

Financial and accounting methodologies approximation

*Common and distinctive features of financial accounting and accounting itself
have been considered*

Up to the beginning of 20th century a parallel development of finance and accounting was established under the conditions of free market competition. The monopolistic capitalism development however has revealed the need of a particular financial analysis. On the other hand the accounting methodology has been developed with characteristic categories and methods – expression of the logics behind its research in line with the historicism. The process had accelerated after the so-called “Renaissance of cost accounting” in the last third of 19th century (1870-1900). Many of the used notions in the contemporary financial terminology are typically accounting. The categories however are represented as fit for the financial science and in this aspect it is spoken for financial statements, financial position, and financial analysis of value.

Under the opening of the Bulgarian accounting to the European and world achievements the thesis for the accountant as providing stewardship functions to financials, analysts, controllers and others is an old and retrograde one. According to the present treatment the accounting activity has an independent meaning up to the level of which there is a need for “information service” to the financial and other kind of analysis. On first place financial analysis use the systematic accounting data but is realized predominantly on the data for *cash flows*. But keeping in mind the accounting data the financial man has to understand the limitations of the financial (accounting) statements. The limitations are not result of the accounting methodology’s imperfections but stem from the accounting research aims and nature. That is why the financial work is not exhausted with the computation of ratios in the commonly agreed four directions: efficiency, turnover and solvency and company’s market estimation.

Financial analysis does not stand against the need of perceiving the formation and meaning of the accounting principles. On the contrary strongly is recommended the knowing of accounting standardization (normalization). The selection of accounting policy for the practical financial analysis purposes and general policy is an alternative process – a choice between its alternatives from the part of the authorized people. These alternatives are not free lance but proved in the accounting

theory and the international accounting standards. For well based financial analysis the financials should have clear views of accounting methodology's peculiarities at least in national scale and its inescapable periodic changes. That is why the financial courses always begin with learning of the financial statements content. In this light the financial analyst is determined as: everybody who uses accounting and other data for decision making but has no access to the company's internal information system. Naturally the research skills of the knowledgeable analyst are very important also for the accounting specialist. His professional qualities can appear however in the corporate decision making process because the methodology of financial analysis is a logic continuation of the accounting one but obviously with additional categories and research methods.

In this direction it is important to be known the differences between the financial and accounting value research, namely: financial cash basis recognition against the accounting sales basis - realization principle; financial division of variable and fixed costs against accounting division of product and period costs; financial cash costs against recognition non-cash costs; existence of deferred taxes.

Unacceptable principle of financial methodology is those of accounting realization principle – largely known as current assets appreciation. Usually the revenues and costs are measured on their acquirement (not as received or immediately paid money). Data for them are included in the financial statements for the respective period. Specific feature of the currently established and lately matched revenues and costs is their estimation at the moment of their documented appearance. The general moment (date) of real revenues receiving, i.e. the moment of real cash payment of the existing costs, is well known as moment of *money recognition*. Its derivative moment into accountancy is the *money estimation*, while its derivative moment into financial methodology is the moment of *money payment*. In fact the financial money payment is an antipode of the accounting money appearance (documented current appearance): there is a substantial difference between them.

Financial money payment definitely is quite more true as a basis for the final result computation. Under its application the revenues are submitted to real entrance into the business unit and there is an obvious money payment of costs. Accounting money realization (appearances) makes accounting process more complicated because it leads to the popular relationship of receivables and obligations at the end of the independent current accounting period. Non-received revenues ca receivables in the group of the short-term assets; non-paid costs are debts in the group of the short-term liabilities. Thus the accounting principle of money appearance combined with those of independent accounting period are the logic fundament for the such financial relations as receivables and debts recording.

Table 1

<i>Differences in connection with:</i>	<i>Accounting sciences (accounting analysis)</i>	<i>Financial sciences (financial analysis)</i>
Subjects of accounting research:	Revenues and costs from the activity	Incoming and outgoing cash flows
Moments of money recognition:	Moment of money appearances	Moment of money payment
Recognition of revenues from the activity:	When they are computed and documented	When their cash amount is received
Recognition of costs from the activity:	When they are realized and documented	When their cash amount is paid
Principle of the scientific research:	Principle of the current computation (appearance)	Principle of the money payment
Principle importance for revenues и costs matching (i.e. incoming and outgoing cash flows)	Crucial	Depend from the formulated accounting principles
Value of the business unit	Accounting state on the basis of revenues and costs matching (in static – assets and liabilities)	Financial state on the basis of incoming and outgoing cash flows matching

Accepting the moment of realization the international accounting finds as a luxury to formulate a principle of current payment, probably because it is typical for the financial science. Costs and revenues' moment of realization corresponds to the purposes of their accounting treatment – to be primary calculated and matched each other. In any case however the accounting take care of financial moment of money payment as concern the costs и revenues, but for it this moment remains of second degree. It is treated as determinable for the financial methodology when cash flows are investigated although there is no such a principle into the financial science.

Currently the accounting gatherings of data (balance sheet, income statement) are build in accordance with the typical principle of money realization, as well as the financial момент of money payment (cash flow statement). Despite the fact that that the theory of finance lacks formulated principles, its representatives are not satisfied from the accounting principles' quality and on a first place from the principle of money realization (current appearance). The final result calculation under financial moment of money recognition of the incoming and outgoing cash flows is more trustworthy in comparison with the accounting money realization. But it is also true that the respective calculation is quite more complicated and less corresponding to the real movement of the cash form of value as it is represented at fig. 1.

Typically for the investigated theme is the opposition of the financial division of variable and fixed costs against the accounting one of product and period costs. Because the financial analysis basically is done on accounting data this makes him strongly dependable from the accounting research's particularities, as follows:

➤ Periods into financial methodology are long-term and short-term. The costs into the long-term period are considered as variable but in the short-term – as fixed.

However the financial accounting at least during the last years pay attention to the corresponding costs that for a long time were typical for the management accounting but not for the financial accounting.

➤ Encompassed into the financial accounting are product and period costs. Between the necessary for financial analysis variable and fixed costs and the issued from the financial accounting product and period costs there is no coincidence and they often are considerably opposed. In the financial literature the respective criticism towards accounting methodology is not saved: “Financial accountants do not distinguish between variable и fixed costs. Instead... fit into a classification that distinguishes product costs from period costs. Product costs are the total production costs incurred during a period... Both variable и fixed costs are included in the product costs.”¹ This reference citation is true but the essence of the question is more complicated. It is not correct to require a financial statements building on the basis of division of costs according to the production volume changes (as variable and fixed). This reveals not knowing of the basic requirements for the initial accounting of costs, also of their summation into the production costs and their matching with revenues. During the years however it was accepted for the purposes of production cost calculation indirect costs for the period to be distinguished on variable и fixed.

The considered topic is also pierced by the opposition of financial cash costs against accounting non-cash costs. Financial analysis deals with the notion of assets’ “*economic value*”. It is linked with the setting of future cash flows from the activity that are not recorded into the income statement. As a difference from the finance the accounting records noncash costs like long-term assets’ depreciation. It is subjectively influenced by the estimation of financials analysts and accountants for the size of costs, viewed more or less as equivalents for the periods in the framework long-term assets’ life. Financial analysis treats long-term assets’ costs of acquisitions as a negative cash flow.

For the aims of the financial analysis the accounting prepares *Cash flow statement*. It encompasses the incoming and outgoing cash flows for investments argumentation – a process that is also natural part of the management accounting. However in this connection into financial literature is still weak the interpretation of the unity and difference of the conventional accounting costs-revenues matching and the financial matching of cash inflows and cash outflows.

¹ Ross, S., R. Westerfield, J. Jaffe. *Corporate Finance*, Irwin Homewood, Boston, 1990, p. 30. (According to representatives of the corporate finance and the financial accounting there is a big difference. The methods of corporate finance usually use cash flows while financial accounting put emphasis on revenues and the magnitude of income. There are many differences between profits and cash flows. Really many of the standard courses of financial accounting clear these differences.)

Under the market economy the financial analysis also treats as a non-cash expense so called *deferred taxes* – the difference between the recorded final result and the really taxable result. This situation is available under the application of non-linear depreciation – a cost that diminishes income tax. Taxes into the income statement can be diversified as *current* and *deferred*. The first are transferred to national Income Revenue service while the second are not. The idea is that that if taxable profit is lower than calculated one in the accounting books it would be higher for the next year. Thus currently non-paid taxes will be paid during the next year but as an obligation are shown in the group of short-term liabilities.

Under the principle of independent periods it is required that the activity from time to time is cut for the summation of current accounting data – a process known as accounting disclosure with distinguishing of the phases: generalization, control over accounting activity and analytical interpretation of the summed data. The disclosure coincides with the end of calendar year when synthetic ratios for the company performance is established.

Since the beginning of 1900s the development of the financial analysis had a favorably influence on the development of the accounting methodology. The building of accounting data gatherings had never been an aim by itself but a device for economic knowledge with the ending phase – the interpretation of summarized data. This had been the understanding for the Bulgarian pre-war accounting science in the 1920s of the eminent Bulgarian scholar D.Dobrev who had wrote that the balance sheet is the **“primary basis for discussion of the probability for future and good perspectives.”**² The respective discussion of data under the command economy in contrast with the international approach was promoted as an independent discipline “complex business analysis”. For a long time the Bulgarian financial and accounting investigators had understood the need of financial statements’ content explanation. D.Dobrev had wrote in the beginning of the previous century that the **“yearly balance sheets will not respond to their destination if they are... treated uniquely from the technical accounting viewpoint... the published yearly balance sheets ought to represent at the same time subjects for financial researches”**³ Into international works the accounting data interpretation is a spoken theme for many years but with a difference made between it and the financial statements analysis from outsiders (investment analyst). The accountant study statements in accordance with the accounting principles and for him the ratios are concepts. For such an activity into developed countries is clearly said: **“The accountants report... by using the accounting and special reports. Often it is required to interpret these statements and report to different**

² Dobrev, D., op.cit., p. 42.

³ Dobrev, D., Systematic course of accountating, Sofia, 1928, p. 73.

groups of managers and creditors. The interpretation is linked with the determination of a given degree of performance... in comparison with the previous year and other similar activities”⁴ The interpretation is mainly in the framework of the company’s united financial service. The early Bulgarian works have been perceived from two financial analysis’ directions: a) the way of equity and foreign capitals using - a determination of the degree of their reasonable acquirement and put in motion; b) efficiency, i.e. the relationship of the result against the used capitals.

Into the international literature and current practice the most often used ratios are for: the efficiency, solvency, turnover and market estimation of the company. Theoretically the estimation ratios are determined through the comparison of total of assets и liabilities with these of costs и revenues. Theory на *ratios* development has as initial point the systematic accounting from 1700s. With the biggest role is the ratio of *capital efficiency*. The reason is the entrepreneur’s interest to the rate of efficiency of cash capital after some time and does this process deserve attention at all? Under the mercantile capitalism emphasis is put on the relation of the interest to the loan capital principal. Namely the interest rate determination in the mercantile capitalism’s framework had given birth of the estimation ratios as their *mercantile school*. For a long time however it had been spoken for relative accounting factors (and not for ratios). The relative accounting factors stems the notion of “sensitive (factor) analysis”, i.e. analysis of the impact of factorial ratios on the resulting ratio. The financial accounting development determines the rate of working capital, respectively the current liquidity as it is generally called the solvency: it is the relationship of the short-term assets towards the short-term liabilities.

Up to the midst of 19th century the efficiency calculation is linked with the invested capital into lending transactions (the crediting). This is due to the existing from the mercantilist time concept for “*the time preferences*” (actually a time theory of value) and conditioned by it *loan compounding*. Even in this early age had been understood the difference between the financial и accounting approach stemming from the balance sheet formation at historical prices. The concept of capital compounding proved to be misused for the invested capital into the industrial activities during the époque of the Industrial revolution. That had produced into the history both schools for efficiency calculation: *mercantile (accounting) school* determined on the basis of accounting data; b) *industrial (financial) school* with the application of financial (specifically discounting) computations to the incoming and outgoing cash flows. The industrial revolution is linked with the rate of interest that discounts investments’ incoming flows up to its initial acquisition price. It is the

⁴ Hermanson, R., J. Edwards, R. Salmonson. *Accounting Principles*, Irwin, 1989, p. 4.

maximum interest that would repay itself for the use of capital for the time of investment realization without losses. For the efficiency setting in these schools it is said: “**The difference between both schools is... understood by a comparison with the way of efficiency calculation... The mercantile norm is based on the current (or mercantile) statements; it doesn’t reflect the concept for time preferences or compounded interest, and its more applications put emphasis on the past activity. On the contrary industrial method or “discounted cash flows” is based on the cash flow information that is found in the statements; it clears out the understanding of time preferences and compounded interest.**”⁵

The determination of mercantile efficiency is clearly perceived as a relation between any total in the current income statement and balance sheet total. The calculated efficiency had been seen as suitable for “**afterwards auditing of the past decisions wisdom to acquire new fabric and equipment.**”⁶ It had been well conceived that the precise purpose of which had been use the corresponding norm influences the way it is estimated. Thus when the effect of managerial performance is determined as a basis for setting up the efficiency should be taken the assets – a suitable approach for internal aims. On the contrary had been acted at the estimation only of the degree up to which the financial methods had been profitable for the shareholders: a basis for efficiency had been the equity capital:

$$\text{Return of assets} = \frac{\text{Income before interests paid}}{\text{Assets (Investments)}}$$

The formulae includes: a) Part of income for distribution among the investitures. The interest on the received loans is part of the used income into the denominator. b) The assets acquisition’s financing by investitures. Lately with the stressing on the owners’ interests defense the formulae is:

$$\text{Return on equity} = \frac{\text{Income after interests paid}}{\text{Equity capital}}$$

The comparison of both efficiency ratios through “mercantile” method resulted in so called “*Factor of capital lever*”.

$$\text{Factor of capital lever} = \frac{\text{Return on equity}}{\text{Return on assets}}$$

⁵ National Association of Accountants, “*Return on Capital*”, N.A.A. Research Report 35, 1959, цитирано по “*Return on Capital*”, *The Encyclopedia of Management*, Ed. C. Heyel, N.Y., 1963.

⁶ Ibidem.

The capital lever' factor shows the degree up to which is improved (is higher) the return on equity over this of assets. If it is higher at 1 then the shareholders used part of the liabilities with lower rate of return then rate towards all other assets.

The mercantile school of efficiency ratios had been characterized in connection with the clearness of differences between finance and accounting. As it was shown the theory of ratios argued that relation between both return norms – to the equity and to the invested capital, specifies in the factor of capital lever. It became possible to compute so called “*trading of equity*”. It expresses the attractiveness of the capital motif for the borrowers to credit their enterprises in a way that as a whole the capital structure will be favorable for its owners. The trading effect reveals: the borrowers should be paid a lower rate of return on their investments then is the calculated rate on assets – a fact that favors shareholders.

The factor of capital lever sets up how much the return on equity exceeds the return on investments as a result of phenomena trading of equity. Two possible options were shown in this relation:

- when the factor of capital lever > 1 , company owners take advantage of the attracted liabilities;
- when the factor of capital lever < 1 , company owners bear losses from the attracted liabilities.

The builders of mercantile school went historically ahead by revealing the reasons for the changes of equity capital under the impact of factor ratios. The equity capital total change during the current year in comparison with the previous one had been disintegrated on the influences of three factorials: changes in short-term assets, in long-term assets and in long-term and short-term liabilities. As whole the creation of the mechanism of the joint financial ratios under the general name “**Analysis Dupon of the return towards capital and revenues**” at the early 1990s is a continuation of mercantile school for ratios setting. The new approach is the integration of *the absolute measures of revenues* – the third measure (factor) added to the profit and capital when the rate of return is determined:

$$\text{Profit / Capital} = [\text{Profit / Revenues}] \times [\text{Revenues / Capital}]$$

The aim of revenues inclusion had been to estimates the profit and capital's adequateness. The basic rate of return is disintegrated on two factorial ratios: relation of profit to revenues - “*measure of return*”; relation of revenues to capital - “*measure of turnover*”. The product of return and turnover leads to the establishment of the efficiency:

Efficiency = Return × Turnover.

The formulae had had a meaning as a purely mathematical approach: it directed the attention to the options for the disintegrating of financial ratios at their absolute values. The Bulgarian pre-war financial literature because of the lack of time weakly developed the theory of financial ratios and on this hand the logic link between finance and accountancy. In some works is given the relationship of and financial categories as follows: **“The theory of Giompa starts from the relation between assets and capital... expressed as an “econometric equation”**.⁷ The further presentation however does not give an understanding about this relation as a specific financial measure. This question was stressed during the second half of the 1940s when a complete transformation of the Bulgarian financial and accounting science was realized in accordance with the ex-Soviet respective sciences. The contemporary financial analysis in developed countries does not ignore the itemization of the general ratios but mainly goes deeply into principles and new ratios and analytical methods revealing. In this connection on the contrary stage a question raises: for the dynamic financial decision making is it much necessary a very deep itemization of ratios as it was introduced in the ex-Soviet complex economic analysis?

The general conclusion is that the contemporary economic globalization makes closer the methodologies of finance and accountancy but they still preserve their independence as a separate business disciplines with a specific aims, principles and methods.

⁷ Dobrev, D. Systematic course of accounting, Sofia, 1928, p. 301.