applicable knowledge in this treatise it is necessary to explain the most important types of traffic (and transport) due to the character of their routes:

1. *Maritime traffic.* It is performed on the sea, natural and free route by various ships and vessels, with artificially built starting and final points – sea ports.
2. *Railway traffic.* It is performed only on special artificially built routes – railway or railtracks and uses specially built hauling and hauled vehicles which are suitable for running on the railway network of specific width and has special organisation.
3. *Road traffic.* It is performed by artificially built various types of roads and routes (sometimes without them) and various types of motor vehicles: motor, electrical tractor or trailer vehicles, bicycles and on foot.
4. *Air traffic.* It is performed in the air by aircraft heavier or lighter than air and requires take-off and landing points – airports.
5. *Postal traffic.* It includes dispatch and delivery services of letter consignments (letters, postcards,

printed matters and small packages), telegrams and parcels, and packages.

6. *Telecommunication traffic.* Each transfer, reception or transmission of signs, signals, written text, pictures and sounds or announcements of any kind through wire, light or other electromagnetic systems represents the telecommunication traffic.
7. *River traffic.* It is performed on navigable rivers, natural and free route, by various kinds of vessels and requires artificially built departing and destination points – river ports.
8. *Lake traffic.* It is performed on navigable lakes, natural and free route, by various kind of vessels and requires artificially built departing and destination points – lake ports.
9. *Canal traffic.* It is performed on artificially dredged canals by various kinds of vessels.
10. *Funicular railway traffic or wire-mill traffic.* It is performed by an artificially built system of funicular railway or wire-mills with various types of seats and telecabins. It requires artificially built departing and destination points – terminals.
11. *Pipeline traffic.* It is performed through artificially built pipes, and it serves for the transfer of oil and oil derivatives, water, gas, coal and other liquids, gaseous and loose cargo. It requires built departing and destination points – terminals.
12. *City traffic.* It is performed on various kinds of artificially built roads and routes, by various types of road and rail vehicles, transporting passengers and goods within one particular place – city.

Each mentioned type of traffic (and transport) has numerous subtypes and numerous specific characteristics, which should be kept in mind during examination of the particular traffic (and transport) branch. This means that almost each mentioned type of traffic can be: national and international, for own purposes (so-called interproduction) and for the purpose of the third party (so-called public transport), internal or inner (so-called factory or plant traffic) and external or traffic outside the factory regardless whether it is public traffic or for individual purposes, cargo and passenger traffic (...).

3. RELEVANT CHARACTERISTICS OF FINANCIAL POLICY IN THE TRANSPORT CORPORATION

For better understanding of corporation, it is very important to point out the following subjects: financial ratios of efficiency and stability in the transport corporation²: 1) *the concept and the importance of financial policy*, 2) *important subcoordinated financial policies in the transport corporation* and 3) *tarrifs in function of transport corporation's efficiency*.

3.1. The concept and the importance of financial policy

Financial policy is the essential part of business policy in every corporation, and thus in transport corporation as well. Financial policy could be considered as financial expression of business policy, which has to permanently insure necessary financial means for maximisation of financial result.

Due to this fact, financial policy could be defined as business activity directed to the choice of optimal solutions of financial strategies and tactics, measures, actions and means which realise business goals within a determined period. Leading objective financial policy in the transport corporation could be determined as constant insuring of optimal financial results. Bearing this in mind, the most important task of creator and executor of financial policy is studying and improving financial relations in the transport corporation. At the same time he has to find and apply suitable measures and means which improve financial business and the achievement of goals of financial policy.

Insuring successful dealing with existing financial problems is very important for the transport corporation, which could develop a successful and stable business. Financial crises in business are inevitable, but successful corporation has the capability for effective solutions with the target of financial stability. Effective solutions and stable actual financial condition, will be the consequence of determined and suitable financial policy in the transport corporation.

3.2. Important subcoordinated financial policy in the transport corporation

Complete financial policy of the transport corporation is made of mutually connected, subco-ordinated financial policy, and the most important are the following:

- 1) **POLICY OF PROVIDING FINANCIAL MEANS.** This policy has for the main target the most favourable and under the most acceptable conditions providing financial resources.
- 2) **POLICY OF FINANCIAL RELATIONS WITH SUPPLIERS.** It considers establishing fair, periodic or constant economic and legal relations of the transport corporation with suppliers.
- 3) **POLICY OF PROVIDING FINANCIAL SOURCES FROM CLIENTS.** Due to the fact that the transport corporation is not obliged to pay certain expenses made in transport services (freight, taxes, forwarding services), the buyer of the service has to pay for these costs if the transport corporation asks for it. This is legal obligation for the buyer, but if the transport corporation does not ask for an advance, then the transport

corporation credits its client, and charges a certain provision for this service.

- 4) **POLICY OF PROVIDING FOREIGN CURRENCY.** The main objective in this policy is to provide necessary foreign currency for the international business or for foreign clients on the national market.
- 5) **POLICY OF AMORTISATION.** This policy is supposed to insure financial sources necessary for the replacement of physically or economically wasted transport or other means of transport suprastructure.
- 6) **POLICY OF RANKING FINANCIAL SOURCES.** This policy is in close relation with the policy of providing financial sources from clients, establishing strategies and tactics for the accomplishment of basic objectives in crediting clients. With this policy certain financial profits could be achieved and besides it could strengthen the relations with business partners.
- 7) **POLICY OF ESTABLISHMENT AND DISTRIBUTION OF TOTAL INCOMES AND PROFITS.** It considers planned business in current, mid-term and long-term period. During establishment of this policy, the transport corporation has to pay close attention to the following: income sources, material costs as well as amortisation.
- 8) **POLICY OF RETAINED EARNINGS.** This policy is in close connection with the policy of net profits, because retained earnings are direct consequence of remains of net profits.

3.3. Tariffs as function of transport corporation efficiency

The most important objectives of financial policy in the transport corporation are achieved by charging compensation for given services. This compensation is settled based on tariffs according to tariff policy of the transport corporation. Tariff policy could be defined as conceived and organised influence of bearer of tariffs which is usually transport corporation, to the use of transport services and their prices, with the final objective – successful business.

As it is very important to understand tariff policy, it is necessary to consider the following factors of great importance for tariff policy:

- 1) **PRINCIPLES.** Tariff policy includes the following basic principles: *THE PRINCIPLE OF RENTABILITY* understands that price of transport service has to be higher than cost; *THE PRINCIPLE OF TRANSPORT SERVICE VALUE* starts from the fact that the price of transport service has to be in accordance with the value which this service offers to a client; *THE PRINCIPLE OF THE VALUE OF TRANSPORTED GOODS* is

based on the fact that the basis for price forming is the value of the transported goods; *THE PRINCIPLE OF EMPLOYED VALUE OF GOODS* considers the purpose of goods, and *THE PRINCIPLE OF ECONOMIC POLICY* which means that tariff policy should be in accordance with economic policy regulating social and economic life.

- 2) **STIMULATING THE USAGE OF TRANSPORT SERVICES.** By settling tariff policy, transport corporation can stimulate usage of proper transport services. Considering this, tariffs could be: *proportional tariffs* which are balanced on the same basis regardless of the extension of the service (for example: the price of transported goods per piece is for every 100 kilos the same, 100.00 kn), *digressive tariffs* which stimulate greater usage of transport services reducing the price for increase in services (e.g. price of transported goods per piece – up to 100 kilos, the price is 100.00 kn, 101- 500 kilos the price is 150.00 kn, 501- 1000 kilos the price is 250.00 kn), *progressive tariffs* which are rarely used because they stimulate reduction of services, and *preferential tariffs* which anticipate various privileges for clients in certain cases under determined conditions.
 - 3) **TARIFF TECHNIQUES.** Tariff techniques for transport services depend on their construction, as well as on efficiency and capability of the tariff maker – “tariff technicians”. Numerous factors influence tariff techniques and the most important are as follows: the type of service, the type of transported goods and the price of transport service.
 - 4) **FORMING THE PRICE OF TRANSPORT SERVICE.** Forming the price of the transport service is the consequence of transport tariffs or special contract between the carrier and the client. Besides, the price could be formed by court of jurisdiction or by common law. For price forming, regardless of the way of forming, the following characteristics are very important: price instability, market influence on the price, relatively independent prices of goods, disproportion between price and real value of the service, diversity of services, public opinion and equality of applied tariffs.
- Two main types of tariffs are regular and special tariffs. Regular tariffs include regular transport conditions and tariff attitude formed on the basis of tariff policy. They also include all usual transport cases, meaning prices for the transport of all goods and passengers. Regular tariffs have to be more solid, stable and less subjected to changes especially to those which are the consequence of economic policy. Other tariffs are formed on the basis of regular tariffs. Special tariffs are used in the national and international transport, with the objective of satisfying various needs in

economic and social life, as well as of accomplishing elasticity of the tariff system.

4. THE IMPORTANCE OF FINANCIAL REPORTS FOR THE MANAGEMENT OF THE TRANSPORT CORPORATION

Financial reports represent the final product of accountant activities in the transport corporation. The importance for the management of the transport corporation, but also for other users will be emphasised through the following subjects³: 1) *the concept and the content of financial reports*, 2) *important characteristics of the financial reports analysis*, and 3) *the financial reports analysis and management*.

4.1. The concept and the content of financial reports

The concept of *financial reports* usually understands the balance sheet, the profit and loss account, the retained earnings account, the statement of cash flow and notes with financial reports. Financial reports have great information potential for the corporation management, owners, creditors, business partners and the government. This information is qualitative basis for running and developing a transport corporation, so it is necessary to make qualitative and professional financial reports.

The balance sheet is basic financial report for the transport corporation which is also called the state balance or the balance of assets, for its characteristics. The balance sheet shows assets, obligations and owners equity on a certain date, most often at the end of the fiscal year (which is the end of calendar year in Croatian practice). It consists of two columns, so it could connect assets (left as credits) and resources (right as debits). Doing the balance it is very important to have in mind the logical connection as well as the meaning of the balance positions. The balance analysis requires analysing structural changes in credits and debits. Referring to that, there is vertical analysis which notes the structure of credits and debits, and horizontal analysis which makes connections between parts of credits and debits (assets and resources). It is important to point out that the balance sheet has some limitations concerning activities and circumstances which result in the balance positions. Also, not knowing all presumptions of the balance position origins can require use of various accounting techniques. If users of the balance sheet do not consider this imperfection analysing and deducing ratios, wrong conclusions could be made about business of the transport corporation.

The profit and loss account is the direct result of the fact that every corporation has the objective of running a profitable business. This report shows activities of the transport corporation during a certain period of time. Fundamental elements of the report are incomes and expenditures realised in the observed period, and the profit (loss) as the result. Income is measured by the increase of economic benefit, and expenditures are strictly dynamic categories. The profit is positive result, when income exceeds expenditures. However, loss is negative financial result i.e. expenditures exceeds income.

The retained earnings account shows factors which change position of retained earnings in the transport corporation balance. Retained earnings are the part of equity capital (owners capital), showing the profit retained for the development of the transport corporation. The amount of retained earnings increases by growth of net profits in the current period and it decreases by voting dividends payout or by realising loss. By determining retained earnings, the management regulates dividend policy. Very simple for making and presenting the retained earnings account is often part of the balance sheet or the profit and loss account.

The statement of cash flow shows resources and the way of using supplied money in the transport corporation. Money as an economic category has an extreme importance for business of every corporation. Owners of the transport corporation are interested in facts such as where money comes from and how it is spent, because of its multifunctionality. If it is used with other reports, the statement of cash flow shows real situation of the transport corporation, finding if there is surplus or lack of available money. Also, using this report makes possible opportune interventions.

In using financial reports there are also *notes* which have the purpose to contribute to better understanding and usefulness of information in reports. Using these notes, the management of the transport corporation could find connections characteristic for states, movement and results shown in basic financial reports. Apart from notes, great importance is given to qualitative factors which make information in reports useful for clients. Basic qualitative factors are: *comprehensibility* presumes that financial reports are made in a way which clients can understand, *importance* considers usefulness of information given in reports for making business decisions i.e. importance means that omitting or showing the wrong information could influence business decisions based on reports, *reliability* as principle presumes showing authentic and neutral information in their integrity and comparability (in time and space which means that clients could compare their information).

In close connection to qualitative factors, there are certain limitations concerning reliability and impor-

tance of information in financial reports of the transport corporation. These limitations are as follows: there has to be an opportunity to avoid unreliability because of the speed in making reports, the balance of expenses and the usefulness of given information, the balance of qualitative factors and the fair presentation.

4.2. Important characteristics of financial reports analysis

The process of determining important business and financial characteristics of transport corporation based on accounting records is called the analysis of financial reports. Accounting records presented in financial reports are non-elaborated data which have to be elaborated with various analytic methods and techniques. Basic methods in analysis are as follows: comparative method, method of dividing, methods of isolation and correlation, and assistant methods are: method of deviation, standardisation, value relation, and various both statistical and mathematical methods. Besides, various types of analyses are in use as horizontal and vertical, situation and trend analysis. If accounting data are correctly elaborated, the obtained valuable information helps making business decisions. During elaboration, the principle of usefulness is important, because only useful information can have qualitative influence on business decisions. This is the basis for building accounting and information system of transport corporation.

The financial reports analysis gives important information for business decision-making of transport corporation management, but also to other clients in business and financial surroundings. So, the analysis of financial reports could be internal and external. The internal analysis is the task of financial and accountant sections of the transport corporation. It is more inclusive than the external, giving to financial analysts more detailed and actual information. Clients outside the financial corporation do the external analysis, using existing financial reports with restricted access to confidential business information.

Analytic rules, as well as used methods and techniques determine the process of financial report analysis. If analyst wants to give solutions for problems by financial analysis, he has to know the difference between causes and symptoms of problems. The cause is a situation which produces a certain problem in business and the symptom shows that the problem exists.

One of the most important instruments of the analysis of financial reports in a transport corporation are the ratios of efficiency and stability as basic business aspects needed for existence.

4.3. The financial reports analysis and management

The importance of the financial reports analysis could be observed from aspects of managing and developing business in the transport corporation. It precedes the process of planning as one of the basic management functions. In that way planning becomes the essential part of managing the transport corporation. Planning is very important for qualitative and functional managing of a corporation, because a good plan provides the manager with information both on the qualities and weaknesses in a corporation. Finding advantages and disadvantages in the transport corporation business, financial manager could plan the future financial activities beginning with the financial report analysis. By performing analysis the manager creates informational basis for decision-making and managing corporation, with the purpose of insuring financial stability and survival of the corporation, its growth and development on the market of transport services.

It is also very important to notice the disadvantages of the financial report analysis seen in partial approach. With the financial report analysis only financial information are insured, which are important for managing but they are not all-inclusive. This does not mean that financial report analysis should be omitted, it means that in using such information for managing and its importance for the management this disadvantage should be kept in mind.

5. THE MOST IMPORTANT RATIOS OF EFFICIENCY AND STABILITY OF BUSINESS IN THE TRANSPORT CORPORATION

Financial ratios show relations between two values in financial reports. Their basic purpose is to ease finding connections between "crude" information in financial reports and their use for the management. The comparison is possible for business of corporation in various periods, various transport corporations or industrial average as well, and comparison of various fields of transport. Considering variety of interested users, it is necessary to standardise the ratios, so they could be compared to certain standards and easier to understand. Standardised information is comparative in that way. Ratios are grouped in several groups⁴: 1) liquidity ratios, 2) debt ratios, 3) activity ratios, 4) rationality ratios, 5) profitability ratios and 6) investment ratios.

5.1. Liquidity ratios

Liquidity is the ability of harmonious flow of important factors in business process, as well as their transformation from cash to material forms and vice versa. There is direct connection between liquid and solvent business, which is the ability of the transport corporation to settle all of its obligations in the given time period.

Nowadays, in business of a transport corporation the accent is put on these ratios guaranteeing safety of business. So it is more important to have liquid and solvent business, sometimes harming cost-effectiveness, because corporations decline exactly because of non-liquidity and non-solvent business. As one of more used ratios *Current ratio* shows relation between current assets and current debts in the transport corporation. To avoid the danger of low liquidity of stocks, usually in business the ratio which considers size of working capital is used. *Working capital* is the difference between current assets and stocks (supplies), representing cash, convertible securities in cash and net demand from clients. Using working capital, *Quick ratio* is calculated as relation between current assets reduced by supplies and current debts. Current ratio should be at least equal or greater than 2, and quick ratio at least equal or greater than 1. *Instant liquidity ratio* is the relation between cash and current debts. *Financial stability ratio* could be shown as relation of long-term assets and capital increased for long-term debts, which should be at least 1.

The procedure of calculating liquidity ratios is as follows in Table 1.

Table 1 - Liquidity ratios

Ratio	Numerator	Denominator
Current ratio	Current assets	Current debts (obligations)
Quick ratio	Current assets – supplies	Current debts (obligations)
Instant liquidity ratio	Cash	Current debts (obligations)
Financial stability ratio	Long-term assets	Capital + long-term assets

5.2. Debt ratios

It is very important to calculate debt ratios from financial reports, because they show the relation between debt and share of own financing of business in the transport corporation. Two ratios have great importance for estimation of business in the transport corporation. *Debt ratio* as relation of total debts and total assets, showing which part of credits is financed from credits and not from net profits, and *ratio of own*

financing which shows the relation between owners equity and total assets pointing out the part of assets financed from net profits. These two ratios are complementary, which means that by calculating them, the result is 1. Debt ratio + ratio of own financing = 1.

Beside these two ratios, analysts in the transport corporation can form more ratios based on the balance sheet and the profit and loss account. *Finance ratio* is formed as the relation of total debts and owners equity, respectively as the relation of debt ratio and ratio of own financing. *Time interest earned* is given as the relation of profits before taxes and interests with interests and it is good that this ratio is as high as possible. *Debt factor* is the relation of total debts and retained earnings + amortisation, and the lesser it is the less are the debts of transport corporation. It is possible to calculate: *Collateral level I* as the relation of owners equity and long-term assets, *Collateral level II* as the relation between owners capital with long-term debts added and long-term assets which have to be higher than 1 for liquidity.

Debt ratio and ratio of own financing and finance ratio have statistic characteristics, because they are formed on the balance sheet basis. Time interest earned, and debt factor are based on the balance sheet, but on the profit and loss account as well, pointing out dynamic characteristics. Collateral level I and II are based on the balance sheet, and considering the fact that one part of long-term sources has to be used for financing current debts for liquidity in the transport corporation, these two ratios could be used in liquidity analysis. Debt ratios as well as the way of their forming are shown in Table 2.

Table 2 - Debt ratios.

Ratio	Numerator	Denominator
Debt ratio	Total debts	Total assets
Ratio of own financing	Owners equity	Total assets
Finance ratio	Total debts	Owners equity
Time interest earned	Gross profits * + interests	Interests
Debt factor	Total assets	Retained earnings + amortisation
Collateral level I	Owners equity	Long-term assets
Collateral level II	Owners equity + long-term debts	Long-term assets

*gross profits means profits before taxes

5.3. Activity ratios

Activity ratios are the measurement for efficiency of using own resources in the transport corporation, as

well as ratios of stability and efficiency. Very often, activity ratios are called *turnover rate*, which are calculated from the following relation: income and average states based on information from the balance sheet and the profit and loss account. In that way they show speed of circulation in the business process. The most used ratios are: *the turnover rate of total assets, turnover rate of current assets, turnover rate of demand and demand paytime or binding days*. These relations are shown in Table 3.

Table 3 - Activity ratios

Ratio	Numerator	Denominator
Turnover rate of total assets	Total incomes	Total assets
Turnover rate of current assets	Total incomes	Current assets
Turnover rate of demand	Incomes from sales	Claims
Binding days	Number of days in year	Turnover rate of demand

For more detailed analysis of assets turnover, analysts could use some of the following ratios: the turnover rate of cash, the turnover rate of demands by clients (...). From efficiency point of view, and also stability, safety of the transport corporation business, it is desirable that turnover rate is as high as possible, so the number of the binding days of all assets could be decreased.

5.4. RATIONALITY RATIOS

Rationality ratios determine the relation of realised income and expenditures, based on information provided from the profit and loss account. Fundamental measurement is that rationality ratios should be higher than 1, which means that the realised income is higher than expenditures.

The following elements of production are used in the transport corporation: work, working hours and material and fuel. So, the measurement of rationality in the transport corporation is based on the relation from transport circuit and spent elements:

$$E = O / M + T + P$$

O – Net tonne kilometres

M – material expenditures with services

T – expenses for working means

P – wages.

It is important to say that rationality ratios could be calculated for all activities in which incomes and expenditures are realised (from regular activities, extra activities), so that they are not going to be detailed.

5.5. PROFITABILITY RATIOS

Profitability or rentability ratios are used for the estimation of success in making profit in the transport corporation. Analysts usually use profitability ratios for three very important purposes: as the indicator of management efficiency, as the measurement of capability of the corporation to realise satisfactory rate of return on the investment, as the method of foreseeing of future profits. These ratios are shown in Table 4.

Table 4

Ratio	Numerator	Denominator
Net profit margin	Net profits + interests	Total income
Gross profit margin	Gross profits + interests	Total income
Net return on assets	Net profits + interests	Total assets
Gross return on assets	Gross profits + interests	Total assets
Return on Equity	Net profits	Owners equity

For the profitability of a transport corporation, very important are *ratios of profit margin* which could be calculated in net and gross amount, as relation of net/gross profit with calculated interests and total incomes. If this relation is multiplied by turnover rate of total assets, the result is *Return on assets ratio (ROA)*. Also, return on assets ratio could be given as relation of net/gross profit with interest added and total assets. *Return on Equity ratio (ROE)* as relation of realised net profits and owner's equity. ROE is the most important for the transport corporation management, because if it is compared with ROA, and with interest rate as price of using borrowed capital, it could give some interesting information on using financial leverage in transport corporation.

Finally, it is important to point out that all profitability ratios should have values as high as possible.

5.6. INVESTMENT RATIOS

Investment ratios are the measure of the potential of the transport corporation as the payable investment. They show efficiency of the investment in ordinary shares of the transport corporation. In wider sense these ratios could be considered as effectiveness ratio of owner's equity in the transport corporation, which should have values as high as possible.

Earnings per share (EPS) and *dividends per share (DPS)* are shown in monetary units i.e. they show the amount of profit or dividend in Croatian kunas realised per ordinary share of the transport corporation. Very often, profit per share is higher than dividend

per share, because certain profit is retained. Reverse situation is possible if dividends are paid out from the last year retained earnings. This problem is covered with *dividend payout ratio* which is the relation of dividend payout and profit per share. The relation between price and profit per share is *price earning ratio (P/E)* which shows how much the market price paid per share is higher than the realised profit per share. Two most important investment ratios are *total and dividend return per share* which are expressed as percentage. They could be considered as ratios of equity rentability, with relevant market value of share, not accountant value. Usual relation is that total rentability is higher than dividend, but reverse situation is possible if dividends are payout from retained earnings.

Forming of investment ratios is shown in the following Table.

Table 5 - Investment ratios

Ratio	Numerator	Denominator
Earnings per share	Net profits	Number of shares
Dividend per share	Dividend earnings*	Number of shares
Dividend payout	Dividend per share	Profit per share
Price/earning ratio	Market price of share	Profit per share
Total return per share	Earnings per share	Market price of share
Dividend return per share	Dividend per share	Market price of share

*Dividend earnings consider the part of net earnings meant for dividend payout.

6. CONCLUSION

In unstable surroundings in the function of survival, growth and development of the transport corporation are financial ratios of efficiency and stability.

For successful business of the transport corporation it is essential that managers have basic knowledge about: traffic and transport science, conventional, combined and multimodal transport, more important types of traffic, financial policy and subordinated policy, tariffs, financial reports and finally about important ratios of efficiency and stability of business. These subjects have been topics of this treatise.

For an adequate processing of important ratios of efficiency and stability of the transport corporation business, it is necessary to consider financial reports analysis which transforms data from reports to relevant information for managing corporation, using var-

ious analytic means and techniques. Financial ratios of efficiency and stability put in relations mutually related economic values and they are calculated based on financial reports of the transport corporation. The most important ratios for estimating efficiency and stability of transport corporation business can be formed in six groups: 1) liquidity ratios, 2) debt ratios, 3) activity ratios, 4) economic ratios, 5) profitability ratios, and 6) investment ratios.

Qualitative and standardised ratios of efficiency and stability of the transport corporation business deducted from financial reports have great importance for corporation managers of all levels. Also, there is interest for such information from other users (owners, creditors, business partners, government, etc.). Understanding and exact interpretation of the given ratios is the efficient instrument for the management. Besides, without informational basis of financial reports and ratios of efficiency and stability, managers in the transport corporation could not provide quick, safe and rational production of transport services. Without it there is no growth and development of the transport corporation, which directly depends on growth and development of transport systems and subsystems, on national as well as on international level.

SAŽETAK

POKAZATELJI USPJEŠNOSTI I STABILNOSTI POSLOVANJA PROMETNOG PODUZEĆA

Prometne znanosti u širem smislu ili znanost o transportu u užem smislu u pravilu se promatraju višedisciplinarno, te je stoga u ovoj raspravi bilo potrebno definirati semantički odnos pojmova "transport" – "promet", značenje konvencionalnog, kombiniranog i multimodalnog transporta, te važnije vrste prometa i transporta.

Osim definiranja osnovnih pojmova o prometu i transportu, zbog boljeg razumjevanja važnosti financijskih pokazatelja uspješnosti i stabilnosti za menadžment prometnog poduzeća, nadalje su iznešene relevantne značajke financijske politike. Pri tome se misli na pojam i važnost financijske politike u prometnome poduzeću koju sačinjavaju važnije potpolitike. Najznačajniji ciljevi financijske politike ostvaruju se naplaćivanjem naknade za pružene prometne usluge. Naknade se određuju na temelju tarifa koje su izravna posljedica tarifne politike.

Uspješno izvođenje financijskih pokazatelja uspješnosti i stabilnosti poslovanja prometnog poduzeća zahtijeva kvalitetno sastavljene i obrađene financijske izvještaje, koji na taj način čine prikladnu informacijsku podlogu za vođenje poslovne i financijske politike, donošenje i izvršavanje poslovnih odluka te kontroling poslovanja.

Važniji pokazatelji uspješnosti i stabilnosti poslovanja koji se izvode iz financijskih izvještaja prometnog poduzeća se mogu svrstati u slijedećih nekoliko skupina: likvidnosti, zaduženosti, aktivnosti, ekonomičnosti, profitabilnosti i investiranja. Konačno, izvođenjem pokazatelja standardiziranim

postupcima iz adekvatno pripremljenih financijskih izvještaja omogućuje se njihovo korištenje od strane menadžmenta prometnog poduzeća, ali i ostalih korisnika.

NOTES

1. Cf., **Zelenika, R.** i **Jakomin, L.**: *Suvremeni transportni sustavi*, Ekonomski fakultet Sveučilišta u Rijeci, Rijeka, 1995., p. 21-88.
2. Cf., 1) **Vitez, I.** et al.: *Financijsko poslovanje*, Informator, Zagreb, 1971., p. 49-72,
2) **Zelenika, R.**: *Međunarodna špedicija, osnovni i specijalni poslovi - poslovna politika*, Istarska naklada, Pula, 1985., p. 354-368.
3. O financijskim izvještajima detaljnije cf.:
 - 1) **Deželjin, J.** et al.: *Računovodstvo*, HZRFD, Zagreb, 1995., p. 200-220.,
 - 2) Grupa autora (**Spajić, F.** et al.): *Analiza financijskih izvještaja*, HZRFD, RIF, zagreb, 1994.,
 - 3) **Tracy, A. J.**: *Kako čitati i razumijeti financijski izvještaj*, IV izdanje, Jakubin i sin, zagreb, 1996.,
 - 4) **Žager, L.**: *Analiza financijskih izvještaja*, RIF, 1996., 5., p. 3-13,
 - 5) **Žager, K.** i **Žager, L.**: *Računovodstveni standardi, financijski izvještaji i revizija, II izmijenjeno i dopunjeno izdanje*, Inženjerski biro, Zagreb, 1996., p. 267-268,
 - 6) **Žager, L.**: *Kvalitativna obilježja financijskih izvještaja*, Hrvatska gospodarska revija, Zagreb, God. 47., 1998., 9.
4. O tome поближе cf.:
 - 1) **Golac, B.**: *Organizacija i tehnika prijevoza tereta u cestovnom prometu*, Školski centar za cestovni saobraćaj, Zagreb, 1985.,
 - 2) **Spajić, F.** et al.: *Primjena MRS-a u poduzeću*, HZRFD, Zagreb, 1993.,
 - 3) **Kovač, J.**: *Pokazatelji za menadžersko odlučivanje na temelju izvješća o novčanom tijeku*, RRiF, Zagreb, 1997., 6.,
 - 4) **Van Horne, J. C.**: *Financijsko upravljanje i politika*, IX izdanje, mate, Zagreb, 1993.,
 - 5) **Žager, K.** i **Žager, L.**: *Računovodstveni standardi, financijski izvještaji i revizija*, op. cit., p. 267-268.,
 - 6) **Žager, L.**: *Pokazatelji analize financijskih izvještaja*, Hrvatska gospodarska revija, Zagreb, God. 47., 1998., 10., p. 36.