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Mieczysław Kufel

THE ESSENCE OF INCOME APPROACH IN BUSINESS APPRAISALS[1]

The basic reasons for appraising an enterprise are connected with investment decisions e.g. the purchase of investment in a company etc. Such decisions are solely connected with the expectation of profits based on these investments. For an investor, the most suitable choice is the one which increases his assets to the greatest degree[2]. It is necessary therefore to use those methods of calculations which, according to the aims, scope and rules of decision, allows an estimation of future financial returns. Enterprises – as forms of capital investment – have to be subject to such calculations. Submitting appraisals of enterprises to investment accounting results in defining their value through the cash worth of the future income for investors owning those enterprises. Such returns can come not only from the enterprises but also from third parties. The first type of income is made by dividends and the balance of capital connections of the owners with the respective economic subjects. They consist of deposits for initial capital, surcharges, loans, repayments of paid-in capital, returns from liquidation, etc. Among examples of income received from third parties can be: synergic effects, returns from sale of preemption of new issue of shares etc. The general expression of worth based on owners' income is as follows (Helbling 1991, 97).

$$W^D = \sum_{t=0}^{n} D_{Dt} \cdot q_t \pm \sum_{t=0}^{n} (W_{pt} - W_{wt}) \cdot q_t \pm \sum_{t=0}^{n} D_{1t} q_t \qquad (1)$$

[1] This paper was published firstly in: Prace Naukowe AE [RW of WAE] 1993, No 646.
[2] Investors can also be guided by non-financial criteria but these, not being typical for homo oeconomicus, are not taken here under consideration.

where:
W^D – income value of appraisal enterprise
W_p – capital receipts in the form of repayments to investors
W_w – capital expenditure of investors towards enterprise
D_D – dividends
D_1 – other returns of investors connected with enterprise ownership
q – discounting factor
t – years.

Presented here is an interpretation of the value of the appraised economic subject which is widely accepted as the only true one. It is indicated by the theoreticians (e.g. Busse von Colbe 1981, 97, 89–120, 595–606; Helbling 1991, 97) as well as the experts on the international enterprise valuations (Empfehlungen 1977, 171–174). At the same time however, all of them stress the fact that although this interpretation of value is theoretically the only true one, in practice reflecting this is difficult. Owing to uncertainty concerning all the income elements and especially synergic returns, as well as errors caused by the neccessity to separate receipts and expenses from taking and costs, leads to appraisals which are generally unpopular and have many controversial elements (for example, levels of receipts from third parties, amounts of balance in capital connections). For that reason in practice there are implemented solutions presenting the idea of the general expression of value in an indirect and simplified way. Although the results of appraisal are more or less successful pictures of the 'real' income value of enterprises, they nevertheless are available for verification. The economic theory and practice of investors' incomes is mostly simulated by dividends, profits and cash flows.

These substitutes of income are not of an equal standing; they differ in philosophy and scope of use. Dividends are direct profits based on company ownership. Therefore calculating value through dividends defines the financial relationship between owners and particular enterprises. Supporters of this solution stress that for the investors, only dividends hold any real importance as the remaining profits connected with company ownership are insignificant, difficult to ascertain and do not affect their market price (Piper, Fruhan 1981, 127). Without undermining the logic of such an interpretation one has to state the limited areas in which this holds true as it concerns mostly small shareholders whose influence on company policy is practicaly nil and whose only profits based on ownership are dividends. This factor is particularly valid in the case of Polish companies, whose owners include in the investment costs of the enterprise, expenses which are partly private as for example, houses and cars. Limiting income to dividends is not right in relation to state enterprises and State Treasury one-man companies (jednoosobowe spółki Skarbu Państwa). In such cases the owners hold legally limited amount of dividends while the remaining part of the profits is used up by the staff and retained in the company without

influencing the amount of future dividends[3]. Limiting income to dividends would therefore misrepresent the appraisal of the value of such companies. The weakness of dividends as surrogate of the investors' profits also lies in the difficulty of calculating their future value. The level of dividends depends both on the financial results of the enterprise and the social conditions[4]. As a result the forecast of dividends is far more uncertain than in the case of any other values connected with a 'picture' of owners' income made from a more distant perspective.

Profits is the category most distant from the income of owners because it leaves out the cost of investment, changes in working capital reserves and balance of financial transactions with the outside elements and as a result are vastly different from the sums which are really at the owners' disposal. Such a discrepancy is also significant in state-owned enterprises. The rights of the owner, i.e. the state, are very restricted with the majority of the real decision--making power being concentrated at executive and self-governing levels. In effect a large part of profits is consumed by the staff, for example in the form of deductions to staff funds, gifts to social funds for the employees and taxes for additional earnings. On the other hand, profits are the most real and assured form for forecasting the income surrogates of the owners' income, therefore in practice in many countries (especially German speaking), appraisal of enterprises is often based on them.

Appraisal of the enterprise based on cash flow is the most popular solution used in Anglo-Saxon countries[5]. Cash flow reflects the cash balance in relation to particular enterprises and their dealings with their outside world (apart from the owners) i.e. suppliers, customers, employees, credit institutions etc. (see Table 1). In the case of credit balance it can be retained in the enterprise and/or used in the form of dividends and bonuses for the staff. In the case of debit balance there is an implication of the need to draw on the reserve funds of the enterprise or the owners themselves which equals the diminishing of capital. Cash flow is closest to the ideal picture of owners income, reflecting – in varying forms – not only dividends but also capital connections between owners and enterprises. Therefore the use of cash flow in calculating the value of economic subjects is most advisable. However, one has to be aware that using cash flow brings the danger of distorting the results of the appraisal. The most significant weaknesses of calculating value as based on cash flow are:

[3] In state enterprises the amount of dividends owing to the State Treasury is set in relation to initial capital, and in joint stock companies in relation to equity capital. Both the increases of company funds and reserve capital out of profits do not result in changes in the basis of counting dividends.

[4] Especially in countries creating a market economy there is strong social pressure to obtain high dividends.

[5] As stated by A. Rappaport over 50% of companies sold in the U. S. A. are appraised on the basis of their cash flow (Rappaport 1976, 18–36).

1. Indirectness of establishing the amounts of cash flow. Because of the accounting system's nature, cash flow is not calculated directly as a result of takings and expenses, but as a correction of receipt and expenditure flows by the other elements (see Table 2). The practical difficulties in establishing the levels of the latter often leads to errors in cash flow estimates[6].

Table 1
Company financing flows shaping cash flow

Financial flows – receipts	Financial flows – expenditure
1. Receipts from non-financial markets – proceeds from sales of products and services – rental – proceeds from sales of surplus assets 2. Receipts from financial investments (dividends, interest, income from sales and liquidation of investments) 3. Receipts from creditors – bank credits – suppliers' obligations – loans 4. Others (e.g. state subsidies)	1. Expenses on non-financial markets (acquisition of buildings, machines, materials, paying fres etc.) 2. Credit expenses – repayment of credits, loans – interest – paying the suppliers 3. Expenses to cover financial investments 4. Others (paying taxes)

Source: own analysis.

Table 2
Theoretical outline for establishing the amounts of cash flows

No	Analytical positions
I	Receipts from activity 1. sales of products, works, services 2. other takings (including the extraordinary ones) 3. changes in the state of dues (– increase, + decrease) 4. changes in future income (+ increase, – decrease)
II	Expenditure on activities 1. own costs of the sold products, works, services (without the depreciation and the financial costs) 2. taxes 3. extraordinary losses 4. changes in the stock (+ increase, – decrease) 5. changes in the state of commitments (– increase, + decrease)
III	Investment expenditure
IV	Financial transactions – receipts and expenditure

Source: own analysis.

[6] For example, over-investment of the enterprises by working capital requires seperating its superfluous part. In practice a correct estimate of the superfluous part of the working capital and its current worth is very difficult, therefore as a rule the eventual surplus of this capital is estimated in nominal amounts and treated as exempt financial means.

2. The long-term nature of the cash flow cycle in some enterprises. The calculations using cash flow, just as with other accounts for appraisal, usually analyse the period of five to eight years and for the remaining years of existence it assumes maintaining the results of the last year's detailed forecast. In cases of long-term investment and outside financing, there are however extended cycles of cash flow (for example heavy industry and the paper industry). Limiting the period of the detailed forecast of cash flow to 5–8 years in the calculations can lead to a distortion of the results.

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