# Lease classification of aircraft leasing – A case study of cross-border leases between Korean Air and its subsidiary

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Submitted to the MIT Sloan School of Management in partial fulfillment of the requirements for the degrees of

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**ABSTRACT**

Aircraft leasing represents a significant portion of the financial statements of airline firms. Accounting treatment of lease transactions is becoming more complicated as firms attempt to achieve off-balance-sheet outcomes vis a vis special purpose entities(SPC). Cross-border leasing involving SPCs in particular raises a variety issues stemming from international differences between accounting regimes.

This thesis utilizes an example of cross-border leasing between Korean Air and its Irish subsidiary to illustrate the complexity related to lease classification. It begins by exploring the industry background, the concept of leasing, traditional lease criteria and current issues/trends in accounting. Next, relevant lease accounting rules are reviewed and compared to international and US GAAP. This includes key issues in lease classification such as 'substance of transactions' and 'the financial impact on the related parties'.

The study reveals that the case can be assessed differently within the context of terms and conditions of the lease and related accounting rules. While such accounting interpretation may vary, the best answer appears that it is essential that firms present transparent financial information to the related parties.

Thesis Supervisor: S.P. Kothari
Title: Professor of Management

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# Introduction

Aircraft leasing is a significant portion of the financing and accounting of airline companies in terms of both the size of capital as well as the complexity of lease classification. Due to its capital intensive nature, most airlines depend on external resources for aircraft purchasing. Leasing is an important tool used by airlines to take delivery of aircraft, especially when facing financial distress. In this regard, lease classification and the related accounting treatments are critical to the airlines and the industry.

## Purpose

In order to review relevant lease financing structure and lease classification issues, the case of Korean Air and its subsidiary in Ireland will be explored. Lease transactions in the case were originally structured as operating leases and treated as off-balance sheet transactions. An interpretation by the Korean accounting authority, however, brought about changes in such accounting treatments, which resulted in a significant financial impact on Korean Air's financial statements.

To begin, to improve our understanding of lease classification issues, it is useful to first review and compare various accounting rules in each of the relevant countries. This includes identifying current trends and issues relating to lease classification in the airline industry.

Based upon the analysis, it will be determined whether the case can be interpreted differently in view of current trends in lease classification and various accounting rules in other countries.

## Scope

The thesis will focus mainly on the following lease classification issues:

- Criteria for lease classification, i.e. capital lease and operating lease.
- Comparison between lease accounting rules of different countries including international accounting standards in order to provide a deeper insight into lease

classification issues.

- aircraft lease transactions between Korean Air and KALF (1997 to 2003).

In Chapter 1, the general aspects of aircraft leasing and accounting treatments will be dealt with. The basic concepts of capital and operating leases, together with criteria of lease classification and accounting treatment, are provided. Relevant aspects of cross-border leasing are also introduced.

Accounting rules in related countries such as USA, Korea and Ireland are examined in Chapter 2. International accounting rules are also included in the comparison in order to obtain a more balance view of the issues. Information on accounting rules has been obtained from official GAAP web sites and other relevant documents.

Next, the case of Korean Air and its subsidiary, Korean Air Lease and Finance, is introduced in Chapter 3. Emphasis is placed on lease transactions entered into between 1997 and 2003. Accounting changes and the financial impact of lease transactions are introduced in this chapter. Specific data has been collected from a variety of sources, including lease documents, communication with staff (i.e., interviews, written correspondence), and other archival and company documents and public sources. Obtaining information from a variety of sources helps to improve its validity and robustness and is essential to analyzing highly complex transactions such as lease classification.

Chapter 4 provides an integrated analysis of the case using existing accounting rules and other expert views on lease classification. First, conventional lease criteria were applied. These often do not yield clear results. Accordingly, further analysis was undertaken using concepts such as 'substance of the transactions', 'risk and benefit', and 'ownership and guarantee'. The impact of lease classification on stakeholders was also examined.

Although this study attempts to provide a comprehensive examination of major issues related to lease classification, it is important to note that some limitations arose in terms of access to confidential documents and disclosures. Moreover, it would also be beneficial to this important topic if further case studies were undertaken in the future. The analysis and findings should therefore be interpreted with the above considerations in mind.

# Chapter 1. Aircraft leasing and lease classification

## 1. Airline industry and leasing

Fierce competitive rivalry and the cyclical nature of the business restrict both the financial capacity of airlines as well as their ability to raise debt. Most airlines therefore increasingly rely on aircraft leasing[1] as an alternative to the large up front capital requirements associated with an outright purchase of aircraft. These features have led to a proliferation of aircraft leasing companies and financial instruments aimed at providing debt financing. Figure 1-1 illustrates that major airlines in the US and Europe lease on average 40% of their fleets. It is also important to note that a growing percentage aircraft designated as 'Owned' were actually acquired by airlines at the end of lease periods.

Figure 1-1 Aircraft leasing by major airline companies

| | United | American | Lufthansa | British | Air France | Average % |
|---|---|---|---|---|---|---|
| Owned | 230 | 395 | 339 | 207 [1)] | 151 | 62% |
| Operating Lease | 173 | 213 | 71 | 77 | 90 | 29% |
| Finance Lease | 57 | 91 | 22 | See note 1) | 17 | 9% |
| Total aircraft | 460 | 699 | 432 | 284 | 258 | 100% |

Note : 1) including Finance Lease

Source : Annual Reports of each companies (as of 2005)

According to Frost & Sullivan, at the end of 2004, major airlines across the world had accumulated approximately 13,458 aircraft. The International Lease Finance Corporation (ILFC), estimates that one out of every three of these commercial aircraft is currently

[1] Another aspect of leasing relates to matching expenses with revenues from aircraft operation from a cash flow prospective. Considering that the economic life of aircraft is estimated at over 20 years), it is likely for an airline company to have better financial shape when it matches the expenses for the aircraft (e.g., lease payments) with the expected profits from operations unless the airline is capable of paying the aircraft cost upfront.

(2005) leased.[1] Thus, the extent and magnitude of leasing prevalent in the airline industry underscores the importance of improving our understanding of the appropriateness of current lease accounting treatments and methods as well as the potential financial impact they impose.

**The Concept of leasing**

Leasing is defined as a contract between a lessor and a lessee where the lessor provides the lessee with the right to use assets, property owned by the lessor. (Intermediate Accounting, Ninth edition; Kieso & Weygandt) The contract is usually for a specified period of time, referred to as the 'lease term' - for which the lessee is obliged to pay a stream of rental payments as agreed to between the lessor and the lessee. Generally, a lease contract may not be cancelled by either party unless certain terms and conditions specified in the contract trigger its termination (e.g., non-payment, bankruptcy). A lease contract may, however, grant an early termination option on a specific date with or without penalty for various predetermined reasons. At the expiry of the lease term, the lessee is usually required to return the asset to the lessor, unless the lessor provides an option to the lessee to purchase of the asset. A purchase option price is usually formula based and may be a variant on fair market value or a nominal amount depending on the type of the lease.

**Advantages of leasing [2]**

There are a variety of advantages relating to leasing, as follows:

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1) Source : World Aircraft Leasing Industry - Investment Analysis and Growth Opportunities; Frost & Sullivan 2005

2) Source : Intermediate Accounting, Ninth edition; Kieso & Weygandt

lessee against inflation and increases in the cost of money.

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(1) 100% financing at fixed rates

The lessee is entitled to use an asset without paying full cost up-front, which helps to conserve scare cash. Also, lease payments often remain fixed, which protects the

(2) protection against obsolescence

Leasing an asset reduces risk of obsolescence, and in many cases passes the risk in residual value to the lessor. If the asset value changes in a short period of time, lease is effective way to avoid such risk from lessee's point of view.

(3) Flexibility

Lease agreements may contain less restrictive provisions than other debt agreements. For example, a lease payment schedule can be structured to meet financial conditions of the lessee in the future.

(4) Less costly financing

Tax benefits that accrue to the leasing company or financial institution, may sometimes be transferred to the lessee in the form of lower rent payments.

(5) Attractive minimum tax problems

As the ownership of equipment results in an increase in tax liability, under Alternative minimum tax rules, companies can avoid the onerous alternative tax provisions by way of leasing equipment.

(6) Off-balance-sheet financing

Depending on the type of leases, the lessee can treat lease transactions as off-balance-sheet. This is critical to companies wishing to increase borrowing capacity. Companies can avoid increasing balance sheet liability by leasing equipment instead of purchasing it. The airline industry is well known for seeking 'off-balance-sheet financing' due to the large capital requirements associated with aircraft purchase.

This thesis will mainly focus on 'off-balance-sheet financing' effects and arguments related to lease classification.

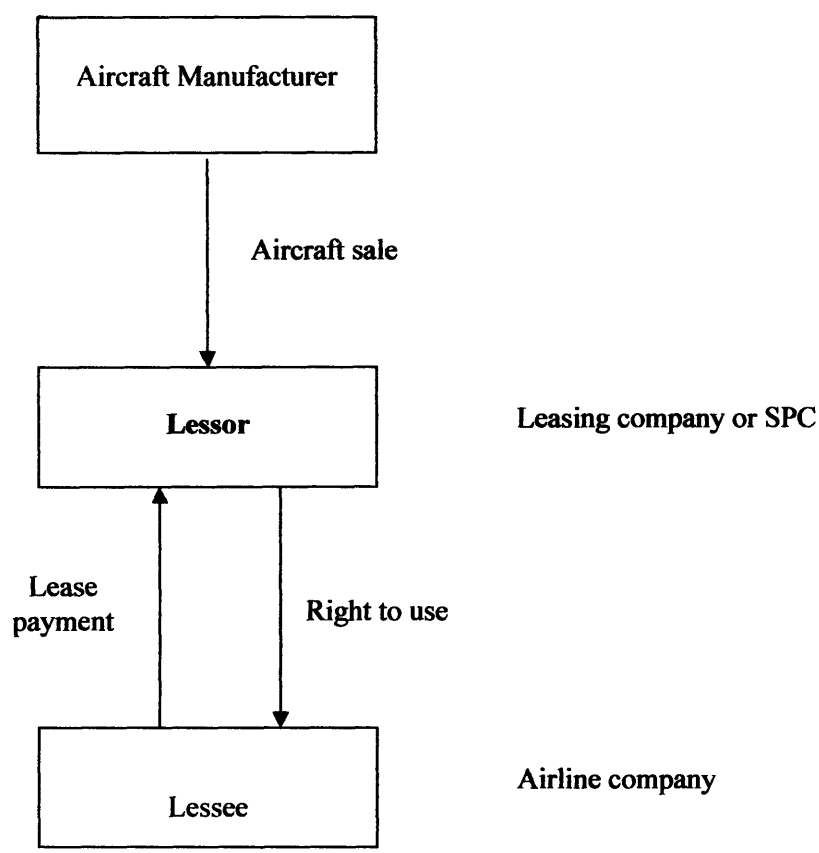
**Aircraft leasing structure**

Typically, participants in aircraft leasing transactions include:

- Lessor : Leasing companies
  Special purpose companies established by financial institutions
  Subsidiaries of aircraft manufacturers
- Lessee : Airline companies
- Others : Aircraft Manufacturers, Insurance companies, Governments.

For a leasing company as Lessor, it is their core business to lease aircraft to airline companies. Normally they possess diversified aircraft asset holdings due to the risk of holding aircraft assets in the balance sheet. Major leasing companies, such as GE Capital and ILFC, hold their portfolio's according to risk management prospectives.

Figure 1-2 Aircraft leasing diagram




** Governments are often involved in the process of approving lease transactions.

Airline companies acting as the lessee have a similar position. As a corporate strategy, they can take on asset risk to obtain a leverage effect. On the other hand, they may seek off-balance transactions to avoid excess exposure to asset risk

## 2. Capital versus Operating leases

A capital lease refers a transaction where the lessee possess substantive economic ownership and benefits of the leased asset during the lease period and records it as a balance sheet item. This is in contrast to an operating leases where the lessee recognizes only periodic lease payments as an expense (without recording the asset on the balance sheet).

Conventional criteria used for lease classification include:

**Basic criteria** [1)]

Transfer of ownership test

If a lease contract has the provision of ownership transfer of the asset, it is classified as capital lease. It refers to the legal ownership in the lease contract which can be easily implemented in practice.

Bargain purchase option test

A bargain purchase option is a provision allowing the lessee to purchase the leased property for a price that is significantly lower than the property's expected fair value at the date the option becomes exercisable. At the inception of the lease, the difference between the option price and the expected fair market value must be large enough to make exercise of the option reasonably assured. If there is a bargain purchase option in the lease contract, it is recognized as capital lease.

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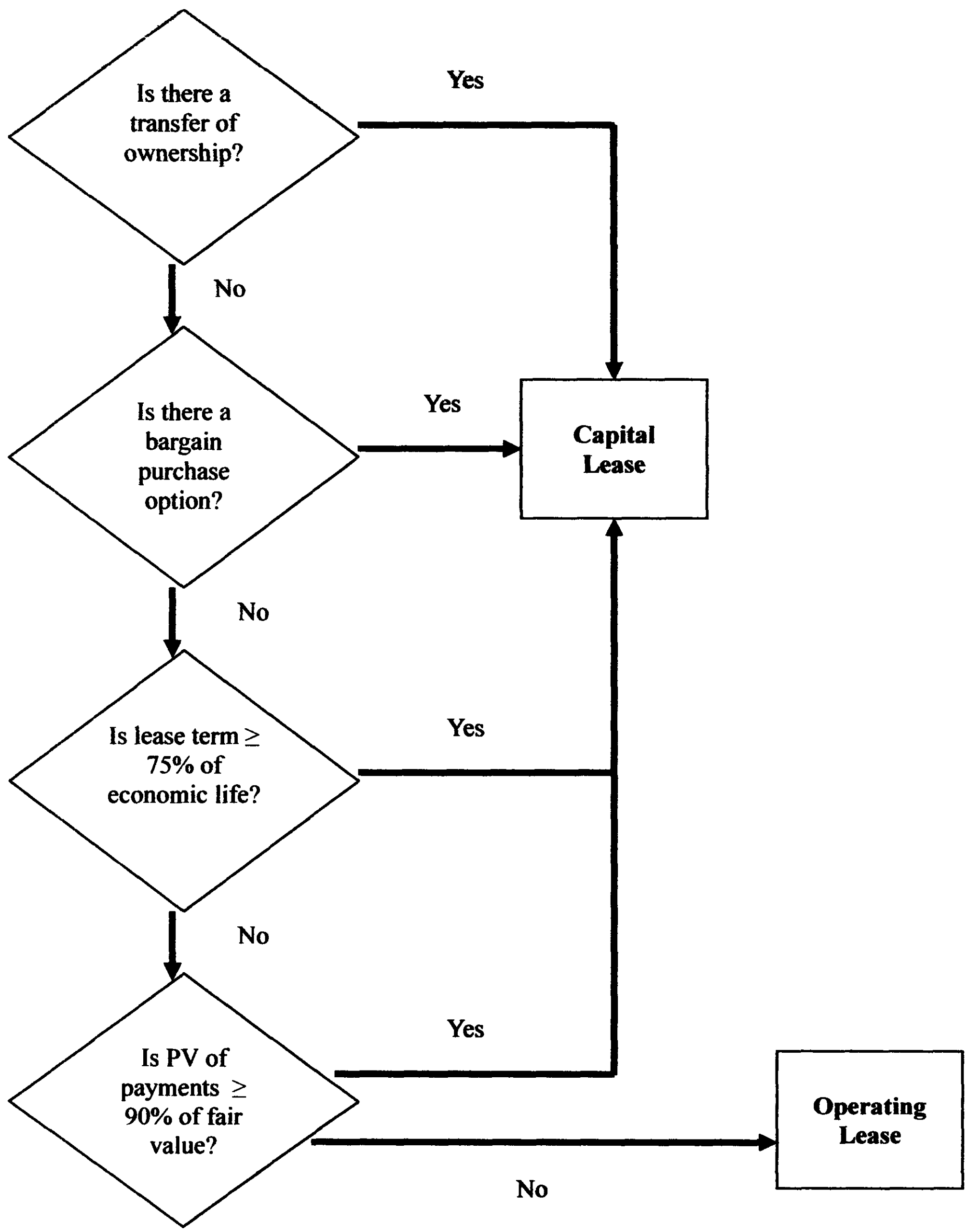
1) Source : Intermediate Accounting, Ninth edition; Kieso & Weygandt

Economic life test

If the lease period equals or exceeds 75% of the asset's economic life, most of the risks and rewards of ownership are transferred to the lessee, and the capitalization is therefore appropriate. The lease term is generally considered to be the fixed, non-cancelable term of the lease.

Figure 1-3 Diagram of lease criteria



Recovery of investment test

If the present value of the minimum lease payments equal or exceeds 90% of the fair market value of the asset, then the leased asset should be capitalized. The rationale for this test is that if the present value of the minimum lease payments is reasonably close to the market price of the asset, the asset is effectively being purchased.

**Accounting treatment**

If a lease is recognized as capital lease, the lessee records the asset and a lease liability generally equal to the sum of present value of the lease payment during the lease term. The lessor recognizes a sale by removing the asset from its balance sheet and replacing it with a receivable.

| Lessee | | | Leesor | | |
|---|---|---|---|---|---|
| Leased asset | xxx | | Lease receivable | xxx | |
| Lease obligation | | xxx | Asset | | xxx |

In addition, the Lessee records periodic depreciation expenses relating to the asset over the economic life of the asset or over the lease term in case the lease does not transfer the ownership. Interest expenses are recorded over the lease term by allocating each lease payment between principal portion and interest portion.

The accounting treatment for operating leases is entirely different; neither the asset nor the lease liability are included on balance sheet of the lessee. Moreover, usually the lease payments are charged evenly to the income statement over the term of the lease.

| Lessee | | | Leesor | | |
|---|---|---|---|---|---|
| Lease expense | xxx | | Cash | xxx | |
| Cash | | xxx | Lease income | | xxx |

## 3. Cross-border leases

A cross-border lease is a transaction where the lessor, the lessee and other related parties are located in two or more different countries and potentially accounting regimes. For example, the lessor in one country (e.g., US) leases an asset to a lessee located in another country (e.g., Korea). Aircraft leasing provides a good example of cross-border leasing where several financial institutions may provide funds to a lessor for purchase of an aircraft and the lessor leases the aircraft to an airline in another country.

Then, what are the motivations for the cross-border lease?
On possible explanation driving this feature is the nature of capital opportunities in foreign countries. More attractive lease conditions may be apparent in foreign as opposed to domestic capital markets. Tax savings may be another benefit. Certain countries, such as Cayman Island and Bermuda, provide favorable tax environments for lessors located in their territories. Thus, many lease transactions are structured to place lessors in the form of 'special purpose company' to obtain tax benefits passing a part of the benefits to lessees. Ireland , for example, provides different tax benefits for cross-border leasing by way of double tax treaties with foreign countries. In fact, Ireland has developed double tax treaties with most foreign countries. Based on such a tax scheme, a lessor located in Ireland does not have to pay withholding tax on its lease rental income from a lessee. There are a few more cross-border lease structures utilizing tax benefits of certain countries such as US tax lease, French tax lease, German tax lease and Japanese operating lease some of which are not valid any more in international capital markets.

A cross-border lease involves more than two countries. When two different accounting rules for the lease prevail questions arise as to which accounting rule should be applied. In general, the location of a party matters in applying accounting rules. In other words, if the lessor is located in country A then the accounting treatment is made in accordance with the accounting rules of country A. If the lessee is located in country B, then accounting treatment is made in accordance with the accounting rules for that country.
It is reasonable to expect that accounting treatments of the two countries are the same for

the cross-border lease. If the lease is recognized as a capital lease by both accounting rules, the lessor records the transaction on its financial statements as a capital lease for the lessor and the lessee records it as a capital lease for the lessee, as described earlier in '2. Capital versus Operating leases'.

However, accounting treatments may not be always aligned and there may be different interpretations according to the accounting rules of the two countries. The lessor may record the transaction as an operating lease while the lessee records it as a capital lease. For the case of Korean Air and its subsidiary in Ireland, which we examine below, leases are recognized differently by the lessor and the lessee.

# Chapter 2. Lease classification rules and related issues

## 1. Capitalization of leases and rationale for off-balance sheet treatment

There are various views on capitalization of leases as follows. [1)]

1) Do not capitalize any leased assets
   Because the lessee does not have ownership of the property, capitalization is considered inappropriate. Furthermore, a lease is an "executory" contract requiring continuing performance by both parties. Because other executory contracts (such as purchase commitments and employments contracts) are not capitalized at present, lease should not be capitalized, either.
2) Capitalize those leases similar to installment purchase
   Accountant should report transactions in accordance with their economic substance; therefore, if installment purchases are not capitalized, so also should leases that have similar characteristics.
3) Capitalize all long-term leases
   Under this approach, the only requirement for capitalization is the long-term right use the property. This property-right approach capitalizes all long-term leases.
4) Capitalize firm leases where the penalty for nonperformance is substantial.
   A final approach is to capitalize only 'firm' (noncancelable) contractual rights and obligations. 'Firm' means that it is unlikely that performance under the lease can be avoided without a severe penalty.

Capitalization approach is widely adopted these days with a view that 'a lease that transfers substantially all of the benefits and risks of the property ownership should be capitalized.'
In terms of 'ownership' of the property, there are two main approaches to lease accounting, one giving priority to the concept of economic ownership of the lease asset

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1) Source : Intermediate Accounting, Ninth edition; Kieso & Weygandt

and the other to the legal ownership of the asset. The former approach has become widely adopted since the 1970's (for example, in Australia, the Netherlands, the UK and USA) and is the approach contained in the International Accounting Standard - Accounting for Leases (IAS 17). The latter approach is less prevalent, but for example, is still applicable in certain European countries, particularly those where the requirements for statutory accounts is essentially fiscally driven.

Based on the above views and approaches on capitalization of leases, we now reach a reasonable approach widely adapted in most countries that is 'if a lease transfers substantially all of the economic benefits and risks of the property, it should be capitalized' although there is still a lot of uncertainty to exactly define 'transfer of economic benefits and risks'.

Then, why lessors or lessees are seeking off-balance sheet leases? The following reasons are frequently mentioned for it.

- Increasing pressure on debt ratio leads firms with high debt ratio to seek off-balance sheet transaction. Existing covenants in the financing contracts or debt related regulations imposed by government authorities prevent a firm from raising more debts. By structuring an off-balance sheet financing arrangements, the firm can secure required funds without affecting the debt ratios.
- It sometime brings lower cost of borrowing. Unwary lenders may not concerned about off-balance sheet financing and set lower interest rate for loans than the underlying risk levels warrant.
- In case of financing in foreign currencies, it sometimes accompanies the risk of foreign currency translation gains/losses due to evaluation of foreign currency debts on the balance sheet every year. Off-balance sheet financing can avoid such currency related risk.

**2. Lease accounting rules**

## US Accounting Standards [1)]

The regulations in the United States that specify how leases should be accounted for are issued by the Financial Accounting Standards Board (FASB). FAS 13 particularly sets criteria for classifying leases, which are almost same as those described in 'Chapter 1, 2. Capital vs Operating lease'. According to FAS 13, if a lease meets one or more of the following four criteria, the lease should be classified as a capital lease by the lessee. Otherwise, it is classified as an operating lease. Although FAS 13 deals with various lease types such as Sale-type leases, Direct financing leases, Leveraged leases and Operating leases, we will focus on criteria for Capital leases and Operating leases.

a. The lease transfers ownership of the property to the lessee by the end of the lease term.
b. The lease contains a bargain purchase option.
c. The lease term is equal to 75 percent or more of the estimated economic life of the leased property. However, if the beginning of the lease term falls within the last 25 percent of the total estimated economic life of the leased property, including earlier years of use, this criterion shall not be used for purposes of classifying the lease.
d. The present value at the beginning of the lease term of the minimum lease payments, excluding that portion of the payments representing executory costs such as insurance, maintenance, and taxes to be paid by the lessor, including any profit thereon, equals or exceeds 90 percent of the excess of the fair value of the leased property to the lessor at the inception of the lease over any related investment tax credit retained by the lessor and expected to be realized by him.

In addition, FAS 13 describes leases involving subsidiaries, which are relevant to the case that we are going to analyze in Chapter 3. It says consolidation method should be used rather than equity method in view of the related assets and liabilities which are significant to the consolidated financial position of the enterprise.

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1) Source : Statement of Financial Accounting Standards ; Financial Accounting Standards Board

"The accounts of subsidiaries (regardless of when organized or acquired) whose principal business activity is leasing property or facilities to the parent or other affiliated companies shall be consolidated."

In terms of 'lessee guarantees the lessor's debt with respect to the leased property', FAS explains that it does not necessarily an evidence for transfer of benefits and risks of the leased property but it represent only a portion of the fair value of the property. Thus, "the lessee will have protected his interest through other features in the agreement that may meet one or more of the adopted criteria".

Apart from the criteria, FAS 13 concludes that transferring economic risks and rewards of the leased property should be considered as a basic concept in assessing lease classification.

**Korea Accounting Standards [1)]**

Existing Korea Accounting Standards effective 18 March 2005 have been adopted by the Korea Accounting Institute and the Korea Accounting Standards Board. 'The Statements of Korea Accounting Standards' No 19 provides lease classification and lease related definitions. According to the Statements No 19, a finance lease and an operating lease are defined as follows;

'A finance lease is a lease that transfers substantially all the risks and rewards incidental to ownership of an asset. An operating lease is a lease other than a finance lease. Risks include the possibilities of losses from idle capacity or technological obsolescence and of variations in return because of changing economic conditions.'

The Statements No 19 also provides lease criteria as follows;

'Whether a lease is a finance lease or an operating lease depends on the substance of the

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1) Source : The Statements of Korea Accounting Standards, 18 March 2005;
Korea Accounting Institute and the Korea Accounting Standards Board

transaction rather than the form of the contract. Examples of situations that individually or in combination would normally lead to a lease being classified as a finance lease are:

a. the lease transfers ownership of the asset to the lessee by the end of the lease term;
b. the lessee has the option to purchase the asset at a price that is expected to be sufficiently lower than the fair value at the date the option becomes exercisable for it to be reasonably certain, at the inception of the lease, that the option will be exercised;
c. the lease term is for the major part of the economic life of the asset even if title is not transferred;
d. at the inception of the lease the present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset; and
e. the leased assets are of such a specialized nature that only the lessee can use them without major modifications.'

The Statements provide similar criteria for the lease classification mentioned in Chapter 1 although some quantitative measures such as 75% of the lease terms in case of c above and 90% of PV lease payments in case of d above. In fact, Appendix B of the Statements provides detailed practical guideline and cases for clear interpretation. In Appendix B, the same lease criteria such as 75%, 90% rule for the lease tests is recommended for lease classification. However, the Statements mention that whether a lease is a finance lease or an operating lease depends on the substance of the transaction rather than the form of the contract.

In addition, Appendix B provides an example relating to the lease involving foreign subsidiary as follows.

In case of a lease contract among company A (Sub-lessee), Company B (Lessee, foreign subsidiary of company A) and company F (Lessor) with the following conditions;

- Company B enters into a lease contract for a machine with Company F.

Company A provides a guarantee in favor of Company F

- Company B enters into a sub-lease contract for the machine with Company A.
- The lease contract between Company B and Company F is a capital lease. The sub-lease contract between Company B and Company A is an operating lease to judge the form of the contract.
- Company A is expected to return the machine after using half of the economic life of the machine and Company B is expected to sell or lease it to a third party at the expiry of the sub-lease contract.
- Company B is doing some intermediary role for a few leases including the above lease.

In the above case, the Statements recommend that the sub-lease contract between Company B and Company A should be recognized as a capital lease in view of the risks and benefits of the lease which are effectively transferred to Company A although the form of the contract meets the requirements for operating lease.

**Ireland Accounting Standards [1]**

Irish accounting standards basically follow the frame of UK accounting standard. Financial Reporting Standard 5 "Reporting the Substance of Transactions" ("FRS 5") is the primary accounting standard to be applied for lease classification. The objective of FRS 5 is to ensure that the substance of an entity's transactions is recorded in its financial statements, rather than their strict legal form.

Paragraph B10 of FRS 5 states that "Any type of unconditional commitment for the lessee to purchase will give rise to both a liability and an asset for the lessee: the liability being the lessee's commitment to pay the repurchase price; and the asset being continued access to some or all of the benefits of the original asset that forms the subject of agreement." The standard also allows that where there is a purchase option "on terms

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1) Source : The Irish Financial Reporting Standards and Statement of Standard Accounting Practice

that leave no genuine commercial possibility that the option will fail to be exercised", the same accounting treatment will apply.

Conversely, if there are no purchase options and the lessee retains the asset at the end of the lease term, then the lessee holds the residual value interest / risk. This is particularly true "where the contract term is significantly shorter than the estimated useful economic life of the asset" (FRS 5, paragraph F48).

It seems that FRF 5 focuses on who holds the asset risks / benefits the expiry of the lease by assessing lessee's obligation to purchase the asset.

On the other hand, SSAP (Statement of Standard Accounting Practice) deals with detailed accounting processes and treatments of the lease. Finance lease and operating lease are defined in SSAP21 as follows.

A **finance lease** is a lease that transfers substantially all the risks and rewards of ownership of an asset to the lessee. It should be presumed that such a transfer of risks and rewards occurs if at the inception of a lease the present value of the minimum lease payments, including any initial payment, amounts to substantially all (normally 90 per-cent or more) of the fair value of the leased asset. The present value should be calculated by using the interest rate implicit in the lease. If the fair value of the asset is not determinable, an estimate thereof should be used.

An **operating lease** is a lease other than a finance lease.

It further explains the distinctions between finance lease and operating lease.

"An operating lease involves the lessee paying a rental for the hire of an asset for a period of time which is normally substantially less than its useful economic life. The lessor retains most of the risks and rewards of ownership of an asset in the case of an operating lease."

"A finance lease usually involves payment by a lessee to a lessor of the full cost of the asset together with a return on the finance provided by the lessor. The lessee has substantially all the risks and rewards associated with the ownership of the asset, other than the legal title. In practice all leases transfer some of the risks and rewards of ownership to the lessee, and the distinction between a finance lease and an operating lease is essentially one of degree."

Based on the above provisions from Irish Accounting Standard, we summarize key points for lease classification as follows.

- It deals with similar conditions as lease tests such as 90% of lease payments and economic life of the asset in comparison with the lease term
- Substance of the lease is important rather than its legal form, i.e. 'transferring risks and rewards of ownership of an asset to the lessee'.
- Focus on residual risk / value of the asset at the expiry of the lease. Who holds the risk or value?

**International Accounting Standards [1)]**

International Accounting Standards have been developed in order to set global accounting standards and coordinate different accounting standards by country in the world. Current IAS 17 for leases has been revised in 2003 and become effective in 2005. In terms of classification of leases, it sets distinctions between a finance lease and an operating lease as follows.

"A lease is classified as a finance lease if it transfers substantially all the risks and rewards incident to ownership. All other leases are classified as operating leases. Classification is made at the inception of the lease". [IAS 17.4]

"Whether a lease is a finance lease or an operating lease depends on the substance of the transaction rather than the form. Situations that would normally lead to a lease being classified as a finance lease include the following: [IAS 17.10]

- the lease transfers ownership of the asset to the lessee by the end of the lease term;
- the lessee has the option to purchase the asset at a price which is expected to be

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1) Source : International Accounting Standards; International Accounting Standards board.

sufficiently lower than fair value at the date the option becomes exercisable that, at the inception of the lease, it is reasonably certain that the option will be exercised;

- the lease term is for the major part of the economic life of the asset, even if title is not transferred;
- at the inception of the lease, the present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset; and
- the lease assets are of a specialized nature such that only the lessee can use them without major modifications being made."

Obviously, IAS 17 adopts all four lease tests for lease classification although it specifically does not set quantified measures such as 90%, 75% rules.
It also mentions about transferring the risks and rewards of the asset as a key criteria for the judgment. Thus, we do not see any other particular point as compared with general lease classification criteria.

**Summary**

We have reviewed each accounting rules of countries including International Accounting Standards relating to lease classification. Basic concept in assessment of lease classification is more of less the same, which can be summarized as follows.
'Substance of the lease is more important than form of the lease and it is a key point who takes economic risks and benefits of the asset during the lease term.'

In terms of criteria for lease classification, the following four tests are generally applied.

- Transfer of ownership test
- Bargain purchase option test
- Economic life test : 75% rule
- Recovery of investment test : 90% rule

Apart from the above general rules, we note that there are still some differences among accounting rules. For example, the Korea Accounting Standards provide a specific case for the lease involving a foreign subsidiary which should be accounted as a capital lease regardless of the form of the lease between the parent company and the subsidiary. Similarly, the US Accounting Standards set a consolidation rule for accounting of subsidiaries whose principal business activity is leasing property. In case of guarantee by the lessee, however, the US Accounting Standards do not consider it as a determinant of capital leases.

### 3. Current issues on off-balance-sheet transactions

Lease accounting has been a subject of interest and criticism by the regulators since 1995. The Financial Accounting Standards Board ("FASB") in the US, the UK Accounting Standards Board ("UK ASB") and the International Accounting Standards Board ("IASB") as a part of a group called the G4+1 have participated in writing lease accounting papers suggesting a "New Approach" to lease accounting. In addition, the Enron debacle in 2001 caused a focus on SPE's and off balance sheet financing, including operating leases. New SEC disclosure rules, the Sarbanes-Oxley Act (SARBOX), FASB Interpretations 45 and 46 were the response. SARBOX required the Securities and Exchange Commission (SEC) to study off balance sheet transactions and their report was issued in the fourth quarter of 2005. Balance sheet restatements involving real estate lease transactions in the financial news in 2004 and 2005 have typically been accompanied by claims that the cause of these restatements was flawed and /or "broken" lease accounting rules. [1]

To summarize Enron case which has seriously impacted existing accounting guidelines, the accountants characterized the properties as off-balance-sheet because the asset was acquired by a SPE that financed the purchase of the asset and leased it to Enron. The SPE was marginally capitalized by persons who were unrelated to the company. In fact, they were often related to and controlled by the company. It appeared that there was

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1) Source : Lease Accounting: Separating Myth from Reality; A White Paper by William Bosco

financial tie between the SPE and the company that created a liability for the company. It was agreed later by SEC and FASB that the liability should have been accounted for by the lessee that was Enron.

In the wake of demise, it is expected that more restriction will be placed on the lease structure aiming at off-balance-sheet treatment, particularly using 'special purpose company' which has been widely used for cross-border lease transactions. Even some discussions are being processed about operating leases that all lease payments under operating lease contracts should be capitalized and recorded on the lessee's balance sheet.

Yet, such discussions do not have a solid ground in view of complicated changes and impact on existing lease accounting rules.

**Synthetic lease** [1)]

A synthetic lease is s structure that gives the lessee a favorable mixture of the tax and accounting attributes of both capital and true operating lease exploiting the fact that the IRS and FASB are independent entities with different missions. It has been popular in the late 1990s for the companies to add property without showing huge amount of debt for it. Some of aircraft lease transactions have been used structured in a similar way in airline industry.

The structure of a synthetic lease looks almost the same as true operating lease, except that the lessee has some obligation to dispose the property at the end of lease term. Generally, it is documented in the form of either extending the lease term, finding a third party to purchase the property, or by purchasing the property. In case of purchasing the property by the lessee, there is residual value guarantee by the lessee in favor of the lessor at the signing of the lease contract, which allows the lessor to offer lower purchase price to lessee compared with fair market value of the property. Thus, the lessee is reasonably expected to exercise the purchase option at the end of the lease.

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1) Source : Finance, Lease and Insurance; Gregory P. Cirllo

The lessons from Enron case have lead to issuance of new guidelines for disclosure of SPE and synthetic leases. Some provisions provided by FASB in Interpretation 46 are; significantly higher as compared to the previous rule of 3% equity as baseline.
in order for a SPE/synthetic lease structure to achieve its intended accounting purpose; (i) the SPE must have sufficient equity capitalization, and (ii) the holders of the equity must have true voting control of the SPE. It indicates that sufficient capitalization must be

**Bright line tests**

In addition to the issues mentioned above, there always have been arguments on the bright line tests of lease conditions. Four criteria for the lease classification are described in Chapter 1. The tests serve the important purpose of ensuring consistency of reported results among the thousands of public companies who use large, medium and small accounting firms to certify their financial statements. The real question may be the where to draw the line. The first three tests are relatively straight forward as they can clearly stated in the lease contract and we can refer to industry practice in case of economic life of the leased asset. The last test, however, is pretty much complicated in reality and somewhat vague due to flexibility in calculation. Also, we suspect whether 90% of fair market value truly represents the risk of the asset. What about 80% or 70%?
Thus, these quantified methods of lease test do not provide clear answer to lease classification. Leases can be structured to meet operating lease conditions using these tests the lease has substantially the nature of capital lease as we see in the synthetic lease case. Nevertheless, the lease tests can provide a guideline in assessing economic risks and benefits of the lease transactions and it is still an effective tool in real business practice.

# Chapter 3. A case review - Korean Air and its Irish subsidiary

## 1. Overview of the companies

Korean Air Lines Co., Ltd. ('Korean Air" hereafter), established in 1969 under the laws of Republic of Korea, has been serving as a national flag carrier of Korea for 39 years in air-transportation of passenger and cargo. As of the end of January 2007, it provides air transportation service to 109 international and domestic cities around the world with more than 17,000 employees working in its workforce. Since the inception, Korean Air has grown to the 15th largest international passenger carrier and the 1st largest international cargo carrier in the world based on IATA statistics.[1] As of January 2007, Korean Air operates 122 aircraft in its fleet, of which 22 are cargo aircraft.
The company has been financing the aircraft through both domestic and international finance market. Since 1997 when the Asian currency crisis started, it has heavily relied on international finance market, particularly with export credit supported structure such as US EXIM Bank support and European Export Credit Agency support due to lack of domestic financing sources. A couple of operating lease contracts have been made by the company in an effort to diversify its aircraft financing during the period.

In June 1997, Korean Air established a wholly-owned financing subsidiary[2] named Korean Air Lease and Finance Company Limited ("KALF" hereafter) at International Financing Services Center in Dublin. At that time, Irish government was eager to induce foreign companies to Ireland providing some tax benefits to stimulate its economy growth by foreign capital investment. Also, it appears that the Korean Ministry of Economy encouraged companies to utilize the operating lease structure in an effort to reduce national trading deficit as it did not have to record debt in case of aircraft operating lease while finance lease had to be recorded as national debt.

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1) Source : IATA world transport statistics for 2005

2) Initially, Korean Air invested one million USD on KALF as paid-in capital.

From Korean Air's prospective, taking aircraft deliveries through the operating lease provided the following benefits.

- Reducing debt related ratios of the company, which were critical to raise more debts due to prevailing regulations imposed by government authorities.
- Benefits on withholding taxes based on double tax treaty between Korea and Ireland for Korean Air and favorable corporate tax rate offered by the Irish government for the subsidiary to be established in Ireland
- Avoiding foreign currency translation gains/losses by off-balance-sheet treatment of the lease transactions.

KALF was established by Korean Air in June 1997 and registered as one of IFSC companies in Ireland with approval by the Irish Ministry of Finance in order to facilitate Korean Air's aircraft lease financing. It is different from an SPC in a sense that it has own office and employees as a going-concern while SPC is typically set up for a specific transaction and liquidated after the expiry of the transaction. Although KALF started with the lease transactions in connection with Korean Air, it intended to expand its business with third parties as an independent leasing company. It opened an office in Dublin and hired 3 or 4 employees in order to perform its leasing business and administrative works.

After establishment, KALF has been rapidly expanding its business volume thanks to increase of lease transactions with Korean Air every year. As at the end of 2005, it had a total of 58 aircraft in its fleet and the total assets amounted 4,448 million USD. The revenue amounted 517 million USD in 2003 arose mainly from lease income from Korean Air.

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1) Note : According to Korean GAAP, assets purchased by foreign currencies should be recorded in Korean Won converted using an effective FX rate at the time of purchase and remain unchanged while foreign currency debts should be recorded in Korean Won converted using an effective FX rate as at the end of every fiscal year. Thus, foreign currency translation gains or losses arise every year due to fluctuation of FX rate.

Figure 3-1 below shows annual growth of KALF from 2000 to 2005.

Figure 3-1 KALF annual financials

unit : million USD

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|
| 1. Asset | 2,733.3 | 3,550.6 | 4,159.5 | 4,447.8 | 4,327.5 | 4,128.7 |
| 2. Liability | 2,672.3 | 3,499.9 | 4,136.7 | 4,542.2 | 4,430.5 | 4,221.9 |
| 3. S. Equity | 61.0 | 56.2 | 30.4 | -94.4 | -103.0 | -93.2 |
| 4. Revenues | 453.5 | 487.1 | 513.3 | 516.8 | 565.4 | 577.4 |
| 5. Expenses | 233.3 | 306.6 | 345.9 | 308.5 | 354.1 | 346.0 |
| Op. Profits | 220.2 | 180.5 | 167.4 | 208.2 | 211.3 | 231.4 |
| 6. Net income | 32.2 | -4.9 | -25.1 | 3.5 | -8.6 | 9.8 |
| 7. Accumulated income | 60.0 | 55.2 | 29.4 | -95.4 | -104.0 | -94.2 |

Source : KALF

## 2. Lease transaction structure and accounting treatment

### Lease structure

The lease transactions between Korean Air and KALF are categorized in three types as follows. This classification is based on the accounting treatment before the accounting changes made by Korean Air in 2003.

(1) "F – O" type : KALF takes aircraft from a lessor on finance lease based and subleases to Korean air on operating lease base

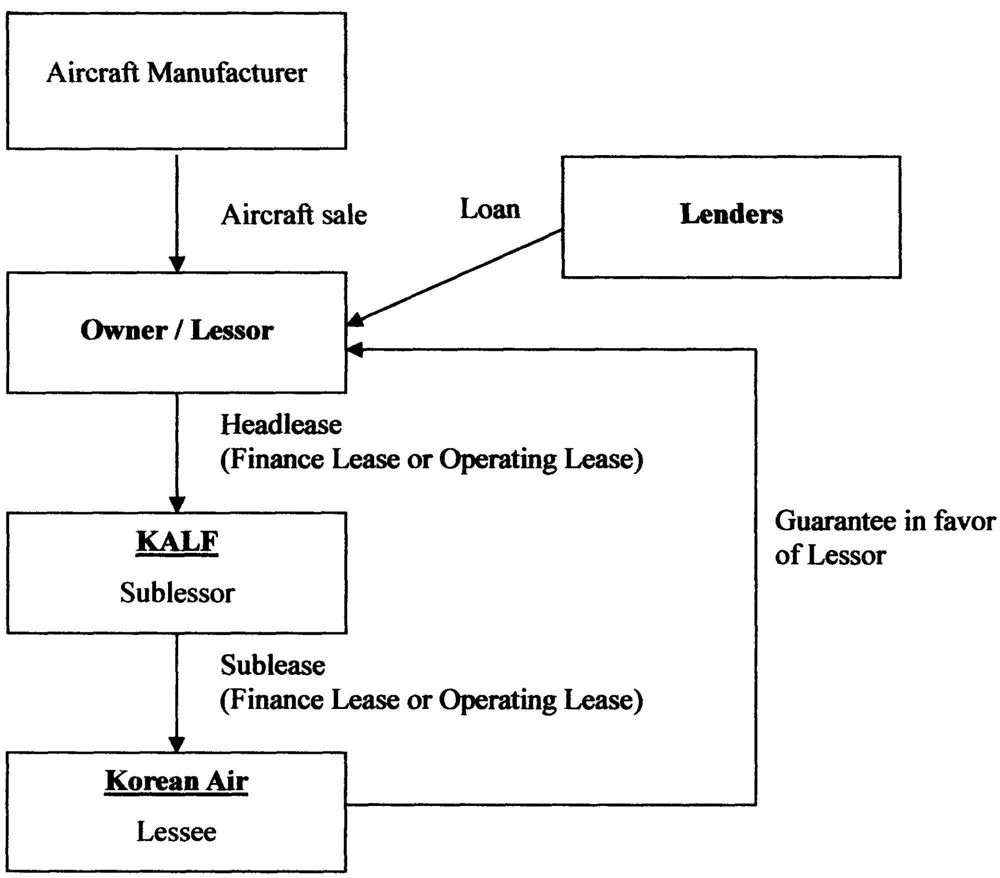
(2) "O – O" type : KALF takes aircraft from a lessor on operating lease based and subleases to Korean air on operating lease base

(3) "F – F" type : KALF takes aircraft from a lessor on finance lease based and subleases to Korean air on finance lease base

Figure 3-1 shows basic lease flow chart covering all three types. In a typical lease transaction, an aircraft manufacturer sells an aircraft to a lessor who has been provided a loan from lenders for the payment to an aircraft manufacturer. The lessor then leases the aircraft to KALF who subleases to Korean Air based on finance or operating lease. Korean Air issues a guarantee for the payment obligations of KALF under the head lease in favor of the lessor. In order to meet the requirements by the lessor and other related parties involved for funding, Korean Air had to back up KALF's payment obligations in the transaction by way of guarantee due to credit risk of KALF regardless of the type of lease transactions.

In case of "F – O", lenders are composed of various financial institutions who provide a syndicated loan to the lessor. The lessor is typically set up by the lenders in a tax heaven area such as Cayman Island, which is typical structure for finance lease transactions. An operating lease transaction does not require such a SPC. Instead, many operating lease

Figure 3-1 Lease flow chart



transactions have an intermediary in Ireland for tax reasons as Ireland have double tax treaties with almost all countries in the world. KALF performs such an intermediary role in case of "O – O" type to get benefits of double tax treaty between Ireland and Korea. In this thesis, the lease conditions of "F – O" type will be discussed and analyzed in connection with lease classification issues. Summary of lease conditions among the related parties in the sublease agreements are as follows.
(Also, please see more detailed lease conditions in Appendix)

- Lease term : Korean Air and KALF entered into long term lease agreements, i.e. 10 ~ 12 years. We note that the lease term in the sublease agreement generally mirrors the lease term under head lease agreement with some exceptions where the sublease terms are slightly shorter than the head lease terms.
- Lease payments : lease level to be paid by Korean Air is matched with market operating lease level which can be referred in the aircraft lease magazines such as Airclaims, AVITAS. Lease payments dates sublease agreements also mirrors the payments dates in the headlease agreement while lease level in the headlease is higher than that in the sublease. Thus, there is a gap between the lease payments by Korean in the sublease and the lease payments by KALF in the headlease. In order to supplement the gap, Korean Air provides inter-company loans to KALF so that KALF has sufficient money to pay its payment obligations in the headlease.
- Purchase option : Korean does not have any purchase option in the sublease while KALF has an option to purchase at a nominal value at the end of the headlease. Also, there is no clause for title transfer from KALF to Korean Air at the end of the sublease. Therefore, Korean Air is supposed to return aircraft at the expiration of the sublease.
- Other conditions
    - Guarantee : In all lease transaction where KALF is involved, Korean Air entered into a guarantee agreement with the Lessor in favor of KALF. In the guarantee agreement, Korean Air unconditionally issued a payment guarantee to the Lessor for the all payment obligations of KALF in the headlease.
    - Assignment of certain rights : Korean Air is supposed to have an insurance

for the aircraft during the lease term. Its rights to claim the insurance proceeds are assigned to the Lessor through KALF. Also, KALF's rights to receive lease payments from Korean Air in the sublease are assigned to the Lessor.

**Accounting treatment (before the accounting changes in 2003)**

It appears that lease classification and accounting treatments before 2003 focused on four criteria described in Chapter 1 and Chapter 2. Thus, lease conditions in the contracts such as purchase option provision, lease term and lease payment level were considered as main determinants for lease classification.

In both "F - Q" and "O – O" cases, Korean Air was able to achieve off-balance-sheet treatment without recording aircraft and liability in its balance sheet. It only recorded lease expenses paid to KALF in the income statements with ordinary disclosure for the operating lease transactions. In case of "F – F", Korean Air recorded it in its balance sheet as KALF acted merely as an intermediary in the case.

The table below illustrates accounting treatments by Korean Air and KALF for each type of leases.

< Korean Air >

| | Balance Sheet | Income Statement |
|---|---|---|
| F – O | - | Lease expense |
| O – O | - | Lease expense |
| F – F | Aircraft asset<br>Lease liability | Depreciation expense<br>Interest expense |

< KALF >

| | Balance Sheet | Income Statement |
|---|---|---|
| F – O | Aircraft asset<br>Lease liability | Depreciation expense<br>Interest income/expense |

| | | |
|---|---|---|
| O – O | - | Lease income/expense |
| F – F | Lease receivable | Lease income/expense |

**3. Accounting changes in 2003 and financial impact**

In mid 2003, the Korean Accounting Standard Board ("KASB") published a series of Statements of Korean Accounting Standards ("SKFAS"), which would gradually replace the existing financial accounting standards established by the Korean Financial Supervisory Commission. SKFAS No.1 through No.9 became effective January 2003 and SKFAS No.10 through 13 (except for No.11) became effective January 2004.

In accordance with SKFAS No.6 Events Occurring After the Balance Sheet Date adopted since January 2003 and based on the opinion of the Korean Financial Supervisory Commission("KFSC") released on July 8 2003, Korean Air made a significant accounting change to treat operating leases from KALF into finance leases (for the "F –Q" type leases). Basic approach to the accounting changes was to treat all leases as if Korean Air had had finance lease contracts with the head lessors without involving KALF, which resulted in transferring all assets and liabilities previously booked by KALF to Korean Air's balance sheet.

As a result, the assets and liabilities of Korean Air non-consolidated financial statements were increased by KRW 3,610.9 billion (USD 3.01 billion measured by FX rate at that time) as of December 2003 and net loss increased by KRW 432 million (USD 360 million measured by FX rate at that time). In compliance with Korean accounting rules, the restatement was made back to 5 years from 1999 for accounting treatment for the 32 aircraft in total while 7 aircraft delivered before 1999 were excluded.

It is believed that the opinion of KFSC was based on a few assumptions on KALF. KFSC believed that KALF was not an independent company as Korean Air owned 100% of its shares. KALF was considered as a Special Purpose Company that was established for a specific transaction rather than an ordinary leasing company although it had an office for business operation and hired a few employees. Also, KFSC believed that all risks in the lease transactions by KALF were transferred to Korean Air by way of its guarantee in favor of KALF. As we see in the lease structure, KAL guaranteed KALF's payment obligations to a lessor in the headlease agreement. In addition, KALF's business transactions were limited only to Korean Air for its aircraft leasing.

The accounting changes made a significant impact on Korean Air non-consolidated BSPL, but made the financial results more comprehensible with full reflection of Korean Air's financial activities. The accounting changes, nevertheless, had little impact on consolidation account with KALF and other subsidiaries. In fact, Korean Air was issuing two separate financial statements, i.e. non-consolidated financial statements and consolidated financial statements in compliance with Korea Accounting Standards. The consolidated financial statements of Korean Air had already reflected KALF's assets and liabilities in its balance sheet before the accounting changes.

Figure 3 – 1 Korean Air's non-consolidated balance sheet (summarized)

Unit : bil KRW

| | FY 2002 | FY 2003 |
|---|---:|---:|
| Current assets | 1,709.7 | 1,988.8 |
| Property, aircraft and equipment - net | 6,335.8 | 10,470.2 |
| Other non-current assets | 2,452.4 | 1,656.2 |
| Total assets | 10,497.9 | 14,115.2 |
| Current liabilities | 2,516.0 | 2,923.6 |
| Obligation under capital leases | 72.1 | 3,354.4 |
| Other long-term liabilities | 4,393.9 | 4,480.9 |
| Total liabilities | 6,982.0 | 10,758.9 |
| Total S/H equity | 3,515.8 | 3,356.3 |

Increase in assets and liabilities according to the accounting changes has been reflected in 'Property, aircraft and equipment' account for assets and 'Obligation under capital leases' account for liabilities in the above. These changes resulted in increase of total assets and liabilities by KRW 3,610.9 billion respectively in FY 2003 balance sheet as mentioned above. In addition, there were a few changes in income statements items such as depreciation, interest expenses and lease expenses. We will analyze more details in the following chapter.

### 3. Impact on KALF

The accounting changes made by Korean Air in 2003 fir the leases did not bring any changes in KALF's accounting treatments for the lease transactions. The auditors of KALF were aware of the significant changes relating to KALF lease transactions. In a letter to KALF later, they confirmed that existing accounting treatments by KALF were in accordance with the Irish GAAP. The point made by the auditors was as follows.

In respect of leases, the accounting treatment depends on whether the substance of the lease is the rent of the asset to the lessee (operating lease) or the provision of a secured loan to the lessee (finance lease). Generally, this is determined by which of the parties holds the residual value interest / risk in the asset. The primary driver to determine the holder of the residual value interest / risk in the case of KALF is the nature of purchase options in the sublease contracts.
For all the KALF leases, there are no purchase options in favour of Korean Air and the aircraft must be returned to KALF at the end of the lease term. Furthermore, the lease terms are generally 7-10 years while the estimated useful economic lives of the assets are 20-25 years. Thus, at the end of the lease, KALF will be the beneficial owner of aircraft with remaining useful lives of greater than 10 years and can be the holder of the residual value interest / risk.

Based on the interpretation by its auditors, KALF maintained existing accounting treatments despite of the changes in Korea. It is not usual case where a lessor and a lessee have different accounting interpretations on the same lease transaction. It turned out, however, that Korean GAAP and Irish GAAP apply differently lease accounting rules for the lease transactions.

Due to the impact of accounting changes, the number of lease transactions involving KALF have been decreased since 2003 as Korean Air lost one of the key benefits of lease structure utilizing KALF.

# Chapter 4. Analysis of the case and related issues

In the previous Chapter, we have reviewed the case of the leases between Korean Air and its subsidiary located in Ireland and related accounting changes. Now let's apply the accounting rules that we have explored in Chapter 2 to the case in order to have deep insight into lease classification issues. In addition, we need to deal with the substance of the leases utilizing foreign subsidiaries. Then, we analyze financial impact to the related parties and review some other cases to facilitate the case analysis.

## 1. Lease tests

We take the example of "F – O" type leases in Appendix and apply the four lease tests in order to verify whether the conditions meet operating lease requirements.

- Transfer of ownership test

Apparently, there is no provision for title transfer from KALF to Korean Air during or at the end of the sublease contract. Thus, the sublease meets operating lease requirements.

- Bargain purchase option test

There is no provision for a purchase option for Korean Air during or at the end of the sublease contract while KALF is entitled to exercise a purchase option at a nominal value at the end of the headlease contract. The purchase option for KALF in the headlease should be defined as a bargain purchase option. Thus, the sublease meets operating lease requirements.

- Economic life test

The lease term in the sublease is 12 years. The range of lease terms in the other lease contracts between Korean Air and KALF is 10 to 12 years. Korean Air applied 20 years for depreciation of aircraft which can be used for the economic life of the aircraft. In general, airline companies apply 15 to 25 years for depreciation of aircraft depending on aircraft type, utilization, etc. In reality, aircraft are being used more than 20 years in airline industry. Thus, it is reasonable to use 20 years for the purpose of economic life of aircraft.

⇒ 12 years / 20 years = 60% < 75%

As the lease term is less than the economic life of the aircraft, the sublease meets operating lease requirements

- Recovery of investment test

  - Present value of lease payments

| # | DATE | Sublease payment | PV factor | Present value |
|---|---|---|---|---|
| | | Assumed Discount rate | | 6.00% |
| 1 | 03-04-04 | $3,196,626.58 | 1.00 | $3,196,626.58 |
| 2 | 03-10-06 | $3,066,075.64 | 0.97 | $2,974,366.02 |
| 3 | 04-04-04 | $3,366,935.40 | 0.94 | $3,170,580.89 |
| 4 | 04-10-04 | $3,413,818.41 | 0.91 | $3,119,582.48 |
| 5 | 05-04-04 | $3,455,539.72 | 0.89 | $3,064,743.95 |
| 6 | 05-10-04 | $3,487,511.77 | 0.86 | $3,001,552.84 |
| 7 | 06-04-04 | $3,531,060.22 | 0.84 | $2,949,563.05 |
| 8 | 06-10-04 | $3,565,744.92 | 0.81 | $2,890,379.29 |
| 9 | 07-04-04 | $3,611,233.09 | 0.79 | $2,841,072.62 |
| 10 | 07-10-04 | $3,648,797.54 | 0.76 | $2,785,663.05 |
| 11 | 08-04-04 | $3,692,158.71 | 0.74 | $2,735,339.16 |
| 12 | 08-10-04 | $3,736,839.15 | 0.72 | $2,686,502.38 |
| 13 | 09-04-04 | $3,786,569.44 | 0.70 | $2,642,110.64 |
| 14 | 09-10-04 | $3,830,431.83 | 0.68 | $2,593,610.86 |
| 15 | 10-04-04 | $3,882,482.65 | 0.66 | $2,551,460.52 |
| 16 | 10-10-04 | $3,929,790.19 | 0.64 | $2,506,113.27 |
| 17 | 11-04-04 | $3,984,304.51 | 0.62 | $2,466,074.00 |
| 18 | 11-10-04 | $4,035,269.41 | 0.60 | $2,423,695.86 |
| 19 | 12-04-04 | $4,090,388.92 | 0.58 | $2,384,087.51 |
| 20 | 12-10-04 | $4,147,185.40 | 0.57 | $2,345,649.11 |
| 21 | 13-04-04 | $4,207,089.82 | 0.55 | $2,309,476.93 |
| 22 | 13-10-04 | $4,266,057.01 | 0.53 | $2,272,534.59 |
| 23 | 14-04-04 | $4,328,908.74 | 0.52 | $2,238,125.97 |
| 24 | 14-10-04 | $4,392,251.28 | 0.50 | $2,203,663.50 |
| Total | | | | **$64,352,575.09** |

  - Fair market value of the aircraft (A330-300) : $110,000,000

⇒ $64,352,575 / $110,000,000 = 59% < 90%

As the present value of the lease payments is less than 90% of the fair market value of the

asset, the sublease meets operating lease requirements.
We note that for the purpose of simplicity of calculation, an assumed discount rate of 6% is used for the present value calculation and aircraft purchase cost offered by aircraft manufacturer is used for the fair market value of the aircraft. There might be some arguments for these figures, but the possible changes in discount rate and fair market value do not result in significant impact to the calculation for the lease tests.

Based on the results from the lease tests above, we conclude that the sublease contract can be classified as an operating lease. The lease tests, however, focus on the formality of the lease contract rather than the substance. As we have seen in various accounting rules for lease classification in Chapter 2, the substance of the lease should be considered as an importance factor in assessing lease classification. In this regard, we need analyze further in terms of the substance of the lease.

## 2. Substance of the leases

When we summarized the accounting rules of related countries at the end of Chapter 2, we noted that 'substance of the lease is more important than form of the lease and it is a key point who takes economic risks and benefits of the asset during the lease term.'
Although we concluded that the "F – O" type leases meet the requirements of an operating lease in terms of four tests, we need to expand our views as follows in consideration of substance of the leases.

First, overall lease transactions were structured by the lenders and Korean Air. The lessor, a SPC for the specific transaction, was set up by the lenders. Thus, we can exclude the lessor when we think about substance of the deal. Also, KALF is a wholly-owned subsidiary of Korean Air and its business area is mainly the leasing or financing of aircraft for the parent company, Koran Air. Korea Air is taking significant control of KALF's business activities, which may lease KALF as merely an intermediary or a pass-through entity in the lease transactions. Consequently, we may consider the leases as loan transactions for aircraft financing in substance.

Moreover, Korean Air is providing a guarantee for the payment obligations of KALF in favor of the lessor, ultimately to the lenders. This means that the risks of KALF in the leases are transferred to Korean Air by way of the guarantee. Form the lenders' point of view, they are primarily concerned about the risk of Korean Air's default in the leases rather than the risk of KALF due to the guarantee.

In view of the above facts, the substance of the leases can be considered as financing transactions for the aircraft between the lenders and Korean Air. The accounting interpretation by the Korean Financial Supervisory Commission("KFSC") is based on the above view, which resulted in the accounting changes in 2003.

Then, can we definitely conclude that the leases are more or less similar to the synthetic lease described in Chapter 1 and should be defined as a capital lease?

Notwithstanding the view with the substance of the leases above, we may argue a few points as follows.

If we go back to the lease conditions on title transfer and purchase option, Korean Air is supposed to return the aircraft to KALF at the end of the leases. KALF is entitled to acquire the legal title of the aircraft by exercising a purchase option. Thus, it is KALF who will own the aircraft after the leases. Korean Air can not have any legal or economic ownership of the aircraft at that time. Korean Air may continue the leases by renewing the lease contracts or acquire the aircraft from KALF by way of purchasing. However, it should be done on an arms length base like the deals with third parties. Without clear evidences on fair trading between the related parties, such renewed leases or sale of the aircraft can not be allowed by the related regulations in both Korea and Ireland even though Korean Air may have control over KALF's business activities.

On this base, we reasonably conclude that risks and rewards of the aircraft, which can be measured by residual value of the aircraft in the market, are retained by KALF.

Let's take an example to illustrate this.

At the inception of the lease

- Aircraft cost : $110 million
- KALF lease payments : full pay-out for $110 million

- Korea Air lease payments : fixed amounts
- Estimated residual value of the aircraft at the end of the lease : $40 million

KALF expected to have a residual value of $40 million at the end of the lease.

At the end of the lease (Estimated residual value changed)

- KALF lease payments : full pay-out for $110 million (no change)
- Korea Air lease payments : fixed amounts (no change)
- Estimated residual value of the aircraft at the end of the lease : $20 million

It shows that due to the changes in residual value of the aircraft, KALF takes the aircraft value down by $20 million. Korean Air, by returning the aircraft at the end of the lease, does not take any risks of aircraft value change. After the lease, Korean Air can buy the aircraft from KALF at $20 million or from a third party at the aircraft market. One might say that the loss of gain by KALF out of aircraft value change is ultimately transferred to Korean Air as it owns 100% of KALF's shares. However, it is gain or loss from the investment on KALF rather than gain or loss arising from the asset. Clearly, the risk from the investment on shares of KALF and the risk from ownership of a specific asset are different.

In terms of a guarantee issued by Korean Air, it can not be regarded as taking the risks / rewards arising from ownership of the aircraft. The guarantee payment is trigger by default of KALF and limited to the payment obligations of KALF. It is not a guarantee for the risk of the asset. When we reviewed the US GAAP in Chapter 2, we noted that for the lessee guarantees the lessor's debt with respect to the leased property, FAS explains that it does not necessarily an evidence for transfer of benefits and risks of the leased property but it represent only a portion of the fair value of the property.
Therefore, the guarantee issued by Korean Air can not be considered as a determinant for transferring the risk / reward of the aircraft from KALF to Korean Air.

When we look at the example relating to the lease involving foreign subsidiary described in Korea Accounting Standards No 19 Appendix B, it might mislead when describing the leases between a parent company and a foreign subsidiary as a capital lease. We doubt if the relationship or ownership between the lessor and the lessee determines type of the lease rather than the conditions of the lease whether the risks / rewards are transferred from the lessor to lessee.

## 3. Impact on financial statements and stake holders

As mentioned in Chapter 3, the accounting changes effected in 2003 applied retroactively back to 5 years from 1999. In order to analyze the impact of the accounting changes on financial statements of Korean Air, we now make comparison between the restated financial statements and the financial statements prior to restatement for 2000 – 2002.

Figure 4 - 1 Restatement of Korean Air financials (2000-2002)

| Bil KRW | Pre-restatement | | | Restated | | |
|---|---|---|---|---|---|---|
| Year | 2000 | 2001 | 2002 | 2000 | 2001 | 2002 |
| Current Asset | 1,397 | 1,719 | 1,710 | 1,397 | 1,718 | 1,714 |
| *% difference* | | | | *0%* | *0%* | *0%* |
| Fixed Asset | 9,350 | 9,207 | 8,788 | 10,981 | 11,851 | 12,007 |
| *% difference* | | | | *17%* | *29%* | *37%* |
| **Total Asset** | **10,747** | **10,926** | **10,498** | **12,378** | **13,569** | **13,721** |
| ***% difference*** | | | | ***15%*** | ***24%*** | ***31%*** |
| Current Liabilities | 2,746 | 2,800 | 2,516 | 2,746 | 3,057 | 2,759 |
| *% difference* | | | | *0%* | *9%* | *10%* |
| Total LT Liabilities | 3,995 | 4,732 | 4,466 | 5,845 | 7,485 | 7,429 |
| *% difference* | | | | *46%* | *58%* | *66%* |
| **Total Liabilities** | **6,741** | **7,532** | **6,982** | **8,591** | **10,542** | **10,188** |
| ***% difference*** | | | | ***27%*** | ***40%*** | ***46%*** |
| Shareholders equity | 4,007 | 3,393 | 3,516 | 3,786 | 3,027 | 3,532 |
| *% difference* | | | | *-6%* | *-11%* | *0%* |

| | | | | | | |
|---|---|---|---|---|---|---|
| Revenue | 5,594 | 5,670 | 6,250 | 5,594 | 5,670 | 6,250 |
| *% difference* | | | | *0%* | *0%* | *0%* |
| EBIT | 57 | (208) | 295 | 104 | (84) | 457 |
| *% difference* | | | | *82%* | *-60%* | *55%* |
| Net Profit | (463) | (589) | 112 | (710) | (712) | 482 |
| *% difference* | | | | *53%* | *21%* | *331%* |

Source : Korean Air non-consolidated financial statements 2002, 2003

Due to the changes of lease classification for 32 aircraft from operating lease to capital lease, Fixed assets have been increased by 17% - 37% along with increase in long-term liabilities by 46% - 66%. As a result, total liabilities increased by 27% - 46%. It caused a negative impact on shareholders equity in general.

In terms of income statements, the changes did not bring any impact on revenue. Instead, earnings before interest and net profits have been changed due to reflection of depreciation expenses and interest expenses replacing rent expenses. In general, it turned out that the impact on EBIT was positive and on Net profits negative.

Figure 4 - 2 FY 2002 Financial ratios

| | FY 2002 Pre-restatement | FY 2002 Restated | Change |
|---|---|---|---|
| ROE | 3.2% | 14.7% | + 11.5% |
| ROA | 4.1% | 7.5% | +3.4% |
| Operating Margin % | 4.7% | 7.3% | + 2.6% |
| EPS | 1,571 | 6,761 | + 5,190 |
| Debt to equity | 198% | 288% | + 90% |
| Interest coverage | 1.06 | 1.05 | - 0.01 |

Note : Some calculations are simplified for illustration purpose.

In fact, the accounting changes have improved some financial ratios for profitability such as ROE, ROA and EPS while there was significant increase in debt to equity ratio due to restatement of the debts for the aircraft leases.

Then, what do these financial changes mean to the stake holders and related parties? Let's have a look at the impact on them.

- The company – Korean Air

Increase in debt might cause restrictions on further capital leases of aircraft or debt raising. The improvement of some financial ratios such as ROE, ROA and EPS does not mean improvement of financial conditions of the company in substance. Also, due to no more availability for off-balance-sheet leases through KALF, Korean Air should take aircraft on capital lease or pure operating lease.

- Existing shareholders / potential investors

Before the accounting changes, Korean Air had been issuing two separate financial statements according to the Korea Accounting Standards. In non-consolidated statements, KALF related transactions had been reflected as operating leases while consolidated statements had incorporated the related aircraft assets and liabilities in the balance sheet. Thus, we can reasonably assume that they were aware of the risks of KALF related transaction. By having the KALF related transactions in the non-consolidated financial statements, we can think about the following impact from shareholders' prospective.
In a short run, the changes might help to bring more returns to the shareholders / investors by way of dividends or stock price up. In a long run, however, the changes will lead to increase in the risks of the company bringing a bad financial shape.

- Creditors

The accounting changes do not affect the legal contracts for the lenders and therefore, they may be indifferent for the changes. In fact, they may welcome the lease structure where they have a right to claim directly to Korean Air without going around to KALF. On the other hand, however, they will be concerned about increase in long term risks like shareholders, which may cause reduction of lending capacity to Korean Air.

- Government

The government may have different positions by sectors. When KALF was about to set up in 1997, the Korean Ministry of Finance encouraged such an off-balance-sheet structure. But in 2003, the Korean Financial Supervisory Commission released an opinion not to allow such an off-balance-sheet structure. Thus, the regulations or restrictions imposed by the government may vary depending on the circumstances.

## 4. Other lease cases

### KFS (KLM Financial Services)

KFS was a wholly-owned financial subsidiary of KLM Dutch Airline located in Ireland.

Until closing down in 2004, KFS had performed an intermediary role for KLM's aircraft financing. The main purpose of KFS business activities was to provide off-balance-sheet leases for KLM and currency risk hedging of KLM through the off-balance-sheet treatment. Basic lease structure was for KFS to enter into a finance lease contract with a lessor and it subleased the aircraft to KLM on operating lease base. Under the Irish Accounting rules and the Dutch Accounting rules, the leases between KFS and KLM were classified as an operating lease. Most lease conditions in the leases were similar to those in the leases between KALF and Korean Air except that there was no guarantee issued by KLM. Also, KFS was provided sufficient funds to buy or finance aircraft at early stage. As a result, KSF did not receive any finance support from KLM during the lease term unlike the KALF case.

**JOL (Japanese Operating Lease)**

JOL was popular up to 2005 as an attractive leasing alternative in airline industry. It provided lower financing costs as well as off-balance-sheet treatment for airline companies. Lower financing costs were attributed to the tax benefits transferred from the equity investors registered and located in Japan. Generally, the equity investors are highly profitable companies and they look for transactions that enable tax depreciation in order to off-set their profits. By having aircraft assets in their balance sheet, they are able to expense depreciation charges, which reduces their overall profits from other business activities. The following conditions are placed in the lease contracts to meet operating lease requirements.

- Lessor : SPC registered (and located) in Japan
- Equity investors : provide an equity approximately 20% of the total financing
- Lenders : provide the remaining 80%
- Lessee : Airline companies
- Purchase option : at the end of the lease, the lessee has an option purchase at the fair market value at that time
- Appraisal of future fair market value: appraised by an independent appraisal

company at the inception of the lease. Typically, it is lower than the estimated residual value of the aircraft at the expiry of the lease. Thus, the lessee is likely to exercise the purchase option though it is appraised as a fair market value.

In the JOL structure, the equity portion replaces the junior loan portion in an ordinary capital lease. Also, a purchase option price is set at future fair market value to be appraised in advance. Other than those, JOL retains the structure of a capital lease.
After 2005, JOL structure was no more available at international finance market as the Japanese tax authority did not allow tax benefits utilizing SPC structure like JOL.

The above two case were used to achieve off-balance-sheet treatment of aircraft leasing in a similar way or with other structure in comparison with KALF structure. In fact, there are many structured leases for off-balance-sheet at international finance market. As the structures of cross-border leases are becoming more sophisticated to meet off-balance-sheet requirements, it is harder to identified the substance of the transactions. In addition, different accounting rules by country make it more complicated to classify the lease type.

## Summary and conclusion

We have reviewed the case of the leases between Korean Air and KALF and the related accounting changes in order to have a deep insight into the issues related to lease classification. My intention is not to challenge the interpretation made the Korean Financial Supervisory Commission but to facilitate lease classification issues through the case review. The following is summary of each chapter in this thesis to support my conclusion.

Airline companies are relying on aircraft leasing due to large capital requirements. Especially when they are in financial distress, leasing is an attractive way to secure the aircraft without having more debts on the balance sheet. There are two different types of leasing according to accounting treatment, i.e. a capital lease and an operating lease. Basic criteria for the lease classification are (1) transfer of ownership, (2) bargain purchase option, (3) lease term compared to economic life of the asset and (4) present value of the minimum lease payments.

Lease accounting rules in the US, Korea, Ireland and International Accounting Standards have the same criteria mentioned above. Also, they share a basic concept to assess lease classification, which is 'focusing on substance of the lease rather than form of the lease. Thus, it is critical whether the lessor is transferring economic risks and rewards to the lessee in the leases. However, there are some different aspects and interpretation on specific provisions by country such as treatment of SPC or foreign subsidiary, guarantee issued by the lessee and assessment of economic ownership.

Due to flexibility of lease classification, lease contracts became more sophisticated and complicated. Abuse of such flexibility sometimes lead to significant accounting frauds such as Enron case. Therefore, accounting rules are becoming more restrictive to the structured transactions such as synthetic leases.

The case of Korean Air and KALF is similar to synthetic leases in a sense that Korean Air and the lenders structured the leases involving KALF in an effort to achieve off-balance-sheet treatment. In 2003, the Korean Financial Supervisory Commission interpreted the leases as capital leases based on their view that Korean Air was taking the risks and rewards of the leases by way of a guarantee and ownership of the shares of KALF. As a result, significant accounting changes were made by Korean Air through lease re-classification of 32 aircraft from operating lease to capital lease. KALF, however, retained the existing accounting treatment for the 32 aircraft based on the opinion by its auditors and the Irish Accounting rules.

In Chapter 4, we have analyzed the case based on generally adopted concepts in different accounting rules. In terms of substance of the leases, we see that the lease structure is very similar to synthetic leases as mentioned above. However, it is not likely that the risks and rewards were actually transferred from KALF to Korean Air by way of a guarantee and ownership of KALF. Rather, KALF still retained the risks and benefits of the aircraft arising from the residual value at the end of the leases.
Anyhow the accounting changes have brought a significant impact to Korean Air's non-consolidated financial statements as well as the related stakeholders such as shareholders and creditors. The impact affected the balance sheet in a way to increase the risks of the company due to debt increase while it brought improvement of profitability of the company.

Based on the above analysis, I would like to make a few points as conclusion.

First, the aircraft lease structures such as a synthetic lease, which are sometimes disguised in an attempt to achieve off-balance-sheet treatment, should not be allowed to protect related parties. As we have seen in the Enron case, the accounting fraud might cause a significant impact to our society. It becomes more difficult to identify substance of the transactions as the lease structures are more sophisticated and complicated. However, such restrictions on the leases should not be obstacles for aircraft leasing business seeking more creative structured leases and cross-border transactions.

Second, I believe that capitalization method is not necessarily the best way to convey transparent financial information to investors. On-balance-sheet treatment might lead to overestimation on profitability of the leases in an attempt to capture the asset risks. Thus, current operating lease treatment, with related disclosures in the form of footnotes in the financial statements, could be more accurate to show the nature of the leases.

The accounting rules related to lease classification could be applied in one way or the other. Obviously, the international trend is to be more restrictive to off-balance-sheet treatment. However, there are still gray areas and some different provisions in lease classification rules by country. The case of Korean Air and KALF shows that it could be accounted differently by two different accounting rules.

I admit that my analysis in this thesis is not sufficient enough to support or justify off-balance-sheet treatment of the case for Korean Air and KALF. I believe that more integrated study including financial analysis and tax effect is required. Also, it is desired to review more cases on cross-border leases together with related accounting rules in order to facilitate the lease classification issue. I will leave it for further study in the future.

# Appendix : A sample term-sheet for KALF lease

## I. PARTIES TO THE TRANSACTION

| | |
|---|---|
| Lessee/Sub-Lessor: | Korean Air Lease and Finance Co., Limited ("KALF"), Korean Air's 100% subsidiary in Ireland, whose obligations are fully guaranteed by Korean Air Lines Co., Ltd., Seoul Head Office ("Korean Air"). |
| Sub-Lessee: | Korean Air. |
| Guarantor: | Korean Air. |
| Lenders: | A syndicate of international financial institutions lead managed by the Arranger and the Co-Arrangers, and including, inter alia, the lending offices of the Underwriters. |
| Facility Agent & Security Trustee: | ABC Bank. |
| Lessor/Borrower: | A special purpose company incorporated in a tax neutral jurisdiction (Cayman Islands for example) acceptable to all parties (the "Lessor"). The SPC will be established by, and be a majority owned subsidiary of, ABC Bank ("Lessor Parent"). It will provide to the Lessee and the Lenders comfort letter(s) whereby it will agree: (i) to maintain the Lessor as a majority owned subsidiary of the Lessor Parent; (ii) to cause the Lessor to be properly managed; and (iii) to ensure the Lessor will not engage in any business other than leasing the Aircraft pursuant to this |

Note : The terms and conditions here are to illustrate the overall lease structure involving KALF. Thus, some provisions have been modified and simplified compared with actual lease term sheets.

| | |
|---|---|
| | transaction and other business related or incidental thereto. |
| Arranger: | ABC Bank. |
| Co-Arrangers: | Several banks participated in the transaction. |
| Underwriters: | The Arranger and the Co-Arrangers, on a several but not joint basis, underwrite 100% of the Master Loan for the Aircraft. |
| Manufacturer: | XYZ for the Airframe, and DEF for the Engines. |

## II. SUMMARY OF THE TRANSACTION

| | |
|---|---|
| Aircraft: | new XYZ aircraft together with DEF engines, buyer furnished equipment and their technical records and log books – including manuals and maintenance records maintained in the English language - (the "Aircraft"). |
| Delivery Date: | XXX |
| Aircraft Cost: | Assumed to be a maximum of :<br><br>USD XXX<br><br>or such other amount reasonably acceptable to the Lessor, the Agent and the Lenders. |
| Facility: | The Facility will consist of one (1) senior commercial loan (the "Master Loan") for an aggregate amount of USD XXX ("Facility Amount") with no more than one fourth of this amount to be drawn in respect of the Aircraft. |
| Transaction Steps: | The Lessor will receive an assignment by Korean Air to purchase the Aircraft with the consent of the Manufacturer. |

For the sole purpose of leasing the Aircraft to the Lessee (which in turn will sub lease it to the Sub-Lessee), the Lessor will purchase, and obtain full ownership title to, the Aircraft from the Manufacturer by paying 100% the Aircraft Cost pursuant to an invoice from XYZ and subject to documentation satisfactory to the transaction parties. The transfer of title to the Aircraft to the Lessor will be evidenced by a legally binding and enforceable bill of sale issued by the Manufacturer.

Up to 75.6% of Aircraft Cost will be funded by the Facility.

The balance of the funding, i.e. up to 24.4%, required by the Lessor to purchase each Aircraft will either be funded by Korean Air itself from internal resources (and will be provided to the Lessor as an initial rental payment on the day of delivery of the Aircraft), or will be funded by a subordinated commercial loan ("Junior Loan") arranged by a third-party institution mandated by Korean Air on terms acceptable to the Lessor, the Security Trustee, the Arranger and Co-Arrangers.

Upon taking title to the Aircraft from the Manufacturer, the Lessor will immediately enter into a finance lease agreement with the Lessee for ten (10) years according to the terms and conditions of the lease mentioned hereafter (the "Master Lease"). Simultaneously, the Lessee will enter into an operating lease with Korean Air, which provides substantially similar terms and conditions as those in the Master Lease (the "Sub Lease"). The payment obligations of Lessee under the Master Lease will be irrevocably and unconditionally guaranteed by Korean Air. The Sub Lease rentals may be lower than the Master Lease Rentals. The shortfall shall be made up by a separate loan facility extended by Korean Air to KALF on each payment date ("Shortfall Facility"). The Lessee's drawdown rights under the Shortfall Facility will be assigned to the Lessor, for further assignment to the Lenders.
Please refer to the transaction diagram in at the end.

## III. TERMS AND CONDITIONS OF THE MASTER LEASE ("LEASE")

**Lease Term:** The Lease Term will commence on the Delivery Date and will continue for ten (10) years thereafter. Neither renewal nor extension of the Lease will be permitted.

**Guarantee:** Korean Air will fully, irrevocably and unconditionally guarantee the obligations of the Lessee under the Lease and the other Operative Documents.

**Lease Rental:** Lease Rentals for each Aircraft during the Lease Term will be paid semi-annually in arrears in 20 payments following a schedule to be determined prior to the Delivery Date. Each Lease Rental shall at all times be sufficient to pay principal outstanding and interest accruing under the Loans, and each Lease Rental shall be applied to debt service under the Loans and will be in USD (The Lenders will be granted an assignment of the Sub Lease and a charge over the Lessee's bank account).

**Purchase Option:** At the end of the Lease Term, subject to no Event of Default having occurred and remaining un-remedied, the Lessee will have the option (the "Purchase Option") to purchase, by written notice delivered to the Lessor not later than 3 months but not earlier than 6 months prior to the last day of the Lease Term, the Aircraft at a nominal fixed price equal to USD 1 (one US Dollar) plus any other amounts outstanding under the Lease and any other Operative Documents.

**Voluntary Termination:** On any Lease Rental payment date on or after the third (3rd) anniversary of the Delivery Date, upon receipt by the Lessor of an irrevocable written notice not more than 6 months and not less than 3 months prior to such Lease Rental payment date, the Lessee may terminate the Lease by paying the Lease Rental due on such date, the Termination Amount and any other amount outstandings, if any, due to the Lessor or the Lenders. Upon receipt of such payment in full, the Lessor will convey the title to the Aircraft to the Lessee on an "as-is where-is" basis.

**Lease Event of Default:** Events of Default with respect to the Lessee will include, but not only be limited to, the following:

(Detailed conditions are omitted)

Event of Loss: An Event of Loss in relation to the Aircraft shall include but not be limited to any of the following events:

(Detailed conditions are omitted)

Following an Event of Loss, the Lessee shall be obliged to pay the Total Loss amount.

Termination: Upon the occurrence of a Lease Event of Default which is continuing, the Lessor may declare the Lease to be in default, and in addition to any other remedies provided by applicable law, the Lessor shall be entitled to:

(i) demand return of the Aircraft in accordance with all Return Conditions of the Aircraft;

(ii) demand payment from the Lessee or the Guarantor to make payment of the Termination Amount to the Lessor in an amount sufficient to repay the outstanding principal under the Loans, together with accrued interest thereon and all other amounts owed by the Lessee to the Lessor or the Lenders under any Operative Document before the Lessor may be entitled to pass title on the Aircraft to the Lessee;

(iii) enforce performance by the Lessee or the Sub-Lessee of their respective obligations under the Lease, the Guarantee or the Sub-Lease; and

(iv) terminate the Lease and, at its sole discretion, sell, lease or otherwise use the Aircraft.

Return Conditions of the Aircraft: At the end of the Lease Term, should the Lessee not exercise the Purchase Option, the Lessee shall be required to return the Aircraft to the Lessor at a location to be designated by the Lessor. The Lessee or the Sub-Lessee will ensure the Aircraft shall comply with the Return Conditions set forth in the Lease, which will include but not be limited to the following conditions:

(Detailed conditions are omitted)

| | |
|---|---|
| Registration: | The Lessee/Korean Air shall ensure that the Aircraft is at all times registered at the cost of Lessee/Korean Air with the Korean Civil Aviation Authority of Republic of Korea in the name of the Lessor as registered owner, the Sub-Lessee as Operator, and the Security Trustee and Lenders as Mortgagees. |
| Inspection Rights: | With reasonable prior notice to the Lessee, upon the reasonable request by the Lessor or any person designated by the Lessor, the Lessor will be able to obtain reasonable information about the Aircraft and inspect the Aircraft during the term of the Lease, provided the inspection does not interfere with the Lessee's normal operations of the Aircraft. |
| Information: | Lessee and the Sub-Lessee agree to furnish during the term of the Lease audited annual financial statements and semi-annual accounting reports sent to its stockholders promptly when available but in any case with one hundred and twenty (120) days after the end of each fiscal year or half year.<br><br>The Lessor may have the right to require the Sub-Lessee to furnish from time to time during the Lease term a written confirmation that its navigation or airport charges have been paid or are within approved credit limits at Euro control, together with a list of airports where the Aircraft is being operated. |
| Insurances: | During the Lease or the Sub-Lease Term and, in the case of public liability coverage for two years after termination or expiry of the Lease, or the Sub Lease, the Lessee or the Sub-Lessee will maintain "All-risks" and "War Risks" hull coverage and aircraft third party, passenger, passenger's baggage, cargo and mail liability insurance with respect to the Aircraft. |
| Maintenance: | The Lessee and the Sub-Lessee will ensure that the Aircraft are maintained at all times in line with prudent international |

airline practice, in good operating and airworthy conditions (normal wear and tear excepted) in accordance with the Manufacturer's service bulletins or its equivalent, and in a non-discriminatory basis with the other aircraft in the fleet of Korean Air.

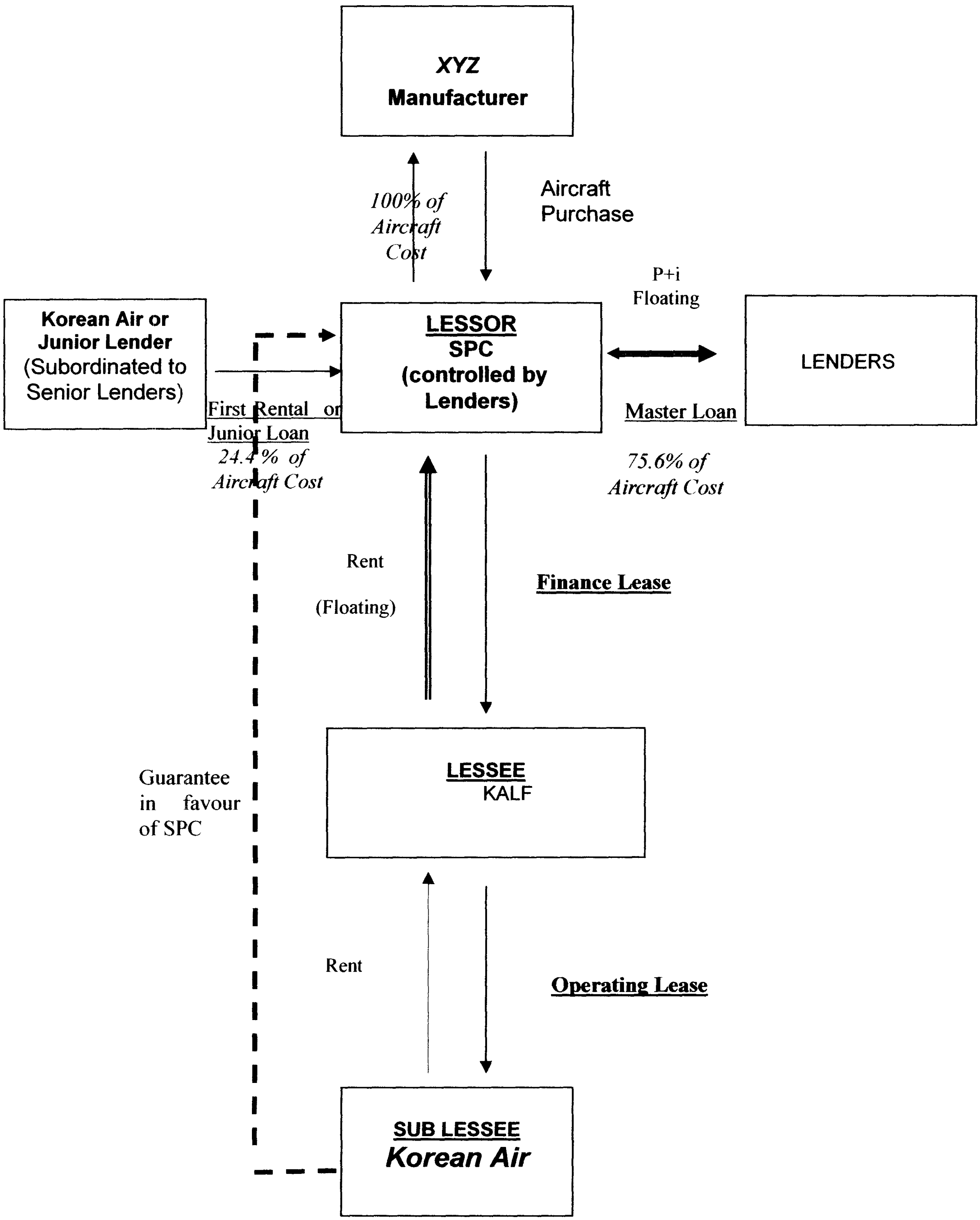
The Lessee shall pay all costs, expenses, fees and charges incurred in connection with maintenance and operation of the Aircraft.

| | |
|---|---|
| Quiet Enjoyment: | The Lessor, the Facility Agent and the Lenders will agree not to disturb the Lessee's and Sub-Lessee's right to quiet enjoyment so long as no Loan, Lease or Sub-Lease Event of Default has occurred and is continuing. |
| Sub-Lease: | The Lessee may not sub-lease the Aircraft to any operator other than Korean Air. Korean Air may not sub-sub-lease the Aircraft to any party without a prior written consent of the Lessor and the Lenders (which shall not be unreasonably withheld so long as the Lessor's ownership interest and the Lenders' security interests are not prejudiced). |
| Modifications and Improvements: | The Sub-Lessee shall have the right to make modifications or improvements to the Aircraft provided that they do not materially reduce the value of the Aircraft and that these modifications are always subject to the approval of the Aviation Authority. All modifications on the Aircraft, upon termination or expiration of the Lease, shall be the property of the Lessor. |
| Flow-through indemnity: | Any amount including but not limited to gross-up of any withholding or increased costs (but excluding scheduled principal and interest) due by the Lessor under the Loans, will be due by the Lessee to the Lessor under the Lease to discharge such obligations of the Lessor to the Lenders. Payment by Lessee of any such amount (on demand of the Lessor) to the Facility Agent or the Security Trustee shall satisfy Lessee's / Sub-Lessee's obligations under the Lease / Sub Lease and the Lessor's corresponding obligation under the relevant Operative Document. |

< Lease payment schedule and KAL Loan >

| # | DATE | FROM | TO | Sublease | Head Lease | KAL Loan |
|---|---|---|---|---|---|---|
| 1 | 03.04.04 | 02.10.04 | 03.04.04 | $3,196,626.58 | $6,672,195.05 | $3,475,568.47 |
| 2 | 03.10.06 | 03.04.04 | 03.10.06 | $3,066,075.64 | $6,522,810.08 | $3,456,734.44 |
| 3 | 04.04.04 | 03.10.06 | 04.04.04 | $3,366,935.40 | $6,970,327.13 | $3,603,391.73 |
| 4 | 04.10.04 | 04.04.04 | 04.10.04 | $3,413,818.41 | $7,069,512.88 | $3,655,694.47 |
| 5 | 05.04.04 | 04.10.04 | 05.04.04 | $3,455,539.72 | $7,160,087.01 | $3,704,547.29 |
| 6 | 05.10.04 | 05.04.04 | 05.10.04 | $3,487,511.77 | $7,239,264.46 | $3,751,752.69 |
| 7 | 06.04.04 | 05.10.04 | 06.04.04 | $3,531,060.22 | $7,334,831.59 | $3,803,771.37 |
| 8 | 06.10.04 | 06.04.04 | 06.10.04 | $3,565,744.92 | $7,421,100.24 | $3,855,355.32 |
| 9 | 07.04.04 | 06.10.04 | 07.04.04 | $3,611,233.09 | $7,522,021.59 | $3,910,788.50 |
| 10 | 07.10.04 | 07.04.04 | 07.10.04 | $3,648,797.54 | $7,615,892.36 | $3,967,094.82 |
| 11 | 08.04.04 | 07.10.04 | 08.04.04 | $3,692,158.71 | $3,692,158.71 | $0.00 |
| 12 | 08.10.04 | 08.04.04 | 08.10.04 | $3,736,839.15 | $3,736,839.15 | $0.00 |
| 13 | 09.04.04 | 08.10.04 | 09.04.04 | $3,786,569.44 | $3,786,569.44 | $0.00 |
| 14 | 09.10.04 | 09.04.04 | 09.10.04 | $3,830,431.83 | $3,830,431.83 | $0.00 |
| 15 | 10.04.04 | 09.10.04 | 10.04.04 | $3,882,482.65 | $3,882,482.65 | $0.00 |
| 16 | 10.10.04 | 10.04.04 | 10.10.04 | $3,929,790.19 | $3,929,790.19 | $0.00 |
| 17 | 11.04.04 | 10.10.04 | 11.04.04 | $3,984,304.51 | $3,984,304.51 | $0.00 |
| 18 | 11.10.04 | 11.04.04 | 11.10.04 | $4,035,269.41 | $4,035,269.41 | $0.00 |
| 19 | 12.04.04 | 11.10.04 | 12.04.04 | $4,090,388.92 | $4,090,388.92 | $0.00 |
| 20 | 12.10.04 | 12.04.04 | 12.10.04 | $4,147,185.40 | $4,147,185.40 | $0.00 |
| 21 | 13.04.04 | 12.10.04 | 13.04.04 | $4,207,089.82 | $4,207,089.82 | $0.00 |
| 22 | 13.10.04 | 13.04.04 | 13.10.04 | $4,266,057.01 | $4,266,057.01 | $0.00 |
| 23 | 14.04.04 | 13.10.04 | 14.04.04 | $4,328,908.74 | $4,328,908.74 | $0.00 |
| 24 | 14.10.04 | 14.04.04 | 14.10.04 | $4,392,251.28 | $4,392,251.28 | $0.00 |

< Transaction diagram >



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