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THEORY AND PRACTICE OF
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INSTRUMENT FOR TURKEY

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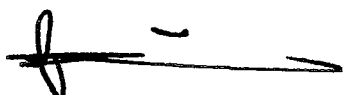
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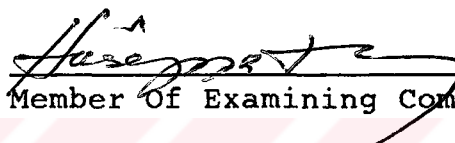
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ABSTRACT

Theory And Practice Of Leasing As A New Financial Instrument For Turkey

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Leasing is a widely used financial instrument in the world; it has shown significant development especially since 1950. A lease is a contract where the owner of an asset, the lessor, permits a user, the lessee, to use the asset for a predetermined period of time in exchange of a series of payments. The major advantage of leasing is that the lessor keeps title of the asset and therefore reduces his taxable base in the amount of depreciation allowance for the asset; this gain to the lessor is reflected to the lessee in the form of lower payments as opposed to repayment of a loan subject to the same interest rate. The asset subject to the lease agreement can be almost anything that can alternatively be purchased.

There are two main types of leasing: financial leasing and operating leasing. In a financial lease, the lessor receives back his initial investment as well as a certain profit and transfers title of the asset to the lessee at the end of the

lease term; in operating leases, however, the lease period is quite short and the asset is leased to many lessees.

Leasing provides financing to the lessee; in the case of international leasing operations, many developing countries have access to foreign capital through leasing. In some cases, leasing can be the only means for some countries to obtain such credit. This is due to the fact that the lessor sees the leased asset itself as a reliable collateral which remains under his title.

In addition, leasing has an increasingly important role as a medium of financing capital equipment investments. Available data suggests that there is an increasing trend in the use of leasing for capital equipment investments both in developed and developing countries.

The financial evaluation of leasing operations has caused much controversy particularly among researchers since 1960 and there exist a lot of points yet to be clarified although the main procedure for the evaluation is more or less agreed upon.

Although leasing was practiced in Turkey in the past in the form of operating leasing, the related legislation have recently been enacted; the new law and regulations cover financial leasing only. Since this type of leasing is not well known, a certain time period is necessary for the realization of most of the applications and the development

of a relevant market. For the development of this financial instrument, related legislation should be reviewed and amended as necessary by the Turkish Government so as to allow smooth and efficient functioning. Despite practical problems in the application of leasing, it is observed as a most useful financing instrument to complement various tools used particularly for financing new capital investment.



ÖZET

Türkiye İçin Yeni Bir Mali Araç Olan Leasing'in Teori Ve Pratiği

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Leasing dünyada yaygın olarak kullanılan bir mali araçtır; özellikle 1950'den sonra önemli gelişme göstermiştir. Leasing, bir malın, sahibi tarafından (kiralayan) bir seri ödeme karşılığında belli bir süre için bir kullanıcıya (kiracı) verildiği bir akittir. Leasing'in asıl faydası kiralayana, malın mülkiyetini kendisinde tuttuğu için, vergi matrahında malın amortisman bedeli nispetinde azaltma yapabilme imkanı vermesidir; kiralayan bu kazancını kiracıya, aynı faiz nispetindeki borcun geri ödenmesindeki ödemelere kıyasla daha düşük ödemeler talep ederek yansıtır. Leasing aktine konu olan mal, alternatif olarak satın alınabilecek herhangi bir mal olabilir.

Leasing'in finansal kiralama ve işletme kiralaması olmak üzere iki ana türü vardır. Finansal kiralamada, kiralayan yatırımını karşılayarak ve belli bir kar ederek malı, akit süresi sonunda kiracının mülkiyetine bırakır; işletme kiralamasında ise kiralama süresi oldukça kısadır ve mal bir çok kiracıya kiralanır.

Leasing kiracıya finansman sağlar; uluslararası leasing işlemlerinde, bir çok gelişmekte olan ülke leasing sayesinde yabancı sermayeye sahip olur. Bazı durumlarda, leasing bu tür kredilerin sağlanabilmesinde bazı ülkeler için tek yoldur. Bunun sebebi kiralayanın, mülkiyetinde bulundurduğu kira konusu malın bizzat kendisini güvenilir bir teminat olarak görmesidir.

Leasing, ayrıca, sermaye malları yatırımının finansmanında kullanılan bir ortam olarak önemi gittikçe artan bir yere sahiptir. Mevcut veriler, gelişmiş ve gelişmekte olan ülkelerdeki sermaye malları yatırımında leasing'in kullanılmasına artan bir temayül olduğunu göstermektedir.

Leasing işlemlerinin mali açıdan irdelenmesi özellikle araştırmacılar arasında 1960'tan beri bir çok tartışmalara yol açmıştır ve irdelene yöntemi hakkında aşağı yukarı anlaşmaya varılmasına rağmen açığa çıkarılması gereken bir çok nokta mevcuttur.

İşletme kiralaması şeklinde leasing Türkiye'de geçmişte uygulanmışsa da bu konuyla alakalı mevzuat yakın zamanlarda yürürlüğe girmiştir; yeni kanun ve yönetmelikler ise sadece finansal kiralama türünü tanımlamaktadırlar. Bu tür leasing yeterince bilinmediği için, bir çok uygulamaların gerçekleştirilebilmesi ve bu konuda uygun bir pazarın gelişmesi için süreye ihtiyaç vardır. Bu mali aracın gelişmesi için ilgili mevzuat, Türk Hükümeti tarafından, pürüzsüz ve etkin işlerlik sağlayacak şekilde gözden

geçirilmeli ve deęiştirilmelidir. Leasing, uygulamasındaki sorunlara rağmen, özellikle sermaye malı yatırımlarının finansmanında kullanılan çeşitli yöntemleri tamamlayıcı nitelikte faydalı bir finansman aracı olarak görülmektedir.



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1. INTRODUCTION

Equipment leasing activities, mostly popular in the U.S.A. in vast amounts, is a very big and important field of business established in the world. Considering only the leasing agreements on medium or long term leases and excluding real estate and automobiles, the total global size of the leasing market is estimated to be around U.S.\$ 250 billion in 1984 (26, p.19-3). About two thirds of the total market is in the U.S.A. where, in 1979, an estimated U.S.\$ 150 billion in leases were outstanding¹; also, in 1985, U.S.\$ 93.7 billion portion of new leasing business of the global U.S.\$ 154 billion were conducted in the U.S.A.(88). The popularity and widespread use of leasing in many capital equipment investment situations is due to the fact that most assets that can be purchased can alternatively be leased.

Although leasing can be traced back in history in some form or another, it gained popularity in business life when the managers have begun to understand that corporate profit obtained through their assets were essentially through the use of the assets not their ownership. But still, leasing had the aura of illegitimacy about it and was widely connected to those who could not finance them through conventional means (1). Thus, prior to 1950s, leasing was generally limited to real estate in the world (28). Leasing has seen a much broader use of application when commercial banks were permitted to enter into the leasing market in

¹ 1979 Annual Report, American Association of Equipment Lessors, pp. 2 as cited in (30).

1963 (in the U.S.A.) when the Comptroller of Currency had ruled that banks could lease personnel property i.e. everything but land and permanent buildings (as can be seen in Anaconda case explained below, even permanent structures are counted as personal property if they can be classified as special purpose structures (1) such as administrative buildings for industrial complexes). At that time, banks took some time to enter into the market, but when they finally settled in the market, they were able to provide the most complicated services and techniques. As noted in (30, p.2), entry of the banks to the industry has been a major factor for the growth of the market due to many reasons such as lowered prices (i.e. the applied interest rates for lease agreements) as a result of competition. Also in the U.S.A., in 1968, the increase in demand for funds resulted in higher interest rates and more restrictions in loan contracts as a result of which many companies tried lease financing for their equipment needs (4). Further, the leasing industry expanded when industrial equipment were financed through leasing in an increasing manner. Such equipment can be classified in separate major areas as aircraft, automobiles, computers, furnishings, industrial machinery and equipment, medical equipment, office equipment, railroad cars, and trucks (29, pp.1-2). And, in 1971, industrial leasing has brought the largest leasing contract to that date at a price of U.S.\$ 110.7 million when Anaconda Co. realized the vast amount of benefits it would gain (as a result of its tax-paying position) if it chose to enter a leasing agreement of a special type called "sale and leaseback", which shall be

explained in coming sections and this has become a popular source to gain or conserve vast amounts for corporations².

Leasing continues to grow in the U.S.A. and the world and now, it is used not only due to comparative tax advantages but also due to non-tax incentives (32) (33) and, more recently, for promotion and increased overseas sales of multinational corporations as their operations expand all over the world; in some cases, leasing may be the only alternative financing means (on a medium to long term) internationally for many of the corporations as well as the nations (26).

A major importance of leasing is due to its increasing role in capital equipment investments. Considerable amounts of new capital equipment investments are realized by leasing especially in countries where leasing is popular. In 1982, leasing accounted for 15% of total investment in plant and equipment in OECD countries (97). Some impressive proportions for the year 1986, for example, of the new private capital expenditures realized by leasing to all capital equipment investment in selected countries like Japan, United Kingdom, and France which have the foremost largest leasing markets are as given in Table 1.1:

² See (1) for the facts as well as section 2.3.2.1.

Table 1.1

Private Capital Investment By Leasing In Selected Countries

Country	Proportion Of Capital Equipment Investment Realized By Leasing Operations	Source	Global Order No. According To The Amount Of Lease Business in 1985*
Japan	8.27%	1	2
United Kingdom	16.50%	2	3
Australia	35.00%	3	5

Source : 1. (89, p.163)

2. (88, p.10)

3. (89, p.61)

* (88, p.14)

Within this study, various aspects of leasing as a financial instrument is covered. First, in Chapter 2, the concept of leasing is defined in detail. The historical development of leasing is followed by the definition of leasing, types of leasing, effects of leasing on lessors and lessees, as well as leasing's role in capital equipment investments. Complementary to this chapter is Chapter 3 which describes the advantages of leasing from the point of view of the lessor and the lessees in detail. In Chapter 4, parties forming sides to leasing arrangements, their composition along with the types of leasable equipment and the figures for the world leasing industry are presented.

Financial evaluation of leasing agreements forms a major portion of this study. Various evaluation models, their proponents and opponents are reviewed for different lease types in Chapter 5. Also discussed in this chapter are the reasons for firms to lease in addition to the advantages given in former chapters. The treatment of financial leasing agreements are further discussed in the next chapter which concentrates on some special cases of leasing such as leasing by the public sector, treatment of risky cash flows, and manufacturer leasing of equipment.

The next two chapters, Chapter 7 and 8, concentrate on international leasing operations where the leasing company and the lessee reside in different countries. First, the advantages and problems attached to such operations are examined. Then, the types of leasing transactions on an international basis, their application areas, limitations, advantages and disadvantages and parties in such operations are studied. Following this treatment, is the study on leasing for developing countries. Leasing, by providing finance for the capital equipment need in these countries have been gaining popularity within the last two decades. Switching from direct importation to leasing to satisfy their need for capital equipment, developing countries can have access to an alternative form of financing providing medium-term credits which are otherwise not available for some of them. In Chapter 8, the advantages of leasing in developing countries from the viewpoint of the lessees and the lessors as well as that of their countries of origin,

problems inherent in such transactions as well as explicit problems are studied in detail.

And, finally, in Chapters 9 and 10, Turkish leasing industry and practice is examined. First, leasing law and regulations, government incentives, treatment of accounting and taxation problems and the drawbacks in the regulations are described briefly. In the description of the leasing practice, detailed explanations are given for all types of leasing activities present in Turkey; parties engaging in leasing operations, problems and troubles the leasing industry is faced with and how leasing can help Turkey to utilize more of Islamic Development Bank is covered next. The last chapter, Chapter 10 concentrates on a specific case on cross-border leasing operations and gives an example for the custom analysis as well as various practical considerations necessary in evaluating a lease opportunity in Turkey.

2. LEASING CONCEPT

2.0. INTRODUCTION

Leasing is a widely used financial instrument in the world with a long history; however, starting from the end of the nineteenth century to now, it has shown significant development. In this chapter, in section 2.1, a brief historical development is given and in the next section, section 2.2, the concept of leasing is defined. Also, major advantage of leasing until very recently, namely the tax advantages as well as the main leasing groups, i.e. financial leasing and operational leasing are explained. Section 2.3 explains operating leases and financial leases together with their subcategories in detail and also some practical types of leasing falling under these groups are given together with some examples. The other two sections deal with mainly on accounting aspects for leasing; emphasis is given for the treatment of leases by the lessees in section 2.4 while accounting for lessors are briefly described in section 2.5. Finally, an increasingly important role of leasing, its contribution to the capital equipment investments in the world is described with available data for various countries in section 2.6.

2.1. HISTORICAL DEVELOPMENT OF LEASING

Although leasing has a history dating to ancient Sumarians, it started to establish itself as a major financial tool in the second half of the nineteenth century in the United Kingdom and the United States Of America. The equipment offered by the lease companies at those times were the railway wagons which were leased to railroad companies and coal and mineral proprietors; the leasing companies, thus, were known at that time as wagon companies. The world's first registered leasing company, the Birmingham Wagon Company, was constituted in 1855. Another sector interested in leasing was the manufacturers concerned about protecting their monopoly positions in their respective markets. For example, Bell Telephone Company adopted the policy, in 1877, to provide equipment (in a customer's home or office) on a rental basis only. Similarly, the Hughes Tool Company, the largest oil drilling equipment manufacturer of those times, kept a strict control on the price paid for its specialized equipment by providing them only through leasing (89, pp.7-19).

In the early twentieth century, similar practices were followed by manufacturers of boot and shoe making machinery, private telephone equipment, office calculating machines in both the U.S.A. and the U.K. (89, pp.15-17).

For example, International Business Machines Corporation (IBM) derived more than half of its income from leasing between years 1927 and 1940 and United Shoe Machinery

Corporation, the largest of U.S.A. in this field, distributed virtually all of its products under lease agreements (95, pp.419-420). IBM's proportion of sales to leases steadily decreased whereas the total revenue was increasing in those times.

During World War II, leasing become a widespread means of equipment financing for the U.S.A. government contracts (97, p.1).

In May 1952, the first modern leasing company, United States Leasing Corporation (currently one of the largest leasing companies of the world with new name United States Leasing International, Inc.) was established; it was the first leasing company which did not manufacture the equipment leased to customers. This company approached equipment manufacturers in order to lease their equipment to willing customers (89, p.15). Leasing then experienced rapid growth, offering 100% financing, tax benefits, and off-balance-sheet treatment (97, p.1).

By the end of 1950s, leasing was sufficiently developed in the United States for the leasing companies to turn their attention to foreign markets. It was US Leasing Corporation's influence which helped the establishment of operations elsewhere; Canadian subsidiary of US leasing was established in 1959. In 1960, Mercantile Leasing in the U.K. and Orient Leasing in Japan, then in 1962 Deutsche Leasing in Germany were established. In the early 1960s other

leasing companies began their operations in France, Italy and Australia (89).

Leasing was aggressively marketed as an alternative to medium to long term bank loans and contractual formalities were completed with great speed by the leasing companies. In Australia, the United Kingdom, and the United States, favorable tax regimes also further encouraged the growth of leasing (97).

During the 1970s, leasing showed a dramatic growth. The total amount of new leasing business in both Europe and Japan grew by more than 800% during the period 1970-1979 and by the end of the decade, leasing was widely recognized as a primary source of equipment finance. Plant and satellite leasing arrangements of more than U.S. \$200 million were common place in the United States in the last quarter of 1984 (97, p.2).

As for Asia, we can see that the leasing industry of Asia traces its history back to the early 1960s when it was first introduced in the Philippines and then in Japan. From the start the industry was successful, particularly in Japan, as an innovative means of equipment financing (67). In other Asia countries, however, the leasing business did not get started until the early 1970s. Motivated by the rapid growth of leasing in the U.S.A. and Japan, major local banks, international leasing companies and other financial institutions took the lead in establishing new leasing companies. By the late 1970s, almost all Asian nations were

being served by a network of leasing companies. Even in the People's Republic Of China, a joint-venture leasing operation was formed in 1981.

According to Yoshihiko Miyauchi, the present of Asialease¹, the pace and course of development of leasing has varied according to the stage of economic development and the historical and cultural circumstances in each Asia country. The feature which most of these nations have in common is high rates of economic growth in recent years compared with the rest of the world. Several factors have contributed to this good performance, including a well-educated pool of human resources. With good prospects for further improvement in educational levels, the outlook is excellent for steady economic growth in the region; as the economies grow, so will the potential demand for leasing services (67, p.117).

In most countries, with the notable exception of Japan, leasing has developed as a tax-driven operation (69). Lessors have taxable benefits which they want to shelter, and lessees need to invest at the lowest possible cost. Some lessees have tax losses which they can carry forward from previous years to set against their tax liability on their current profits; they don't need to generate tax allowances by buying goods.

The basis of most leasing operations is that at least one of the parties in a transaction can take advantage of tax

¹ Asialease is the Asia Leasing Association-the federation of the leasing companies and associations which operate in the region.

allowances. These allowances can be distributed in such a way that there are benefits on both sides whereas overall taxes are deferred (69). However, as leasing developed, it has been observed that leasing is not simply a tax-driven facility but a more complex and useful instrument; in cases when the impetus for tax based leasing is gone; it is seen that the markets have not dropped away (56, p.117).

2.2. WHAT IS LEASING?

Before discussing what leasing is, the concept of ownership should be clarified. There are two types of ownership, namely legal ownership and user ownership. The legal owner holds title to the equipment and is responsible and has rights related with the ownership of equipment on the taxes, expenses, etc., the most important one being the depreciation allowance which is a tax deductible expense. The user owner, on the other hand, has no legal title to equipment, but can have the right to use the equipment by the permission of legal owner; the legal and user owner may be the same body or separate bodies.

In the past, businessmen have not accepted readily the user ownership without legal ownership, because of the pride they felt in "actually owning" the equipment. And, generally, leasing had the feeling of implying the lack of necessary funds to acquire the equipment by the company's own means and therefore many businessmen avoided the practice. However, with the widespread acceptance of the concept that

"the profits are made through the use of the assets, not through the actual ownership of them", leasing was accepted in the business circles as a financing alternative.

After these preliminary explanations, we can say that a lease is a contract where the owner of an asset permits a user to use his asset for a predetermined period in exchange for the payment of a series of lease payments over the term of the lease agreement; according to the leasing terminology, the owner is called "the lessor" and the user called "the lessee". The ownership of the asset belongs to the lender, called the lessor, while the right of use belongs to the borrower, called the lessee. A more formal definition can be that of Fabiozzi who defines leasing as a contract wherein, over the term of the lease, the lessor (owner) permits the lessee (user) the use of an asset in exchange for a promise by the latter to pay a series of lease payments (30, p.1).

Leasing, in essence, is a type of debt similar to borrowing and thus provides financial leverage; the peculiarity of leasing is in the separation of legal and user ownerships.

Thus, recapitulating, it can be said that tax saving features such as depreciation allowances, investment tax credits, capital benefits remain with the lessor and he reflects his benefits in the form of low rental rates to the lessee, which might cost less than interest payments on original loans. In a sense, the lessee sells or transfers some of his rights that he does not wish to use, or he cannot utilize, to the lessor, who in turn pays a price in terms of lower rental rates.

cannot utilize, to the lessor, who in turn pays a price in terms of lower rental rates.

2.3. LEASE CATEGORIES

There are many types of leases but they can generally be grouped under two categories; namely (a) operating leases, and (b) financial (capital) leases.

(a) In operating leases, the asset is leased for a short-term generally and, during the lease term to a specific lessee, it is not fully depreciated. In practice, such leases are called "true" leases. These leases may have options for the lessee to purchase the asset at the end of the lease contract at its fair market value.

(b) In finance (capital) leases, generally the term of the lease is long and the asset may be depreciated fully during the term. At the end of the term of the lease, the lessee gains either the ownership or it may purchase the asset at a nominal price (of one dollar usually); in such a case, the term is long enough for the lessor to recover his investment (and a reasonable amount of profit), from the initial purchase of the equipment, through the lessee's payments.

The main distinction between the operating and capital leases is their treatment of taxes. Throughout this paper, the tax treatment shall be described in terms of the practice of the U.S.A. unless otherwise noted, as the US leasing market is about two thirds of the total world market and since essentially similar treatments are in legislation

elsewhere where leasing is of widespread use such as United Kingdom, Australia, France, Italy (89).

2.3.1. Operating Leases

In an operating lease (a true lease), the lease may or may not be tax-oriented. A non-tax oriented operating lease is very much like a rental and generally provide services other than financing i.e. their main use is not the financing they bring forward (as generally is the case with capital leases) but the services they supply such as maintenance. In a tax-oriented operating lease, tax-saving features such as investment tax credit², accelerated depreciation, capital allowance, etc. benefits stay with the lessor and he reflects his benefit in low rental rates to the lessee which may cost less than interest payments on normal debt. The benefits can be extended further for the benefit of the lessors by leveraging a lease i.e. splitting it into debt and equity portions. The debt holders, typically such institutional leaders as insurance companies, put up most of the cost; in return, they receive most of the lease payments representing interest and reduction of principal. The equity holders, commonly banks, are the lessors and the legal owners of the equipment. They put up the remainder of the cost and receive the rest of the rental income; but, they receive all of the tax benefits associated with ownership. And, at the end of the lease term, they have the

² Investment tax credit (ITC) is a specified percentage of the monetary amount of new investments in each of certain categories of assets which business firms can deduct as a credit against their income taxes(28). Its application varies from country to country; for example, starting from 1987, no more investment tax credits are available to corporations in the U.S.A. (35).

equipment to use in any manner they please (1, pp.132). However, such leases require a great deal of administrative effort and thus are generally suitable for high priced leases³ and in the form of financial (capital) leases.

2.3.2. Financial (Capital) Leases

In a financial (capital) lease, we have two types as well; one is the direct financing lease whereby the lessee, at the end of the lease term, has the option to purchase the equipment for a nominal fixed price which is generally below the fair market value of the equipment. The other type of capital lease is the so called conditional sales agreement (sales type lease or a "pseudo" lease) where the lessee receives title to the equipment automatically at the end of the lease term. Financial leases also can take the form of leveraged leases as the operating leases do and in most large lease arrangements, leveraged leasing is used. It is thus obvious that, capital leases are, in essence, not leases but can be viewed as purchases (by the lessee) or sales (by the lessor). It can be understood that in such a case, there are less tax advantages to both sides (i.e. in a purchase/sales position); in order to control that such transactions are not treated as true leases by the lessors and the lessees, the tax authorities have also set certain criteria to distinguish a true lease from a capital lease. Accordingly, if a lease satisfies one or more of the

³ Leveraged leases and the participants in such leasing agreements are described in greater detail in the coming sections.

following criteria, then it shall be classified as a financial lease⁴:

- 1.The lease transfers ownership of property to the lessee by the end of the lease term (i.e.actual ownership will be obtained by the lessee during the lease term)
- 2.The lease contains a bargain purchase option (i.e. potential actual ownership will be available to the lessee at a symbolic price through the exercising of a bargain purchase option)
- 3.The lease term is equal to seventy-five percent or more of the estimated economic life or the leased property (i.e. effective ownership occurs through use or through wearing out the asset by the using it for more than 75% of its economic life)
- 4.The present value of the lease payments at the beginning of the lease term equals or exceeds ninety percent of the fair market value of the property (in other words, effective ownership results from the price paid for use when the present value of the cost of leasing is 90% or more of the property's original fair market value.)

However, with the Economic Recovery Tax Act of 1981 in the U.S.A. which has resulted in similar legislation to be developed in West European Countries as well, if certain rules (called "safe harbor" rules⁵) are satisfied, then no

⁴ Statement Of Financial Accounting Standards Board, FASB No.13, as cited in (29). Similar criterion are used in many countries including Western Europe countries.

⁵ Safe harbor rules state among other rules that; (a)the lessor must be a corporation, (b)at the time the leased property is first placed in service and at all other times during the lease term, the lessor must

other factors shall be taken into account in determining whether a lease is a true lease or a conditional sales agreement; therefore, the inclusion of any of the following items will not alter the classification as an operating lease (29, pp.31-33):

1. Bargain purchase option (call option at less than the leased asset's expected future fair market value)
2. Fixed purchase options whether at a bargain or not, or for a nominal sum or not
3. Fair market value purchase options
4. Guaranteed residual where title may pass to the lessee (put option)
5. Guaranteed residual where title is not allowed to pass to the lessee which may contain residual proceeds sharing with the lessee or residual loss stop agreements
6. Bargain renewal options as long as the extended lease term is still within the "safe harbor" time limit
7. Lessee provided or co-guaranteed financing exclusive of the lessor's required ten percent at risk minimum investment
8. Limited use property that can be used by the lessee only at the termination of the lease

maintain a minimum "at risk" investment of at least ten percent of the cost of such property, (c) the maximum term of the lease including any extension does not exceed ninety percent of the useful life of such property (29).

To recapitulate, under new legislation, almost all leases can be classified as true leases (i.e. operating leases) if they satisfy certain rules the most important of which states that maximum term of the lease should be less than 90% of the useful life of the asset.

There are two important subcategories of financial (capital) leases:

- Sale and Leaseback Arrangements
- Leveraged Leases

2.3.2.1. Sale And Leaseback Arrangements

A special type of financial leasing, often classified as a different category in most textbooks, is the sale and leaseback agreements. In such an agreement, the firm owning a certain asset sells it to a financial institution and at the same time arranges to lease it back as a lessee, for a specified period under specific terms; thus, the buyer becomes the lessor. This is mostly used when the lessee has gained tax deferral rights in its normal operation. In such a case, the lessee transfers the tax advantages (of purchase and depreciation) to the lessor and the lessor reflects it to the lessee in the form of low lease payments. Sale and leaseback agreements are generally made for the leasing of real estate, mostly factory, service or administration buildings and warehouses (87, p.106). As an example, we may consider a large leasing deal which involved the acquisition of an U.S.\$ 110.7 million aluminum reduction

mill by the Anaconda Corporation of U.S.A. as described by Vanderwicken (1, pp.132-194).

Anaconda was motivated to lease the facilities because of a huge loss-carry-forward resulting from the expropriation of its copper mines in Chile by the Allende government. The write-off totalled U.S.\$ 356.3 million and could be used to offset tax liabilities for ten years. As a result, Anaconda expected low effective tax rates for most of the ten year period. This meant, of course, that they would be unable to employ the full amount of investment tax credit or interest and depreciation tax shields resulting from their investment in the mill. Thus, Anaconda began looking for a leasing deal which would allow them to pass the tax benefits, which they could not use, to a lessor who could use them. These tax benefits could be passed back to Anaconda in the form of low lease payments. After almost a year of negotiations. US Leasing International assembled a consortium of five banks and a large financing company to underwrite the lease. Anaconda acquired the facility on a 20-year lease term which called for lease payments totalling U.S.\$ 187.4 million. However, because of tax advantages, Anaconda has calculated that the total of the lease payments to be paid over the lease term would be U.S. \$ 74 million less than the interest they would have to pay on the bank loans for purchasing instead of leasing⁶.

⁶ This saving was actually realized as assessed in (10, pp.807-811).

2.3.2.2. Leveraged Leases

Leveraged leases take their name from the leverage the lessor creates by borrowing to finance the purchase cost of the asset.

In a leveraged lease, the lessor arranges to borrow a substantial part of the required funds; this part generally is at most 80 % of the total capital required for the assets. Leveraged leases can be operating and capital leases but generally they are put up for tax purposes i.e. they are generally tax oriented. Because the costs of legal and other expenses are quite high, a minimum dollar value for the equipment of at least U.S.\$ 3 and U.S.\$ 5 million is established by 'packagers'⁷ of leveraged lease transactions (30, p.76). Generally, under leveraged leasing, the lease rate is lower than normal (e.g. 300 to 500 basis points⁸ lower (30, p.76)) since the lessor receives all the tax benefits of ownership in addition to the salvage value, although he invests only a small part of the funds to buy the asset.

Transaction of leveraged leases may involve up to eight parties which are⁹,

- 1.Owner or equity participants
- 2.Owner trustee
- 3.Lenders

⁷ The packager is often an independent leasing company, merchant bank, or, investment bank.

⁸ A basis point is 1/100 of one percent i.e. 100 basis points is 1%.

⁹ As taken from (30).

4. Indenture trustee
5. Lessee
6. Vendors or supplier
7. Broker
8. Guarantors

The owners put a portion of the funds, to buy the equipment, which generally ranges between 20 and 50 percent; the owners can be independent leasing companies, banks or groups of banks, etc. The lenders supply the remaining (and larger) portion. The owners receive all the tax and other benefits but the title of the equipment is on the owner trustee which is generally required by the lenders so that leased equipment and lease payments can be independent of the owners. The lenders are generally insurance companies, etc. Indenture trustee and third-party guarantors are required by the lenders; indenture trustee protects the security interest in the equipment whereas third-party guarantors guarantee the lease obligations of the lessee. The lease is generally put together by a lease broker which receives a certain brokerage fee.

As mentioned earlier, the costs involved in arranging, documenting, and managing a leveraged lease are often substantial. Accordingly, only leases for equipment costing a substantial sum are normally eligible for leveraging. A lease for such an amount is usually referred to as a "big ticket sale". As a result of the costs involved and the type of equipment leased, leveraged leases tend to be for periods

of over five years; seven to fifteen year lease terms are typical while terms of 25 years and longer are not known (97, pp.21-22). 85 % of all financial leases has been estimated to be leveraged¹⁰.

The major attraction of the leveraged lease is that, as noted before, the equity participants (lessors) obtain title to the leased equipment by providing only a relatively small proportion of its overall cost¹¹. With title comes any related taxation incentives and government subsidies. These benefits are passed on to the lessee by way of reduction in rentals and hence the implicit lease rate is often well below the current equivalent loan interest rate (97, p.22).

2.3.3. SOME LEASE TYPES

One of the main advantages of leasing is the flexibility it has in structuring the lease by a lessor according to the lessee needs and limitations and thus there are very many types of lease. Some of the more general leases can be viewed as follows¹²:

Full-Payout and Non-Full-Payout Leases: A full-payout lease is one in which the total of the lease rental payments alone (without dependence upon guaranteed residuals¹³ or purchase

¹⁰ Edward R.Reed, Richard V.Cotter, Edward K.Gill, and Richard K.Smith, Commercial Banking, Englewood Cliffs, N.J., Prentice Hall,Inc., 1980 as cited in (20).

¹¹ In leveraged leasing, according to U.S. legislation, a leasing company, or a partnership of leasing companies, can gain full title to an asset without having to put up more than 25% of its cost (60, p.63).

¹² As obtained from (28), (29), (30), and (44).

¹³ A guaranteed residual means the salvage value of the asset is either insured by a third party to be realized at a certain price or it is a liability on the side of the lessee to maintain the asset so as to have a certain market value at the end of the lease term or pay a certain (negotiated in advance) amount of money if the equipment has a lower than agreed salvage value at the end of the lease term.

options) pays back to the lessor enough to cover the entire cost of the leased asset together with the cost of financing, the lessor's overhead, and remaining rate of return acceptable to the lessor.

Net, Net-Net, and Triple-Net Leases: In net and triple-net leases, the lessee, in addition to basic lease payments, is obliged to tax executory costs as well (such as sales tax, property tax, insurance, maintenance and servicing, repair, temporary replacement property, parts and accessories, licences and registration); in net leases, property and sales tax are excluded. In net-net lease, the lessee is further obliged to guarantee a certain residual value to the lessor at the end of the lease.

Finance Leases: These leases are like net leases structured on a full-payout basis over a term close to the asset's economic life.

Close-End Leases: These leases are like capital leases; the distinguishing characteristic is that there is no ownership possibility to the lessee and the full risk of residual value loss is on the lessor.

Open-End Leases: These leases are also like capital leases; contrary to close-end leases, there is an ownership possibility to the lessee and thus part of the risk of residual value loss on the lessee.

Percentage Leases: Such leases are used for example in commercial real estate such as shopping mall space where

there is a fixed periodic rental payment in addition to a payment amounting to a percentage of the gross revenue of the previous period.

Master Leases: Master leases are used by the lessees who shall be leasing numerous pieces of equipment over a period of time (e.g. auto or truck fleet leases) or for the equipment requiring frequent substitution; in such leases, a lot of red tape can be eliminated.

Swap Leases: Such leases allows the lessee to exchange equipment in need of major repair with properly working replacement equipment for the repair period to avoid costly delays.

Upgrade Leases: In these type of leases, during the lease term, outmoded equipment is replaced automatically with newer model equipment; such leases are generally offered by manufacturer lessors.

Joint-Venture Leases: Several lessees come together to lease a very expensive equipment (that may be used cooperatively) which they alone can not afford to buy or lease; costly medical equipment is a typical example.

Skipped-Payment Leases: When the leased equipment shall remain idle during a portion of the year, such a lease can be designed to omit the payments during that portion of the year, skipping them (e.g. for heavy construction machinery utilized by construction contractors at remote sites subject to adverse weather conditions).

Trial-Period Leases: These leases provide for trial use periods of up to six months.

Variable Term Lease With Constant Payments: This lease allows a lessor to be compensated for changes in underlying costs of debt i.e. when the cost of the debt increases, the lease term is increased rather than the lease payments in order to compensate the lessor.

Variable Rate Leases: The conditions of this sort of lease include an interest rate variation clause that provides for adjustments to be made to the rentals when interest rate change. Such adjustments are usually made periodically by applying the change in the interest rate (from interest at the beginning of the lease) to the amount of the lessor's investment in the lease. The purpose of the variation is simply to protect the lessor from the risk of changes in the interest rate during the period of the lease.

2.4. EFFECTS ON FINANCIAL STATEMENTS OF THE LESSEE

In handling leases for financial statement purposes, regardless of whether a lease is treated as a financial or operating lease, the actual cash flow will not change. However, for financial statement users, the accounting treatment will have an impact on the cash flow since such cash flow is measured from the income statement figures (30, pp.25). For operating leases, each periodic lease payment is treated as an operating expense and appears on the income statement. For financial leases, each periodic lease payment

is divided into two portions, one for the interest expenses and the other one for a principal reduction of the current liability¹⁴. Also, depreciation expense accounts are charged accordingly since in financial leases the depreciation exceeds those of the operating lease even if straight-line depreciation is used.

The actual bookkeeping for lessees is set up in the following way¹⁵: For operating leases, rentals must be charged to expense over the lease term, with disclosures of future rental obligations in total as well as by each of the following years. For lessees, financial leases are to be capitalized and shown on the balance sheet both as a fixed asset and non-current obligation. Capitalization represents the present value of the minimum lease payments minus that portion of lease payments representing executory costs such as insurance, maintenance, and taxes to be paid by lessor (including any profit return in such charges). The discount factor is the lower of the implicit rate used by the lessor¹⁶ or the incremental borrowing rate of the lessee¹⁷. The asset must be depreciated in a manner consistent with the lessee's normal depreciation policy for legally-owned assets. During the lease term, each lease payment is to be

¹⁴ In Turkish practice, as shall be explained in detail in coming sections, no differentiation between operating and financial lease is made. Although the current legislation (requiring or minimum lease term of four years) defines for a financial lease, each periodic lease payment is treated as an operating expense and appears on the income statement; no liability arising from the lease agreement is shown on the balance sheet.

¹⁵ As specified by FASB No.13 "Accounting For Leases" of the U.S.A.

¹⁶ Implicit rate of interest is the discount rate that, when applied to minimum lease payments (excluding executory costs together with any profit) and unguaranteed residual value, causes the aggregate present value at the beginning of the lease term to be equal to the fair market value of the leased property to the lessor at the beginning date of the lease term.

¹⁷ Lessee's incremental borrowing rate is the rate that the lessee would borrow to purchase the asset which can also be leased alternatively.

allocated between a reduction of the obligation and the interest expense to produce a constant rate of interest on the remaining balance of the obligation. Thus, for financial leases, the balance sheet includes the items in the following table:

Balance Sheet For Capitalized Leases

ASSETS	LIABILITIES
Leased property under capital leases less accumulated depreciation	Current: Obligations Under Financial Leases
	Noncurrent: Obligations Under Financial Leases

Regarding the different treatment under financial and operating leases, there can be dramatic differences on the financial statements between the two type of lease and which one has an adverse effect on the actual standing of the company is not agreed upon (29, pp.56). However, some of the immediate observations lead to the following facts :

-A capital lease lowers return on assets (ROA) and increases financial leverage when compared to an operating lease : In a financial lease, the leased assets contribute to the generation of income; however, as they are shown among the other assets owned by the company, the ROA is lowered when compared to an operating lease since assets under operating

lease are not shown among the total assets. Also, since liabilities are shown on the balance sheet, financial leverage is increased compared to an operating lease.

-An operating lease overstates return on assets whereas the liabilities are understated : In an operating lease, since no liability is shown on the balance sheet although there is actually a liability, the liabilities are understated. Moreover, since the leased assets are not shown on the balance sheet, though they contribute to the generation of income, the lessee's ROA is overstated.

-During the noncancelable period of a capital or operating lease, a true obligation is incurred by the company. Sometimes, firms may tend to overlook operating leases as debts (29); however, "...whether a lease is classified as operating or capital, the banking community views them identically from a lending point of view since bankers are fully aware of the fact that operating leases affect the financial leverage and risk of a company. This ruling will tend to give companies the incentive to lease from third party lessors which are independent of their banks" (29, pp.61).

As stated earlier, legislation ruling leasing operations in the U.S.A. have been more or less accepted in many countries and similar legislation have been put into practice. In

1982, the International Accounting Standards Committee¹⁸ (IASC) issued IAS 17, Accounting For Leases.

IAS 17 classifies leases under two headings: a financial lease defined as a lease which transfers substantially all of the risks and rewards incident to ownership of an asset, whether or not title is eventually transferred, and an operating lease which is any lease other than a finance lease. It is argued that if finance leases are not reflected in a lessee's balance sheet, the economic substance and level of obligations of an enterprise are understated and it is difficult to compare financial statements of enterprises that purchase assets with financial statements of those that lease assets. On the grounds that substance and financial reality should take precedence over legal form, the standard requires that a financial lease be recorded in the lessee's balance sheet both as an asset and as an obligation to pay future rentals. Lessees are required to apportion rentals between the finance charge (interest expense) and the reduction in the outstanding liability. The finance charge is to be allocated to periods during the lease so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. A finance lease gives rise to a depreciation charge for the asset as well as a financial charge for each accounting period. The depreciation policy for leased assets should be consistent with that for depreciable assets which are owned;

¹⁸ The board of IASC consists of the professional accountancy bodies of Australia, Canada, France, Germany, Ireland, Italy, Japan, Mexico, Netherlands, Nigeria, South Africa, United Kingdom, U.S.A. and the International Co-Ordinating Committee Of Financial Analysts Associations as of the end of 1987 (88, p.46).

if there is no reasonable certainty that the lessee will obtain legal ownership by the end of the lease term, the asset should be fully depreciated over the shorter of the lease term or its useful life. Under an operating lease, the charge to income should be the rental expense for the accounting period, recognized on a systematic basis that is representative of the time pattern for the user's benefit.

IAS 17 also has some disclosure requirements as FASB 13 of the U.S.A. where the lessees are required to report the following: the amount of assets that are subject to finance leases at each balance date and liabilities relating to these leased are shown separately from other liabilities and differentiating between the current and the long term portions; commitments for minimum lease payments under finance leases and under non-cancellable operating leases with a term of more than one year giving the amounts and periods in which the payments will become due; and any significant financial restrictions, renewal or purchase options, contingent rentals or other contingencies arising (88, p.47).

As mentioned before, different treatment of leases for financial statements is not a mutually agreed upon subject; as a matter of fact, "... the battle over the necessity to capitalize leases on the books of the lessee has raged since the advent of leasing itself" (89, p.47). Capitalization of leases has become mandatory, with the introduction of FASB 13, in the U.S.A. since 1978; "...since then, the concept has spread to ever more countries including, for example,

United Kingdom with its adoption of SSAP 21¹⁹ on 1984", (89, p.47).

As for the opposing views for the reporting of leases in the financial statements of the lessees, we have the following:

- 1.Capitalization with relevant disclosure (as proposed by FASB 13, SSAP 21, and IAS 17)
- 2.Supplementary disclosure of leases in the notes to the financial statements without inclusion in assets and liabilities (as proposed by Leaseurope²⁰ and the leasing industry as represented by Leaseurope)

A proponent of the first view, R.V.J. Chadder²¹, gives the following example for debt/equity ratios of world's some major airlines, in addition to ROA figures, as follows in order to strengthen his view:

¹⁹ The U.K. accounting standard, "Accounting For Leases And Hire Purchase Transactions" issued by the Accounting Standards Committee Of United Kingdom.

²⁰ European Federation Of Equipment Leasing Company Associations.

²¹ (89, pp.42-45).

Debt : Equity

Without Leases With Leases

Leases Capitalized

British Airways	1.9	2.5
KLM	0.2	1.1
TWA	1.4	2.5
Singapore Airlines	1.2	2.5
Cathay Pacific	0.1	5.7

Leases Not Capitalized

Swissair	1.3	N/A
Qantas	0.5	N/A

These figures suggest, of course, that without capitalization of the leased assets liabilities can be greatly understated even if they are shown in the notes to the financial statements. Nevertheless, the debate continues and still waits to be resolved²².

2.5. ACCOUNTING FOR LESSORS

Lessors have widely different methods of accounting for leases in different countries, nevertheless, the most common question is when to recognize the taking of profits during a lease term (88, p.18). Apart from this topic, accounting for lessors is more straightforward than for lessees and there exists no opposing views as to the

²² A thorough discussion of the topic is given in (97, pp.107-118).

treatment by lessors. According to FASB 13, SSAP 21 and IAS 17, a lessor should hold an asset held under a financial lease in the balance sheet as a receivable and not as property, plant, and equipment. The recognition of finance income should be based on a pattern reflecting a constant periodic rate of return on either the lessor's net investment outstanding or the net cash investment outstanding in respect of the financial lease. The method used should be applied consistently to leases of a similar financial character. Manufacturer or dealer lessors should include selling profit or loss in income in accordance with the policy formally followed by the firm for outright sales (88, pp.46-47).

Assets held for operating leases should be regarded as property, plant, and equipment in the balance sheets of lessors. Rental income should be recognized on a straight-line basis over the lease term, unless another systematic basis is more representative of the time pattern of the earning process contained in the lease. Depreciation charged should be on a basis consistent with the lessor's normal depreciation policy for similar assets (88, p.47).

Lessors also have to make some disclosures in addition to their financial statements. According to the standards, the disclosures required from the lessors include: the gross investment in leases reported as interest expense (finance income) and unguaranteed residual values of leased assets; the basis used for allocating income so as to produce a constant periodic rate of return, indicating whether the

return relates to the net investment outstanding, and if more than one basis is used, then, the bases, should be disclosed; and, where a significant part of the lessor's business comprises operating leases, the amount of assets by each major class of asset together with the related accumulated depreciation at each balance sheet date (88, p.47).

2.6. CAPITAL EQUIPMENT INVESTMENTS

An increasingly important role undertaken by leasing is its contribution to the capital equipment investments. For the time being, in the more developed leasing markets, as much as 20 to 40 % of investment in plant and equipment are financed by lease transactions; in the less developed markets, however, this level is more usually around 6 or 7 % (72). In 1979, capital equipment investments realized by leasing in some developed countries are as follows (87, p.106):

U.S.A.....	18-20 %
United Kingdom.....	10 %
France.....	9 %
West Germany.....	5 %
Japan.....	4 %
Switzerland.....	3-4 %
Austria.....	2-3 %

Leasing is, of course, not the only way to fund capital investments, but the leasing community has been providing an increasingly larger share of money spent on plant and equipment in the U.S.A. In 1982, for example, leasing accounted for U.S.\$ 57.4 billion, or 16.6 % of the U.S.\$ 347.6 billion that US companies spent only on structures and durable equipment; this proportion rose to 19 % in 1983 making leasing the largest external source of finance for capital expenditures for American corporations (70, p.112).

According to Clark (97, pp.127-128), the figures of OECD National Accounts show that in 1982, leasing accounted for 15% of the total investment, in transport equipment, machinery and other equipment only, in OECD countries. Moreover, such investment accounted to leasing within the years 1978- 1982 is given (as taken from the same sources) with a note that these figures understate the role of leasing in equipment finance due to many reasons (as explained in 97, p.128):

1978.....	9.2 %
1979.....	10.5 %
1980.....	12.3 %
1981.....	14.1 %
1982.....	15.0 %

The proportion of total capital equipment investment in Europe accounted for by leasing was about 7 % in 1984 with an increasing trend according to Leaseurope, the Brussels-

based European Federation of Equipment Leasing Company Associations (63).

United Kingdom has the largest leasing market in the Europe as well as a third place in the world (88). In 1976, the value of the assets acquired during the year (at original cost) by the U.K. Equipment Leasing Association (ELA) members was 421 million pounds sterling; this grew to 5.757 billion pounds sterling in 1985, representing about 20 % of all U.K. investment in plant and equipment during the year (56, p.119). The leasing industry in the United Kingdom reported record new business of 6.024 billion pound sterling in 1987, an increase of 16 % from 1986. ELA believes that the rise in business is due to the continuing demand for an alternative to straight loan finance, the success of leasing companies at marketing their product, and the growth of investment in new equipment generally. The leasing business of ELA members (64, p.33) within the last four years are as given Table 2.1 whereas relevant figures for the proportion of equipment investment accounted for leasing are tabulated in Table 2.2:

Table 2.1

Leasing Business Of E.L.A. Members

	1984	1985	1986	1987
ASSETS ACQUIRED during year(at cost)	4,012	5,757	5,182	6,024
RENTALS REQUIRED during year	2,622	3,586	4,176	5,190
LEASED ASSETS owned at year-end(at cost)	16,307	20,921	23,769	27,759

(figures are in million pounds sterling)

Source: As taken from (88, p.10).

Table 2.2

Leasing As A Proportion Of All U.K. Equipment Investment (%)

1976.....	4.0
1977.....	5.2
1978.....	7.9
1979.....	9.9
1980.....	12.1
1981.....	14.0
1982.....	13.2
1983.....	12.6
1984.....	15.2
1985.....	18.8
1986.....	16.5

Source: As taken from (88, p.10).

Japan, with the second largest leasing market in the world, has a similar trend; this trend is tabulated in Table 2.3

Table 2.3

New Leasing Contracts As A Proportion Of
All Japan Private Capital Investment (%)

1963 - 1964.....	0.01
1964 - 1965.....	0.07
1965 - 1966.....	0.13
1966 - 1967.....	0.17
1967 - 1968.....	0.35
1968 - 1969.....	0.42
1969 - 1970.....	0.88
1970 - 1971.....	1.35
1971 - 1972.....	1.83
1972 - 1973.....	2.20
1973 - 1974.....	2.35
1974 - 1975.....	2.16
1975 - 1976.....	2.32
1976 - 1977.....	3.18
1977 - 1978.....	3.22
1978 - 1979.....	3.58
1979 - 1980.....	4.30
1980 - 1981.....	4.13
1981 - 1982.....	4.82
1982 - 1983.....	5.87
1983 - 1984.....	7.08
1984 - 1985.....	7.85
1985 - 1986.....	8.27

Source: As taken from (89, p.163).

As another example from Asia, we may consider People's Republic Of China where the leasing market has increased from almost nothing by the beginning of 1981 to an estimated U.S.\$ 1 billion by the middle of 1987 (64). While a substantial portion of this is accounted for by big ticket items such as aircraft, there has been a remarkable growth

in the leasing of smaller capital equipment investment items of plant and equipment (64, pp.6-10)

In Australia, as shown before, about 35% of all capital equipment investment is accounted for leasing in 1986 (89, p.61).

For the capital investment in transport equipment, machinery and other equipment only, Clark (97, p.129) have compiled a detailed country breakdown which may be further useful in gaining a stronger insight to the role of leasing in capital equipment investments; this breakdown is given in Table 2.4.



Table 2.4

Proportion Of Leasing For Capital Investment
In Transport Equipment, Machinery And Others

(%)

Country	1978	1979	1980	1981	1982
Canada	4.4	6.3	5.6	4.7	3.3
U.S.A.	15.6	17.0	21.9	25.6	27.9
w.average	14.7	16.1	20.4	23.6	25.5
Australia	1.9	2.6	3.0	2.8	2.8
Belgium	2.6	3.4	3.3	3.0	4.6
Denmark	1.3	1.9	2.0	2.6	8.3
Finland	1.4	2.4	3.7	6.6	7.2
France	6.8	7.9	7.9	7.3	8.5
Germany	2.0	2.2	2.2	2.8	3.0
Ireland	0.5	0.5	0.6	1.6	2.0
Italy	4.7	5.2	5.3	6.2	6.8
Luxembourg	0.5	3.1	2.2	2.5	5.1
Netherlands	4.7	5.1	5.9	6.2	5.1
Norway	2.8	2.7	3.3	5.6	9.8
Spain	2.5	3.6	2.2	3.2	4.5
Sweden	3.0	4.1	4.5	8.5	9.0
Switzerland	2.0	3.7	4.5	5.1	4.9
United Kingdom	8.0	10.0	11.6	13.3	13.0
w.average	4.3	5.2	5.6	6.3	6.9
Japan	4.8	5.8	6.2	7.0	8.3
Australia	26.4	30.2	25.0	22.2	23.1
New Zealand	3.6	4.9	3.0	14.2	20.4
w.average	24.4	27.8	23.7	21.5	22.8
OVERALL CONTRIBUTION	9.2	10.5	12.3	14.1	15.0

Source: As taken from (97, p.129).

Although such evidential data on total capital equipment investment does not exist for all countries, owing to the

fact that leasing business increase in volume and value every year, it may be quite safe to assume that in most of the countries where leasing takes place, every year more and more capital equipment investment is realized through leasing.

2.7. SUMMARY

In this chapter, the leasing concept and its importance in the world has been emphasized. Leasing has a long history throughout centuries whereas it has become of importance in the latter half of nineteenth century in the U.K. and the U.S.A.. At those times, equipment were leased mainly due to the manufacturers' need to protect their monopoly positions; in the twentieth century, especially during World War II, leasing has become an important source for government contracts in the U.S.A.. Within the last few decades, modern leasing companies have been established whose main business was to offer leasing as a financial instrument. The professional efforts and modern approaches of these companies have led to significant growth of the leasing sector in the world within the last two decades.

Leasing has a major advantage related with tax paying positions of the lessees and the lessors. In leasing operations, tax saving features such as depreciation allowances, investment tax credits, etc. remain with the lessor as the legal owner of the assets whereas these benefits are reflected to the lessee, the actual user, in

the form of low rental rates which might cost less than interest payments on ordinary loans. In some countries, leasing operations continued to develop although tax benefits have been prohibited ; this shows that leasing is not simply a tax-driven facility but offers some other advantages, to both lessors and the lessees, which shall be covered in next chapters to come.

There are mainly two types of leasing: Operating leasing and financial (capital) leasing. In operating leases, the lease period is generally very short and assets are not transferred to the lessees at the end of the period; therefore, we may consider such leases like normal rentals. On the other hand, financial lease periods are much longer and the lessees have options to buy the assets at bargain purchase prices. There are two important subgroups of financial leases: Sale-and-leaseback arrangements and leveraged leases. In sale-and-leaseback arrangements, a firm having tax deferral rights or no need for protection of its tax base or having a need for cash (for using as operating capital, etc.) sells it to a leasing company and leases it back. In leveraged leases , on the other hand, the lessor borrows from financial institutions to finance the asset which shall be leased; this type of leases are especially useful for the leasing of very high-priced assets such as complete plants, installations, etc.

The accounting treatment of leases by the lessees have created a lot of controversy among theoreticians and practitioners alike concerning whether or not to show leased

assets on the lessee's financial statements. Some believe that leased assets should be capitalized, i.e. shown on the financial statements as assets and obligations whereas others state that since the lessee does not own the asset legally, they should not be shown on these statements but they can be mentioned in notes to these statements further stressing that no organization shows buildings they occupy on a rental basis among their assets. This controversy has not been solved and different treatments are applied in different parts of the world. The last section of this chapter is on the contribution of leasing as a financial instrument for the capital investment in equipment in the world. Available data suggests that the contribution of leasing has steadily been increasing in countries where leasing is developed beyond juvenile stages.

3. FACTORS CONTRIBUTING TO THE POPULARITY OF LEASING

3.0. INTRODUCTION

There are many conventional reasons for leasing to be executed between willing parties. In this chapter, these advantages are explained from the viewpoint of (a) lessor benefits, (b) lessee benefits, and (c) mutual benefits¹.

3.1. LESSOR BENEFITS

1. Individual Tax Shelters:

Since individuals can operate leasing companies and, in doing so, provide further tax shelters for themselves, they are also active in the leasing area even if they are essentially engaged in other business; thus, more capital is made available to the lessees which makes leasing a more favorable source for them stimulating the business of lessors.

2. Vertical, Horizontal and Conglomerate Integration Possibilities:

Through leasing, integration possibilities are open for manufacturers and/ or lessors:

Vertical Integration - Manufacturing company uses a captive company to lease its finished products,

¹ This section draws mainly on (13), (29), (45), (51), and (88).

Horizontal Integration - Other finished products of different manufacturers are leased as well by the company,

Conglomerate Integration - Totally unrelated business opportunity for the firm compared to its normal operations such as leasing of completely different equipment in other fields than the company's original field of activity

3. Economies Of Scale In Lessor Purchasing And Servicing:

Lessors (which may or may not be manufacturers) have certain advantages of economies of scale some of which can be passed onto the lessees such as in the following:

Volume purchasing - Savings through quantity discounts for the lessors which might partially passed onto the lessees as well,

Full-Service leasing - Cost of maintaining may be lower, through the use of specialized maintenance personnel equipment, if similar equipment are leased to lessees

4. Lessor Specialization:

Lessors may be specialized in a limited set of assets, which permit them to know more about the market for the assets than most lessee/users. Economies of scale exist in gathering and assessing information about obsolescence risk and in projecting future asset values. Constant contact with the market enhances a lessor's ability to re-market an off-lease asset and lowers his cost of bearing these risks.

5.Lessor Bank Advantages:

As shown in (45), apart from the various advantages that go with any lessor, banks additionally have two distinct advantages from lessorship: First, equipment leasing, answering a need of some bank clients, is a necessary part of the banks' full service package. Second, it assists in maintaining an exclusive relationship with the client by preventing other banks or other financial institutions (that lease equipment) from gaining a foothold with the client.

3.2. LESSEE BENEFITS

1.Psychology Of Use Preference Over Ownership:

-Realization of the fact that profit is made through use but not the ownership of an asset,

-Off-Balance Sheet Effect: Financial position may be manipulated e.g. return on assets (ROA) and return on investment (ROI) may be overstated.

2.Hedging Against Risk Of Obsolescence And Disposal Of Equipment:

By means of leasing, the lessees can hedge against economic and/or physical obsolescence by using leases such as

-Short-term cancelable leases (which are very like normal rentals) where the lessee can return the equipment when he no longer needs it,

-Upgrade leases where obsolete equipment are replaced automatically with the new ones as a result of the leasing agreement; such leases are generally made by specialized lessors who can find customers (as lessees or direct buyers) for both new and old models of equipment.

3. Affordability To Lessees:

Due to inflation, some equipment and facility prices have increased to excessive levels which results in the ownership of such assets to be unaffordable for many potential users (which are not creditworthy in terms of capital and collateral of the five C's of credit risk²) who have no other chance than leasing.

4. Additional Source Of Debt Financing Caused By The Drying Up Of Conventional Capital Financing Sources (Stocks and Bonds, Commercial Bank Loans):

It has been argued that since many of the loanable funds are used for government spending and customer credit, and since inventors are shifting their investments in equity to higher yielding instruments, leasing has become an additional source of debt due to decrease of conventional financing sources.

5. Diversification Of Financing Sources:

In order to be not too-dependent on a certain financing source, diversification of the sources may be favorable. Leasing provides another source of finance to industrial and

² Five C's of credit evaluation are character, capacity, capital, collateral, and condition(s) (28).

commercial companies and helps to vary the borrowing portfolio; existing credit lines are often preserved through leasing. Thus, leasing, which is another source of financing, can be used by lessees for diversification purposes.

6.Risk-Taking Lessors:

Banking community is generally more risk-averse when compared to the leasing companies. Banks look at the general creditworthiness of the person requesting the loan whereas the leasing companies look mostly to the equipment as collateral and since the title remains on them, they can tend to be more risk-taking.

7.Restricted Ownership:

Certain equipment and facilities requiring governmental control (such as communication satellites, certain telephone equipment, etc.) can not be sold and are available to users only through leasing.

8.Conservation Of Working Capital:

Since leasing requires lower downpayments than the financial institutions' loans, not tying up cash in large downpayments is an advantage especially on the side of small and rapidly growing companies in need of cash to pay for operating expenses, finance the receivables and the inventories; moreover, leases typically require no compensating balance unlike bank loans and this also conserves cash. Such a

factor, of course, may not be important for financially sound companies.

9. After-Tax Present Value Of Costs:

The after-tax present value of costs may be lower to a lessee as compared to normal financing methods due to the transfer of several rights (i.e. depreciation, investment tax credit, etc.) to the lessor which in turn reflects those in the form of lower payments.

10. Off-Balance Sheet Financing:

For operating leases only, or in countries where there is no difference between the treatment of operating and financial leases for accounting purposes, there is an illusionary off-balance sheet which gives the company a more liquid, profitable and solvent appearance. This gives the company management an additional ability to manipulate the company standing against the banks, shareholders, etc.

11. Restriction On Management:

The advantage of leasing is that a lease does not impose as many restrictions on management as does a debt contract arising from the purchase of the equipment itself. Leases generally do not contain many of the restrictive covenants and provisions found in loan agreements.

12. Convenience To The Lessee:

There are many convenient aspects of a lease to the lessee some of which include the following:

-Less red tape than outright purchase in the markets where leasing is well known and accepted, and where specialized lessors exist³,

-Much less bookkeeping than outright purchases for operating leases,

-Fixed cashflow projections as compared to fluctuating loan rates,

-Speed of obtaining financing (may not be applicable for some leveraged leases),

-Elimination of some maintenance problems.

13.Flexibility In Lease Structuring:

Leases are flexible to meet various needs of lessees i.e. custom made lease arrangements (custom leases) can be structured. The type of leases described before in Section 2.3.3 (swap leases, upgrade leases, skipped-payment leases, etc.) are only some of the leases that can be arranged.

14.Preservation Of Credit Capacity And Increase In Debt Capacity:

It has been argued that leasing can result in more assets being utilized by the firm compared with the amount obtainable from conventional borrowing, i.e. leasing can increase the debt capacity of the firm. The basis for this

³ Even in Turkey, once a leasing contract is signed with a lessor, the lessor sees to it that all government approvals and registrations are made and all bureaucratic transactions are finished before the beginning of the lease payments; such lessors also undertake to arrange for necessary export credit insurance (as should be explained in coming sections) of the equipment which shall be cross-border leased.

belief assumes there is no mandatory disclosure requirements of leasing obligations by the firms. However, there are other views which state that leases displace debt capacity on a dollar-for-dollar basis and others which believe the debt capacity is decreased. Nevertheless, "...there is one special situation in which leasing truly expands a company's credit capacity: A company with temporarily exhausted bank borrowing capacity may lease equipment which it can not obtain by the borrowing and buying" (4, pp.98) since lessors, thinking of the asset leased as collateral, generally do not ask for any additional collateral from the lessees.

15.Non-Financial Services:

There are some non-financial services offered by lessors such as computer software services in solving application problems in the case of computer leases.

16.Encouragement Of Trying New Equipment:

With a short term operating lease, new equipment (e.g. newest models of the equipment) can be used and tried by the lessee.

17.Budget Planning:

The regular nature of rentals is helpful in cash flow forecasting; bookkeeping is facilitated and the lessee's attention is immediately drawn to the true cost of the asset over the expected period of use.

18. Certainly Of Frequency Of Rentals:

A finance lease is a medium term facility which can not be withdrawn or curtailed; except in the case of the lessee default, the lessor has no power to speed up the frequency of rentals once they have been agreed.

19. Start-Up Companies:

In the case of start-up companies, leasing may be the only method available to obtain the services of some assets which are either costly or which can not be fully utilized.

20. Joint Ventures:

Joint ventures and project financings can be difficult if consolidation between the parties is not possible⁴, or the credit of one or more of the parties would be strained, or the major party of another contribution to a venture is reluctant to share an investment risk. In such cases, a leasing company, so long as it has an acceptable guarantee and/or access to the asset in the last resort, can answer a "political" capital spending problem.

21. Getting Around Budget Limitations:

Due to budget limitations, operational units of organizations, small governmental units, local governments, municipalities, etc. may not be able to purchase the assets they are in need of. With the ability to lease those assets

⁴ For the construction of the Ankara-Gerede motorway project in Turkey on a build-operate-turnover (B.O.T.) basis, Enka Of Turkey in joint venture with Bechtel of the U.S.A. has arranged to lease the complete machinery and equipment park totalling more than U.S. \$ 40 million from abroad (as learned from project deputy manager at site in November 1988).

on an operational or financial basis, such units may be able to have no deficits over their budgets and still have the assets for use.

3.3. MUTUAL BENEFITS

1.Hedging Against Inflation:

It is generally better to borrow long in a period of inflation if one's revenue sources are to inflate accordingly⁵; the lessor can obtain protection against inflation by borrowing long term and passing on some of this protection to the lessee in the form of equal lease payments over a long term.

2.Tax Advantages:

Mainly in the form of depreciation tax shields, investment tax credits, etc. certain tax advantages exist for the lessee to enter into the leasing agreements. Also, the existence of carry-over tax losses and tax deferrals for lessors and lessees may include the leasing agreements.

3.Lack Of Tax Advantages And Budget Restraints On Non-Profit Organizations:

With the leasing agreements between lessors and non-profit organizations as lessees, the tax advantages lay on the side of the lessor and therefore this can be reflected to the lessee in the form of reduced lease payments. Also, due to

⁵ See, for example (29, pp.5).

the difficulties in obtaining necessary budgets for the purchase of the assets in non-profit organizations, leasing is a flexible and easy method that can be, and is, frequently used by such organizations.

4. Profitable Experience of The Leasing Industry:

In the past, leasing proved to be a profitable and continuously growing business. More profitable business will offer better and wider range of business possibilities for the lessees as well as the lessors.

5. International Leasing To Multinational And Foreign Business :

Large multinationals as well as foreign companies who are seeking new forms of asset financing are served by the leasing companies. An interesting point on international leasing is the advantage to a foreign firm of using an equipment through a lease and thereby avoiding importation taxes and duties⁶.

6. Cost:

The cost of borrowing to purchase and leasing are identical in an efficient capital market if different tax treatments for owning and leasing an asset do not exist. Therefore, whether borrowing to buy or a lease is the cheaper form of financing is subject to the conditions being offered.

⁶ This is also applicable for the operations of Enka - Bechtel joint venture as mentioned before.

As can be observed, the lessee and the lessor benefits are not completely separate and go along with each other together with the mutual benefits of leasing. It should also be emphasized that the above mentioned list of factors are not, by all means, the complete and exhaustive list of factors and probably many other specific and general factors can also be cited. Moreover, some of the reasons stated above has been criticized to be irrelevant or inappropriate in the literature as shall be seen in the following pages. As for the views of the practicing lessees we can consider the following two cases from practice:

In a lessee survey by Hull and Hubbard (82) for the United Kingdom Practice, the respondents (of which 56 % had signed lease agreements within the last two years) gave the following main reasons for why they lease:

	<u>Important Factor</u>	<u>Marginal Factor</u>
- Conserved cash flow	54%	24%
- Cheaper than purchase	45%	19%
- Additional form of finance which does not affect other borrowing sources	27%	26%
- Safeguard against obsolescence	18%	19%
- Certainty of fixed payments	12%	31%

In a postal survey by Dietz⁷, it was found that lessees in Switzerland and Germany considered liquidity to be a very

⁷ S.Dietz, Marketing And Commercial Policy, paper presented to Leaseurope Conference, Oslo, Norway, 1977 as cited in (82, pp.630-631).

important reason for leasing more often than they considered tax advantages to be so.

3.4. SUMMARY

Although tax advantage is the major reason for the existence and popularity of leasing among lessors and lessees, there are many other reasons as well for this popularity. For lessors, there exist such benefits and advantages as economies of scale in volume purchasing of leasable equipment as well as the possibility of their specialization in various types of equipment which results in economies of scale in gathering and assessing information about obsolescence risk and future values. As for banks acting as lessors, leasing is an essential feature of their complete service packages offered to customers.

The lessees, on the other hand, also have some distinct advantages from leasing equipment. It helps in lower-priced financing, requires less advance payments thus saving cost for operations (especially important for small or newly established companies), requires almost no collateral, and much easier to arrange for as compared to normal bank credits. Payments can be arranged in the most suitable way for the lessee which may not have even cash inflows. Leasing also helps to obtain otherwise unaffordably high-priced equipment or the equipment which are not available for direct sale.

There are also many other reasons why lessors and lessees go into leasing arrangements some of which can be very specific depending on the type of equipment, the lessee, the country of operation, etc.



4. COMPOSITION OF THE LEASING INDUSTRY

4.0. INTRODUCTION

This chapter deals with mainly on the type of lessors, types of equipment subject to leasing agreements, and operating figures from latest available data for the leasing operations in the world. In section 4.1, in five different groups, is given the parties subject to leasing agreements; the grouping of these parties are according to the manufacturers, lessors, and brokers engaged in leasing. The second section, 4.2, is related with leasable equipment; equipment leased in the U.S.A. before World War II are given so as to explain the developed stage of leasing even at those times. Equipment categories are given for the equipment which are currently leased in large quantities. In the last section, 4.3, global figures for leasing business in the world are given for the year 1979 through 1983 and 1983 so as to give an idea for the monetary volume of leasing.

4.1. PARTIES ENGAGED IN LEASING

The leasing industry is made up of five main type of lessors (29) as shown below:

1. Two-Party; Vendor-Lessors or Manufacturer Lessors

The largest number (at least more than half¹) of leasing companies include vendor or manufacturer lessors; such companies are generally captive leasing subsidiaries or departments of manufacturing companies which use leasing to promote and stimulate sales. Also, many dealers or franchised retail outlets operate their own leasing firms to facilitate sales. Mainly sales-type capital leases are offered by this type of lessors.

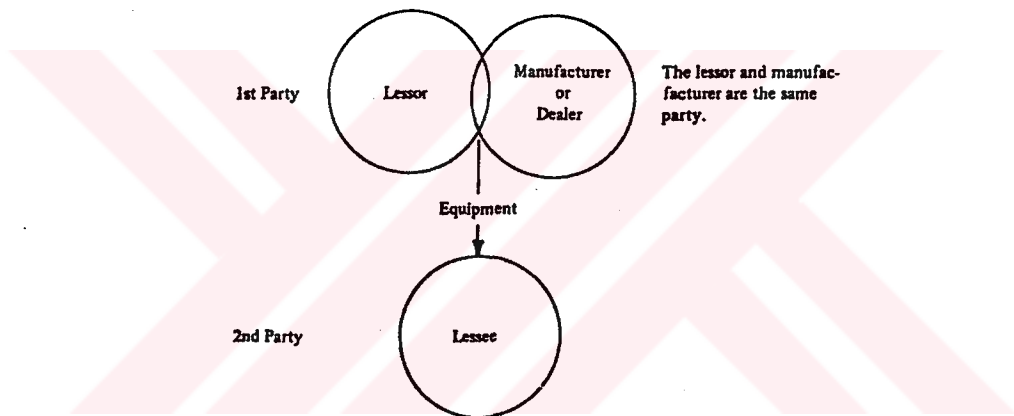


Figure 4.1 - Two Party Leasing

(Source: As adapted from (29,p.15).)

2. Three-Party; Financial Institutions

This type of leasing companies take their name from the fact that three parties are on the scene; namely the lessor, the lessee, and the manufacturer. Three party leasing companies owned by financial institutions (divisions or subsidiaries) are the largest group in the leasing industry from the

¹ From Business Week, 4 September 1971, p.42 as cited in (21).

money-invested-in-leasing point of view (29, p.16), that is, in monetary terms they have the largest amount of outstanding leases. The financial institutions include

1. Bank divisions or captive leasing companies
2. Finance and industrial loan companies
3. Miscellaneous insurance companies and investment bankers

Generally, financial institutions, with large taxable profits and limited opportunities to obtain tax relief, benefit most from leasing (68, p.158).

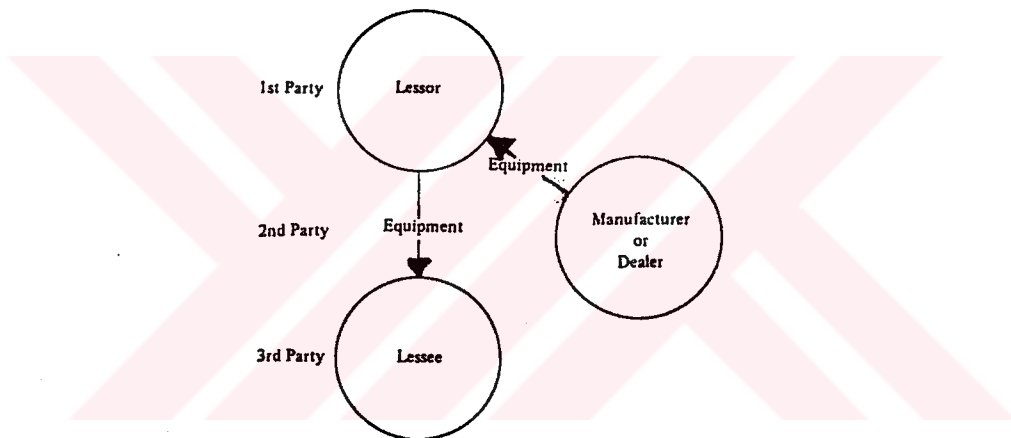


Figure 4.2 - Three Party Leasing

(Source: As adapted from (29, p.16).)

3. Three-Party; Private and Public Organizations

Leasing companies in this group (i.e. non-bank independent leasing companies) may be categorized as follows²:

1. Companies whose role is limited essentially to providing lease financing

² Vincent J. McGugan, Competition And Adjustment In The Equipment Leasing Industry, Research Report No.51., Federal Reserve Bank Of Boston, November 1972, p.29 as cited in (30).

2. Companies whose role extends to related services that complement lease financing
3. Business organizations serving as lease brokers

In three party leasing, most of the leasing corporations are privately owned although there are several large publicly owned leasing companies³. By three party leasing, generally direct financing type of net-leases are offered as well as specialized leasing companies. Generally, the services provided by specialized leasing companies (34, p.17) include, but are not limited to, the following:

1. Purchasing new equipment
2. Disposing of worn-out or obsolete equipment
3. Furnishing engineering or design service
4. Maintaining and repairing leased equipment
5. Providing insurance coverage
6. Protecting the clients against the risk of obsolescence by lease cancellation or trade-in privileges
7. Paying applicable taxes and licence fees
8. Keeping records and making operations reports
9. Advising and counseling management on such matters as proper operation of equipment and attendant tax and legal questions.

4. Three-Party; Individual Tax Shelters

This type of leasing companies are owned by individuals for tax-shelter purposes. When an individual has a leasing

³ An example is US Leasing International Corp. through which modern leasing is originated in the world (49, p.33); by 1981, this company had more than U.S.\$ 2 billion of outstanding leases (29,p.16).

company (as a sole proprietor), then, the depreciation tax benefits, interest expenses, etc. may be used to offset against the owner's personal income. Consequently, many individuals have established their own leasing companies or invested in leveraged leases.

5. Four-Party; Lease Brokers

Lease brokers are not actually lessors but finders of lessors and they bring together all the parties necessary in a lease transaction in return for a brokerage commission.

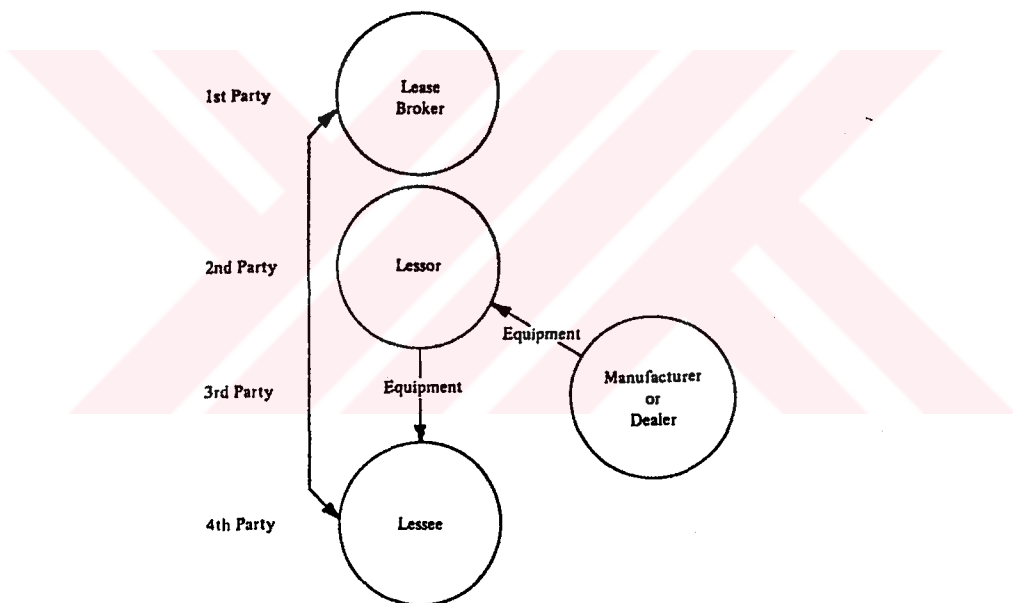


Figure 4.3 - Four Party Leasing

(Source: As adapted from (29, p.17).)

A last point worth mentioning about the participants of the leasing industry is the third party guarantors. It is common in leasing industry (29) to have some or all of the residual value guaranteed by a third party; any portion guaranteed by a third party is not considered part of the lease payments.

To serve the needs of the potential lessees as third party guarantors, an industry has emerged. However, this industry is with its special risks which can result in enormous losses. For example, Lloyd's Of London had assumed the guarantor role for residual values in the US computer leasing industry and suffered great losses on lease arrangements of IBM 370 computers being leased by Ital Corp⁴.

4.2. LEASABLE EQUIPMENT AND PROPERTY

An important characteristic of leasing is that anything that can be purchased can also be alternatively leased and, in addition, things that cannot be purchased due to high cost or government restrictions (such as telephone lines⁵ or telecommunication satellites) can be leased; also items other than physical ones such as computer software are available through leasing⁶. Moreover, even employee leasing is possible and practiced in the U.S.A. (as shall be explained in the coming sections).

Even before World War II, a great variety of equipment were leased in the U.S.A. such as (a) various types of office

⁴ See "Lloyd's Biggest Disaster", Forbes, 28 May 1979, p.38 and Paul F. Blustein, "Ital: Running Hard On A Fast Track", Fortune, 28 May 1979, pp.39-40 as cited in (30, pp.40 and 83).

⁵ Today many small telephone companies use leased lines to provide specific services. For example, an American company, Phone Base, provide long-distance telephone services for business travellers and this service gained popularity in a short time; Phone Base use leased phone lines for their operations (91).

⁶ Software leasing is common though in typical leasing agreements for such products, a customer can't get out of the deal ("hell or highwater lease"); the major reason is that there is no way of counting the leased software as collateral since licensing agreements prohibit transfer of title. Software leasing is a growing business; for example, Software Funding International (SFI), the first firm to offer software leases in U.S.A., had monthly revenues in excess of U.S.\$ 6 million in 1987 alone. The generally leased software includes high cost specialized programs like material requirements planning (MRP) packages (53, p.52).

equipment, including internal communication and letter-writing devices, micro-film apparatus, punched card machines, postage-metering machines, typewriters, calculators, etc.; (b) consumer goods such as appliances including ranges, water heaters, water softeners, washers, vacuum cleaners, electric sanders and spray guns (leased by paint manufacturers to promote the sale of paint and varnish), frozen food cabinets (leased by food distribution companies to both retail distributors and consumers to promote the distribution of an increasingly wide range of frozen foods), uniforms, sewing machines, floor waxers (leased by dealers to housewives), movie film and equipment; (c) transportation equipment such as cars, railroad cars and wagons, delivery trucks, buses, taxicabs, automobiles; (d) industrial equipment such as construction, farming, road-building, textile, and shoe-making machinery (95, p.415-417).

Currently, we can group the equipment and property which are leased in largest quantities with typical examples as follows⁷:

-Real Estate

- * Airplane hangars
- * Office space and office buildings
- * Gasoline service stations
- * Manufacturing space and ready-to-operate factories
- * Retail stores
- * Warehouses and warehouse space

⁷ As taken from (29), (30), (34), and (88).

-Office Equipment And Components

- * Computer hardware and software
- * Furniture
- * Typewriters
- * Facsimile machines
- * Photocopiers

-Industrial Equipment

- * Electronic production and control equipment
- * Machine tool manufacturing
- * Material handling
- * Road building
- * Air conditioning

-Automobiles

-Transport Equipment

- * Airplanes
- * Trucks
- * Fire engines
- * Railroad cars
- * Tankers
- * Trailers
- * Yachts

-Machinery

- * Printing
- * Metal working
- * Packaging
- * Power generating
- * Textile manufacturing

-Furniture

- * For hotels and motels
- * For offices

-Medical Equipment

- * For hospitals
- * For clinics

-Miscellaneous Items

- * Dairy cattle
- * Harbor dredges
- * Offshore drilling platforms
- * Pipelines

The American and British leasing industries have ignored real estate when developing their business until very recently whereas leasing industries in countries such as Germany, France and Belgium have always leased industrial real estate; for example, the Germans have a class of leasing as "immobilierien" or fixed asset leasing comprising such things as electricity generating stations and factory premises. Although, the Americans have a class of "facility leasing", enjoying terms of up to 25 years, industrial real estate was generally omitted from their portfolio (61).

4.3. WORLD LEASING MARKET

United States of America has been, and is, the largest marketplace for leasing with Japan and United Kingdom having the second and third largest markets respectively. When we consider the yearly amount of new leasing agreements, not including the existing contracts, the most current available data suggest the global figures given in Table 4.1.

Table 4.1

New Leasing Business In The World During Selected Years

	1979	1982	1985
	(U.S.\$ m)	(U.S.\$ m)	(U.S.\$ m)
North America	33,926	58,357	95,845
Asia	5,500	10,500	25,855
Europe	9,513	15,839	24,705
Australia	3,621	4,891	3,887
Latin America	N/A	1,800	1,589
Africa	N/A	1,000	1,193
	52,560	92,387	153,074
Other markets, say	440	613	926
Total	53,000	93,000	154,000

Source: As taken from (88, p.10).

For the year 1985, there exists data with detailed country breakdown as tabulated in Table 4.2

Table 4.2
New Leasing Business In 1985 - Country Breakdown

	US\$m	US\$m
<u>North America</u>		
Canada	2,145	
United States	93,700	95,845
<u>Asia</u>		
China (People's Republic)	800	
Hong Kong	20	
India	370	
Indonesia	227	
Iran	20	
Israel	200	
Japan	22,347	
Korea	1,027	
Malaysia	512	
Phillippines	30	
Singapore	115	
Taiwan	187	25,855
<u>Europe</u>		
Austria	329	
Belgium	349	
Denmark	290	
Finland	373	
France	5,000	
Germany	2,473	
Holland	185	
Italy	2,359	
Luxembourg	18	
Netherlands	528	
Norway	887	
Portugal	88	
Spain	1,254	
Sweden	2,035	
Switzerland	438	
United Kingdom	8,099	24,705
<u>Australasia</u>		
Australia	3,817	
New Zealand	70	3,887
<u>Latin America</u>		
Brazil	1,302	
Chile	65	
Colombia	100	
Ecuador	22	
Mexico	100	1,589
<u>Africa</u>		
Morocco	40	
Nigeria	60	
South Africa	1,093	1,193
		153,074
<u>Other Markets</u>		
		926
<u>T O T A L</u>		
		154,000

Source: As taken from (88, p.11).

Moreover, Clark^a suggest the following data (as obtained and compiled according to national leasing associations' figures of some countries) for the new leasing business in various years given in Table 4.3.

Table 4.3
New Leasing Business In Selected Years - Country Breakdown

	1979 (U.S.\$m)	1980 (U.S.\$m)	1981 (U.S.\$m)	1982 (U.S.\$m)	1983 (U.S.\$m)
<u>North America</u>					
Canada	1,100	1,200	1,100	1,000	1,000
United States	32,900	43,500	55,500	57,600	61,000
Total	33,900	44,700	56,600	58,600	62,000
<u>Europe</u>					
Austria	133	177	172	176	180
Belgium	124	137	121	196	226
Denmark	54	58	75	254	286
Finland	58	117	245	295	225
France	2,350	2,756	2,782	3,346	4,724
Germany	1,058	1,156	1,488	1,645	1,919
Ireland	11	13	34	43	155
Italy	741	1,025	1,378	1,579	1,759
Luxembourg	5	5	6	14	13
The Netherlands	443	509	517	469	437
Norway	86	110	229	416	519
Portugal	-	-	-	6	44
Spain	209	150	221	335	478
Sweden	180	228	457	532	1,696
Switzerland	195	279	316	343	350
United Kingdom	2,730	3,574	4,052	4,294	4,385
Total	8,377	10,294	12,093	13,943	17,396
<u>Asia</u>					
China	-	-	-	40	70
Hong Kong	-	-	-	140	348
India	-	-	-	50	75
Indonesia	-	-	-	94	297
Japan	-	-	-	803	1,002
Korea	-	-	-	211	461
Malaysia	-	-	-	289	497
Philippines	-	-	-	90	100
Singapore	-	-	-	228	264
Sri Lanka	-	-	-	7	13
Taiwan	-	-	-	365	444
Total	-	-	-	23,171	3,571
<u>Australasia</u>					
Australia	3,000	3,200	3,500	3,800	3,800
New Zealand	50	130	240	360	250
Total	3,050	3,330	3,740	4,160	4,050

Source: As taken from (97, p.4).

^a See (97, pp.3-6).

As for the nature of the markets, traditionally transportation and office equipment have been the most favored assets for leasing. Today, more than 75 percent of all commercial aircraft and about 20 percent of all commercial ships in the world are owned by leasing companies (102). In Europe, leasing of vehicles is often the most popular field in leasing; in Asia, office and computer equipment tends to predominate. Plant and machinery is also a major equipment category with facilities ranging from a few dollars to more than U.S.\$ 250 million in the case of some energy installations.

Medical equipment has also become an increasingly popular investment for leasing companies. In the U.S.A., where high technology equipment for hospitals qualify for accelerated tax depreciation, the healthcare leasing industry is around U.S.\$ 2 billion in 1985 (97, pp.5-6). In Table 4.4, the main types of equipment leased in 1983 in those countries for which breakdowns are available (as obtained from 1983 national association statistics and tabulated in (97, p.6) by Clark) are given.

Table 4.4
Type Of Equipment Leased (%)

Country	Industrial	Transportation	Office & Computer	Other
Austria	58	42	*	-
Belgium	30	18	42	10
Canada	11	44	42	3
Finland	22	33	36	9
Germany	34	28	31	7
Indonesia	32	24	21	23
Japan	25	**	42	33
Korea	49	9	27	15
Norway	45	55	*	-
Spain	32	30	29	9
Taiwan	70	6	14	10
United Kingdom	39	30	24	7

(*: Included in industrial)

(**: Included in other)

Source: As taken from (97, p.6)

4.4. SUMMARY

There are various parties engaged in leasing operations although we have defined mainly two: the lessee and the lessor. One of the parties existing in such transactions are the manufacturers of the equipment. It is common that manufacturers also engage in leasing through forming their own leasing companies (captive leasing companies) in which case there are only two parties: manufacturer/lessor and the

we then have at least three parties: the manufacturer, the lessor and the lessee. In three-party leasing transactions, the lessor can be a financial institution such as banks, finance and insurance companies, industrial loan institutions, or investment bankers. Private or publicly held companies can also be the lessors and the most common example are specialized leasing firms. Moreover, the lessor role can be taken by individuals whose main purpose is to protect their taxable income from other sources. In case of large and complex transactions, there exists unavoidably another party, the lease brokers whose main function is to arrange to bring manufacturers, lessors, and the lessee together in charge of a certain commission. In addition, there may exist so-called third party guarantors which guarantee the residual value of leased assets at the end of lease term on behalf of the lessee.

The type of equipment which can be leased is almost limitless; anything that can be purchased can also be alternatively leased. Generally, the following types of equipment and assets are leased in high volumes: Real estate, office equipment and computers, industrial equipment, automobiles, transportation equipment, machinery, furniture, medical equipment, and miscellaneous other items such as oil drilling platforms and pipelines.

Today, when we analyze the world leasing market, it is seen that the U.S.A. has been and is the largest leasing market in the world. Although the data for the total leased equipment are not available, the figures for annual leasing

operations suggest that the U.S.A. has the largest amount of total leased equipment in monetary terms. Similarly, Japan, United Kingdom, France, and Australia has respectively the largest markets for leasing operations with increasing amounts.



5. FINANCIAL EVALUATION OF THE LEASING CONTRACTS AND THE REASONS FOR FIRMS TO LEASE

5.0. INTRODUCTION

Financial evaluation of leases have been treated in many ways throughout the years and gave rise to a lot of controversy among the treatments to be used, basic underlying facts, etc. "...perhaps no other issue in financial management, with the exception of the debate surrounding the existence of the firm's optimal structure, has inspired such sustained interest in the academic literature as the lease versus purchase decision¹".

Before the discussion of the various aspects of valuation of leases, it should be stressed that in most of the literature dealing with this topic, the method to determine the economic value of an investment proposal is almost invariably the net present value (NPV) technique. Although there are other techniques for the determination of the value such as internal rate of return, profitability index, net terminal value, etc. (which always reach the same conclusion, regarding accept/reject decision, for independent projects), these methods may sometimes lead to conflicting results, as for the decision, for mutually exclusive projects. It has been discussed and concluded that

¹ Paul F. Anderson and John D. Martin. "Lease vs Purchase Decisions : A Survey Of Current Practice", Financial Management, Spring 1977, pp.41 as cited in (30, pp.139).

the best technique to adopt (or the one to give priority when more than one technique is used for the evaluation of the same project(s)) is the net present value method which is superior in that it does not contain the defects other methods have².

In this chapter, financial evaluation of the leasing alternative will be mainly discussed. In addition, theoretic considerations for the reasons why the lessors and the lessees alike go into leasing which is complementary to chapter 3 on the factors affecting the popularity of leasing. First, in section 5.1, financial leases are discussed; various models and views of several academicians have been briefly examined considering various aspects of financial leasing contracts. The model as proposed by Myers, Dill, and Bautista (MDB model) has been found, in the literature, to be the most correct analysis method; therefore, emphasis is given on this model whereby the model developed by Franks and Hodges, which is essentially a much simpler derivation of the MDB model, is also discussed (extended MDB model). Also discussed in this chapter are various reasons for why firms go into financial leasing as well as some still unsolved problems on the financial evaluation of leasing contracts and on MDB propositions. Following this section, the next two have the similar treatment for operating leases and leveraged lease analysis. Section 5.4 is mainly on the determination of the implicit

² See (28) and, for example, Eugene F. Brigham, *Financial Management: Theory And Practice*, 2nd Ed., The Dryden Press, 1979, pp.378-382 as cited in (28) and (30).

interest rate applicable to a leasing agreement; the main method is the internal rate of return (IRR) technique as opposed to NPV method used for analyses in the former sections.

5.1. FINANCIAL LEASES

The literature survey completed prior to the preparation of this study showed that various treatments for the evaluation of financial leasing date back to 1950; however, the most rigorous research have been undertaken by financial economy theoreticians in the seventies, one of the important ones being that of Lewellen, et al.(3). In the article, some of the conclusions reached are of importance :

- In a competitive capital market with firms financed without debt, only one set of leasing terms can be found to simultaneously satisfy the lessor and the lessee and with these terms the lease or buy choice will be a matter of indifference. Furthermore, if the lessor and the lessee can exploit the tax deductibility features of interest obligations, the only price that can satisfy both sides is the price where leasing and direct asset acquisition are the same.
- Lessors who can buy in quantity from manufacturers can negotiate for lower prices and may reflect these low prices to the lessees which shall be lower than single purchase price by lessees. However, the savings shall be modest only since the difference can only be due to

reduced transactions costs. The same is true for resale i.e. salvage values; the lessor may be more informed or skillful in the resale market due to his specialization. However, if that market is reasonably competitive in itself, only reduction in the costs shall be due to lowered transactions costs. Of course, this can not be realized for the case of special purpose equipment but realizable for only standard high-volume asset items.

A few years later, one of the authors, Lewellen, came up with another article on the lease-or-buy decision, together with Johnson (5). In the article, it was stated that "...a lease contract is accurately seen simply as a long term acquisition-of-services arrangement which differs in time profile but not in financing impact from the alternative, more common such acquisition-of-services arrangement we call 'purchase' " (5,pp.816). Hence, then, up-to-date customary analyses of the lease-or-buy decisions were found to be incorrect since

- they include financial charges (i.e. interest charges) as a cost of owing, (i.e. in some cases, an explicit interest charge is assigned to the "buy" decision, and in some cases, an implicit 100 percent loan is assumed),
- they discount the cashflows by applying a single cost of capital figure for all the items which have different degree of risk associated with them, (i.e. to apply the same discount factor to the lease payments and the salvage value which obviously have different risks), and

- the decision process is incomplete since the projects are solely rejected on the basis of comparing the present value of owning versus the present value of not owning;

and a model was offered which used different discount rates for different elements of the relevant cashflows due to their differing risk level; in this model, financial charges were not included. What is more important is that, in the analysis, the present value of leasing and buying were compared and the analysis was directed towards determining whether "...a proffered lease is sufficiently more favorable than ownership" to decide on the lease vs buy decision. The paper was confronted with a lot of discussion and comments which mainly objected to the use of multiple discount rates and the decision criteria (6). In their reply (6, pp.1024-1028), Johnson and Lewellen were able to show that their views were on solid bases; they further stressed that a comparison of the NPVs of leasing and buying an asset should be made and subjected to the view that the decision to lease the asset or not³. Moreover, they pointed out that "almost any asset is acceptable at some sufficiently low price, even if that low price happens to take form of a lease agreement. The possibility of leasing, therefore is an integral part of the asset's acquisition analysis, not a separate, purely 'financial matter'" (6, p.1025) and argued the decision on this matter should be pointed to (lease versus buy) rather than (lease versus borrow).

³ As stated for example in J.F.Weston and E.F.Brigham. Managerial Finance, 3rd Ed., New York:Holt,Rinehart and Winston, 1969, pp.348-352 as cited in (5).

Gordon, in a further article (7), expressed the dissatisfaction he had with the past literature and stated that the Johnson-Lewellen article (5) had at last resulted in a model both completely general and accurate. He then formed a new model with the following conclusions:

- In finding the NPV of an after tax risk-free cashflow, risk-free interest rate without deducting the corporate income tax should be used for discounting,
- Generally leasing is used because of tax advantages but the tax advantage of debt financing tied to a lease should not be considered since debt financing can be obtained independent of leasing,
- In finding the NPV of a project, the cashflows with standard risk should be discounted at a rate appropriate to the risk of the project and the other cashflows should be discounted at the normal interest rate on borrowing if they are risk free.

An important contribution to the field was brought by Schall in 1974 with his article (8) in which he had formed the "value additivity principle" which states that "the value of the asset to the firm is the value that the incremental stream it provides would have if that stream were available individually in the market" (8, p.1205), i.e. the additional income flows the asset generates determine its value to the firm and therefore, in lease analysis, only the incremental returns of the investment (after-tax) should be considered. The paper also discussed that valuation methods described by

then either incorrectly defined the relevant cashflows or used improper discount rates in evaluating those flows (8, p.1212). Another argument in the paper is that it is not a wise practice to separate the decision to acquire the asset or not from the decision on the method of financing the acquisition since "...whether acquisition is justified may depend upon how the asset is financed" (8, p.1208); accordingly, it is argued to determine first the value of the purchase and lease options and select the larger one and adopt the option if it is positive, the same conclusion reached by Johnson and Lewellen (5).

In 1976, the most thorough discussion on the valuation of financial leases was made by Myers, Dill, and Bautista (referred to as "MDB" hereinafter) who incorporated a previous work of Dill and Bautista⁴ with a paper of Myers⁵ (9). In their paper, through rather complex derivations, MDB were able to derive a simple and easy-to-use model and emphasized that the presence of income tax differentials between lessor and lessee firms is the major market imperfection stipulating lease financing.

At the same time, a theoretical analysis on leasing was contributed to the field by Miller and Upton (2) in which they thoroughly discuss several aspects of leasing. Since most of the subsequent literature utilized almost all the generalizations and views of Miller and Upton, only some of

⁴ A.Bautista and D.Dill. "A Rational Method For Lease Analysis". Unpublished M.S. Thesis, M.I.T., 1975.

⁵ S.C.Myers. "An Exact Solution To Lease vs Borrow Problem". Working Paper, London Graduate School Of Business Studies, 1975 as cited in (10).

the arguments of the paper is given consideration here: First, the same conclusion as reached by Schall and others (e.g.(5) and (8)) has been repeated: no presumption can be made beforehand regarding the decision to lease or buy i.e. they should be considered together, each one with its own merits. In other words, the decision to acquire the asset should be made together with the form of financing required for the decision; acquisition of the asset should not be made alone in the capital rationing of the company.

It was further argued that, in a competitive market, the terms of short-term and long-term leases will adjust in such a way that user firms will find no purely financial advantages either in buying rather than leasing or in choosing one form of leasing agreement over the other⁶.

Miller and Upton had viewed the depreciation in two related (but not mutually dependent) parts: Operating inferiority (i.e.obsolescence which is only partially related to the second part) and deterioration (physical). The basis for this argument is that a short term lessee has an incentive to keep maintenance expenditures down to the level that minimizes the sum of his own production and maintenance costs, even though this may lead to a substantial drop in the real value of the equipment⁷.

⁶ Also, it has been shown by Van Horne (83) that, assuming perfect and complete capital markets (which imply that there are no transaction costs, information is costless and readily available to all investors, there are no bankruptcy costs, securities are infinitely divisible, and there are no taxes) and the resulting competition among market instruments, the cost of lease and debt financing to a lessee or borrower must be the same as is the expected return to the lessor or lender.

⁷ This argument, i.e. because a lessee does not own the rights to possible future uses of the good, he may not exert an effort to preserve the value of these rights (which means he will use the good carelessly)

Also, it has been shown that, tax-exempt organizations might gain from buying rather than leasing, since, in case of leasing, the lessee pays the lessor an "...amount equal in present value terms to the cost of buying the machine plus whatever taxes must be born by the leasing firm (lessor) in its role as an intermediary" (2, p.783); accordingly, the opportunity cost of the investment incomes (that will be foregone by leasing) should be evaluated separately.

One other remark is about the vendor (or independent leasing company) lessors versus manufacturer lessors; independent leasing companies and vendor lessors "...operate under financial handicap when competing against manufacturers leasing their own products" (2, pp.785) since a manufacturer, if selects to lease, will have access to the benefits of tax deferrals and hence can afford to lower the price of the product accordingly in his lease payments whereas a non-manufacturer has to buy it at the original cost incurred to the manufacturer (plus his profit).

Very recently, in an empirical study by Schallheim, et al.(47), Miller and Upton's (as well as McConnell and Schallheim's (36)) theoretical models of lease valuation in which the lease yield as function of the risk-free rate of

with little regard as to how this affects its durability, is criticized by Flath (93). Flath believes that a temporary user who is an owner in a position of sale and resale (i.e. he buys the asset and, after using it for a temporary period, sells to another one) rather than a lessee may not fully capture the wealth value of diligent maintenance since the costs to the next user-owner of evaluating the good would be similar in kind to the costs of a lessor in assessing rewards or penalties on a lessee for his care in using the good, thus, if tenure of use and duration of the lease coincide, there is no difference between leasing and sale-resale from this point of view. Flath suggests that "...the shorter is the term of a lease, holding tenure of use of constant, the shorter will be a good's economic life because of the wear and tear. Where the lease term coincides with tenure of use, the presumption should be that the lease contract, itself has little effect upon user-maintenance" (93, pp.253-254).

interest and the discounted value of the leased asset's residual-value covariance risk is tested and empirical results were found to be consistent with the predictions set out in (2) and (36). In the study, the following hypotheses were also tested:

1. The transaction costs associated with negotiating and writing the lease decrease proportionately as the dollar value of the leased asset increases so that the lease yield (to the lessor) is an inverse function of the cost of the leased asset
2. The availability of reliable information about the lessee firm increases as the 'size' of the lessee increases so that lease yields are an inverse function of the lessee firm's assets (i.e. the lessors assume greater risks and thus ask for greater lease payments from the lessees which are small companies and for whom there is little information).
3. Lease yields are a positive function of the default potential of the lessee firm

The study results are consistent with the first two hypotheses above and moreover it was seen that, lease yields are positively related to the inverse of the purchase price of the leased asset and the inverse of the book value of the lessee's assets and negatively related to the lessee's current ratio; this suggests that the third hypothesis may also be correct but the selected ratios (profitability

ratio, liquidity ratio, and leverage ratio) were unable to reflect the default potential of the lessee firms.

Coming back to the MDB model, the first point worth mentioning is its simplicity and easiness of use (contrary to its derivation); also, it should be emphasized that the model formula solves simultaneously for the value of the lease contract and the value of the debt displaced by the lease. As this model is general and proved satisfactory to date, it is worthwhile to study the assumptions underlying the model:

The lease contract to be studied is assumed to commence at $t=0$ and extend to $t=H$, this period covers most or all of the asset's economic life. The contract is noncancelable and complete financing for the asset is provided by the lease. The contract is analyzed from the lessee's point of view; for the lessor, the only difference is that of changing the signs. The effects of the lease are as follows:

1. Depreciation tax shields generated by the asset are lost.
2. The lessee pays the lease payments (tax-deductible) from $t=1$ to $t=H$.
3. The lease displaces debt i.e. it uses some of the firm's debt capacity; but, in doing so, it saves the firm from having to finance the asset from other sources.
4. Maintenance, insurance, and likewise operating costs may be assumed by the lessor.

5. The lessor usually obtains use of the investment tax credit since the asset is legally in his possession.

6. At $t=H$ asset's residual value is lost.

Since the last three items can be valued separately, they are not taken into account in the model. The value of the lease contract is the advantage of leasing versus normal financing and is as given below from the lessee's viewpoint. The lessor's decision model is simply the mirror image of the lessee's model. Since cash outflows faced by the lessee are cash inflows faced by the lessor, and vice versa, the lessor's return computation is merely the lessee's present value equation with the signs reversed.

$$V_{0 \text{ lessee}} = 1 - \underbrace{\text{PV}(P_t(1-T))}_{\text{after-tax cash flows of lease}} - \underbrace{\text{PV}(b_t T)}_{\text{depreciation tax shields lost}} + \underbrace{\text{PV}(rTD_t)}_{\text{tax shields lost}}$$

where

$PV()$ refers to the present value of the cash flow (at $t=0$)

V_0 = advantage of leasing (value of the lease contract)

P_t = lease payment at t per dollar of asset leased

T = marginal corporate income tax rate

b_t = depreciation per dollar of the leased asset's value; depreciation schedule is $b_1, b_2, b_3, \dots, b_H$

r = firm's borrowing rate

D_t = debt displaced in t per dollar of asset leased

$(D_t \equiv \frac{\text{total debt obligations of the firm in period } t}{\text{the initial dollar value of the asset leased}})$

This general representations assumes the Modigliani-Miller view that only advantage of debt financing is the tax savings generated by the deductibility of interest from taxable income⁸, excludes transaction costs⁹, and assumes value additivity principle holds¹⁰. Also assumed is that streams of lease payments and tax shields have the same risk characteristics as the stream of interest and principal payments on the firm's debt to be consistent with what Schall (8) and others have emphasized. Also with this model, leasing decision for the lessee is made on a comparison of the leasing cashflows versus those that would be obtained if the asset was purchased and financed entirely with debt; thus the investment decision is, in effect, separated from the financing decision (52, p.401)¹¹. Omitting the rather complex derivation by MDB, the basic lease valuation formula is as given below. MDB asserts that to use this formula, the financial manager needs only to know the schedule of lease payments, the asset's tax depreciation schedule, the corporation's borrowing rate and its marginal tax rate. (In practice, he would also adjust for loss of the asset's salvage value and investment tax credit and also for any operating costs assumed by the lessor as well as any cashflow as specific conditions necessitate). Also, the lost

⁸ F.Modigliani and M.H.Miller. "Corporate Income Taxes And The Cost Of Capital:A Correction", American Economic Review, 53(June 1963), pp.433-443 as cited in (10).

⁹ F.Modigliani and M.H.Miller. "Dividend Policy,Growth And The Valuation Of Shares", Journal Of Business, 34(October 1961), pp.411-433 as cited in (10).

¹⁰ (8, p.1204).

¹¹ Hence, we can name our problem as lease versus borrow rather than lease versus buy. Fabozzi (30) uses a more comprehensive name for the problem: Lease Versus Borrow-To-Buy.

interest tax shields of displaced debt are implicitly recognized in the adjusted discount rate Γ^* .

$$V_0^{\text{lessee}} = 1 - \sum_{t=1}^H \frac{P_t(1-T) + b_t T}{(1 + \Gamma^*)^t}$$

$$V_0^{\text{lessor}} = -1 + \sum_{t=1}^H \frac{P_t(1-T) + b_t T}{(1 + \Gamma^*)^t}$$

where $\Gamma^* = r - rT = r(1-T)$

In the derivation of this expression, one important decision was that the lease obligations P_t and the various tax shields displace debt¹² on a dollar-for-dollar basis; i.e. for the lessor, for example, this means 100 % debt financing. MDB suggest that this is unrealistic since almost no company can operate at 100 % debt; "...even the safest financial intermediary requires some equity" (10, p.806)¹³. Further assuming that the lease payments and the various tax shields support at the most λ of debt per dollar of assets, the following expressions can be similarly derived:

¹² Under a financial lease, the cash outflow (lease payments) commitments are generally noncancellable and can potentially lead the firm to bankruptcy if not paid. Clearly, if the capacity of the firm to make commitments of this nature is limited, the lease obligation displaces other debt obligations. In other words, by undertaking the lease agreement, the firm promises to make certain payments at certain points in time, which is similar to making a commitment to repay a loan. Given its limited capacity to undertake financial leverage, it is clear that the firm decreases its ability to obtain other loans by making the lease agreement; this is what is meant by saying that a lease obligation displaces debt.

¹³ MDB states that "...the only plausible interpretation of 100 percent debt financing for an independent leasing company is to say that the company acts only as a broker between the lessee and a third party, who is the company's creditor. The lessor (as broker) retains no interest in the lease contract. But this case is uninteresting, since in it the creditor is the real lessor" (10, p.806).

$$V_0^{\text{lessee}} = 1 - \sum_{t=1}^H \frac{P_t (1-T) + b_t T}{(1 + r^* (1 - \lambda T))^t}$$

$$V_0^{\text{lessor}} = -1 + \sum_{t=1}^H \frac{P_t (1-T) + b_t T}{(1 + r^* (1 - \lambda T))^t}$$

To repeat, the underlying assumption for the above expressions is that the firm borrows λ times the value of the various tax shields, and reduces its borrowing by λ times the value of the lease payments P_t .

As for the adjusted discount rate (r^*) used to discount the lease payments, we should consider the Modigliani-Miller (MM) formula for the cost of capital¹⁴. The MM formula is

$$r^* = r(1 - \lambda T)$$

where

r^* = The weighted average cost of capital (net of tax¹⁵), or hurdle rate¹⁶ for discussing cash flows,

r = The appropriate project hurdle rate assuming perfect capital markets and all-equity financing.

λ = Target leverage ratio¹⁷, and

T = Marginal corporate income tax rate

¹⁴ See F. Modigliani and M.H. Miller, "The Cost Of Capital, Corporation Finance And The Theory Of Investment", The American Economic Review, June 1958, pp.261-297 as well as F.Modigliani and M.H.Miller, "Corporate Income Taxes And The Cost Of Capital: A Correction", The American Economic Review, June 1963, pp.433-443 as cited in (10, p.807).

¹⁵ Weighted average cost of capital is calculated net of tax (28).

¹⁶ A hurdle rate, in capital rationing, is the minimum acceptable rate of return on a project (28).

¹⁷ Leverage Ratio = Debt / (Debt+Equity)

In our case, since

$$\rho = r$$

we then can have

$$\rho^* = r(1 - \lambda T)$$

in the special case where $\lambda = 1$ we have

$$\rho^* = r^* = r(1 - T)$$

thus we can simply write

$$r^* = r(1 - \lambda T)$$

This implies that r^* is not an after-tax cost of debt but a weighted average cost of capital (10, p.807).

In addition to deriving the simple valuation formula, the article by MDB discusses the net gain of leasing in detail. "The only rational explanation of leasing is that both lessee and lessor benefit from it. This can occur only if the two parties' V_0 s are calculated in exactly the same way, except for the reversal of signs, a net benefit exists only if one or more of the variables determining V_0 differs for the lessor versus the lessee. The series P_t and b_t are definitely the same, so the only candidates are T , λ , and r^* (10, p.811). For the lessee, the breakeven lease payment occurs at $V_0 = 0$ and can be determined using the formula for one period resulting in

$$P_t^* = 1 + r \left(\frac{1 - \lambda T}{1 - T} \right)$$

Using these expressions it can be seen that the view according to which firms facing low marginal tax rates should lease from firms having high tax rates, does not always hold true; there can be some exceptions as can be understood by studying the implications of the expression above¹⁸.

Another important conclusion of MDB includes the notion that saving taxes seem to be the most important reason for leasing whereas the other reasons are not as important in an efficient and a competitive market, "...the lease vs borrow problem should be a toss-up, apart from the tax considerations. Perhaps leasing is simply a convenient legal form for arranging secured debt" (10, p.815). The last notable conclusion from MDB is that lease payment displays debt for the lessee on a dollar-for-dollar basis (that is, $\lambda = 1$), however, it is possible that a lease may displace less debt under certain conditions; this point is yet to be studied further.

This thoroughly satisfactory model has been extended further by Franks and Hodges (11) later on, who have developed a simplified derivation of the same formula ("...which gives

¹⁸ This fact is also demonstrated by Bower and Oldfield, Jr. (86). It is shown that with a lessee who has accumulated and expected losses so large that his expected tax rate is zero, the lease arrangement might not be a benefit to the parties and a burden to the government as expected. The reason is as follows: The lease payments must be high enough to make the lessor happy after he has considered both the taxes he shelters with depreciation and interest and the taxes he must pay on the lease payments he receives. If the shelters on depreciation and interest have a lower present value than those on lease payments, then the parties are not benefited but burdened when a zero tax rate lessee gives up depreciation and interest for lease; the inability to use tax shelters may cut more into the lease payment shelter gained than into the depreciation and interest shelters given up.

it a definite pedagogical advantage¹⁹) and also extended the model to include the case of a company which is currently in a non-tax paying position, but which expects to start paying taxes in the future. In this model (referred to as "extended MDB model" hereinafter), a lease versus borrow comparison is made where the borrowing rate is chosen to equate the cash flows of the alternatives in each future period i.e. "borrowing is constructed so that the future cash flows for purchase are exactly the same as those for leasing. Whichever alternative has the lower cash outflow in the initial period dominates the other " (11, p.662). Their debt scheme is such that all cash flows except the first are the same as for the leasing scheme; the value of the lease is then equal to the amount by which the year 0 outflow in the debt scheme exceeds the year 0 outflow in the leasing scheme. Since the derivation of Franks and Hodges model is very simple, it is given here as directly obtained from (11, pp. 657-662).

¹⁹ (11, p.657).

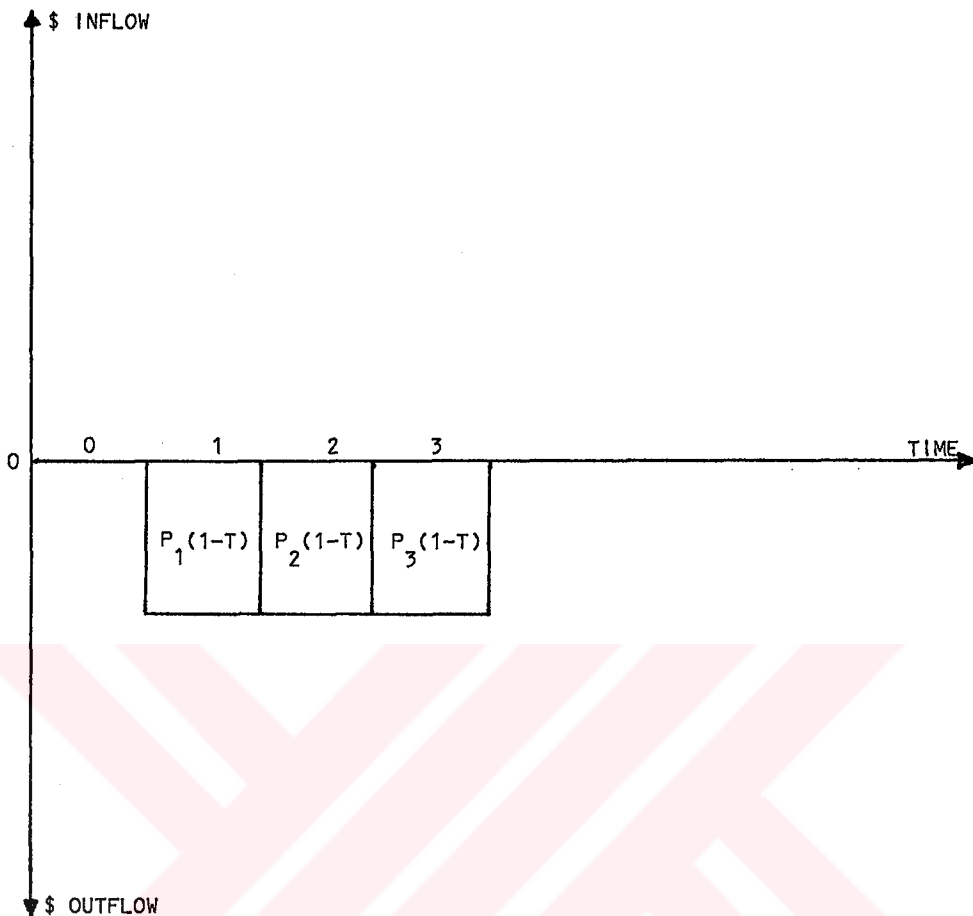


Figure 5.1 - Time Profile: After Tax Lease Payments

(Source: As taken from (11, pp.657-662).)

Figure 5.1 shows the time profile of the after-tax cash flows, $P_t(1-T)$, required to lease an asset²⁰. Figure 5.2 shows the cash flows for the purchase of the asset if no

²⁰ An asset with a purchase cost of \$ C with zero salvage value, for which none of the operating costs are the responsibility of the lessor, is considered. It is assumed first that \$ 1 of lease payments displaces \$ 1 of debt (i.e. $\lambda = 1$ in MDB model). The debt displaced by the lease is the amount necessary to make the cashflows in each future period for buy and borrow exactly the same as those for leasing. Therefore, the analysis is made by making a lease versus buy and borrow comparison, where the borrowing is chosen to equate the cash flows of the alternatives in each future period. This method of analysis is different than the usual form of lease versus borrow analysis where the asset's purchase price is borrowed and repaid according to some arbitrary repayment schedule.

debt is used: the cash flows comprise an initial outflow of \$ C and inflows $b_t T$ from the depreciation tax saving. The purchase is to combined with borrowing, such that the payments to service and repay the debt equate the net cashflows for purchase with those for leasing in each future period.

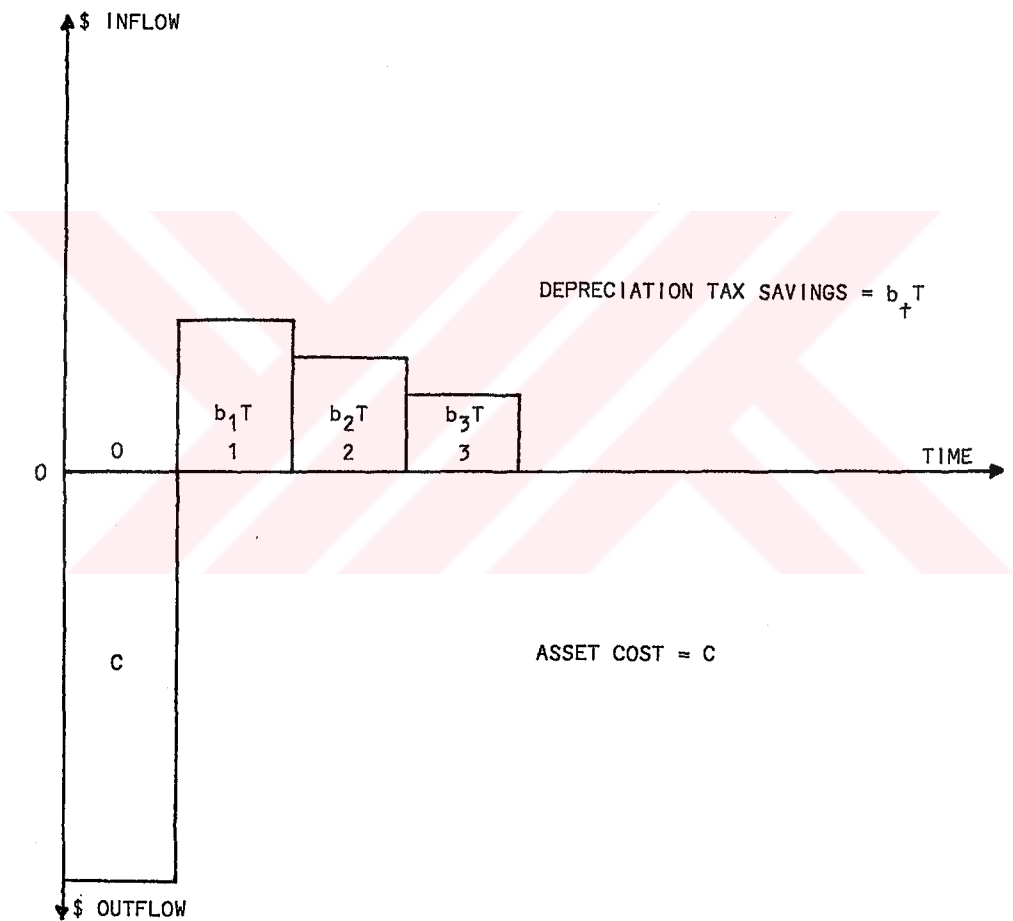


Figure 5.2 - Time Profile: Cash Flows For Purchase
 (Source: As taken from (11, pp.657-662).)

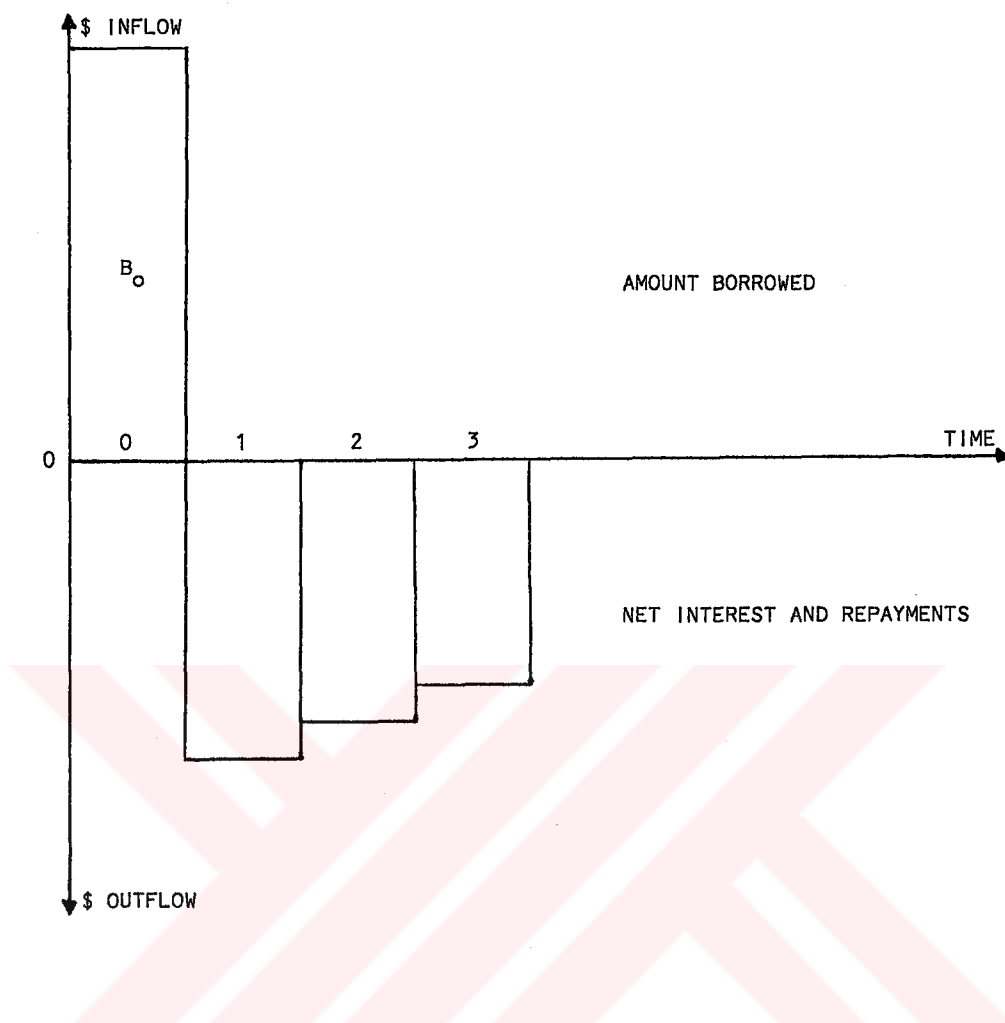


Figure 5.3 - Time Profile: Borrowing And Repayment
 (Source: As taken from (11, pp. 657-662).)

Figure 5.3 illustrates a possible schedule of cashflows for borrowing and repayment. This schedule is combined with the cashflows for purchase (Figure 5.2) to give the cashflows for buy and borrow shown in Figure 5.4. These net cashflows in each future period must be exactly the same as those for the after-tax lease payments (Figure 5.1). This is accomplished when the loan repayment in each period (interest after tax plus repayment of principal) is equal to

the sum of the corresponding after-tax lease payment and depreciation tax saving (i.e. $P_t(1-T) + b_t T$).

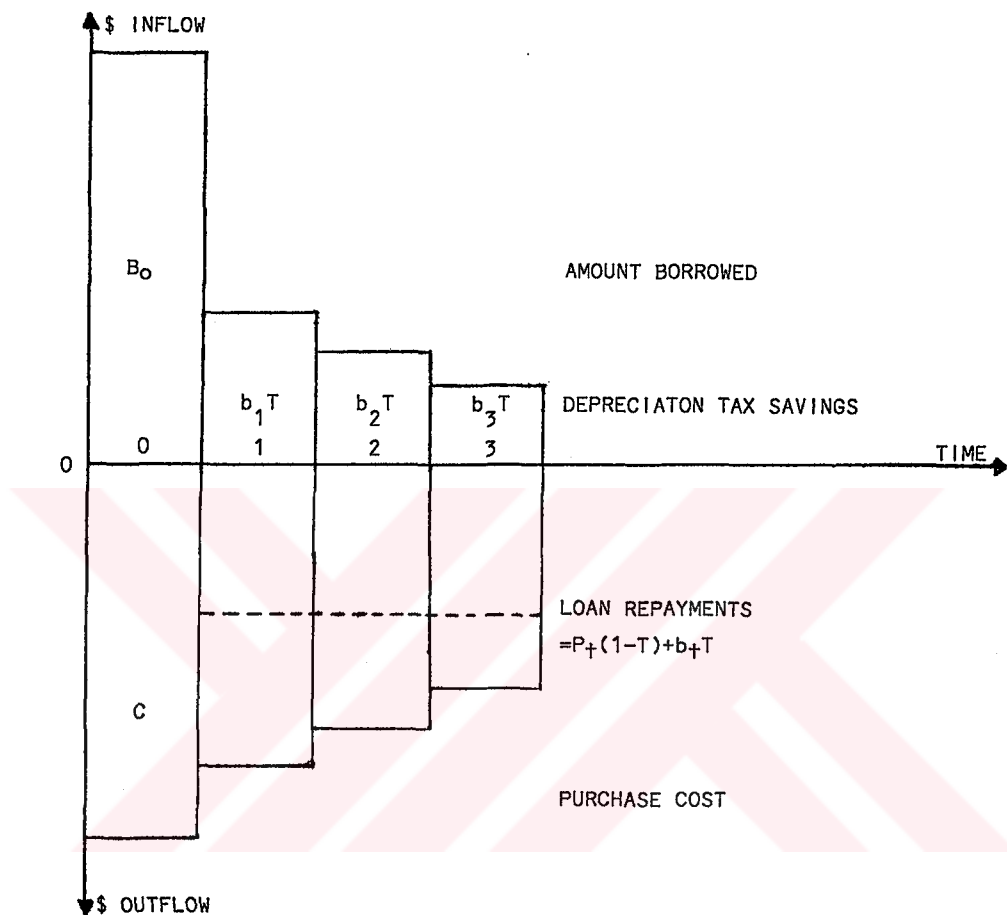


Figure 5.4. - Time Profile: Purchase With Borrowing

(Source: As taken from (11, pp.657-662).)

With these schedules, the amount of borrowing which is to be repaid must be the present value of the stream of payments when discounted at the rate of interest of the loan. The payments we are concerned with represent net cashflows after the tax savings on interest have been absorbed, thus, like

MDB model the cost of borrowing is reduced from the pre-tax cost r to the after tax rate r^* (where $r^* = r(1-T)$).

The net payments $P_t(1-T) + b_t T$ are therefore discounted at the after-tax interest rate thus the amount borrowed, B_0 , is given as

$$B_0 = \sum_{t=1}^H \frac{P_t(1-T) + b_t T}{(1+r^*)^t}$$

The difference between the purchase cost, C , and the amount borrowed, B_0 is the amount which would be saved in the initial period by leasing. Since the cash flows in all future periods, are identical, the difference in initial cashflows gives the present value, V_0 , of the advantage (or, if negative, the disadvantage) to leasing:

$$V_0 = C - B_0 = C - \sum_{t=1}^H \frac{P_t(1-T) + b_t T}{(1+r^*)^t}$$

lessee

As can be seen, this is essentially the same as that of MDB model; using dollar values gives a more easy form to use.

If C is larger than B_0 , then "...leasing has a net advantage as the means to acquire the asset if the amount of debt the lease agreement displaces is less than the purchase price of the asset. Such a criterion makes eminent sense since if the firm were instead to commit to lenders incremental cashflows exactly like those diverted by the lease, the firm would be unable thereby to raise enough money to buy the asset. Conversely, if B_0 is greater than C , the firm could decline the lease, borrow an amount which would be equal to the purchase price of the asset, buy it, distribute the left

over loan proceeds to shareholders as a dividend, and end up with a future after-tax payment burden to service the debt precisely identical to that which would be incurred in assuming the lease" (24, p.100).

In the extended MDB model, the value of the lease with different tax paying commencement dates has also been derived, as mentioned earlier, with the following expression:

$$V_0^{\text{lessee}} = C_G - \sum_{t=1}^G \frac{C_t}{(1+r)^t} - \frac{AT}{(1+r)^G}$$

Here, V_0 is the value of the lease with different tax-paying commencement dates; tax losses can be carried from period F to period G in which tax paying commences. The later part of the second term is used to determine the gain from deferring the tax payment²¹. The other terms are expressed as follows:

$$C_t = P_t \quad (t=0, 1, 2, \dots, G-1)$$

$$C_G = \sum_{t=F}^H \frac{P_t(1-T) + b_t T}{(1+r^*)^{T-G}} + \sum_{t=F}^{G-1} (b_t - P_t)$$

and

$$A = \sum_{t=F}^G \frac{\left(1 - \frac{1}{(1+r)^{T-F+1}}\right) C_t}{1 - T \left(1 - \frac{1}{(1+r)^{G-F+1}}\right)} \quad \text{with } F' = \max(1, F')$$

²¹ The time of tax payment is similarly very important. In U.K., for example, there is a significant difference between the time when profits are earned and the time corresponding tax becomes payable. For companies which were trading before 6th April 1965, corporation tax is payable on the 1st January following the date nine months after the end of the company's financial year. For other companies, the tax is payable after the end of the company's financial year (82). As far as the lessee is concerned, if he undertakes the contract at the beginning of an accounting year, the effective delay in tax is two years, given an assumption that tax is paid 12 months from the end of the financial year; this is an advantage to the lessee. The converse is true for the lessor; it is beneficial to the lessor if the contract is written towards the end of its financial year. This explains why lessors often offer beneficial rates in the final quarter of their accounting year (77, p.106). For the delay in tax-payment, detailed expressions and applicable discount rates have been derived (82, pp.621-627).

The treatment of lease valuation problem by MDB or extended MDB model has been popular and many academicians treat further details on this model. For example, Lewellen and Emery (24) state that the MDB model "...had the most direct managerial decision-making orientation and was the most precise in its consideration of the implications of the lease contracts for the other investment and financing opportunities of the lessee firm" (24, p.97). Also in a recent article by Weingartner (13), firm's cost of capital was shown to be the most appropriate for cash flow discounting purposes whereby the borrowing rate was not found suitable for discounting since "...the chief reason for rejecting a borrowing rate for this purpose is that lenders look to more than the collateral value of an asset for making loans" (13, p.12). According to the discussion in the paper, "...the more common argument is that the cost of debt is the proper discount rate for the lease payments on the premise that the lease is strictly a form of financing alternative to a loan. Although it is correct to say that lease payments contain an interest component, the lessor retains the risk inherent in the disposition rights²² and expects to get a return for bearing that risk as well. If the lease payment is discounted using the cost of debt, a lease ascribes too high a present value to the lease payments, making the lease alternatives inappropriately less favorable than otherwise" (13, p.12).

²² Disposition rights include residual value, the depreciation tax shield and the adjustment from possible depreciation recapture and the capital gains taxes (13, p.6).

Use rights are the projected cashflows which are net after-tax revenues (13, pp.6-7).

Some criticism of the MDB model was made in that it does not include the lessee firm's borrowing opportunities on tax shields associated with either the lease or the purchase alternative to produce a more generalized lease-purchase decision model (21), and in an attempt to generalize the model, the method of analysis as suggested by Lewellen, Long, and McConnell (3), i.e. LLM model, has been extended to include the firm's borrowing opportunities. However, as we have seen before, the MDB model has been extended by Franks and Hodges (11) to include the borrowing opportunities as well. In the critics, it was stated that "...if MDB's assumptions are imposed on the expanded version of LLM model, both the expanded LLM model and the MDB model produce equivalent conclusions concerning the net advantage to leasing(however) the extended LLM model would seem to be preferable to MDB's model because it's more general" (21, p.28). Owing to the fact that MDB model as extended by (11) is as general as the LLM model and it's much simpler, the extended MDB model should be the more preferable one in lease valuation analysis.

On the other hand, the MDB model, which has ended much of the controversy on the analysis of lease valuation, and its extended one were unable to explain the debt-displacement nature of leasing. This problem still remains unsolved today with the most recent articles adding further puzzling facts to the subject. In a recent article (31), Ang and Peterson first review the possible cases for the debt displacement ratio which can have three different values:

- $\lambda = 1$lease displace debt dollar for dollar
- $0 < \lambda < 1$lease displaces some part of the debt (since e.g.lessors may bear some risk inherent in debt contracts²³)
- $\lambda > 1$lease displacement of debt is greater than dollar-for-dollar

"A noteworthy feature common to all three views is that leases are expected to reduce the debt capacity (i.e. $\lambda > 0$)²⁴" (31, p.1055) or at least do not affect it (i.e. $\lambda = 0$). The study conducted by Ang and Peterson had some interesting results: "...the leasing firms, as a group, report not only higher debt ratio than non-leasing firms when leases are included in debt in the numerator, but also greater debt ratios when leases are removed from the numerator of these results" (31, p.1058). Moreover, the study revealed the fact that the observed relationship between debt and leasing is positive which means an increase in debt (or lease) is related with an increase in lease (or debt) i.e. λ was found to be less than zero (contrary to three views generally supported by theoreticians). In the study of empirical tests on the samples of approximately 600 firms covering the years 1976 through 1981 and the general finding is that the leasing and purchasing are complimentary activities. Roberts and Gudikunst (12) also support this finding: "our comment reinforces the conclusions of Sorenson

²³ (31, p.1055).

²⁴ For example, see (2), (3), and (11).

and Johnson²⁵ that data drawn from lease contracts are consistent with imperfect lease markets. In particular, our data suggests that lessees may treat leasing and purchasing as complementary activities and not as substitutes. Finally, our statistical work achieved far poorer significance than theirs, reinforcing their parting sentence—the last word is not in on leasing" (12, p.81). Moreover, Weingartner, in his study on the evaluation of leases through utilization of use and disposition rights asserted that "...the contribution an asset makes to a firm's profit and overhead, derived from use rights (present value of net after-tax revenues generated by the leased asset), plays an important role in supporting debt in the capital structure" (13, p.12). This 'puzzle' has been indirectly tackled with also in a paper by Smith and Wakemann (32). In the paper, the main concern is to identify the incentives (other than those for tax purposes) for corporate leasing policy. It has been discussed that there are mainly two groups of determinants of the lease-versus-buy decision: Tax determinants and non-tax determinants. Among the tax determinants, there are various incentives such as effective marginal tax rates, two-party vs three-party leasing, and investment tax credit allocation; most of these incentives identify only potential lessors and lessees but do not help in identifying the assets that shall be leased. On the other hand, non-tax determinants are helpful in identifying the assets that can

²⁵ Ivar W. Sorenson and Ramon E. Johnson, "Equipment Financial Leasing Practices And Costs: An Empirical Study", *Financial Management*, Spring 1977, pp.33-40 as cited in (12).

be leased. The following discussion draws mainly on that of (32):

Non-tax determinants can be grouped as the lessee and the lessor characteristics affecting the leasing decision. Among the lessee characteristics are the following incentives (which are not asset specific) that help to identify the firms having special incentives to lease or buy:

Financial Incentives:

- Long term cancelable leases commit the firm to use a particular set of assets over the life of the lease and thus controls the asset-substitution problem
- Use of leases reduces the coverage on other already outstanding fixed claims
- Some new, positive NPVed projects will be undertaken if the use of the asset is acquired through long term leases or if the project is financed with secured debt
- In a lease, the lessor retains the title to the asset; in case of lessee default, it is easy for a lessor to get back the leased equipment in a bankruptcy situation; thus, lessors can be more risk-taking as regards to their selection of the lessees

Compensation-Related Incentives:

Management's manipulation of certain facts about investments can be controlled by including the capitalized value of the lease payments in the calculation of invested capital.

Specialization In Risk-Bearing:

Ownership of capital assets makes it more difficult for the proprietor to reduce risk through diversification; this problem can be solved by leasing. Leasing thus reduces the concentration of wealth in one activity, and can facilitate a more efficient allocation of risk-bearing.

The following asset specific incentives vary across different assets and thus help identify the assets that the firms can lease:

Sensitivity To Use And Maintenance Decisions:

A lessee does not have the right to use an asset's residual value and hence has less incentive to care for the asset²⁶ as compared to an owner of the asset. Since the lessor will tend to charge high prices for use and maintenance costs, the more sensitive the value of an asset to use and maintenance decisions, the higher the probability that the asset will be purchased rather than leased.

Firm-Specific Assets:

An asset highly specialized to a particular user is more highly valued by his organization than in its best alternative use; for instance, differential consequences of a production delay lead most newspaper publishers but few book publishers to own their presses. (Such subcontracting along with leasing has been analyzed by Klein, et al.(92)

²⁶ Armen A. Alchian and Harold Demsetz, "Production, Information Costs, And Economic Organization", American Economic Review, 62 (December 1972), pp.777-795 as cited in (32, p.900).

who demonstrated that "...the lower the appropriable specialized quasi rents²⁷ the more likely that transactors will rely on a contractual relationship (such as leasing or subcontracting) rather than common ownership. And conversely, integration by common or joint ownership is more likely, the higher the appropriable specialized quasi rents of the assets involved" (92, p.307). Klein, et al. also demonstrated that firm specific (or organization-specific as they put it) assets (assets that are more highly valued within the organization than in their best alternative use) are not beneficial to operate under leasing).

Also we can consider the locomotives operated by railroad companies in the U.S.A. by the beginning of the twentieth century. Those early American steam locomotives were specialized to operating conditions such as high speed, high climbing, short hauls, heavy loads, sharp corners, as well as types of coal for fuel; slight differences in engines created significant differences in operating costs. High specialization made it desirable for the rail companies to own locomotives. The advent of the more versatile, less specialized, diesel locomotive enabled more leasing (92, pp. 319-320).

Expected Period Of Asset Use:

The demand for firm specific assets typically extends to most of the asset's useful life; however, the demand for

²⁷ The quasi-rent value of an asset is the excess of its value over its salvage value, that is, its value in its next best use to another rental (92, p.298).

many general (non-firm-specific) assets is relatively short. If the useful life of an asset is significantly longer than the period in which the particular firm plans to use it, and if the costs of ownership transfer are not negligible, then there can be advantages to leasing rather than buying. Also to be noted, short term leases reduce expenditures on information about quality. For example, the lessee of an automobile is less concerned about the condition of the engine, transmission, etc. than a potential buyer.

The lessor characteristics of non-tax determinants of lease-buy decision also help to identify the asset type that can be leased and are like the following:

Price Discrimination Opportunities:

With market power, a manufacturer as a lessor may exercise legally-prohibited differential pricing of the same good. Specially, if purchasers have less elastic demands and lessee have more elastic demands, then the firm can increase profits by setting the implicit purchase price to the lessee below the explicit price to the purchaser. A second method of price discrimination may be realized by charging different prices to different leasing customers whose demands are correlated with one or more of the characteristics of the lease (such as the term of the lease, the provision of maintenance services, or the intensity of use of the asset) (32, p.901).

Comparative Advantages In Disposing The Asset:

Contrary to the view of Lewellen, et al.(3), there may be certain comparative advantages providing incentives to lease.

With the use of the above mentioned non-tax incentives, the various provisions that can be used in leasing agreements can be extended and this may point out to the flexibility of structuring leases to suit to both the lessee's and the lessor's specific needs.

The final conclusion of Smith and Wakeman's article suggests that "although leasing and debt are substitutes for a given firm, looking across firms, characteristics' of firms investment opportunity sets which provide high debt capacity also tend to provide more profitable leasing opportunities. In order to measure the extent of substitutability between leases and debt, the difference in the characteristics of the specific assets used by different firms must be controlled" (32, p.907); and this partially explains the study results of Ang and Peterson (31) which shows that the use of debt and leases are complimentary.

Moreover, the debt displacement problem is also studied by Bayless and Diltz (46) who express that "...one question that has never been answered satisfactorily in the analysis of the lease-versus-buy problem is the amount of debt displaced by a lease contract (of course this is from the point of view the lessee; for a lessor, lease contracts support debt) " (46, p.53). In their paper, Bayless and

Diltz tried to estimate the debt displacement parameter (λ) as defined in MDB lease valuation model and found out that

- λ varies from 0.94 for assets with a depreciable life of one year to 0.75 for assets with a depreciable life of 20 years
- leasing completely displaces 10 to 26 % more unused debt capacity²⁸ than does debt finance. This finding opposes the view cited by the leasing companies that leasing is a method of increasing the firm's ability to bear debt²⁹.

Their study is valuable since they have investigated the matter of debt-displacement by data obtained from the actually money lending institutions as opposed to other studies which have focused on lessees in their empirical analyses.

Discussing this still unsolved problem of leasing, it is worthwhile mentioning two more articles of the leasing literature which still confuse the matter with their reported findings. In the study by Crawford, Harper and McConnell (27), the major findings of some of the earlier studies³⁰ were examined; the findings of these studies are

²⁸ Unused debt capacity is defined as the maximum additional amount of a firm's debt that lenders are willing to assume. This definition is given by S.C. Myers, "Determinants Of Corporate Borrowing", *Journal Of Financial Economics* (November 1977), pp.147-175 and S.M. Turnbull, "Debt Capacity", *Journal Of Finance*, September 1979, pp.931-940 as cited in (46).

²⁹ See, for example, C.A. Burrows, "Some Questionable Advantages To Leasing", *The Chartered Accountant In Australia*, September 1969, pp.10-14 and F.J. Finn, "The Economics Of Leasing Plant And Equipment", *University Of Queensland Papers*, 1972 as cited in (46).

³⁰ For example, see Arthur C. Gudikunst and Gordon S. Roberts, "Leasing: Analysis Of Theoretic-Pragmatic Dilemma", Paper presented at the annual meeting of the Financial Management Association, Kansas City, October 1975, and Ivar W. Sorenson and Ramon E. Johnson, "Equipment Financial Leasing Practices And

that the internal rate of return (yields) have exceeded, by a wide margin, yields on what are approximately equivalent debt financing arrangements. At the same time, Anderson and Martin have reported on a survey revealing that practicing financial managers resoundingly reject, as a financing arrangement, what is a low cost lease according to the existing models of lease evaluation³¹ (i.e. those of (3) and (8)). The Crawford, et al. study ended up with the results of Sorenson and Johnson: "...in particular, the average before tax-yield of the sample of 20.7 is significantly above the yield of 8.1 % on government securities and 10.5 % on BBB bonds issued during the same period and with the same maturity as the leases " (27, p.13). The authors then speculate that the most likely explanation for the persistence of leasing is that lease contracts differ in some systematic but as yet not widely recognized way from approximately comparable debt contracts (27, p.14). Franks and Hodges (48) also point out that their study of a sample of United Kingdom leases suggests that lessors earn large positive NPVs. In their paper, Franks and Hodges explain the apparent positive NPVs as the reward obtained for using scarce taxable earnings to shelter the the excess deductions of lessees from via lease contracts, this reward takes the form of lower tax liabilities (in present value terms) for the lessor and therefore a lower effective tax rate (48, p.988). Although their model is restricted to the

Costs:An Empirical Study", Financial Management, Spring 1977, pp.33-40 as cited in (27, p.7) and also (25).

³¹ Paul F. Anderson and John D. Martin. "Lease vs Purchase Decisions:A Survey Of Current Practice", Financial Management, Spring 1977, pp.41-47 as cited in (27,p.7).

perspective of the lessor (for reasons of simplicity), it is helpful in reconciling two conflicting views: (a) in a competitive market, lease contracts should provide only a fair rate of return to the lessor³², and (b) the empirical evidence that lessors have earned significant positive net present values as measured by MDB method³³.

The study also tries to determine efficiency of the market by utilizing a "lease's adjusted present value (APV)" which is the difference between the NPV of after-tax cash flows of the lease and the taxable earnings displaced by the lease. It is suggested that all leases with a positive NPV are profitable to undertake, but those leases with a positive NPV and a negative APV are using their taxable earnings less efficiently than other leases (48, p.990) and that in a competitive market which is integrated (that is, without any clienteles) every lease should have a zero adjusted present value (APV) to all of the lessors; the study thereby conducted showed that the market is not integrated but segmented and, moreover, evidence of market inefficiency was found.

In his comprehensive article on the bargaining positions of the parties to a lease agreement (23), Hull also points out to some points still unclear. First, it is worthwhile to summarize the highlights of his interesting deductions in

³² As suggested in (2) and (3).

³³ As suggested in (25),(27) and also by Ivar W. Sorenson and Ramon E. Johnson, "Equipment Financial Leasing Practices And Costs: An Empirical Study", *Financial Management*, Spring 1977, p.33-40, and J. Edwards and C. Mayer, "Issues In Bank Taxation", IFS Report, No.5, 1983 as cited in (48).

the article: With T denoting the marginal tax rate of the lessee and T' that of the lessor, it has been shown that³⁴;

- When $T < T'$, leasing tends to be attractive when investment tax credit and tax depreciation allowances are generous and the lease period is large. When $T > T'$, leasing tends to be attractive when the opposite holds,
- If the gain to the one of the parties is fixed at some constant amount, the gain to the other party increases as the lease period increases when $T < T'$, and decreases as the lease period increases when $T > T'$. This means that both parties will aim to negotiate leases as long as possible when $T' > T$ and as short as possible when $T' < T$,
- The gain to the lessor from any increase in lease payments is always less than the loss to the lessee. Similarly, the gain to the lessee from any decrease in the lease payments is always greater than the loss to the lessor. When $T' < T$, the reverse is true; this is interesting since generally the lessee and the lessor should not disagree about the length of the lease. This leaves the level of the lease payments as the main focus of negotiation; when it is adjusted to up and down, the gain to one of the parties does not in general equal to the loss of the other,
- As Miller and Upton (2) and Myers, Dill, and Bautista (10) also have demonstrated before, it is not true that

³⁴ As demonstrated throughout pp.72-76 and 77-79 in (23).

mutually attractive lease agreements must always exist when the lessor is a higher rate tax payer than the lessee; it can, in some circumstances, be advantageous for a low rate payer to lease equipment to a higher rate tax payer.

Furthermore, in the discussion (23, p.76) the study conducted by Crawford, Harper and McConnell (27) was considered and the results (as incorporated with the article findings as well) were found to be again puzzling.

Finally, as a brief summary, it has been envisaged to be useful to summarize some possible reasons for a financial leasing contract being attractive to both lessees and lessors. These reasons are either similar to the factors contributing to the popularity of leasing as described earlier in the text or are major complements to them:

1. The lessee and the lessor are in different tax positions.
2. The interest rate which would be paid by the lessee on the displaced debt is greater than that paid by the lessor on the funds used to support debt.
3. The lessee debt displaced is less than the lessor debt supported and even debt capacity may be increased.
4. The lease contracts have attractive features for the lessee not found in other forms of finance.
5. Financial and non-financial incentives affecting the lease decision exist.

5.2. OPERATING LEASES

Operating leases are likewise evaluated using MDB model easily with the possible addition of the salvage value of the asset to the model. However, in operating leases, there are some qualitative and quantitative factors different than others which affect the nature of these leases.

In order for the lessor to enjoy a net advantages in providing specialized services associated with the maintenance and use of the leased equipment", (the maintenance and services of the equipment go along with the operating leases generally), "the units of equipment leased to different customers must be physically identical or similar and thus allow some routinization of servicing. Data processing equipment and vehicle fleets are examples. Operating lessors indicated that all of their outstanding leases covered classes of equipment apparently matching this description (25, p.385).

The evaluation of an operating lease differs from that for a capital lease in two important points: (1) operating leases may be cancelled at the option of the lessee; (2) in operating leases, the residual value of the equipment belongs to the lessor. As can be realized, operating leases are therefore riskier than capital leases (for the lessor); these risks are defined in (22) to be;

- Replacement cost risk (i.e.the risk related to the economic value of the asset related to obsolescence and physical deterioration)

- Default risk (common to all kinds of leases, it is a risk born by the lessor because of the breach of the lease contract; the risk is generally compensated for in the corporate borrowing/lending rate)

There are also other risks all of which can be taken care for by adjusting the discount rate by corresponding risk factors accordingly.

As for the provisions and options of operating leases³⁵, i.e.

- Option to extend the maturity date of the contract
- Option to purchase at maturity
- Option to purchase at any time
- Provision for purchase requirement
- Provision for non-cancellation period

there exist several extensions of lease valuation models, mainly that of Myers, Dill and Bautista (MDB model), to take care for the effect of these provisions and options; such special treatments are given in, for example, (22) and (36).

Some of the advantages of operating leases (short term leases) can be grouped as follows(93):

1. Economization of costs such as identifying, assuring, and maintaining quality: Some quality features are inconsequential to the value of short-term use, even though they do greatly affect a good's capital value.

³⁵ (36, pp.239-242).

Leasing reduces the cost of quality evaluation by restricting the set of quality characteristics relevant to the value of an exchange. For example, a person leasing a car for one day would find it pointless to determine whether the transmission, tires, or cooling system will last another 10,000 kilometers, even though this determination would be critical in a purchase decision. For this reason, auto leasing lowers costs of quality evaluation and this exemplifies a general advantage of operating leasing (93, p.248).

2. Reduction of transaction costs associated with exchange of only use-ownership: As suggested by Hirshleifer³⁶, transaction costs are related both to the number of units traded (volume) and to the number of distinct transactions. Flath (93) extends these postulates by suggesting that the volume-related costs also depend upon the durability of the exchanged object. The full ownership rights in a good connote a more durable exchange object than do the rights to temporary use of the good. The shorter is one's expected tenure of use of a good, the greater are the transacting cost gains to his leasing it rather than purchasing it outright. Also, holding one's expected tenure of use constant, the longer is the remaining economic life of the particular good, the greater is the transaction cost gains to leasing.

³⁶ Jack Hirshleifer, "Exchange Theory: The Missing Chapter", *The Western Economic Journal*, June 1973 as cited in (93, p.248).

However, it should also be considered that specialized markets are not created costlessly; thus the possibility of leasing economically arise when there exists sufficient aggregate volume of trade to call forth leasing markets. So, for example in Japan, a leasing market for kimonos has only come about in recent decades, as social customs have relegated kimonos to infrequent formal occasions rather than everyday wear (93, p.250) whereas in the Western countries, there existed a large market for tuxedos for many years on a rent basis.

3. Reduction of the costs of search: Because information regarding prices is costly to obtain, the market will, in general, yield a distribution of prices, which is not eliminated by competition. Prospective buyers will therefore find it economical to search for a low asking price, and prospective sellers to search for a high bid price. Lease contracts, replacing two contracts with one, may economize on search costs. Goods for which there exists a great advantage to search for a favorable price are more likely to be leased than other goods (93, pp.254-255).

4. Reduction of the costs of risk-bearing: Risk is allocated to the one with most past success in leasing operations. An obvious example is from computer leasing business; with short-term operating leases, the risk of obsolescence lies with the lessors (who are experienced and specialized computer companies, in most cases).

5.3. LEVERAGED LEASES

In the analysis of leveraged leases, first the present value of the lease itself and, second, the contribution of the leverage to the net present value of the lease is made. The decision criteria are as follows³⁷:

$NPV_{\text{leverage}} > 0, (NPV_{\text{leverage}} + NPV_{\text{lease}}) > 0 \implies$ leveraged leasing can be realized

$NPV_{\text{leverage}} < 0 \implies$ leveraged leasing should not be made but the leasing contract can be realized if $NPV_{\text{lease}} > 0$

$NPV_{\text{leverage}} = 0 \implies$ lease can be an ordinary or leveraged lease provided that $NPV_{\text{lease}} > 0$

Another method used for analyzing leveraged leases is the sinking fund method; in this method the positive cash flows in the early years have two components: one represents returns to the lessor, and the other represents funds that must be invested to offset the negative flows in later years. Given the rate at which sinking fund will be re-invested, the size of the fund and the required contributions to it can be calculated. The discount rate that equates the cash inflows not needed for the sinking fund to the initial investment is the return on investment (18, p.78). Other techniques (e.g. net terminal value and interest rate of return techniques) can also be used for the analysis. However, it has been shown in (18) that all of the (discounted cashflow) methods shall be equal to the required rate of return (cost of capital); therefore, as the choice of the re-investment rate is independent of the choice of an

³⁷ As discussed in (17).

evaluation technique, the method to be applied can be selected regarding its simplicity of computations, ease of understanding, and generality of application³⁸. Additionally, linear programming techniques can be utilized to solve for leveraged leases and one such a technique is given by Capettini and Toole (19) where they argue that in order to achieve full benefits of the leveraged lease, however, it is, in general, not possible to use manual methods to design the lease (19, p.22).

In a further article by Grimlund and Capettini (20), the case where the re-investment rate is different than the cost of capital i.e. the case where all the discounted cashflow methods do not reach the same conclusion is discussed. In such cases, it has been shown that³⁹

- When the sinking fund re-investment rate (e) is less than the cost of capital (k), the sinking fund method may reject good projects (with $NPV > 0$) but will never accept bad projects (with $NPV < 0$),
- When $e=k$, the sinking fund method always reach to correct accept/reject decision, and
- When $e>k$, the sinking fund method may lead to the acceptance of a bad project (i.e. a project with a negative NPV).

³⁸ (18, p.80).

³⁹ (20, p.71).

One last thing to consider about the evaluation of leveraged leases is the fact that the analysis of leveraged leases is important only for the lessor, it is not important for the lessee whether the lessor has borrowed funds to support the equipment or not as his position is indifferent in both cases (28).

5.4. THE COST OF LEASING

In the evaluation of financial lease contracts, it has been the general practice to use net present value (NPV) method. On the other hand, the cost of leasing in the sense of implicit interest rate (or, IRR, internal rate of return) applicable to a lease should also be determined. Here, the cost of leasing will be considered from the point of view of the lessee. It may be useful to have a rate of return figure of the lease alternative to measure the cost of leasing as a financial source of funds. The determination of leasing's rate of return or "cost" may be useful for⁴⁰

- comparison of two or more leasing plans,
- comparison with interest rates of borrowing alternatives,
- comparison, on a cost basis, with alternative courses of action,
- calculating a net present value when the appropriate discount rate is conjectual,
- evaluating financial alternatives in terms of marginal costs of financing, and

⁴⁰ As taken from (84).

- calculating the firm's weighted average cost of capital considering leasing as well.

The standard approach in the determination of IRR, i.e. the cost of leasing, is to find the discount rate which equates the present value of the lease payments with the asset cost including, if appropriate, the residual value of the asset to be leased⁴¹. The cost of borrowing alternative by using basic IRR technique where the cost of the loan can be determined by solving for Γ in

$$P = \sum_{t=1}^H \frac{I_n}{(1+r)^t}$$

where P = Principal amount borrowed

I_n = Amount (interest + principal) repaid in period t

r = Rate of interest charged on loan
(IRR or cost of loan)

H = Final period of repayments

and the full principal amount is received and the periodic interest payments are calculated as a percentage of the remaining balance of the principal.

The determination of the cost of leasing is analogous⁴² as

$$C = \sum_{t=1}^H \left(\frac{P_t}{(1+r)^t} \right) + \frac{R}{(1+r)^H}$$

⁴¹ See, for example, (28, pp.272-288, 314-322).

⁴² As mentioned before, a financial lease is similar to debt.

where C = Purchase cost of the asset

P_t = Lease payment (interest+principal) for period t

Γ = Rate of interest charged on lease
(IRR or cost of lease)

R = Residual value of asset (if any)

Use of this expression and solving for Γ gives the before-tax cost of leasing. However, in arriving at a decision, after-tax costs are also necessary⁴³. Normally, since interest is an expense for tax purposes, the after-tax cost of borrowing for a loan can be determined as

$$\Gamma_{at} = \Gamma^* = \Gamma_{bt} (1-T)$$

where Γ_{at} = After-tax interest rate ($=\Gamma^*$)

Γ_{bt} = Before-tax interest rate

T = Tax rate

However, any determination of the after-tax cost of leasing must take into account the tax effects of leasing versus owning an asset as a result of which can be asserted that if Γ is the IRR of a lease, then Γ_{at} is not equal to $\Gamma_{bt} (1-T)$, although under specific conditions the equality may hold (84). It has been shown that, to determine the after-tax cost of leasing, the following expression can be used⁴⁴:

$$C = \sum_{t=1}^H \left(\frac{P_t (1-T) + b_t T}{(1 + \Gamma_{at})^t} \right) + \frac{R(1-T) + ST}{(1 + \Gamma_{at})^H}$$

⁴³ In the evaluation of lease contracts, it has been pointed out that the adjusted discount rate is not simply an after-tax cost of debt but also the weighted average cost of capital. However, in that consideration the elements of the capital were equity and debt (from leasing) for the lessee; in the more general case, other elements may be present in the capital structure so as to give a more general weighted average cost of capital for the firm.

⁴⁴ For the derivation, see (84, pp.33-35).

where, in addition, b_t = Depreciation charge for period t
 S = Salvage(book)value of asset at the
end of the lease term which may or
may not equal R (if any)

This expression is the same of that of MDB model with the addition of a further term to take care of any salvage values⁴⁵. Solving for r_{at} , the cost of leasing can be determined (for which debt is assumed to be displaced on a dollar-for-dollar basis, $\lambda = 1$, i.e. 100 percent debt is used in the capital structure which holds true for our analysis). In practical applications, the above expression may need to be modified due to the presence of additional effects such as deposit or lease prepayment requirements, options that determine the payment of operating and maintenance expenses, etc. (84, p.36).

5.5. SUMMARY

Financial evaluation of leasing contracts has caused much debate among researchers to date. In such evaluation, almost invariably net present value technique has been used to determine the economic value of leasing contracts. The evaluation is based on the comparison of two alternatives: leasing versus borrowing (or borrowing to buy) a certain asset. For the economical assessment, tax considerations are of importance whereby, under most conditions, the evaluation models for the lessors and the lessees are mirror-images of each other; cash outflows for the lessee are the cash

⁴⁵ In the original MDB model, such terms were not included for the sake of simplicity of derivations.

inflows for the lessor and vice versa. For a complete evaluation, numerous items need to be considered whereas they change for each different leasing alternative depending on the type of asset, tax positions of the lessor and the lessee, legal rules and limitations of the country (rights and incentives as well as restrictions of the government), etc. Therefore, in the general case, present value of the after-tax cashflows of the lease, depreciation tax shields lost (or gained), and tax shields gained (or lost) are considered both for the lessee and the lessor as a result of getting into a leasing agreement. The rate used for discounting is the after-tax cost of the firm's borrowing rate which, as demonstrated by MDB, is the same as weighted average cost of capital for the firm. Throughout this evaluation, the comparison of lease versus borrow (or borrow-to-buy) rather than the comparison of lease versus buy is made; leasing decision for the lessee is made on a comparison of the leasing cashflows versus those that would be obtained if the asset was purchased and financed entirely with debt. By doing so, the decision is effectively separated from the financing decision.

The problem of whether leasing displaces debt or, rather, supports it is still an unsolved problem; various researches have brought unconcillatory results to date. Nevertheless, certain reasons exist for financial leasing to take place among lessees and lessors: The gains from tax differences between the lessee and the lessor; the attractive features

of lease contracts not found in other forms of finance, and financial and non-financial incentives.

In operating leases, on the other hand, there are some different advantages of leasing as compared to those arising from taxation; these advantages can be briefly grouped as follows: Economization of costs such as identifying, assuring, and maintaining quality; reduction of transaction costs associated with exchange of use-ownership; reduction of the costs of search; reduction of the costs of risk-bearing. As for the financial evaluation, MDB model can still be used but other factors not pertinent in this model need to be considered carefully.

The financial evaluation of leveraged leases is not different for the lessees since they are interested in the leasing offer of the lessor only for their assessment; on the other hand, leveraged leases, in which up to 80 percent of financial leverage can be provided to the lessor from other sources, need to be carefully analyzed by the lessors whereby the present value of the lease itself as well as the contribution of the leverage to the present value of the lease should be made.

Last subject discussed in chapter 5 is on the determination of the cost of leasing in the sense of implicit interest rate (or internal rate of return, IRR) applicable to a lease. This determination of the cost is useful for practical reasons such as making comparisons between leasing alternatives, calculating the firm's weighted average cost

of capital including leasing operations, or making comparisons between interest rates of borrowing alternatives.



6. SOME SPECIAL ASPECTS OF LEASING

6.0. INTRODUCTION

There are several situations where leasing operations have to have special handling and consideration. In this chapter, some of these situations are examined along with some special leasing types of interest. In section 6.1, public sector leasing, i.e. leasing of equipment where governmental units have the role of the lessee is considered especially for its financial evaluation aspects. In section 6.2, widely used variable rate leases are described very briefly; linked with this section is section 6.3 on inflation effects on financial leasing. This section examines the cases where inflation has no or positive effect for financial leasing operations. In section 6.4, various articles have been considered for their treatment of the risk issue, the risk of future cash flows in leasing arrangements. The section on manufacturer-lessors, section 6.5, emphasizes on when and how leasing can be advantageous for a manufacturer to lease his equipment. Also discussed are the marketing aspects for the manufacturer-lessors where importance of leasing as a marketing tool is emphasized together with its advantages to the manufacturer. The last section of the chapter, 6.6, deals with the employee leasing activities mostly popular in U.S.A.. Although limited to U.S.A. for large volume of activity, employee leasing

offers some advantages which can affect its spread to other countries as well.

6.1. LEASING AND THE PUBLIC SECTOR

Governmental bodies and municipal governments are among the customers served by the lessors. For example in the U.S.A., federal government leasing market averages U.S.\$1 billion in appropriations for lease payments each year which represents a minimum of U.S.\$ 3 billion of capital equipment leased (75). The municipalities in the U.S.A. generate U.S.\$ 5 to 7 billion of leasing obligations annually (98, p.17). Also, about 40 percent of all the building space used by the U.S. federal government is leased rather than owned; the figures are similar in Canada¹.

In addition to various advantages leasing offers to lessees, public sectors enjoy leasing to lift the barriers of budget restrictions. For one, it allows to use equipment unaffordable through direct purchase; also, it helps to use equipment for which no allowance is made for in the budget. According to a comprehensive leasing study recently completed by Borg-Werner Acceptance Corporation (BWAC) of the U.S.A., if spending reductions for capital equipment are implemented (in the case when the agencies' budgets are tightened by government to reduce budget deficits), the leasing industry will provide the vehicle for the government

¹ U.S.A. General Services Administration Congressional Justification, Fiscal Years 1977 - 1981 as cited in (75, p.235).

to obtain necessary goods without large capital appropriations required in advance (75, p.18).

Leasing by tax-exempt bodies, although advantageous in many respects, should be critically evaluated. For example, if a municipality makes a sale-and-leaseback agreement and sells an asset it owns and then leases it back, the buyer gets depreciation benefits as well as other applicable incentives such as investment tax credits and shares some of its tax savings with the municipality. Thus, the municipal government, already tax-exempt, is indirectly extracting a subsidy from the government (70, p.112). Therefore, for public sector leasing, lease decisions should be evaluated considering the situation of the government as if the government itself is the lessee. The tax position of a government body is certainly different than a common lessee since governments collect taxes rather than pay them.

In the analysis of a lease decision by a government, it is assumed that the decision of the government to use an asset is made during a cost-benefit analysis of the program for which the asset is an input. Having made the initial acquisition decision, the government then should evaluate a lease decision (73, p.236). By leasing, the government obtains use of the asset in return for making the lease payments; because these lease payments are tax-deductible in the hands of the lessor, the effective tax to be paid to the government is reduced. By leasing, the government also leaves ownership in private hands; this results in a decrease of the tax revenue by providing a tax shield to the

private lessor in the form of depreciation against taxable income. There is also a loss in the tax revenue to the government due to the decrease in taxable interest income caused by the government's decision to lease the asset rather than purchase it (73). Also, Masse et al. considered that the lessor may further borrow some of the funds required to finance the asset which has also tax implications for the government (74). The resulting model can be expressed as follows:

$$V_{\text{government}} = 1 - \sum_{t=1}^H \frac{P_t (1 - T_L)}{(1 + r)^t} - \sum_{t=1}^H \frac{b_t T_L}{(1 + r)^t} + \sum_{t=1}^H \frac{r T_B D_{t-1}}{(1 + r)^t} + \sum_{t=1}^H \frac{\lambda r T_L D_{t-1}}{(1 + r)^t} - \sum_{t=1}^H \frac{\lambda r T_L D_{t-1}}{(1 + r)^t}$$

where, similar to MDB model, the symbols have the following meanings respectively:

V_0 = Value of the lease contract (the PV of advantage of leasing)

P_t = Pre-tax lease payment in year t per dollar of asset leased

b_t = Depreciation in year t per dollar of asset leased

D_t = Debt displaced per dollar of asset leased in year t

r = Borrowing rate

λ = The proportion of the cost of asset financed by borrowing

T_L = Tax rate for taxes received from the lessor

T_B = Tax rate for taxes received from the debtholders

H = Lease period

The first four terms are identical to those in the MDB model and, except for a slightly different interpretation, represent the normal benefits and costs associated with leasing an asset. The first term represents the present value of the leased asset per dollar of asset leased; the second term, the present value of after-tax lease payments; the third term, the present value of the depreciation tax shield transferred to the lessor (in this case, a tax loss to the government); and the fourth term, the tax revenue loss from interest had the government borrowed the funds to acquire the asset (note that, as in MDB model, $D_t - 1$ is negative). The fifth term is the present value of the tax shield gained by the lessor on the proportion (λ) of the cost of the asset financed by borrowing; and the sixth term, the present value of taxes on interest earned by the purchaser of the lessor's bonds. Further derivation of this model by Masse, et al. (74), who assumes 100 percent debt displacement on the part of the lessee (the government) and recognizes that the government receives taxes from the lessor and from debt-holders and that the tax rate of the two groups may be different, results in the following expression:

$$V_{\text{government}} = 1 - \sum_{t=1}^H (T_L b_t + P_t ((1 - T_L))) \left[\frac{1 + r + 2\lambda r (T_L - T_B)}{(1 + r)(1 + r(1 - T_B + \lambda(T_L - T_B)))} \right]^t$$

If tax rates are the same for both groups, that is $T_L = T_B$, then the valuation equation exactly the same of the MDB model can be used. On the other hand, if T_L is not equal to

T_B , then the differential affects the lease and the above expression should be used for valuation purposes (74, pp.272-273)².

If the government issues tax-exempt bonds, the analysis is slightly different since the government can issue tax-exempt bonds whereas the lessor cannot. Thus, in the original model, the fourth term (the tax revenue loss from interest had the government borrowed the funds to acquire the asset) disappears and the discount rate is the tax-exempt rate for taxes received from debt-holders. Consequently, the above expression becomes:

$$V_{\text{government}} = 1 - \sum_{t=1}^H (T_L b_t + P_t ((1 - T_L))) \left[\frac{1 + r_{TE} + 2\lambda r_{TE} (T_L - T_B)}{(1 + r_{TE}) (1 + r_{TE} + r_{TE} \lambda (T_L - T_B))} \right]^t$$

where r_{TE} represents the yield on tax-exempt bonds. With competitive capital markets, r_{TE} would be approximately equal to $r - rT$ where r is the yield on comparable taxable bonds (74, p.273).

From the above discussion, it can be understood that any net advantage of leasing by a level of government, assuming the same discount rates, may occur at the expense of other levels of government in the form of lower tax receipts. Of

² Lower corporate income taxes decrease the value of tax shields to the lessor and thereby increase the lease payments the lessor must receive to break-even. Lower personal income taxes reduce the tax loss from foregone interest revenue if the government leases rather than purchases. The former effect is detrimental to leasing while the latter is favorable. Of course, changes in tax rates also directly affect the lessor's tax payments and government revenues which may more than offset the above effects. It is highly unlikely that $T_L = T_B$: The lessor, if profitable, would be subject to corporate income tax; however, debt-holders could have tax rates ranging from zero percent (for non-taxable institutions) to maximum personal or corporate tax rates (74, p.274).

course, this does not occur when the assets are leased within a cross-border scheme³ where the lower tax receipts occur in the country of the lessor; this explains why many governments try limit cross-border operations⁴.

As for the lessors, there exists the problems arising from the governmental units themselves; these units may offset against lease payments and make late payments under certain circumstances. In the U.S.A., for example, the lease itself, by law, may be

- a) terminated for the convenience of the government,
- b) discounted upon notice, or
- c) not renewed by the agency at the end of any financial year.

Generally, these financial risks are not negotiable and must simply be assumed by the parties to a federal lease financing transaction. Therefore, interest rates in such agreements have premiums to compensate for the perceived

³ Cross-border leases are discussed in the next chapter.

⁴ For example, the Inland Revenue in United Kingdom saw cross-border leasing as U.K. taxation leaking out of the economy and stopped such leasing in 1982 by giving only a 10% tax allowance which is not worth the trouble for many lessors; even the use of leasing for the benefit of exporters have been stopped. Similar legislation have been practiced by Australia, New Zealand, South Africa and Singapore. Even U.S.A., the biggest market for leasing, is considering the limitation of cross-border-operations (69, pp.106-107). Such legislation is criticized on the grounds that "... leasing is a highly efficient mechanism for switching the swings and roundabouts of the taxation in an economy from the services sector-i.e. banking-into manufacturing industry" (69, p.106).

On the other hand, in Japan, which has the second largest leasing market in the world, no limitations are necessary since in Japan the tax system has not assisted leasing (71,p.118); as a result, Japan is one of the countries with the highest volume of cross-border operations. Cross-border leasing in Japan between 1981 and 1985 alone amounted to U.S.\$ 15 billion (58,p.125).

Of course, such limitations may be beneficial for the countries where assets were cross-border leased by foreign lessors residing abroad; out of necessity, local or regional markets can develop (69,p107).

financial risks of non-appropriation, termination for convenience and discontinuance of rentals (76).

6.2. VARIABLE RATE LEASES

As explained before, variable rate leases are kind of arrangements where the interest rates used for calculating the rental rates are adjusted when prevailing interest rates change. The purpose of such leases is to protect the lessor against the risk of interest rate change. Most capital lease contracts in the United Kingdom are commonly written on a variable interest basis and this type of arrangement is also widely used in the U.S.A.⁵.

No protection would be needed if the lessors financed themselves for their leases by fixed rate debt obligations with an appropriate maturity structure. In practice, however, lessors usually rely on borrowing either with a shorter term than their leases, or with a variable interest rate (48). The interest rate variation clause therefore is used by many lessors for reducing risk, particularly on leases that are large and long. Evaluation of variable rate leases are studied in (44) where it has been shown that under any term structure and under any tax positions (i.e. a lessee may be in a permanent non-tax paying situation, etc.), a variable rate is exactly equivalent to that fixed rate lease which has pre-tax rentals calculated as if today's forward rates will become the spot rates of the

⁵ See (44).

future. This clearly implies that, relative to a given rental structure, the imposition of an interest variation clause raises rentals under an increasing term structure and lowers them under a falling one (44, p.73).

6.3. FINANCIAL LEASING UNDER INFLATION

It has been discussed that, there must be other factors than tax-advantages only to favor leasing since it is being practiced widely where, in many cases, no tax-advantages exist. Hochman and Rabinovitch (43) have identified inflation as a possible factor which might further enhance leasing.

Effects on inflation on a firm's investment decisions are the following two factors:

- Depreciation Effect: Depreciation allowances for tax purposes are based on historical costs rather than the current actual values; therefore, the tax shield on depreciation decreases when there is inflation.
- Interest Effect: Firms deduct interest expenses from their taxable income at nominal rates than real rates; therefore, the benefit of interest reductions increases when there is inflation⁶. It has been shown by many authors (as cited in 43, p.18) that the interest effect dominates the depreciation effect independently of the firm's capital structure provided that "Fisher Effect" on

⁶ For the demonstration, refer (43,p.17).

bond yields holds⁷. The former effect tends to increase the real tax payments whereas the latter tends to decrease the real tax payments.

Findings of Hochman and Rabinovitch's paper (43) can be summarized as follows:

1. When the lessor and lessee are subject to the same tax rate, real lease payments decline as a result of lower real tax payments if the duration of the lease agreement is more than one period (where interest effect dominates the depreciation effect resulting in lower real tax payments) and provided that market real rate of borrowing is independent of inflation.
2. Leasing does not become specifically more attractive under inflation when the lessee and the lessor are subject to the same tax rate. When there is a tax differential between the both sides (where the lessee is subject to a lower tax rate than the lessor), the real net gain to leasing increases with both anticipated inflation and the spread between the lessor's and the lessee's tax rates. Also, it was demonstrated that the larger the proportion of lessor's equity financing (the smaller is the λ in the MDB model), the weaker is the interest effect reducing the inflationary tax gains to leasing; however, the net gain to both parties engaged in leasing increases with inflation as long as the lessor's equity financing is less than 20 %.

⁷ Fisher effect states that nominal interest rates in each country are equal to the required real rate of return to the investor plus the expected rate of inflation.

The above findings were subject to various simplifying assumptions like the omission of investment tax credit and possible differences in the purchase price of the leased asset; another assumption was that salvage value of the asset is zero at the end of the lease term. These assumptions do not pose any serious problems, however, since the first two may be easily incorporated into the analysis; on the other hand, for the salvage value, a positive salvage value (which will tend to decrease the lease payments further) could be used alternatively. Actually, With inflation, other things being equal, the salvage scrap value may be at least the same as without inflation so that introducing a positive salvage value into the model may further increase the net gain to leasing" (43, p.26).

6.4. RISK CONSIDERATIONS

In the analysis of leases, generally the uncertainty of relevant cash flows such as operating costs and residual values are not treated in detail as well as the general risks inherent in the lease agreement itself. In this section, different views on the treatment of risk factors for leasing as presented in various articles shall be described:

Wyman (38) asserts that by specifying the uncertain elements of a lease in terms of probability distributions and then converting these into a probability distribution for the

expected cost and using computer simulation, expected values and distribution of possible outcomes can be obtained and these can be helpful in a capital (financial) lease decision.

For risk-adjusted discount rates to take care of the risk, the article by Robichek and Myers (40) discusses the use of such an adjusted rate for discounting purposes and criticizes that, for the rate which reflects the time value of money and an adjustment for risk, "...since time and risk are logically separate variables, summing up their effects in the one number k (risk-adjusted discount rate) requires a particular assumption about the actual relationship between the effects of time and risk on present value ...valuation errors may result if the risk-adjusted discount rate is used when this assumption does not hold" (40, p.727). In the article, it has been demonstrated that using a constant discount rate (risk-adjusted), successive future returns are not necessarily equally risky and a certainty-equivalent framework which is applicable in a wider variety of situations is suggested (40, p.728). In this framework, the generally accepted present value expression of a stream of uncertain returns i.e.

$$V = \sum_{t=1}^{\infty} \frac{\bar{R}_t}{(1+k)^t}$$

where V = the present value
 \bar{R}_t = the expected value of the return to be received at time t
 k = the discount rate

is replaced with

$$V = \sum_{t=1}^{\infty} \frac{\alpha_t \bar{R}_t}{(1+i)^t}$$

where

$$\alpha_t = R_t^* / \bar{R}_t$$

i = riskless rate of interest

R_t^* = certainty equivalent of \bar{R}_t (smallest certain return for which \bar{R}_t can be exchanged)

$R_t^* / (1+i)^t$ = greatest amount that can be paid now in order to receive a certain return of amount R_t^* at time t

As suggested before, in a lease agreement, the lessor and the lessee are subject to uncertainty regarding the asset's useful life, operating costs, and residual value; Weingartner discusses that for overestimating the asset's useful life and salvage value, "...the lessee incurs a penalty in the amount of higher lease payments" (13, p.9) whereas with underestimation, the lessor will be receiving lower lease payments. In the opposite case, either no lease agreement will be executed or the advantageous side will change. Following Weingartner's article, some criticism was made by Schall (14) and Cason (15) particularly on the discount rate (which was suggested to be the cost of capital as MDB) as well as the emphasis on the use and disposition rights of the leased assets. Weingartner, in his reply (16), defends his view and model of analysis on the grounds that "...the asset's use value is specific to a firm at a particular moment in time. Its disposition value may or may not extend to other firms. Nor is it a good approximation to reality that the future states of the world in which the user keeps the asset will be independent of whether it was initially purchased or leased" (16, p.22). Other suggestions of Cason (15) and Schall (14) were on matters such as

simplicity of analysis for business matters (as suggested by Cason) and the use of series of short term leases in a lease-buy analysis where the asset life and asset holding period differs (e.g. if the asset life is 5 years and asset holding period is 10 years, then, two back-to-back 5 years leases should be analyzed); to take care of the uncertainties in these periods, it is suggested by Schall to use options (such as cancellation clauses, purchase clauses, etc.) in the lease agreements (14, pp.19-20). This problem is also investigated by Lee, Martin, Senchack (42) who discuss the most troublesome issue for the lessors in setting lease terms to be the necessity for evaluating the residual value of a leased asset, which is uncertain in most cases, and suggest that the uncertain salvage value problem can be reduced to the evaluation of an option combination of a put and call^a and propose a sophisticated method of analysis which is not discussed in here since it is essentially dealing with option pricing theory which is beyond the scope of the study.

The last article of interest is Levy and Sarnat's paper which proposes a simple 'break-even' formula for evaluating the desirability of a proposed lease (41). Levy and Sarnat point out that a problem overlooked is the need for neutralizing the financial risk in the evaluation of leasing and other financial alternatives. Explaining that by simply comparing the net present value of a lease and a purchase

^a The call option provides the lessor with the ability to sell or retain the potential gain from the asset's realized salvage value exceeding its expected value used in setting lease terms whereas the put options are aimed for residual values guaranteed at a certain level by third party 'put writers' which act as insurance companies (42, p.39).

alternative we would be comparing "...apples with oranges because the two cash flows differ in a fundamental sense" (41, p.48) on the grounds that the discount rates for the two cash flows differ in terms of risk inherent in them, the authors derive a simple break-even formula which gives the maximum lease payment L^* that the firm can pay before the purchase alternative becomes preferable, as follows:

$$L^* = \frac{I - \sum_{t=1}^n TD_t / (1 + (1-T)r)^t}{\sum_{t=1}^n (1-T) / (1 + (1-T)r)^t}$$

where I = initial investment outlay
 T = appropriate corporate tax rate
 D_t = annual depreciation rate
 r = riskless interest rate
 n = lease period

under the assumption that the lease is defined over the asset's life and that there is no residual value (which are assumed for computational convenience only). This solution is asserted to be correct and appropriate in that it "...neutralizes the differential financial risk in the lease vs purchase comparison" (41,p.53).

6.5. MANUFACTURER LESSORS

"In the past, the academic literature focused primarily on the question of valuation assuming a two-party transaction- namely the lessor and the lessee. No distinction was made

between the manufacturer and the pure leasing intermediary; it is therefore, unclear if the same analysis holds for both types of lessor" (35, p.55). The tax treatment of a manufacturer considering a lease/sell decision is different than a buyer considering a lease/purchase decision; the difference is due to the fact that the manufacturer can only include the manufacturing cost of an asset as its depreciable basis i.e. the expected profit from selling the asset may not be included as part of the depreciable base (37, p.70) while the purchaser, on the other hand, capitalizes the manufacturer's profit as well since the purchase price is his actual cost. Hence, the purchaser's depreciable base is different from that of the manufacturer who elects to lease the asset as a lessor. Consequently, in the actual case "...the seller has a sale/lease indifference point that is different from that of the purchaser/lessee" (37, p.74). Therefore, a manufacturer with a strong market position "...who can adjust selling prices or lease charges without appreciably affecting the overall market for the product" (37, p.73) may be able to manipulate the decision of the purchaser/lessee on whether to lease or to buy by adjusting lease and sale prices as he wants; doing so, it is possible to appropriate more segments of the market. Also, although it is the tax advantage of a higher depreciation base that argues for a positive role for leasing intermediaries, it has been shown by Brick, et al. (35) that when interest rates are high, the value of the differing tax treatments (i.e., the tax base for depreciation and investment tax credit) between the manufacturer-lessor and

the leasing intermediary is low, and, hence the gains to financial intermediaries are minimized. Their analysis therefore suggests that financial intermediaries enjoy a net tax advantage only in periods where interest rates are sufficiently low⁹ and a significant investment tax credit is available (35, p.58). Of course, these findings further suggest that, Miller and Upton's argument that proposes "...independent leasing companies operate under a financial handicap when competing against manufacturers leasing their own product" (2, p.785) is not universally true but holds only when the interest rates are high and/or when the investment tax credit is insignificant.

It has also been demonstrated by Hirschey and Pappas (81) that since manufacturer-lessors are unable to realize depreciation and tax subsidy benefits on the profit margin which would result from direct sale, the lease rate at which manufacturers will be indifferent will be greater than the corresponding lease rate for lessees. Consequently, where no benefit to manufacturer-lessors sufficient to offset the tax disadvantage to leasing is present, manufacturers will prefer selling alternative as opposed to leasing alternative.

In addition, Hirschey and Pappas point out to some distinct benefits of manufacturers from leasing in addition to those presented in (35) and (37):

⁹ Note : the sufficiently low range of interest rates can be determined easily by the analysis method as suggested in (35).

1. An important benefit results from the opportunity to control product resale markets. It has been shown that¹⁰ a monopolistic producer of new durables who has no control over product resale will "...suffer an erosion in monopoly power due to the existence of markets for these goods, if not perfect, substitutes" (81, p.42); i.e. in order to maintain monopoly price structures in new product markets, competition from used equipment should be stopped or at least controlled.
2. Manufacturers possess insider information about the recent technical developments and innovations and thus they may be able to make more accurate economic depreciation estimates (i.e. for economic obsolescence rather than physical obsolescence) than can the independent lessors and user lessees.
3. Manufacturers with market power can derive benefits from leasing if it enable them to engage in price discrimination. Miller and Upton (2) suggest that this could be the case with products acquired by both tax-paying and tax-exempt users.
4. Independent lessors and user lessees are aware that manufacturers may have an incentive to control the rate of development and innovation and, thus, maximize their profitability¹¹. In case the depreciation expectation of the manufacturer differs from that of the independent

¹⁰ See Daniel K. Benjamin, and Roger C. Kormendi, "The Interrelationship between Markets For New And Used Durable Goods", *Journal of Law And Economics*, October 1974, pp.381-401 as cited in (81, p.42).

¹¹ See Nancy L. Schwartz, and Morton I. Kamien, "Self Financing of An R & D Project", *American Economic Review*, June 1976, pp.761-786 as cited in (81, p.43).

lessor or user-lessee by an amount to offset the tax disadvantage, to be born if the manufacturer decides to become a lessor, then "...lease-rate sale-price differentials which are advantageous to the manufacturer and acceptable to acquirers can be established" (81, p.43).

Hirschey and Pappas then assert that manufacturer leasing will be rational when the value of the lease itself or, in addition, the value of the leasing benefits discussed above are sufficient to offset the substantial tax disadvantages. They further suggest that, considering these benefits, manufacturer leasing is generally a sign of market power on the side of the manufacturer lessor; moreover they argue that "... since the potential benefits of manufacturer leasing are greatest for monopolists and diminish with increasing levels of competition, one would expect manufacturer leasing to be restricted to firms with substantial degrees of market power" (81, p.43). To test their view, the authors have made an empirical study on the Xerox Corporation which once had a complete monopoly in the dry copier industry of the world. Their results strengthen their view and shows that the importance of manufacturer leasing and market power are positively correlated.

6.5.1. Marketing Aspects For Manufacturer-Lessors

By offering leasing, a manufacturing company's product and services supply broadens and its opportunity for profit expands. Industrial equipment manufacturers can become

involved in direct leasing of their products in addition to leasing indirectly through banks and independent leasing companies (such as in leveraged leases for the big industrial plants and installations). According to Anderson and Lazer (94), when a manufacturer sells an industrial product, the customer is provided with a different set of benefits than he can receive if he leases the same product. For any given product, the physical attributes, the use services, and the acquisition services are generally the same for both leasing and purchasing. The critical difference between the two lies in the services provided; a lease agreement has the potential to provide the lessee with benefits not available through outright purchase. Leasing, then, is a product augmentation¹² strategy (94, p.72). A manufacturer's product and services mix is augmented by the additional benefits available to customers through leasing¹³.

Back in 1944 when leasing was not such a high volume business, McNeill (95) had analyzed leasing as a marketing tool¹⁴. When the typical situations where leasing was used during the forties in the U.S.A. is examined as McNeill shows, it is seen that today, in similar circumstances, leasing is still being used:

¹² Additional services and benefits make up an augmented product. According to Kotler (96), IBM's success on the computer market was partly due to its augmentation strategy. "While its competitors were busy selling computer features to buyers, IBM recognized that customers were most interested in solutions, not hardware. Customers wanted instruction, canned software programs, programming services, quick repairs, guarantees, and so on. IBM sold a system, not just a computer" (96, p.464).

¹³ Suggested by Theodore Levitt, *Marketing For Business Growth*, McGraw-Hill, Inc., New York, 1974, p.14 as cited in (94, p.72).

¹⁴ This article is accepted to be the first modern article in the field of leasing by R.F.Vancil who initiated the serious academic studies on leasing in U.S.A.. See R.F.Vancil, *Leasing Of Industrial Equipment*, McGraw-Hill, Inc., New York, 1963.

Expensive Equipment: Leasing affords a means of facilitating the distribution of expensive productive equipment.

Equipment For Which Servicing Is An Important Factor: Because of the specialized knowledge, proper equipment, schools for service-men, and regularity of check-ups on the part of lessors, they can frequently render a quality of service higher than the lessees can provide in case they purchase equipment instead.

Uncertain And Sporadic Need For Equipment: Leasing or renting rather than outright purchase is generally characteristic of situations where the requirement for the equipment is temporary, sporadic, or uncertain (this situation is typical of many construction projects, especially those under governmental control).

McNeill's article also examines some of the benefits for the manufacturers to become lessors from a marketing point of view, which , as can be observed, have close resemblance to current situation in the business environment (95, pp.419-422):

Widened Distribution: Not only in depression but also under normal business conditions, the very circumstance that no capital investment by the buyer is involved affords opportunity for widened distribution. Sometimes, under leasing terms that include a purchase option permitting the buyer to apply a portion of the rental to the outright purchase later, a company may eventually secure many new

purchasers who initially might decline to buy under conditions of outright purchase.

Reduction Of Credit Risk: Because of the vantage position of ownership, moreover, the manufacturer-lessor can more readily afford to risk distributing to buyers whose credit strength would not measure up to minimum standards requisite for outright purchase, and thereby gain wider distribution.

Sale Of The Full Line: Other products in the line often sold outright may be distributed more readily through close associations developed in the lessee's office by the salesmen and service-men for the leased product.

Sale Of Supplies: Since in many instances supplies of particular specifications be essential for the correct functioning of the machine, the manufacturer-lessor/seller, may influence the sale of his own supplies through provisions incorporated in the lease governing such specifications; for example, by extending a non-assignable license with the provision that it may be terminated if any supplies used in the operation of the equipment fail to conform to the rigid physical specifications written into the contract.

Control Of Secondhand Market: The lease, through the retention of title gives the manufacturer-lessor an advantage of control over the products by controlling the second-hand market; this is possible through the lease agreement which permits the manufacturer-lessor to determine

price and other conditions under which the products may be used throughout the successive stages of its useful life.

Protection Of Patents: Although a vendor maintains a dominant patent position chiefly through intensive research or through purchase of relevant patents, nevertheless the lease contract has been used to protect the vendor's patent position. For instance, the terms of the lease may forbid lessees from attaching the lessor's machines devices invented by others or by the customer without the written permission of the lessor. Also, the non-assignable license may restrict the use of the lessor's equipment for experimentation by the lessee.

In addition to these, Anderson and Lazer have described some more advantages of leasing from a marketing point of view for the manufacturer-lessor (94, pp.76-77):

Better Forecast Of Salvage Value: Manufacturer-lessors may forecast higher salvage values than the lessees and anticipate higher advantages to leasing which will allow them to reduce lease payments of the lessees as discussed before. Manufacturer-lessors, in particular, may be able to capitalize on this because of their specialized knowledge of the leased equipment. In addition to their superior ability to forecast the secondary market, manufacturers may be able to realize economies of scale in the reconditioning and sale of the asset once its original lease terminates due to their available facilities where these equipment are manufactured and distribution channels through which these equipment are

sold to customers. Moreover, they may be able to extend the useful economic life of an equipment through a combination of expert maintenance and marketing.

Better Perception Of Risk: As noted earlier, a related advantage can occur if the manufacturer-lessor perceives less risk in the salvage value cashflow than the lessee which can again allow the manufacturer-lessor to reduce lease payments of the lessees. Manufacturer-lessors would be in the best position to capitalize on this potential benefit since financial institutions and independent lessors do not have specialized knowledge of the equipment and do not have the capability of realizing economies in its reconditioning and disposal, may actually perceive greater risks; therefore, banks and independent leasing companies may tend to be at a competitive disadvantage.

Underpricing: The lessor may sometimes be able to attain economies of scale in financing his leased equipment inventory, and thus may be able undercut the lessee's cost of debt capital (in most instances, if the lessee purchases the asset, it will be financed with a bank term loan) by underpricing alternative debt capital suppliers such as banks.

6.6. EMPLOYEE LEASING

Employee leasing, also known as contract staffing, is among the fastest growing service industries in the U.S.A. in the eighties with a potential target market of four million

small businesses that employ fewer than 35 employees (80, p.151).

The concept of employee leasing is not very new. It has been practiced by the motion picture and trucking industries; in a sense, all personal-supply businesses, including temporary-help services, are engaged in employee leasing. But, according to the new leasing companies that amounted to 353 in the U.S.A. alone, employee leasing is much different in that they offer to lease entire work forces from production workers to managers- on a permanent or long term basis. The minimum lease period generally ranges from 30 days to six months. The companies engaged in employee leasing provide most of the functions of a corporate personnel department, including recruiting, hiring, firing, performance reviews, taxes, and payroll, and also provide health insurance and a pension plan (79, p.54).

Two distinct factors have affected the growth of employee leasing (80) :

- a) Small and medium sized companies want to reduce the burden of personnel administration and, at the same time, offer fringe benefits to their permanent employees comparable to those provided by large organizations,
- b) Employee leasing has been useful as a tax shelter in pension planning.

Employee leasing, in its developed position, dates back to 1972 when a medical foundation was to be formed in the

U.S.A. It has been envisaged that tax-free pension contributions for the physicians was possible only through employee leasing since, by law, they would not have been able to write-off their own pension contributions unless their employees were included in the pension plan (79, pp.55).

As for the advantages of employee leasing we can consider the following: For employees, leasing may offer opportunities to change jobs without losing seniority, sick leave, vacation time, and other valued rights. And they often get better benefit packages from the leasing companies than they could from small employees; small businesses are often unable to compete with larger companies in offering employee benefits. Leasing firms, by pooling the leased employees and their own staff, can provide improved benefits at a lower cost per employee. Employee leasing can also provide a higher degree of mobility to the employee. If employees are not satisfied with the company or want to move to a different location (e.g. if a spouse is transferred) they can switch jobs without the loss of benefits. It has been argued that leased employees may have better job security than normal employees (80). For employers, leasing can lift the burden of all administrative details such as payroll preparation, benefits administration, and, government paperwork. Also, the risks of employee lawsuits for wrongful dismissal, discrimination, and other actions are eliminated. Moreover, an employee can be dismissed at any time for any reason which may be difficult for some

employers to practice. Also, for contractor employers, leasing firms can transfer workers between contractors as works require, relieving contractors of the need to constantly hire and fire workers to meet particular job needs (79, p.58).

Along with the advantages, there exist some drawbacks to the leasing of employees such as overlapping supervision, difficulties on the confidentiality of data. Employee loyalty is out of question in many cases except for firms who terminates the contracts of its employees, transfers them to the leasing company and then lease them back -but now as the employees of the leasing company. Also, union officials are highly critical of employee leasing who argue that such practices are useful for breaking unions; e.g. in Pittsburgh, U.S.A., union officials say that on occasions, leasing has been used as a weapon against unionized employees (79, p.58).

6.7. SUMMARY

Government units may choose to lease their equipment rather than outright purchase. This may often help them to get rid of budget restrictions on their capital requirement investments. By means of leasing, governmental and public organizations can afford to use equipment which they cannot afford to buy out of their tight budgets. In the U.S.A., which by the largest leasing market in the world, leasing operations are also highly developed in this sector. On the

other hand, since leasing, in effect, decreases the total tax revenue of the government, the financial evaluation of leasing agreements should be executed having this drawback in mind. In section 6.1, the models for relevant analysis are examined and it has been understood that generally any advantage leasing offers to a government unit will result in lower tax receipts at other governmental levels: However, in the case of cross-border leasing, there will be no negative effects on the tax receipts and governmental units then can analyze financial leasing offers by standard evaluation methods.

Variable rate leases are those in which interest rates used for calculating lease payments are subject to change according to the changes in the general interest rates; such arrangements are common in the U.S.A. and the U.K. Under variable rate leases, rentals are increased when the term of the lease increase.

Inflation may affect leasing on the positive. Due to inflation, there is a negative effect on depreciation tax shields since depreciation is calculated according to the original value of the asset which is not calibrated again under inflation. On the other hand, interest expenses are paid at nominal rates which increase along with inflation thus reducing tax base which is the positive effect on leasing. In the long run, provided that Fisher effect holds, the latter effect is dominant on the former thereby showing that leasing under inflation can be favorable.

Consideration of risk and its treatment in financial lease evaluation has resulted in debate among academicians in that different cash flows have different risks inherent in them. Robichek and Myers' procedure for treating risk is examined in section 6.2; this procedure is simple and has not been opposed in academic circles yet. On the other hand, the assessment of salvage value is concerned with only one cash flow at a specified time; however, this is of critical importance. If the salvage value is overestimated the lessee has to make higher lease payments; if it is underestimated, the lessor receives lower lease payments. This problem can be solved by using options (put and/or call options) in the agreements.

In the financial evaluation of a lease by a lessor, it is important that the lessor is also the manufacturer of the equipment or not. This importance originates from the fact that a manufacturer cannot include the profits expected from direct sales in his depreciation tax allowance in the case of leasing; this is the drawback of leasing on the side of manufacturer-lessors. However, this might not hold true in the presence of high interest rates where the benefits from differing tax treatments between the lessor and the lessee is low. The advantages of manufacturer-lessors include the controlling ability of the product resale markets; the ability to estimate more correctly the economic obsolescence due to their insider position in the technical field; the ability to make price discrimination, the ability to assess salvage value more correctly than independent lessors.

According to Hirschey and Pappas, manufacturer leasing is a sign of market power on the side of the manufacturer. Their study on Xerox Corporation is a positive sign on their assertion that manufacturer leasing gives the most benefits for monopolists and these benefits diminish with increasing levels of competition. Nevertheless, in general, leasing can be considered as a product augmentation strategy for manufacturers producing additional benefits and services to the customer.

The last section of this chapter, section 6.6, is about the leasing of employees. Although employee leasing is not a very new subject since it has been practiced in the past by the motion picture and trucking industries all over the world, it has been gaining importance in many other areas especially in the U.S.A. The main advantages of employee leasing for the lessee are the reduction of personnel administrative work, the ability to offer attractive fringe benefits to existing few permanent employees comparable to those of large organizations, and its providing for the shelters in pension planning. On the other hand, there are some disadvantages such as non-existence of employee loyalty in most cases, overlapping supervision, and difficulties on the treatment and handling of confidential data belonging to the lessee company.

7. LEASING - INTERNATIONAL ASPECTS

7.0. INTRODUCTION

International leasing activity is of considerable volume among the total leasing transactions in the world. In this chapter, the international aspects of leasing are examined. Section 7.1 gives some examples for such activity and suggests some of the advantages of leasing internationally and also supplies some brief information on the development of such activities. In section 7.2, the problems of international leasing are briefly studied and in the following section, 7.3, the types of leasing on international grounds, namely cross-border leasing and transnational leasing are defined; the remaining two sections, 7.4 and 7.5, explain these lease groups in detail.

7.1. INTERNATIONAL LEASING ACTIVITIES

The leasing of aircraft, ships, and major industrial plants by a growing number of international leasing companies has established leasing as an important method of international equipment financing. The favorite types of asset for international leasing in the past and now includes undoubtedly aircraft, with a host of examples of airlines arranging lease financing for their recent acquisitions (55,p.57). For example, in 1981 there were some 6,000 commercial jet aircraft in service with Western airlines, of

which 360 were on operating leases. By 1985, the aircraft total had grown to about 6,500: an increase of 8 % whereas the number of aircraft on operating leases had grown to 650: an increase of 85 % (57). In Turkey, Iktisat Leasing has leased a Boeing 737 to Istanbul Airways; Talia Airways has also leased six Boeing 737 from the GPA group of Ireland, one of the biggest leasing firms in this field (56). In 1986, for instance, GPA ordered for delivery of 92 Boeing 737-300 and 737-400 aircraft worth an estimated US \$ 2.75 billion and also joined with Dutch aircraft manufacturing company Fokker in a US \$ 2 billion deal for a hundred Fokker F100 airliners. Another example can be given from Japan leasing industry where the total industry (domestic and cross-border) has shown about 20 % a year growth; the leasing contracts in March 1986 totalled 4.3 trillion Japanese Yens. Cross-border leasing of Japan between 1981 and 1985 alone amounted to US \$ 15 billion (purchase price) about half of which is for aircraft (58, p.125). Also, International Lease Finance Corporation of the U.S.A. will be buying commercial jet aircraft in 1988-1989 at a cost of US \$ 4 billion (85).

International leasing is a transaction where, generally, the lessor and the lessee are in different countries; with overseas operations, leasing is also sometimes called "equipment banking" or "asset based financing" (26). International leasing, the insreasing popularity og leasing from the 1950s, has been used as a serious major form of finance-marketing activity in the 1960s and showed an

important growth since 1972 mainly due to its having obtained a large portion of the equipment market and to the "... lack of confidence in future demand and general uncertainty that led to a decline in industrial and equipment investment" (51, p.36). The growth is attributable to many factors; taxation is an important point in that for the international leasing activity in Europe, the total available tax allowance for international leases have exceeded the total taxable income of the industrial and commercial companies engaged in such leasing¹. Also, an increasingly used method for selling capital equipment is through international leasing; for example, in 1985, the equipment on lease in Western Europe only is estimated to be US \$ 50 billion (at original cost)². "Leasing can be the cheapest way of obtaining the use of certain equipment because of import controls, patent rights, and other similar restrictions" (49, p.32). Generally, international leasing arrangements have similar advantages as in domestic leasing such as the following³:

1. Leasing opens the door for a large segment of nominally financed foreign firms that can be sold on a lease but might be unable to buy for cash.

¹ E.L.A.-1978:Equipment Leasing, Equipment Leasing Association, London, 1978, p.1 as cited in (50).

² As cited in (50, p.209).

³ As taken from (50).

2. Leasing can ease the problems of selling new, experimental equipment, since less risk is involved for the users.
3. Leasing helps guarantee better maintenance and service on overseas equipment.
4. Equipment leased and in use helps to sell other companies in that country.
5. Lease revenue tends to be more stable over a period of time than direct sales would be.

Also, it should be considered that "...some of the traditional reasons for leasing, ..., have been replaced by various others such as the ability to obtain medium-term financing at fixed cost. In some of the developing countries, leasing is very often the only form of medium-term financing; there may be no other capital market instruments available" (26, p.19-5). Moreover, many manufacturers use international leasing as a sales aid (51). As for the shortcomings of international leasing, we should first note that "...a loan is a loan everywhere but a lease is not always a lease everywhere; from country to country, the tax, legal, and accounting guidelines that define a lease differ" (49, p.33). In addition to inherent disadvantages of leasing, there are some problems (50, p.210) such as commercial risk (which involves difficulties due to physical distance between the lessor and the lessee), sovereign or political risks (which involve the risk of nationalization of companies, expropriation, freezing of

currencies, and risk of war), and current devaluation problems. Since "... leasing often combines with the use of export credit incentive insurance and financing through the media (such as) of the Export Credit Guaranty Department (ECGD) in the United Kingdom, Hermes in Germany, and Coface in France" (26, p.19-6), with the use of export credit agencies (which offer insurance guarantees up to 80-90 % (26); in the U.S.A. and the U.K. practice, even 95 % or 100 % of political risks may be guaranteed⁴) some of the risks that must be borne by the lessor are decreased⁵.

The Americans have pioneered leasing on international grounds and still continue to provide the pioneering for development (in addition to Japan). The non-banking corporations were first eminent in the field. US Leasing, Tiger Leasing, GATX, and ITEL were the pioneers; they were independent lessors who knew their business and innovated from the start. It was the large US banks and financial institutions which followed in their footsteps (61). Today, the international leasing community from the United States has been augmented by American Express, Chemco, Bank AmeriLease, Manufacturers Hanover, Citibank, Chase Manhattan Bank in short the American banking establishment. Europe has lagged in development but is now coming up fast, particularly with the aggressive strength of the U.K. Barclays Bank International, followed by Lloyds, National

⁴ See (100, pp.12-26).

⁵ Export credit insurance is a type of insurance which guarantees the losses of an exporter due to the inability of the importer (who imports the goods or services of the exporter) to pay on time because of factors such as liquidation, bankruptcy, political events, etc.; all industrialized Western countries have some type of export credit insurance which enables their exporters to raise the required credit funds from government (such as state export-import banks) or private sources (99, p.449).

Westminster Bank, and Midland Bank. In the Far East, the Japanese operating through Orient Leasing have been dominant. The European countries have not been slow in emulating Americans in developing leasing on international grounds; particularly effective in this field were the French banks such as Société Générale (Sofinabail), Banque de l'Indochine (Locafrance), Banque de Paris et des Pays-Bas (Natio Equipment), Compagnie Bancaire (Locabail), Crédit Lyonnais (Slibail), Crédit Industriel et Commercial (Bail Equipment), and Crédit Agricole (UNIMAT). The French term "Crédit Bail" has connotations closer to hire purchase than leasing but it is one of the most significant industries in Europe after the U.K. (61).

According to various estimates made by Leaseurope, the federation of Western Europe leasing associations, the largest international leasing markets in the world are the U.S.A. and the U.K. markets⁶; these two countries are "...generally regarded as having the most favourable tax climates for the development of leasing" (49, p.34)⁷. Outside the U.S. and the U.K. markets, Japan, France, Australia have the largest markets; in these countries, unlike the U.S.A. and the U.K., the tax factor is not the most factor for the growth of their leasing industry (for example, Japan's tax system does not assist leasing. Japanese corporations are unable to take advantage of depreciation tax shields and Japan does not offer investment

⁶ As cited in (49).

⁷ As noted before in section 6.1, times are changing and U.K. and U.S.A. will probably lose large shares of the market; however, this situation may also be temporary since government regulations can also change.

tax credits and incentives⁸; in Japan, the growth is related to the Japanese tradition of maintaining a high level of borrowings relative to fixed assets and capital (49). Financial (capital) leases are the most common form and constitute the bulk of leasing business on international grounds⁹.

The expansion of the international leasing community in recent years has been attributable to the establishment of leasing as a primary source of equipment finance, increasingly competitive and mature markets in the OECD countries during the 1970s. There has been a consequent "ripple effect" to Southeast Asia and South America where partnerships by well-known Western names with local entities show promise of a vastly expanded understanding of leasing during the 1960s (61). Although there is only limited information available on the overseas leasing activities of international banking groups, it is clear that as a direct result of the concerted attempts by several major banks to develop overseas operations, leasing is, as stated before, a major source of equipment finance in many parts of the world (55). The 1982 World Leasing Yearbook gives editorial information on the leasing industries of 37 countries and classified list of leasing companies in 56 countries which have increased, by then, to 43 and 69 respectively in the 1987 World Leasing Yearbook (89).

⁸ As cited in (71, p.118).

⁹ See (51, p.37).

It is important that the role played by mainline leasing in international equipment financing should not diminish. Leasing is not simply a tax device; equipment exporters and importers worldwide should have as wide a choice of types of finance as possible. The increasing availability of cross-border facilities and overseas leasing operations of international banking groups will greatly boost capital investment in both industrialized and developing countries (55, p.67).

According to Meidan (51), there is a great opportunity for the development of international leasing. If the leasing companies can consolidate their position in the finance market and take advantage of the development prospects to maintain their competitiveness, international leasing business shall expand. A prerequisite for the expansion of leasing is the development of the supply of funds; since international leasing companies generally obtain their funds from institutional investors and private savings and because "...leasing is attractive to investors as a short to mid-term investment especially in times of inflation and its ability to protect the international investor from inflation risk by way of indexed rentals" (51, p.47) as a result of which one can have an optimistic view on the future of international leasing business.

7.2. LEASING OF INTERNATIONAL GOODS

The object to be leased does not necessarily have to be used within national borders. This would be the case, for instance, with means of transport such as containers, trucks, railway cars, ships, and aircraft, but could also occur with construction machinery or, more important nowadays, oil prospect drilling rigs and platforms, and industrial and power plant complexes (87). This poses an additional risk for the leasing company, which might find it more difficult to establish its rights of ownership in the case of non-fulfillment of the leasing contract by the lessee. However, if the equipment can be internationally registered, as in the case of aircraft (in the national air traffic registers) or ships (through Lloyd insurance register), such leasing does not pose too many problems.

One common problem is that of owner's liability. If, for example, an aircraft has been leased, the lessor, as owner of the plane, could be made responsible for any damages caused by an accident. "Imagine the plane crashing on Wall Street, New York. There would be a flood of claims against its owner by individuals, companies, the city, and the state. To avoid the accumulation of such risks, the lessor forms individual companies for each item of leased equipment, thereby limiting possible claims to that particular firm. This is already practiced in the leasing of aeroplanes, tankers, and nuclear power stations, for example" (87, p.106).

7.3. TYPES OF LEASING IN THE INTERNATIONAL ARENA

There are two major approaches to define and analyses leasing on international ground:

-Terpstra¹⁰ defines international leasing as an important pricing-financing-marketing device especially for expensive equipment more prevalent in the U.S.A. than in other countries, having two major forms: (a)export leasing, and (b)foreign subsidiary leasing.

- Stanley¹¹, on the other hand emphasizes that the leasing market is one single market: the world market.

Moreover, Clark¹² classifies international leasing in two basic parts: (a)cross-border leasing, and (b)leasing conducted by overseas subsidiaries of a national based leasing company. Cross-border leasing is defined as where the lessor and the lessee are in different countries; export leasing is a form of cross-border leasing where the manufacturer and the lessor are based in one country and the lessee in another. On the other hand, foreign subsidiary leasing can involve more than two countries. We shall use Clark's description here, which is more or less the same as Terpstra's, with a little comprehensive change in that for cross-border leasing the lessor and the manufacturer do not have to be residing in the same country; however we shall

¹⁰ Vern Terpstra, *International Marketing*, 2nd ed., Holt, Rinehart and Winston, New York, 1978, pp.495-496 as cited in (51, p.36).

¹¹ Alexander O. Stanley, "Organizing For International Operations", H.B. Maynard (ed.), *Handbook Of Business Administration*, McGraw-Hill Book Company, New York, 1967, pp.16-17 as cited in (51, p.36).

¹² Tom Clark, *Leasing*, McGraw-Hill Book Company (U.K.) Limited, London, 1978, p.120 as cited in (51, p.38).

denote the foreign subsidiary leasing as transnational leasing. Therefore, we have two types of leasing on international arena as shown and explained in Figure 7.1 viz:

- Cross-Border Leasing
- Transnational Leasing

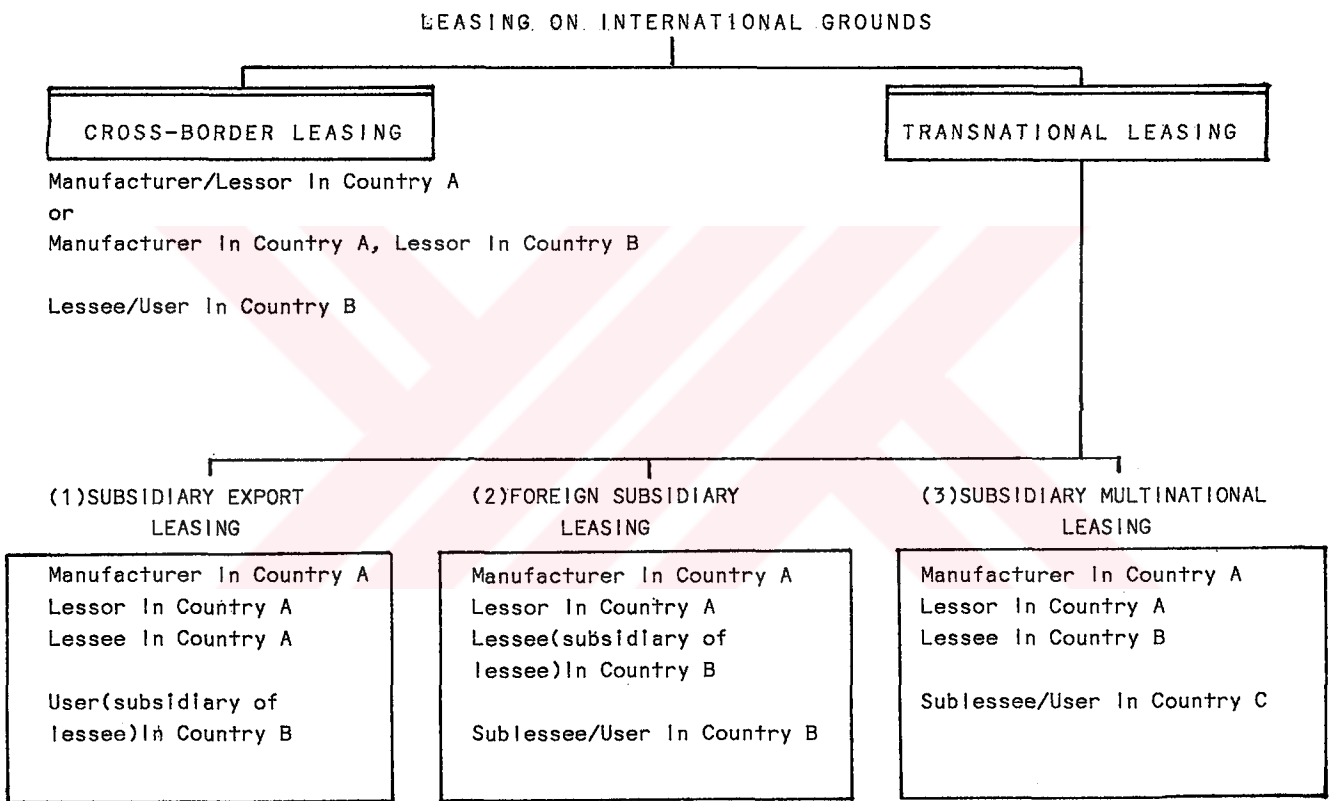


Figure 7.1. - Types Of Leasing On International Grounds
 (Source: As adapted from (51).)

7.4. CROSS-BORDER LEASING

In domestic leasing, at least two parties involved in leasing are from the same country, the lessor and the lessee. However, if a lessor leases an equipment to a lessee residing abroad, a foreign lessee, leasing is done across borders; lessor and lessee come from different countries.

Cross-border leasing takes the place of an export transaction. The goods are shipped to a foreign country but remain the property of the domestic leasing company. This creates many tax and legal problems. In most cases, at the end of a leasing period, the equipment is bought by the lessee at a low (or bargain) price. The item is thus finally exported, although it has been in the hands of the importer for some time. The question of when custom duties have to be paid, and on what value, is one of the inherent problems of cross border leasing¹³. Another is the payment of taxes; if there are tax agreements between the countries of the lessor and the lessee, then probably double taxation can be avoided. Further complications arise in connection with value added taxes which are deductible within the national tax systems but not across borders. Other problems can arise, for instance, out of fiscal schemes for permitted depreciations. The leasing company has to take into

¹³ In Turkey, for example, as of December 1988, equipment obtained through a cross-border lease transaction is treated similar to temporary-import equipment and no custom duties but a letter of guarantee sufficient enough to cover the duties is required from the lessee. In case of purchase and permanent importation, the letter of guaranty amount is paid using the original foreign exchange rates at the date of the temporary importation.

consideration all such foreign regulations when calculating its lease rate (87).

In addition to all these fiscal problems, cross-border leasing may be hampered by legal uncertainties (87, p.107): "Will the rights of ownership of the leasing company be honored in the case of lessee's default or bankruptcy? Some countries consider leasing as a special way of purchasing on credit. The leasing company, therefore, would have only the same legal status as other lenders to the company. Moreover, cross-border leasing to socialist countries founders on the regulations governing ownership of the means of production. Even if all the legal and fiscal problems can be solved, there still remains currency problems. In which currency should the lease payments be affected?" If the leasing contract provides for payment in foreign currency, it is the leasing company which has to cover the currency risk by equivalent refinancing. Then, there is the additional risk of interest fluctuations; if the leasing payments are made in the lessor's domestic currency, the lessee runs the risk that his leasing payments might become more expensive following a devaluation of his national currency against the foreign one. As a matter of fact, the leasing industry worldwide has had the dual problem of coping with fluctuating interest rates and currency values for a long time (62). Treatment against fluctuating interest show wide differences in many countries. For example, in West Germany, variable lease rates are not encouraged. In Denmark, rates are allowed to float and, in Sweden, variable rates have

long been used. The French leasing companies do not resort to floating rates but the American and British lessors generally make use of variable rate leases or LIBORplus-rates¹⁴ (62, pp.74-75). Another possible solution is the use of interest rate futures markets which have not been widely used to date. As for the problem of currency values, the ready solution is the multi-currency package that established and experienced leasing companies writing cross-border leases for assets (which generate revenues in different currencies e.g. airlines use leased aircraft for both domestic and international routes) actually practice such arrangements (62). Also, as in the fluctuating interest rate problem, the use of futures markets and hedging may prove to be a useful solution.

The complexity of legal, tax, and accounting problems associated with cross-border transactions as well as innovative but complex use of export tax credits and cover for foreign exchange risks cause cross-border leasing to incur large costs and in general restrict it to big-ticket items such as major items of plant and equipment, aircraft and ships (78, p.26); therefore, mostly in the form of leveraged leases, cross-border operations are generally better applicable to major equipment items. For example, in November 1981, the first cross-border lease financing to Brazil was completed by leasing of two Fokker F27 aircraft to VOTEC; similarly, the first cross-border leasing transaction to New Zealand was realized in August 1982 when

¹⁴ In Turkey, for the time being, the active companies offer both variable rate and fix rate leases for deals in local currency and LIBORplus-rate leases for deals in hard currencies.

Air New Zealand arranged for a U.S. \$ 218 million Australian lease for three Boeing 747 aircraft. As for industrial complexes and plants we may consider, for example, a 265 million rand leveraged lease financing in South Africa for the extension of Ngodwana And Enstra Pulp And Paper Mills, a A \$ 245 million leveraged lease for four-cylinder engine plant for General Motors-Holden's in Melbourne, and a 100 million pounds sterling British lease of a catcracker at Milford Haven for Murco Petroleum and Amoco, the largest natural gas company of the U.S.A. (55).

Cross-border leasing, a world-wide activity, with problems concerning legal and tax treatments, the availability of export credit and cover for foreign exchange risks is becoming an attractive alternative to other forms of finance for major items of plant and equipment, aircraft, and ships as the problems are being identified and resolved. However, since such leasing incurs large costs and encounters strong competition from local leasing companies, which can operate with all the advantages of the simpler domestic leasing, cross-border leasing is still limited to large deals and as a result there are currently few cross-border contracts. There is a simpler way to perform an international leasing transaction, particularly for small volume, low price asset leasing, namely transnational leasing.

7.5. TRANSNATIONAL LEASING

The international leasing community is varied and complex. The assets it finances range from small-ticket items such as office equipment to big-ticket items such as plants and aircraft. At the small end of the market, the volume of units financed is important; at the large end, the asset as a capital equipment investment is important as for the rate of return it promises.

A wide range of corporate activities and specializations are born from the assets financed through leasing. At the large end, in cross-border leasing, the trend is leasing of the equipment across borders. As explained in the former section, there exist several problems such as withholding taxes on rentals, and legal complications related to foreign use ownership; such problems, unfortunately, present barriers for the widespread use of cross-border leasing in the international arena for the time being. Thus, especially for the small end of the market, there is a need for transnational corporate networks rather than leasing across borders.

Transnational leasing is leasing used in international trade but is not the same as cross-border leasing. The difficulties inherent in the differing national fiscal and legal systems for the lessors and the lessees, characteristic of cross-border leasing, are avoided in transnational leasing. An internationally operating leasing company is a member of an international association of

leasing companies, or has its own subsidiaries alone; that is, leasing companies have subsidiaries, partnerships, or shareholdings in foreign countries.

In transnational leasing, the lease arrangement can be initiated by an exporter or importer. An importer, for instance, contacts his leasing company which finds, with the help of its foreign associate, an exporter willing to supply the equipment. This exporter might sell the goods directly to the foreign leasing company, or he might sell them to his national leasing company which would then sell them onto its partner company in the lessee's country. Associations in an international chain of leasing companies may arrange with their partners for a commission to be paid for their assurance but some also cooperate for free (87). In other words, the leasing companies sell the export goods directly to the local companies, that is the companies which are their subsidiaries, partnerships, or shareholdings, which raise the funds locally and lease the asset to the user (lessee). Among other things, this eliminates currency fluctuation risks if the asset is to generate cashflow in local currency only (61).

7.6. SUMMARY

Leasing activity does not remain confined within each country's national borders; cross-border flows as well as companies working with subsidiaries in different countries exist. The volume of such activity is considerable whereas

the equipment and other assets subject to such operations include, but are not limited to, aircraft, ships, major industrial plants and equipment. Leasing on international grounds is an increasingly used method for selling capital equipment. Both independent leasing companies and banks and financial institutions are active in such operations and as a result of their combined effort and services, leasing has become a major source of equipment finance in the world.

It is important that for international leasing activities, tax considerations is not the major factor; it helps to further offer another form of finance to equipment exporters and importers alike.

The use of goods, subject to a leasing agreement, in another country poses some problems and risks to the lessor. Such risks can be minimized for certain types of equipment if they can be internationally registered or if the lessor can form individual companies in those countries where the lessee resides.

International leasing activities can be grouped under two fields:

- Cross-border leasing
- Transnational Leasing

In cross-border leasing, the transaction is similar to that of exportation. The lessor and the lessee reside in two different countries; goods are shipped to the country of the lessee but the title to the equipment remains along with the

lessor in another creating many problems regarding tax and legal issues. These problems arise for value added taxes, withholding taxes, depreciation schemes, which are all dependent on the agreements and regulations between the countries where the lessor and the lessee reside. Still some other problems are related with country risk, foreign exchange and currency risk. Cross-border leases are popular by lessee in many countries who consider it as medium-term credits or as alternative forms of finance.

Cross-border leasing incurring large costs is limited to large deals and strong competition from local leasing companies also prevent its application in all fields of operation which are popular in domestic transactions. The alternative way of leasing is through utilizing subsidiary companies in different countries which is denoted by transnational leasing. Transnational corporate networks are useful to get rid of many problems confronted with in cross-border leasing transactions and are also applicable for the leasing of low-priced assets. These networks comprise of subsidiaries, partnerships, and shareholdings in foreign countries attached to leasing companies. Since the leasing company works directly with another belonging to its network, many time-consuming and expensive arrangements are prevented and local competition can be faced effectively. Also, tax and legal problems can be more easily handled and solved.

8. LEASING AND DEVELOPING COUNTRIES

8.0. INTRODUCTION

This chapter mainly concentrates on why and how leasing can be useful for developing countries. In the first section, the main advantages of the introduction of leasing into these countries are examined; the main advantage of leasing can be the supply of finance for capital equipment demand which is currently satisfied through importation as set out in section 8.2. The benefits and drawbacks of international leasing for the developing countries are studied in section 8.3 and development of this financial instrument and International Finance Corporation's (IFC) role in this development is given in 8.4 along with emphasis on cross-border leasing transactions explained in section 8.5. Finally, in sections 8.6 and 8.7 respectively, the advantages of lessors from going into leasing operations in such developing countries as well as the problems they are faced are given.

8.1. WHY LEASING CAN BE USEFUL FOR DEVELOPING COUNTRIES

In order to grow, the developing countries have to invest in capital equipment; financing of investment in capital equipment is, thus, crucial for their development. However, as explained in (101, pp.83-84), developing countries have a serious problem of obtaining finance for capital equipment

investments in adequate volume and in appropriate uses from both domestic and foreign sources. Many industrial countries are confronted with similar problems (101, p.84); the main reason in the view of many is that investment in the U.S.A. and Europe is too low as a share of GNP. And most of the investment goes to less productive uses like housing rather than plant and equipment¹. The other part of the blame goes to financial institutions that act as intermediaries. Short-term lending of commercial banks (i.e. maturities' being too short for investment), excessive cost of capital, financing of non-innovative enterprises, and deficiencies of the institutions are among the various reasons. Moreover, "...it is a popular view today, for example, that commercial banks are inappropriate vehicles to finance capital investments" (101, p.84). To encourage the investment of capital in productive uses like high technology, industrialized countries use guarantees, tax policy, and specialized financial institutions and instruments like leasing. As explained before, leasing companies provide medium to long-term financing for capital equipment in industrialized countries and, as a financing instrument, sustained investment in most of these countries (69, p.106). "Companies now specialize in leasing to small businesses. They can also help domestic capital goods industries market their products and compete with foreign imports, thus easing balance of payments problems" (101, p.84).

¹ See Robert B. Reich, "Why The U.S. Needs An Industrial Policy", Harvard Business Review, January-February 1982, p.78 as cited in (101, p.84).

It is, therefore, possible that both domestic and foreign leasing companies function similarly in the developing countries, i.e. as instruments for capital equipment investment financing. Although it can be argued that "...leasing companies seem to flourish under tax laws not often found in many developing countries" (101, p.84), it is currently seen that in developing countries, the development finance switch from credit to other forms providing equity or equity related services which includes leasing²(101, p.9). Hence, a financial institution, providing non-credit services³, can be of value to developing countries as a source of external funds, either as cross-border investment directly to the end user (as in the case of cross-border leasing) or as part of a cross-border network that extends into the country as a branch, subsidiary, or joint venture (as in the case of transnational leasing).

To find the capital investment, developing countries have, thus, turned to lease finance that passes effective ownership risk to the lessee regardless of the lessor's legal title. The owner has a position that is at least equal to, or often superior to, the right of a secured creditor (101, p.11). The lessee gets close to 100 percent financing, without high collateral or compensating balances, and the

² As explained before, financial leases may provide term funding for the end user's acquisition of assets; in such cases' regardless of the lessor's legal title, the lessee has immediate economic ownership of the asset. On the other hand, operating leases are more like rental contracts and they do not cause a true economic ownership risk for the lessee in the above sense. In the foregoing discussion, therefore, financial leases only are of interest.

³ Institutions providing non-credit services include venture capital companies, banks providing equity investment (venture banking), contractual savings institutions such as pension funds and insurance companies, investment trusts, leasing companies, and investment banks. With the exception of investment companies, which are themselves brokers, all act as principal investing funds on their own account (101, p.9).

transaction can be arranged for the needs and capabilities of the lessee. Leasing does not compete with other forms of finance on price, rather, it can provide full services to the lessee. The benefit to the developing country is that leasing broadens competition in financial services and introduces new instruments for raising funds (101).

In addition to the major need for supply of long-term finance, there are some very important requirements for developing countries (101, p.20):

- a) to diversify institutions in financial systems,
- b) to assist small businesses, and
- c) to assist emerging domestic capital good industries to compete with imports.

Leasing companies can be useful in meeting these requirements: The leasing companies can provide medium to long-term equipment finance to small enterprises and can assist domestic good producers to market their products.

As for the cross-border leasing operations from industrialized countries to developing ones, leasing companies are also efficient in providing the developing countries with industrial equipment from abroad.

8.2. DEMAND FOR CAPITAL EQUIPMENT IN DEVELOPING COUNTRIES

According to a study by Wellons, et al. (101), the stage of economic development of the countries is important for the

development of unit trusts, less so for venture capital, and even less for leasing operations. In this study, the authors speculate that the market for these services, especially for leasing, "...may be broader than one would infer from a listing of countries by development" (101, p.108). That is to say, although more complex forms of investment can be favorable in more developed countries only, services such as leasing can be more easily used by developing countries for which the demand of capital equipment should somehow be satisfied; this demand is satisfied by importation, however funds for importation are hard to find as explained before. Thus, leasing, providing funds to finance these capital equipment to be imported, can be a very useful tool for development. If the demand for capital equipment is considered for a selected list of developing countries as given in Table 8.1., it is very easily seen that capital equipment in the form of machinery and transportation equipment has a share of 15 to 50 percent of the total merchandise imported by these countries. Such a high demand can be very successfully satisfied through leasing when there is a scarcity of funds to finance the imports.

Table 8.1

CAPITAL EQUIPMENT DEMAND IN SELECTED DEVELOPING COUNTRIES

Country	Merchandise Imported In 1981(US\$million)	Machinery And Transport Equipment Imported As A % Of Merchandise Imported In 1981(US\$million)
<u>Asia</u>		
Bangladesh	2,594	24
India	15,001	16
Sri Lanka	1,803	25
Pakistan	5,342	25
Indonesia	13,271	34
Thailand	10,014	25
Phillipines	7,946	24
Malaysia	13,132	39
South Korea	26,131	22
<u>Africa</u>		
Mali	370	30
Kenya	1,946	28
Cameroon	1,428	34
Morocco	4,356	21
Ivory Coast	2,434	35
Tunisia	3,924	23
Nigeria	18,776	39
<u>South America</u>		
Peru	3,803	40
Dominican Republic	1,450	23
Colombia	3,924	38
Ecuador	2,332	49
Panama	1,540	21
Mexico	26,148	50
Brazil	24,007	19
Uruguay	1,599	30
Argentina	9,425	40
Venezuela	10,645	43
<u>Europe</u>		
Greece	8,677	36
Portugal	9,799	25
Turkey	8,911	18
<u>Middle East</u>		
Egypt	8,839	27
Jordan	3,149	28

Source: World Development Report, 1983 as cited in (101,p.108).

8.3.EFFECTS OF INTERNATIONAL LEASING ON DEVELOPING COUNTRIES

In the study by Wellons, et al., the benefits of cross-border leasing, among other non-credit services, are analyzed. It is asserted that development of financial markets and transfer of resources to recipients are likely to be benefits to developing countries whereas, due to foreign investment of loans, the independence of the host country (i.e. the lessee's country) is threatened. In Table 8.2, major points of benefits and costs are summarized within a few groups.

Table 8.2

The Fit Of Transnational Operations With The Goals Of Developing Countries

Mechanisms	Transfer of financial resources		Transfer of management or technical expertise	More efficient allocation of available resources	Better mobilisation of domestic resources	Better term maturities costs	Depth of capital markets	Independence goals	Opening of export markets
	Short-term	Medium-term							
Venture capital	+	Stage of economy	+	Development needs of economy	Financial system depth	+/+	+	-	+
Leasing	Deal	Stage of economy	+	+	Financial system depth	+/+	+	-	0
International portfolio investment	+	Stage of economy		Development needs of economy	0	+/0	+	-	0
Through investment trusts	+	0	Deal	Development needs of economy	Deal	+/0	+	-	0
Insurance companies	+	Outflow in the profits and dividends if not reinvested	+	Financial system depth	+	n.a.	+	-	0

Acron:

- + = Positive impact
- = Negative impact
- 0 = Neutral
- n.a. = not applicable
- Deal = Impact is dependant on the nature of the deal undertaken.

Source : As taken from (101, p.115).

The Transfer Of Financial And Managerial Resources: As explained before, the lessee can operate directly across borders from outside the host country (cross-border leasing) or can establish branches, subsidiaries, or joint ventures (transnational leasing). In cross-border leasing, the financial resources transferred are the amount of the investment, the equity investment coupled with supporting credit. In transnational leasing, the primary financial resources transferred are the foreign equity investment in the local entity; if the local entity is a joint venture, there may be a transfer of managerial expertise to the local staff, too (101, p.116).

More Efficient Allocation Of Available Resources: The external resources may introduce innovative financial instruments and enhance domestic competition and may lead to a deepening of the domestic financial system. Developing countries' leasing institutions may manage internal resources more efficiently when working with institutions from industrialized countries which have extensive experience in such operations. For example, both the IFC's⁴ and several countries experience with joint ventures⁵ suggest that in the developing countries, foreign technical partners in leasing companies can effectively provide direct

⁴ M.Barth, P.Wall, et al., "IFC's Leasing Company Investments: One Year Later", International Finance Corporation (IFC), Capital Markets Department, Washington DC, October 1982, p.16 as cited in (101, p.117).

⁵ For example, see Antonio Schneider, "The Case Of Leasing Companies In Chile" Case Report Prepared For The OECD Development Center, Paris, June 1982, p.32 as cited in (101, p.117).

assistance to personnel, to operating systems, and in training abroad⁶ (101, p.117).

Mobilization Of Domestic Resources: According to Wellons, et al. study (101), foreign savings through leasing institutions of transnational networks does not displace domestic savings but augments them; leasing companies in joint ventures with local shareholders mobilize equity or debt investments from domestic financial and industrial corporations and other institutional investors (101, p.117).

Cost Of Funds: The cost of funds includes the level of interest rates in the domestic market and abroad, the maturity of provided funds, foreign exchange risk, the availability of funds, etc. among others. Since the financial markets in industrialized countries are more developed and more efficient, finance from efficient markets in industrialized countries should cost less than domestic funds" (101, p.117).

Independence Goals: It can be argued that any form of foreign control over resource allocation threatens sovereignty; many governments consider foreign control through foreign ownership of the means of production as a serious threat and "today, despite the debt crisis, many governments continue to limit foreign direct investment in their countries...and find it difficult to support these forms of foreign investment because of their apparent impact

⁶ According to Wellons, et al.(101), "...countries with more developed financial systems and skilled local staff, like Colombia and the Phillipines, have successfully initiated their own leasing industries without foreign partners (101, p.130).

on sovereignty and control over the domestic financial system" (101, p.118).

8.4. LEASING IN DEVELOPING COUNTRIES

The leader in extending leasing into developing countries is International Finance Corporation (IFC), the private sector arm of the World Bank. Over the past few years, IFC has established, in conjunction with local financial institutions and foreign leasing groups acting as technical partners, many leasing companies in developing countries such as Korea, Brazil, Thailand, Uruguay, India, and Jordan (59).

IFC is currently investigating and planning several new ventures in Africa, Asia, and South America as well as playing an active role as an advisor to the authorities in the Third World in connection with their introduction of appropriate regulatory frameworks for leasing (55).

The IFC's basic premise is that leasing should not be at a disadvantage compared with other forms of finance and it aims to ensure that import duties, tax exemptions, and investment incentives available to owner-used equipment are also available if the equipment is leased (89).

Today, in developing countries, leasing of capital equipment is regarded by development agencies as a para-banking activity with a special facility to provide medium-term financing (65). Many developing countries see this facility

as one they did not have before; it may be a cheap and readily available method of financing development (69). Also, the separation of user-ownership and legal-ownership in areas of high political risk can be an important factor for multinational companies. Furthermore, it may well be preferable for equipment in developing countries to be leased, rather than purchased with loan finance, to avoid the appearance of a substantial debt to the West (55). Due to these reasons, many developing countries are trying to put into legislation new rules which enhance leasing. The IFC has been particularly active in advising governments on fiscal environment and in introducing developed country lessors to developing countries in a commercial sense (65). Many developing countries in South America and Asia want their own leasing companies and are offering strong encouragement to the international leasing companies to participate in their markets (69).

It is stressed by Wellons, et al. (101) that IFC has been successful "...in that leasing has provided alternative sources of medium to long-term finance in these (developing) countries, and increased the volume of domestic goods leased" (101, p.86). As given in Table 8.3, the indicative data available about the financial and operational features of various leasing companies for the years 1981 and 1982

Table 8.3
Leasing Companies in Which The IFC Has Invested: Indicators Of Leasing Activity

Item	KDLC	TOLC	PISO	LOLC	Surinvest	Bolivar
Results for the year ending:	(12/81)	(12/81)	(12/81)	(12/81)	(05/82)	(12/81)
1. Total leases written						
a) number	339.0	108.0	28.0	161.0	64.0	26.0
b) equipment valued at cost (\$ million)	68.2	4.6	5.8	2.6	2.8	1.8
2. Leases written to SMSEs						
a) number	147.0	57.0	13.0	n.a.	64.0	17.0
b) equipment valued at cost (\$ million)	24.9	2.2	1.7	n.a.	2.8	0.9
3. Domestic capital goods leased [% of item 1 (b)]	31.0	10.0	26.0	5.0		n.a.
4. Average lease term (range, in months)	48-60	36-48	48-60	25-36	36	36
(Year of operation)	(8th)	(3rd)	(2nd)	(1st)	(1st)	(3rd)
(Year since IFC investment)	(5th)	(3rd)	(2nd)	(1st)	(1st)	(1st)
n.a.: not available						

Source : M.Barth and P.Wall, et al. "IFC's Leasing Company Investments : One Year Later", October 1982 as cited in (101, p.86).

(established and financed by IFC to operate in developing countries), as gathered by Wellons, et al., suggest that small and medium size enterprises (SMEs) constituted important markets for each of them, both in number of clients and volume of business as above (101, p.86).

On the other hand, Latin America's debt problems caused the leasing sector in that part of the world to reconsider leasing operations after an initial popular start with international leasing companies; in the mid 1980s, therefore, the pattern has changed in that leasing companies were looking for expansion possibilities ahead. This is also true for some banks dealing with leasing in foreign countries, such banks expanded with subsidiaries (65).

8.5. CROSS-BORDER LEASING FOR DEVELOPING COUNTRIES

As noted in the above section, leasing business on international grounds in developing countries has a changing pattern from direct leasing through international leasing companies (in the form of cross-border leasing) to subsidiary based operations.

Generally, cross-border leasing in developing countries have the same problems we have examined in section 7.4. Moreover, due to the following reasons⁷, such operations are especially stagnant in developing countries since 1984:

1. Cross-border leasing is generally applicable to "big ticket" category due to domestic competition; however, this category is easily saturated since it can constitute only a small portion of exported capital equipment.
2. World-wide recession has significantly reduced the demand for capital equipment.
3. Tax benefits of lessors may be banned in cross-border transactions where United Kingdom, Australia, and New Zealand are good examples; tax benefits are denied to lessors who lease assets to foreign lessees not liable to the taxes of the lessor's country.

Due to similar reasons in addition, leasing internationally is more dominant through transnational leasing operations where transnational networks of banks and independent leasing companies are highly efficient. Local entities of

⁷ As discussed in (101, pp.88-89).

these transnational networks are able to manage small transactions within their countries, they can gain access to the local financial markets and therefore reduce currency risks, and they are able to offer a chance to gain direct knowledge of the local leasing market and competitive forces. For a bank, operating through a local entity from its transnational network helps to provide financial services to its exporting customers, especially where foreign competitors threaten existing ties. Such operations are also helpful to access into markets otherwise closed to commercial banking (101, p.89). For independent leasing companies, operating through local entities from their networks may provide profitable operations in new markets, "...partly in response to competition at home" (101, p.89).

Whether leasing operations are through cross-border transactions or through transnational networks with local entities, there are certain characteristics and risks for the lessors in leasing to developing countries. A study through a survey of international lessors have provided important data on factors influencing the lessors' choice of host countries for operations overseas (101, pp.89-90). The survey findings, given in Table 8.4, show that for most foreign lessors, the existence of local networks, or at least individual companies with whom co-operation is possible is highly valued.

Table 8.4

Principal Considerations Influencing The Selection Of Markets Which Host Transnational Leasing Operations

	Cross-border leases percentage				Through the use of a local entity			
	VI	I	LI	NI	VI	I	LI	NI
Limited political risks	33	67	-	-	60	40	-	-
Sound foreign debt levels	33	67	-	-	-	100	-	-
Limited currency risks	67	33	-	-	40	60	-	-
Importance of the host country as a trading partner	-	67	33	-	-	40	40	20
Existence of a clear and transparent institutional framework in the host country	33	67	-	-	60	40	-	-
Favourable host government attitude to foreign investment	-	67	33	-	40	40	20	-
Important size of market	-	-	67	33	20	40	40	-
Importance of the host country as an importer of capital goods	-	33	67	-	-	40	60	-
Existence of a home client who wants support in order to get involved in this developing country market	33	33	34	-	20	-	40	40
Other competitor institutions are also active in this market	-	67	33	-	-	60	20	20
Possibility of an arrangement where the institution provides the technical expertise and the rest of the SHs the financial resources	-	-	67	33	20	-	60	20
Availability and access to domestic sources of finance	-	33	33	34	40	60	-	-
A legal and regulatory environment which does not place leasing at comparative disadvantage vis-à-vis other sources of finance	100	-	-	-	60	40	-	-
Availability of tax incentives for leased goods	100	-	-	-	60	-	40	-
Availability of an organised network through which operations are possible	-	33	67	-	40	20	40	-
Availability of local skilled people with whom co-operation is possible	-	100	-	-	20	60	20	-

Key:

VI Very Important: the absence of this factor constitutes an insurmountable obstacle for an institution to develop leasing operations in this country.
 I Important: the presence of this factor constitutes a clear incentive for an institution to develop leasing operations in this country.
 LI Less Important: the presence of this factor may influence favourably the decision of an institution for, but does not constitute a decisive factor.
 NI Not Important.

Source : As taken from (101, pp.89-90).

8.6. WHY LEASING IS POPULAR FOR LESSORS TO OPERATE IN THE DEVELOPING COUNTRIES

There are several reasons why leasing is popular for lessors to operate specifically in developing countries. Such lessors are generally multinationally operating leasing companies from developed countries.

Leasing industries are relatively more established in developed (industrialized) countries, so they search for new opportunities abroad. Developing countries offer many opportunities for leasing. For example, if leasing is used

to finance even a fraction of the developing countries' demand for capital equipment, the potential market would be huge, "...judging from countries like Brazil, South Korea, and the Phillipines, for which data are available⁸" (101, p.120). Also, changing tax laws which is reducing tax bases of lessors in such developed countries as the U.S.A. and the U.K. mean that leasing is becoming less tax-oriented for financial institutions in these countries. Such institutions are therefore becoming more interested in markets that are not tax-driven⁹. Such markets are not rare in developing countries as can be examined from the following two tables, Table 8.5 and Table 8.6, showing tax aspects of equipment leasing in selected developing countries and developed (industrialized) countries respectively.

In developing countries, the shortage of credit is forcing firms to seek the advantage of new, alternative ways to finance their operations. In the absence of government limitations, small firms can rely more on leasing for capital equipment¹⁰ and, as a matter of fact, there is an increased demand by the leasing companies' vendors and customers for lease financing to foreign end-users¹¹. In order to maintain a competitive position in the world markets, the governments of many developed countries focus on exports generally and exports of capital equipment specifically¹². Also, in developed countries, many of the

⁸ For capital equipment demand of some developing countries, refer to section 8.2.

⁹ L.M.Taylor, "Federal Government Support Of The U.S. Based International Leasing Business : Recommendations For Improvement", Chicago, Globalease Inc., 8 March 1984, p.9 as cited in (101, p.122).

¹⁰ See (101, p.124).

¹¹ This is explained in (101, p.123).

¹² See (101, p.122).

TAX ASPECTS OF EQUIPMENT LEASING IN SELECTED DEVELOPING COUNTRIES

December 1983

Country	Lessee taxation			Lessor taxation					Other taxation			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Deductibility of leased payments (finance method)	Depreciation of leased assets (finance method)	Neutrality of tax treatments	Amortization of receivables (finance method)	Depreciation of leased assets (operating method)	Accelerated depreciation allowed	Leased assets qualified for tax credits and incentives	Tax credit beneficiary and transferability	Capital gain/less tax treatment	Neutrality of tax treatment	Taxes due on contract value	Taxes due on lease payments
Brazil	Yes	No	0	No	Life	30	Yes	LE-T	Normal	-	Nominal	2 %
Chile	Yes	No	0	No	Life	1/3	No	n.a.	Normal	0	None	VAT 20
Colombia	Yes	No	0	No	Life	40/40/20	No	n.a.	Normal	+	0.3 %	10+ 0.3 %
Dominican Rep.	Yes	No	+	No	Life	No	No	n.a.	Normal	n.a.	n.a.	n.a.
Ecuador	Yes	No	0	No	Life/Lease	Lease Term	Yes	LR-NT	Normal	-	2.8 %	6 %
Egypt	Yes	No	0	No	Life	n.a.	Yes	LR-NT	Normal	0	n.a.	n.a.
India	Yes	No	0	Yes	Life	No	n.a.	n.a.	Normal	0	None	None
Indonesia	Yes	No	+	No	Lease	Yes	n.a.	n.a.	Normal	0	Nominal	Bus Tax
Jordan	Yes	No	0	No	Life	No	n.a.	n.a.	Normal	0	0.3 %	None
Kenya	Yes	No	0	No	n.a.	n.a.	No	n.a.	n.a.	n.a.	Nominal	n.a.
South Korea	Yes	Life	0	Yes	Life	20 %	Yes	LR/LE-NT	Normal	+	Nominal	None
Malaysia	Yes	No	0	No	Life	No	No	n.a.	Normal	0	0.5 %	None
Mexico	Yes	Life	0	Yes	n.a.	75 %	Yes	LE-NT	Normal	+	None	VAT 15
Nigeria	Yes	No	0	No	n.a.	No	Yes	LR-NT	Normal	0	Nominal	None
Pakistan	Yes	No	0	No	Life	No	n.a.	n.a.	Normal	0	6 %	None
Peru	Yes	No	+	No	Life	50 %	Yes	LR-NT	Normal	0	None	VAT 18
Philippines	Yes	No	+	Yes	Life	No	No	n.a.	Normal	0	None	Receipt
Portugal	Yes	No	0	Yes	Life	100 %	Yes	LR-NT	Normal	0	0.3 %	0.3 %
Singapore	Yes	No	+	Yes	Life	3 yr	Yes	LR-NT	Normal	0	0.5 %	None
Spain	Yes	No	+	No	Lease	No	Yes	LE-T	Normal	0	5 %	n.a.
Sri Lanka	Yes	No	0	No	Life	No	n.a.	n.a.	Normal	0	None	3 %
Thailand	Yes	No	0	No	Life	No	No	n.a.	Normal	-	None	2.75 %
Turkey	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Uruguay	Yes	Life	0	Yes	Life	n.a.	Yes	n.a.	Normal	0	n.a.	VAT
Venezuela	Yes	No	-	No	Lease	No	No	n.a.	Normal	0	None	0.5 %
Zimbabwe	Yes	Life	-	Yes	Life	No	No	n.a.	Normal	0	n.a.	n.a.

Column 1	Life = Over useful life Lease = Over basic lease period No = No depreciation by lease	Column 2	0 = Neutral + = Favourable - = Unfavourable	Column 3	Yes No	Column 4	
Column 5	Life = Over useful life Lease = Over basic lease period	Column 6	Percentage figures = Accelerated over normal depreciation = Reduction of useful life = No accelerated depreciation	Column 7	LR = Lesser Lease LE = Lease T = Transferable NT = Non-transferable	Column 8	
Column 9	Normal = Taxes as other capital gains 0 = Neutral + = Favourable - = Unfavourable	Column 10	Percentage = Percentage of contracts value	Column 11	Percentage = Percentage of lease payment VAT + figure = Percentage of Value Added Tax	Column 12	

Source : As taken from (101, pp.144-145).

Table 8.6

TAX ASPECTS OF EQUIPMENT LEASING IN SELECTED INDUSTRIALISED COUNTRIES

December 1983

Country	Lessee taxation			Lessor taxation					Other taxation			
	(1) Deductibility of leased payments (finance method)	(2) Depreciation of leased assets (finance method)	(3) Neutrality of tax treatments	(4) Amortization of lease receivables (finance method)	(5) Depreciation of leased assets (operating method)	(6) Accelerated depreciation allowed	(7) Leased assets qualified for tax credits and incentives	(8) Tax credit beneficiary and transferability	(9) Capital gain/loss tax treatment	(10) Neutrality of tax treatment	(11) Taxes due on contract value	(12) Taxes due on lease payments
Australia	Yes	Life	+	Yes	Life	No	Yes	LR/LE-T	n.a.	n.a.	None	1.5 %
Canada	Yes/No	Lease	n.a.	Yes	Life	No	Yes	LR/NT	Special	+	n.a.	0-14 %
France	Yes	No	0	No	Life	40 %	No	n.a.	Normal	n.a.	n.a.	VAT 18.6
Germany	Yes	Life	0	Yes	Life	No	Yes	LR/LE-NT	Normal	0	None	VAT 14
Italy	Yes	No	+	No	Life	15 %	Yes	LR-NT	Normal	+	Nominal	VAT 18
Japan	Yes	No	0	No	Life	No	No	n.a.	Normal	0	n.a.	n.a.
Netherlands	Yes	Life	n.a.	Yes	Life	No	n.a.	n.a.	Normal	n.a.	n.a.	VAT 18
Sweden	Yes	No	0	No	Life	5 yr	No	n.a.	Normal	0	None	VAT 23.46
Switzerland	Yes	No	0	No	Lease	No	No	n.a.	Normal	0	None	None
Switzerland	Yes	option al	0	n.a.	n.a.	100 %	some	LR	n.a.	n.a.	n.a.	VAT 15
United Kingdom	Yes	lease	0	Yes	Life	No	Yes	LR/E-T	Normal	0	Yes	Yes
United States	Yes	lease	0	Yes	Life	No	Yes	LR/E-T	Normal	0	Yes	Yes

Column 1	Life = Over useful life Lease = Over basic lease period No = No depreciation by lease	Column 2	0 = Neutral + = Favourable - = Unfavourable	Column 3	Yes No	Column 4	
Column 5	Life = Over useful life Lease = Over basic lease period	Column 6	Yes = Accelerated over normal depreciation No = Reduction of useful life No = No accelerated depreciation	Column 7	LR = Lesser LE = Lease T = Transferable NT = Non-transferable	Column 8	
Column 9	Normal = Taxes as other capital gains + = Favourable - = Unfavourable	Column 10	Percentage = Percentage of contracts value	Column 11	Percentage = Percentage of lease payment VAT + figure = Percentage of Value Added Tax	Column 12	

n.a. = Data not available.

Source : As taken from (101, p.146).

industrial corporations' captive leasing companies may agree to offer their services as a financial alternative (101, p.123). Consequently, cross-border leasing is a popular way to finance major equipment; this is also induced by export agencies like the U.S. Eximbank and the British ECGD which use them to provide lower cost term export finance. Such export finance in the form of leasing provide such benefits to the lessee as deferral or elimination of substantial custom duties, ability to reflect lease obligations "off-balance sheet" on the lessee's balance sheet or for external debt obligations involving the International Money Fund (IMF) or others¹³.

Another reason for the popularity of operating in developing countries by the developed country lessors is that; local leasing companies in developing countries seek for foreign counterparts for technical expertise and financing (101, p.124). In terms of financing, leasing is the most riskless form of operation for a company which will be operating in a developing country as opposed to venture capital investments. For a company of a developed country, operating through leasing involves firms with established track records whereas for venture capital investments, the company must assess the new ventures of many entrepreneurs. Moreover, operating through leasing has the security of specific property which does not exist in venture capital investments. If the company is a bank with existing transnational networks, leasing operations are much simpler

¹³ L.M.Taylor, *ibid.*

in case local entities are included in the network (101, p.120).

8.7. PROBLEMS

The biggest problem on the side of leasing companies when they are considering operating in developing countries is concerned with the payment of lease debts. According to Wellons, et al.(101), the greatest threat to the transnational networks' attraction in leasing to developing countries is their extremely low confidence in such countries' ability to pay their debts. In spite of their reluctance, rapid growth in leasing business had increased the leasing companies' exposure to the payment problems of countries such as Mexico, Argentina, Venezuela, and Brazil (71). Considering that Japanese banks, for instance, are the creditors for 12 percent of Mexico's debt, 10 percent of Argentina's, 12 percent of Venezuela's, and 9 percent of Brazil's, according to official Japanese figures released in 1984 and have to bear with reschedulings, delays and renegotiations (71, p.116), the graveness of the situation can be more appreciated also keeping in mind that Japanese leasing companies are most active in the international arena of leasing. Fortunately, at least till now, leasing companies have had much less difficulty in collecting payments on time or with minor delays. The improved situation in leasing debt payments are mainly due to the fact that the lease debt problem of developing countries have typically been excluded from their foreign debt

reschedulings (71); the main reason for such preferential treatment is that several types of leased assets (e.g. aircraft, industrial plants, etc. which form the bulk of internationally leased assets) produce surplus foreign exchange; also repossession of the asset by the lessor would be embarrassing politically if, for instance, one considers the leased assets to be airliners from a national airline company of a developing country.

Another problem of leasing on international grounds to developing countries is that in order to give all parties, i.e. manufacturers/vendors, intermediaries, financiers, to the leasing transaction adequate security, lease transactions are very complex (68) and therefore, as mentioned in earlier sections, applicable for "big-ticket" leases, that is for the leasing of high priced assets such as aircraft, plants, industrial installations, etc. For example, for the A \$ 115 million multi-currency arrangement to the Australian national airline, Qantas, to acquire two new Boeing 747 aircraft, twelve interlocking agreements for each aircraft were involved (55). "The lease structure was in three main parts: First, a syndicate of nine Japanese leasing companies purchased the airframes and extended a yen-based lease purchase facility to a purpose formed U.K. company. Second, this U.K. company purchased the Rolls Royce engines financed under an ECGD (British Export Credit Guaranty Department) backed export credit facility and' third, the complete aircraft was then sold to a partnership

of seven Australian banks and finance companies for leasing to Qantas" (55, p.57).

Still other problems exist though they are less important compared to the others discussed above. First of all, the governments of the developing countries would be concerned whether an increase of the cross-border flows supplement existing flows of domestic savings or simply displace other forms of investment (101, p.23). Second, the foreign lessors will be encountering foreign exchange risk. Also, operating in an international environment will bring such difficulties as cross-cultural and language barriers; moreover, different organizational requirements may be present. Additionally, there may not be available personnel experienced in the operations in such developing countries. Furthermore, at the home country of the lessor there may be obstacles-like ceilings on foreign investments, etc. which can limit lessors (101, p.23).

8.8. SUMMARY

Developing countries need financing of investment in capital equipment; however, they can not utilize enough financing from domestic and foreign sources. Financial (capital) leasing can take the form of finance to satisfy this need. As a matter of fact, it is currently seen in developing countries that the development finance is changing from outright credit to other forms of finance providing equity or equity-related services including leasing. In such

transactions, the lessor is in the position that is at least equal to that of a secured creditor; on the other hand, the lessee gets close to 100 percent financing, without need for high collateral or compensating balances.

As for the demand for capital equipment by the developing countries, it is observed that most of this need is satisfied through importation which can cover 15 to 50 percent of the total importation by these countries. Such a high demand can be successfully satisfied through leasing especially when there is a scarcity of funds to finance these imports. Through leasing, the developing countries have the following advantages:

- The transfer of financial and managerial services
- More efficient allocation of available sources
- Mobilization of available sources
- Decrease in the cost of funds

As a result, and particularly with the help of International Finance Corporation (IFC), leasing has been introduced in many developing countries of the world. IFC has been particularly helpful in the proper introduction of leasing into these markets by giving help to the governmental levels of these countries about the legal issues and helping them to develop legislation applicable to each nation's needs and existing legal structure. In their introduction, IFC's main premise is that leasing should not be at a disadvantage compared with other forms of finance.

Leasing in developing countries, thus introduced, takes the form of cross-border leasing first, and as the markets and intermediaries are developed, switches to transnational leasing which can be highly efficient. Operating through local entities of transnational networks, leasing companies can work without major difficulties and also certain risks thereby reducing their offer costs. Working with local networks or local entities, therefore, is more favorable for leasing companies.

While leasing companies favor to work in developing countries in the presence of risk at a possible minimum level, mostly with local networks incorporating subsidiaries, partnerships, etc., the most important reason for their willingness to work in such countries is the vast potential of leasing business. Even a small portion of total capital equipment demand in developing countries is of enough magnitude to interest a leasing company. Furthermore, since tax benefits of leasing are being decreased in the countries where big leasing companies reside, other markets which are not tax-driven are favorable for these experienced and sophisticated lessors. Cross-border leases can be favorable export alternatives for developing countries and, moreover, leasing is the most riskless way for companies (considering foreign direct investment in these developing countries) as compared to venture capital investments.

Opposed to these favorable advantages, there are several problems facing leasing companies which consider leasing equipment to developing countries. The major problem is on

the payment of lease debts of these countries which may default even for their other debts. Another problem is the unavoidably high amount of parties and transactions which result in higher costs thereby causing such operations suitable for large deals. There are also other problems of comparably minor importance such as foreign exchange risks, arising need to reorganize in undeveloped/inexperienced new markets.



9. LEASING IN TURKEY

9.0. INTRODUCTION

In this chapter, leasing practice in Turkey is studied considering the available law, legislation, and decrees for the practice. The first three sections are about the legislation, government incentives, and accounting and taxation aspects of leasing respectively. In section 9.4, current leasing practices in Turkey for domestic and international operations respectively are studied. The actual information and material flows for leasing operations are described and schematized along with the evaluation of this practice with its advantages and disadvantages. Some problems of the Turkish leasing industry are defined in section 9.4.4. To complement the information on the practice of leasing in Turkey, operating data for leasing transactions, types of leased equipment, lessees, and the lessors as obtained from the Undersecretariat Of Treasury And Foreign Trade are supplied. The last subject discussed in this section is about how Turkey can benefit from Islamic Development Bank funds by going into leasing arrangements.

9.1. LEASING LAW AND REGULATIONS

It may be suggested that leasing has not developed in Turkey due to several reasons including the unavailability of relevant legislation and regulations particular to this

field. On the other hand, it may also be suggested that there is no need for special laws and regulations for leasing to exist in the presence of the existing laws on trade, debt, commerce, and especially on taxation. As a matter of fact, in most Western countries where leasing is highly developed and on a mature stage now, there exists no specific laws regulating leasing transactions and operations. U.S.A., U.K., France, West Germany are examples for countries where there exist no specific laws and regulations on leasing (104, p.71).

Therefore, one is inclined to ask why a leasing law has been enacted in Turkey. There exists two separate reasons: First of all, since leasing is a new instrument for Turkey, it is not recognized and understood fully. The concept of leasing and its advantages should be clarified for which the enactment of the financial leasing law and regulations have been useful¹. Second, the legislation has been put into act so as to provide a trustful atmosphere for foreign leasing companies and investors through which foreign credit necessary for the capital equipment need of Turkey in the form of leasing can be obtained².

The financial leasing law, law no. 3226, has been enacted on 10 June 1985³ and has been the first of a series of regulatory framework concerning leasing. As stated in the

¹ According to (104, p.71).

² Yücel Ercan, "Finansal Kiralama(Leasing)", Banka Ve Ekonomik Yorumlar Dergisi, August 1985, pp.7-24 as cited in (104, p.71).

³ Published in the Official Gazette No.18795 dated 28 June 1985.

first article of the law, the purpose is to regulate financial leasing activities as a means of finance. The following regulation and decrees have also been announced closely after the enactment of the law:

- Regulation Regarding The Determination Of Periods And Limits For Financial Leasing Activities, Decree No. 85/9866⁴
- Regulation Regarding The Establishment Of Financial Leasing Companies, Opening Branches And Supervision Thereof⁴
- Regulation Regarding The Procedures And Principles Of Establishing Guarantees For Customs Taxes And Duties On Assets Subject To Financial Leasing Within The Context Of The Provisions Of Law No.3226 On Financial Leasing⁴
- General Communique Regarding Income Taxes, Serial No.146⁴

Also, within the body of the decree regarding investment incentives as determined by the State Planning Organization (SPO), prepared and published annually, financial leasing activities qualifying for incentives and the governing regulations are defined.

⁴ Published in the Official Gazette No.18882 dated 28 September 1985.

The name of the law itself defines that legislation is limited to regulating the financial leasing activities whereas for operating leasing transactions there has been anticipated no demand since, under the existing laws and regulations, such transactions can take place without any difficulties at all. Moreover, one of the main reasons for the enactment of the financial leasing law, the need to attract foreign companies to offer leasing in Turkey which will cover some part of the investment credit need for capital equipment, simply does not apply in the form of operating leases for the time being except for very large deals. The attraction to cross-border operations involve financial leasing activities generally whereas cross-border leasing transactions are uncommon except for commercial aircraft.

The main regulatory rules governing financial leasing activities in Turkey as collected from the above legislation and regulations are as listed below:

- Leasable goods can be either mobile or immobile however intangibles and industrial rights can not be subject to a leasing agreement. A lease pertaining movable assets must be registered within the domicile of the lessee; a lease pertaining immovable assets must be registered in the Land Register (where immovable property is registered), and leases for ships must be registered in the Ship Register.
- Lease payments may be fixed or variable; they may be in local currency (T.L.) or in any convertible foreign

currency acceptable by the Central Bank of Turkey. Minimum annual lease payments in cross-border leasing transactions can not be less than US \$ 25,000.

- All leases have a minimum term of four years during which they can not be cancelled with the following exceptions under which the early cancellation of the lease agreement or a lease period of less than four years when the leased asset

a) can be leased again on the termination of the first lease,

b) has a depreciable life of less than four years,

c) has a useful life of less than four years.

- The paid-in capital of a leasing company shall not be less than T.L. 1 billion. For foreign leasing companies to establish branch offices in Turkey, they must have a minimum paid-in capital in Turkish Liras equivalent to U.S. \$ 2 million. However, cross-border lease arrangements can be made directly between a foreign lessor and a local lessee.

- There are certain restrictions on the financial activities of the leasing companies. For example, the total liabilities of lessors can not exceed 15 times their equity. Total receivables of lessors in terms of lease payments from a single lessee can not exceed 25 percent of the lessor's equity. This ratio is 40 percent for activities in the sectors stated in the annual programmes

of the government's development plan, activities promoting exports and leasing activities for use in contracting services to be performed abroad. These ratios can be increased for sizable leases with the approval of the Undersecretariat Of Treasury And Foreign Trade (UTFT). However, any single sizable lease payment cannot exceed 75 percent of the total equity of the lessor and the total of lease payments for the lessor can not exceed 5 times its equity. Lease receivables secured by counter guarantees or letters of guarantee issued by banks with no shareholding in the lessor are excluded from these limitations. These limitations do not apply to leases with state or public sector authorities provided that approval from the UTFT has been obtained.

- The ownership of the asset reside with the lessor however the lessee is obliged to maintain the asset. The lessee can not transfer its possession right to other parties whereas the lessor can not transfer its ownership rights unless such a provision is covered in the lease agreement. It is the lessor's responsibility to insure the leased goods although the costs of insurance may be passed onto the lessee through mutual agreement.

9.2. INCENTIVES

There are several investment incentives granted by the Turkish Government for certain investment projects. Investment incentives are organized and coordinated by the

SPO which issues every year lists of geographical areas and economic sectors in which investment projects would qualify for incentives. These incentives include⁵

- exemption from customs tax,
- investment tax allowance (reduction in the tax base of the investor),
- financing from investment finance fund,
- reduction in the personal income of the employees of the investor,
- exemption from building permit fees,
- exemption from certain taxes, duties, and fees,
- allocation of foreign currency,
- deferment of value added taxes,
- investment incentive premiums,
- capital support premiums,
- incentive premiums to manufacturers of export goods.

In case an investor having an incentive certificate, covering some or all of the incentives mentioned above, decides to lease the equipment, machinery, vehicles, etc. to be utilized within the investment project, it is possible to transfer some or all of the investment incentives to the lessor.

This transfer is, however, only possible in the case of domestic leases where both the lessor and the lessee reside in Turkey. Even in such leases, not all of the investment

⁵ According to the latest regulations and decrees as published in the Official Gazette No.19986, dated 11 November 1988, pp.11 through 106.

incentives are applicable. Investment tax allowances (reduction in the tax base of the investor), one of the more important incentives, are not granted to lessees because, as investors, they will not be gaining title to the equipment and they can not include such equipment among their assets. Such tax benefits can be applicable for lessors, the owners of the asset. However, to qualify for such allowances, the assets must be brand new, except for aircraft and marine vessels (including dry docks). Providing a lessor has an incentive certificate, he can claim 30 to 100 percent of his expenditures in new equipment as a tax allowance; this tax allowance is deferrable so, without any taxable profits, the lessor can carry this allowance to the future.

For cross-border transactions where the lessor is a foreign leasing company, all of the investment incentives, except for customs tax exemption, disappear and this exemption is granted to the lessee. This exemption is subject to the presence of a purchase option in the lease agreement between the parties. In case such an option does not exist, still no customs taxes are paid but then the leased assets are considered to be imported temporarily; in case of a temporary importation, a letter of guaranty, covering the charge for customs taxes calculated as in the case of permanent importation, must be given to the customs office.

Under present regulations, investment projects involving highway transportation vehicles (including automobiles, pick-ups, lorries, trucks, utility vehicles, and buses, etc.), construction machinery, and yachts do not qualify for

investment incentives if they are financed through leasing. If financed in other ways, however, projects involving certain vehicles, construction machinery, and yachts can be qualified for investment incentives.

9.3. ACCOUNTING AND TAXATION

There are no accounting rules, specific to leasing, to be applied by the lessors and the lessees. Leasing companies, i.e. the lessors, keep their accounts in accordance with tax procedural law whereby the leased assets are recorded by the lessors as fixed assets and depreciated over their economic life using either a straight line or accelerated-depreciation method whereas the assets do not appear on the balance sheet of the lessors and there are no requirements to disclose such liabilities as footnotes. The lease payments remitted by the lessees are considered as expenses and deductible from the lessee's tax base. On the other hand, lease payments received by the lessors are recognized as income and subject to corporate taxes since they are generated by the lessors' assets appearing on their balance sheets and to which they hold legal title.

Regarding value added taxes, again no particular ruling is specified in the financial leasing law. However, in value added tax law, modified by law no.3297, it is stated in article 28 that the council of ministers are granted the right to reduce value added tax to be paid on leasing transactions up to 0 percent or increase this value up to

the legal limits. The Council of Ministers, exercising their right under this law, have set the value added tax (V.A.T.) on leasing transactions to 1 percent with their ruling no. 86/11217 of 29.11.1986. The ruling specifies that the leasing companies pay 1 percent of V.A.T. on assets delivered to them and charge 1 percent of V.A.T. for their leasing transactions. In case the assets to be leased by the leasing company are exported from abroad, the same limits are applicable.

If the lessee leases an asset from a lessor residing abroad (in the form of cross-border leasing), he then has to pay 1 percent V.A.T. on lease payments to the tax offices.

The above regulations specify the payment of V.A.T. but no explanation and/or ruling is present to define the payment of further V.A.T. in the case of a purchase option that is exercised by the lessee. Normally, at the end of a financial lease term, the title to the equipment passes to the lessee who exercises a purchase option and pays a very small amount which is only symbolic. Therefore, the V.A.T. for purchase should be paid on this base by the lessee, which will of course be a fraction of the symbolic payment and thus be minimal. On the other hand, in the V.A.T. law, it is stated in article 27 that in case a sale price for an asset is very low compared to its fair value, the fair value should be considered for the tax base. This will of course create a conflict and in case the lessee is asked to pay V.A.T. on the fair value of the asset, it means he will be double-taxed in terms of V.A.T. and he will have to pay a large sum

of tax on equipment on which there is no depreciation allowance left; therefore, leasing can lose some of its attractiveness as compared to outright purchase.

Another conflict is on the V.A.T. to be paid and received by manufacturers/suppliers of assets. Although they pay 10 to 15 percent of V.A.T. on their purchases of equipment, raw materials, etc., they are qualified to charge only 1 percent of V.A.T. to their customers in case these customers are leasing companies. Due to the nature of V.A.T., they have to bear the difference for a period of time till the government pays this difference; in a period where cost of capital is extremely high, this poses a burden onto the manufacturers/suppliers which thus become reluctant to sell to leasing companies.

The prospective lessors and lessees will also be confronted with a conflict in case of sale-leaseback arrangements. In sale-leaseback arrangements, as explained in section 2.3.2.1, a lessee sells an asset to a leasing company and then leases it back from the company who will become the lessor. The main stimulator for such an operation is the tax aspects of leasing. When an individual or corporation needs operating capital and has little or no tax base to pay taxes from, it can then be feasible to sell the asset to a leasing company who will use the depreciation tax allowance generated by it and reduce its tax base whereby reflecting some part of its gains to the lessee in the form of lowered payments. In Turkey, since no inflation accounting is used, an asset may be priced in the books at, for instance, 1/20th

of its fair market value owing to the high rate of inflation. Therefore, such an operation will create a twofold problem. If the lessee sells the asset at its fair market value, then, owing to the large difference between the book value and sales value, he has to pay a high sales tax. In case the lessor buys the asset at its book value, then there will be almost no gains from depreciating the asset and thus no agreement can be reached.

As can be seen from the above two examples, although leasing transactions seem simple and seem to require only a minimal regulation, the environmental conditions in Turkey necessitate comprehensive and practical regulations. Therefore, accounting and taxation laws and regulations should be modified to cover all aspects of leasing transactions on the side of the lessors, lessees, and third parties including manufacturer/suppliers.

9.4. CURRENT PRACTICE OF LEASING IN TURKEY

For the time being, leasing transactions under legislation control include only those of financial leasing type. Operating leases, although present in many forms, are not accounted for in the current legislation in Turkey. Therefore, only those transactions of financial leasing nature will be considered here. An important factor affecting the actual practice of financial leasing is the state allotment of investment incentives. Hence, in examining the financial leasing transactions, the cases will

be considered with and without the presence of an investment incentive certificate on the side of the lessee, and these transactions will be grouped for domestic and international operations. For international operations, no differentiation between cross-border leasing and transnational leasing transactions is made; this is due to the fact that in transnational leasing operations, there may be several different ways of transaction between the members of a network which can only be bound up by imagination within the framework of the governing legislation. Nevertheless, for the sake of description, such transactions can be considered to be a mix of both domestic and cross-border lease operations.

9.4.1. Domestic Leasing Practice

In domestic leasing transactions, both the lessor and the lessee abide in Turkey; the lessor should be a registered financial leasing company. The goods may be manufactured or produced in Turkey or they can be imported; similarly, the vendor may reside in Turkey or it may be a foreign company altogether. Other parties that can be present are the bank of the lessor, the bank of the lessee, the foreign counterparts of the lessor's and the lessee's bank, the SPO which grants the incentive certificate, the UTFT which approves and registers the leasing agreements and the customs office.

9.4.1.1. Domestic Leasing Without SPO Incentives

In the absence of incentives, three types of domestic leasing transactions, the last two one being almost the same, can be classified.

i) Domestic Vendor, Domestic Or Imported Equipment:

A prospective lessee first makes a sales agreement with a vendor of a domestic or imported equipment (in case of an imported equipment, customs taxes, duties, etc. are already paid by an importer or by the vendor); this agreement is concerned with the price, delivery conditions, etc. The prospective lessee, then asks for quotations from several leasing firms and after negotiations, makes leasing agreement. The lessor then makes an application to the UTFT for their approval and registration. Upon approval, the lessee submits a letter of guaranty to the lessor; this letter of guaranty may cover some or all the lease payments under the agreement and is subject to negotiation. No letter of guaranty may be issued if mutually agreed. The next step is for the lessor to buy the equipment from the vendor under the same conditions as agreed earlier between the lessee and the vendor; the equipment is delivered to the lessee directly. During the lease term, the lessee remits lease payments to the lessor and at the end of this term makes a symbolic payment and buys the equipment from the lessor; at this stage the equipment is fully amortized on the books of the lessor so a symbolic payment of T.L. 1,000 does not create serious problems.

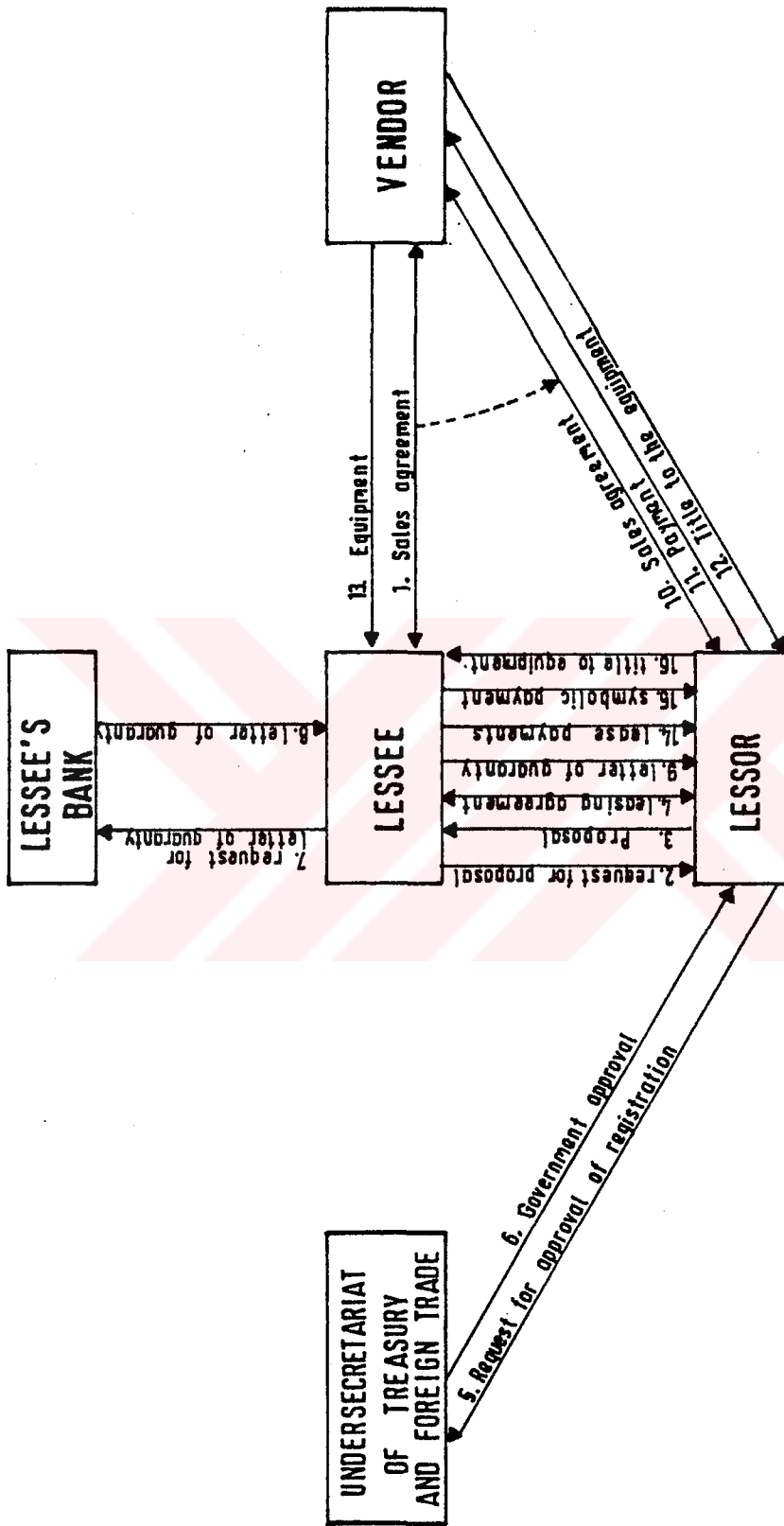


Figure 9.1-Domestic Leasing Without Incentives; Domestic Vendor, Domestic Or Imported Equipment (Section 9.4.1.1.1)

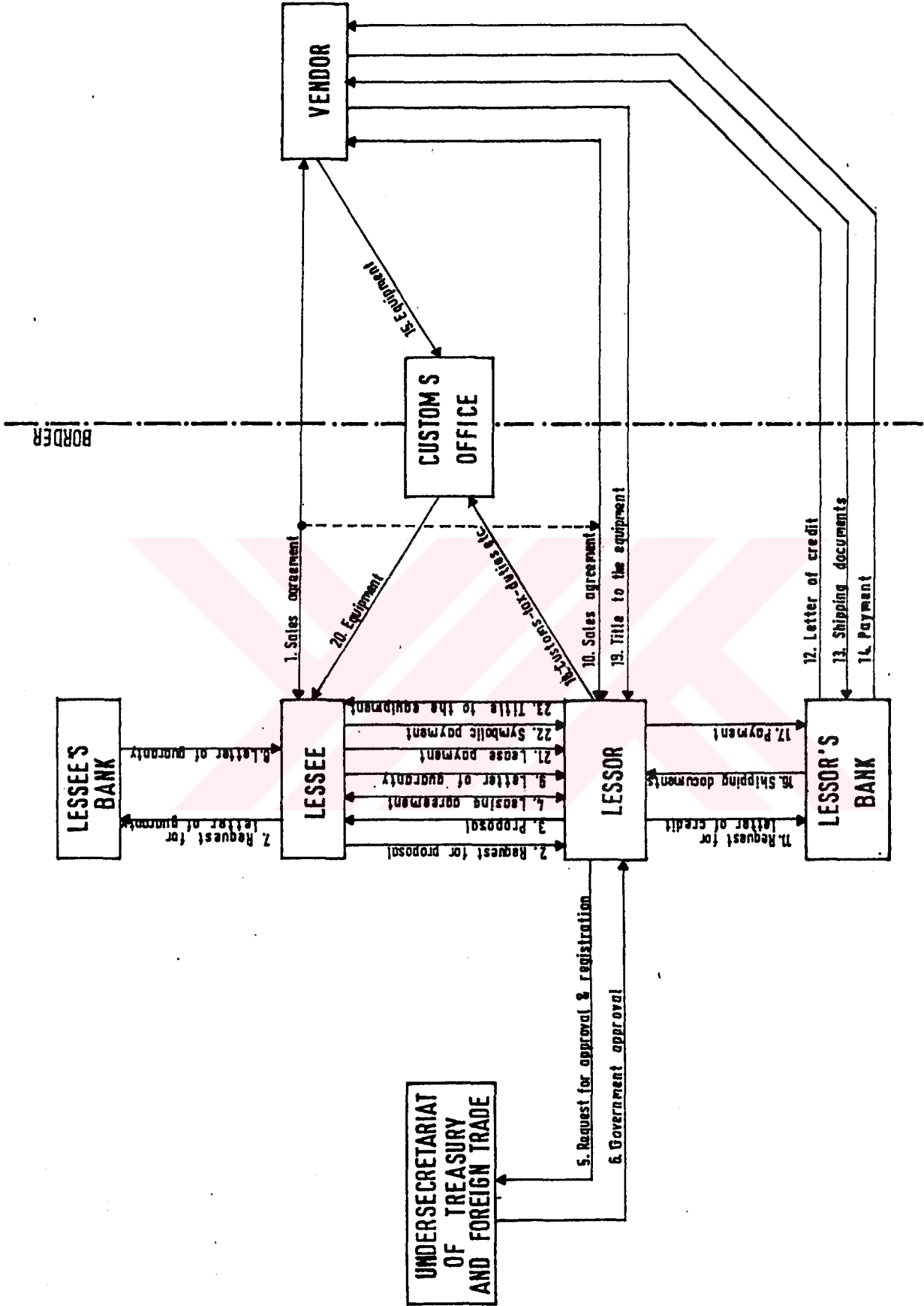


Figure 9.2-Domestic Leasing Without Incentives; Foreign Vendor, Imported Equipment, L/C From Domestic Bank (Section 9.4.1.1.ii)

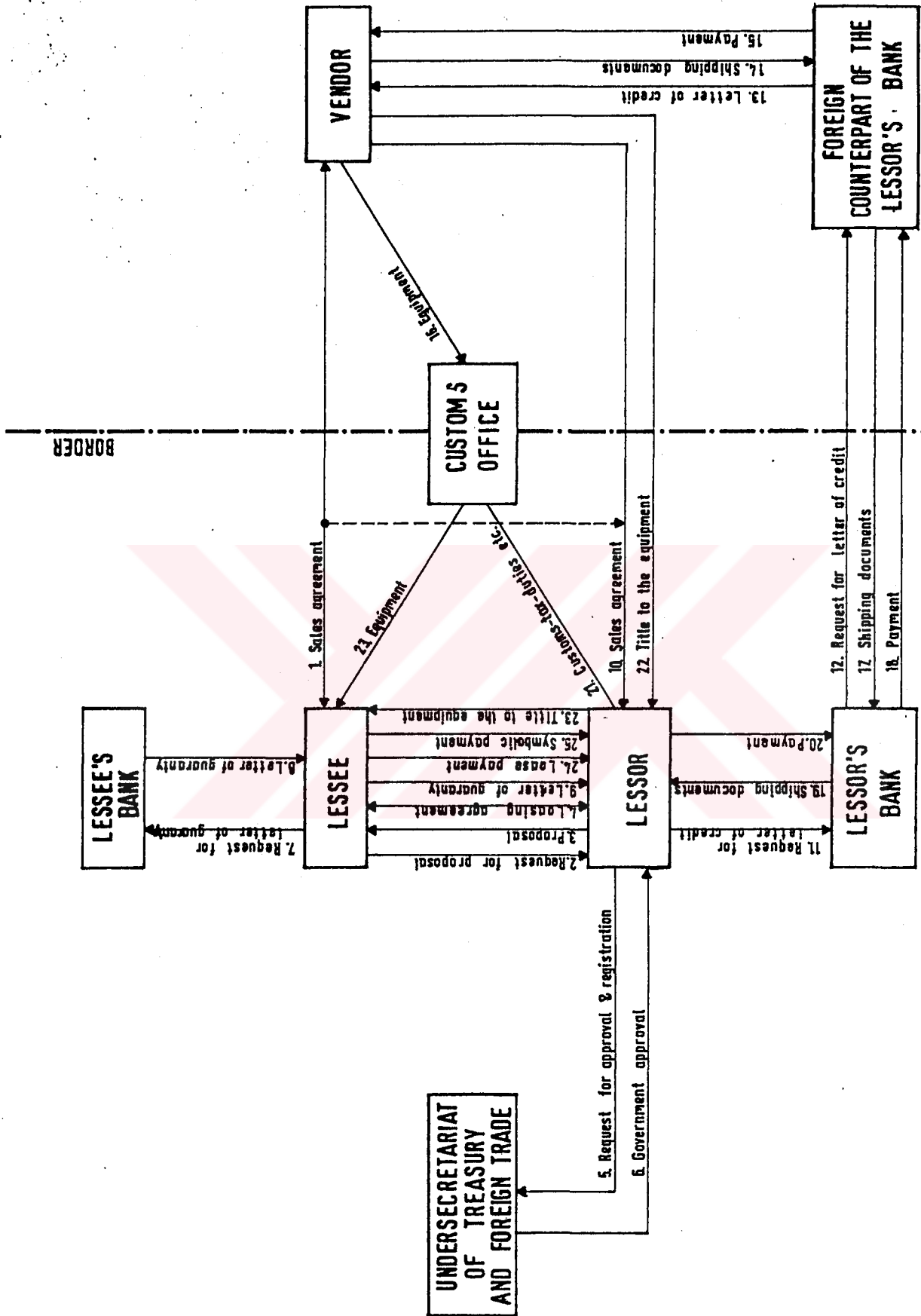


Figure 9.3-Domestic Leasing Without Incentives; Foreign Vendor, Imported Equipment, L/C From Foreign Bank (Section 9.4.1.1.iii)

ii) Foreign Vendor, Imported Equipment, L/C From Domestic Bank:

In such transactions, the equipment is imported from abroad by the lessor. Before the shipment of the equipment, the lessor's bank opens a letter of credit (L/C) in favor of the foreign vendor. When the equipment is shipped and after getting the shipping documents from the vendor, the bank makes the payment on behalf of the lessor. When the equipment arrives to Turkey, the lessor, having title to the equipment and using the shipping documents transferred by the bank, pays the necessary customs duties and taxes and the equipment is delivered to the lessee.

iii) Foreign Vendor, Imported Equipment, L/C From Foreign Bank:

If a foreign vendor does not accept a L/C of a domestic bank, then one more party is involved in the transaction, which is the foreign counterpart of the domestic bank. This bank may or may not be in the same country with the vendor; the important point is its acceptance by the vendor.

9.4.1.2. Domestic Leasing With SPO Incentives

If incentives are granted by the SPO, the transactions are similar to the case where no incentives are present with the addition of one more party to the transaction, the SPO. Again three types of transactions, the last two one being again almost the same, can be classified.

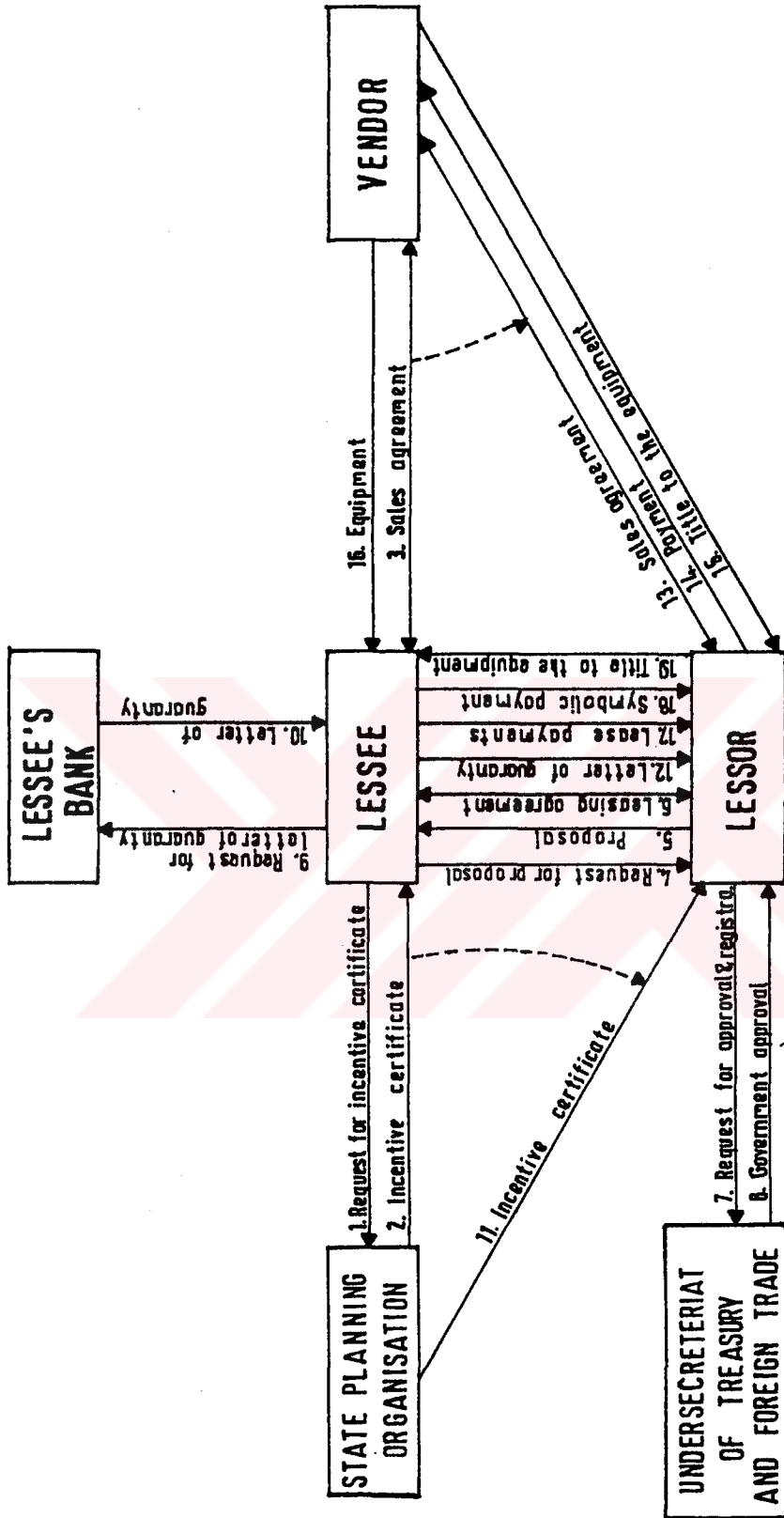


Figure 9.4-Domestic Leasing With Incentives; Domestic Vendor, Domestic Or Imported Equipment (Section 9.4.1.2.i)

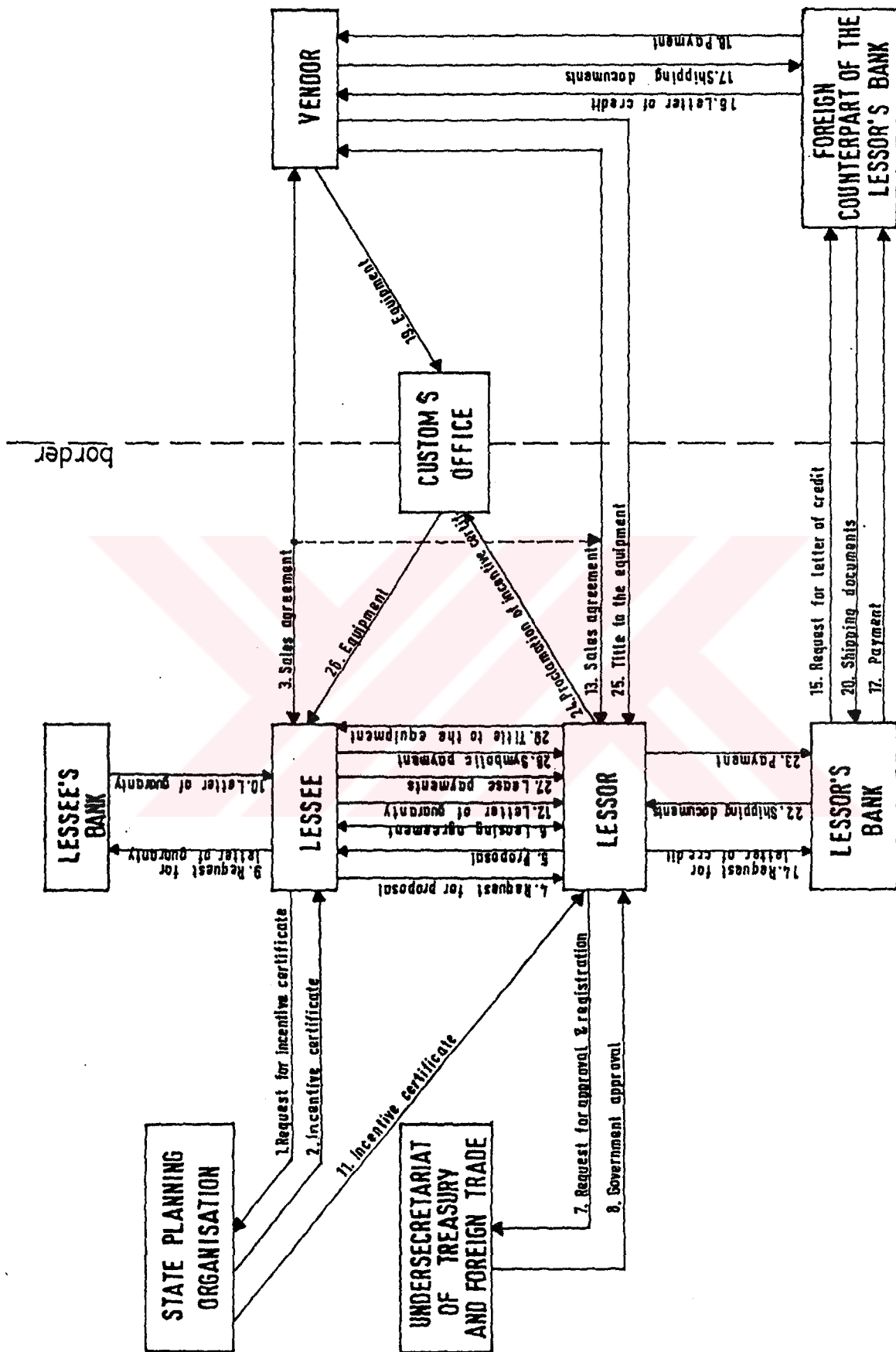


Figure 9.5-Domestic Leasing With Incentives; Foreign Vendor, Imported Equipment, L/C From Foreign Bank (Section 9.4.1.2.iii)

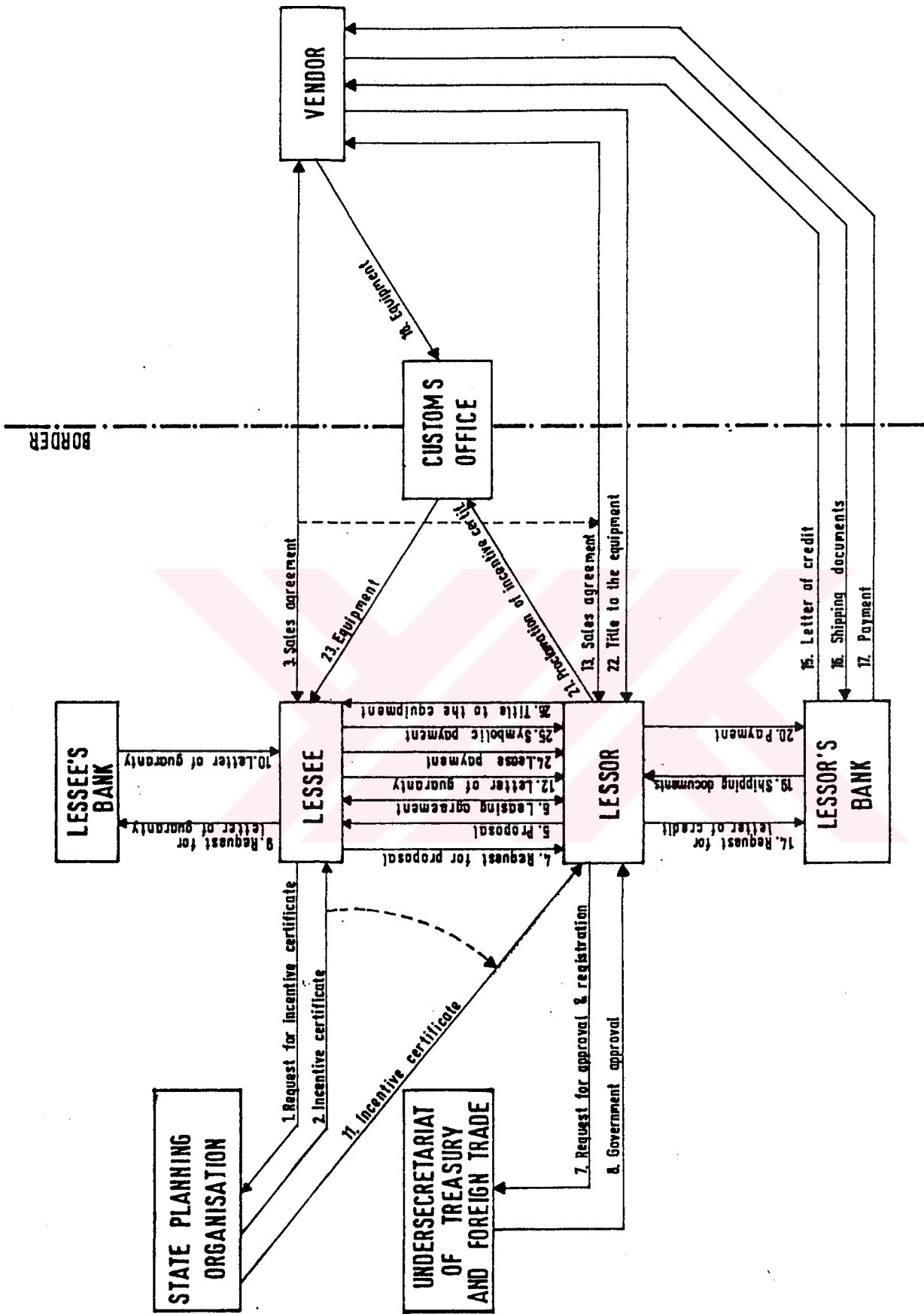


Figure 9.6-Domestic Leasing With Incentives;Foreign Vendor, Imported Equipment, L/C From Domestic Bank (Section 9.4.1.2.11)

i) Domestic Vendor, Domestic Or Imported Equipment:

In order to have an incentive certificate, the prospective lessee should be an investor in a field involving certain capital equipment and machinery. Having an incentive certificate will be more favorable to a lessee in that he can transfer these incentives to the lessor who can reflect this transfer to the lessee in the form of lower lease payments. As in the case without incentives, letter of guaranty is optional and subject to agreement between the lessee and the lessor.

ii) Foreign Vendor, Imported Equipment, L/C From Domestic Bank:

These transactions are almost the same as those transactions without incentives; due to the transfer of incentives from the lessee to the lessor, the lessor enjoys certain advantages which he may share with the lessee in the form of lower lease payments which may amount to less than the original cost of the equipment. A difference caused by the presence of the incentive certificate is that no customs taxes are paid but instead the equipment is cleared from the customs duty-free due to the right of customs tax exemption the incentive certificate provides for.

iii) Foreign Vendor, Imported Equipment, L/C From Domestic Bank:

Such transactions are also similar to those without any incentives; the only difference is the presence of the

incentive certificate which enables the transfer of the rights of the lessee to the lessor arising from the incentive certificate. Using the incentive certificate enables duty-free importation on the side of the lessor's bank (which may or may not reside in the same country with the vendor) is necessary to issue a L/C.

9.4.2. International Leasing Practice

As explained in section 9.2, the presence of incentives in cross-border transactions provide for only customs tax exemption on the side of the lessee. Apart from this difference, the presence of incentives do not affect the transactions; thus, such transactions with and without SPO incentives are essentially the same. If no incentives are granted, that is no tax-exemption is available, the equipment is considered to be imported on a temporary basis so the lessee should provide the customs office with a letter of guaranty amounting to the total amount of tax and duties that shall arise should these equipment be permanently imported. In case the lessee, gaining title to the equipment at the end of the lease term by paying a symbolic amount (i.e. exercising a "bargain-purchase option"), decides to continue to use the equipment in Turkey he, then, shall have to pay this amount and then can get his letter of guaranty back; in case he takes the equipment out of the country, still he shall be returned his letter of guaranty. The important advantage of the lessee in this transaction is the deferral of customs tax which is

initially fixed in Turkish Liras. Considering the high inflation rate in Turkey and the minimum lease term of four years which the leasing law calls for, it can be understood that such transactions can be beneficial to the lessees especially in heavily taxed import items. On the other hand, the lease payments are made in in foreign currency therefore this puts the lessee under foreign exchange risk which can be born by small lessees.

In addition to the 1 percent V.A.T. paid in all types of leasing transactions, the lessee should pay 5 percent withholding tax with each of his lease payments in cross-border transactions. An important restriction to note here is that lease payments should be at least U.S. \$ 25,000 annually for cross-border leasing transactions under the governing regulations.

In place of the letter of guaranty being submitted to the lessor covering some part of the lease payments in domestic leasing transactions, a lessee should provide the foreign lessor with a letter of guaranty covering the full amount of the lease payments in the form of foreign currency from a bank acceptable to the lessor. Many Turkish banks can issue a letter of guaranty that is acceptable to most of the foreign leasing firms; however, in case the bank of the lessee is not acceptable, an acceptable foreign counterpart of the bank should then issue the letter of guaranty.

In cross-border transactions, a prospective lessee can find a foreign leasing firm and proceed on his own to execute a

leasing agreement and carry out the requirements of this agreement; however, in most cases currently, most prospective lessees lack the expertise, sources, time, and means to find a foreign leasing firm willing to work with them in Turkey and carry out a leasing agreement. Therefore, brokers mostly do take part in such transactions; such brokers are experienced with these transactions and have a network of their own and therefore can successfully act as packagers to these cross-border transactions. As a result, although cross-border leases can be arranged directly between a foreign lessor and a local lessee, most cross-border deals until now have been arranged by domestic lessors, local brokers, and local branches of foreign banks in Turkey⁶ for a commission fee which is generally implicit in the lease rate. In this analysis of the transactions, therefore, an additional party brokers- are also considered. The foreign leasing firms currently active in cross-border transactions are not limited to banks; however, for practical purposes, in this analysis such leasing firms are considered to be commercial banks engaged in leasing on their own.

In the analysis, the cases with and without incentives as in the case of domestic leasing transactions are considered.

⁶ See, for example, *Asset Finance And Leasing Digest*, August 1987.

9.4.2.1. Cross-Border Leasing Without Incentives

The parties in such transactions are the local lessee, the lessee's bank, the UTFT, customs office, the Ministry Of Finance, the broker (which may be a brokerage firm, a domestic leasing firm, or a local branch of a foreign bank), the foreign vendor, the foreign leasing company (which is considered to be a bank itself so as to keep our analysis relatively simple), and, in case the lessee's bank is not acceptable to the lessor, a foreign counterpart of the lessee's bank. The foreign vendor, the leasing company, and the foreign counterpart of the lessee's bank can be in the same country or they can abide in different foreign countries.

i) Letter Of Guaranty Issued By A Domestic Bank:

A prospective lessee makes a sales agreement with a vendor of an equipment he needs to use; the equipment is to be imported from abroad in the case of outright purchase. The agreement is drawn regarding the cost of the equipment, delivery terms and conditions, etc. bearing in mind that the agreement shall exactly be transferred to the lessor in the future. The prospective lessee then asks for quotations from brokers (or, if he has the means and expertise, he may choose to contact the leasing firms directly) who act as agents of foreign leasing firms. The brokers supply the lessee with offer and a draft of the letter of guaranty that the lessor will require in case an agreement is executed. Agreeing on terms and the text of the letter of guaranty,

the lessee provides for this letter to cover the full amount of lease payments in foreign currency. After a letter of guaranty is issued and an agreement is signed, the lessee can then apply for the approval and registration of the UTFT. After approval, the lessee usually pays to the broker the administration fee which amounts to around 1 percent of the total cost of the equipment provided that his commission and fee are not already calculated for in the lease payments. Then, the lessor buys the equipment from the vendor which ships them directly to the lessee. In order to fulfill the requirements of temporary import regime, the lessee has to provide a further letter of guaranty, drawn in local currency T.L., which covers the total amount of customs taxes and duties of equipment should they be actually imported. This amount is calculated according to the local currency equivalent of the equipment cost on C.I.F. (Cost+Insurance+Freight) basis. During the lease term, lease payments are made to the lessor and a 5 percent withholding tax on each payment is remitted to the Ministry Of Finance. At the end of the lease term, if there is no bargain purchase option, the equipment is taken out of the country and the lessor can take his letter of guaranty from the customs office.

If the lessee decides to exercise a bargain purchase option, as usually is the case, he can buy the already fully amortized equipment at a symbolic price of, say, U.S. \$ 5. Being the legal owner, he can then take one of the following courses of action:

- Take the equipment out of the country to sell in foreign markets and get the letter of guaranty back from the customs office.
- Take the equipment out of the country to use in a project at hand in a foreign country, and get the letter of guaranty back from the customs office.
- Dump the equipment in the customs depot at no charge (in case the equipment is useless) and get the guaranty letter back from the customs office.
- Use the equipment in foreign countries or in a free trade zone in Turkey and get the guaranty letter back from the customs office.
- Pay the customs taxes and duties and import the equipment to Turkey on a permanent basis and get the guaranty letter back from the customs office.

Since, by law a lease term can be four years at the minimum and customs taxes are fixed at the date of temporary import in the local currency T.L., it is highly beneficial for a lessee to exercise the last course of action particularly for heavily taxed items if one considers the high inflation rates being experienced for the last decade within Turkey.

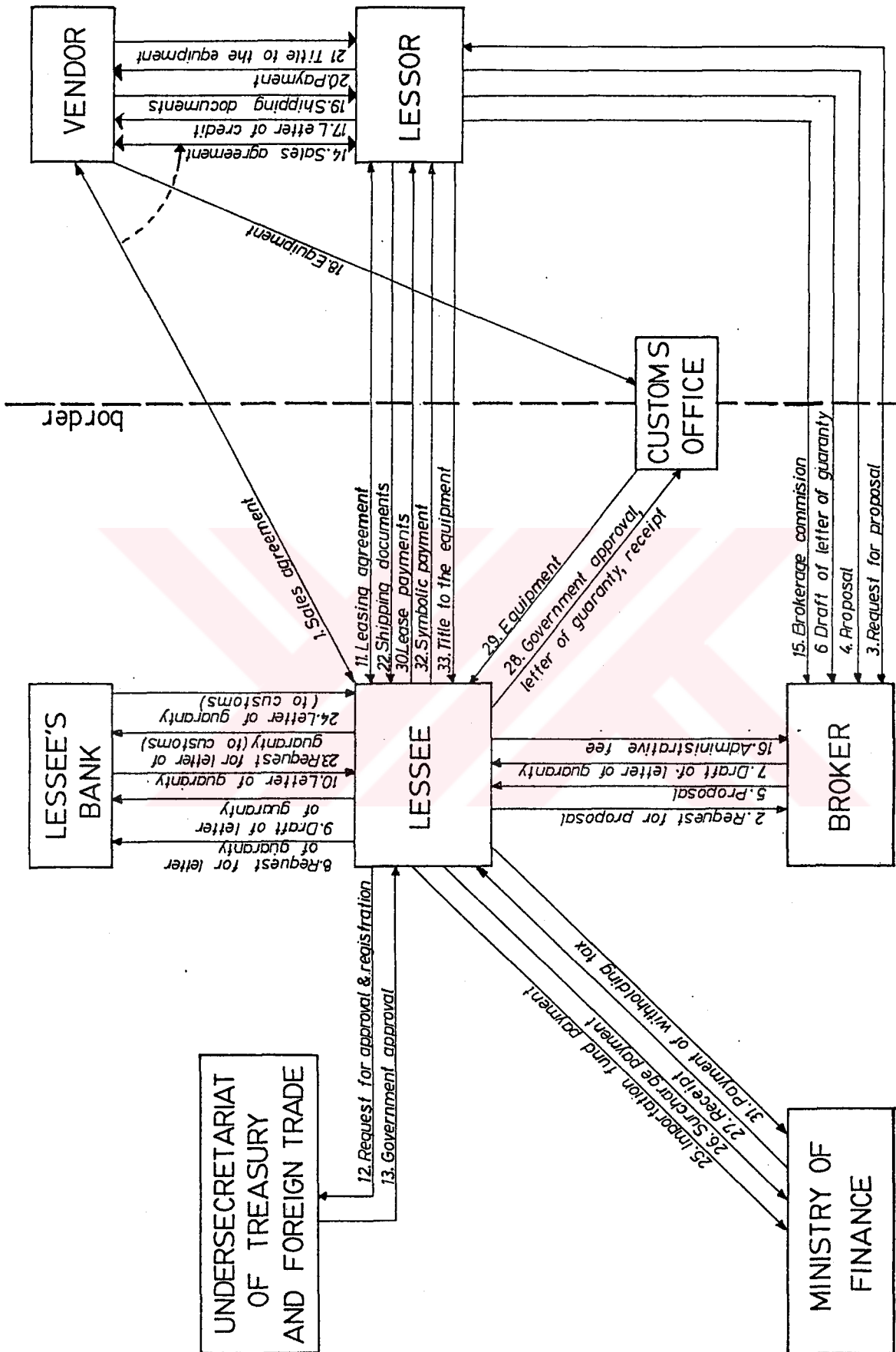


Figure 9.7-Cross-Border Leasing Without Incentives; Letter Of Guaranty Issued By A Domestic Bank (Section 9.4.2.1.i)

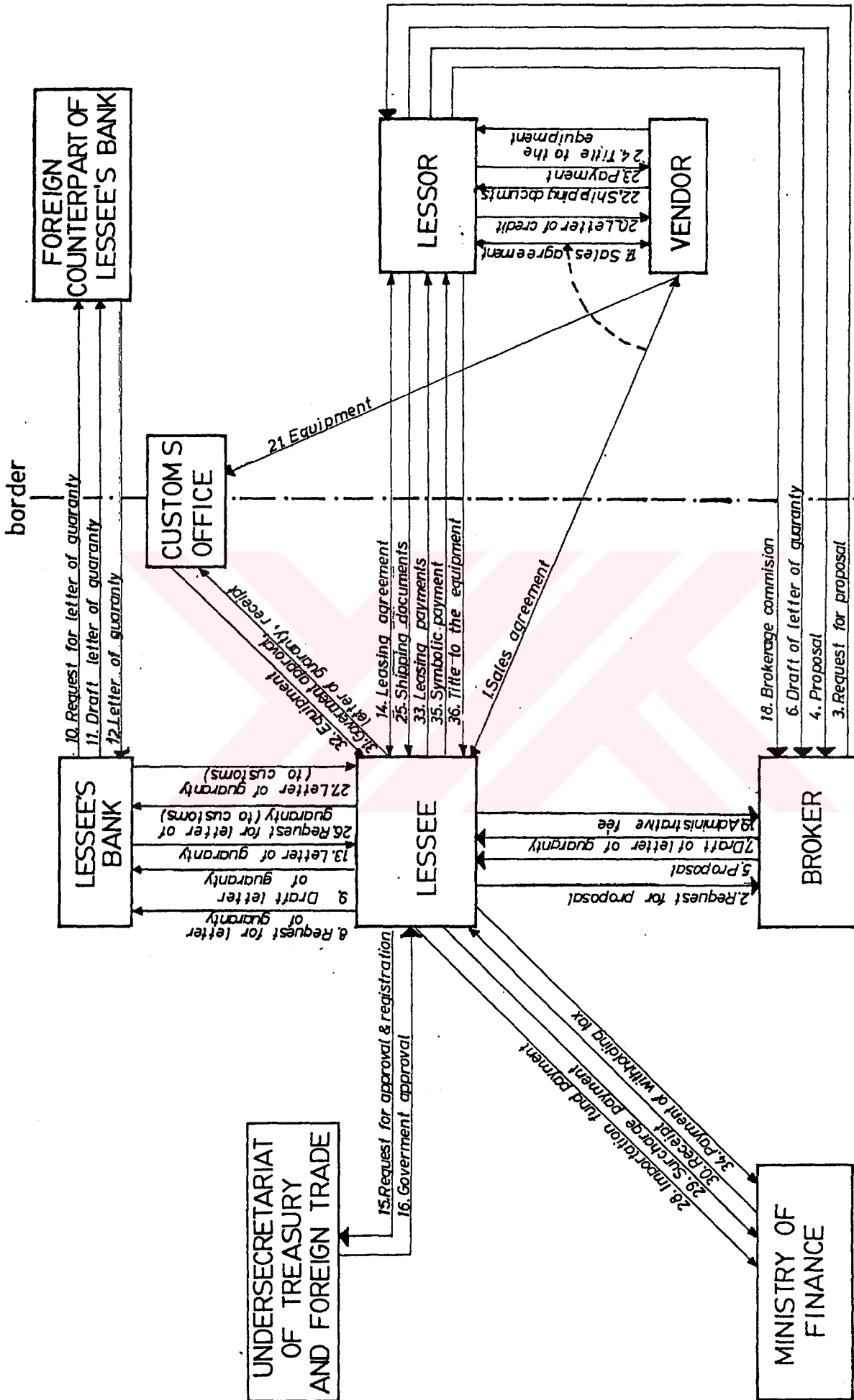


Figure 9.8-Cross-Border Leasing Without Incentives; Letter of Guaranty Issued By A Foreign Bank (Section 9.4.2.1.ii)

ii) Letter Of Guaranty Issued By A Foreign Bank

It is possible that a foreign leasing company may find the risk of the lessee's bank too high; in such a case, the letter of guaranty should be issued by a foreign counterpart of the lessee's bank which is acceptable to the lessor. Thus, one more party is involved in the transaction; the cost of the letter of guaranty increases and also this takes additional time within the overall transaction.

9.4.2.2. Cross-Border Leasing With Incentives

Considering those transactions without incentives, one more party is involved in the transactions. However, having an incentive certificate provides a lessee the right of customs tax exemption; therefore, no bank letter of guaranty needs to be given to the customs office.

i) Letter Of Guaranty Issued By A Domestic Bank:

This transaction is almost the same as that without incentives and differs only in customs tax exemption on the side of the lessee.

ii) Letter Of Guaranty Issued By A Foreign Bank:

This transaction is also similar to those transactions without incentives where the lessor does not accept a domestic bank's letter of guaranty; the only difference is the customs tax exemption on the side of the lessee through the incentive certificate issued by the SPO.

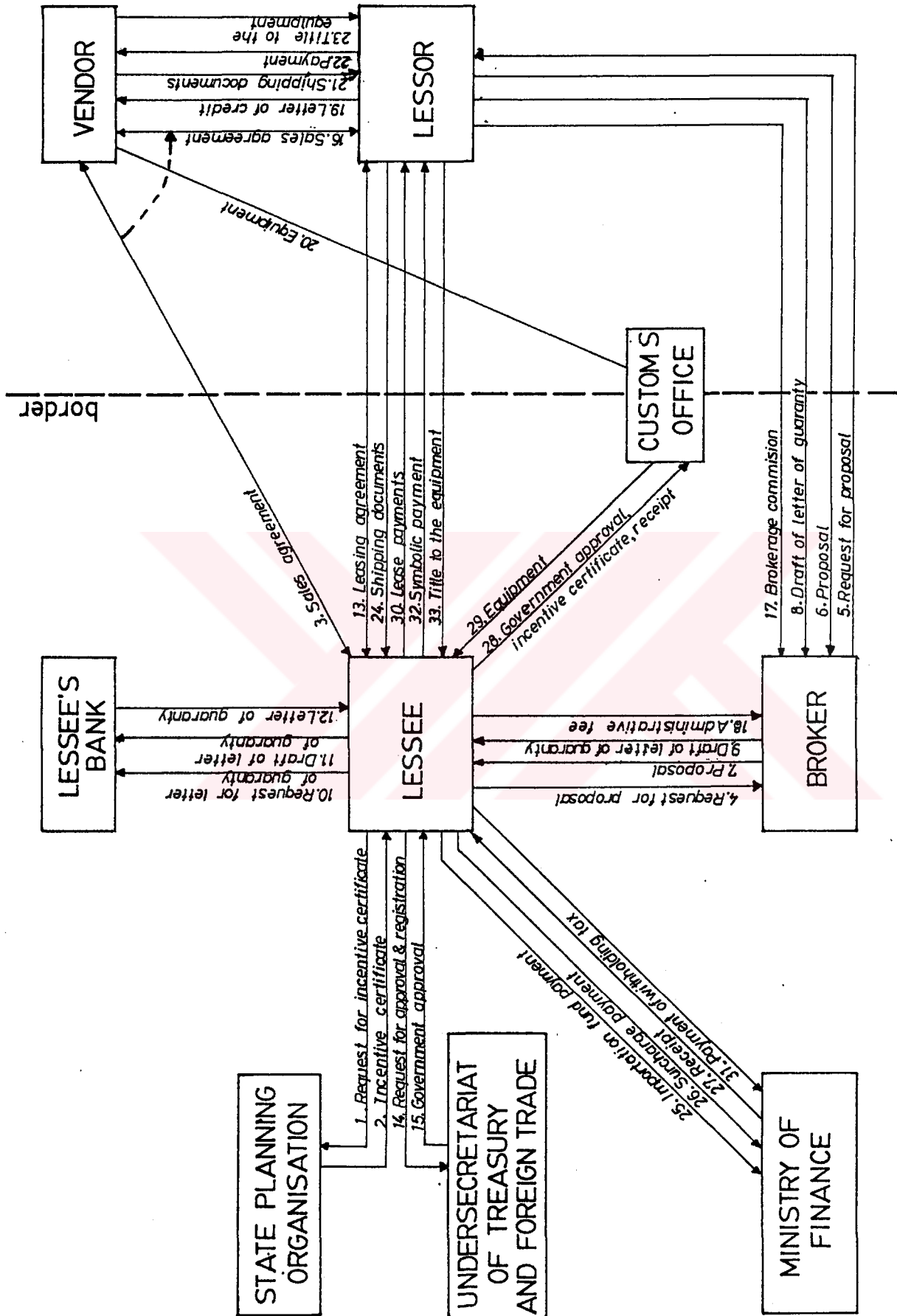


Figure 9.9—Cross-Border Leasing With Incentives; Letter Of Guaranties Issued By A Domestic Bank (Section 9.4.2.2.f)

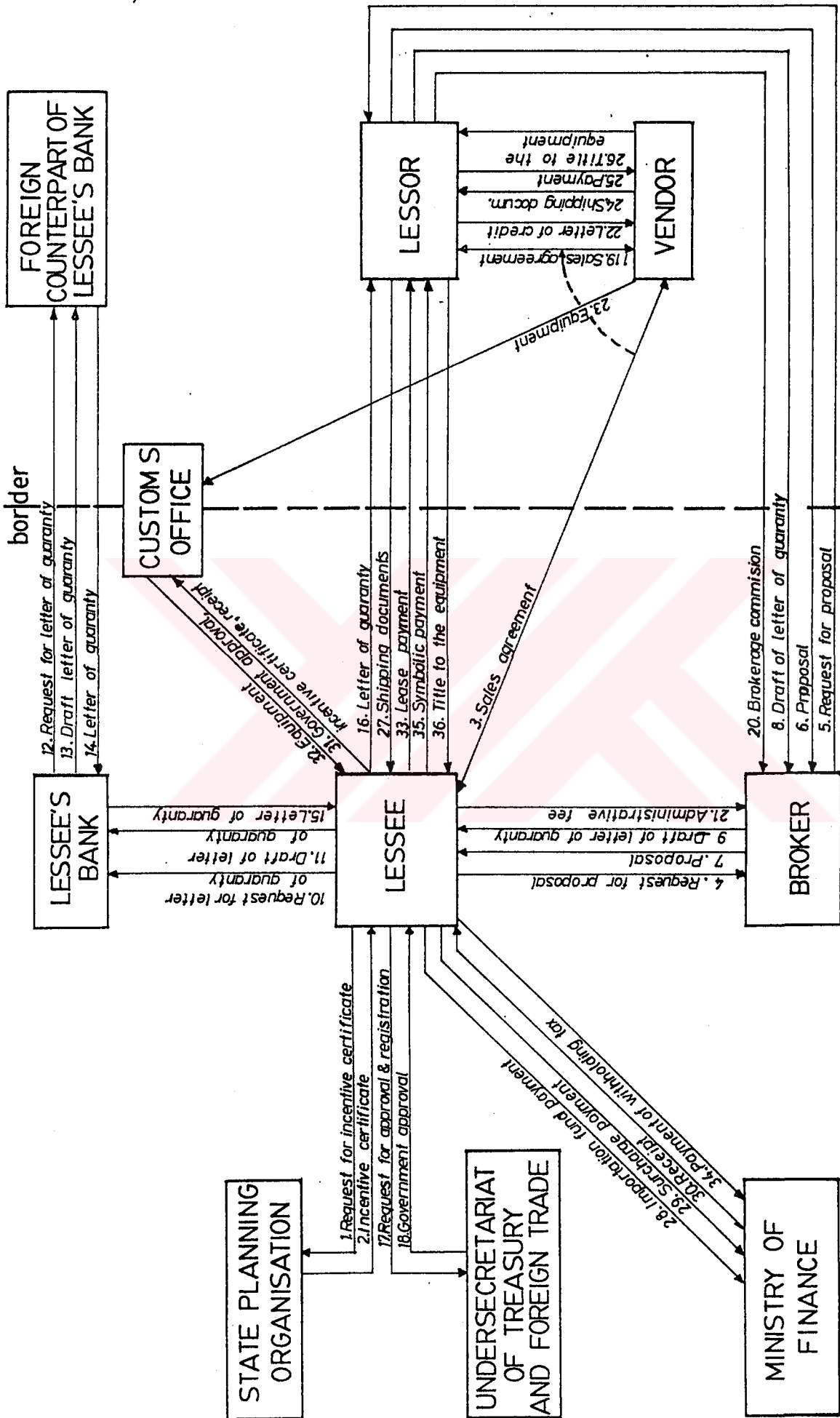


Figure 9.10-Cross-Border Leasing With Incentives; Letter Of Guaranty Issued By A Foreign Bank (Section 9.4.2.2.ii)

9.4.3. An Evaluation Of Leasing Practice In Turkey

When the reasons for the lessors and the lessees to engage in leasing transactions are considered, it is seen that there are several factors stimulating leasing and, ironically, the least important factor for the time being is the tax benefits gained through leasing.

The factors making leasing popular can be understood when one analyzes the system of leasing practice in Turkey. First of all, if a prospective lessee has an incentive certificate issued by SPO, this means he has access to the rights such as reduction of corporate taxes, the availability of different funds and rediscount facilities, customs and other tax exemptions, etc. as mentioned in section 9.2. By simply transferring these rights to a lessor, after executing a leasing agreement, the lessee can then enjoy lower overall prices for the equipment necessary for his investment which can alternatively be purchased with credit funding from banks; such funding is usually expensive and, moreover, the transfer of incentive rights to the lessor enables the lessee to have lower cost of funding since this transfer is reflected to the lessee in terms of lower effective interest rates, in other words, we may describe this as the purchase of the rights of lessee by a lessor. If the equipment is not locally manufactured and needs to be exported, the presence of customs tax exemption provides an important benefit on the side of the lessee. Another important benefit of the lessee in a domestic leasing scheme is the payment of lower value added taxes, a V.A.T. of 1 percent instead of the

usual 10-15 percent differing according to the type of the asset. In case an incentive certificate does not exist, most of these advantages disappear however; and the only advantage is the payment of lower value added taxes and the supply of a medium-term loan since the lease term should be at least four years under the governing law.

For cross-border leasing operations, the incentives provide for only customs tax exemption since, as the lessor is a foreign entity, the regulations see to it that no rights leak to abroad. In this case, the lessee has also the advantage of low value added taxes, again 1 percent, and also has a source of medium-term loan of at least four years; however, although having very low interest rates as compared to domestic leasing, since the lease payments are to be made in foreign currency, the lessee is confronted with foreign exchange risk that he alone has to bear. As a result, most lessees engaging in cross-border leasing transactions are those firms which expect at least some part of their revenues in hard currencies; examples are exporters, contractors engaging in international projects and airline companies. Also, it can be suggested that if one's income is to inflate not less than the overall inflation in the nation, he may also consider taking the foreign exchange risks. In cross-border operations, if the lessee does not have right to incentives, i.e. the customs tax exemption, he still has a great advantage regarding the customs taxes and importation funds since these taxes and funds are fixed in local currency T.L. and converted into a

letter of guaranty payable at the end of the lease term when the lessee decides to purchase the equipment and import it to Turkey on a permanent basis. This means that;

- a) all of the customs taxes, duties, and importation funds are deferred for a minimum period of four years, and
- b) by paying the customs taxes, duties, and importation funds already fixed in local currency at the beginning of lease term, the payment is reduced to a fraction of the original owing to the very high inflation rates in Turkey as have been mentioned before.

Although with such an operation the lessee pays some taxes as opposed to paying none with the availability of incentive certificate, the lessee has a great advantage because

- a) the incentive certificate is issued for only investment projects and these projects should also be approvable by the SPO whereas the lessee might want use the equipment in a project not approvable to the SPO to qualify for incentives, and
- b) there are no incentive certificates issued for

- highway transportation vehicles
- construction machinery
- yachts

which, therefore, can not be subject to the exemption of customs tax and duties whereas these are ideal types of equipment suitable for leasing.

There are some additional advantages of leasing from abroad but they are mostly marginal. For example, for highway transportation vehicle leasing across borders, the ownership of the vehicle remains abroad since no actual sale is made. When one considers the high taxes of vehicle sale-purchase especially on new items, the additional 12 percent vehicle purchase tax on new items, and some other taxes born when a vehicle sale-purchase is made in Turkey, it becomes evident that on micro-level, this is a great advantage for the lessee.

To recapitulate, the major factors of popularity of leasing among lessees are:

- the supply of medium-term loans from domestic or foreign sources,
- the reflection of the transfer of incentives in domestic leases,
- the reduced tax base of 1 percent on value added taxes,
- the presence of customs tax exemptions (with incentives),
- the right to defer customs taxes on import material if no exemptions are present in cross-border operations, and
- the normal tax benefits as enjoyed by lessees in leasing operations in general.

As for the lessee advantages, most of the factors as described in sections 3.2 and 3.3 may be applicable for foreign lessors offering cross-border leases to Turkey; also, as mentioned in section 8.6, there are additional advantages on the side of the foreign lessors to offer leases to developing countries. Concerning the local

lessors, however, only some of the advantages are present whereas the disadvantages are presented in the next section, 9.4.4.

For the time being, almost all of the domestic lessors are captive leasing companies of banks and, being so, we may consider these leasing companies as a diversification for these banks although leasing, as a financial instrument, is not a different field of operation but only a new one to be practiced in Turkey. Therefore, leasing, is actually a necessary part of the banks' full service packages since it fulfills the need of some of its customers while preventing other banks to work with their clients. Also, although relatively new, economies of scale in volume purchasing is important⁷; by arranging with local manufacturers, the domestic lessors can offer lower effective prices. This advantage goes along with the reduced V.A.T. of 1 percent on lease payments and enables the lessors to work with smaller companies which are not financially strong⁸. The most important advantage of the lessors is the transfer of incentives from lessees which enable them to reduce their corporate tax bases, etc. Also the classical tax advantages of leasing is enjoyable by the lessors. And one of the advantages is the ability to work with government units or non-profit organizations; since these organizations

⁷ For example, İŞGEN LEASING is actively operating to lease locally produced Renault automobiles which it buys on conditions of "fleet purchase" and thus can offer its customers relatively low prices.

⁸ For leasing of vehicles with purchase option to individuals however, the situation is completely different. Currently VOLKAN LEASING is active in leasing high-priced luxury cars; they have the advantage of lower purchase price from the manufacturer and coupled with lower V.A.T., the overall price difference is enough for many individuals to lease their cars rather than outright purchase.

generally have difficulties in maintaining budgets to cover purchase costs for all of their procurement, they can be highly interested in the asset acquirement alternative leasing can offer. So far, not many organizations have entered into such leasing agreements⁹ although the market volume may be very high when one considers the extreme example of the U.S.A. government's annual lease payments of U.S. \$ 1 billion and the American municipalities' annual lease payments of U.S. \$ 5 to 7 billion¹⁰.

Again to recapitulate, the major reasons for the domestic lessors to lease are:

- the necessity to complement their banking services with the new financial instrument (for lessor banks),
- the advantages of volume purchasing and high reduction of V.A.T. which saves operating cash,
- the transfer of incentives from lessees,
- the classical tax advantages of leasing, and
- the possibility of extending leasing services to government organizations, state enterprises, and others.

Despite these advantages, both domestic and cross-border leasing are still not known among potential lessees who look for other ways to finance their assets. Therefore, the forecasts may not be realistic¹¹ till the advantages of

⁹ Turkish Postal Telegraph Telephone Organization (P.T.T.) has arranged for a cross-border lease for telecommunications equipment amounting to around U.S. \$ 25 million. Please refer to section 9.4.5.

¹⁰ See section 6.1.

¹¹ For example, it has been estimated by İKTİSAT LEASING, the first Turkish leasing company set up under the new laws, the leasing volume should reach U.S. \$ 500 million in 1987 including both domestic and cross-

leasing are fully appreciated among a wider body of potential lessees. However, when the demand in Turkey for capital equipment from foreign sources (as given in section 8.2) is considered, the actual importation of these capital equipment amounting to about U.S. \$ 18 billion in 1981 alone can be a good support to Derek Roberts, General Manager Of iktisat Leasing in Turkey, who predicts that within eight to ten years leasing can provide up to 25 percent of Turkey's capital investments (103). Another striking estimate is that of John McCarthy, senior vice president of American Express and assistant general manager of Koç-Amerikan Bank, who believes that approximately U.S. \$ 1.5 billion worth of leasable goods are imported annually by Turkey's 250 largest companies (103).

After reviewing the reasons for the popularity of leasing in Turkey, lessor and lessee advantages and potential market for leasing, it is also useful to discuss the financial evaluation aspects of leasing in Turkey. Analyzing the main reasons why financial leasing exists in Turkey, it can be understood that financial evaluation techniques discussed in chapter 5 are not alone adequate yet for a correct interpretation of the pros and cons of leasing agreements. In domestic leasing transactions, the payment of only 1 percent V.A.T. is very important for organizations operating in various fields whereas it might not be so important for, e.g., general construction contractors who are continuously

border leasing operations with the latter accountable for the major portion. Although the cross-border operations really dominated, the leasing volume in 1986, 1987 and 1988 together have not reached to that amount but remained below U.S. \$ 300 million where cross-border operations amounted to about U.S. \$ 200 million. Refer section 9.4.5 for the details.

undertaking projects (of durations exceeding one year generally); starting some while completing some other, therefore, it is not very important for them since they get V.A.T. all the time from their clients for their services. The incentives are also differing for different organizations in different industry sectors; some entities can be found eligible for only some of the incentives whereas some others can benefit from the full incentive package; moreover, there are also some limitations on incentives specific to each entity depending on the type of investment, leverage ratio, location of the project, financial condition of the investor, etc. which make it difficult to generalize evaluation methods. For cross-border transactions, the evaluation of the effect of deferral of customs taxes, duties, and funds are difficult since their calculation base is different for each type of asset; also, foreign exchange risk is borne by the lessee which also is an issue of evaluation by itself alone.

Adding to these problems the continuously changing environmental conditions (as affected by modified regulations, new issues, etc.) due to the recent introduction of leasing in Turkey, the difficulty in generalizing financial lease evaluation can be better comprehended. And, of course, the major point of importance is what leasing brings to Turkish lessees, especially in cross-border transactions. As mentioned before, either domestic or foreign medium-term loans are almost non-existent and leasing can, sometimes be the only form of

credit a lessee has access to. Consequently, under these circumstances, it is best to analyze financial leasing alternatives, as compared to borrow-to-buy alternative, case by case, i.e. custom analyzes are necessary for the evaluation till the market is developed and uncertainties arising from changing laws and regulations are diminished as governmental solutions to lessor and lessee problems are defined and performed satisfactorily.

9.4.4. Some Problems Of Leasing In Turkey

Leasing, being a new financial instrument for Turkey, suffers from certain legislative rules and regulations and inadequacy of these regulations and rules on certain topics as discussed among Turkish bankers and lessors¹². These legislative complaints have been discussed in a conference in Istanbul attended by government officials including the undersecretary of the UTFT, and representatives from Turkish leasing industry on 15-16 March 1988. Government officials, being highly receptive to suggestions from these representatives as well as representatives from foreign leasing companies, have agreed to form a joint government/industry committee to work out the problems of leasing in the long run (103).

These problems should actually not be considered the lessors' problems but the Turkish leasing industry's

¹² See, for example, Emine Munyar, "Finansal Kiralamada Bekle-Gör Politikası", Dünya Gazetesi, 2 June 1986; Korkmaz İlkorur, "Finansal Kiralama Neden Çalışmıyor?", Dünya Gazetesi, 7-8 July 1987; and Selahattin Serbest, "Fonlama Sorunu Leasing'in Geleceğini Tehdit Ediyor", Dünya Gazetesi, 26 February 1988.

problems. Among such problems are complaints regarding legislation and regulations on the requirements for leasing companies, their disadvantages against other financial institutions, problems on taxation and accounting. Though there are many problems according to lessors, most of them are related to other legislation as well and not bound by financial leasing legislation only. We shall, therefore, try to identify some of the problems that are specific to only leasing practice in Turkey and will not try to find solutions altogether since this topic alone can be the subject of a dedicated study. Most of the problems that will be listed here are also subject to changes in the legislation like others and will be affected either positively or negatively by future changes in the legislation and introduction of new legislation. Thus, some of them may not be present in the near future especially after the study of joint government/industry committee is concluded and, therefore, these problems should not be separated from the others; however, since these problems have the most observable impact, it is decided to consider them alone to get a better understanding of current leasing practice in Turkey.

First of all, the lessors complain about funding problems for domestic leasing. Leasing companies have the following sources of funds: capital, bonds, retained earnings, and credits. Bonds can be considered as short-term funds because, in Turkey, the term can be for two-years. As for credits, it is almost impossible to have medium-term

credit¹³. The Turkish banking system is not willing to supply to long-term credits. The available data on Turkish banking system, the major source of medium to long term credit, suggests that total outstanding loans of banks have almost remained constant, in real terms, since 1980 whereas the contribution of medium to long-term credits in this total has declined¹⁴. This can also be said for Turkey's debt; while short-term foreign debt of Turkey has been increasing, medium-term foreign loans are decreasing in both absolute and relative terms¹⁵.

Attached to the funding problems is the disadvantage posed on leasing companies as compared to investment and development banks and special finance institutions. In Turkey, banks and other organizations by law can not engage in leasing, they have to form separate companies for this purpose. And such companies can not accept any deposits; this is unfortunate because leasing companies are, in essence, financial organizations. The disadvantage of these leasing companies is that investment and development banks and special finance institutions can operate in leasing field without having to form separate leasing companies; these investment and development banks and special finance institutions can accept deposits and can utilize rediscount credit facilities which are not applicable for pure leasing companies. Moreover, since the leasing ratios and limits for

¹³ Selahattin Serbest, *ibid.*, p.4.

¹⁴ World Leasing Yearbook-1988, Euromoney Publications PLC, London, 1988, p.248.

¹⁵ *ibid.*

these organizations are calculated according to their assets and with high leverage ratios, pure leasing companies with their relatively less capital used in leverage ratios are at a distinct disadvantage regarding limitations.

With the lack of sufficient funds from domestic sources, leasing companies may look for foreign credit some of which may be in the form of lease of equipment from abroad for further leasing to domestic leases. However, this is not allowed by legislation; that is, a financial leasing company can not lease assets that it has leased from abroad¹⁶. Allowing subleasing, which enables an overseas lessor to lease into a Turkish lessor which in turn leases on to the end user, may supply some of the funds necessary for the operating of the domestic leasing companies and, therefore, these companies complain so as to have government approval on such operations.

Still another problem specifically related to cross-border leasing operations is the 5 percent withholding tax on rentals to offshore lessors. In theory the lessor should pay this tax; however, like most cases including office rentals, the lessors do request that the lessees pay this tax by offering net lease payments free of any taxes or deductions. The requirement to pay 5 percent withholding taxes on all lease payments is heavily criticized by lessors which suggest that the withholding tax increases the lease rates in effect and thus decreases the attraction of a cross-

¹⁶ When equipment, which has been leased to a leasing company, is leased on a sub-lease basis to an end user, such a transaction is called "back to back leasing".

border lease's and thereby inflicts an unfair disadvantage on leasing operations. The application of withholding taxes is also conflicting with other legislation as well: According to ruling 84/7826 of the Turkish cabinet dated 8 March 1984, all deductions on the interest to be paid for credits obtained from foreign countries, international organizations, or foreign banks and institutions have been decreased to zero. Therefore, the withholding tax, if it should be applied at all, is applicable to only the repayment portion of the credit not to its interest. The withholding tax application on cross-border leasing operations has been ratified back in 1985; and it is expected that it shall be withdrawn in the future (103). Also, Turkey's treaties with some countries to prevent double taxation (such as Norway and Austria) can help in this respect since a tax-paying lessor in these countries can avoid paying Turkish corporate taxes on its revenues in Turkish operations by simply paying 5 percent withholding tax in Turkey.

There are also some other problems regarding the regulations. First of all, there is no separate regulation on accounting for leasing operations which pose some difficulties especially for lessees. Also, there is the still unsolved problem of V.A.T. A manufacturer/supplier pays 10 to 15 percent V.A.T. on equipment or materials he purchases for future sales whereas a lessor pays only 1 percent of V.A.T. on equipment he purchases for future leasing. This creates a conflict and since there are no

regulations governing such transactions, the manufacturer/suppliers are having trouble in obtaining the difference in V.A.T. from the government on time. Therefore, a regulation which solves the conflict on the difference in V.A.T. by refunding to the manufacturer/suppliers the V.A.T. difference immediately should be introduced. There is also a problem on the SPO incentives; the highway transportation vehicles, construction machinery, and yachts do not qualify for incentives if they are to be leased although these items of capital equipment are among the most suitable types of equipment for leasing. This disadvantage on leasing is unfair therefore the SPO regulations should be relieved somehow so as to make up for this disadvantage or eliminate it completely.

In addition, the lessors' complaints regarding a prospective lessee's financial standing evaluation can be considered. It is not possible to evaluate creditworthiness from raw and unaudited financial statements which, in Turkey, has six major areas of difference regarding conventional accounting practice (103). These differences are:

- no requirement to file consolidated accounts,
- no internationally recognized method of accounting for taxes,
- little in the way of bad-debt provisions,
- little acknowledgement of retained earnings,
- little use of generally accepted footnote disclosures, and
- no use of inflation accounting.

It is suggested that (103), the following are necessary for monitoring lessee creditworthiness: the preparation of

financial statements by the lessees according to the generally accepted accounting principles (GAAP); the inclusion of proforma debt of capitalized lease obligation in footnotes of financial statements to assess reasonable debt to equity ratios; an audit or limited review of lessees' GAAP accounts; and a continuing audit of the lessee throughout the life of the lease.

9.4.5. Current Market Structure For Leasing

Upon enactment of financial leasing law, a number of leasing companies have been established in Turkey. Moreover, since special finance institutions and development banks are also allowed to involve in leasing without having to set up separate leasing companies, some of these organizations have applied to UTFT to announce their intent to engage in leasing transactions. As of the end of November 1988, the domestic organizations given in Table 9.1 have been established and were either active or expected to operate in the near future¹⁷:

¹⁷ According to operational data obtained from Hazine ve Dış Ticaret Müsteğarlığı (UTFT), Banka ve Kambiyo Genel Müdürlüğü, Sermaye Dairesi Başkanlığı sources. All of the data to be presented herewith in section 9.4.5, have been compiled from this source at the beginning of December 1988 and reflect completed transactions as of November 1988.

Table 9.1

Domestic Leasing Companies In Turkey

Financial Leasing Companies And Other Organizations Qualified To Engage In The Leasing Transactions Under Existing Regulations & Laws	Established (Year)	Paid-In Capital (Billion TL)
1. Türkiye Sınai Kalkınma Bankası	1950	40
2. Al-Baraka Türk Özel Finans Kurumu A.Ş.	1985	10
3. İktisat Finansal Kiralama A.Ş.	1986	20
4. Yapı ve Kredi Finansal Kiralama A.Ş.	1987	5
5. Mengerler Finansal Kiralama A.Ş.	1987	4
6. Vakıf Finansal Kiralama	1988	8
7. İş Genel Finansal Kiralama A.Ş.	1988	3
8. Volkan Kiralama A.Ş.	1988	2
9. BNP-AK-DRESDNER Finansal Kiralama A.Ş.	-	2

Source: As compiled from data supplied by the UTFT in December 1988.

As can be seen, most of the leasing companies are either banks, captive companies of banks or group of banks, and special financial institutions in nature. The exceptions, on the other hand, are Mengerler Finansal Kiralama A.Ş. and Volkan Finansal Kiralama A.Ş., the former one is engaged in automotive products leasing and is a subsidiary of a

corporation active in production and import of these products; the latter is also one where this corporation has some participation and is engaged in the leasing of luxury cars for which the participant corporation is an exporter. The current situation suggests that pure leasing companies are yet to be established in Turkey, whereas the special finance institutions and captive leasing companies of banks will remain dominant till various problems, including funding problems for the leasing companies, are resolved in favor of lessors.

Although so many leasing companies exist for a very new market with its specific problems, the operating data given in Tables 9.2 and 9.3 suggests that the enactment of the financial leasing law has somewhat been useful in attracting foreign lessors to write cross-border leases to Turkey which has helped to finance certain capital equipment:

Table 9.2

Operating Data For Domestic Leasing Transactions

Operating Year	Number Of Transactions	Total Value Of Leased Equipment (T.L.)
1986	0	0.00
1987	177	7,780,796,523.00
1988	111	69,388,885,058.00
Total	288	77,169,681,581.00

Source: As adapted from data supplied by the UTFE in December 1988.

Table 9.3
Operating Data For Cross-Border Transactions

Operating Year	Number Of Transactions	Total Value Of U.S.\$ (*)	Leased Equipment T.L. (**)
1986	3	3,367,964.14	2,253,168,023.00
1987	14	55,812,063.72	47,328,630,000.00
1988	14	160,958,861.00	225,342,405,400.00
Total	31	220,138,888.88	274,924,203,423.00

(*) Calculated at the average cross-rate for each corresponding year
(**) Calculated at the average foreign exchange rate for each corresponding year

Source: As adapted from data supplied by the UTFE in December 1988.

The above data points out that cross-border leasing operations has been popular especially for "big-ticket" arrangements, i.e. leases incorporating equipment of high cost; however, due to the processing difficulties, the number of transactions are limited to a fraction of that for domestic transactions. The processing is not easy because of

- the lack of expertise and knowledge of Turkish lessees,
- the difficulties for Turkish lessees to provide the foreign lessors with acceptable guaranty,
- the hesitance of foreign lessors to enter into this new market full of risks,
- the inability of Turkish lessees to find foreign lessors to work with, and

- the difficulty of packaging a cross-border transaction due to the presence of linguistic barriers, cultural barriers, and the physical separation of parties.

Due to these reasons and difficulties, the number of cross-border transactions are limited whereas the value of leased assets are considerably high; the smallest cross-border leasing transaction has been in the range of U.S. \$ 250,000. Moreover, the law also specifies the minimum annual lease payments in cross-border operations to be U.S. \$ 25,000 thereby limiting the minimum value of equipment to be leased from abroad roughly to U.S. \$ 100,000. Nevertheless, the available data suggests that the total amount of capital equipment financed through cross-border leasing can be more than marginal and if the total can reach to expectations and forecasts¹⁸, it can be a major source of finance.

The countries through which cross-border leasing operations have been realized to date are limited; such transactions have been realized (as of November 1988) through countries like Japan, France, and Australia where leasing has developed to maturity and cross-border outflows are common. It may be expected that cross-border flows from these countries, which are highly active in cross-border leasing operations, will stimulate the already increasing demand in cross-border leasing. To date, countries from which such transactions have been realized are given in Table 9.4.

¹⁸ It has been estimated that more than U.S. \$ 1.5 billion worth of leasable equipment is imported to Turkey annually and expected that about 25 percent of all capital equipment can be financed through leasing in the coming decade (see section 9.4.5).

Table 9.4

Countries From Which Cross-Border Leases Were Arranged

Country	1986 (%)	1987 (%)	1988 (%)
Austria	23	--	--
Luxembourg	--	--	2
Netherlands	--	6	1
Romania	--	34	--
Switzerland	--	1	--
United Kingdom	77	7	1
U.S.A.	--	--	96
West Germany	--	52	--

Source: As adapted from data supplied by the UTF in December 1988.

A correct interpretation of the above data may be that no countries have specifically been dominant to date in providing assets to Turkey on a cross-border leasing basis and further developments should be considered to analyze such tendencies if they ever arise.

As for the lessees and leased assets, it is seen that the market is somewhat homogeneous for the customers involved whereas for the type of leased assets specific advantages do affect the current situation. The lessees come in from different sectors of the industry including manufacturing, construction, transportation, general trade, banking, etc. as well as government organizations. For example, Turkish Postal Telegraph Telephone Organization (PTT) has arranged for a cross-border leasing transaction involving U.S. \$ 25 million worth of telecommunications equipment including

digital telephone exchanges, microwave equipment (radio-link systems), and digital and analog multiplex equipment. The deal has been packaged by a local broker as in the most cases for cross-border transactions; mostly local brokers, local branches of foreign banks and local leasing companies act as packagers for such operations.

The assets subject to leasing agreements also belong to different industry sectors and somewhat homogeneous for domestic leasing transactions. However, in cross-border leasing transactions, advantages inherent in the regulations affects the type of assets leased. This situation is clearly seen when the distribution of asset types are tabulated accordingly as in Tables 9.5 and 9.6.

Table 9.5
Domestic Leasing Transactions - Asset Types

Type Of Asset	1986 (%)	1987 (%)	1988 (%)
Textiles And Publishing Machinery	0	21	9
Medical Equipment	0	9	0.5
Air Transportation Equipment	0	0	8
Highway Transportation Equipment And Vehicles	0	38	28
Computers, Office Equipment, And Electronics Equipment	0	17	1.5
Manufacturing Equipment	0	15	53

Source: As adapted from data supplied by the UTFT in December 1988.

Table 9.6

Cross-Border Leasing Transactions - Asset Types

Type Of Asset	1986 (%)	1987 (%)	1988 (%)
Textiles And Publishing Machinery	0	5	2
Medical Equipment	0	2	1
Air Transportation Equipment	0	33	39
Highway Transportation Equipment And Vehicles	0	0	54
Computers, Office Equipment, And Electronics Equipment	100	51	3
Manufacturing Equipment	0	9	1

Source: As adapted from data supplied by the UTFT in December 1988.

The above data for cross-border transactions is not enough alone to deduct any generalizations; however, it is seen that, first, aeroplanes have been financed through cross-border leasing as is also known publicly¹⁹ and, second, 1988 has been a year for the leasing of highway transportation equipment and vehicles, which include automobiles, buses, pick-ups, lorries, trucks, etc. for which high rates of customs duties and taxes, and importation funds are normally charged in case they are purchased outright and imported to Turkey. This is only logical since one of the major attractions of cross-border leasing operations is the

¹⁹ Such news are published in various Turkish magazines and newspapers, especially "Dünya Gazetesi", for which relevant issues are as listed in the Turkish bibliography as annexed to this text.

deferral of customs duties and taxes, and importation funds. Although it may be argued that through incentive certificates such equipment may be imported with tax exemptions, it is not such a big advantage especially for highway transportation vehicles since

- a) not every investment project can qualify for government incentives as granted by the SPO, and
- b) SPO is generally reluctant to approve the importation of highway transportation equipment and vehicles through the use of incentive rights even if they award the investor with government incentive certificate.

This second part is further strengthened by the SPO's disapproval to grant any incentives to leasing operations if they involve the leasing of highway transportation vehicles, construction machinery, and yachts as explained in the former sections of this chapter.

9.4.6. Utilization Of Islamic Development Bank Funds

In Islamic countries, monetary interest is replaced with "profit" for religious reasons. As monetary interest is prohibited, the normal gains are the profits made over investment and rentals are very popular which is true also for leasing. There are mainly two types of leasing realized by Islamic banks which are the same as operating leases²⁰

²⁰ The operating leases are called "icara kiralaması" in Islamic banking where the asset is purchased by the bank and leased to the lessor.

and financial leases²¹ (104, p.101). Thus, through leasing, a valuable source of funds can be tapped by the Turkish investors in capital equipment who can not get such funds from the Islamic banks by simply paying interest; the major source for such funds is the Islamic Development Bank (IDB) of which Turkey is a member.

The funds obtainable from the IDB may be substantial. For example, we may consider project financing of the IDB between 1976 and 1986 in various member countries. Of the total amount of U.S. \$ 1.97 billion of project financing, 35 % amounting to U.S. \$ 700 million were financed through leasing²². This excludes U.S. \$ 118.33 million approved for 12 leasing operations in different years which were subsequently cancelled. Assistance to less developed country members are not limited to project financing; a substantial part of the IDB foreign trade financing activities are directed towards these countries and the data given in Table 9.7 suggests that such assistance is indeed substantial among the financings of the IDB(105, p.68).

²¹ The financial leases are called "icara and iktina kiralaması" in Islamic banking where the asset is purchased by the bank and leased to the user who pays rent for a period at the end of which the title to the equipment is transferred from the bank to the user.

²² As adapted from (105, p.64).

Table 9.7

Financing In Less Developed IDB Member Countries (1976-1986)

	No.	Approved Amount (U.S.\$ billion)	% Of Total
Loans	53	300.76	52.0
Equity	17	71.93	22.1
Leasing	16	125.64	21.9
Total Projects	86	498.33	30.7
Technical Assistance	64	32.65	82.8
Total Ordinary Operations (T.O.O.)	150	530.98	51.9
Foreign Trade Financing Operations (F.T.F.O.)	115	1,253.57	27.5
T.O.O. and F.T.F.O.	265	1,784.55	28.7
Special Operations	17	85.78	49.9
Grand Total	282	1,870.33	29.4

Source: As adapted from (105, p.68).

Lease financing has been an important mode of financing for the IDB though its use has tended to decline a little in 1986 due to a shift in preference by some of the member countries for the installment sale mode of financing which is almost identical to lease financing (105, p.75). Nevertheless, the available data suggests that leasing has become an important mode of financing along with installment sale financing continuously increasing in amount and number of operations (105, p.78).

For Turkey, the IDB has been an important source of funds for the last decade. Total approvals of the IDB for the period 1977-1986 amounted to U.S. \$ 769.04 million for 50

projects/operations excluding two leasing operations amounting to U.S. \$ 25.46 million and one foreign trade financing operation amounting to U.S. \$ 190 million (105, pp.158-159); data for these operations are given in Table 9.8.

Table 9.8

IDB Financing Operations During 1977-1986

Type Of Financing	Number Of Projects	Amount Approved (U.S.\$ billion)
Loan	1	7.32
Equity	5	28.81
Leasing	12	133.34
Installment Sale	2	27.85
Sub-Total	20	197.32
Technical Assistance	1	3.93
Sub-Total	21	201.25
F.T.F.O.	29	567.79
Grand Total	50	769.04

Source: As adapted from (105, pp.158-159).

As can be seen, within the last decade, a total of U.S. \$ 133.34 million worth of capital equipment have been leased from IDB. Not considering one project which was first agreed for installment sale and then changed to leasing (amount: U.S. \$ 9.14 million), we can list the 12 leasing arrangements to Turkey made available with the IDB funds within the years between 1979-1986 as given in Table 9.9.

Table 9.9

IDB Funds To Turkey In The Form Of Leasing (1976-1986)

Turkish Lessee Organization	Amount Approved (U.S.\$ million)	Grace Period (Years)	Lease Term (Years)	Year Of Agreement
TÜMOSAN	11.50	2	5	1979
TESTAŞ	16.41	2	5	1980
TÜRKİYE CİMENTO SANAYİİ	6.34	2.5	8	1981
KUMAŞ	10.27	2.5	8	1982
TÜMOSAN	13.80	2.5	8	1984
TÜRK-LİBYA ORTAK NAKLIYE ŞİRKETİ	8.0	1	7	1984
HACETTEPE HASTAHANESİ	12.68	2	8	1984
DEŞİYAB	10.50	-	-	1984
İPRAŞ	15.70	2.5	10	1984
ORTADOĞU RULMAN	9.00	3	8	1985
ZİRAAT BANKASI	10.00	-	-	1986

Source: As compiled from (104, p.102) and (105).

The past leasing transactions between Turkey and the IDB has not covered a large volume. However, if we consider the past leasing operations of the IDB to member countries and the overall increase in the IDB lease financing within the last decade suggests that the funds from the IDB in the form of leasing can be increased to higher levels; the development of leasing in Turkey can be stimulating for the demand of funds from the IDB in the form of leasing in the near future

and such financing may account for an important portion of capital equipment investment into Turkey.

9.6. SUMMARY

Leasing is a relatively new financial instrument introduced in Turkey. Although operational leasing has existed in the past, new legislation has been necessary for the proper treatment of financial (capital) leases which have been non-existent until very recently. It is true that in developed countries there is no specific law dealing with leasing so there is actually no vital need; however, to introduce financial leasing which is not recognized or fully understood in Turkey and to provide a trustable atmosphere for foreign leasing companies and investors (through which it is hoped to obtain foreign credit in the form of leasing) to operate in Turkey.

Leasing can be the subject of government incentives if it is used for supplying the equipment needed in new investment projects; these incentives take the form of tax-deferral rights, tax exemptions, reductions in the tax bases, tax rebates, customs tax exemptions, etc.

Although leasing legislation and law has been introduced, certain points have yet to be clarified regarding accounting and taxation; the uncertainty in such a case affects the growth of leasing's popularity on the negative.

Today, in Turkey, leasing practice shows differences among domestic and international transactions. Domestic transactions are much easier to accomplish whereas cross-border operations are sophisticated and, as such, more suitable for large deals. The treatment is the same however, with the exception of whether incentives are available or not. In both cases, nevertheless, there are certain advantages of leasing, the major one being the supply of foreign credit on a medium term. The additional benefits, as supplied under the current rulings, such as customs duty exemptions in cross-border leases, lowered V.A.T. rates, etc. all affect favorably for leasing. Moreover, substantial funds from the resources of Islamic Development Bank can be utilized through leasing of capital equipment. Despite these advantages, leasing is not without problems; although only the lessors are complaining for the time being, these problems are the industry's problems not specific to lessees or lessors or manufacturer/lessors. Without providing any solutions to these problems, it would be optimistic to envisage any significant growth in the leasing industry.

The leasing industry is neither crowded nor complex currently; there are only nine domestic leasing companies active in Turkey whereas for cross-border lease transactions these companies as well as other specialized companies act as brokers/packagegers. The leased equipment comprise mainly of capital equipment whereas, the number of domestic leasing agreements are much more than cross-border leases. However, the monetary value of cross-border lease transactions are

very high comparably which is a sign that governmental expectations for foreign capital inflow through leasing rather than domestical operations' dominance have been realized.



10. A CASE EXAMPLE FOR LEASING IN TURKEY

10.0. INTRODUCTION

In this section, a case study of a cross-border leasing transaction to Turkey is analyzed.

10.1. CASE HIGHLIGHTS

EMTA Electrical-Mechanical Investment And Trade Co. Inc. is a general trade and contracting firm with T.L.12,000,000,000 paid-in capital; the head office is located in Ankara. It is specialized in general construction contracting and the trade, import, and export of low, medium, and high voltage electrical equipment and materials such as transformers, power cables, switchgear. For trade purposes, it operates four branch offices and sales stores in Ankara, Istanbul, Izmir, and Adana as well as a liaison office and sales depot in Sivas. As for contracting activities, low-voltage, medium-voltage, and high-voltage urban and rural electrification schemes, public and industrial lighting, highway lighting projects, power transmission lines, mechanical systems, general civil and structural works, infrastructural works for telecommunications, etc. are being realized by EMTA. The company is also involved in manufacturing of electrical equipment through its subsidiaries PANOSAN Co. Inc. and GEMTA Co. Inc. PANOSAN is active in the design and manufacture of electrical control

panels, metal clads and cubicles, and compensation panels whereas GEMTA is active in the design of electrical, electro-mechanic and electronic control systems, measuring and control devices as well switchgear and equipment.

Currently having on-going construction works in excess of U.S. \$ 25 million in 1988 with U.S. \$ 42 million undertaking for the coming year as of end of 1988, and with a realized revenue of T.L. 17 billion in 1987 and an expected one of T.L. 23 billion in 1988 from commercial activities and trading business, EMTA is experiencing steady growth in the latter field whereas contractual undertakings have been growing rapidly.

To fulfill the needs of their contractual obligations and, partly to change and complement its ageing machinery park and highway transportation vehicles including utility vehicles, pick-ups, lorries, and trucks, a study has been conducted to determine new vehicle need of the company which resulted in the pronounced demand of the equipment in Schedule 10.1.

Schedule 10.1

Demand For New Vehicles

1-Ton Pick-Up;Long Wheelbase; Normal Cargo Body;Diesel Engine.....	15 ea
1-Ton Pick-Up;Long Wheelbase; Flat-Deck Cargo Body;Diesel Engine.....	5 ea
2-Ton Lorry;Long Wheelbase; Single Rear Tyre;Diesel Engine.....	5 ea
2.5-Ton Lorry;Long Wheelbase; Double Rear Tyre;Diesel Engine.....	5 ea
3.5-Ton Truck;Long Wheelbase; Double Rear Tyre;Diesel Engine.....	5 ea
Utility Vehicle;4-Door Wagon; Long Wheelbase;Diesel Engine.....	4 ea
Utility Vehicle;2-Door Wagon; Short Wheelbase;Diesel Engine.....	15 ea
Micro-Bus;15-Seater;Diesel Engine.....	1 ea

At this stage, it was recognized that leasing could be a financing alternative for the acquirement of the subject equipment. Requesting for quotations from various manufacturers, it was determined in the initial evaluations that all the equipment should be obtained from a single supplier in order to have less service problems, certain advantages in the purchase of spare parts (like less stock), reaching to fleet-sales discounts specially offered by the suppliers/manufacturers while getting the whole fleet as a package at a certain time. Therefore, while considering the suppliers who can offer the full range of equipment, it was also emphasized that these equipment should have been used in the Turkish market with success. Consequently, a Japanese supplier, namely C. ITOH & CO., LTD., has been selected

after numerous negotiations for the supply of ISUZU brand vehicles at prices on a C.I.F.(Istanbul) basis as given in Schedule 10.2.

Schedule 10.2

ISUZU Equipment To Be Supplied BY C.ITOH & CO., LTD.

Item No.	Type And Model	Quantity	C.I.F. Price (Japanese Yens)
1	1-Ton Pick-Up TFR54H-MS	15 Units	14,161,500.--
2	1-Ton Pick-Up TFR54H-MF	5 Units	4,767,000.--
3	2-Ton Lorry NKR552-04	5 Units	6,456,500.--
4	2.5-Ton Lorry NKR555-04	5 Units	7,034,000.--
5	3.5-Ton Truck NPR595-04	5 Units	8,833,500.--
6	Utility Vehicle UBS55F-M27	4 Units	6,433,200.--
7	Utility Vehicle UBS55C-M51	15 Units	21,000,000.--
8	15-Seater Micro-Bus WFR53F-M62	1 Unit	1,483,800.--
Total :			J. Y. 70,169,500.--

Having selected and agreed on type, amount, and purchase price of the asset, it was then necessary to calculate customs duties, taxes, fees, and importation funds since

- no investment incentives were present and none can be hoped for the whole fleet in the case of outright purchase, and

- no incentives are granted for highway transportation vehicles and equipment in the case of leasing alternative.

Accordingly, the customs taxes, duties, fees, and importation funds are calculated as follows:

A:C.I.F. Price

B:Customs Tax; 40 % Of C.I.F. Price (A) For Highway Vehicles

C:Municipality Share; 15 % Of Customs Tax (B)

D:Stamps And Fees; 10 % Of C.I.F. Price (A)

E:Price Stabilization Incentive Fund; 10 % Of C.I.F. (A)

F:Housing Fund; Calculated % Of (B+C+D) As Below:

i)Pick-Ups, Lorries, Trucks, Buses

Housing Fund : 60 %

ii)Utility Vehicles, Automobiles

-Engine Displacement:Up To 1700 cc;Housing Fund : 30 %

-Engine Displacement:1700-2000 cc;Housing Fund : 100 %

-Engine Displacement:Over 2000 cc;Housing Fund : 200 %

G:Harbor Fees; 5 % Of (A+B+C+D+E+F)

H:Value Added Tax; 10 % Of (A+B+C+D+E+F+G)

When one calculates the relevant customs fees, duties, taxes, and importation funds, the results can be tabulated as given in Schedule 10.3.

Schedule 10.3

Current Customs Duties, Fees Taxes, Etc. To Be Calculated As
A Portion Of The C.I.F. Price (Applicable In Turkey)

Vehicle Type	C.I.F. Price	Customs Taxes, Fees, Duties, And Funds For Importation	V.A.T. (10 %)	Total Price
1. Pick-Ups, Lorries, Trucks, Buses, Etc.	A	1.0958A	0.2096A	2.3054A
2. Utility Vehicles, Automobiles				
-Up To 1700 cc	A	0.9194A	0.1919A	2.1113A
-1700-2000 cc	A	1.3310A	0.2331A	2.5641A
-Over 2000 cc	A	1.9190A	0.2919A	3.2109A

Accordingly, the vehicles to be acquired have the customs taxes, duties, importation funds, and v.a.t. as given in Schedule 10.4.

Schedule 10.4

Total Price Of ISUZU Equipment Considering The Customs Duties, Fees, Taxes, Importation Funds, And 10 % V.A.T.

Item No.	Price With Customs Taxes, Fees, Duties, And Importation Funds (Japanese Yens)	Total Price Including V.A.T. (Japanese Yens)
1	29,679,671.70	32,647,922.10
2	9,990,678.60	10,989,841.80
3	13,531,532.70	14,884,815.10
4	14,741,857.20	16,216,183.60
5	18,513,249.30	20,364,750.90
6	18,778,510.80	20,656,361.88
7	61,299,000.00	67,428,900.00
8	3,109,748.04	3,420,752.52
Total (J.Y.)		186,609,527.90

As can be seen, there is a high amount of tax to be paid in case of importation which amounts to J.Y. 116,440,027.90. As of November 1988, at the foreign exchange rate of T.L. 14 = J.Y. 1, these figures can be converted to Turkish Liras, T.L., as:

Original Cost Of Equipment	:	T.L. 982,373,000
Customs Taxes, Fees, Etc. And V.A.T.	:	T.L. 1,630,160,391
Total Cost Of Imported Equipment	:	T.L. 2,612,533,391

Considering the high taxes to be paid in case of importation of the vehicles, cross-border leasing which offers deferral of customs taxes and duties has been selected, as an attractive alternative, for further evaluation.

10.2. EVALUATION OF THE LEASING ALTERNATIVE

10.2.1. Disadvantages And Costs

The main disadvantage to the leasing alternative is the foreign exchange risk as the lease payments in cross-border transactions are to be made in "hard" currencies rather than the local currency, T.L. With this risk, a lessee is confronted with two contrary problems: On one side, he may prevent himself against this risk to a considerable level by making most of the lease payments in the initial periods of the lease term¹, provided that he has the financial capability to make such payments; in this case, however, the "medium-term loan" characteristic of leasing is gone. On the other hand, if the lessee chooses to pay evenly through the lease term, then he is faced with the foreign exchange risk. To determine this foreign exchange risk, there are various methods²; however, in this case, it can also be accounted for by simple judgement through viewing the increase in the value of foreign currency as reflected in the interest rates local banks offer³. With such a consideration, although it

¹ As explained in the former sections of this chapter, by law, the minimum annual lease payments in cross-border operations can not be less than U.S. \$ 25,000. Therefore, if a lessee decides to pay most of his debt obligation at once, he should still have to wait for three years for the end of the lease term and pay at least the minimum specified annual amounts.

² See, for example, (28), (52), and (99) for an account of this topic.

³ It can be speculated that, in theory, with no restrictions on the interest rates the banks offer, there will be a balance where a depositor is indifferent between keeping his money in hard currency (without any interest income) or depositing it in the bank in the local currency and he may be attracted to deposit in a bank by being offered a beneficial interest rate. In Turkey, with no restrictions on interest rates by the end of 1988, this has been realized considerably: The market pressure makes it necessary to adjust interest rates. In 1986, U.S. \$ 1 cost T.L. 670 (year average) and in 1987 the rate was increased to T.L. 850 which later increased to T.L. 1,400 in 1988 whereas the interest rates changed between 45 to 85 % to cover up for this increase (Such data are published quarterly by Turkish Central Bank).

may be conservative, it can be reckoned that for periods of 180 days to one year increases in foreign currency are similar to the increases in interest rates banks charge and offer, except for important changes and fluctuations in the short run. Thus, very roughly, there is merit in judging that in assuming foreign exchange risk, a lessee can consider himself to obtain a bank loan with a variable rate on a long term.

The costs of the operation to the lessee mainly originate from the bank letters of guaranty that he has to provide for the overseas lessor to guaranty his lease payments in hard currency and for the Turkish customs offices in the temporary import regime to cover the importation taxes, funds, etc. in case of permanent importation in the future. The first letter of guaranty to be issued in hard currency and payable to a foreign company is like extending medium-term loan from the viewpoint of the issuing bank and therefore considered risky; as a result, high rates of commission are involved. Moreover, since foreign companies do require this letter of guaranty not to assume Turkish risk, they do not accept directly the letters issued by Turkish banks and require them to be counter-guaranteed by foreign banks which is not always possible to arrange and is costly. As for the letter of guaranty to be submitted to the customs, the banks perceive very little risk since the equipment would be operated in Turkey and annual costs are about 1 % for such letters of guaranty.

10.2.2. Advantages And Benefits

The main advantage of leasing to EMTA, in this case when the medium-term credit facility is disregarded, is the customs-tax deferral, the decrease in V.A.T., and deferral or omission of some other taxes like vehicle purchase tax, additional purchase tax on new vehicles amounting to 12 % of the face value, environmental protection tax, etc.

The major benefit on the side of the lessee is the customs tax deferral because such taxes are substantial in imported vehicles in Turkey. With the very high inflation rates prevailing in Turkey, the savings would be significant whereas the equipment resale value (provided that EMTA buys the vehicles at the end of the lease term) would be very high if they can be sold at the same price the normally imported and used vehicles of the same category are sold.

10.2.3. Selection Of Period Of Lease Payments

As stated in 10.2.1, EMTA should first choose the period of lease payments throughout its lease term: Should it make as much of the lease payments as possible within the first few months or should it spread the payments over the lease term? As put before, the following factors affect this decision:

- Medium-term loan facility in the case of even payments through the lease term

- Less foreign exchange risk in the case of accelerated payments compressed in the initial phases of the lease term

- Difficulty in obtaining a letter of guaranty to guarantee the lease payments of the lessee to the lessor in foreign currency from a Turkish bank which also needs to be under guaranty by a foreign bank. This second guaranty is not easy to arrange since in guaranteeing such a letter for four years, a bank sees this as the same as extending a four year credit to Turkey which is uncommon for most of the foreign banks especially for such small amounts. Even they guarantee such a letter, they require very high commissions for such a small transaction. On the other hand, if payments are accelerated and most of them are payed within one year, the foreign banks do guarantee the letter of guaranty of a Turkish bank with reasonable commissions whereas the lessor may also accept the guaranty of the Turkish bank for such a short payment term.

In practice, EMTA has not been successful in obtaining a four year letter of guaranty additionally guaranteed by a foreign bank except for the payment of a very high combined commission of 8 % annually which has forced it to consider accelerated payment schemes.

Accelerated payment scheme is possible within the capabilities of EMTA since

- the general contracting activities do generate high monthly incomes during the whole year especially in construction seasons,
- the projects for which the vehicles are to be acquired will generate sufficient income and the company can still make profits in these projects even if the vehicles are leased (on an operational lease basis) from domestic sources with high rental fees as was the case for the company in the past two years, and
- the company's income inflates with general inflation since it is not involved in fixed-price contracts in the local currency but in semi-fixed-price contracts in various hard currencies (which can provide for price escalations in T.L. part and provides hard currency for the remaining portion) and in variable-price contracts (which can provide for price escalations) in the local currency;

i.e., in short, it is in financial capability of EMTA to make such payments. Here, it should be noted that EMTA does not consider the medium-term facility which leasing can offer but instead is interested in tax deferral rights only.

What is proposed by the lessor and accepted by EMTA is to make all lease payments in arrears in two-month periods in the first year except for the minimum annual payments of U.S. \$ 25,000 equivalent which has to be paid in the remaining three years of the lease term. Accordingly, the evaluation of the lease alternative against borrow-to-buy

alternative can be made. The lease payments were agreed as given in Schedule 10.5.

Schedule 10.5

Lease Payment Schedule For EMTA

January 1989.....	Shipment;No Payment	
February 1989.....	Customs Clearance;No Payment	
End Of February 1989.....	J.Y.	11,250,000
End Of April 1989.....	J.Y.	11,250,000
End Of June 1989.....	J.Y.	11,250,000
End Of August 1989.....	J.Y.	11,250,000
End Of October 1989.....	J.Y.	11,250,000
End Of December 1989.....	J.Y.	11,250,000
End Of October 1990.....	J.Y.	3,492,772
End Of October 1991.....	J.Y.	3,492,772
End Of October 1992.....	J.Y.	3,492,772
		<hr/>
	Total	J.Y. 77,977,416

10.3. FINANCIAL EVALUATION OF THE LEASING ALTERNATIVE

10.3.1. Financial Costs

The major financial cost in outright purchase is, of course, the purchasing cost. In the borrow-to-buy alternative, the financial cost thus becomes the credit interest rate a bank would charge for a credit EMTA could use to buy the equipment. In the lease alternative, on the other hand, increase in foreign currency has been judged in section 10.2.1 to be compatible to that of local bank interest rates. According to the extended MDB model as explained in

Chapter 5, it can be considered that financial burden of the initial payment for the purchase alternative to be offset by the financial burden of lease payments. Of course, this is a very conservative approach on the side of leasing since for the leasing alternative there are no customs taxes, etc. whereas for the purchase alternative there are high taxes which should be paid amounting to more than the taxless purchase of the equipment. As for the discounting of the lease payments, no discounting in the future cash outflow is made for the analysis since it is assumed that bank interest rates are compatible to cover for increases in the foreign currency; this is also a conservative treatment on the side of leasing since the model calls for discounting at the after tax interest rate or at the cost of capital. Therefore, in the leasing alternative, the cash outflows will be the lease payments and the costs of the bank letters of guaranty. For the letter of guaranty to be supplied to the lessor, the effective duration of the letter will be one-year since most of the payments to be guaranteed are to be made within the first year; therefore, the foreign lessor accepts the letter of the lessee's local bank. Therefore, no charges except for the local bank's commission are incurred; this charge is a flat 3 % of the letter amount, i.e. the commission is paid for only once. As for the letter of guaranty to be submitted to the Turkish customs office, the commission rate is an annual of 1 % of the letter amount. These commission rates have been negotiated with EMTA financial executives and the bank and are fixed; they are

tax-deductible for EMTA, i.e. EMTA can show these commission fees as expenses and deduct them from its tax base.

The letter of guaranty to be supplied to the lessor will amount to J.Y. 77,977,416 and therefore the bank commission fee will be J.Y. 2,339,323 which is equal to T.L. 32,750,522 as of November 1988. As for the letter of guaranty the lessee has to supply to the customs within temporary import regime, all taxes, duties, fees, and funds except for V.A.T. need to be covered. This amounts to J.Y. 99,474,748.34 and is fixed in total currency which makes T.L. 1,392,646,477 as of November 1988. Therefore, the annual commission is fixed, i.e. even the fourth annual bank commission for the letter of guaranty will amount to this figure without any correction for inflation; therefore, the amount to be paid to the bank will be lowered in reality.

10.3.2. Other Costs - Outright Purchase

The costs incurred in the case of outright purchase involves the following costs in addition to the purchasing price of the vehicles:

- V.A.T. (paid during importation)
- Vehicle Purchase Tax
- Additional Vehicle Purchase Tax
- Environmental Protection Fund

The vehicle purchase tax differs according to the type and age of a vehicle⁴ and can be tabulated in summary as in Schedule 10.6.

Schedule 10.6

Applicable Vehicle Purchase Taxes

Type Of Vehicle	Seating Capacity	Vehicle Carrying Weight (KG)	Carrying Capacity (KG)	EMTA Item No.	Vehicle Purchase Tax To Be Paid (Turkish Liras)	
					Age (In Years)	
					1	4-5
Utility Vehicles	N/A	1201	N/A	7	3,150,000	1,075,000
	N/A	1600	N/A	7	3,150,000	1,075,000
	N/A	1601	N/A	7	3,150,000	1,075,000
Pick-Ups	N/A	1800	N/A	6	4,500,000	2,250,000
	N/A	1800	N/A	6	4,500,000	2,250,000
Lorries Trucks	N/A	N/A	1500	1	500,000	220,000
	N/A	N/A	3500	2	500,000	220,000
	N/A	N/A	3500	3	500,000	220,000
	N/A	N/A	3500	4	500,000	220,000
	N/A	N/A	3500	5	500,000	220,000
Buses	Up To 15	N/A	3500	8	500,000	220,000

The additional vehicle purchase tax is calculated as 12 % of vehicle price (excluding V.A.T.) for utility vehicles, automobiles and as 6 % of vehicle price (excluding V.A.T.) for buses and minibuses.

The environmental protection fund is calculated as 25 % of the vehicle purchase tax and is applicable to all sorts of vehicles.

⁴ As published in the Official Gazette No.19858 dated 30 June 1988, pp.6-16. It should be noted that within Turkey's unsettled tax systems, the tax rates are continuously changing.

10.3.3. Other Costs - Financial Leasing

The costs in addition to the financial costs of the two letters of guaranty and lease payments can be listed as follows in a chronological order:

- Bank commission for letter of guaranty to be supplied to the lessor
- Withholding tax
- V.A.T. (on lease payments)
- Payment of customs taxes, duties, fees, and importation fund as fixed in T.L. by the letter of guaranty
- V.A.T. (to be paid for the purchased vehicle)
- Vehicle purchase tax (to be paid for the purchased vehicle)
- Additional vehicle purchase tax (to be paid for the purchased vehicle)
- Environmental protection fund (to be paid for the purchased vehicle)

The last four items shall be paid according to the sales price and age of the vehicles and relevant rates of tax as given in 10.3.2.

10.3.4. Overall Cost-Outright Purchase vs Financial Leasing

The total price to be paid immediately by EMTA if an outright purchase is made will be as calculated in Schedule 10.7.

Schedule 10.7

Outright Purchase Costs To EMTA

ITEM NO.	PURCHASE PRICE INCLUDING V.A.T. (T.L.)	VEHICLE PURCHASE TAX (T.L.)	ADDITIONAL VEHICLE PURCHASE TAX (T.L.)	ENVIRONMENTAL PROTECTION FUND (T.L.)	TOTAL PRICE (T.L.)
1	457,070,909.40	7,500,000.00	49,861,847.62	1,875,000.00	516,307,757.02
2	153,857,785.20	2,500,000.00	16,784,340.05	625,000.00	173,767,125.25
3	208,387,411.40	2,500,000.00	22,732,974.94	625,000.00	234,245,386.34
4	227,026,570.40	2,500,000.00	24,766,320.10	625,000.00	254,917,890.50
5	285,106,512.60	2,500,000.00	31,102,258.82	625,000.00	319,333,771.42
6	289,189,066.32	18,000,000.00	31,547,898.14	4,500,000.00	343,236,964.46
7	944,004,600.00	67,500,000.00	102,982,320.00	16,875,000.00	1,131,361,920.00
8	47,890,535.28	500,000.00	2,612,188.35	125,000.00	51,127,723.63
TOTAL	2,612,533,390.60	103,500,000.00	282,390,148.02	25,875,000.00	3,024,298,538.62

If it is considered that this payment will create a reduction in the tax base of EMTA, the effective cost will of course be decreased by an amount equal to:

$$\begin{aligned}
 \text{Effective Cost} &= \text{T.L. } 3,024,298,538.62 * (1 - \text{Corporate Tax Rate}) \\
 &= \text{T.L. } 3,024,298,538.62 * (1 - 0.46) \\
 &= \text{T.L. } 1,633,121,210.85
 \end{aligned}$$

Of course, this effective cost may be irrelevant in case of EMTA which is not in excessive need of great tax shields due to the nature of its business field, i.e. general construction contracting and trade; this is because a construction contractor, if undertakes new jobs every year while finishing some others, can arrange for not having a very large tax base to pay taxes for.

In the above calculation, the financial costs of borrow to buy are not considered due to reasons explained in Chapter 5 and section 10.3.1; moreover, no increase in foreign currency against T.L. is assumed whereas there will be no discounting while calculating the present value of these cash outflows. For the leasing alternative, the cash outflows can be grouped in three. First, there is the flat commission fee for letter of guaranty to be supplied to the foreign lessor which is payable at the very beginning. As explained in section 10.3.1, this fee amounts to T.L. 32,750,522. The second group involves the periodic lease payments, payment of withholding tax. V.A.T., and the commission fee for the letter of guaranty to be supplied to the customs office. According to payment schedule of presented in section 10.2.3, the cash outflows for the second group can be calculated as in Schedule 10.8.

Schedule 10.8

Cross-Border Lease Costs To EMTA

PAYMENT DATE	LEASE PAYMENT (T.L.)	WITHHOLDING TAX (5 %) (T.L.)	V.A.T.(1 %) (T.L.)	BANK COMMISSION (T.L.)	TOTAL (T.L.)
February 1989	157,500,000	7,875,000	1,575,000	0	166,950,000
April 1989	157,500,000	7,875,000	1,575,000	0	166,950,000
June 1989	157,500,000	7,875,000	1,575,000	0	166,950,000
August 1989	157,500,000	7,875,000	1,575,000	0	166,950,000
October 1989	157,500,000	7,875,000	1,575,000	13,926,465	180,876,465
December 1989	157,500,000	7,875,000	1,575,000	0	166,950,000
October 1990	48,894,608	2,444,730	488,946	13,926,465	65,754,749
October 1991	48,894,608	2,444,738	488,946	13,926,465	65,754,749
October 1992	48,894,600	2,444,738	488,946	13,926,465	65,754,749
Total (TL)	1,091,683,824	54,584,191	10,916,838	55,705,860	1,212,890,713

At this point, no reduction is made by calculating the present value of these cash outflows due to the assumptions set out in 10.3.1. A discount for the bank commission fee might be made because it is fixed in local currency; however, this is also not calculated since omitting such effect will only be more conservative on the side of the leasing alternative for which we are trying to find the attractiveness against the other alternative that is already studied: the outright purchase alternative⁵.

On the other hand, for the third group of payments, a long deferral period exists on behalf of EMTA which forms the major advantage of cross-border leasing alternative. In order to consider the effect of deferral, interest rates within the four years for which the deferral will be effective should be used; the inflation rate can be used for this purpose. By assuming an optimistic inflation rate, as compared to what is being experienced in Turkey within the last decade, as the following

1989	60 %
1990	50 %
1991	40 %
1992	30 %

the gains this deferral will bring to EMTA can be forecasted.

⁵ Here, there are basically two alternatives: We may increase the lease payments estimating for the future foreign exchange rates; for this estimation we may use the bank interest rates, as our basic assumption suggests, or a slightly higher rate to discount these future cash flows. By discounting at the after-tax interest rate as suggested by the extended MDB model, we would be finding a lower present value, which would make the leasing alternative more favorable as compared to the outright purchase. The second alternative is what we follow in the above case.

At this point, there is some uncertainty as for the tax base of V.A.T. and additional vehicle purchase tax. What will be the sales price of the equipment for which these taxes are to be calculated for? Will it be the symbolic price as guaranteed by the purchase option of the leasing agreement or the fair market value which can be determined by experts? Financial leasing law and regulations are not clear on this point and experts at the Ministry Of Finance and customs offices do have conflicting views on this point. Since there has been no cross-border leasing transactions which have matured to date, there are also no past records. Nevertheless, one can consider all cases for evaluation and select the highest costing case to be conservative :

- V.A.T. and additional vehicle purchase tax calculated at the original value
- V.A.T. and additional vehicle purchase tax calculated at fair market value (assumed to be 30 % of the original sales price⁶ for four-year old vehicles)
- V.A.T. and additional vehicle purchase tax calculated at a symbolic sales price as specified in the purchase option of the financial leasing agreement

Accordingly, the three alternate pairs of V.A.T. and additional vehicle purchase tax can be tabulated as in Schedule 10.9.

⁶ According to fleet car residual value trends as published by British Car Auctions, Expedier House, Hindhead, Surrey GU26 6TJ, United Kingdom. This publication is summarized in each monthly issue of "Asset Finance And Leasing Digest" magazine published by Euromoney Publications PLC, United Kingdom.

Schedule 10.9

Alternate Cost Calculations Regarding The Taxes

ITEM NO.	ORIGINAL VALUE		FAIR MARKET VALUE		SYMBOLIC SALES PRICE	
	V.A.T. (T.L.)	PURCHASE TAX(T.L.)	V.A.T. (T.L.)*	PURCHASE TAX(T.L.)**	V.A.T. (T.L.)***	PURCHASE TAX(T.L.)****
1	41,555,506	49,861,848	5,947,830	7,137,396	15,000	18,000
2	13,988,285	16,784,340	2,002,140	2,402,568	5,000	6,000
3	18,945,954	22,732,975	2,711,730	3,254,076	5,000	6,000
4	20,640,570	24,766,320	2,954,280	3,545,136	5,000	6,000
5	25,921,022	31,102,259	1,236,690	1,484,028	5,000	6,000
6	26,289,915	31,547,898	2,701,944	3,242,333	4,000	4,800
7	85,818,600	102,982,320	8,820,000	10,584,000	15,000	18,000
8	4,354,063	2,612,189	623,196	373,918	1,000	600
TOTAL	237,513,915	282,390,149	26,997,810	32,023,455	55,000	70,800

Notes: * Calculated at 10 % of 30 % of original purchase price excluding all taxes

** Calculated at 12 % of 30 % of original purchase price excluding all taxes

*** Calculated at 10 % of symbolic sales price

**** Calculated at 12 % of symbolic sales price

To be conservative, it is decided to select the highest tax group, i.e. the group calculated using the original value of the equipment. The other costs involved in this group are the deferred taxes which amount to T.L. 1,392,646,477 (as calculated in 9.5.3.1), vehicle purchase tax, and environmental protection fund. Putting together the costs associated with this group, one can end up with Schedule 10.10.

Schedule 10.10

Total Deferrable Costs To EMTA In Cross-Border Leasing

ITEM NO.	CUSTOMS DUTIES, TAXES, ETC.	V.A.T.	VEHICLE PURCHASE TAX	ADDITIONAL VEHICLE PURCHASE TAX	ENVIRONMENTAL PROTECTION FUND	TOTAL (T.L.)
1		41,555,506	3,300,000	49,861,848	825,000	
2		13,988,285	1,100,000	16,784,340	275,000	
3		18,945,954	1,100,000	22,732,975	275,000	
4		20,640,570	1,100,000	24,766,320	275,000	
5		25,921,022	1,100,000	31,102,259	275,000	
6		26,289,915	9,000,000	31,547,898	2,250,000	
7		85,818,600	16,125,000	102,982,320	4,031,250	
8		4,354,063	220,000	2,612,189	55,000	
TOTAL	1,392,646,477	237,513,915	33,045,000	282,390,149	8,261,250	1,953,856,791

The total of T.L. 1,953,856,791 is fixed as of the import date and thus is deferrable for four years. At the assumed inflation rate, therefore, the effective taxes to be paid shrinks to

T.L. 1,953,856,791.....1989 end : T.L. 1,221,160,495
 1990 end : 814,106,997
 1991 end : 581,504,998
 1992 end : 447,311,537

i.e. the present value of the deferred taxes will amount to, according to the assumption for future inflation rates, only T.L. 447,311,537. If one considers the other groups' costs, the overall payment schedule will be as calculated in Schedule 10.11.

Schedule 10.11

Total Costs To EMTA In Cross-Border Leasing

Bank commission for letter of guaranty: T.L. 32,750,522

Lease payments, withholding taxes, etc.,
V.A.T., bank commission for letter of
guaranty: T.L. 1,212,890,713

Customs duties, taxes, etc., V.A.T.,
vehicle purchase tax, additional
vehicle purchase tax, environmental
protection fund payment: T.L. 447,311,537

T.L. 1,692,952,772

This amount is much less than the outright purchase alternative which costs T.L. 3,024,298,538.62. It should be noted that without any deferral of customs taxes, the highly over estimated financial leasing alternative would have cost T.L. 3,199,498,026 to EMTA for which the difference can be accounted for by the bank commissions and lease interest implicit in the lease payments.

If the effective cost of leasing to EMTA is calculated, there will be some difficulties since there exists a time difference between payments and tax paying dates of periods ranging from three months to fifteen months⁷; of course, it is possible to make calculations by also considering these time differences but then there exist the high inflation

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⁷ In the outright purchase alternative, as the equipments are to be bought on March 1989, there will be a delay between payment and tax paying date of at most three months which is not considered in this case for the purpose of simplicity.

problem. Therefore, it is not possible to calculate for exact effective costs; nevertheless, if these calculations are made using the present values, then the result would be

$$\begin{aligned}\text{Effective Cost} &= \text{T.L. } 1,692,952,772 * (1 - \text{Corporate Tax Rate}) \\ &= \text{T.L. } 1,692,952,772 * (1 - 0.46) \\ &= \text{T.L. } 914,194,497\end{aligned}$$

which is again favorable against outright purchase alternative.

10.4. RESULTS

According to the comparison between outright purchase and financial leasing alternative, due to the deferral of high amounts of customs taxes and duties by four years, the financial leasing alternative has been found the more favorable.

In the case, a custom analysis has been made due to the presence of many variables and it has been demonstrated that for the current practice of of cross-border leasing operations, the general lease evaluation models as discussed in Chapter 5 are not alone adequate, for the time being, to assess outright purchase versus financial leasing alternatives; this is mainly due to the presence of very high customs taxes and duties, and due to high inflation prevailing in Turkey.

11. REFERENCES

1. Peter Vanderwicken. "The Powerful Logic Of The Leasing Boom". Fortune, November 1973, pp.132-194.
2. Merton H. Miller and Charles W. Upton. "Leasing, Buying, And The Cost Of Capital Services". The Journal Of Finance, June 1976, pp.761-786.
3. Wilbur G. Lewellen, Michael S. Long, and John J. McCornell. "Asset Leasing In Competitive Capital Markets". The Journal Of Finance, June 1976, pp.787-798.
4. George L. Marrah. "To Lease Or Not To Lease ?". Financial Executive, October 1968, pp.91-104.
5. Robert W. Johnson and Wilbur G. Lewellen. "Analysis Of The Lease-Or-Buy Decision". The Journal Of Finance, September 1972, pp.815-823.
6. Commentary . "Analysis Of The Lease-Or-Buy Decision: Commentary". The Journal Of Finance, September 1973, pp.1015-1028.
7. Myron J. Gordon. "A General Solution To The Buy Or Lease Decision: A Pedagogical Note". The Journal Of Finance, March 1974, pp.245-250.
8. Lawrence D. Schall. "The Lease-Or-Buy And Asset Acquisition Decisions". The Journal Of Finance, September 1974, pp.1203-1214.
9. Stewart C. Myers. "Interactions Of Corporate Financing And Investment Decisions-Implications For Capital Budgeting". The Journal Of Finance, March 1974, pp.1-25.

10. Stewart C. Myers, David A. Dill, and Alberto J. Bautista. "Valuation Of Financial Lease Contracts". The Journal Of Finance, June 1976, pp.799-819.
11. Julian R. Franks and Stewart D. Hodges. "Valuation Of Financial Lease Contracts: A Note". The Journal Of Finance, May 1978, pp.657-669.
12. Gordon S. Roberts and Arthur C. Gudikunst. "Equipment Financial Leasing Practices And Costs: Comment". Financial Management, Summer 1978, pp.79-81.
13. H. Martin Weingartner. "Leasing, Asset Lives And Uncertainty: Guides To Decision Making". Financial Management, Summer 1987, pp.5-12.
14. Lawrence D. Schall. "Analytic Issues In Lease vs Purchase Decisions". Financial Management, Summer 1987, pp.17-20.
15. Roger L. Cason. "Leasing, Asset Lives And Uncertainty: A Practitioner's Comments". Financial Management, Summer 1987, pp.13-16.
16. H. Martin Weingartner. "The Lease-Analysis Problem: Response To Cason And Schall". Financial Management, Summer 1987, pp.21-23.
17. Wayne F. Perg. "Leveraged Leasing: The Problem Of Changing Leverage". Financial Management, Autumn 1978, pp.47-51.
18. Peter J. Athanasopoulos and Peter W. Bacon. "The Evaluation Of Leveraged Leases". Financial Management, Spring 1980, pp.76-80.
19. Robert Capettini and Howard Toole. "Designing Leveraged Leases: A Mixed Integer Linear Programming Approach". Financial Management, Autumn 1981, pp.15-23.

20. Richard A. Grimplund and Robert Capettini. "A Note On The Evaluation Of Leveraged Leases And Other Investments". Financial Management, Summer 1982, pp.68-72.
21. Charles R. Idol. "A Note On Specifying Debt Displacements And Tax Shield Borrowing Opportunities In Financial Lease Valuation Models". Financial Management, Summer 1980, pp.24-29.
22. Thomas E. Copeland and J. Fred Weston. "A Note On The Evaluation Of Cancellable Operating Leases". Financial Management, Summer 1982, pp.60-67.
23. John C. Hull. "The Bargaining Positions Of The Parties To A Lease Agreement". Financial Management, Autumn 1982, pp.71-79.
24. Wilbur G. Lewellen and Douglas R. Emery. "On The Matter Of Parity Among Financial Obligations". The Journal Of Finance, March 1980, pp.97-111.
25. Vincent J. McGugan and Richard E. Caves. "Integration And Competition In The Equipment Leasing Industry". Journal Of Business, July 1974, pp.382-396.
26. Tore Steen. "International Lease Financing". Chapter 19, Handbook Of International Financial Management by Allen Sweeny and Robert Rachlin (eds.), McGraw-Hill Book Company, New York, 1984.
27. Peggy J. Crawford, Charles P. Harper, John J. McConnell. "Further Evidence On The Terms Of Financial Leases". Financial Management, Autumn 1981, pp.7-14.
28. Eugene F. Brigham. Fundamentals Of Financial Management, 3rd ed., The Dryden Press, New York, 1983.
29. Terry A. Isom and Sudhir P. Amembal. The Handbook Of Leasing: Techniques & Analysis, Petrocelli Books, Inc., New York, 1982.

30. Frank J. Fabozzi. Equipment Leasing: A Comprehensive Guide For Executives, Dow Jones-Irwin, Inc., Homewood, Illinois, 1981.
31. James Ang and Pamela P. Peterson. "The Leasing Puzzle". The Journal Of Finance, September 1984, pp.1055-1065.
32. Clifford W. Smith, Jr. and L. Macdonald Wakeman. "Determinants Of Corporate Leasing Policy". The Journal Of Finance, July 1985, pp.895-908.
33. Gregory D. Hawkins. "Discussion: Determinants Of Corporate Leasing Policy ". The Journal Of Finance, July 1985, pp.909-910
34. Henry G. Hamel. Leasing In Industry, National Industrial Conference Board, New York, 1968.
35. Ivan E. Brick, William Fung, and Marti Subrahmanyam. "Leasing And Financial Intermediation: Comparative Tax Advantages". Financial Management, Spring 1987, pp.55-59.
36. John J. McConnell and James S. Schallheim. "Valuation Of Asset Leasing Contacts". Journal Of Financial Economics, August 1983, pp.237-261.
37. Jack E. Gaumnitz and Allen Ford. "The Lease Or Sell Decision", Financial Management, Winter 1978, pp.69-74.
38. Harold E. Wyman. "Financial Lease Evaluation Under Conditions Of Uncertainty", The Accounting Review, July 1973, pp.489-493.
39. Joseph E. Finnerty, Rick N. Fitzsimmons, and Thomas W. Oliver. "Lease Capitalization And Systematic Risk", The Accounting Review, October 1980, pp.631-639.

40. Alexander A. Robichek and Stewart C. Myers. "Conceptual Problems In The Use Of Risk-Adjusted Discount Rates", The Journal Of Finance, December 1966, pp.727-730.
41. Haim Levy and Marshall Sarnat. "Leasing, Borrowing, And Financial Risk", Financial Management, Winter 1979, pp.47-54
42. Wayne Y. Lee, John D. Martin, and Andrew J. Senchack. "The Case for Using Options To Evaluate Salvage Values In Financial Leases", Financial Management, Autumn 1982, pp.33-41.
43. Shalom Hochman and Ramon Rabinovitch. "Financial Leasing Under Inflation", Financial Management, Spring 1984, pp.17-26.
44. Stewart D. Hodges. "The Valuation Of Variable Rate Leases", Financial Management, Spring 1985, pp.68-74.
45. Milton M. Harris. "1987: A Year Of Change In Equipment Leasing", The Journal Of Commercial Bank Lending, February 1987, pp.46-49.
46. Mark E. Bayless and J. David Diltz. "An Empirical Study Of The Debt Displacement Effects Of Leasing", Financial Management, Winter 1986, pp.53-60.
47. James S. Schallheim, Ramon E. Johnson, Ronald C. Lease, and John J. McConnell. "The Determinants Of Yields On Financial Leasing Contracts", Journal Of Financial Economics, 19(1987), pp.45-67.
48. Julian R. Franks and Stewart D. Hodges. "Lease Valuation When Taxable Earnings Are A Scarce Resource", The Journal Of Finance, September 1987, pp.987-1005.
49. Simon Proctor. "Leasing's Growing Pains", International Management. September 1979, pp.32-40.

50. Philip R. Cateora. Strategic International Marketing, Dow Jones-Irwin, Inc., Homewood, Illinois, 1985.
51. Arthur Meidan. "Strategic Problems In International Leasing", Management International Review, (4)1984, pp.36-47.
52. Cheng F. Lee. Financial Analysis And Planning: Theory And Application, Addison-Wesley Publishing Company, Reading, Massachusetts, 1985.
53. David Stamps. "Leasing Strategies For '88". Datamation, 15 February 1988, pp.50-55.
54. Richard Waters. "Leasing Industry Reports 6 Billion Pounds New Business". Financial Times, 22 March 1988, p.5.
55. T. M. Clark. "The Dawn Of Internatioan Leasing". The Banker, April 1982, pp.57-61, 67.
56. Rosamund Jones. "Sunny Outlook Gives Lease Of Life". Euromoney, January 1987, pp.116-120.
57. Eser Atilla. "Dış Borç Yerine Leasing". Cumhuriyet, 24 February 1988, p.11.
58. Howard Isenstein. "Still Flying High From Tokyo". Euromoney, January 1987, pp.123-126.
59. Adrian Hornbrook(ed.). World Leasing Yearbook-1986, 7th ed., Hawkins Publishers Ltd., Essex, 1986.
60. Neil Johnson. "Confusion Follows Euphoria In The US Market". The Banker, April 1982, pp.63-67.

61. Robert Hawkins. "Leasing Community Expands". The Banker, April 1982, pp.69-70, 75.
62. Robert Hawkins. "Leasing As A Financial Service". The Banker, April 1982, pp.73-75.
63. Simon Willson. "Convergence In Europe". The Banker, July 1986, pp.53-54.
64. Michael Taylor. "Leasing Busts Through 6 Billion Pounds Barrier". Asset Finance & Leasing Digest, April 1988, pp.32-36.
65. Robert Hawkins. "Leasing Spreads To The Third World". The Banker, May 1983, pp.107-108.
66. Anonymous. "Aircraft Leasing-Problems Of Credit Risks". The Banker, May 1983, pp.114-115.
67. Yoshihiko Miyauchi. "A Rising Force In Asia". The Banker, May 1983, pp.117-120.
68. Evelyn Costello. "British Lessors Show Their Muscle". Euromoney, January 1985, pp.158-162.
69. Derek Bamber. "Leasing : Tax-Dodgers? No, Tax Deferrers". Euromoney, February 1984, pp.106-109.
70. Neil Osborn. "Playing Tennis On Quicksand". Euromoney, February 1984, p.112.
71. Donal Curtin. "Souped-Up Shoguns". Euromoney, February 1984, p.112-118.
72. Derek Bamber. "Closing The Gap In Europe". Euromoney, February 1984, p.111.

- 73.J. Callahan. "The Lease Versus Purchase Decision In The Public Sector". National Tax Journal, June 1981, pp.235-240.
- 74.I. Masse, J.R. Hanrahan and J. Kushner, "The Lease Versus Borrow Decision From A Public Sector Perspective". National Tax Journal, June 1987, pp.271-274
- 75.Conway Yates. "Will Budget Cuts Mean Growth For Federal Leasing?". Asset Finance & Leasing Digest, January 1988, p.18.
- 76.Gregg A. Day and Patrick J. Keogh. "Financing A Federal Equipment Lease : The Risks". Asset Finance & Leasing Digest, April 1988, pp.24-25.
- 77.Terry Cooke. "To Lease Or Not To Lease?". Accountancy, May 1983, pp.102-108.
- 78.Michael J. Fleming. "Internatioanl Leasing Grows In Popularity". Business America, November 1982, pp.26-28.
- 79.Jeff Day. "Rent-A-Staff : A New Lease On Work?". Across The Board-The Conference Board Magazine, July/August 1987, pp.54-58.
- 80.Helga B. Foss and Shaheen Borna. "Employee Leasing After The TRA". Journal Of Accountancy, September 1987, pp.151-156.
- 81.Mark Hirschey and James L. Pappas. "Market Power And Manufacturer Leasing". The Journal Of Industrial Economics , September 1981, pp.39-47.
- 82.J. C. Hull and G. L. Hubbard. "Lease Evaluation In The UK:Current Theory And Practice". Journal Of Business Finance & Accounting, 4, 1980, pp.619-637.

83. James C. Van Horne. "The Cost Of Leasing With Capital Market Imperfections". The Engineering Economist, Fall 1977, pp.1-12.
84. R. Conrad Doenges. "The Cost Of Leasing". The Engineering Economist, Fall 1971, pp.31-44.
85. James E. Ellis. "Tower To McDonnell : Turbulence Ahead". Business Week, 25 May 1988, p.71.
86. Richard S. Bower and George S. Oldfield, Jr. "Of Lessees, Lessors, And Discount Rates And Whether Pigs Have Wings". Journal Of Business Research, March 1981, pp.29-38.
87. Charles J. Gmür (ed.). Trade Financing, Euromoney Publications PLC, London, 1981.
88. Adrian Hornbrook (ed.). World Leasing Yearbook-1988, 9th ed., Euromoney Publications PLC, London, 1988.
89. Adrian Hornbrook (ed.). World Leasing Yearbook-1987, 8th ed., Hawkins Publishers Ltd., Essex, 1987.
90. Moshe Ben-Horim. Esentials Of Corporate Finance, Allyn And Bacon, Inc., Newton, Massachusetts, 1987.
91. John J. Keller. "Now, Calling From Hotels Needn't Cost A Bundle". Business Week, 27 June 1988, p.42.
92. Benjamin Klein, Robert G. Crawford and Armen A. Alchian. "Vertical Integration, Appropriable Rents, And The Competitive Contracting Proces". The Journal Of Law And Economics, October 1978, pp.297-326.
93. David Flath. "The Economics Of Short Term Leasing". Economic Inquiry, April 1980, pp.247-259.

94. Paul F. Anderson and William Lazer. "Industrial Lease Marketing". Journal Of Marketing, January 1978, pp.71-79.
95. Russell B. McNeill. "The Lease As A Marketing Tool". Harvard Business Review, Summer 1944, pp.415-430.
96. Philip Kotler. Marketing Management : Analysis, Planning, And Control, 3rd ed., Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1984.
97. Tom Clark (ed.). Leasing Finance, Euromoney Publications PLC, London, 1985.
98. John Lohre. "Demand Still Strong As Municipals Chose Leasing". Asset Finance & Leasing Digest, January 1988, pp.16-17.
99. John D. Daniels and Lee H. Radebough. International Business : Environments And Operations, 4th ed., Addison-Wesley Publishing Company, Inc., Reading, Massachusetts, 1986.
100. Beratiye Öncü, Şule Alpan, Deniz Çakiroğlu and Füsun Balıkcıoğlu. İhracat Kredi Sigortası Ve Türkiye Değerlendirmesi, İhracatı Geliştirme Etüd Merkezi (İGEME), Ankara, 1988.
101. Philip Wellons, Dimitri Germidis and Bianca Glavanis. Banks And Specialized Financial Intermediaries In Development, Development Centre, Organization For Economic Co-Operation And Development (OECD), Paris, 1986.
102. Paul Slater. "Leasing Could Help Keep Shipping Afloat". Asset Finance & Leasing Digest, January 1988, pp.8-10.

103. Vic Lock. "Government Co-Operation : A Bridge To The Future For The Turkish Leasing?". Asset Finance & Leasing Digest, May 1988, pp.24-25.
104. Mustafa Üzeler and Doğan Cansızlar. Yatırım Ve Finansman Sağlamaya Yönelik Kiralama (Leasing) - Dünyada Ve Türkiye'de Uygulaması, Maliye Ve Gümrük Bakanlığı, Araştırma, Planlama Ve Koordinasyon Kurulu (APK), Yayın No.1987/287, Ankara, 1987.
105. Islamic Development Bank. Eleventh Annual Report - Islamic Development Bank, IDB, Jeddah, 1987.