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THE DIVERSITY OF LONG TERM FINANCING SOURCES FOR COMPANIES

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Abstract

The leasing it's a form of financing through rent by the specialized financial companies in this operations, of some machines, equipments and some companies goods of the motivation to resort at this form of trade it's in the specific of some operations that they achieve or in the fact that they don't have sufficient founds of they own and borrowed to buy them.

Having in view the multitude of ways to buy or to get only the utilization right of an asset (the leasing, the acquisition with cash from one's own founds, the acquisition through a loan, the acquisition with the payment in rate) the beneficiary has to do a deep analyze of this sources. During this analyze, the most important factor has to be taken in consideration, it's the cost of each way.

1.The comparison of leasing with other financing forms

The leasing represents a private financing way that can be analyzed like a loan and the cost of this financing source can be evaluated under the form of a financial rate. It's applied the present equality values of the equivalent financing sum principle (*the acquisition and the assembly cost of the loaned equipment* = **E**) and the treasure outputs for the future payments for the annual rent (**CH**) and the residual value (**VR**). At equality, in present day, of the two treasure flows (equivalent input and effective output) it's been calculated the actuarial cost of the leasing as a internal efficiency rate (**KI**).

The leasing cost brings in a natural way and the fiscal effects of this financing. The rent is a deductible expense from the profit tax payment. The part about the repayment of the loaned equipment doesn't constitutes a fiscal economy for the leasing beneficiary, but for the leasing purveyor, in consequently, the leasing beneficiary is not the owner of the loaned good and it's

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recording an opportunity cost, determinate by the loss of the tax economy for the repayment (**A**) of the loaned equipment.

$$E = \sum_{t=1}^{n} \frac{(1-\tau)*CH_t + \tau*A}{(1+K_l)^t} + \frac{VR}{(1+K_l)^m}$$

τ = the profit tax rate

t = 1,..., n years of availability of the leasing contract

m = n + 1

In this conditions, the leasing costs (**Kl**) it's the solution for the upstairs equation that is been calculated after the methodology of the internal efficiency rate. The leasing cost for the beneficiary (**lodger**) it's the efficiency rate for the purveyor.

The decision to choose for the leasing, in report with a banking or bond loan, it's fundamental on the net present value (**VAN**), calculated after the relation:

$$\mathbf{VAN} = \sum_{t=1}^{n} \frac{CF_t}{(1+r)^t} - \frac{VR}{(1+r)^m}$$

Since it's not payable the acquisition cost of the loaned good, in the **VAN** formula it's not included the diminution of the investment value (**I**). There for, the cash flows ($\mathbf{CF_t}$) will be determined in accordance with the future profits and the paid rent (the rent it's a deductive expense from the profit payment). The residual value (**VR**) it's paid in the m year, before the end of the life circle (**n**) of the loaned good. The present value it's compared with the loan one, for analyzing witch of this financing sources it's more advantageous.

The selection of financing sources of investments it's very complex as, besides the main criteria about the capital secured cost, acts a series of restrictions for the access at the capital market, the financial situation of the company, the motivation of the leading personnel of the company. If we refer to the last condition, if the employer of the company has all the assets, then he owns the business and he is responsible for all the decisions, good or bad. In this conditions, he will not approve the capital increase through the sale of new assets to the public. If it doesn't have the possibility to buy himself, then he will prefer other financing sources.

There for, the access to the bond loans doesn't have than a low number of companies, respectively the ones that offer a sufficient guarantee for thus pledges in presence of the public, in plus, the bond loan it's very complicated from the formality's point of view.

Most of the companies are not in the stock market and they don't have the possibility to negotiate the titles through the stock market. So, it doesn't have any other way but the auto financing the usual banking loan, the leasing or the assets sale.

The operation cost in the financial leasing case

In this case, besides the price of the asset acquisitioned by the leasing company, the beneficiary has to pay the interest perceived by the company, a tax on the contract and the assurance achieved between the leasing company and an assurance company. The cost of the leasing operations (**CTL**) for the beneficiary (the value of the leasing contract + assurance) is: **CTL = Pa + Dob_{sl} + Tc + Casig**

Pa = acquisition price

Dob_{sl} = the interest perceived by the leasing company

Tgest = the administration fee

Casig = the good's assurance cost

The CIP price of the acquisition asset (Pa)	120.000 USD
The interest perceived by the leasing company (Dob_{sl})	27.140 USD
The administration fee (Tgest)	4.800 USD
The good's assurance (Casig)	9.600 USD
The total cost of the financial leasing operation	**161.540 USD**

This represents with 4.150 USD more than the acquisition price. But, an alike analyze is not conclusive because it doesn't take in consideration the fiscal economy and the actualization. In the beneficiary decision for the achievement of a leasing contract to other ways of acquisitions detriment has to be taken in consideration by **accumulation of the net present cost.** This is obtained through the diminution of the total cost with the fiscal economy, all bringed to the present day at the beginning of the operation.

The cost for the leasing operation for the beneficiary is of 161.540 USD.

Deductible expenses = Repayment + Interest + administration fee + Assurance

Deductible expenses = 48.000 + 27.140 + 4.800 + 9.600 = 89.540 USD.

Not deductible expenses = 72.000 USD

At the establishing of fiscal economy has to be taken in consideration the deductive and no deductive expenses. In the financial leasing contract's case, the deductive expenses done by the beneficiary are: Repayment; Interest; The contract tax; expenses with assurance.

The month repayment is been calculated reporting to the good's value (the CIP price) at the normal life circle (60 months). This repayment is been reflected in the main frame(in the leasing rate frame), the rest represents an non deductive expenses.

Thus, in the first month: The main = 2.435 USD, from witch:

Repayment = 2.000 USD and The non deductive expenses = 435 USD

So, on the following of the two years how the leasing contract last, the repayment value is of 2.000 USD × 24 months = 48.000 USD, so the beneficiary repays the good in proportion of 40%.

The interest paid by the beneficiary to the leasing company, on the length of the contract is calculated from the addition of month interest. Its value is of 27.140 USD, that is 17.338 USD in the first year and 9.802 USD in the second year.

The assurance expenses represent 4% from the good's value. So, as it can be observed, the present value of net expenses done by the beneficiary for a present rate of 13% is of 131.249 USD.

If it's following the distinguishing of **total present expenses,** then it will be added at the total present expenses and the actualization tax on the profit is obtained 166.270 USD.

We observe that a calculation surprises the beneficiary's effort until the third year when he will pay the residual value. If it's compared the leasing through the upper mentioned criteria angle witch other financing sources of the company it will have to be taken in consideration the fact that this criteria it's not distinguished the fact that the beneficiary has repaid a part of the asset than through the way in witch it was established the profit tax.

The cost of operation in the operational leasing's case

In this case, the whole expense is fiscal deductive. So, in the operational leasing's case this has the value of 111.459 USD. It has been found that in the operational leasing's case, the present value of net payments done by the beneficiary is much more lower than in the financial leasing's case with 19.754 USD, that represents appreciatively 16,5% from the acquisition value of the asset.

Net present payments done by the user

Year	Payments done	The fiscal economy	Net payments	Actualization factor $1/(1+0,13)^h$	Net present payments
0	92.388	23.097	69.291	1	69.291
1	63.588	15.897	47.691	1/1,13	42.204
2	-	-	-	-	-
Total	**155.976**	**38.994**	**116.982**	**-**	**111.495**

The leasing cost compared with the good's acquisition with cash payment

The value of money immobilization (**CT**) generated by this variant of acquisition of good is equal with the acquisition price (**Pa**) witch is added the income tax (**Imp**) and assurance expenses for the first year of functioning (**Casig**).

CT = Pa + Imp + Casig

Imp = Pa × the impose quote of profit and **Casig = 4% × Pa**

The fiscal economy generated by tax for the repayment from the month in witch is bought the good is Fiscal ec. = Am_l × the impose quote of profit

Net cost (**Cnet**) it will be **Cnet = CT – Fiscal ec.**

In the study case analyzed, the beneficiary will immobilize the whole sum of 120.000 USD that represents the CIP price of acquisition of the good in witch it will be added the profit tax and the expenses with the good's assurance.

The property right will go to **the beneficiary** in the moment of the good's delivery. There for, the beneficiary will pay the value of the tax for the payment in advantage like this:

From the sum of 120.000 USD, the beneficiary will take back on costs only 2.000 USD (120.000/60 months = 2.000), the equivalent of repayment of good on the month in witch is the payment done, the difference of 118.000 USD will represent the income tax.

The beneficiary will pay to the state the profit tax of 29.500 USD. So, in the good's acquisition month, the beneficiary will pay 120.000 USD the value of the good plus 29.500 USD the value of the tax owned to the state for this transaction plus the assurance of 4.800 USD, witch means a total of 154.300 USD.

The cost of the leasing compared with the good's acquisition through the banking loan

This variant of acquisition (financing) even if is extremely frequent in the economic practice presents a series of inconvenience. If, the beneficiary chooses this variant, we will show next the calculation relations for the impose condition by the bank in evaluation of the financial effort of the beneficiary.

The total financial effort (**TP –** total payment) is equal with the sum of net present cost and other expenses: **TP = Cnet + Other expenses** where:

Present-day coefficient (**a**) = the annual banking interest (**Dob**). The present-day sums it will be done with a present-day coefficient equal with the banking interest rate.

Cnet = Ctot – Fiscal ec.

Ctot= Dob + Cgest + Cfez + Casig + Cy + Rsc + Ap_{fin}

Fiscal ec. = Cded × the impose quote of the profit tax

Cded =Dod + Cgest + Cfez + Casig + Cy + Am

For the analyzed study case we will suppose the following data:

- the credit value represents 80% from the investment value, the rest of 20% represents the one's own contribution of the beneficiary;
- the beneficiary has to endorse with a good of witch value is twice as big in value than the loan's value;
- the beneficiary will do the assurance (4% from the good's value). For the second year, the assurance will be taken at the value remained no repaid (96.000 USD). The normal life circle of the good is of 5 years, and the repayment will be done in line;
- besides this assurance, the beneficiary has to realize the assurance of the good that it's endorsed in percent of 7% of it's value. Supposing for the easing of calculations that, the endorsement value is equivalent with 240.000 USD. Usually, the collateral size is equal with the loan size plus total interest (eventually plus a risk percent of 20%);
- the administration fee asked by the bank (3,9% from the loan's value);
- the expenses with the achievement of the efficiency study it's at the value of 500 USD;
- the interest rate at foreign money is of 13% per year;
- the loan is on a 2 years period;
- so, the loan value will be 96.000 USD (80%), the rest of 20% representing the one's own contribution;
- the net present cost of the good's acquisition through the contract with a banking loan is of 128.376 USD

We observe that the net present cost doesn't include the tax owned to the state by the beneficiary for the 20% contribution from the good's value covered from one's own income and not from the expenses done from income tax. Supposing that the profit tax its of 16%, and the repayment of the good for the month in witch the payment was done its of 2.000 USD, results that the owned tax will be 5.500 USD. As this will be paid in the first year, the total net present cost will be equal with 128.376 + 5.500 = 133.876 USD.

There is a way to take things and is: if we follow to identify **the total expenses** that the beneficiary will have to do in the 2 years of cash on delivery loan (minus the maintenance expenses of the good) we will do the next calculation – **total of payment** will have the **total of expenses** done (one's own contribution, expenses with the efficiency costs, with assurance and guarantee,

with interest and cash on delivery rates, administration fee), on witch is added **the tax owned to the state** for the expenses done from income taxes.

In conclusion, from this angle of things, the total present payment that was done by the beneficiary in the loan's acquisition case will be of: 164.649 USD (148.089+ 16.560).

The leasing cost compared with the acquisition with payment in rate

In the economic practice are very few companies that sell things of great value in rate because of the high price of these and the risk of failure to pay of buyers (the buyer becomes owner in the moment of good's delivery).

Supposing that exist some suppliers that accepts the delivery with the payment in rate of good in the condition of payment in advance, of assurance from physic and financial risks and achievement of a collateral right of guarantee or of imposing of an endorsement.

The calculation of CASCO bonus assurance its done at the acquisition value in the first year, and in the second year the value remained not repaid, and the assurance bonus of financial risk at the acquisition price for both years. Taken in consideration the net present cost (129.595 USD) we will see this variant of acquisition its less advantage compared with the acquisition of a credit. If we will consider the total payments that it will be done by the beneficiary 148.457 + 28.009 = 176.466 USD, we will get to the same conclusion.

In calculation it wasn't taken in consideration the tax for the advance of 40% witch is paid from income taxes. It will minimize the repayment of 2.000 USD for the first month after the acquisition of the good after the advance value, it will multiply with the profit rate and it will obtain: 11.500 USD. Its added this sum at the net present cost obtained and results the total net present value: 141.095 USD.

The comparison of leasing with other forms of good's acquisition

A. The comparison of the leasing with the cash

Analyzing the two variant of acquisition of a good we observe that its difficult compare the total payments done by the beneficiary at the good's acquisition in cash compared with the leasing operations if its not taken in consideration the same period of time as the leasing.

In this case, we will have to take in consideration and other elements of expenses that accompany the good's exploitation for the equivalent period (at less the CASCO assurance for the second year is of 4.800 USD). The biggest impediment of the acquisition variant of a good is the fact that has to dispose of

liquidities. Are frequently the situations in witch the acquisition in cash goes to an financial effort less compared with the leasing, but supposing to rally the achieved founds in previous periods and not the one's achieved from the goods exploitation.

B. The comparison of the leasing with the banking loan

For the analyzed study case after the net present cost criteria is recommendable the banking loan with the condition of existence of financial bonity and of necessary guarantee. If its taken in consideration the total present payments, we will see that still the loan is preferred (164.649 < 166.270). the explications comes in fact that the leasing company is financing the goods acquisition through banking loan. All the expenses to the occasioned by the loan are recuperated through redevence that has its profit. As the structure of expenses for banking loan is similar to leasing we will analyze the conditions in witch the leasing is to be preferred the loan only under this criteria.

The leasing interest is much bigger that of the bank and the contact tax is equal with the loan's administration fee. There for, if the leasing company would finance the operation one's own contribution and not through loan, could reduce the interest perceived from the beneficiary, and the leasing operation could be more attractive then the loan. Yet, between the dates obtained in upper formulas it doesn't exist a difference to discourage the beneficiaries.

C. The leasing comparison with the payment in rate

And in this case, after the net present cost criteria, the leasing is much less attractive although the difference is very low. If its been analyzed after the total present payment criteria is much more advantageous the leasing (166.270 < 176.466). The comparison with this variant of acquisition its difficult out of two reasons: in practice are few companies with sales in rates for goods with high values and, if they do it, they ask for the assurance for financial risk or banking guarantees, for real estate. The result of the study case can be in the leasing operations advantage if the asked advance is zero.

In conclusion, it can be observed that the leasing's advantage from the other forms of good's acquisition it is not in the volume of immobilizations but in the facilities offered by the operations assembly. If the interests asked by the leasing companies are lower, then and under the immobilization's volume angle it will be much more advantageous the leasing.

References

Andreica M. 1997. *The leasing*, CRIMM Foundation, Bucharest.

Brealy R., Mayers S. 2002. *Principles of Corporate Finance*, The MacGraw – Hill Companies.

Clocotici D., Gheorghiu Gh. 2000. *The leasing operations*, Lumina Lex, Bucharest.

Peter K., Frank J. 2000. *Equipement Leasing*, 4th edition, Don Jon Irwing.