

THE INFLUENCE OF THE FINANCIAL FACTORS ON CASH FLOW, AS DETERMINING FACTOR OF FIRM'S INVESTMENT DECISIONS

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Abstract: Because investment decisions are one of three categories of decision that can be adopted by firms' management (beside the financing decision and the net profit allocation decision), this paper intends to present the influence of the financial factors on firm's cash flow, as determining factor of firm's investment decisions, among the factors which are analyzed, namely dividend payment, information asymmetry, leverage, monetary policy, internal liquidity, and firms' size.

Key words: investment, decision, cash flow

The investment decision is one of three categories of decision that can be adopted by firms' management, beside the financing decision and the net profit allocation decision. The investment decisions have direct influence on the structure of firm's asset structure, moreover, on their degree of liquidity, and consist of spending the financial funds for the purchase of real and financial assets for the firm, in order to gain cash and the growth of the wealth of firm's owners.

The investment decisions and the financing decisions are interdependent, that is the investment decision is adopted in relation to the level of the financing sources, but the option to invest is also crucial, in order to calculate the level of financing capitals and the need for finding their sources. Furthermore, the net profit allocation decisions consist of estimating the amount of money taken from the net profits in order to return it to the shareholders as **dividends**, on one hand, and to determine the amount of money taken from the profits for the purpose of financing the investments.

The share of the net profit distributed as dividends has a direct influence in the size of amount of money taken from the cash flows to be used for financing the investments. The reinvesting of a share of the net profit generates the growth of the self financing capacity of the firm, the financial autonomy's growth and, implicitly, of the firm's value. The dilemma between the use of a share of the cash in order to pay the dividends or to implement some investment projects can grow into a very serious issue when cash flows are not enough to satisfy, fully, both the two categories of decisions (investment and dividends).

In what the cash flow of the investment activity is concerned, its size is estimated in the building stage of the investment project, in the period of investment's exploitation, and at the end of the exploitation period. In the initial stage of the investment project, the firm is confronted with cash outflows in the form of expenses generated by the building up of the project (personnel expenses, research expenses), the price of the purchased assets, and the additional need of circulating capital, whose cause relies in the growth of output capacity, as a result of the project's realization (growth in the size of the stocks and the claims), the opportunity cost¹⁶⁸.

The exploitation carried out by the firm generates cash inflows, materialized in the shape of depreciation and the profit gained as a result of the main activity of the firm. The cash flows from the end of the period of investment's exploitation are cash flows, nonetheless, and are made of the residual value of the investment – the very selling price, or the price of the materials acquired as a result of the liquidation – and the need of circulating capital, recovered through the disappearing of the output capacity, generated by the investment. As a result, the investment projects' adoption must be undertaken by taken into consideration the cash flows required by the various investment projects, at different periods of time, cash flows which, in their turn, are affected by a series of financial factors.

The link between investment and cash flow was studied, on a large scale, between 1950 and 1965¹⁶⁹, and then it disappeared for a while from the investment literature, reappearing only in the 1980, following the

¹⁶⁸ The incomes the firm might have obtained if it would have invested, in some other manner, the funds required by the project.

¹⁶⁹ Meyer, J.; Kuh, E.; (1957); *The Investment Decision*. Cambridge, MA: Harvard University Press

development of information asymmetry models. In 1957 Meyer and Kuh pointed out the importance of finance variables for investments, and the preferences firms have for own funds. The neoclassical investment models were developed, which consider the main factors are materialized, in what investments are concerned, in the real interest rate and taxes. The Q investment theory (Tobin, 1969) can be viewed as a new version of the neoclassic theory, which says the investment demand is determined by the ratio between the market value of a firm's share and its replacement cost¹⁷⁰.

In 1988, Fazzari, Hubbard și Peterson¹⁷¹ (FHP) estimated the investment equations as a function of Tobin's Q and the cash flow and considered the cash flow tends to have a far larger effect on investments firms which are confronted with financial constraints make. Kaplan and Zingales¹⁷², in 1997, reinterpreted the results from FHP studies, suggesting that an automatically higher sensibility cannot be foreseen in the case of investments cash flow, in the case of the firms which confront with bigger financial constraints.

The use of Q is based on the principle the desired investment opportunities can be undermined by the participants of the capital market, because of the existing **information asymmetry** of the capital market. In the presence of information asymmetry, on the capital market, the introduction of Q will generate immediate tensions. There are some situations in which the suppliers of the exogenous financial funds cannot precisely evaluate the investment opportunities, given the gaps between the information possessed by the insiders, compared to the outsiders. Q will, thereby, stop the evaluation of investment opportunities by the outsiders only; as such, a possibility appears, for cash flow to affect firm's investments, because this cash flow is correlated to the investment opportunities' evaluation of the insiders.

In order to clarify the role of cash flow in the investment equation, and to improve the evaluation degree of investment opportunities, some authors¹⁷³ considered it is high time to take into consideration, for evaluating the investment opportunities by the insiders, a new variable, namely the contractual obligations of the firm, for any new future investment projects.

In the presence of asymmetrical information, which determines gaps between information possessed by the insiders, compared to the outsiders, Q is proven to be an imperfect measure of the investment opportunities of the firm, and for that a hindrance for evaluating the investment opportunities, by the capital market's actors. In this way the need of this supplement variable being taken into consideration can be explained, variable that will take into consideration information about the opportunities available from the insiders only.

It is confirmed that, although cash flow will affect both the investments of the large firms, and the investments of small firms, through the introduction of the second variable the power of the cash flow is diminished in the case of the large firms, remaining constant for the small ones. The reason would be, at least for the second variable, the meaning of the cash flow in the investment equation is possible to be generated by the capital market' information asymmetry.

The information asymmetry, characterized by managers possessing a larger amount of information about the firm than the would-be creditors or shareholders, makes more difficult the prospecting carried out by the latter. The effect of these information problems is the growing of the external financing costs, comparatively to the internal costs. These cost differences is at the base of a certain point of view about how a certain level of investment is built: the cash flow is preferred to the debt, which, instead, will be preferred to the new share issues.

As far as the hierarchy of financing sources, as it exists in the economic literature¹⁷⁴, is concerned, cash flow is the cheapest financing source, followed by debts and, in the end, by the issuing of new shares. Debts can be cheaper than the issuing of new shares, because the loan contract can be created as to minimize the consequences of information problems. Giving the fact the degree of information asymmetry and the agent costs depend on the peculiarities of every firm, some firms are more sensitive to financial factors than others. Thus, a possibility exists, for the small firms, that the investors may not be very well

¹⁷⁰ Q = the market value of a firm/the replacement value of its assets; adopting factor of the investment decision: if $0 < Q < 1$, the firm's shares are undervalued; if $Q > 1$, the firm's shares are overvalued.

¹⁷¹ Fazzari, S.; Hubbard, G.; Peterson, B.; (1988) *Financing Constraints and Corporate Investment*. Brookings Paper on Economic Activity, 1, 141-95

¹⁷² Kaplan, S.; Zingales, L.; (1997) *Do Investment-Cash Flow Sensitivities Are Not Valid Measures of Financing Constraints*; Quarterly Journal of Economics, (2), 707-12

¹⁷³ Carpenter, R.; Guariglia, A.; *Cash flow, investment, and investment opportunities: new tests using UK panel data I*

¹⁷⁴ Harris, M.; Raviv, A.; (1991), *The Theory of Capital Structure*; Journal of Finance, 46, pp. 297-355.

informed; this might lead to their reticence in increasing the financing funds, and, also, the costs of external financing.

Also, another financial factor, which has an influence on investment decisions adopted by the firm, is the **leverage**; more clearly, the higher leverage firms' investments can be more sensitive to the cash flow than lower leverage firms' investments. The cash flow is the only source of financing for the firms which are characterized by low cash, and for those which don't have access to capital markets, being a relatively cheap source of financing; we can, therefore, state that, among the factors which have an influence on investment behavior, capital structure is one of them.

A higher leverage assumes a higher share of firm's cash flow being used to pay the interests and the debts; for some firms, this might be translated as a high debt capacity, combined with low financial constraints. If the cash flow of the firms is diminishing, it will be not easy for them to deal with these obligations, and they will be forced to diminish the investments, which prove to be far more sensitive to the financial background when the leverage is at a higher level.

The establishment of a link between cash flow, leverage and investments offers a profound image; there is, given the fact the monetary policy and the cyclic factors have a (rather) general influence on the companies. If the cash flow is a powerful determinant of investments, the changes happened in the monetary policy (such as the interest rate) will influence investments and the debt capacity of the firm through cash flow effect.

In this case, it is noted in the present days, **monetary policy** has a larger impact on investments, than had done so in the past. The cash flow of highly geared firms will be far more sensitive to the changes in the interest rate than the cash flows complemented by a minimum sized leverage. The impact of the monetary policy will be felt unevenly through companies: small size firms, highly leveraged firms and firms which rely on the cash flow as source of financing are more sensitive to changes in monetary policy than others.

It was noted, also, the **internal liquidity** is an important dimension of cash flow's sensitivity to investments, because it reflects the capability of a firm to finance its projects without tuning to the capital market. Firms that possess cash reserves can use them for the accomplishment of their desired investment projects, but, if these firms are not facing a difficult access on the capital market, and they predict their internal cash needs, they don't have the need to experience a high level of cash flows.

Firm's size is one of the determining factors of cash flow sensibility to investments, for a number of reasons. Small firms expect to face bigger obstacles when capital increases, the borrowed costs are expected to rise; they obtain smaller evaluations from the part of the analysts and they may have difficult access to the external capital sources. The transaction costs related to share issue decrease in correlation to the size of that issue, which is larger for larger firms, and so the small firms face high costs, whilst large firms face smaller costs. From similar reasons, newer firms face bigger differences between internal financing costs and external financing costs. As a result, smaller and newer firms expect to record an increased sensibility of the investment cash flow.

Smaller firms are, in general, considered to be more sensible to the changes in financial factors than larger firms. The external funds have the tendency to become relatively expensive for them, since the fund lenders possess slightly less information about their creditworthiness. Also, economic shocks which affect the cash flows or the dynamics of intermediaries' loan behavior is probable to have a larger influence on investment decisions of the small firms.

Cash flow can affect investments due to the imperfections of the capital markets, and due to the fact external financing is cheaper than internal financing, this playing an important part in investments carried out by the firms which face a series of financial constraints. A high level of the cash flow will lead to the growth of investments, through the use of cheaper internal financing funds and the rise in the collateral backing of the company. We can, therefore, state that, if we wish to see which of the above mentioned determining factors influence investments to a greater extend, firms differ. The results show internal financing sources are far more important for small and highly leveraged firms.

FHP classified firms according to the dividend policy, showing the cash flow tends to affect investments of low dividends' firms to a larger extend than investments of high dividends' firms, by this boosting the hypothesis according to which cash flows affect firms' investments because of the imperfections found in capital markets.

Brav¹⁷⁵ (2005) considers maintaining a certain level of dividends is consistent with the investment decisions. If cash flow is not sufficient enough for both activities to be fulfilled, those who adopt the policies face a dilemma that can be solved in one of the following manners:

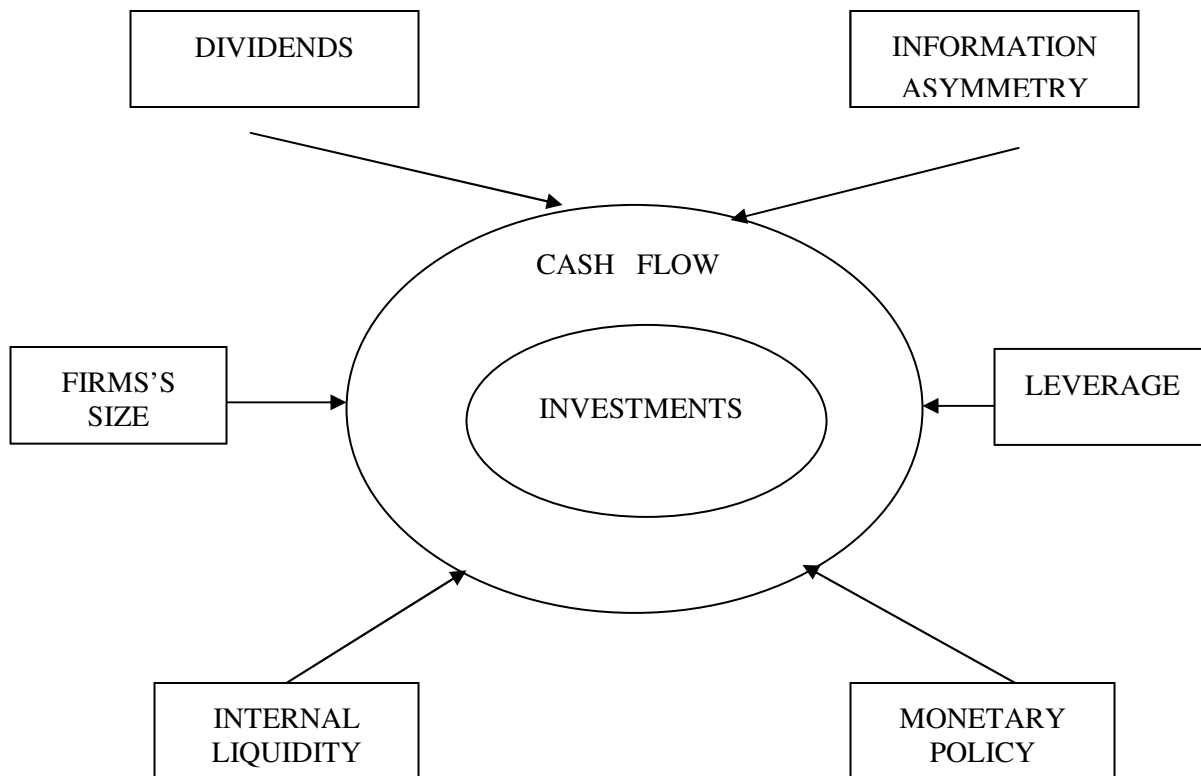
- an increase in external funds, for the completion of cash deficit;
- normal payment of dividends and the abandonment of other investment projects, regardless of their attractiveness;
- partial or total disregarding of dividend payment.

If the first solution is not the optimal one, for a number of reasons, there are another two solutions. On one side, disregarding normal payment of dividends will disturb the investors and will be able to modify their expectations about maintaining the gains of the previous period, and will determine, also, the drop of the share's value of the company. From this perspective, the dividends will be preferable to investments. On the other side, adopting some investment projects will have a long term effect on firm's value, and even more so if certain investment opportunities will not reappear in the near future. Accordingly, investments will be preferable to dividends.

For solving this dilemma, managers must take into consideration the manner in which information about the opportunity of profitable investments will indeed reach the investors, in a way that will allow them the understanding of the reasons behind the decreasing of dividends, or, in other words, the information flow factor.

The graphical illustration of the financial factors which have a sensitive impact on the cash flow, as determining factor which stays at the base of the investment decisions the company adopts, is to be constructed, in my opinion, as follows:

¹⁷⁵ Brav, A.; Graham, J.R.; Harvey, C.R.; Michaely, R.; (2005) Payout policy in the 21th



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