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# Effects of Financial Leasing on Financial Ratios and Tables by Turkish Accounting Standard 17 (TMS 17)

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**Abstract**

The firms have options of "purchasing" or "hiring" methods to obtain the economic assets needed to perform their activities. Especially when it comes to fixed assets, firms prefer to hire option since they initially do not want to invest a significant amount of funding for long-term assets or the difficulty of finding the necessary funds for the purchase or assets pose a high risk to the firms. In this respect the firms' hiring preferences may be in terms of operating leases or finance leases. However, these lease preferences can caused significant differences in the company's income statement and statement of financial position (balance sheet). Explaining the lease in terms of tax legislation and Turkey Accounting Standards (TMS), we mean to determine the differences between operating lease and financial lease which begin with the accounting process and evaluate the affects on the financial statements and the ratios.

**Keywords:**

Financial Leasing, Operating Leasing, Turkey Accounting Standards 17

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Businesses need assets in order to be able to perform their ordinary business cycles in a healthy manner. And the assets should be financed by using some resources. In simpler terms, the basis of the financing action is to provide the necessary assets for the realization of the activity cycle (Akgüç, 1994, s. 611). At this point, the business needs a wide variety of assets, and there are a variety of resource alternatives to financing them. However, businesses may be reluctant to invest directly, especially in the case of gigantic sums, such as fixed assets (Gökgöz, 2013). One of the main reasons for this is that the investment can express very large amounts; and the other is that the business increases the its current risk by investing the funds in these assets in an environment where technology is sensitive and change is fast (Okka, 2009).

The point reached in today's economies and financial markets is to force businesses to think more deeply and to be careful about their financial management. In this context, the alternatives for this purpose are known as financial derivative instruments. One of these tools is financial leasing. Financial leasing or, in other words, "leasing" with the simplest expression is known as an alternative financial method to traditional borrowing in the acquisition of assets which are very risky or have insufficient financial means (Lease, McConnell &Schallheim, 1990, Grenadier, 1996). The most widely used definition of the subject is the European Leasing Association: "a contract between a lessor and a lessee for a certain period of time and gives the property rights to the lessor and the using rights to the lessee of a good which is selected by the lessee and purchased by the lessor".

Financial leasing, which is one of the means of financing the assets of the enterprise, has become one of the financing techniques that are frequently used in the world in the last 20 years (Beattie, Edwards, & Goodacre, 2012).

In fact, the history of financial leasing dates back to the early ages(Toroslu, 2000) but using as present formcomes across 1930s, a turning point in which the businesses experiencing resource constraints, particularly because of the economic depression (Gönen & Akça, 2014). In Turkey, this method started with the "Financial Leasing Act" numbered 3226 published in the Official Gazette dated 28/06/1985 and with this law, the legal framework of financial leasing has been established. However in 2012, the law numbered 3226 was abolished and this method continues to be applied In the direction of "Financial Leasing, Factoring and Financing Companies Law" numbered 6361 published in the Official Gazette dated 13/12/2012, numbered 28496.

**Financial Leasing in terms of Tax Procedural Code**

The financial leasing transactions in Turkey were carried out according to the Financial Leasing Law no. 3226 dated 10.06.1985 until 1 July 2003 and up to today financial leasing payments made in favor of the contract were recorded practically as income / expense on the basis of paying lessor and lessee. In accordance with this law, the leasing transactions have been accounted and appraised as operating leases despite the fact that it is a financial lease in essence. With the Law No. 4842 enacted on July 1, 2003, the principles regarding valuation of financial leasing transactions and the matters relating to accounting income-expense have been rearranged with the repeated 290th article added to the Tax Procedure Code(Doyrangöl).

Economic asset subjected to financial lease and appraisal and depreciation of rights, debts and receivables will be carried out according to the following principles considering the General Communiqué of TPC 319. Provisions relating to lessor:

- The total amount of lease payments (principal and interest) which are to be made by the lessee during the leasing period will be charged as receivable. On the other hand, the difference between the "amount of capitalized receivables" and the "present value of leasing payments" will be assessed by passivating as interest income for future periods and transferred to the records.
- Leasehold economic asset will be assessed by the amount found as the deduction of the present value of the lease payments from the net balance sheet value of the economic asset. If the amount calculated as the result of deduction of present value of lease payments from net balance sheet value of the economic asset is zero or negative, economic asset is valued at token value and the difference should be recorded as income like gains from the removal of economic asset. Since

the net balance sheet asset value of the financial lease and the present value of the lease payments are often equal, the leasing company or the lessor will generally display the economic asset in its records with the token value. If the amount resulting from deduction of the present value of the lease payments from the net value of the economic asset and is positive, the positive difference will be subject to depreciation by the leasing company. The amortization will be made during the period determined for this economic asset in the TPC and related general communiqués. If the difference is zero or negative, it is not possible to deduct depreciation and there will be no revaluation for economic purposes.

- Future interest incomes will be accrued by calculating to create a fixed periodic interest rate over the amount obtained by the deduction of principal repayments at the end of each period from the current value of the leased economic asset based the date on which the lease agreement was made. From the date of accrual, it is necessary to understand the end date of the act. From each 'end of period' statement, it is necessary to understand the payment periods in the payment plan in the lease contract.
- It is not possible to subject the activated amount of the receivable to rediscount.
- In the case of using denominated loans as Turkish Lira or foreign currency for the purchase of economic assets by the leasing companies, if the exchange differences paid for the first year and interest expenses can be added to the value of the asset before the contract is made, the it will be added to costs; otherwise it will be recorded as expense in other years.
- If the lessor makes production or trade of the financial asset subject to financial leasing, the current value of the economic asset will be taken into consideration as the net balance sheet asset value. The difference between the current value and the cost price must be treated as profit or loss from ordinary sales transaction.
- Since the provisions of the article will enter into force at the date of publication to be applied to the leasing transactions made as of 01/07/2003, the leasing companies will continue to allocate depreciation and revaluation for fixed assets in lease contracts made before 01/07/2003.

Provisions relating to lessor:

- The right to use the economic asset in the leasing transaction and the liability arising from the contract will be assessed by the lower of the current value of the economic asset subject to lease or the present value of the lease payments to be made by the contract. Financial asset subject to financial lease will be taken into assets as right to use and debt to lessor as a counterpart.
- The right to use the economic asset subject to the financial lease, which is capitalized by the lessee, will be depreciated according to established procedures and principles for the leasehold economic asset in the first section of the third part of the third book of the Tax Procedures Code and related general communiqués and will be subject to revaluation pursuant 298th article of the Bankruptcy Code. In the case of contractual termination, depreciation and revaluation will not be carried out in relation to the economic value for the remaining periods.
- Lease payments made according to financial lease contract will be separated into debt principal payments and interest payments and this will be done to ensure that a fixed periodic interest rate is applied to the remaining amount of debt at the end of each period. The statement of "end of each period", which is interpreted in terms of the lessor, is the payment date of the lease specified in the contract in terms of lessees.
- It is not possible to subject lease obligations to rediscount within the scope of article 285 of TPC.
- The lease transaction is not fundamentally different from a credit transaction. The interest portion of financial leasing paid to the lessor is subject to the restriction of the financing expenses.
- In case the leasing company is found abroad, it is subject to withholding by the lessee according to the 24th article of the Tax Code no 5422.

- As the provisions of article 290th will be applicable to the leasing transactions to be made after 01/07/2003, the financial lease payments will continue to be recorded as expense billed according to the payment schedule in the financial lease agreements made before this date.

**Financial Leasing in terms of Turkish Accounting Standard 17**

TAS 17 Leasing Transactions Standard was published by the Turkish Accounting Standards Board in 2006 and updated with the notifications in order to comply with the amendments in International Financial Reporting Standards (IFRS) (Köksal & Beller, 2013). The standard makes a fundamental distinction caused by the property between financial leases and operating leases as all risks and benefits that do not transfer or delegate to the lessee in large measure (Branswijcki, Longueville, &Everaert, 2011, Gönen&Akça, 2014).

The standard is intended to define accounting policies and disclosures that should be applied by the lessee and the lessor in relation to the leased transactions. Also, the standard is used in accounting for all types of leases, with the exception of the following:

- Leasing operations for exploration and use of resources which are unrepentable such as mine, oil, gas and so on.
- License agreements for products and the rights as movies, videocassettes, games, handwritings, patents and copyrights.

However, this standard is not used in the measurement of following assets:

- Real estate held by the lessees for investment purposes,
- Investment properties which lessors lease in the framework of operating leases,
- Biological assets held by the lessees in the framework of financial leasing,
- Biological assets held by the lessors in the framework of financial leasing.

**Classifying of Leases**

Given the definition of operating lease in its standard scope, the operating lease is a limited lease where the entire risks and benefits of ownership of an asset are not transferred and the point at which it basically left the financial lease is that the lease term has remained at a limited point. Classification of leases by these criteria can be attributed to the desire of businesses to avoid that may arise with the asset, when leasing them. As a matter of fact, it may make sense to avoid taking over all the risks in the leasing transactions that operating lease assets are often sensitive to technological development, are at risk of outsourcing, or are assets that need maintenance and repair (Ceylan, 2003). On the other hand, such leases usually do not cover the entire life of the lease; they are shorter contracts than the lease period (Toroslu, 2000).

**Accounting for Leases**

The accounting of lease transactions in the standard has been subject to a double separation in terms of the lessor and the lessee. Later on, the accounting transactions are explained by subjecting to a reclassification, in terms of financial leasing and operating lease. According to TAS 17 Leasing Transactions Financial Reporting Standard and article 290 of TPC; if a leasing transaction is classified as a finance lease, the lessee accounts for the lease as assets and liabilities by the lower of current value or present value of the minimum lease payments.

**Accounting for Leases in term of Lessee**

According to Turkish Accounting Standard 17, the accounting of the leasing transactions in terms of the lessee is under two headings: financial leases and operating leases.

**Financial Leases**

TAS 17 analyzes the accounting for leasing transactions for the lessee as "initial accounting", "subsequent measurements" and "disclosures".

**Initial Accounting**

At the beginning of the lease term, the lessee accounts for the financial lease as assets and liabilities in the balance sheet by the lower of the current value determined at the beginning of the lease or the present value of the minimum lease payments. Discount rate to be used in the calculation of present value of minimum lease payments is the interest rate implicit in the lease if it can be determined; if can not then lessee's additional borrowing interest rate does. The initial direct costs of any kind of lessee are added to the amount that is accounted as an asset. Leasing transactions and other events are accounted for and presented in line with the legal forms of transactions, as well as the basis and economic substance.

**Subsequent Measurements**

Minimum lease payments are classified as financing expenses and the reduction in current liabilities (debt principal repayment). Financing expenses are allocated for each term throughout the lease period to ensure that a constant interest rate is applied to the remaining debt amounts. In practice, the lessee may use some estimation methods to facilitate the calculation of the financing costs during the lease period.

**Disclosures**

In addition to fulfilling the requirements of the "Turkish Financial Reporting Standards - TFRS 7 Financial Instruments: Disclosures" standard, the lessee make the following explanations regarding the leasing transaction:

- Net book value at the end of the reporting period for each asset of the lease.
- The sum of the future minimum lease payments at the end of the reporting period and their present value's mutuality with each other. In addition, the sum of the future minimum lease payments at the end of the reporting period and the value of present values for each period which are shown below:
    - Less than a year; (ii) more than a year and less than five years;
    - More than five years
    - Contingent lease amounts accounted as expense in the period
- At the end of the reporting period, the sum of the minimum lease payments expected to be obtained in relation to sub - leases made in the form of irrevocable leases
- Lessee's general qualifications for significant leasing transactions included below but not limited with them
- The basis for the determination of conditional lease payments,
- The existence and conditions of renewal or purchase options and price adjustment provisions.
- Restrictions on lease agreements, such as dividend payments, additional borrowing and new leases.

In addition, the principles in the disclosures of TAS 16, TAS 36, TAS 38, TAS 40 and TAS 41 are also valid for leased assets in the context of lease terms for lessees.

**Operating Lease**

In operating leases, the payments are reported as expenses over the lease term on a straight-line (equal) basis unless another systematic approach reflects better the timing of the lessee's benefit. Also, the payments are reported as expense on the basis of straight-line depreciation method unless another systematic approach reflects better the timing of the lessee's benefit even if the payments are not based on this method. In addition to conforming to TFRS 7, the lessee also makes the following disclosures about operating lease transactions:

- In the context of non-cancelable operating leases, the sum of the minimum lease payments to be paid for each period showed below:
    - Less than a year
    - More than a year and less than five years;
    - More than five years
- The sum of the minimum lease amounts expected to be obtained in respect of the sub leases made in the form of irrevocable leases at the end of the reporting period.
- Payments for initial lease and payments for sub-lease accounted as an expense in the form of minimum lease payments, contingent leases and sub-lease payments within the period
- A general description of the lessee's significant leases, including below, but not limited to:
    - The basis for the determination of conditional lease payments,
    - The existence and conditions of renewal or purchase options and price adjustment provisions.
    - Restrictions on lease agreements, such as dividend payments, additional borrowing and new leases.

**Accounting for Leases in term of Lessor**

The accounting of leasing transactions in terms of the lessor according to Turkish Accounting Standard 17 is also under two headings as financial leases and operating leases.

**Financial Lease**

TAS 17 analyzes the accounting for leasing transactions for the lessor as "initial accounting", "subsequent measurements" and "disclosures".

**Initial Accounting**

The lessors reflect the assets subject to financial leasing on the financial statements and they are presented as a receivable equal to the net lease investment amount. Since all the risks and benefits arising from having an asset legally are transferred by the lessor, the lease payments owed to the lessor are taken into account as the return of capital invested and financing income in order to meet his investment and other services and to provide himself with a benefit. The initial direct costs are usually borne by the lessor and they contain the costs such as commissions, legal costs, and internal costs which are resulted from the negotiation and arrangement of the lease agreement and which are directly attributable to them. It does not include general expenses such as those stemming from sales and marketing transactions. The interest rate included in the lease is determined to include it directly in the lease income, without having to separately consider the initial direct costs.

**Subsequent Measurements**

Financing income is accounted for as a basis reflecting a fixed periodic rate of return in net investment regarding the lessor’s leased assets. The lessor aims to distribute the financing income in a systematic and rational way during the lease period. Lease payments for any period, excluding costs related to services, are taken into account in determining gross lease investment to reduce the principal and unearned finance income. The residual values are continuously passed through.

**Disclosures**

In addition to fulfilling the requirements of TFRS 7, the lessor must also make the following disclosures about leasing transactions:

- Gross lease investment and the present value of minimum lease payments’ mutuality with each other at the end of the reporting period. In addition, the present value of the minimum lease payments to be made and the value of the gross leasing investment at the end of the reporting period are disclosed for each of the following periods:
    - Less than a year;
    - More than one year and less than five years;
    - More than five years.
- Unearned finance income.
- Unsecured residual value of the lessor.
- Accumulated provision for uncollectible minimum lease receivables.
- Conditional lease amounts accounted for as income in the related period.
- A general explanation of the important lease agreements that the lessor has made.

It is often useful to disclose the difference, in terms of being a mark of growing up, between gross investment and unearned income after the required amounts for canceled leases have been deducted for new jobs during the period.

**Operating Lease**

The lessor displays the assets subject to the operating lease according to their nature in the statement of financial position (balance sheet). Lease income from operating leasing is accounted as income by applying linear method throughout the lease term unless there is another systematic method that better reflects the timing of the benefit reduction accounted as expenses. In addition to fulfilling the provisions of TFRS 7, the lessors make the following explanations with respect to operating leases:

- The sum of the minimum lease payments to be obtained in the future in the framework of the non-cancellable lease and the amounts for each of the following periods:
    - Less than a year;
    - More than one year and less than five years;
    - More than five years.
- Total contingent leases accounted as income in the period.

- General description of the significant leasing arrangements that lessor have made.

In addition, the principles in the disclosures of TAS 16, TAS 36, TAS 38, TAS 40 and TAS 41 are also valid for leased assets in the context of lease terms for lessors.

## Sample Application

In the context of operating and financial leasing, an example of the effects of leasing on financial statements and ratios is as follows:

*An enterprise wants to lease a machine with a market value of 300,000 ₺. Assume that the lease term is 6 years and the residual value is 50,000 ₺.According to the contract, the annual lease price is 70,000 ₺. Payments for leasing will be made at the end of each year (the depreciation period is equal to the lease period of the asset and the tax is neglected).*

**In terms of operating lease**, the annual lease to be paid before tax will be the same for each year.

| Operating Lease | |
|---|---|
| **Years** | **Lease Amount** |
| **1** | 70,000 ₺ |
| **2** | 70,000 ₺ |
| **3** | 70,000 ₺ |
| **4** | 70,000 ₺ |
| **5** | 70,000 ₺ |
| **Total** | 420,000 ₺ |

**Table 1**: Annual Installments of Operational Lease

**In financial leasing,** annual expenses (interest and depreciation) and pre-tax cash flows are not equal.In terms of total figures, however, both the annual expenses and the cash flows are equal in both lease types. Annual interest rate;

$$i = 0.1342825 \cong \%13.43$$ [d]

| Financial Lease | | | | | |
|---|---|---|---|---|---|
| **Years** | **Start Amount** | **Lease Amount** | **Interest** | **Principal** | **Remaining Amount** |
| **1** | 300,000 | 70,000 | 40,284.75 | 29,715.25 | 270,284.7 |
| **2** | 270,284.7 | 70,000 | 36,294.51 | 33,705.49 | 236,579.3 |
| **3** | 236,579.3 | 70,000 | 31,768.45 | 38,231.55 | 198,347.7 |
| **4** | 198,347.7 | 70,000 | 26,634.63 | 43,365.37 | 154,982.3 |
| **5** | 154,982.3 | 70,000 | 20,811.42 | 49,188.58 | 105,793.8 |
| **6** | 105,793.8 | 70,000 | 14,206.25 | 55,793.75 | 50,000 |

**Table 2:** Annual Installments of Financial Leasing

Pre-tax cash flows are the same for both types of leases; but post-tax cash flows differ both in amounts, in the income statement, and in the balance sheet. Accounting records for operating leases;

| | | |
|---|---|---|
| / | | |
| 180 PREPAID EXP. for the FOLLOWING MONTHS | 70,000 | |
| 280 PREPAID EXP. for the FOLLOWING YEARS | 350,000 | |
| 336 OTHER LIABILITES | | 420,000 |
| / | | |
| 770 GENERAL and ADM. EXPENSES | 70,000 | |
| 180 PREPAID EXP, for the FOL, MONTHS | | 70,000 |
| / | | |
| 336 OTHER LIABILITIES | 70,000 | |
| 102 BANKS | | 70,000 |
| / | | |

The accounting records related to financial lease are as follows. In the type of lease, the machine that is subject to lease is shown as a fixed asset in the balance sheet.Therefore, it is also necessary for the entity to allocate depreciation for this asset:

*Useful life of entity* *6 years*
*Depreciation Ratio* *16,67%*

| | | |
|---|---|---|
| / | | |
| 253 MACHINERY, EQUIPMENT and INSTALLATION (or 260 RIGHTS) | 250,000 | |
| 302 INT. PAYABLES of DEFERRED LEASE COST | 40,285 | |
| 402 DEFERRED LEASE INTEREST PAYABLES | 129,715 | |
| 301 LEASING PAYABLES | | 70.000 |
| 401 LEASING PAYABLES | | 350.000 |
| / | | |
| 301 LEASING PAYABLES | 70,000 | |
| 102 BANKS | | 70.000 |
| / | | |
| 780 FINANCIAL EXPENSES | 40,285 | |
| 302 INT, PAYABLES of DEF, LEASE COST | | 40.285 |
| / | | |
| 730 GENERAL PRODUCTION EXPENSES | 50,000 | |
| 257 ACCUMULATED DEPRECIATION (or 268 ACCUMULATED AMORTIZATION) | | 50.000 |
| / | | |

[d] $300{,}000 = \frac{70{,}000}{1+i} + \frac{70{,}000}{1+i^2} + \frac{70{,}000}{1+i^3} + \frac{70{,}000}{1+i^4} + \frac{70{,}000}{1+i^5} + \frac{70{,}000+50{,}000}{1+i^6}$

**Income Statement**

In the case of operating leases, all leasing expenses are recorded as lease in the context of operation expenses.This expense is considered to be a normal lease expense and the lease amounts to be paid annually during the lease period do not change.Amounts accounted in "770 General and Administration Expenses" account during the period will be "632 General and Administration Expenses" at the end of the period in the income statement.So, if the transaction is accounted as an operating lease, it will affect the income statement at the level of operating profit / loss.

| | | |
|---|---|---|
| / | | |
| 770 GENERAL and ADM. EXPENSES | 70,000 | |
| 180 PREPAID EXP, for the FOL, MONTHS | | 70,000 |
| 31/12/20XX | | |
| 632 GENERAL and ADM. EXPENSES | 70,000 | |
| 771 REFLECTION ACCOUNT for GENERAL and ADM, EXPENSES | | 70,000 |
| 31/12/20XX | | |
| 771 REFLECTION ACCOUNT for GENERAL and ADM. EXP. | 70,000 | |
| 770 GENERAL and ADM, EXPENSES | | 70,000 |
| / | | |

*(same for first year and next years)*

For financial leases, a part of the lease amount is an interest expense not included in the operating expenses; a part depreciation and the other part principal. At this point amounts to be reflected in the income table will be depreciation and interest expenses. More specifically, the depreciation amount will affects "620 Cost of Goods Sold", hence in the form of gross sales profit / loss; and interest rate will do "660 Short-Term Borrowing Expenses" and therefore the period profit / loss.

| | | |
|---|---|---|
| / | | |
| 730 GENERAL PRODUCTION EXPENSES | 50,000 | |
| 780 FINANCIAL EXPENSES | 40,285 | |
| 257 ACCUMULATED DEPRECIATION | | 50,000 |
| 302 INT, PAYABLES of DEF, LEASE COST | | 40,285 |
| 31/12/20XX | | |
| 620 COST of GOODS SOLD (Product) | 50,000 | |
| 660 SHORT-TERM BORROWING EXPENSES | 40,285 | |
| 731 REF, ACCOUNTING for GENERAL PRODUCTION EXPENSES | | 50,000 |
| 781 REF, ACCOUNTING for FIN, EXPENSES | | 40,285 |
| 31/12/20XX | | |
| 731 REF. ACCOUNTING for GENERAL PRODUCTION EXPENSES | 50,000 | |
| 781 REF. ACCOUNTING for FIN. EXPENSES | 40,285 | |
| 730 GENERAL PRODUCTION EXPENSES | | 50,000 |
| 780 FINANCIAL EXPENSES | | 40,285 |
| / | | |

*(for the first year)*

The total of the above-mentioned daybook entries for the total lease period of 6 years is reflected in the income table as follows. It is assumed that the firm has a hypothetical sale value of TL 2,000,000 and a selling cost of TL 1,000,000.

| | **1st year** | | **2nd year** | | **3rd year** | |
|---|---|---|---|---|---|---|
| | **Operating Lease** | **Financial Lease** | **Operating Lease** | **Financial Lease** | **Operating Lease** | **Financial Lease** |
| A-GROSS SALES | **2,000,000** | **2,000,000** | **2,000,000** | **2,000,000** | **2,000,000** | **2,000,000** |
| B-SALES DISCOUNTS ( - ) | **0** | **0** | **0** | **0** | **0** | **0** |
| C-NET SALES | **2,000,000** | **2,000,000** | **2,000,000** | **2,000,000** | **2,000,000** | **2,000,000** |
| D-COST of GOODS SOLD ( - ) | **1,000,000** | **1,050,000** | **1,000,000** | **1,050,000** | **1,000,000** | **1,050,000** |
| 1-Cost of Goods Sold (Product) ( - ) | | 50,000 | | 50,000 | | 50,000 |
| 2- Cost of Goods Sold ( - ) | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 |
| GROSS SALES PROFIT/LOSS | 1,000,000 | 950,000 | 1,000,000 | 950,000 | 1,000,000 | 950,000 |
| E-OPERATING EXPENSES | **70,000** | **0** | **70,000** | **0** | **70,000** | **0** |
| 3-General and Adm. Expenses( - ) | 70,000 | | 70,000 | | 70,000 | |
| OPERATING PROFIT/LOSS | 930,000 | 950,000 | 930,000 | 950,000 | 930,000 | 950,000 |
| F-ORDINARY INCOME/PROFITS | **0** | **0** | **0** | **0** | **0** | **0** |

| | | | | | | |
|---|---|---|---|---|---|---|
| FROM OTHER OPERATIONS | | | | | | |
| G- ORDINARY EXPENSES/LOSES FROM OTHER OPERATIONS | **0** | **0** | **0** | **0** | **0** | **0** |
| H-FINANCIAL EXPENSES ( - ) | **0** | **40,285** | **0** | **36,295** | **0** | **31,768** |
| 1-Short-Term Borrowing Exp. ( - ) | | 40,285 | | 36,295 | | 31,768 |
| ORDINARY PROFIT/LOSS | 930,000 | 909,715 | 930,000 | 913,705 | 930,000 | 918,232 |
| I- EXTRAORDINARY INCOME/PROFITS | 0 | 0 | 0 | 0 | 0 | 0 |
| J- EXTRAORDINARY EXPENSES/LOSES (-) | **0** | **0** | **0** | **0** | **0** | **0** |
| PROFIT OR LOSS | **930,000** | **909,715** | **930,000** | **913,705** | **930,000** | **918,232** |
| | **4th year** | | **5th year** | | **6th year** | |
| | **Operating Lease** | **Financial Lease** | **Operating Lease** | **Financial Lease** | **Operating Lease** | **Financial Lease** |
| A-GROSS SALES | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 |
| B-SALES DISCOUNTS ( - ) | 0 | 0 | 0 | 0 | 0 | 0 |
| C-NET SALES | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 |
| D-COST of GOODS SOLD ( - ) | 1,000,000 | 1,050,000 | 1,000,000 | 1,050,000 | 1,000,000 | 1,050,000 |
| 1-Cost of Goods Sold (Product) ( - ) | | 50,000 | | 50,000 | | 50,000 |
| 2- Cost of Goods Sold ( - ) | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 |
| GROSS SALES PROFIT/LOSS | 1,000,000 | 950,000 | 1,000,000 | 950,000 | 1,000,000 | 950,000 |
| E-OPERATING EXPENSES | 70,000 | 0 | 70,000 | 0 | 70,000 | 0 |
| 3-General and Adm. Expenses( - ) | 70,000 | | 70,000 | | 70,000 | |
| OPERATING PROFIT/LOSS | 930,000 | 950,000 | 930,000 | 950,000 | 930,000 | 950,000 |
| F-ORDINARY INCOME/PROFITS FROM OTHER OPERATIONS | 0 | 0 | 0 | 0 | 0 | 0 |
| G- ORDINARY EXPENSES/LOSES FROM OTHER OPERATIONS | 0 | 0 | 0 | 0 | 0 | 0 |
| H-FINANCIAL EXPENSES ( - ) | 0 | 26,635 | 0 | 20,811 | 0 | 14,206 |
| 1-Short-Term Borrowing Exp. ( - ) | | 26,635 | | 20,811 | | 14,206 |
| ORDINARY PROFIT/LOSS | 930,000 | 923,365 | 930,000 | 929,189 | 930,000 | 935,794 |
| I- EXTRAORDINARY INCOME/PROFITS | 0 | 0 | 0 | 0 | 0 | 0 |
| J- EXTRAORDINARY EXPENSES/LOSES (-) | 0 | 0 | 0 | 0 | 0 | 0 |
| PROFIT OR LOSS | **930,000** | **923,365** | **930,000** | **929,189** | **930,000** | **935,794** |

**Table 3: Income Statement (6 years)**

| | | 1st year | 2nd year | 3rd year | 4th year | 5th year | 6th year |
|---|---|---|---|---|---|---|---|
| **Gross Profit Margin** | **Operating Lease** | %50 | %50 | %50 | %50 | %50 | %50 |
| | **Financial Lease** | %47.5 | %47.5 | %47.5 | %47.5 | %47.5 | %47.5 |
| **Operating Profit Margin** | **Operating Lease** | %46.5 | %46.5 | %46.5 | %46.5 | %46.5 | %46.5 |
| | **Financial Lease** | %47.5 | %47.5 | %47.5 | %47.5 | %47.5 | %47.5 |
| **Net Profit Margin** | **Operating Lease** | %46.5 | %46.5 | %46.5 | %46.5 | %46.5 | %46.5 |
| | **Financial Lease** | %45.5 | %45.7 | %45.9 | %46.1 | %46.4 | %46.8 |

**Table 4: Profit Margins**

| **Years** | **Operating Lease** | | **Financial Lease** | |
|---|---|---|---|---|
| | **Debt/Equity** | **Debt/Assets** | **Debt/Equity** | **Debt/Assets** |
| **1st year** | 1.675 | 0.626 | 1.610 | 0.617 |
| **2nd year** | 1.640 | 0.621 | 1.593 | 0.614 |
| **3rd year** | 1.605 | 0.616 | 1.574 | 0.612 |
| **4th year** | 1.570 | 0.611 | 1.552 | 0.608 |
| **5th year** | 1.535 | 0.606 | 1.528 | 0.604 |
| **6th year** | 1.500 | 0.600 | 1.500 | 0.600 |

**Table 5: Debt / Equity and Debt / Assets**

When the related figures are analyzed, it will be seen that the income statement differs in terms of operating leases or financial leases.In both types of leases, the total expense amount is the same over the lease term, although in financial leasing, these expenses are higher in the first years of process than in operating lease and lower in the following years than in operating lease.Therefore, for a business that chooses to lease, net income (and hence net profit margin) will be low in the first years and high in the following years.

On the other hand, the firm whichdepreciated due to financial lease will have a lower gross profit margin due to an increase of 50,000 TL in the cost of the product sold.Since interest expresses a non-activity, the operating expenses within the scope of financial leasing will be lower than the lease expenses within the scope of the operating.As a result, operating income (EBIT) and operating margin will be higher in a financial leasing process.In addition, interest expenses will be higher under financial lease and the interest coverage ratio (ICR) will be lower.

**Balance Sheet**

In an operating lease, no assets or liabilities are recorded in the balance sheet at the beginning of the lease. Only expenditures related to future months and years are recorded (Kostolansky, Altschuler, & Stanko, 2012).However, in the case of financial leasing, balance sheet are recorded assets equal to the present value of the minimum lease payments and liabilityin the total expense; equity is not affected by this situation at the starting point.

| | | |
|---|---|---|
| / | | |
| 253 MACHINERY, EQUIPMENT and INSTALLATION | 250.000 | |
| 302 INT. PAYABLES of DEFERRED LEASE COST | 40.285 | |
| 402 DEFERRED LEASE INTEREST PAYABLES | 129.715 | |
| 301 LEASING PAYABLES | | 70.000 |
| 401 LEASING PAYABLES | | 350.000 |
| / | | |

In addition, the asset recorded under the financial liability is a fixed asset; The obligation will also be a long-term obligation; However, it will become a current liability together with the payments made at the end of each year.In a balance sheet with positive equity, that is, total assets exceeding total liabilities, the percentage of the increase in debt with a financial lease to be realized will be greater than the percentage of the increase in assets.So debt / equity ratio will be bigger than debt / assets ratio.

When we look at the impact of the lease on the current ratio in general terms, it is seen to be lower due to the increasing short-term liabilities and unchanging current assets.In a simpler sense, it is clear that the current ratio, if we suppose to be 1.5 in case of no leasing, falls in both ways in the case of leases.However, in the case of operating leases, it is understood that the deviation in this direction is much more.

| Current Ratio | Operating Lease | Financial Lease |
|---|---|---|
| 1st year | 1.163 | 1.451 |
| 2nd year | 1.227 | 1.445 |
| 3rd year | 1.298 | 1.438 |
| 4th year | 1.377 | 1.430 |
| 5th year | 1.467 | 1.421 |
| 6th year | 1.500 | 1.500 |

**Table 6:** Current Ratio in Operational Lease and Financial Lease

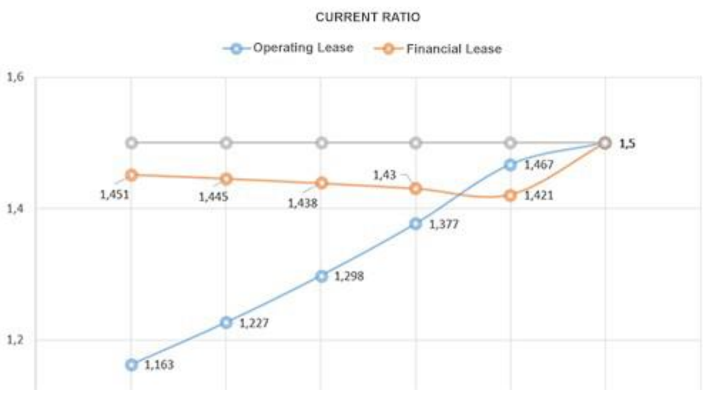


**Figure 1:** Current Ratio in Operational Lease and Financial Lease

| | | **1st year** | | **2nd year** | | **3rd year** | |
|---|---|---|---|---|---|---|---|
| | | **Operating Lease** | **Financial Lease** | **Operating Lease** | **Operating Lease** | **Financial Lease** | **Operating Lease** |
| **1** | **CURRENT ASSETS** | **1,570,000** | **1,500,000** | **1,570,000** | **1,500,000** | **1,570,000** | **1,500,000** |
| **18** | **Prepaid Exp. for the Following Months and Income Accruals** | **70,000** | | **70,000** | | **70,000** | |
| 180 | Prepaid Exp. for the Following Months | 70,000 | | 70,000 | | 70,000 | |
| **2** | **FIXED ASSETS** | **3,780,000** | **3,720,285** | **3,710,000** | **3,686,580** | **3,640,000** | **3,648,348** |
| **25** | **Tangible Fix Assets** | | **220,285** | | **186,580** | | **148,348** |
| 253 | Machinery, Eq. and Installations | | 250,000 | | 220,285 | | 186,580 |
| 257 | Accumulated Depreciations | | (29,715*) | | (33,705*) | | (38,232*) |
| **28** | **Prepaid Exp. for the Following Months and Income Accruals.** | **280,000** | | **210,000** | | **140,000** | |
| 280 | Prepaid Exp. for the Following Years | 280,000 | | 210,000 | | 140,000 | |
| | **ASSETS** | **5,350,000** | **5,220,285** | **5,280,000** | **5,186,580** | **5,210,000** | **5,148,348** |

| | | **Operating Lease** | **Financial Lease** | **Operating Lease** | **Operating Lease** | **Financial Lease** | **Operating Lease** |
|---|---|---|---|---|---|---|---|
| **3** | **SHORT-TERM LIABILITIES** | **1,350,000** | **1,033,705** | **1,280,000** | **1,038,232** | **1,210,000** | **1,043,365** |
| **30** | **Financial Liabilities** | | **33,705** | | **38,232** | | **43,365** |
| 301 | Leasing Payables | | 70,000 | | 70,000 | | 70,000 |
| 302 | Interest Payables of Deferred Lease Cost (-) | | (36,295) | | (31,769) | | (26,635) |
| **33** | **Other Liabilities** | **350,000** | | **280,000** | | **210,000** | |
| 336 | Other Liabilities | 350,000 | | 280,000 | | 210,000 | |
| **4** | **LONG-TERM LIABILITIES** | **2,000,000** | **2,186,580** | **2,000,000** | **2,148,348** | **2,000,000** | **2,104,982** |
| **40** | **Financial Liabilities** | | **186,580** | | **148,348** | | **104,982** |
| 401 | Leasing Payables | | 280,000 | | 210,000 | | 140,000 |
| 402 | Deferred Lease Interest Payables(-) | | (93,420) | | (61,652) | | (35,018) |
| **5** | **EQUITY** | **2,000,000** | **2,000,000** | **2,000,000** | **2,000,000** | **2,000,000** | **2,000,000** |
| **50** | **Paid Share Capital** | | | | | | |
| | **SOURCES** | **5,350,000** | **5,220,285** | **5,280,000** | **5,186,580** | **5,210,000** | **5,148,348** |

| | | 4th year | | 5th year | | 6th year | |
|---|---|---|---|---|---|---|---|
| | | **Operating Lease** | **Financial Lease** | **Operating Lease** | **Operating Lease** | **Financial Lease** | **Operating Lease** |
| **1** | **CURRENT ASSETS** | **1,570,000** | **1,500,000** | **1,570,000** | **1,500,000** | **1,500,000** | **1,500,000** |
| **18** | **Prepaid Exp. for the Following Months and Income Accruals** | **70,000** | | **70,000** | | **0** | |
| 180 | Prepaid Exp. for the Following Months | 70,000 | | 70,000 | | 0 | |
| **2** | **FIXED ASSETS** | **3,570,000** | **3,604,983** | **3,500,000** | **3,555,794** | **3,500,000** | **3,500,000** |
| **25** | **Tangible Fix Assets** | | **104,983** | | **55,794** | | **0** |
| 253 | Machinery, Eq. and Installations | | 148,348 | | 104,983 | | 55,794 |
| 257 | Accumulated Depreciations | | (43,365*) | | (49,189*) | | (55,794*) |
| **28** | **Prepaid Exp. for the Following Months and Income Accruals.** | **70,000** | | **0** | | | |
| 280 | Prepaid Exp. for the Following Years | 70,000 | | 0 | | | |
| | **ASSETS** | **5,140,000** | **5,104,983** | **5,070,000** | **5,055,794** | **5,000,000** | **5,000,000** |

| | | **Operating Lease** | **Financial Lease** | **Operating Lease** | **Operating Lease** | **Financial Lease** | **Operating Lease** |
|---|---|---|---|---|---|---|---|
| **3** | **SHORT-TERM LIABILITIES** | **1,140,000** | **1,049,189** | **1,070,000** | **1,055,794** | **1,000,000** | **1,000,000** |
| **30** | **Financial Liabilities** | | **49,189** | | **38,232** | | **0** |
| 301 | Leasing Payables | | 70,000 | | 70,000 | | 0 |
| 302 | Interest Payables of Deferred Lease Cost (-) | | (20,811) | | (55,794) | | (0) |
| **33** | **Other Liabilities** | **140,000** | | **70,000** | | **0** | |
| 336 | Other Liabilities | 140,000 | | 70,000 | | 0 | |
| **4** | **LONG-TERM LIABILITIES** | **2,000,000** | **2,055,794** | **2,000,000** | **2,000,000** | **2,000,000** | **2,000,000** |
| **40** | **Financial Liabilities** | | **55,794** | | **0** | | |
| 401 | Leasing Payables | | 70,000 | | 0 | | |
| 402 | Deferred Lease Interest Payables(-) | | (14,207) | | (0) | | |
| **5** | **EQUITY** | **2,000,000** | **2,000,000** | **2,000,000** | **2,000,000** | **2,000,000** | **2,000,000** |
| **50** | **Paid Share Capital** | | | | | | |
| | **SOURCES** | **5,140,000** | **5,104,983** | **5,070,000** | **5,055,794** | **5,000,000** | **5,000,000** |

**Table 7: Financial Status Tables (6 years)**

## Results

If an firm goes to leasing instead of purchasing its fixed assets and if it is operating leases or financial leases, it is clear that there are differences between the financial statements (balance sheet) and income statements of the firms.

When the results are examined, it is seen that assessing of a leasing transaction to be carried out, in terms of accounting, in the form of a regular lease and in General Administration Expenses will lead to higher operating costs for a business which applied operating lease.On the other hand, it is possible to expect the tax payable to be higher than a financial lease because the profit before tax is higher.For a business which applied financial leasing, it is expected that the interest coverage ratio will be lower due to the financing costs. In a financial lease, this can, in fact, be regarded as a natural consequence of a lower net margin because depreciation reduces net income.In terms of cash flows, naturally, the cash flow from financial transactions (CFF) will be lower in a financial lease and cash flow from operations (CFO) will do in operating leases since financial expenses will be more in a financial lease and operating expenses will do in operating leases.

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