

# WEALTH-FLOW FORECASTING

Brăduț BOLOȘ, Lecturer, Ph.D.  
University “Petru Maior” Târgu Mureș

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**Abstract:** *The Wealth Flow* is part of an ABC type approach, and should suggest the wealth either generated (by income recognized in accounting, or not) or consumed (by recognized expenses or not). From the investor’s point of view this should be the next stage of analyze after the cash flow analyze, showing his net benefits generated by an investment. In a final stage the wealth flow should be a sum of shares value growth and dividends, however as the market is not always responding immediately and directly as it should, this should be seen as a potential growth expected from the investment, and the difference between the calculated stock value and the market value should be seen as growth potential (either positive or negative). In this paper we reveal the contents of the notion and we also present a case study.

The Net Present Value is a generally accepted indicator in the investments economical theory, being included in most cases in the required indicators list for obtaining either loans or grants. „The financial theory has not found more viable criteria for selecting investments projects other than maximizing the NPV” [Stancu I 1997].

In the Romanian financial literature there are multiple definitions and approaches of the NPV concept. So some authors consider that “the NPV represents the present value of the future profitability, discounted at the marginal cost of the investment” [Danescu Tatiana, 2003] or the “mass of the net discounted financial flows at a reference time, regarding a investment project” [Cistelecan L., 2002]. In our opinion the NPV is the expression of the future cash flows, using discounting methods, regarding a project, using a discounting factor able to contain the predicted capital cost, the inflation, or other factors considered by the researcher.

There are three basic elements included in NPV calculations:

- The future cash income
- The future cash expenditure
- The discounting factor (considered by most authors to be the cost rate of the capital) [Mazon F., Olsina F.X. Aguila S, 2003, Danescu Tatiana, 2003]

“The net cash-flows or the available cash-flows are the difference between income and payments over the investments exploitation period” [Todea A, 2006]

In our opinion, despite the fact that NPV is generating a comprehensive image of the future financial balance, the NPV is not covering the full spectrum of benefits and costs for the investors. Because the use of the NPV is required mostly by banks and public funding institutions, which are more interested in the capability of the investment to generate sufficient cash-flows for credits reimbursements, than in the investor’s benefits, the exclusion of non cash benefits and costs is mandatory. So we are not contesting the NPV significance for the creditor’s point of view, but we affirm the fact that the investor should be aware of the investment full benefits and costs values, in terms of wealth growth or wealth loss, including goodwill creation, land and real estate value growth and such.

The wealth growth generated by an investment is mainly reflected by the company profits but also by the goodwill creation which impacts over the stock value of the stock market quoted companies and also on the market price for non quoted companies.

On an entrepreneurial market of investments the portfolio investors are most important in the founding of the new companies and for this reason a more comprehensive indicator than the NPV indicator of the stock owner wealth flow generated by the investment is mandatory.

Our proposal is the introduction of the **Wealth-Flow** concept and indicator which could signify the net benefits generated by an investment, business strategy of a company in the future

Starting from the cash flow definition as “a indicator of the business enterprise capacity to generate positive financial results over a certain period of time” [Bucataru D., 2007], and completing the image we consider the Wealth Flow as the capacity of the business enterprise to generate net wealth growth for its investors, and we are considering three determination methods [Bolos B. 2007]:

- Determining the wealth flow as a more complete cash-flow, trough including the flows which are not included in the cash-flow indicators;
- Determining the wealth flow as expected net own capital growth;
- Determining the wealth flow by comparing the stock value influence of similar influence projects on the market.

The first method starts from a predetermined cash-flow analyze, based on the NPV and includes in the non-cash effects of the investments intended.

$$WF = NPV + NCDB - NCDC$$

WF represents Wealth Flow, NCDB=Non Cash Discounted Benefits, NCC=Non Cash Discounted Costs. If NPV is determined based on all accounting recognized expenses and revenues, then it reflects actually the wealth flow in accounting terms,

The second method uses the estimated accounting balance sheets from each year of the investment which is compared to the present balance sheet. From these balance sheets some values could be compared (SE = Shareholders Equity). Using discounting methods to bring the values to the present day would be advisable.

$$WF = \sum_{i=1}^n (SE_i - SE_{i-1})_i$$

$$SE_i = Assets_i - Liabilities_i$$

SE=Stockholders Equity, n = the ending year of the investment analyse.

The third method is a more intuitive method, based on a very good knowledge of the stock market, of the similar companies' stock evolution on the financial market. It is a very simple method which probably will be used on the market by the investors as a comparing value for the proposed figures. However this approach is usable only for big impact projects of quoted companies.

There are several reference moments which generate stock value changes by an investment, but only if the investment has a significant value:

- The moment when the project intention goes public
- The moment when the project is approved by the company's board
- Different moments when several approvals are required
- The yearly results publication (the influence of the project could be assessed as it gradually affects profits and profit rates)

At the critical moments the perception on the market over the success probability and degree of success of the investment will raise or lower the stock's value. Generally a successful investment project which does not affect negatively on the dividends and improve image should generate gradual raise on the stock value as the project finishes completion. Once the investment is done its influence on the dividends should be the most important factor.

Considering a hypothetical ABC type of approach on a tourist business development project, with a NPV of 1.000.000 units, local investors could be attracted by their own business goodwill growth and real estate value growth generated by the intended investment. So a investor's own land value growth valued at 500.000 could boost significantly its interest in the investment.

Also for the local government, as an investor, supplementary waste management costs, road usage costs and tax income growth should be balanced.

This type of approach could change somewhat the feasible investments range if stock investors are the target.

During a feasibility study creation process, for a company who combines Internet Service Provider services with Voice Over IP telephony services and cable-tv services a significant expected result of the investor was the growth of his company market value on the telecommunications market. This as the case mostly because big Romanian telecommunications companies were in the process of concentrating the market using smaller companies acquisitions as a tool for fast territorial expansion of their own clients portfolio. Such transactions are very frequent on the present Romanian telecommunication market. In the assessment of the market value of such a company, besides the shareholders equity value usually the buyer pays a supplementary value proportional to client numbers and the generated income of the telecommunication network.

So in this case, in the feasibility analyze of the development strategy of the network expansion, the Wealth Flow (WF) may and should be determined, in order to generate a clear image of the investor's benefits.

In this case, the WF was calculated by adding the client number growth, interpreted as Goodwill expansion to the NPV. Since the market price paid by the larger companies for a client was 180 EUR (639 ROL), this value was used for determining the goodwill value growth.

$$GW_{2007}=156 \text{ clients} \times 639 \text{ ROL/client} = 99.624 \text{ ROL}$$

Because we are adding the goodwill to discounted values of the NPV discounted annual cash-flow, the goodwill was also discounted using the same method used for the NPV.

Using the discount factor (df) calculated for a discounting ratio of 15% we have determined the Discounted Goodwill (DGW):

$$DGW_{2007}=GW_{2007} \times df_{2007}=99.624 \text{ lei} \times 1,00000 = 99.624 \text{ lei}$$

The annual wealth flow is the sum of the discounted cash flow and the discounted goodwill of the same year:

$$WF_{2007}=CFW_{2007}+DGW_{2007}=91.815\text{RON}+99.624\text{RON}= 191.439\text{RON}$$

$$WF=WF_{2008}+WF_{2009}+WF_{2009}=750.734\text{RON}$$

**Table 1****Wealth Flow Calculation**

	2007	2008	2009
Annual expected client number growth	156	203	264
Network price/client(EUR)	180	180	180
Network price/client (ROL)	639	642	645
GW (ROL)	99.624	130.158	170.052
df	1,000000	0,869565	0,756144
DGW (ROL)	99.624	113.181	128.584
CFW (ROL)	91.815	134.724	182.806
Annual WF (ROL)	191.439	247.905	311.390
Total WF 2007-2009 (ROL)	750.734		
NPV 2007-2009 (ROL)	409.346		

So the expected Wealth Flow of the investor is 750.734 ROL exceeding the value of the NPV (409.346 ROL).

Even if we have not encountered real situations where  $WF < VAN$ , this type of situations are theoretically possible. As an example investments with high environment negative impact could trigger a land value decrease or bad will. So WF determination in those cases could fundament the avoidance of some types of inefficient investments.

A negative NPV is the sign of bankruptcy risks generated by an inefficient investment. In the case of negative NPV, a positive WF should not be taken into consideration because the benefits of the investment are overruled by the bankruptcy risk.

Even if the NPV is determined using accrual costs and benefits the goodwill and the real estate value growth are not included in the costs and benefits of the investment included by it. So the WF is necessary in that case also.

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