FINANCIAL RESOURCES - LOANS

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Abstract: *During the establishment and operation of companies, several decisions shall be made. The fundamental viewpoint of a decision concerning the funding is where the source is originating from: from inside i.e. from the functioning of a company or else external operators shall temporarily or definitively provide a company with the source. The classical form is the funding from own sources but it is increasingly common that external investors are involved, EU support is utilized and bank loan is borrowed. During the analysis, the authors examine the conditions of borrowing such as the effect of following: the length of term, the frequency of payment and the composition of instalment. Also, it is examined how the amount of interest payable and unpaid principal changes in single cases. Before the borrowing, the financial manager should consider whether the cash flows arising in the future will be able to cover the continuous production and whether the repayment of borrowed capital and interest will be ensured. The financial controller has an important role during the evaluation of accounting information; by choosing the appropriate source of funding, he/she can help to preserve the corporate liquidity in the long term. Among the financial controlling tasks, it shall be considered as highly important that the companies have to act responsibly during the planning, analysis of funding and realization of goals because the decision made will affect the company's operation, survival and development in the long term.*

Keywords: *sources of funding; repayment of principal; instalment; interest; financial controlling.*

JEL Classification: *E43; G30.*

Introduction

Today, sooner or later, every company already needs loan to fund its activity, whether it is new or existing, micro-, small- or medium sized enterprise. There is a constantly returning question how the improvement of the enterprise should be realized: from own existing source or some external source, loan, grant or possibly by involving an external investor. There are arguments for and against both of them.

1. Internal funding

Before reviewing the funding sources, it is expedient to examine those properties whose sale does not jeopardize the functionality of a company but involves temporary capital liberation. A method of the self-funding can be the liberation of capital committed in the company by rationalization (Katits, 2010); it requires a prudential decision.

1.1. Liberation of corporate capital

Funding from liberation is carried out by sale of properties and rationalization measures. Liberation of capital committed in fixed assets is carried out, particularly and primarily, by sale and lease of properties which are not necessary for the functioning (for instance, land, building, machinery etc.). Insofar as a property is sold which is necessary for the functioning, the enterprise can lease the property back in the form “sale and lease back”; this is already a customary procedure nowadays. Liberation of capital committed in current assets can be realized by, for instance, smaller stocks and sale of customer receivables (Darabos et al, 2017a). By means of rationalization measures, the time of fixed capital can be shortened and thus the invested financial resources will return sooner (Vollmer, 2008).

1.2. Funding from own sources

The generally accepted ways of obtaining the necessary resources are as follows: from inside the enterprise, by after-tax profit as well as depreciation.

The required sources can be obtained within the enterprise via retaining the after-tax profit as well as from the retention charge. At such a time, the authors are talking about internal funding also known as self-financing (Gyulai, 2011). A major attention should always be paid to the internal funding since the enterprise can make independent itself of the investors’ conditions by means of this kind of funding (Kondorosiné, 2003).

There is big advantage of funding from own source that it is cheaper and it is not needed to pay interests and other costs. In addition, the company does not risk its own money. If the development fails, the enterprise will not have to pay principal payment and interests. However, in the initial period, it can happen with even a successful investment that the instalments can just barely be paid from the income. Insofar as the own sources were committed previously, it would be costly to withdraw them and it would mean a lack of income resulting from the sources. In case of a development from own sources, the decision-makers should take care not to withdraw money from such an area where this measure adversely affects or endangers the company operation. It is also important that enough money should be available for advertisement and promotion of the product because the lack of them would also be a disadvantage in the long term but enough sources should be remained for e.g. purchasing the basic materials and the stock, for paying the wages etc. Keeping the liquidity of enterprise at an appropriate level is a very important decision-making viewpoint in every case. Leaders of the company and the financial controllers play an important role in area of measuring and managing the risk. (Fenyves et al, 2014; Kalmár et al, 2015).

2. External funding

There are several forms of the external funding in practice, for instance, recourse to support, increase in equity by existing shareholders or involvement of new owners (increase in capital stock by public shares issuance or venture capital raising *Private Equity),* foreign capital raising by bond issuance or bank borrowing. Katits classifies the loan provided by a company's owners (member loan) as external funding which is a commonly used form among the enterprises (Katits, 2002). According to literature sources, the leasing as a form of asset financing can be also classified here (Walter, 2014; Darabos et al., 2017b)

2.1. Funding from grant

Basically, it has two forms: repayable grant and non- repayable grant. Insofar as there are no enough free own sources, the costly borrowing can be chosen just as a final solution, such an activity is performed which is supported by the current economic policy then the grant source may be the best solution for financing the development. It is cheap because there is no need to pay interest for it and there are no related costs. There are numerous difficulties of winning the tender grant, it is required to meet predetermined conditions and a predetermined performance shall be reached in the future such as sales revenues or increasing the number of employees. Another difficulty of the funding from tender sources is that the period of submission, judgment, obtaining and exercise is long and complex process. Most of the tenders are ex-post funded i.e. a part of the costs have to be pre-financed, occasionally beyond providing the own contribution.

2.2. Funding by involving external investor

Generally, by involving an external investor, a financial or professional investor enters the company. The financial investor does not interfere in the daily management, daily work but he is more interested in when his investment will be refunded and how much the profit will be. The professional investor usually has long term thinking, his objective may include the market gaining, cost savings, efficiency increasing etc. Beyond the positive effects of investor, there can be negative ones, for example, he can fundamentally reorganize the company or he can also terminate it over time.

A venture capital investor is not interested in maximizing the dividend yield but in the fastest development of a company and in the growth of company's value. An investor contributes to the capital stock ("equity) as a co-owner, *however, does not play just a financing role but also participates in the company's management* (with the aim of helping the company's development) in most cases. Leaving the company is not carried out by capital withdrawal but sale of principal.

Involving an appropriate investor is a time-consuming process, even it may be a risky decision as well.

2.3. Leasing
Nowadays, leasing is a well-known and usual form of finance among companies, budgetary institutions and private individuals. In Hungary, leasing became widespread in the ‘90s; the role thereof initially increased by leaps and bounds in the development of tools. More and more types of leasing products and services related to the leasing appeared in the area of funding. Since their widespread emergence, their roles in the long-term equipment development and completion of the investments have depended on the economic cycle and, not least, the then-existing tax and accounting rules (Walter, 2014).
If an enterprise decides to use leasing for asset financing then the long-term leasing agreement will be similar to the insurance lending contract. If a company frequently improves in the form of leasing and leases a lot then attention should be taken to the amount of credits and loans recognised in the balance sheet. Because the investors realize that the leasing as an off-balance sheet item is capable of replacing loan capital. [Bélyász, 2007]

2.4. Funding from Loan
There is an argument for the development and investment from loan that own sources remain, with providing the necessary own contribution, and these ones can be used for another targets. Thus, the liquidity is ensured, the already developed operation can be financed further. Disadvantage of the development from loan is that it may be more expensive and more hazardous than the utilization of equity. At the time of borrowing, the costs immediately emerge (e.g. appraisal, notarial fee, disbursement fee etc.) as well as the handling charges and interests shall be paid during the whole term. There can be risky if, after the funding from loan, the cash flows of revenue emerge only later or to a smaller extent than it has been planned it and it would be required to meet the liabilities. Occasionally, the company is forced to finance the repayment partly or totally from cash flows of the former business operation. Before borrowing, at choosing the period and frequency of the expected repayments the decision-makers have to calculate with the later cash flows flowing in and out, they have to think whether they will have enough revenue for ensuring the production costs as well as the payment of instalment, the interest of which will presumably burden the result of enterprise significantly. (Rózsa et al, 2005)The extent of interest is an important viewpoint when selecting among the credit facilities. Beyond the loans with market interest, there is an opportunity to borrow a subsidised loan as well. Availability and conditions of subsidised loans often change, the current possibilities should be followed with attention.
Aim of financial controlling is to determine and reach the corporate financial goals and to establish the financial decisions leading to the goals. From the set of corporate financial goals, the stable liquidity and solvency, the need of money and the cash collateral, keeping the cash sources and cash utilizations in consonance are ones of the most important things (Sinkovics, 2002).
Next, by means of model calculation, the authors examine if the company does not have own sources being enough for the development planned then what decision-making and considering tasks the managers have in case of selection among the

credit facilities. Can they borrow a loan with equal or variable instalment, for short or long term?

3. Scheduling the repayment of instalments

A loan schedule is made during the presentation of application for credit when the financial manager can face in what intervals and in what amount the debt shall be repaid. The company can choose from two opportunities. In one respect, he/she can choose that the amount of loan will be paid in equal intervals with equal payment of principal but the amount of interest will change in every date of payment. On the other hand, he/she can decide that the loan will be paid with equal instalment in every credit paying period. At the same time, it shall make a decision about paying the debt in short or long term. Advantages and disadvantages of these two types will be outlined in the following.

3.1. Borrowing for short term

At determining the conditions, the authors have tried to take the current market conditions into consideration. Smaller or greater differences have been experienced in case of the credit facilities, loan packages, terms and conditions announced by the financial institutions. At determining the conditions, the authors have dispensed with the following questions. What activity does the enterprise perform? Which target group is affected by the given loan package? Is the loan for current assets or investments? Does the funding need small or big amount? Is the loan fixed interest or variable interest? For the sake of simplicity, the development of amount of instalment as well as the development of rate of interest and principal payment are examined in case of borrowing HUF 20 million HUF for 2- and 10-year term with 6.6% APR (annual percentage rate). For the sake of easier clarity, the payment is performed quarterly in the first case and it is performed annually in case of the 10-year term.

In case of both forms, the interest is composed of several factors. In one respect, it is based on the terms and conditions of interests announced by the banks which is about 3-5% now. And it is modified by BUBOR which is not other than Budapest interbank borrowing offered rate. Its extent is 1.8% per month considering the state of September in 2017. The handling charges can be demanded from the customer in two ways. In one respect, in one instalment which means that the customer pays an amount determined by the Bank before the payment in full at time of disbursement which means a source withdrawal at starting the investment. On the other hand, it can be performed in such way that the handling charge is part of the amount of bank interest. During the calculation, the authors have built the interest, handling and other bank charges in the instalment, these ones are present as fees charging the loan during the whole term. During the analysis, these one are not separated, are handled jointly thus the annual percentage rate (APR) is 6.6%. Program Microsoft Excel 2010 was used for the model calculations. Table 1 contains the schedule of loan with equal repayment of principal but quarterly different instalment.

Table 1: Schedule of loan with equal repayment of principal (T HUF)

Quarter	Balance of principal	Repayment of principal	Interest repayment	Insta
1.	20 000	*2 500*	330	2 83
2.	17 500	*2 500*	289	2 78
3.	15 000	*2 500*	248	2 74
4.	12 500	*2 500*	206	2 70
5.	10 000	*2 500*	165	2 66
6.	7 500	*2 500*	124	2 62
7.	5 000	*2 500*	83	2 58
8.	2 500	*2 500*	41	2 54
	Total	20 000	1 485	21 485

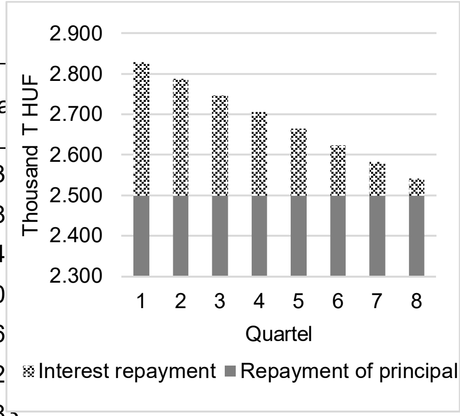

Figure 1: Composition of instalment in case of equal payment of principal

The authors also examined the other possibility when the enterprise has to pay the loan borrowed and its interest undertaken with equal instalment quarterly. They have stated the equal amount of instalment by time value calculation and determining the present value of annuity. Annuity ensures cash flow in equal amount, in equal intervals during a period determined. Considering its direction, the authors distinguish the present value and future value of annuity. The equal amount of instalment is determined by the present value of annuity, the relation of which is:

$$PVAN = \frac{C}{r} - \frac{C}{r}\frac{1}{(1+r)^n} = C\left[\frac{1}{r} - \frac{1}{r(1+r)^n}\right]$$

Where:

PVAN = present value of annuity
C = equal amount of cash flows payable
r = interest rate
n = interest rate time (year, month, day)

A special case of annuity is when the cash flows are repeated in equal intervals. Calculation of instalment of loans is most often performed by means of it. By the method of annuity, the interest and principal content of instalment and their changes can be determined.

Within instalment, the value of interest- and principal payment changes by intervals. Based on data of Table 2, it can be seen that the amount of instalment is thousand HUF 2 689 in every quarter, in which the value of principal payment continuously increases. This reduces the balance of principal so the due interest payment liability decreases from period to period.

Table 2: Schedule of loan with equal instalment (T HUF)

Quarter	Principal outstanding	Interest repayment	Payment of principal	A… in…
1	20 000	330	2 359	2
2	17 641	291	2 398	2
3	15 243	252	2 438	2
4	12 805	211	2 478	2
5	10 327	170	2 519	2
6	7 808	129	2 560	2
7	5 248	87	2 603	2
8	2 646	44	2 646	2 689
	Total	1 513	20000	21 513

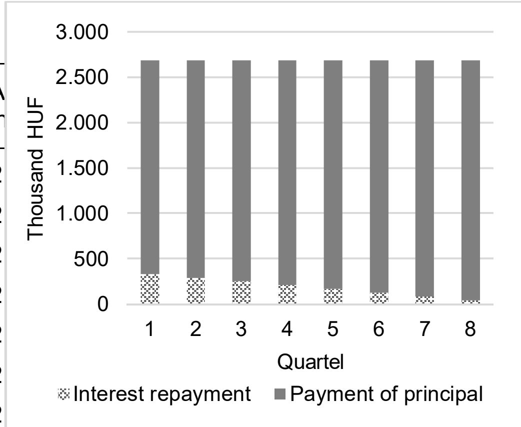

Figure 2. Development of amount of principal and interest repayments in case of equal instalment

The highest amount of interest and the lowest amount of principal payment are in the first year. From year to year, the amount of interest as well as its ratio will decrease within the instalment because the payment of principal will continuously reduce the amount of credit outstanding. In this case, the total interest payable is thousand HUF 1513 which is almost thousand HUF 28 more than in the previous case. This difference results from the dissimilar composition of instalment.
In case of equal repayment, Figure 2 demonstrates the development of amount and rate of the principal payment and interest.

3.2. Borrowing for long term

Next, the repayment is carried out yearly during a 10-year term, the authors have not calculated with grace period and APR is 6.6% per year according to the above. Table 4 shows the conditions of loan having 10-year term.
First, the authors examine the development of equal payment of principal if the payment is performed once a year. Based on data Table 3, it can be seen that the annual repayment of principal is HUF 2 million per annum due to the increase of term and payment regularity. The liability of interest payment decreases from year to year because the amount of principal continuously decreases as well. However, the amount of interest to be paid during 10 years is much higher, thousand HUF 7 260, than in case of a 2-year term. In this case, the authors have calculated the amount of interest with an annual 6.6% while, in case of a 2-year quarterly repayment, only a 1.65-percent time-proportion interest rate has been determined.
Table 3 illustrates well that the interest payment liability continuously decreases in case of equal principal payment, this is only HUF 132 thousand in the last year. The instalment decreases from HUF 1.66 million of the first year to HUF 3 320 thousand by the 10th year. The payment is a big burden for the company furring the first years but it decreases from year to year and thus sources can be released which can be

used in other areas and can contribute to the improvement of financial and income position of the company.

Table 3: Schedule of long-term loan in case of equal payment of principal (Thousand HUF)

Years	Balance of principal	Repayment of principal	Interest repayment	Instalment
1.	20 000	*2 000*	1 320	3 320
2.	18 000	*2 000*	1 188	3 188
3.	16 000	*2 000*	1 056	3 056
4.	14 000	*2 000*	924	2 924
5.	12 000	*2 000*	792	2 792
6.	10 000	*2 000*	660	2 660
7.	8 000	*2 000*	528	2 528
8.	6 000	*2 000*	396	2 396
9.	4 000	*2 000*	264	2 264
10.	2 000	*2 000*	132	2 132
	Total	20 000	7 260	27 260

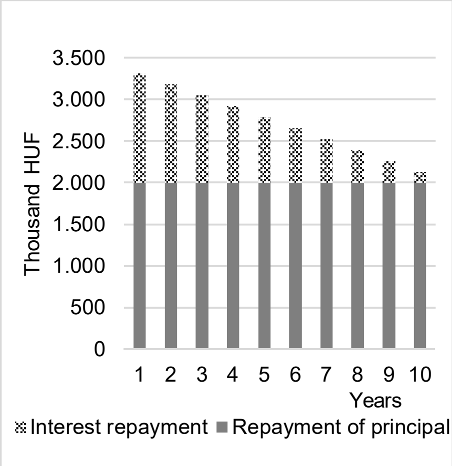

Figure 3: Composition of instalment in case of equal payment of principal

Insofar as the equal instalment is chosen, the payment liability will be initially lower, almost HUF 2.8 thousand, but more interests will be paid in total. The total interest payment liability is almost HUF 7 951 thousand (Table 4). During the years, this means a significant withdrawal of sources for the company, the enterprise has to solve it from the operating profit, and this principal cannot be spent on development in other areas. Already in the planning phase of borrowing, the financial controller has to consider whether he will be able to keep the demand for liquid assets, cash flow in balance with the expected sources for the long term.
Based on Figure 4, it can be stated that the amount and rate of interest- and principal payment move oppositely during the term. One of the characteristics of the long term loan is that the instalment consists of interests mostly during the initial period. They say that only the interest is paid, the balance of principal slowly diminishes. Attention shall be paid to that, in one respect, the external sources do not causes liquidity problems for the company during the long term. On the other hand, the natural endeavour of investor is that his/her sources will be refunded through the investment (Bélyácz, 2009)
At determining the conditions, the authors have calculated with a 6.6-percent APR value in all cases. People live in information society, decisions should be made with caution because there would occasionally be significant differences between the interest rates announced by the financial institutions. They have to strive to involve the cheapest external source, taking the improvement of profitability and liquidity of the company into consideration.

Table 4: Schedule of long term in case of equal amount of instalment (T HUF)

Years	Balance of principal	Interest repayment	Payment of principal	Annual instalment
1	20 000	1 320	1 475	2 795
2	18 525	1 223	1 572	2 795
3	16 952	1 119	1 676	2 795
4	15 276	1 008	1 787	2 795
5	13 489	890	1 905	2 795
6	11 584	765	2 031	2 795
7	9 554	631	2 165	2 795
8	7 389	488	2 307	2 795
9	5 082	335	2 460	2 795
10	2 622	173	2 622	2 795
	Total	7 951	20 000	27 951

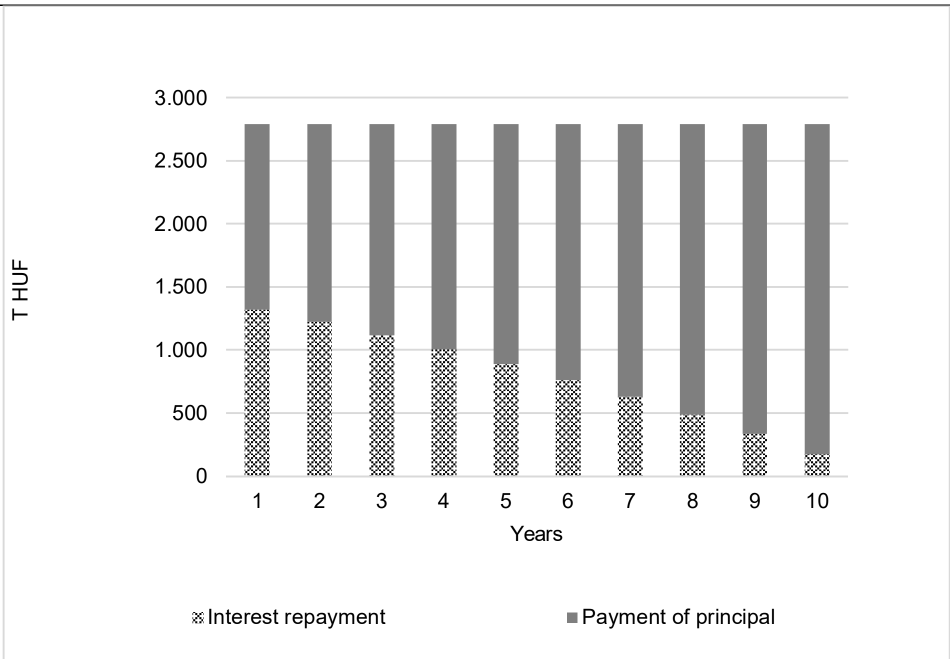

Figure 4: Development of amount of principal and interest repayments in case of equal instalment

Summary

When starting and operating the business, an enterprise needs money to purchase machinery, equipment, materials and other assets in order to produce. The financial resources necessary for investment and development may come from own resources, national or EU grant funds, other external resources and combination of these ones. If there are not sufficient own resources available, loan can be requested from one or other credit institutions. However, an indispensable condition of obtaining the loan is that the borrower shall be creditworthy and shall meet the criteria of debtor’s credit rating. But it can also happen that an enterprise possesses the money necessary for purchasing an asset and yet decides to choose another funding form because its cost is lower than the cost which can be achieved elsewhere in case of equity investment.
Above, the authors have presented only few possibilities for applying external sources but it is required to know that the abilities and opportunities are different. Therefore, by considering the external (social, economic, geographical) and internal influencing factors (size of company, scope of activity, technology, corporate organization etc.), the controlling system shall be elaborated and customized and, by means of it, such information should be provided for the management that, in case of a high-profile decision, such as borrowing, the risk and uncertainty will be minimized (Hanyecz, 2011).
Both types of loan payment have advantages and disadvantages. Insofar as the loan is paid back with equal principal payment then the instalment is relatively higher at the beginning of the period and it decreases continuously during the period after the development when the production and capacity utilization are still low. In this case, the repayment is a bigger burden for the enterprise. However, it belongs to the advantages when the production and capacity utilization already materialize to a greater extent than the enterprise shall spent much less on the instalment, the cash resulting from revenue can be used in other areas.
In case of an equal instalment, it would mean equal burden for the enterprise in every period. In this case, the interest load means a much higher cash outflow but the balance of principal decreases from year to year. However, its disadvantage is that the rate of interest within the instalment is high in the initial periods and it damages the corporate profitability in the long term.
During the financing of developmental decisions, the leaders of company shall keep in mind that the loan borrowed and its interests should be refunded from the net cash flows of investment.
Evaluating the financial position of enterprise is an important task for the internal stakeholders because their present and future position is largely limited by their load bearing capacity. Essential task of the liquidity management, also of the financial controller, is to avoid the corporate insolvency. The effective liquidity management ensures the continuous operation of company but it simultaneously allows of earning larger profitability with smaller expenses. Conclusion of Tarnóczi was that the corporate capital structure i.e. the extent of availing external capital is subject to the income situation of enterprise. Generally, it is worth availing external capital if, by using it, such a yield on assets can be reached which is larger than its cost (Tarnóczi et al, 2010)

Short term or long term loans can be chosen but, before choosing, it should be examined whether the cash flows originating from the normal business operation and development are sources enough for keeping the production at an appropriate level and, indeed for increasing it and, simultaneously, whether the company is able to fulfil the due payment liabilities. If yes then a good decision has been made, the financial manager serves the growth and increment of company.

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