



A Shift in Lease Accounting: the Study
of the Transition from IAS 17 to IFRS 16

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INTRODUCTION

In January 2016 the International Accounting Standard Board published a new accounting standard for leasing, IFRS 16 *Leases*, which will supersede its predecessor, IAS 17, for what it concerns lease accounting. The novelty? The new accounting standard will require all leases to be recognized on the entity's balance sheet, thereby eliminating the previous differences in accounting procedures between operating and financing leases. The implications of this amendment are quite widespread: various industries, including telecommunications and retail, heavily rely on operating leases in order to utilize numerous assets, ranging from equipment to real estate. The reason for this financing choice is that as lessees, firms can take advantage of the fact that accounting for operating leases does not require the recognition of an asset or liability on the firm's balance sheet. Instead, the expenses deriving from a lease contract are, under IAS 17, recognized exactly as such, in the firm's income statement. Of course, this is advantageous for firms: they are able to lease assets under operating leases, therefore not having to take on risks and liabilities linked to ownership of the asset, and at the same time their debt toward the lessor is not readily evident to users of financial statements, as this information is included per period in the income statement. Of course this flaw goes against the main purpose of having an accounting system that is standardized and applicable on an international level, i.e. to provide users of financial statements with the possibility of easily consulting these documents, so that relevant information on the financial position of any firm can be assessed quickly and objectively. The accounting procedures required by IAS 17 do not reflect this goal; in fact, the lack of recognition of assets and liabilities pertaining to operating leases makes it quite difficult to evaluate the financial position of a firm. This is because often times, in order to have a sense of the benefits and liabilities associated with an operating lease, users have to integrate the information provided in the income statement with information disclosed by the firm, or even with assumptions made by the user himself. It is precisely due to this lack of objectivity that the IASB decided to update its lease accounting requirements, through the introduction of IFRS 16 *Leases*.

The purpose of this study is to evaluate the differences between the present accounting standard, IAS 17, and the new standard, IFRS 16 *Leases*. Nonetheless, the study also aims at understanding the impact of this amendment in regulation, both in terms of the effect it will have on individual firms and also the impact it will have on a global scale. In order to study the aforementioned topics, the study will begin by analyzing the phenomenon of leasing, understanding why leasing is used as a method of financing, and in what context it is preferred to traditional bank loans. Moreover, through data of the European and US leasing markets, it will be possible to understand the extent to which leasing contracts, and most importantly operating leases, are used; this is done in order to create a basis for understanding just how impactful the new accounting standard will be.

The study will then begin analyzing the existing accounting standard, IAS 17, how differently it treats operating and finance leases, and the backlash it has received. This analysis will be followed by the description of the new accounting standard, highlighting key differences with its predecessor and how these differences are expected to fix the issues present within IAS 17. Lastly, an impact analysis and an overall evaluation of the new standard will be carried out. First and foremost it will be important to understand if the new standard will be able to fulfill its main purpose, which is to solve the lack of clarity and objectivity in lease accounting present within the previous procedure, an aspect which is rightfully demanded by stakeholders. Secondly, it is paramount to understand what the effects of the new accounting procedures will be, not just on individual firms' financial statements and ratios, but also how it will affect future financing decisions taken on by firms. IFRS 16 has the potential of altering leasing markets as they are known today, potentially driving firms to adopt new finance methods for their investments. Therefore, through a study of how vastly leasing is used, and how much it differs from its antecedent, it will be possible to speculate, also by analyzing what the biggest consulting agencies, such as Ernst & Young, PwC and Deloitte are advising their clients, what the effects of this new standard are expected to be.

CHAPTER 1

1.1 Introduction to leasing

A lease is a contractual agreement between two counterparties: a lessee (he/she who holds the lease of a property) and a lessor (he/she who lends a property). Leasing then represents a contract whereby a lessee pays the lessor for the use of an asset; the lessor is the owner of the asset and transfers the right of economic use of the asset to the lessee, given that the lessee upholds certain contractual obligations, most common of which are periodic payments to the lessor. Leasing is a fundamental aspect of business activity; in fact, many assets at the core of production including, but not limited to, property, equipment, and buildings, are often used as a result of a lease contract. This is due to the fact that leasing is beneficial to both parties in that it is essentially a more convenient method of financing the cost of an asset: through leasing, lessees can utilize assets that will aid them in business activities with a lower financial burden, and the lessors are compensated for giving up the asset for a pre-determined period of time.

At a first glance, it could seem as though a lease contract is very similar to a bank loan. Nonetheless, there is a very important difference between the two that will be useful in later pages when discussing why leasing is used to such a great extent in the business world. The main, and crucial, difference between the two is the use of collateral; more specifically, the fact that leased assets inherently represent the collateral of a leasing agreement. Instead of relying on two payment sources as bank loans do (the two payment sources being either cash flow generation or collateral), a leasing contract revolves around the lessee's possibility to generate cash flows through its business activities. The logic of collateral as a payment source is to guarantee protection against a default risk of a lessee; the bank, if the lessee failed to meet his payment, would still obtain a compensation through the value of the collateral. On the other hand, the use of collateral in a lease contract would be futile: a lease contract does not transfer *ownership* of the asset, it only transfers the possibility to gain from the *economic use* of the asset. Therefore, in case of default, the collateral would just entail the lessor regaining possession of the asset he had lent (Kraemer-Eis and Lang).

There are two main types of leases, the main differences among them being the parties involved and the risk associated to the contract. First and foremost, we have the **operating lease**¹, through which the owner of a standardized² good – the **lessor** - lends the possibility to use this good to another party – the **lessee** -, in exchange

¹ The generic classification of an operating lease as described by IAS 17 (i.e. “a lease other than a financial lease”) will be taken into consideration in Chapter 2. The purpose of the above description is to provide the reader with a definition of operating lease that is more specific, and therefore easier to conceptualize.

² A standardized good is to be understood as a good which is produced in series.

for payments³ made according to a pre-determined formula. Sometimes the lessor of the asset is also its manufacturer; other times he acts as an intermediary between the manufacturer and the lessee. This type of contract is typically employed in order to obtain a temporary use of a capital good, defined as a good that is needed for the production of other goods or services. The lessee, with an operating lease, intends to use the good for a period of time that is lower than the economic life of the asset, meaning that at the end of the lease contract the asset will still be employable. Nonetheless, the most important characteristic of an operating lease is that it *does not* transfer to the lessee the risks and rewards that are incidental to ownership; this includes obsolescence of the asset. Because of its characteristics, operating leases are useful especially for assets that need to be replaced periodically; ergo, they are a prominent method of funding for assets such as machinery and vehicles.

A **financial lease** instead is a contract involving potentially three parties. The standard set up of this contract entails a financial company (the **lessor**) which buys, on account of another company (the **lessee**), a good that the latter needs, lending the good in exchange for a periodic payment. The contractual agreement is then created between three parties: the lessee, the lessor and he who constructs the good. In fact, the leasing company does not produce the good but acts merely as a financial company; it provides the lessee with the financial resources needed to utilize and eventually purchase the good after a long period of time. In exchange for this aid, the lessee will pay periodic installments to the lessor, for a quantity that is equal to price of the good, plus interest payments and a commission for financial risk. At the end of the contract, the lessee may choose to become the owner of the good by paying a pre-determined price. Generally, a lease is said to be financial if it substantially transfers *all risks and benefits* incidental to ownership of an asset. This means that the lessor bears all risks and benefits that come from the economic use of the asset (UniCredit).

1.2 Leasing vs. Debt Financing

Over the years, leasing contracts have quickly gained momentum, with many analysts and researchers noticing that an increasing amount of firms and enterprises, spanning from small and medium enterprises to large corporations, prefer leasing rather than the traditional debt financing. Copious research has therefore been conducted over the years, accompanied by empirical evidence of all sorts. Tests have studied the relationship between leasing and debt financing, verifying their relationship of complementarity and/or substitutability, as well as trying to understand which industries, if any, show a prevalent use of leasing and why. Even though this comparison may seem fruitless in the context of this analysis, it is important to understand the extent and motivation of use of leasing by part of many firms in the economy, in order to fully grasp the effects of an amendment to the accounting standards for leases.

³ The payments will equal the use value of the asset. In this discussion, the use value of an asset is intended to be the benefit the economic agent gains from utilizing it.

There are a lot of empirical studies trying to find a relationship of complementarity and/or substitutability of debt financing and leasing, as well as trying to understand why leasing is being utilized to such an extent in various industries. The research is contrasting in various point, mainly due to the fact that samples are very difficult to study, especially when trying to study the latter issue. The following studies presented are the ones that were able to find a common ground among the existing literature by adjusting elements of statistical analysis that were causing results of empirical studies to be discordant.

In terms of trying to determine whether debt financing and leasing are complements or substitutes, a matter far from trivial, more recent empirical studies found that leases and debt are more substitutes than complements; a concept which is in line with traditional finance⁴. Nonetheless, the degree to which this is true depends on the growth options and on the marginal tax rates available to the firm (Yan 2006). In his analysis, Yan (2006) essentially finds that the degree of substitutability is actually closely related to phenomena of agency costs and asymmetric information. Specifically, he argues that firms that face large asymmetric information problems will prefer leasing rather than traditional debt financing, in that with traditional debt they will face a larger risk premium payment as a protection against default risk. This observations is in line with what had been found in an article published by Thomas J. Finucane (1988) entitled *Some Empirical Evidence on the Use of Financial Leases*. Through a Tobit analysis, Finucane was able to conclude that the level of leasing varies across industries according to various variables including: “debt ratio, presence of mortgage debt, [...], number of bonds in the firm’s capital structure, and the firm’s debt ratings” (Finucane 1988). The issue of debt vs leasing then becomes a matter of agency costs and asymmetric information, and how these issues impact individual firms, rather than just the economic problem of funding durable goods in a more efficient manner.

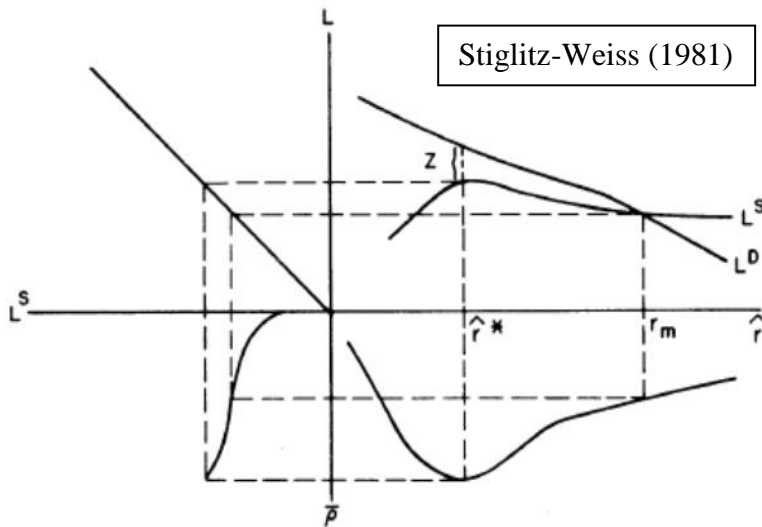
A summary of the academic literature on leasing⁵ essentially brings about the idea that the strong presence of leasing in various sectors is not to be ascribed only to tax advantages, as the original literature expressed, but rather to the fact that in many situations lending results in a much more approachable method of financing. In fact, leasing is perceived to be a more “flexible” medium of funding, in that it can be “tailored to the cash flow generation pattern of the lessee” (Kraemer-Eis, Lang 2012/15). Moreover, the presence of market failures such as the existence of asymmetric information lead many companies, especially small and medium enterprises, to prefer leasing.

It is useful to make a small digression discussing the concept of asymmetric information, and its relationship with debt financing, especially in terms of bank loans. Even though bond issuance is also considered to be a traditional way of financing, it is a tool that can be used only by a selected group of companies, and therefore will be

⁴ Substitutability implies that an increase in the use of leasing will decrease the use of debt financing.

⁵ (Kraemer-Eis and Lang)

disregarded for the moment. **Asymmetric information** represents a market failure in efficient allocation of resources and it is one of the most robust arguments against perfect competition and market efficiency. It is well known that one of the main risks banks face is credit risk, i.e. the risk that the borrower defaults on his obligation. It is a risk related mainly to the difficulty in discerning between good and bad potential creditors. The components of asymmetric information are **moral hazard** and **adverse selection**. Adverse selection represents the bank's inability to discern between clients with high risk and low risk projects; because of this the rate that is charged on loans is an average between what would be charged to high risk clients and low risk clients. Contrary to their



initial intention, by employing this strategy banks are usually left with a pool of risky clients, in that they find it favorable to borrow from banks in that they pay less than what they would otherwise (since they are high risk clients they would likely be charged with a higher rate to compensate for the riskiness). Moral hazard instead comes into play due to the uncertainty that arises after the loan has been made. Banks in fact cannot control how clients will employ the money that has been

lent; especially when the contractual rate on the loan is very high, clients may attempt to invest that money in high risk-high return projects. Banks employ various tools as safeguards against asymmetric information and credit risk including screening (ex ante analysis) and monitoring, collateral requirements and **credit rationing**. In a 1981 paper, Stiglitz and Weiss analyzed how equilibrium in loan markets is actually characterized by efforts of the banking system to safeguard themselves against credit risk; banks will issue only as many loans as correspond to an optimal contractual rate (\hat{r}^*). The contractual rate is established in a way that allows to maximize the expected returns to a bank, whilst reducing the effects of asymmetric information. In fact, Stiglitz and Weiss argue that the interest rate charged by a bank may "itself affect" the riskiness of the pool of clients the bank faces. It is precisely this concept that causes there to be a supply of loans that is lower than demand (the credit rationing is represented by the letter Z in the figure above). Banks will in fact end up rejecting potential clients in order to avoid having to adjust the cost of borrowing in a way that would increase the probability of default by clients.

It is precisely because of this that leasing contracts appear to be much more accessible as a source of funding rather than bank loans. Many papers, including Sharpe and Nguyen (1995) Slotty (2009) and Yan (2002), have found that low-rated firms, as well as emerging enterprises, who face very severe asymmetric information problems have "a greater exigency to leasing" (Slotty 2009). In their paper Kraemer-Eis and Lang (2012/15) argue also that SMEs often employ leasing due to "de facto unjustified credit rationing" meaning that small and

medium enterprises are often denied funding by banks simply because their creditworthiness is perceived to be lower than what it actually is. Leasing therefore represents a much more accessible tool for many enterprises, making it an extremely used method of financing. This is especially true for heavy-equipment industries like agriculture, mining, manufacturing and construction; industries that rely on durable equipment. Not only does leasing make it easier to finance for the necessary goods, it also allows the lessor to not have to bear the losses that come with ownership of the asset, most important of which being the obsolescence an asset faces, due to depreciation. Equipment in the aforementioned industries inevitably become obsolete, not only because they wear out over time, but also due to technological innovation. This latter aspect is very significant, as innovation allows businesses to constantly increase their productivity. Therefore, in this type of economic and technological environment leasing allows to switch outdated equipment, with newer one, without bearing the cost of ownership of outdated assets. It is crucial to realize that most of the leases discussed above are *operating leases*. Understanding the extent of use of operating lease is fundamental in understanding the scope of the change brought by IFRS 16.

1.3 How much is leasing used?

Due to the nature of IFRS 16 it is important to understand the extent of use of leasing, and more importantly the types of assets that are leased. Looking at the latter piece of information, it becomes clear that a majority of assets leased are assets that would require an operating lease vs a financial lease. It is crucial to acknowledge and remember this observation when looking at an analysis of both IAS 17 and IFRS 16, which will both be analyzed in following chapters.

According to a statement by Price Waterhouse Coopers' Accounting and Valuation Advisory Services, the introduction of IFRS 16 would greatly impact entities leasing "big-ticket items" such as "real estate, manufacturing equipment, aircrafts, [...] computers and technology" (PwC, 2016). Moreover, the amendment will impact entities that employ numerous small leases for equipment and vehicles. Taking a minute to reflect on this information, it is possible to see how significant the impact would be, even more so if one looks at the data.

In the Euro area, only in 2016, €333.7 billion worth of leasing volumes were granted, representing an increase of 10.3% compared to 2015 (Leaseurope). The division of leasing volumes per asset type is provided by Figure 1.1. Half of this quantity is taken up by leasing of passenger cars (i.e. automobiles designed to carry less than 10 people), and 30% by equipment leasing. This category includes machinery and industrial

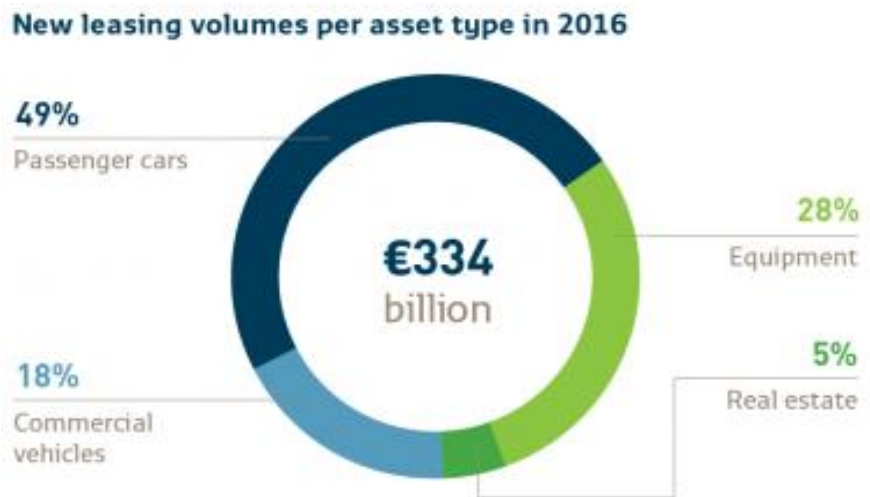


Figure 1.1

equipment, computers and business machines, and commercial vehicles⁶. These results are not surprising: companies prefer to lease equipment (through operating leases) rather than purchase them because ultimately it is less risky and expensive in the long run. Not only do they not bear the cost of depreciation, which is prominent with machinery and equipment, but they are always able to utilize tools that are technologically up to date, exchanging the old with the new.

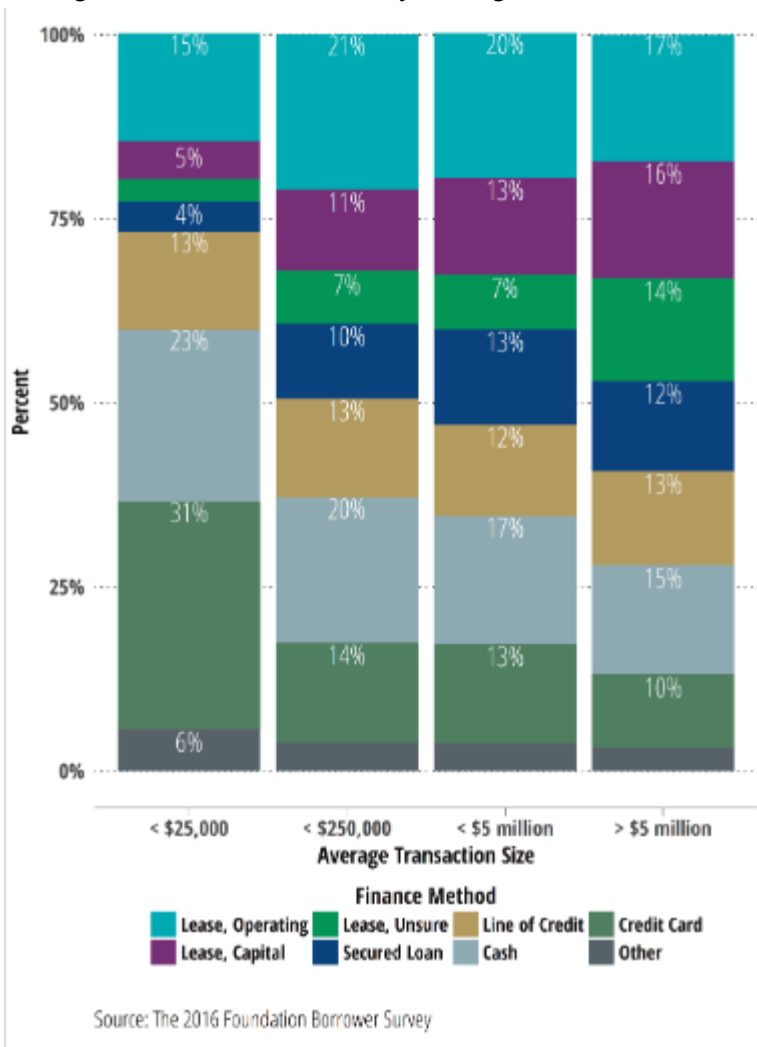
Another very interesting result is brought forth by the ELF Foundation (Equipment Leasing & Finance) in the U.S Equipment Market Study related to the period 2016-2017, through an “end-user survey” realized to “investigate borrower behavior and financing choices”. Firstly, a figure that resembles closely what found in Leaseurope’s report is that through their surveys, the Foundation found that almost 33% of equipment is financed through leasing, which is quickly replacing the use of credit⁷. Moreover, the study shows how operating are the most used lease type; these leases are especially used by companies that experience an acquisition cost between \$25,000 and \$5 million dollars. In fact, its use is quite significant considering how predominant leasing is over other methods of finance, especially for smaller and medium enterprises⁸. The same study is then analyzed taking

⁶ A more detailed breakdown of this category can be found in the Appendix, in figure A1

⁷ A more detailed breakdown of this category can be found in the Appendix, in figure A2

⁸ A more detailed breakdown of this category can be found in the Appendix, in figure A3

Figure 1.2: Finance Method by Average Transaction Size



transaction size into account, rather than considering acquisition costs, and the story remains very similar (Figure 1.2). The extended use of leasing is evident, regardless of transaction size; among the use of leasing, operating leases take the lead. The use of credit on the other hand decreases as transaction costs increase, a similar situation with what was happening when classifying according to transaction costs.

All of this data is in line with what discussed before, and it is interesting to note how the ELFF states that this predominance of lease over other sources of financing may be altered once IFRS 16 is introduced. Moreover, executive interviewees suggested that there will be a shift “towards managed solutions” and contracts that will have a duration that is lower than 12 months. When taking these results into account, however, it is important to realize that, unlike in European countries, the US does not require domestic listed companies to comply with IFRS standards. In fact, most companies need to comply with the US

GAAP. Nonetheless, given that there is an ongoing procedure to converge the US GAAP to the IFRS system, and given that US GAAP and IAS 17 are very similar in the way in which they treat lease accounting, it is reasonable to predict that the introduction of IFRS 16 will bring a substantial change also to the US leasing market.

The data presented is mainly in line with the discussion offered before. Leasing contracts are quite used in modern business activity, and their use has been increasing in the last years. This framework is meant to serve as a basis in order to understand what the impacts of the amendments to the international accounting standards could be and why it is important to be well prepared to face this issue. The following chapters provide first a detailed description of lease accounting according as described by IAS 17, and then will provide an overview of the new standard IFRS 16, along with what it is introducing, and the effects it is expected to have.

CHAPTER 2

2.1 Introduction to IAS 17

International Accounting Standards are accounting standards that had been issued by the International Accounting Standard Committee (IASC) before it was replaced in 2001 by the International Accounting Standard Board (IASB). Established in 1973, the main purpose of the IASC was to create a set of accounting standards meant to converge and harmonize national accounting principles in Europe, an idea which quickly gained popularity in other parts of the world. The idea was that, since the presence of globalization had been growing, there was the need for a set of accounting standards and procedures that would make financial statements and disclosure more understandable for stockholders in different parts of the world. In 2001 the International Accounting Standard Committee decided to change its structure in order to promote a more efficient convergence between national accounting standards and practices and high-quality global accounting standards. In order to uphold this objective, the International Accounting Standard Board proceeded to accept the existing IAS as well as issue new standards known as IFRS- International Financial Reporting Standards-, which have replaced or added to pre-existing International Accounting Standards.

Before the introduction of the International Accounting Standards, each country would regulate financial information and disclosure according to its own set of principles (GAAP or Generally Accepted Accounting Principles) which would vary across nations according to certain characteristics of the pertaining country. In order to understand the relevance of the IAS it is essential to understand just how much of a variation is present in different national accounting standards⁹. A first difference is caused by varying legal systems among nations, specifically the divergence of common law and civil law countries. Common law countries are characterized by the absence of a set of codified rules. The judicial system in these countries operates on the basis of legal precedent, i.e. verdicts made by juries and judges in preceding and similar cases. As a result of this, the GAAP in common law countries is set up and provided by the public sector, meaning that external shareholders hire private, professional accountants to protect their interests and the accountants themselves establish the rules for accounting practices. On the other hand, civil law countries have a very structured set of codified rules, where judges interpret the law and apply it to cases. Therefore, in these countries, the national GAAP is provided by the government,

⁹ A specification is needed. The compliance with the International Accounting Standards is not mandatory, although strongly recommended in view of the efforts to converge accounting standards. Since compliance is not mandatory, some countries choose to keep using their GAAP, either because they lack listed companies or because they feel like their GAAPs are similar enough to IAS/IFRS that they need not change them (Deloitte). It is therefore to be understood that the introduction of IAS has not eliminated the presence of GAAPs in countries, solely that the countries who have chosen to adopt them can allow market participants to avoid facing the burden of comparing different financial statements, inter alia.

who complies with the detailed legal requirements. Moreover, ownership structure and taxation procedures play a huge role in influencing accounting standards. Depending on how listed companies are owned, the information of financial statements will have to appeal different groups of people such as shareholders/investors (who will want to assess the ability of the company to pay dividends, and in order to make investment decisions) and creditors (who will want to assess the ability of the company to repay debts, including the payment of taxes). The former case applies to so-called “equity” or “outsiders systems”, economic systems in which companies rely on equity provided by millions of private shareholders. The latter case instead is applicable to “credit” or “insider systems”, where companies rely on debt provided by banks or the state. It is precisely this difference in sources of funding that provides accounting standards with different purposes: orientation to decision making in common law countries versus tax purposes in civil law countries.

A comparison between the United States, a common law, market oriented¹⁰ country, and Italy, a civil law, bank oriented country, is useful in understanding this difference. Being the US a market oriented country, the Rule of Control comes from the market and millions of private shareholders. Within companies there are no supervisory boards, because a poor performance by managers will be immediately met with a decrease in value of the company through market activity. Financial statements are therefore employed mainly to present to shareholders and investors the performance of the company in order to send a positive message to the market. In Italy instead, ownership belongs to few major shareholders who own all the shares of a company, who are usually also the same people who manage and run the company. Therefore financial statements are employed not to communicate information to shareholders but to banks, big investors and the government, who are interested in understanding if the company will be able to meet its debt obligations and to pay the required taxes.

It follows from the above discussion that, having different purposes, national accounting standards will also require company to disclose and/or not disclose certain information, it becomes extremely difficult for investors and other parties to compare the financial statements of two companies, if these companies were to be located in two different countries. This is especially the case in a globalized economic system such as the present one, which is interconnected daily, and made up of many multinational corporations. International Accounting Standards however also result to be in favor of companies, rather than just investors. In fact, a standardized accounting system allows auditors, whether they be people or companies, to gather information at a lower cost and in less time, allowing the auditing process to save time and money for the company.

Among the most important standards is IAS 17, which is the main regulatory standard for the recognition and measurement of leases. International Accounting Standard 17 was issued in its final form in 1997 (even though it

¹⁰ A market oriented system is defined as an economy in which law of supply and demand is the main regulating factor.

was amended a few times after that) with the objective to “prescribe, for lessees and lessors, and the appropriate accounting policies and disclosure in relation to leases”¹¹. A lease under IAS 17 is defined as an “agreement” whereby the lessor conveys to the lessee the right to use an asset for an agreed period of time in return for a payment or a series of payments.

The standard also provides the scope of its application¹². Specifically, it states that the standard shall be applied to all leases except for:

- a. Leases to explore for or use minerals, oil, natural gas and similar non-regenerative resources; and
- b. Licensing agreements for such items as motion picture films, video recordings, plays, manuscripts, patents and copyrights.

The Standard should not be applied as the basis of measurement for:

- a. Property held by lessees that is accounted for as investment property (IAS 40)
- b. Investment property provided by lessors under operating leases (IAS 40)
- c. Biological assets held by lessees under finance leases (IAS 41)
- d. Biological assets provided by lessors under operating leases (IAS 41)

One of the focal point of IAS 17 is its classification of leases, and the differences in accounting that come from this distinction. Specifically, the standard provides a distinction between **operating** and **financial** leases, where a financial lease is a lease that transfers “substantially all the risks and rewards incidental to ownership of an asset”¹³; moreover, it states that “title may or may not eventually be transferred”. This essentially means that at the end of the leasing contract, the lessor may decide to gain ownership of the asset; as long as this transfer occurs at the end of the contract, the agreement is still to be considered financial. Instead, the definition of an operating contract is vaguer, stating that an operating lease is a “lease other than a finance lease”. Furthermore, following this description, an operating lease does not allow the possibility of obtaining ownership of the asset at the maturity of the lease. The classification of leases in IAS 17 is therefore based on the extent to which risks and rewards incidental to the ownership of an asset affect lessees and lessors. By risks, the standard means the “possibilities of losses” that stem from the “idle capacity” or “technological obsolescence” as well as “variations in return” as a result of shifting economic conditions¹⁴. Rewards, instead, are defined as the “expectation of profitable operation over the asset’s economic life” as well as a gain stemming from “appreciation in value or realization of a residual value”. Therefore, if the risks and rewards remain in the hands of the lessor, the contract

¹¹ IAS 17: Objective, par.1

¹² IAS 17: Scope, par. 2

¹³ IAS 17: Definitions, par. 4

¹⁴ IAS 17: Classification of Leases, par. 7

is to be considered as operating. In the opposite case, instead, the contract is classified as financial; essentially a situation of buying and selling is created, whereby the lessee can use the good as if he were the owner, even if the title of ownership will not be transferred to him until lease term. In this aspect, a financial lease is similar to interest payments paid in order to obtain a loan, with the only main difference being that the lessor maintains the asset that is being leased as a collateral for the duration of the contract, regardless of whether ownership will be transferred or not (Savioli 2008).

The classification of a lease occurs at the inception of the lease and if both parties decide to amend the contract in a way that would change the nature of the contract in terms of its classification, the amended agreement is to be regarded as a new and separate agreement¹⁵. In order to better clarify the distinction between the two leases, the standard provides¹⁶ some examples of situation which would justify the classification of a contract as a financial lease:

1. The lease transfers ownership of the asset to the lessee by the end of the lease term;
2. The lessee has the option to purchase the asset at a price that is expected to be sufficiently lower than the *fair value*¹⁷ at the time in which this option can be exercised;
3. A duration of the lease contract that is at least as long as the “major part of the *economic life*¹⁸ of an asset”, even with a lack of ownership transfer. The standard does quantify the “major part of the economic life of the asset”; usually, it is sufficient to consider a benchmark of 75% of the economic life of the asset, as set by the American accounting principle SFAS 13 (Savioli 2008);
4. The present value of the minimum lease payments at the inception of the contract amounts at least to the fair value of the asset. This is done in order to ascertain whether the investment of the lessor will be fully remunerated, allowing therefore the possibility to assume that the lessee is the one gaining through the use of the asset. Again, the standard does not provide with a useful determination of what the present value should amount to with respect to the fair value; a convenient benchmark is set at 90% by SFAS 13.
5. The leased assets are of such a specialized nature that only the lessee can use them without major modifications;
6. If the lessee can cancel the lease, the lessor’s losses associated with the cancellation are borne by the lessee;
7. Gains or losses from the fluctuation in the fair value of the residual accrue to the lessee; and

¹⁵ IAS 17: Classification of Leases, par. 13

¹⁶ IAS 17: Classification of Leases, par.s 10-11

¹⁷ The **fair value** of an asset is defined by IAS 17 (Definitions, par.4) as “the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm’s length transaction”

¹⁸ The **economic life** of an asset is defined by IAS 17 (Definitions, par. 4) as either “the period over which an asset is expected to be economically usable by one or more users” or “the number of production or similar units expected to be obtained from the asset or by one or more users”.

8. The lessee has the ability to continue the lease for a secondary period at a rent that is substantially lower than market rent. This serves to indicate a situation in which, and the end of the contract, the lessor has already obtained through the contract a complete and adequate remuneration for his initial investment. Again, this would indicate that the lessee is the only one gaining from the use of the asset and that, therefore, he is assuming all risks and benefits that come from the asset (Savioli 2008)

Of course, while the list presented above attempts to be exhaustive, it does not account for all possible contractual situations. Roughly speaking, regardless of the situation, the main element to look at is the transfer of risks and benefits; therefore, even if one or more of the criteria above were to be present, if the contract ultimately does not transfer the risks and benefits associated to ownership, the contract would be classified as an operating lease.

2.2 Identifying a lease: IFRIC 4

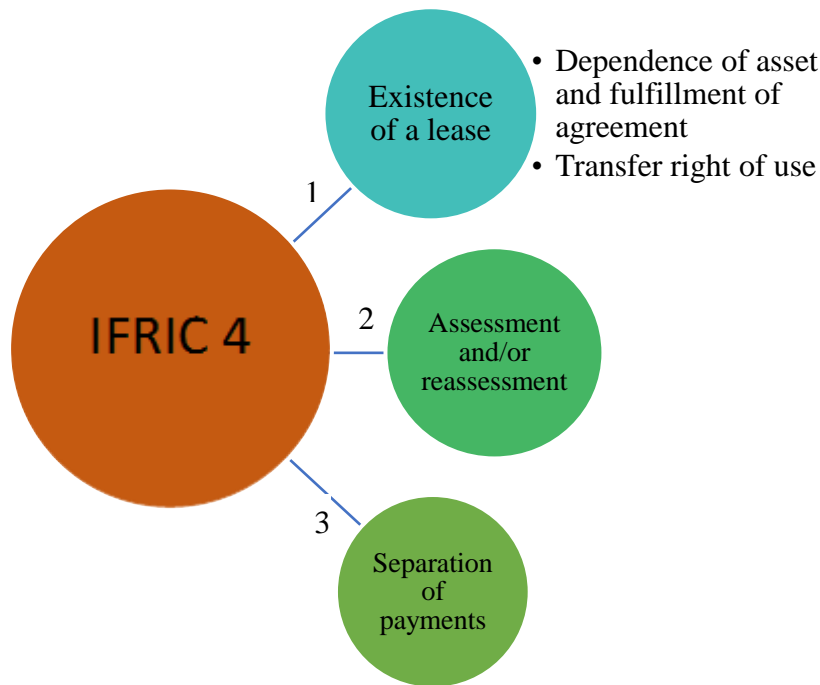
The International Financial Reporting Interpretations Committee, or IFRIC, is the interpretative body of the IASB (International Accounting Standards Board), which, as stated above, is the entity that develops and issues IFRS. The purpose of IFRIC is to help the IASB by providing official interpretations of the accounting standards, and they allow for a timely discussion and resolution of financial reporting issues. IFRIC sends its interpretation to IASB for approval and, once they are approved, they become part of IFRS.

For the purpose of this study, IFRIC Interpretation 4 *Determining whether an Arrangement contains a Lease* will be taken into account. The reason for the existence of this standard is that sometimes contracts do not have the form of a leasing contract, but due to the nature of the contract they still convey the **right of use** of an asset in exchange for **payments**, the two main components of lease agreement. Therefore, the IFRIC interpretation serves as a guide in order to determine whether arrangements contain leases, and should therefore be treated according to the practices stated in IAS 17¹⁹. In pursuit of this, the issues²⁰ addressed in the standard are:

1. How to determine whether an arrangement is, or contains, a lease as defined in IAS 17;
2. When the assessment or a reassessment of whether an arrangement is, or contains, a lease should be made; and
3. If an arrangement is, or contains, a lease, how the payments for the lease should be separated from the payments for any other elements in the arrangement.

¹⁹ IFRIC 4: Background, par.s 1-2

²⁰ IFRIC 4: Issues, par. 5



With regards to issue (1), determining whether an arrangement is, or contains, a lease contract depends on two main pillars: whether the “fulfilment of the arrangement is dependent on the use of a specific asset” and whether the “arrangement conveys the right to use the asset”²¹. According to the interpretation, an agreement is, or contains, a lease contract only if the asset that is specified, either explicitly or implicitly, in the agreement is essential for the fulfillment of the contract. Therefore, if the asset is explicitly mentioned, but it is not pivotal in completing the task, the agreement is not regarded as a lease. Nonetheless, if the asset is owned or leased by a party, and it is not be feasible for a party to fulfill the agreement without the use of the asset, then the asset is said to be implicitly identified and the agreement can be considered a lease contract (Deloitte). The second important element in determining the existence of a lease contract is the right to use the asset. The interpretation states that “an arrangement conveys the right to use the asset if the arrangement conveys to the purchaser (lessee) the **right to control** the underlying asset”²². The right to control the asset is met under any one of three circumstances:

1. The purchaser has either the ability or the right to operate the asset while obtaining a significant²³ amount of the output or other utility of the asset; or

²¹ IFRIC 4: Consensus, par. 6

²² IFRIC 4: Consensus, par. 9

²³ The Interpretation literally states that the purchaser should be able to control “more than an insignificant amount of the output”, but does not provide any quantifiable idea of what a “more than insignificant amount” should entail. A common consensus is to apply the definition with respect to the depreciation of the asset. Therefore, when dealing when a property lease, whereby the assets do not depreciate during a normal lease period, consumption of the asset is considered to be insignificant. Instead, leases involving equipment and machinery tend to depreciate heavily, and therefore a significant consumption occurs (Journal of Accountancy, 2012)

2. The purchaser has the ability or right to control physical access to the asset (while obtaining more than an insignificant amount of output of the asset); or
3. It is unlikely, given facts and circumstances, that one or more parties other than the purchaser will gain from the use of the asset and that the price that the purchaser will pay is neither contractually fixed per unit of output not equal to the current market price of the asset.

The second part of the interpretation provided by IFRIC 4 is assessing and/or reassessing if an agreement is or contains a lease (issue (2)). The initial assessment of this issue shall be made at the inception of the contract, whereas the reassessment “shall be based on the facts and circumstances as of the date of reassessment, including the remaining term of the arrangement”²⁴. Reassessment of the agreement shall occur if and only if²⁵:

1. There is a change in contractual terms, unless the change extends or renews the already existing arrangement; or
2. A renewal option is exercised or an extension is agreed upon by the parties, unless a clause of renewal or extension had already been included in the agreement; or
3. There is a change in the determination of whether fulfilment is dependent on a specified asset; or
4. There is a substantial change to the asset.

Once the parties have verified that an agreement contains or is in its totality a leasing contract, they should proceed to apply the accounting requirements brought for by IAS 17, according to whether they it as a financial or operating lease. Nonetheless, they should separate the payments received from the lease contract, and the payments that constitute the remainder of the contract. In order to do this, the Interpretation provides some guidelines as to how purchasers should estimate the value of the payments; nonetheless, this is outside the scope of the study, and its description is therefore omitted.

2.3 Lease accounting: Financial Statement of Lessees

2.3.1 Financial Leases

According to IAS 17, at the commencement of the lease term, the lessees shall “recognize financial leases as assets and liabilities in their statement of financial positions at amounts equal to the fair value of the leased property or, if lower, at the present value [N.B the present value is to be calculated using the interest rate implicit

²⁴ IFRIC 4: Consensus, par. 11

²⁵ IFRIC 4: Consensus, par. 10

in the lease if it can be determined] of the minimum lease payments²⁶, each determined at the inception of the lease”²⁷. It is important to notice that, since this is related to a financial lease, and since financial leases entail the transfer of economic benefits and risks to the lessee, the financial lease is to be recognized in the financial statement of lessees both as a liability (in that there is an obligation to meet future lease payments) as well as an asset, so to reflect in the computation of financial ratios the fact that the lessee is drawing economic benefits from that lease²⁸. This needs to occur regardless of the legal form of the contract, that is, regardless of whether the lessee is entitled to obtain ownership of the asset at contract maturity. Moreover, according to the standard, the direct costs incurred in connection with leasing activities, for example negotiation costs, shall be added to the amount that is recognized as an asset.

Following the initial valuation, further measurements need to be carried out. Specifically, lessees should consider the apportionment of the minimum lease payments as well as depreciation costs. With regards to the minimum lease payments²⁹, for each period they shall be “apportioned” between a financial charge and a reduction of outstanding liability:

- a. The **capital repayment** is indicated through a reduction of the finance debt liability in the lessee’s balance sheet, as it is reflective of the periodic installment to the lessor of the initial contractual debt;
- b. The **finance charge** shall be allocated to each to each period during the lease term so to generate a constant periodic interest expenses on the remaining liability.

The lessee need also take into account depreciation³⁰ expenses that come with the financial contract. This cost is inherent with the existence of the lease contract: since all costs and benefits incident to ownership are transferred to the lessee, he needs to take into account the depreciation expense for depreciable assets for each accounting period³¹. The depreciation method that needs to be used by the lessee should be consistent with the depreciation policy the lessee adopts for his other depreciable assets. Moreover, if there is “no reasonable certainty” that the lessee will indeed obtain ownership of the underlying asset at the end of the lease contract, the asset must be fully

²⁶ IAS 17: Definitions, par. 4. **Minimum lease payments** are the payments over the lease term that the lessee is or can be required to make, excluding contingent rent, costs for services and taxes to be paid by and reimbursed to the lessor, together with any amounts guaranteed by the lessee or by a party related to the lessee (for the lessee), and, for the lessor, any residual value guaranteed to the to the lessor by the lessee, a party related to the lessee, or a party not related to the lessor that is financially able of discharging the obligations under the guarantee.

²⁷ IAS 17: Leases in the Financial Statement of Lessees, par. 20

²⁸ According to IAS 17 (Leases in the financial statements of lessees, par. 23) “If for the presentation of liabilities in the statement of financial position a distinction is made between current and non-current liabilities, the same distinction has to be made for lease liabilities.” That is to say, in this case the lessees are to distinguish between current and non-current liabilities stemming from the lease contract.

²⁹ IAS 17: Leases in the Financial Statement of Lessees, par. 25

³⁰ The depreciation policy for depreciable leased assets shall be consistent with that for depreciable assets shall be consistent with that for depreciable assets that are owned, and the depreciation recognized shall be calculated in accordance with IAS 16 *Property, Plant and Equipment* and IAS 38 *Intangible Assets*. (IAS 17, par. 27)

³¹ IAS 17: Leases in the Financial Statement of Lessees, par. 27

depreciated either by the end of the lease term or by the end of its useful life, depending on which one of the two is shorter. Instead, if there is “reasonable certainty” that the lessee will obtain ownership by the end of the contract, the period of expected use is the useful life of the asset³². It is important to notice that the sum of depreciation expenses for the asset and the finance expense for the period will rarely be the same as the lease payments payable for the period. Therefore, the assets and related liabilities will not be equal after the commencement of the lease term³³.

Additional information is provided in terms of compliance with other accounting standards as well as additional disclosures need to be made. Of course, lessees adopting assets through the use of finance leases need also comply with IAS 16, IAS 36, IAS 38, IAS 40, and IAS 41³⁴. Nonetheless, for financial leases, other than disclosures requirements provided by IFRS 7 *Financial Instruments: Disclosures*, need to provide information about:

- a. The net carrying amount at the end of each reporting period for each class of assets;
- b. Reconciliation between the total of future minimum lease payments and their present value at the end of the reporting period, as well as their present value (these disclosures need to be made within one year, between one and five years, after five years);
- c. Contingent rents³⁵ recognized as an expense for the period
- d. The total future minimum payments that are expected to be received under non-cancellable³⁶ subleases at the end of the reporting period;
- e. A general description of the lessee’s material leasing agreements

³² IAS 17: *Leases in the Financial Statement of Lessees*, par. 28

³³ AS 17: *Leases in the Financial Statement of Lessees*, par. 29

³⁴ IAS 16: *Property, Plant and Equipment*; IAS 36: *Impairment of Assets*; IAS 38: *Intangible Assets*; IAS 40: *Investment Property*; IAS 41: *Agriculture*

³⁵ According to par. 4, a **contingent rent** is that portion of the lease payments that is not fixed in amount, but is based on the future amount of a factor that changes other than with the passage of time (e.g. percentage of future sales, future price indices)

³⁶ IAS 17, par 4 defines a *non-cancelable* as a lease that is cancelable only:

- a. Upon the occurrence of some remote contingency;
- b. With the permission of the lessor;
- c. If the lessee enters into a new lease for the same or an equivalent asset with the same lessor; or
- d. Upon payment by the lessee of such an additional amount that, at the inception of the lease, continuation of the lease is reasonably uncertain.

January 1 st		December 31 st	
BALANCE SHEET		BALANCE SHEET	
ASSETS	LIABILITIES	ASSETS	LIABILITIES
PPE Lease Assets (↑)	Finance Lease Debt (↑)	Bank Account (↓) PPE Lease Assets (-)	Finance Lease Debt (↓)
INCOME STATEMENT		INCOME STATEMENT	
COSTS	REVENUES	COSTS	REVENUES
		Interest Expenses Depreciation Expenses	

The figure above provides a simplified example, through visual representation, for the accounting procedures according to IAS 17. The transactions are as follows:

Initial recognition (e.g. January 1st)

DEBIT: Property, Plant and Equipment (Leased Asset)

CREDIT: Finance Lease Liability

Subsequent measurement (e.g. December 31st)

DEBIT: Finance Lease Liability (a reduction equal to the amount of repaid capital)

DEBIT: Finance Charge (interest)

CREDIT: Bank Account (cash payment)

2.3.2 Operating Leases

Operating leases are treated much differently from their financial counterpart in the context of IAS 17. In fact, it is precisely this different treatment that has caused much debate over the standard, and it is the main reason for the introduction of IFRS 16, which will be analyzed in future pages.

According to IAS 17, “Lease payments under an operating lease shall be recognized as an **expense** on a straight-line basis over the lease term unless another systematic basis is more representative of the time pattern of the user’s benefit”³⁷. The first important observation is that operating lease installments are recorded in their entirety, without taking into account a distinction between a capital repayment and an interest payment (as was the case for financial leases). Instead the installment is recorded as an expense in the lessee’s income statement; if the leasing service is still ongoing at the end of the year, the proper year-end adjustment should be made to record

³⁷ IAS 17: Leases in the Financial Statement of Lessees, par. 33

the payments for future years. The main problem with the accounting procedure, something that IFRS 16 was set out to fix, is the fact that, by recording lease payments simply as an expense, the lessee through an operating lease does not disclose the right to use of the asset, as instead is required of a financial lease by accounting for the leased asset on the lessee's balance sheet. This shortcoming, worsened by the absence of a liability counterpart to account for the lease in the balance sheet, ends up ultimately offsetting financial ratios, as well as providing faulty information in their statement of financial positions. Given the extent and the volume of operating leases as provided by Chapter 1, the effects of a change in accounting standards as provided by IFRS 16 are predicted to have a remarkable effect on financial positions of firms all around the world. The mechanics of this issue will be analyzed in further detail in Chapter 3 of this discussion.

IAS 17 calls to consider SIC 15³⁸ *Operating Leases – Incentives*. The reason is that often times the lessor will provide incentives for the lessee in the context of renewing a preexisting contract or in negotiating the terms of a new operating lease contract. These incentives often entail that the lessor, in order to facilitate the conditions of the lease contract, aids the lessee by, for example, bearing the costs of the lessee. These costs can be, for example, linked to pre-existing lease obligations of the lessee, as well relocation costs and leasehold improvements³⁹. Moreover, you could have situations in which the lessee and the lessor agree that for the initial period of the lease, the installment paid can be either non-existent or reduced in quantity⁴⁰. Therefore, the purpose of SIC 15 is then to clarify how incentives of this sort should be recognized in the financial statements of the lessee and the lessor. The lessee, shall recognize the total amounts of benefits received from the incentives by reducing the rental expense over the lease term, either through a straight-line method or through other methods which are more representative of the framework in which the lessee is receiving these benefits. Instead, costs that are incurred by the lessee, including the costs in connection to pre-existing lease agreements, such as termination costs, relocation etc., need to be accounted for according to the Standards that are related to the corresponding costs⁴¹.

As with financial leases, IAS 17 calls for additional disclosure to be provided for operating leases⁴²:

- a. The total of future minimum payments under non-cancellable operating leases within one year, between one and five years, and later than five years;

³⁸ SIC Interpretations are, like IFRIC, other interpretations of the accounting standards that were issued by the Standard Interpretation Committee (SIC); they were later endorsed by the International Accounting Standards Board. The IFRS Interpretation committee reissues interpretation if it deems is necessary.

³⁹ Leasehold improvements can be understood as improvements that are performed on leased property, such as additions, alterations, and or renovations. Of course, these improvements should be capitalized, meaning that they should be recorded as an asset with a corresponding liability, and should be amortized over the remaining life of the lease term.

⁴⁰ SIC Interpretation 15: *Operating Leases-Incentives*, par .1

⁴¹ SIC Interpretation 15: *Operating Leases-Incentives*, par.s 5-6

⁴² IAS 17: *Leases in the Financial Statement of Lessees*, par. 35

- b. The total of future minimum sublease payments expected to be received under non-cancellable subleases at the end of the reporting period;
- c. Lease and sublease payments recognized as an expense in the period, with separate amounts for minimum lease payments, contingent rents, and sublease payments;
- d. A general description of the lessee's significant leasing arrangements including the basis on which the contingent rent payable is determined, the existence of terms of renewal or purchase options and escalation clauses and restrictions imposed by lease arrangements.

June 1 st	
BALANCE SHEET	
Assets	Liabilities
Bank Account (↓)	
INCOME STATEMENT	
Costs	Revenues
Services (↑)	

The figure above provides a simplified, visual representation for the accounting procedure required by IAS 17 for lessees. The accounting procedure as seen in the journal entry is as follows:

Initial measurement (e.g. June 1st)

DEBIT: Services

CREDIT: Bank Account

Subsequent measurements

At the start of a new period, the services recorded in the income statement are annulled. If the service is ongoing at the end of the year, proceed with adjustment operation, for example by recording it as a pre-paid expense.

2.4 Lease accounting: Financial Statement of Lessors

2.4.1 Financial Leases

IAS 17, through an initial recognition, requires all lessors to identify all the assets that are “held under a finance lease in their statement of financial positions and present them as a receivable at an amount equal to the net investment in the lease”⁴³. Since with a finance lease all risks and rewards incidental to ownership are substantially transferred to the lessee, the lessor should treat the payments receivable as repayments of the principal and the finance income as a compensation for his investment. Moreover, the lessor shall recognize in the asset side of the balance sheet only a credit vis-à-vis the lessee that is equal to the net investment carried out through the purchase of the good, instead of recording the asset that is being leased through the contract. Specifically, the net investment of the lessor, is equal to the present value⁴⁴ of the sum between:

- a. The minimum lease payments that the lessee is required to make to the lessor and
- b. The residual value of the good that is not guaranteed⁴⁵ (Savioli 2008)

As a counterpart to what accounted for on the asset side of the balance sheet, the lessor shall record either:

- His own debt vis-à-vis the producer of the asset that is being leased; or
- The removal of the object being leased from his assets, if the lessor had previously either produced or purchased, and thereafter recorded, the good as an inventory; or
- The revenues obtained from leasing the asset in the income statement, is the lessor had previously either produced or purchased, and thereafter recorded, the good as an inventory⁴⁶.

⁴³ IAS 17: Leases in the Financial Statement of Lessees, par. 36

⁴⁴ The present value is computed using a discount rate that is equal to the rate that it implicit to the contract.

⁴⁵ IAS 17: Definitions, par. 4. Distinction between *guaranteed* and *non-guaranteed residual value*. The **guaranteed residual value** is:

- a. For a lessee, that part of the residual value that is guaranteed by the lessee or by a party related to the lessee (the amount of the guarantee being the maximum amount that could, in any event become payable); and
- b. For a lessor, that part of the residual value that is guaranteed by the lessee or by a third party unrelated to the lessor that is financially capable of discharging the obligations under the guarantee.

Instead, **unguaranteed residual value** is that portion of the residual value of the leased asset, the realization of which by the lessor is not assured or guaranteed solely by a party related to the lessor.

⁴⁶ (Savioli e Gianfelici)

In this respect, it is important to draw a distinction between lessors that are also the manufacturers and producers of the asset, and those who are not, and therefore act more as intermediaries between producers and lessees (visual breakdown provided by Figure 2.1). The idea is that lessors can also undergo initial direct costs⁴⁷ including elements such as commission, legal fees, and internal costs that are attributable to negotiating and arranging the lease, and that are accounted for differently depending on whether the lessor coincides or not with the producer/manufacturer of the asset⁴⁸. If the lessor does not coincide with the manufacturer, the aforementioned costs⁴⁹ are included in the initial measurement of the finance lease receivable and therefore cause a reduction of the amount of income that is recognized over the lease

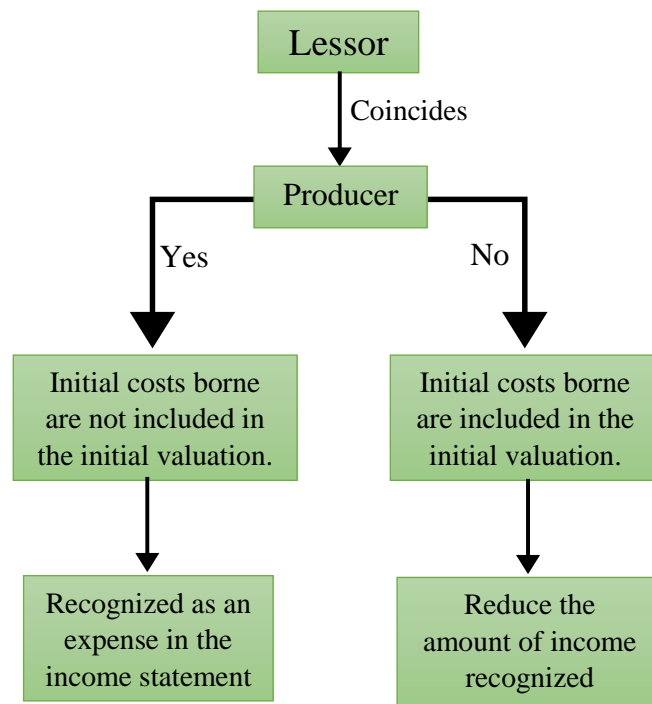


Figure 2.1

term. In fact, in this case the interest rate that is implicit in the lease agreement is computed in such a way that the initial direct costs are included automatically in the finance lease receivable. Instead, if the lessor is also the producer/manufacturer of the good, the aforementioned costs are not included in the initial measurement but shall be recognized as an expense at the beginning of the lease term, as the costs linked to negotiating and arranging a finance lease are mainly related to earning the manufacturer's selling profit, meaning the profits or losses deriving from the sale of the good⁵⁰. In fact, a finance lease gives rise to two types of income⁵¹ for a manufacturer:

- 1- profit or loss that is equivalent to the profit and loss resulting from the outright sale of the asset that is being leased (remember that the manufacturer, regardless of whether he coincides with the lessor, can always give customers the option to purchase or lease the asset). In this case, the manufacturer would receive the normal selling price, and it is recognized according to the firm's policy for outright sales. The selling profit/loss is given by the difference between the **sales revenue** and the **cost of sale**⁵², determined according to the parameters provided in Figure 2.2;

⁴⁷ IAS 17: Leases in the financial statements of lessors, par. 38; According to par. 4, **initial direct costs** are incremental costs that are directly attributable to negotiating and arranging a lease, except if the costs are incurred by the manufacturer.

⁴⁸ IAS 17: Leases in the financial statements of lessors, par. 38 & 46

⁴⁹ Nota bene: general overheads, such as those incurred by the sales or marketing team, are not considered.

⁵⁰ IAS 17: Leases in the financial statements of lessors, par. 46

⁵¹ IAS 17: Leases in the financial statements of lessors, par. 43

⁵² IAS 17: Leases in the financial statements of lessors, par. 44

- 2- Finance income over the lease term that are implicit in the installment payments (refer to “Leases in Financial Statement of Lessors”).

When determining the economic outcome of the sale, the lessor shall always use the market interest rate, even if it differs from the one provided by the leasing contract. In fact, it can happen that, in order to attract clients, the lessor, who is also the manufacturer of the good, decides to apply to the contract an “artificially low rate of interest”⁵³. This practice, nonetheless, would not allow to properly apply point (1), as the use of such an interest rate would lead to an excessive portion of the total income from the transaction being recognized at the time of the sale. Moreover, even if a low interest rate were to be charged, the profit recorded (1) is constrained by the value it would have assumed if market rates had been applied.

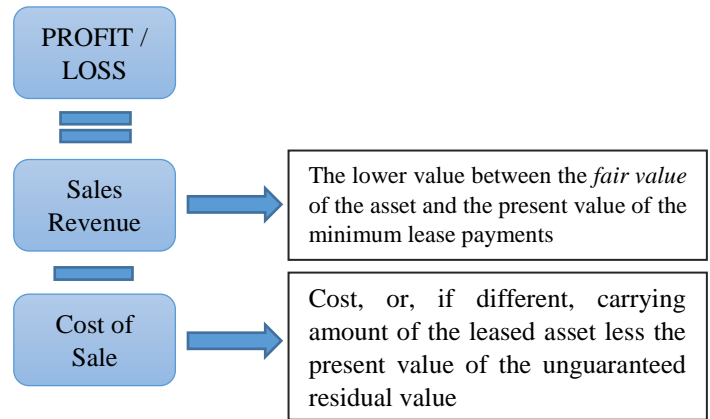


Figure 2.2

Similarly to what occurs for the lessee, the periodic installment shall be broken down into:

1. The capital that will reduce the value of the lease receivable the lessor holds vis-à-vis the lessee. This entry represents the rate of periodical return that had been decided upon in the leasing contract for the repayment of the debt; and
2. The interest revenue, which must be recorded in the income statement as a revenue. This entry represents the interest payment that the lessor needs to make to the lessee in order to compensate him for the investment as well as for the time the lessor has given up his asset. Moreover, the recognition of finance income should be based on a pattern that reflects a constant periodic rate of return over the lease term on the lessor’s net investment.⁵⁴

Furthermore, the valuation of the unguaranteed residual value (used to compute the lessor’s gross investment) should be reviewed regularly. If there is any reason to believe that the value has undergone a reduction, the income allocation over the leased term is revised and the reduction of amount accrued is recognized⁵⁵.

⁵³ IAS 17: Leases in the financial statements of lessors, par. 45

⁵⁴ IAS 17: Leases in the financial statements of lessors, par. 39

⁵⁵ IAS 17: Leases in the financial statements of lessors, par. 41

July 1 st		December 31 st	
BALANCE SHEET		BALANCE SHEET	
Assets	Liabilities	Assets	Liabilities
Bank Account (↓)		Bank Account (↑)	
Lease Receivable (↑)		Lease Receivable (↓)	
INCOME STATEMENT		INCOME STATEMENT	
Costs	Revenues	Costs	Revenues
			Interest revenues (↑)

The figure above provides a simplified, visual representation for the accounting procedure required by IAS 17 for lessors. The accounting procedure as seen in the journal entry is as follows:

Initial recognition (e.g. July 1st)

DEBIT: Lease receivable under non-current assets

CREDIT: Assuming the lessor does not coincide with the manufacturer, the lessor should buy the asset he is leasing from the manufacturer. Assuming also a payment in cash, the result would be a reduction in the bank account. The asset does not appear in the balance sheet of the lessor in the context of a finance lease as the lessor does not have the risks and benefits incidental to ownership.

Subsequent Measurement (e.g. December 31st)

DEBIT: Increase bank account by the total value of installment;

CREDIT: Reduction of the lease receivable by a quantity equal to the capital repayment;

CREDIT: Registering a finance income, for an amount equal to the interest payment receive from the lessor.

As for lessee accounting, IAS 17 calls for additional information to be disclosed⁵⁶ by lessors with regards to financial leases:

- a. A reconciliation between the gross investment in the lease at the end of the reporting period, and the present value of minimum lease payments receivable at the end of the reporting period. In addition, an entity shall disclose the gross investment in the lease and the present value of minimum lease payments

⁵⁶ IAS 17: Leases in the financial statements of lessors, par. 47

receivable at the end of specific reporting periods (within one year, between one and five years, later than five years. Usually the value corresponding to the gross investment less income received from new business is a good indicator of economic growth.

- b. Unearned finance income;
- c. The unguaranteed residual values accruing to the benefit of the lessor;
- d. The accumulated allowance for uncollectible minimum lease payments receivable;
- e. Contingent rents recognized as income for the period;
- f. A general description of the lessor’s material leasing arrangements.

2.4.2 Operating Leases

In the case of operating leases, the underlying asset is to be recognized among the lessor’s assets according to their nature⁵⁷ as, with an operating lease, the risks and rewards incidental to ownership of the asset remain with the lessor. Regardless of timing, the periodic installments should be recognized as a revenue stream on a “straight line basis”, meaning that they should be recognized according to constant rates, or according to another method that best reflects the timing with which benefits are received. Instead, costs that are incurred during the lease period, such as depreciation expenses, need to be recorded as an expense for the lessor. Initial direct costs incurred by the lessor shall be added to the carrying amount (the amount that the company has on its books for an asset or a liability. This usually corresponds to the cost of the asset minus depreciation expenses) of the leased asset and shall be recognized as an expense over the same term on the same basis as the lease income⁵⁸. In the same manner, depreciation policies shall be consistent with the lessor’s depreciation policy for similar assets, computed in compliance with IAS 16 and IAS 38, as well as compliance with IAS 36 for impairment of assets⁵⁹.

June 1 st		December 31 st	
BALANCE SHEET		BALANCE SHEET	
Assets	Liabilities	Assets	Liabilities
Bank Account (↓)		Bank Account (↑)	
Property Plant and Equipment (↑)		Property Plant and Equipment (↓)	
INCOME STATEMENT		INCOME STATEMENT	
Costs	Revenues	Costs	Revenues
		Depreciation Expenses (↑)	Interest Revenues (↑)

⁵⁷ IAS 17: Leases in the financial statements of lessors, par. 49

⁵⁸ IAS 17: Leases in the financial statements of lessors, par. 52

⁵⁹ IAS 17: Leases in the financial statements of lessors, par. 53

The figure above provides a simplified, visual representation for the accounting procedure required by IAS 17 for lessors when recording operating leases. The accounting procedure as seen in the journal entry is as follows, assuming a scenario in which the lessor purchases the underlying asset:

Initial Measurement (June 1st)

DEBIT: The purchased asset is recorded

CREDIT: Cash payment causes a reduction of the bank account

Subsequent measurement (December 31st)

DEBIT: Increase bank account by an amount equal to the installment paid by the lessee

CREDIT: Increase interest revenue by an amount equal to the interest payment made by the lessee

DEBIT: Recording depreciation expenses, as the rights and benefits incidental to ownership remain with the lessor

CREDIT: Reduction in value of the underlying asset, due to depreciation

Moreover, the lessor shall disclose the following operations⁶⁰:

- a. The future minimum lease payments under non-cancellable operating leases in the aggregate and for periods: within one year, within one and five years, after five years;
- b. Total contingent rents recognized as income in the period;
- c. A general description of the lessor's leasing agreements.

2.5 Sale and leaseback transactions

A sale and leaseback transaction (Figure 2.3) involves the sale and the leasing of a same asset; essentially, company A sells its property to company B which then leases the asset. Therefore, company A becomes the lessee and company B ends up becoming the lessor. The main purpose of a leaseback transaction is to essentially liquidate cash that is associated to an asset. The lessor can therefore continue to benefit from the usage of the asset and also release the cash tied up to it; moreover, if the lease is a

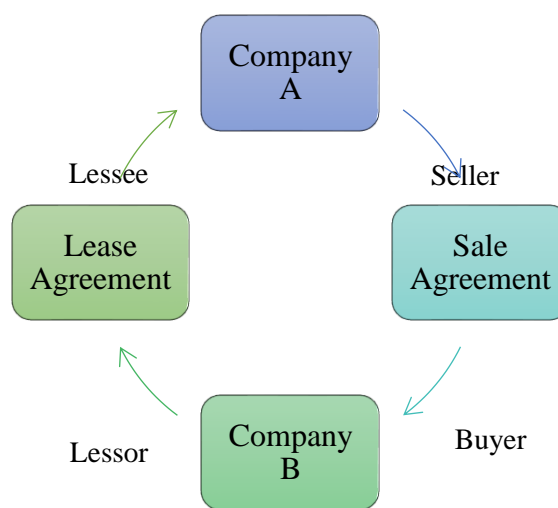


Figure 2.3 - Leaseback agreement 1

⁶⁰ IAS 17: Leases in the financial statements of lessors, par. 56

financial lease, the lessor benefits from keeping the value of the property off its balance sheet (Wilkinson). Due to the nature of the contract, the transaction is generally carried out for fixed assets, like real estate, as well as vehicles like airplanes and trains.

Due to the dual structure of the operation, whereby company A acts both as a seller and lessee, whereas company B acts as a buyer and a lessor, the lease payment and the lease price are interdependent as they are negotiated together. In fact, usually the sale of the asset is done with the understanding that it will be leased back, and therefore the two prices will be part of the same negotiation. The accounting treatment of the leaseback transaction depends on the nature of the underlying lease contract.

If the transaction results in a finance lease, the purpose of the lease is to make sure that the lessor provides financial means to the lessee, using the ownership of the asset as his security. Therefore, if there is an excess of sale proceeds over the carrying amount of the asset, this surplus should not be immediately recorded as a revenue for the seller/lessee⁶¹. Instead, it should be divided into smaller, positive components which are confluent to the creation of income proceeds for the period in which the leasing takes place. If there were to be a deficiency in this context, the loss should be recorded in its entirety in the income statement for the period in which the loss occurs, since it reflects de facto a devaluation of the asset recorded in the financial statements (Savioli e Gianfelici). In this case, the carrying amount is reduced to recoverable amount, in compliance with IAS 36: *Impairment of Assets*⁶².

Instead, if the lease results in an operating lease, the seller/lessee derecognizes the asset and the buyer/lessor instead recognizes it. For more specific accounting indications, it is necessary to distinguish among three scenarios⁶³:

1. The sale price is equal to the fair value of the asset. In this case, the possible **capital gain** (sale price > carrying amount) or **capital loss** (sale price < carrying amount) shall be *immediately* recorded in *its entirety* in the income statement for the period.
2. The sale price is below the fair value of the asset. In this case, the accounting procedure is the same as in case (1). Nonetheless, if a capital loss is incurred, and the loss is to be compensated for by future lease payments at below market price, the loss shall be postponed and amortized in proportion to the lease payments over the period for which the asset is expected to be used. However, if at the time of sale the fair value of the asset is lower than the carrying amount of the asset, the resulting difference (carrying amount - fair value) shall be recorded in its entirety as a loss in the income statement.

⁶¹ IAS 17: Sale and leaseback transactions, par. 58-60

⁶² IAS 17: Sale and leaseback transactions, par. 64

⁶³ IAS 17: Sale and leaseback transactions, par. 61-63

- The sale price is above the fair value of the asset. In this scenario, the excess over fair value is to be deferred and amortized over the period for which the asset is expected to be used. This will counter the cost of future rents higher than market value. Instead, the difference, whether it may be positive or negative, between the fair value of the asset and the carrying amount should be treated as in case (1), that is it must be recorded in its entirety in the income statement.

For what it concerns disclosure requirements⁶⁴ for lessees and lessors, they apply in the same manner to sale and leaseback transaction as in a normal operating or finance lease transaction.

2.6 Comparative analysis

Before proceeding to the analysis of the new accounting standard for leases, in view of international efforts to converge accounting standards so that they are the same, or at least similar to IFRS, it is interesting to analyze the difference between IAS 17 and the US and Italian GAAP, in order to show that a change in lease accounting will probably cause a shift also in domestic regulation. This is especially true for the United States, in view of their efforts to converge with the standards promoted by the IASB. As mentioned before, the International Accounting Standards Board and the US Financial Accounting Standards Board have been working to eliminate the differences between IFRS and US GAAP since the Norwalk Accord of 2002, but the process is still ongoing. Nonetheless, a big step forward was made when the Securities and Exchange Commission (SEC) decided that listed US companies could decide whether to adopt the US GAAP and the IFRS system. In Europe instead the process of convergence of national accounting standards and the IFRS was reached in 2009, when European directives obligated EU member states to converge their national accounting practices to the international one (PriceWaterhouseCoopers). In Italy therefore, the Italian GAAP is now applicable to all firms except for very small companies and some other regulated companies (Deloitte).

Main Topics	IAS 17	US GAAP ⁶⁵	Italian GAAP ⁶⁶
Treatment of Leasing Transactions	IAS 17 provides accounting regulation for leases and leaseback transaction. The standard, supported by IFRIC interpretation 4, will be overruled by IFRS 16 on January 1 st 2019.	US lease accounting is regulated by Accounting Standards Codification (ASC) 840, provided by the Financial Accounting Standards Board (FASB)	In Italian jurisdiction, leasing is very much an atypical contract in that, both in terms of its contents and in its effects, it is not regulated according to any provision in the civil code. Neither the civil code nor the national GAAP approach the topic in a thorough manner. On a national level, leasing

⁶⁴ IAS 17: Sale and leaseback transactions, par. 65

⁶⁵ (Deloitte), (PriceWaterhouseCoopers)

⁶⁶ (Savioli e Gianfelici), (PriceWaterhouseCoopers)

			contracts are accounted for according to precedents.
Distinction between Operating and Financial Leases	Finance leases differ from operating lease with regards to the association of risk and benefits. If the contract transfers all risks and benefits associated to ownership to the lessee, then it is considered a financial lease	A lease is classified as financial if it meets one of the following criteria: (1) transfers ownership of the asset by the end of the lease term, (2) contains a bargain purchase option, (3) the lease term is at least 75% of the estimated economic life of the asset, (4) the present value of the minimum lease payments is at least 90% of the excess of the fair value of the leased property.	Finance leases are different from operating leases in that the former give the possibility to the lessee to purchase the asset at the end of the lease term, by paying an additional fee. (OIC 12, Appendix 2)
Finance Lease Accounting	The lessee should recognize the asset and a lease liability at the lower of the fair value of the asset and the present value of minimum lease payments, with the discount rate implicit to the contract. For subsequent measurements, the lessee should account for minimum lease payments (capital repayment of liability + interest charge) and depreciation expenses. The lessor should instead recognize lease receivable equal to the net investment of the lease. For subsequent measurements, the lessor should divide the minimum payments received into finance revenue and reduction of lease receivable.	Substantially the same as for IAS 17, with the only distinction being the interest rate at which the present value of minimum lease payments. In fact, a lessee shall use the rate implicit in the contract only if it is known and lower than the incremental borrowing rate.	The accounting method for finance lease highlights its element of negotiation rather than its economic nature. Therefore, a leasing contract is treated as a normal rental contract: the asset remains registered in the balance sheet of the lessor, whereas the installments are recorded as an expense (income statement) for the lessee and are recorded as the payments are made. If the asset were to be bought at maturity, the asset would then be recorded in the lessee's balance sheet.
Operating Lease Accounting	Lessees should recognize the lease payments as an expense in the income statement over the lease term on a straight line basis. Lessors keep on recognizing the leased asset in the balance sheet, as risks and rewards are not transferred.	Substantially identical to what is required by IAS 17, both in accounting procedures for lessees and for lessors.	Substantially identical to what is required by IAS 17, both in accounting procedures for lessees and for lessors.

<p>Leaseback Transactions</p>	<p>If the leaseback results in a finance lease, transaction is a loan securitized by the leased asset and the lessee keeps recognizing the asset. Moreover, the gain or loss is deferred and recognized over the lease term.</p> <p>If the leaseback results in an operating lease, then the lessee derecognizes the asset. Moreover, the recognition of gains or losses differs on whether the selling price is at, below, or above fair value.</p>	<p>Similar to IAS 17 with respect to the recognition of leaseback transactions as well as the recognition (de-recognition) of the asset by the lessee in case of a finance lease (operating).</p> <p>It is different in the recognition of gains and losses, in that it is based on how much of the right of use of the asset is relinquished. If the seller/lessee does not relinquish more than a minor part of the right to use the asset, a gain or loss is deferred and amortized over the lease term (operating lease) or over the useful life (finance lease). If the seller cedes more than a minor part of the right of use of the asset, part or all of a gain may be recognized.</p>	<p>Similar to IAS 17 with respect to the recognition of leaseback transactions as well as the recognition (de-recognition) of the asset by the lessee in case of a finance lease (operating).</p> <p>Whether the leaseback results in a finance or operating lease, the sale of the asset needs to be recognized as it can result in a capital gain or loss for the seller/lessee.</p> <p>For a finance lease, the capital gain shall be recorded in the balance sheet as lease receivable and then gradually recorded in the income statement (C.C art. 2425). Such a treatment is not required for operating leases.</p> <p>In case of a capital loss, the treatment is the same regardless of the type of lease. If the sale and leaseback transactions occur at market price, then the capital loss is to be recorded in its entirety in the income statement. If instead the transactions do not occur at market price⁶⁷, the capital loss is recorded in the income statement for the period in which the sale takes place, and then distributed as a cost for the following periods.</p>
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⁶⁷ Specifically, if the sale price is lower than market price at the time of the transaction and the negative difference that arises is compensated by the future installments.

2.7 Main criticism of IAS 17

The main problem with IAS 17 is its link to a practice known as “off-balance sheet financing”, which is essentially financing that does not appear on a company’s balance sheet as it is not considered strictly debt. This belief therefore justifies the absence of associated assets and liabilities to be excluded from the balance sheet (Financial Times). There are many mechanisms that allow for this to happen, two of which are leaseback transactions as well as operating leases, as accounted for according to IAS 17.

Due to the nature of IAS 17, which requires users to have to distinguish between operating and financial leases in accounting practices, many leasing transactions are treated as operating leases, even though they entail risks and benefits incidental to ownership to be shifted to the lessee (and therefore should be treated as finance leases). Through this mechanism the financial disclosure of firms is often times deceitful, because it omits from the balance sheet two paramount values:

1. The *asset* value due to the right of use by the lessee; and
2. The *liability* amount that represents the amount due to the lessor.

Therefore, any stakeholder that is interested in the company and needs to evaluate things like the value of the company or its liquidity need to take into account these omissions that are caused by a misuse of IAS 17. In fact, the stakeholder will need to proceed to adjust all values according to the additional disclosures made by the firm in compliance with IAS 17, which often times, however, are still not sufficient to provide a sufficiently reliable estimation of the values. Therefore, there is a presentation of less exposure to liability than relay exists, and financial ratios such as leverage and return on assets are flattened out, failing to provide a transparent representation of the activities of the reporting entity (Financial Times). The issues mentioned above exist even if there is not a false classification of a financial lease as an operating lease, in that the main issue lies in the fact that operating leases, unlike finance leases, require information to be recorded under the income statement, and not the balance sheet. This implies that all firms that are in a leasing contract with underlying assets such as machinery, vehicles (commercial, such as aircrafts and trains), computer and IT instruments, and often time real estate, all present a distorted picture of what their financial position is. Essentially, a market which is worth more than €300 billion just in Europe (see Chapter 1) is misrepresented in the eyes of investors, or any other stakeholder interested in the company.

In reaction to the criticism received, the IASB in a joint project with the Financial Accounting Standards Board (FASB- the agency that issues national accounting standards in the United States), decided to create a new standard that would address and solve the problems that were raised by users. In their 2016 report stating the

decisions for which they decided to modify the standard, the IASB provided three main issues with IAS 17, as viewed by users of financial statements⁶⁸:

1. *Information reported related to operating leases lacked transparency and did not meet the needs of users of financial statements.* As mentioned before due to the lack of representation of the assets and liabilities the lessee bear through an operating lease, many users wound up having to adjust the financial statements of entities through the information disclosed. Nonetheless, not only are the disclosure requirements not sufficient to provide accurate information such that, when integrated in the statement of financial position, the users could have a comprehensive view of the financial situation of the entity, but there are variables that need to be estimated, such as the present value of future lease payments. Therefore, the assessment many times depended on how accurate the estimations were, contrasting the intent of having a converged set of accounting standards;
2. *The existence of two different accounting models for leases.* In fact, assets and liabilities associated with leases are recognized only for finance leases and not for operating leases. This causes transactions that are very similar from an economic point of view to be accounted for in a very different manner, reducing the comparability for users of financial statements;
3. *Previous requirements for lessors did not provide adequate information about a lessor's exposure to credit and asset risk.* In fact, for leases of equipment and vehicles, giving rise to an operating lease, users could not assess how much credit risk arising from the lease was involved, as well as the asset risk stemming from the lessor's retained interest in the underlying asset.

In order to solve the first two issue, the IASB under the new lease requires entities to recognize assets and liabilities for the rights and obligations created by leases. To address the second issue, instead, IFRS 16 requires that lessors enhance their disclosure with regards to their risk exposure. In the following chapter we discuss IFRS 16 in greater detail, providing a description of the changes to lease accounting it will bring in comparison with IAS 17 in order to fix this issue as well as the effects it is predicted to have on businesses.

⁶⁸ *Basis for Conclusions IFRS 16* (IASB, 2016)

CHAPTER 3

3.1 Introduction to IFRS 16

While IAS 17 allowed to take a first step forward towards convergence of lease accounting, it left many problems, if not created them, sparking much criticism among users. What follows is an analysis of IFRS 16, the new lease standard that will supersede IAS 17, a standard that in substance is like its antecedent, but that provides important specifications and amendments that will hopefully allow a more transparent recognition of lease contracts. Other than providing a description of IFRS 16, along with a comparison with IAS 17 when required, the chapter also provides an overview of what the main implications of the new standards will be, and especially how the new accounting procedure will affect businesses.

As mentioned before, IFRS 16 will take effect starting January 2019, and must be applied to all lease standards from that point on. In order to understand just how tailored the standard was to user needs, it is interesting to look at the timeline of the creation of the standard⁶⁹, based on a consistent interaction between the IASB and users.

In March 2009 IASB for the first time published a discussion paper in which it enclosed all the preliminary views on lease accounting based on a “right-to-use” method, in which a lessee would recognize an asset and liability at the commencement date of the lease. Using this as a basis, the IASB published in August 2010 a joint exposure draft, entitled *Leases*, which was constructed based on the comments received following the discussion paper. In the draft, the board further developed the “right-of-use” model that they had proposed and also added proposals for changes to lessor accounting. In the 2010 Exposure Draft, a dual accounting model for lessors was proposed:

1. For some leases, the lessor would apply a performance obligation approach, thereby recognizing a lease receivable and a liability at the start of the lease term, whilst recognizing the underlying asset;
2. For other leases, the lessor would apply a ‘derecognition’ approach whereby he would derecognize the underlying asset and then recognize a lease receivable and any retained interest

On the other hand, the 2010 Exposure Draft proposed that lessees should include in their disclosures an estimate for their lease payments so that they could be measured reliably by users.

In the time that followed the Exposure Draft, the Board received feedback from users of financial statements and organizations, in order to understand, also through targeted meeting, how they could amend or develop the proposals, asking especially “users and preparers of financial statements, particularly those from industries most

⁶⁹ *Basis for Conclusions, IFRS 16 Leases* (IASB, 2016)

affected by the lease accounting proposals” (IASB). The main concerns and responses related to the 2010 Exposure Draft were:

- General support for lessees recognizing assets and liabilities (as was the case for the Discussion Paper);
- Mixed views on the ‘right-to-use’ model that had been developed following the Discussion Paper. The main point of debate was whether the identification of two separate expenses (depreciation and interest) would be a good way to reflect the economics of a lease transaction;
- General disagreement with the proposal for lessor accounting in that not only were users worried about the discordancy between the dual accounting model proposed for lessors and the single model for lessees, but many felt that in practice accounting for lessors as proposed by IAS 17 actually worked well.
- Concerns regarding the cost and complexity of the proposals, especially those involving the measurement of the lessee’s lease liability and lessor’s lease receivables. Other concerns regarded instead the breadth and scope of the proposals.

Taking into account the mixed response received from stakeholders, divided by different views of the economic aspects of leases, the Board developed a revised model that identified two classes of leases, with each class having its own set of requirements. The classification was based on the extent to which the lessee was “expected to consume the economic benefits embedded in the underlying asset”. Therefore, in the 2013 Exposure Draft, the Board proposed:

1. For **lessees**, simpler measurement requirements and a dual approach for the recognition and measurement of expenses related to a lease:
 - a. *Consumption of more than an insignificant amount of economic benefits* → the lessee would recognize the depreciation of the leased asset and the interest on the lease liability;
 - b. *Consumption of less than an insignificant amount of economic benefits* → the lessee would recognize a single lease expense in the income statements, as it was believed that it would provide better information for lessees that were paying only to use the underlying asset and were not consuming the benefits embedded in said asset.
2. For **lessors**, a dual approach for the recognition and measurement of lease assets:
 - a. *Consumption of more than an insignificant amount of economic benefits* → lessors would recognize the residual interest in the underlying asset separately from its receivable from the lessee;
 - b. *Consumption of less than an insignificant amount of economic benefits* → lessors would recognize the underlying asset (similar to IAS 17 for operating leases)

Following the publication of the 2013 Exposure Draft, the feedback received from users indicated that most were in agreeance with the amendments made to lessee accounting, stating in fact that the recognition of a right-of-use

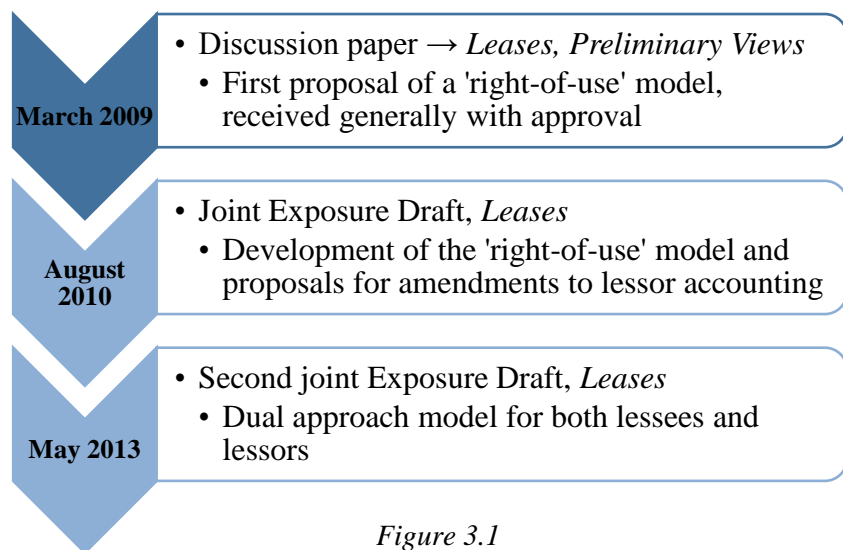


Figure 3.1

asset and a lease liability should be undertaken for all leases of more than 12 months. Most criticism instead as directed to the accounting proposals for lessors, in that many users believed that the accounting procedures indicated by IAS 17 were not flawed and therefore should not be changed.

The result of this process was IFRS 16, in which lessor accounting is substantially unchanged with respect to IAS 17. The main

changes were brought forward in lease accounting, in order to satisfy the main concerns, as reported above, of users and stakeholders in general. The following pages will provide a description of the new accounting standard and, when needed, how it differs from IAS 17.

Much like its antecedent, IFRS sets out to provide the principles for the “recognition, measurement, presentation and disclosure of leases. The main objective is then to “ensure that lessees and lessors provide relevant information in a manner that faithfully represents those transactions” so that users of financial statements are able to assess how the impact of leases on “financial position, performance position and cash flows of an entity”⁷⁰. Already in the first paragraphs, the new standard subtly addresses the issue with its predecessor IAS 17, which has been criticized as it allows users to provide a distorted view of the financial position of an entity, by omitting the presence of assets and liabilities deriving from the lease contract.

As with IAS 17, IFRS 16 provides the scope of its application. Specifically, the standard applies to all leases, including subleases, except for:

- a. Leases to explore for or use minerals, oil, natural gas and similar non-regenerative resources;
- b. Leases of biological assets (IAS 41)
- c. Service concession arrangements (IFRIC 14)
- d. Licenses of intellectual property granted by a lessor within the scope of IFRS 1
- e. Rights held by a lessee under licensing agreements within the scope of IAS 38 (including plays, manuscripts, motion picture films, etc.)

⁷⁰ IFRS 16: Objective, par. 1

While the ones above exemptions apply always, the standard also provides the option for entities to not apply the standard for:

- a. Leases whose term is equal to or lower than 12 months, but only if these leases do not allow to purchase the asset at the end of the lease contract. The exemption from IFRS 16 in this case is to be applied to a class of assets, and is not applicable to individual assets; it is therefore not possible to apply the standard only to some units of the asset.
- b. Leases whose underlying asset has a low initial value. The exemption in this case can be applied to single assets (meaning separate leases) instead of the whole class; omitting some assets that are low in value will not have a substantial impact on financial ratios and other important information that is looked at by users of financial statements.

Moreover, if the lessee decided to exempt the aforementioned leases from compliance with IFRS 16, the lessee should recognize the lease payments associated with those leases as an expense on a straight line basis, or another method that is more representative of the benefit pattern received by the contract. If this decision is taken for short term leases, then the lessee shall consider the lease as a new lease if there is a lease modification or if there is any change in the lease term.

3.2 Identifying a Lease

As with IAS 17, the entity shall assess if a contract is, or contains, a lease at the inception of the contract. According to IFRS 17, a contract is, or contains, a lease if the contract conveys the **right to control** the use of an **identified asset** for a specified period of time in exchange for consideration⁷¹. The first element in identifying a contract is to determine whether it is possible to pinpoint the asset which will be lent; after this is completed, it is necessary to verify the right to control. Specifically, the right to use needs to convey the right for the customer to obtain substantially all of the

economic benefits from use of the identified asset and the right to direct the use of the identified asset during the period of use⁷² of the contract. The standard provides in its Appendix B a thorough description of the analysis

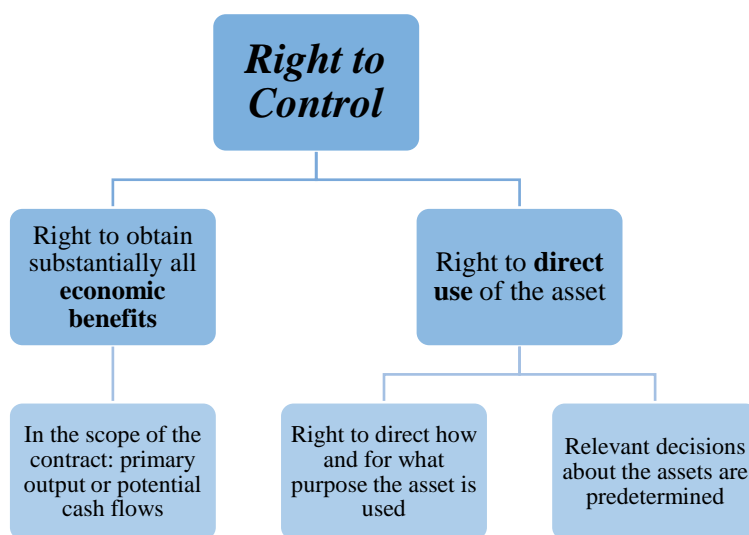


Figure 3.2: Right to control (Par.s B9-B13)

⁷¹ IFRS 16: Identifying a lease, par. 9

⁷² **Period of use:** The total period of time that an asset is used to fulfil a contract with a customer (including any non-consecutive periods of time).

that needs to be followed by entities in order to verify whether the arrangement they are dealing with contains a lease; specifically the standard invites users to understand if conditions exist such that there is the right to control the asset⁷³ (Figure 3.2). It is also important to notice that if the customer has the right to control the asset only for a period of time (described in terms of the amount of use of an identified asset), the contract will contain a lease only for that period of time. Reassessment of this characteristic needs to occur only if the terms and conditions of the contracts are amended.

- With the introduction of IFRS 16, IFRIC 4 *Determining whether an Arrangement contains a Lease* will be superseded. IFRS 16 amends the requirements for identification of a lease, eliminating the condition that the fulfilment of the contract is dependent on the use of the contract. Instead, what is required in its place is that the contract must identify an asset. Nonetheless, the concept that a contract can contain a lease even though it does not have the legal form of a lease still remains. As IFRIC 4, IFRS 16 requires lessors and lessees to separate lease components of a contract from non-lease components⁷⁴.
- The definition of a contract under IFRS 16 is much broader than it was with IAS 17, causing even some service contracts to now be considered as leasing contracts. The key elements in identifying a lease now are: identification of an asset, customer deciding how to use the asset and gaining economic benefit from it, and if the supplier can substitute the asset during the duration of the contract. The broader will cause many contracts to now be identified as leases, and therefore be accounted for through asset and liability recognition in the balance sheet.

IFRS 16 also provides a more extensive definition of the **lease term** of the contract, as the non-cancellable period of a lease together with (1) the periods covered by an option to extend the lease if it is reasonable that the lessee will exercise that option, and (2) periods covered by an option to terminate the lease if it is reasonably certain that the lessee will not exercise that option. Entities need to reassess whether it is reasonably certain that the lessee will exercise an option (point 1) or not (point 2) when there is a change in the underlying circumstances. Likewise, an entity shall reassess the lease term if there is a change in the non-cancellable period of a lease⁷⁵.

⁷³ As mentioned above, the standard provides a descriptive analysis of the procedures that need to be followed by users, as well as explaining in details all the components required to have the right to use the asset. Nonetheless, describing all in the information provided by the standard would have fallen outside the scope of this study, and is therefore largely summarized.

⁷⁴ IFRS 16: Identifying a lease, par. 12-17. The standard allows users to use a practical expedient in this sense, allowing lessees to identify lease components and associated non-lease components as a single lease component.

⁷⁵ IFRS 16: Lease Term, par. 20-21

3.3 Lease accounting: Financial Statement of Lessees

At commencement date, a lessee shall recognize a **right-of-use asset** and a **lease liability**

- The first, very important difference is that lessees are NOT required to distinguish among operating and finance leases, as was the case with IAS 17. Instead, they should treat all lease transactions the same, using the same accounting procedures. Now, lessees always recognize an asset, whereas, with the earlier treatment of operating leases, everything was accounted for in the income statement.

In terms of the initial measurement of the *right-of-use asset*, i.e. asset that represents a lessee's right to use an underlying asset for the lease term, the lessee should recognize it at cost at the commencement date. This cost consists of:

1. The amount of the initial measurement of lease liability;
2. Any lease payments made at or before the commencement date minus any lease incentives received;
3. Any initial direct costs incurred by the lessee;
4. An estimate of costs to be incurred by the lessee in dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset to the conditions required by the terms and conditions of the lease. These costs have to be paid by the lessee either at commencement of the lease or as a consequence of having used the asset during a particular period.

In terms of the initial measurement of the *lease liability*, at the commencement date, the lessee shall measure the liability based on the present value of the future lease payments, i.e. payments that are not made at that date. The lease payments need to be discounted at an interest rate that, like with IAS 17, is implicit in the lease. If this rate cannot be determined, then the lessee should use an incremental borrowing rate⁷⁶. Moreover, the lease payments that are used to compute the lease liability encompass a series of payments that the lessee needs to make in subsequent periods to obtain the right-of-use of the asset. These are:

- a. Fixed payments minus any lease incentives receivable;
- b. Variable lease payments that depend on an index or a rate like, for example, the consumer price index or LIBOR/EURIBOR. Variable lease payments are defined as the portion of payments made by a lessee to a lessor for the right to use an underlying asset during the lease term that varies because of changes in facts or circumstances occurring after the commencement date, other than the passage of time

⁷⁶ The **incremental borrowing rate** is defined as the rate of interest that a lessee would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment (IFRS 16, Appendix A : Defined Terms)

- c. Amounts expected to be payable by the lessee under residual value guarantees⁷⁷;
- d. The exercise price of a purchase option if the lessee is reasonably certain to exercise that option; and
- e. Payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease

The distinction between the right-of-use asset and the lease liability continues even for subsequent measurements. In terms of the *right-of-use assets*, after the commencement date, a lessee shall measure it by applying a **cost model**. The cost model, as described in IAS 16 *Property, Plant and Equipment* provides a method in order to record the carrying amount of an asset. According to the model, an asset shall be carried at its cost less any accumulated depreciation and any impairment losses, such that: *Carrying amount = Initial costs + subsequent costs – accumulated depreciation – accumulated impairment losses*. This quantity should then be adjusted by any remeasurement of the lease liability⁷⁸. The only exceptions to this are if the lessee wants to apply a fair value model for investment properties as described by IAS 40, or the revaluation model proposed by IAS 16. Moreover, if either the lessee will gain ownership of the asset at the end of the lease term, or if the purchase option is already reflected in the cost of the asset, depreciation expenses need to cover the period that goes from the commencement date of the contract to the end of the useful life of the asset. If this were not the case, then depreciation expenses need to be calculated considering the period that goes from the commencement date to the earliest between lease term and the end of useful life of the asset.

In terms of subsequent measurement of *lease liability* instead, the lessee shall measure lease liability by:

- a) Increasing carrying amount in order to reflect the interest in lease liability. The interests for each period should be equal to the amount that produces a constant periodic rate of interest on the remaining balance, meaning that the discount rate represented by the interest rate implicit to the contract should be constant;
- b) Reducing the carrying amount to reflect the lease payment made; and
- c) Remeasuring the carrying amount to reflect any reassessment, lease modification, or revised fixed lease payments.

The lessee can also proceed to altering the lease liability, by discounting the revised lease payments, if either there is a change in the amounts that are expected to be payable under a residual value guarantee, or if there is a change in the future lease payments resulting in a change of an underlying index or interest rate. That is to say that the lessee should modify the lease liability to reflect changes in future payments **only if** there is a change in future

⁷⁷ A **residual value guarantee** is a guarantee made to a lessor by a party unrelated to the lessor that the value (or part of the value) of an underlying asset at the end of a lease will be at least a specified amount. (IFRS 16, Appendix A: Defined terms)

⁷⁸ IFRS 16: Lessee, par. 29-30.

cash flows. Moreover, the lessee should record in the income statement both the interest paid on lease liability and the variable lease payments that were not included in the measurement of the lease liability.

In the last two sections for lessee accounting, the standard provides a very detailed explanation of how the presentation of all the accounting procedures listed above as well as a detailed guide as to how lessees should disclose information in their statements⁷⁹. This is something very different from what was adopted in IAS 17, where disclosure requirements were described, but not as much in detail as they are with the new accounting standard; this shows how much more tailored IFRS 16 is to the needs of users. It is worthy to comment on this aspect, since, in order to evaluate whether this standard was an improvement with respect to its predecessor, the detail in explanation and the tailoring to the necessities of users definitely aid it in its intent. In fact, the standard itself states that the “objective of disclosures is for lessees to disclose information in the notes that, together with the information provided in the statement of financial position, statement of profit or loss and statement of cash flows, gives a basis for users of financial statements to assess the effect that leases have on the financial position, financial performance and cash flow of the lessee”. Therefore, the main purpose of the standard, other than correcting very obvious flaws such as off-balance sheet financing, is to really aid not only users of financial statements, but also entities themselves, by providing a much more detailed guide on how the accounting procedures should be followed.

The figure below provides a simplified, visual representation for the accounting procedure required by IFRS 16 for lessees when recording leases. The accounting procedure as seen in the journal entry is as follows:

January 1 st		December 31 st	
BALANCE SHEET		BALANCE SHEET	
Assets	Liabilities	Assets	Liabilities
Bank Account (↓)	Lease Liability (↑)	Bank Account (↓)	Lease liability (↓)
Right-of-use asset (↑)			
INCOME STATEMENT		INCOME STATEMENT	
Costs	Revenues	Costs	Revenues
		Depreciation costs (↑)	
		Interest expenses (↑)	

⁷⁹ The full presentation of all these elements is omitted from the study as, due to its length and detail, it would fall outside the scope of the study.

Initial Measurement (January 1st)

DEBIT: Right-of-use asset (value of the asset plus any negotiation fees). If the lessee predicts to undergo any cost of removal at lease term, then that cost should be included in this category, and a corresponding credit entry should be inserted. In this case, the lessee should include a provision for asset removal, as specified by IAS 37 (IFRSbox).

CREDIT: Lease Liability

CREDIT: Bank account

Subsequent measurement (December 31st)

As part of **right-of-use** asset measurement

DEBIT: Recording depreciation expenses

CREDIT: Reduction in value of the asset due to depreciation expenses

As part of **lease liability** measurement

DEBIT: Recording interest expenses

CREDIT: Increase lease liability

DEBIT: Reduction of lease liability by a quantity equal to the lease payment

CREDIT: Decrease bank account as a result of the lease payment

3.4 Lease accounting: Financial Statement of Lessors

As mentioned when discussing the process that led to the creation of IFRS 16, the majority of users felt that accounting procedures for lessors had no significant faults, and that therefore they should not be amended. Respecting this view, IFRS 16 provides accounting procedures for lessors that are in substance equal to those provided by IAS 17. The interesting aspect of lessor accounting in the context of IFRS 16 is that lessors, unlike lessees, are required to distinguish between **finance** and **operating** leases. As with IAS 17, a finance lease is a lease that transfers substantially all risks and rewards incidental of ownership of the underlying asset. If this does not occur, then the lease is considered to be an operating lease. Risks include the possibilities of technological obsolescence or of variation in returns due to shifts in economic conditions. Returns on the other hand represent a gain due to the appreciation of the asset or the realization of a residual value⁸⁰.

⁸⁰ IFRS 16: Appendix B, par. B53

3.4.1 Finance Leases

At the commencement date, a lessor shall recognize assets held under a finance lease in its statement of financial position and present them as a receivable at an amount that is equal to the net investment⁸¹ in the lease. Therefore the lessor has to recognize the lease receivable, a quantity that needs to be equal to the net investment in the lease. This quantity needs to equal the payments that have not been paid at the commencement date discounted to present (as described in lessee accounting) plus any initial direct costs. These costs, other than the ones borne by manufacturers, will decrease the amount of income recognized over the lease term.

When the lessor is also the manufacturer of the asset, at commencement date the lessor should recognize for each of his financial leases:

- a. The fair value of the asset, or, if lower, the present value of the lease payments accruing to the lessor as a *revenue*;
- b. A *cost* represented by the cost of sale, or the carrying amount, of the asset minus present value of the unguaranteed residual value; and
- c. Selling profit or loss (revenue – cost of sale)⁸²

With regards to subsequent measurements, a lessor should recognize finance income over the lease term, based on a pattern reflecting a constant periodic rate of return on the lessor's net investment in the lease. The lease payments received should be allocated among the principal and the unearned finance income.

Lastly, a lessor should account for modification to a finance lease as a separate lease if:

- a. The modification increases the scope of the lease by adding the right to use one or more underlying assets; and
- b. The payment made to the lessor increases by an amount that is proportional to the standalone price of the asset (intended as the price at which an entity would sell a good separately to a customer)

In order to understand what the accounting procedure looks like for finance leases under IFRS 16 it is enough to refer back to accounting methods for finance leases for lessors as provided by IAS 17.

3.4.2 Operating Leases

A lessor shall recognize the lease payments from operating leases as income either on a straight-line basis or another systematic basis which is more representative of the benefits received from the use of the underlying

⁸¹ Again, the **net investment** in the lease is defined as the gross investment in the lease discounted at the interest rate implicit in the lease (IFRS 16, Definitions)

⁸² The same considerations as seen in IAS 17 with regards with incentives that manufacturers may provide customers apply here.

asset. As with IAS 17, a lessor must recognize costs, including depreciation, incurred in earning the lease income as an *expense*. He shall, moreover, add initial direct costs incurred in obtaining an operating lease to the carrying amount of the underlying asset and recognize the costs as an expense over the lease term on the same basis as the lease income. As accounting procedures are the same as those required by IAS 17, a representation of the accounting procedures will be omitted.

3.5 Sale and Leaseback transactions

A sale and leaseback transaction involves the sale of an asset and the leasing back of the same asset. In this case the seller becomes the lessee and the buyer becomes the lessor. In a situation of sale and leaseback, both parties need to account for the transaction. The accounting treatment of sale and leaseback transactions depends on whether the transfer of an asset is a sale, as provided by IFRS 15 *Revenue from Contracts with Customers*. Within this standard is contained a description of how to determine whether a performance obligation is satisfied, an element required to understand how to account for sale and leaseback transactions. A **performance obligation** under IFRS 15 is defined as any good or service that the contract promises to transfer to the customer. A performance obligation is then satisfied when a promised good or service *is* transferred to a customer; this occurs when *control* over the good or service is transferred. Under IFRS, if the transfer is a sale:

- a. The seller/lessee recognizes the right-of-use asset arising from the leaseback transaction at a value that is equal to the previous carrying amount, related to right of use retained by the seller/lessee. Moreover he shall recognize only the gain or loss stemming from the rights that are transferred to the buyer/lessor.
- b. The buyer/lessor shall account for the purchase of the asset and for the lease contract under IFRS 16 requirements.
- c. If the fair value of the consideration for the sale of the asset does not equal the fair value of the asset, or if the payments for the lease are not at market rates, the entities should proceed with adjustments to make sure that proceeds are measured at fair value.

If the transfer, instead, is not a sale:

- a. The seller/lessee continues to recognize the transferred asset and shall recognize a financial liability that is equal to the amount paid.
- b. The buyer/lessor must not recognize the asset and shall recognize a financial asset equal to the amount paid.

3.6 Effects of IFRS 16

The IASB, before publishing a new standard or modifying an already existing one, carries out an analysis of what the effects that the introduction of the standard will probably cause, in order to understand whether the benefits of the new standards will outweigh the costs both lessees and lessors will undoubtedly incur. The conclusion of the analysis brought forth with reference to IFRS 16 is positive and the Board believes that, once the initial phase that will be characterized by costs incurred in order to apply the standard, the overall benefits will more than compensate the costs and the financial statements will result to be more transparent and truthful (IASB). Not only will the problems that were caused by IAS 17 be solved, but now balance sheets will now be able to reflect different financing decisions taken on by entities. The IASB has provided an extensive effects analysis and many consulting agencies, including Ernst & Young and PwC, have been preparing in order to aid their clients in adopting the new lease standard. The following sections will provide a description of the predictable effects of the implementation of IFRS 16, as well as a numerical example of the two accounting procedures in order to understand just how different they are.

3.6.1 Costs linked to IFRS 16 adoption

The process of integrating the new accounting standard will inevitably bear costs, especially by those entities that up until this moment have been adopting an off-balance sheet activity. The entities, instead, that have applied IAS 17 by recognizing leases as financial will have an easier time adjusting. This is due to the fact, of course, that the old operating leases in IFRS 16 are treated very similarly to finance leases in IAS 17. The effects analysis provided by IASB identifies three main costs that entities will have to face⁸³:

- a. *Cost of setting up systems and processes.* The information that needs to be gathered for a proper presentation of lease agreements under IFRS 16 is larger, especially the information that needs to be disclosed. Due to this amplification, many entities will have to bear the cost of updating their information systems so that they produce the required data. Of course, the need to change the existing system will vary across entities, whereby entities that have a larger lease portfolio will probably have less difficulty, as they will already should be equipped to manage this volume of information, and will therefore only need to apply some updates. Moreover, entities will need to develop processes that will allow them to identify leases as well as separating leases and service components as the latter are not to be accounted for under leasing regulation. This process instead will be much more burdensome for those entities that have a very large lease portfolio, as they will need readjust and apply this valuation much more frequently than entities

⁸³ *Effects Analysis, IFRS 16 Leases* (IASB, 2016)

that seldom use lease contracts. According to IASB's analysis, once an entity's processes are in place there will be "relatively little incremental ongoing cost" (IASB).

- b. *Cost of determining the discount rate.* Entities that have carried on off-balance sheet activities in the past will definitely incur in costs in order to measure lease assets and liabilities and their associated present values. This process will be quite lengthy, because it needs to be adopted individually for every lease in order to determine the unique discount rate. In order to facilitate this process, the IASB will allow entities to use the incremental borrowing rate when initially adopting the standard.
- c. *Cost of communication and education.* Entities that have adopted off-balance sheet accounting in the past will also need to educate their staff as well as updating internal procedures. Nonetheless, these costs will be much less significant for firms that were recognizing finance leases under IAS 17, as the accounting procedures are quite similar, and therefore bringing the staff up to date will require less effort. It is important to realize that costs of communication will also include the efforts of the entity to inform stakeholders of the new accounting procedures. Stakeholders, on their end, shall review the processes by which they interpret the financial statements of the entity. However, these costs will only be incurred initially, as the new accounting procedures should actually make this analysis much more effortless, therefore these costs in the long run should disappear⁸⁴.

3.6.2 Effects on companies' financial statements

Balance sheet

For entities that have been recognizing many leases through an off-balance sheet mechanism, the immediate effect of IFRS 16 will be to increase both assets (due to the fact that lessees will have to recognize the asset due to the right to use the asset transferred by a lease) and liabilities (equal to the debt the lessee faces vis-à-vis the lessor). These changes not only affect important finance ratios, as will be analyzed in a following section, but will also have a significant impact on equity; nonetheless, quantifying the effects is not very simple. Equity, which represents what a "shareholder owns in a corporation, entitling him/her to part of that entity's profits and a measure a control" (Financial Times).

$$EQUITY = ASSETS - LIABILITIES$$

Theoretically, since under IFRS 16 both assets and liabilities are increasing, the total effect on equity should not be particularly relevant:

⁸⁴ *Effects Analysis, IFRS 16 Leases* (IASB, 2016)

$$EQUITY = (ASSETS + RIGHT TO USE ASSET) - (LIABILITIES + LEASE DEBT)$$

However, this is not the case in reality as, in future periods, the recognition of the right-to-use asset should be lower in value than the debt liability. This is because the asset is to be depreciated following a straight-line basis, whereas liabilities are reduced by the amount of lease payments made, but also increased through the interest payments made over the lease term. Ceteris paribus, this means that, over the during the lease period the value of an entity's asset will shrink more rapidly than its liabilities, causing a reduction in shareholders' equity. This effect is amplified if the lessee enters in multiple lease contracts that have the same maturity and that have commenced in the same period, whereas it is mitigated if the lessee develops a lease portfolio that is diversified in terms of commencement and term date (IASB)⁸⁵.

Income Statement

The effects of an application of IFRS on an entity's income statement are expected to be less relevant than those on the balance sheet, since the accounting procedures required by IAS 17 require a classification of expenses both for finance and for operating leases. The main difference entails the categorization of expenses as now entities are required to separate between operating (referred to depreciation and amortization of the asset) and finance expenses (relative to interest payments) for all types of leases, not just finance leases. Therefore, by applying IFRS 16, a lessee will find that total expenses recognized for a particular reporting different will most likely be different from the expense recognized applying IAS 17 for an individual off-balance sheet lease (IASB). This is because with IAS 17, for off-balance sheet financing, the operating expenses were recorded in the income statement through a straight-line method, meaning that the expenses were constant for the duration of the contract. Instead, with IFRS 16, due to the separation of expenses, there will be a constant expense (represented by the operating costs) and a variable expense, represented by the finance cost. The latter, in fact, will be recorded according to the installments that the lessee will pay; however, as the debt is repaid, the principal to be repaid decreases, reducing also the amount of interest that needs to be paid. From this comparison it is possible to see how, in the initial phase of the application of IFRS 16 will, the sum of the interest expense and the depreciation charge is expected to be higher than the expense (straight-line) recorded according to IAS 17. Instead, in the second half of the lease term, the sum of the interest expense and the depreciation charge is generally expected to be lower than the IAS 17 expenses (off-balance sheet leases).

For companies that hold portfolios of leases, the impact of this amendment depends on the diversification and the distribution of the portfolio. Companies which have evenly distributed portfolios, meaning that the portfolio contains "the same number of leases starting and ending in any one period, with the same terms and conditions"

⁸⁵ *Effects Analysis, IFRS 16 Leases* (IASB, 2016)

(IASB), the overall effect to the income statement is expected to be neutral. This is because through a balanced portfolio an entity will have some leases that are at the beginning of their term, which are contributing to raising expenses and the same number of leases that, being close to term date, will lower the cost, due to the lower impact of their finance expenses (assuming that all leases have evenly distributed lease payments). Through this balancing out of payments, the netting is expected to be neutral. Instead, companies holding uneven portfolios will find that the transition from IAS 17 to IFRS 16 will result in more evident effects on the statement of profit and loss. In fact, companies that have taken on a series of leases all for the same period, will see their expenses increase as they will have to account for both operating and finance costs, whose sum will exceed the cost that they would have had to record under IAS 17. Nonetheless, this detail actually works in favor of users of financial statements, in that now companies that are expanding, and are using leasing as a source of funding unless bank loans, to be more easily compared⁸⁶.

A numerical example

The following example⁸⁷ will show the impact of IFRS 16 on an entity's income statement and balance sheet. The example will be analyzed only from the point of view of the lessee, as lessor accounting has remained the same.

Assume you decide to enter in a contract to rent a space in an apartment. The contract lasts 3 year, and it clearly identifies the apartment to be rented. The lease payments are of \$10,000.00, to be paid yearly, that include the sum of rental expenses as well as a cleaning service.

IAS 17

1. **Define the type of contract.** According to the economic life, lease payments, etc. this contract is considered to be an operating contract.
2. **Accounting procedures.** At the commencement date the lessee needs not do anything. At the end of each period, the expense is recorded under Profit and Loss for the whole sum (\$10,000.00)

IFRS 16

1. **Is it a lease?** The two components that need to be analyzed are: presence of an identified asset and right to control. After examining the contract, let us assume that it is indeed a lease agreement
2. **Are there lease and non-lease elements in the contract?** The payments stated in the contract include both rental expenses (lease element) and cleaning services (non-lease component). In order to split the

⁸⁶ *Effects Analysis, IFRS 16 Leases* (IASB, 2016)

⁸⁷ The example is loosely based on the example provided by (IFRSbox). Values and some components were changed.

\$10,000 into the two components, one would have to look at the stand alone prices of the elements, i.e. the associated prices that had to be paid if the elements had appeared in separate contracts. Let us assume that

- Lease element = \$9500.00
- Non-Lease element = \$500.00

3. Initial measurement

- **Lease liability** → calculated as the present value of the lease payments over the lease term. Assume that, after analyzing the contract, the implicit discount rate is determined to be 5%. In this case:

$$PV = \frac{9500}{1.05} + \frac{9500}{1.05^2} + \frac{9500}{1.05^3} = \$25,870.86$$

- **Right to use asset** → recorded for the same value as the lease liability plus any initial direct costs (which are assumed to be \$0)
- **Journal entry:**
 DEBIT Right to use asset: \$25,870.86
 CREDIT Lease Liability: \$25,870.86

4. Subsequent measurements

- **Remeasurement of asset:** decrease the recorded amount taking into account depreciation. Assuming straight line depreciation, the depreciation expense for each period is equal to $\$25,870.86 / 3 = \$8,623.62$
- **Remeasurement of liability:** value of the liability at the end of each period ($Liability_B$) needs to readjust the previous liability value ($Liability_A$) to include the interest payment and the capital repayment so that

$$Liability_B = Liability_A + Interest\ Payment - Capital\ repayment$$

where

$$Interest\ payment = Outstanding\ liability * 0.05$$

Therefore:

LIABILITY RECOGNITION				
	Lease Liability (b)	Interest	Capital Repayment	Lease Liability (a)
Year 1	\$ 25,870.86	\$ 1,293.54	\$ 9,500.00	\$ 17,664.40
Year 2	\$ 17,664.40	\$ 883.22	\$ 9,500.00	\$ 9,047.62
Year 3	\$ 9,047.62	\$ 452.38	\$ 9,500.00	\$ 0.00
Total	n/a	\$ 2,629.14	\$ 28,500.00	n/a

ASSET RECOGNITION			
	Asset (b)	Depreciation	Asset (a)
Year 1	\$ 25,870.86	\$ 8,623.62	\$17,247.24
Year 2	\$ 17,247.24	\$ 8,623.62	\$ 8,623.62
Year 3	\$ 8,623.62	\$ 8,623.62	\$ -
Total	n/a	\$ 25,870.86	n/a

EFFECT ON INCOME STATEMENT		
	IAS 17	IFRS 16
Expenses y1	\$10,000.00	\$ 10,417.16
Expenses y2	\$10,000.00	\$ 10,006.84
Expenses y3	\$10,000.00	\$ 9,576.00
Total	\$30,000.00	\$ 30,000.00

EFFECT ON BALANCE SHEET		
	IAS 17	IFRS 16
Assets y1	\$ -	\$25,870.86
Assets y2	\$ -	\$17,247.24
Assets y3	\$ -	\$ 8,623.62
Total	\$ -	\$51,741.72
Liabilities y1	\$ -	\$25,870.86
Liabilities y2	\$ -	\$17,664.40
Liabilities y3	\$ -	\$ 9,047.62
Total	\$ -	\$52,582.88

As can be seen from the last two tables, even a simple contract as the one used in this example will have a significant impact on balance sheets of entities. In this simple case, the effect on the income statement in terms of expenses was overall unchanged; nonetheless due to a change in recognition of expenses, the amount of expenses per period varied, assigning the heaviest payments to the first accounting period due to the different interest payments. Of course, the effect on the balance sheet is substantial as now all leases need to recognize the right to use asset and the lease liability. Even a simple example is enough to understand just how impactful the new accounting standard is.

Finance Ratios

As with previous sections, the most relevant changes in finance ratios are expected to occur for entities (lessees) that have been adopting operating leases, as classified according to IAS 17. Lessees that have been adopting finance leases, instead, will not see particularly relevant changes, as the accounting methods according to IFRS 16 are more or less the same. The following table provides an overview of the main finance ratios that will change, and the expected effects on businesses.

FINANCE METRIC	FORMULA	EXPECTED EFFECTS
Leverage	$\frac{\text{Liabilities}}{\text{Equity}}$	Leverage is a measure of long-term solvency. Due to its formula, it is expected to increase as liabilities are expected to increase and equity is expected to fall.

Current Ratio	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	This ratio is a measure of liquidity, and it is expected to decrease , as current lease liabilities will increase, whereas current assets will not, as the lease asset is considered a fixed asset.
Asset turnover	$\frac{\text{Sales}}{\text{Total assets}}$	Asset turnover is a measure of profitability and it is expected to decrease . This is because lease assets will be recognized as part of total assets.
EBITDA	Profits before Interest, Taxes, Depreciation and Amortization	As a measure of profitability, it is expected to increase as expenses for off balance sheet leases are excluded.
ROE	$\frac{\text{Profit or Loss}}{\text{Equity}}$	As a measure of profitability, its effect will depend on the effect on profit and loss, whose effect is also unknown. If the profit and loss remains constant, then the ratio will increase as equity falls.
Net cash flow	Cash inflows - outflows	No change as cash is not affected. In fact there will be an increase in cash flows from operating activities, but it will be compensated by a decrease in cash from financing activities.

As mentioned before, the effects of the change in standards will vary depending on certain characteristics that individual entities have. Nonetheless, there are certain industries that, due to their structure are expected to be affected significantly more than others⁸⁸. The first significant impact is expected to occur on the retail sector. The reason is that retail are heavy users of real estate leases for their stores, In particular, they will need to consider inserting systems that will allow them to measure the variable payments that are linked to an index or a rate. Moreover, they will need to separate the lease and non-lease components which will require substantial effort. The second industry that is expected to substantially be affected the telecommunications industry. A problem with this industry will be to identify the presence of a lease agreement, as now this industry will have to understand whether pre-existing and future contracts provide control over a physically distinct part of an asset (presence of

⁸⁸ Ernst & Young. *Leases: A summary of IFRS 16 and its effects*. EYGM Limited, 2016.

PriceWaterhouseCoopers. *IFRS 16: The leases standard is changing. Are you ready?* PwC, 2016.

an identified asset). This includes evaluations of signal transmission devices, tower arrangements or even to products that some companies provide to their customers.

Another interesting aspect would be to observe how the change in standard will affect lessors, for example those who provide real estate and equipment. Even though the change in accounting standard does not affect them directly, as lessor requirements have remained unchanged, they may be impacted due to changes in lessee's finance behaviors. In fact, lessees in order to continue to choose leasing as a finance method may require shorter lease terms and more flexibility on lease payments, which would mean that lessors need to adjust to these requirements in order to keep leasing and, if they do, they would probably see an increase in risk. The change in lessee needs could have a ripple effect, as pricing of related assets could potentially be affected. For example, in the case of real estate leases, lessors might be forced to lower the lease rate in order to avoid losing customers, affecting thus affecting pricing of real estate funds as well as increase cash flow volatility and risk (PwC).

CONCLUSION

The purpose of this dissertation was to analyze the issues linked to lease accounting as presented by International Accounting Standard 17, specifically its pitfalls linked to the accounting requirements for operating leases, and discuss whether and how the introduction of IFRS 16 *Leases* could succeed where its predecessor failed. The idea for this subject of study stemmed from the introduction by the International Accounting Standard Board of a new accounting standard, IFRS 16 *Leases*, which will be implemented starting January 1st 2019. This new standard was designed to correct the main issues linked to IAS 17, mainly the fact that the accounting procedures were deemed unfit to provide a necessary level of transparency, and to reflect the true economic position of lessee entities. The new accounting standard requires assets and liabilities to be recognized in the financial statements of lessees, without distinction between operating and financing leases, as instead was required by IAS 17. The relevance of this shift is given by the fact that the numerous firms, which heavily rely on operating leases as an alternative method of finance, will now have to face a significant increase in debt recognition. Due to the amendment, many entities will have to revolutionize their internal organization in order to review all existing contracts in search for leases and properly account for them following the new regulations. Moreover, the change in accounting standard may change the way firms choose to finance their assets, and, depending on the costs they could face with IFRS 16, some entities could revert back to using traditional bank loans.

Chapter 1 of this work revolves around the concept of leasing, and provides reasons for which leasing is considered to be a substitute for bank loans. The chapter discusses how often times, due to the size of the firm and due to the types of assets that are being leased, leasing is a much more attractive alternative as its repayment structure is deemed to be more approachable than a normal bank loan. Lastly, data by Leaseurope and ELFF is provided to show the extent of use of leasing, with a focus on operating leases, in both the European and the US leasing markets. This serves as a basis to show the scope of application of IAS 17, and therefore how impactful the change to IFRS 16 will be.

Chapter 2 focuses on the analysis of the existing accounting standard for leases, IAS 17. The chapter provides a detailed analysis of the accounting procedures required for lessee and lessor accounting, as well as the procedures that need to be followed in a scenario of sale and leaseback transactions. The chapter is concentrated on the difference between operating and finance lease, and most importantly on the different accounting procedures required for the two leasing contracts. It is precisely this difference, specifically the lack of recognition of an asset and liability for operating leases, which led the IASB to devise a new accounting standard. The end of the chapter provides a description of the consequences that stemmed from the differing accounting procedures of IAS 17, specifically the adoption by many firms of the so-called “off-balance sheet financing”.

Lastly, Chapter 3 focuses on analyzing the new accounting standard, IFRS 16 *Leases*, and how it differs from its predecessor. The main difference among the two is the abolition of the distinction between operating and finance leases, so that each leasing contract requires the recognition of a right-to-use asset and a corresponding lease liability. Following the analysis, a description of the main impacts of the new accounting standard is provided, especially related to costs entities will have to face, as well as the impact on firms' financial statements. Following this reasoning, the chapter also includes an example that, while simplified, shows how much of an impact IFRS 16 will have on financial statements of firms, increasing both assets and, more importantly, liabilities. If this simplified result is extended to reflect the extent of leasing activity as provided by Chapter 1, it is possible to understand just how relevant and impactful this amendment will be on a global level.

Through the analysis, the main conclusion reached is that surely IFRS 16 *Leases* will allow financial statements to be more transparent, and also allow for easier consultation by users of these documents. Through the new procedures, stakeholders will be able to better understand the financial situation of any entity, without wasting time and resources in order to integrate information presented in the financial statements with disclosed information provided by the entity, as well as their own assumptions and predictions. Instead, information will be readily accessible, and much more objective than it was before. While the new accounting standard will be beneficial for stakeholders in general, it might not be as optimal for firms themselves. This is for two reasons: (1) the cost of implementing the new standard for some firms will be quite substantial, (2) the introduction of the new regulation might force some firms to rethink their financing opportunities. In terms of costs, this is a natural consequence, especially for the firms that were heavily relying on operating leases (those adopting finance leases will find that the accounting procedures are substantially the same), but it is a consequence that is expected to diminish in the long run. The costs will be due, especially in the beginning, to the fact that the firms will have to properly account for already existing contracts, as well as upgrade accounting software and train personnel. Secondly, the effect the new accounting standard will have on firms' statements of financial position could cause them to alter the way they choose to finance their assets. Due to the increase in their liabilities, some firms may still find leasing to be more convenient rather than a conventional bank loan, as they may be required to pay a higher interest on their loan. On the other hand, the recognition of equipment or land that until now was leased under an operating lease, may affect the firm's statement and ratios in such a way to cause them to reconsider their sources of funding, causing them to search for some other, more convenient option. It will be interesting to see how, once IFRS 16 has been implemented, this will affect business decisions taken by firms, in terms of the financing tools they choose as well as the types of assets that will be leased.

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New leased equipment volumes per asset type in 2016

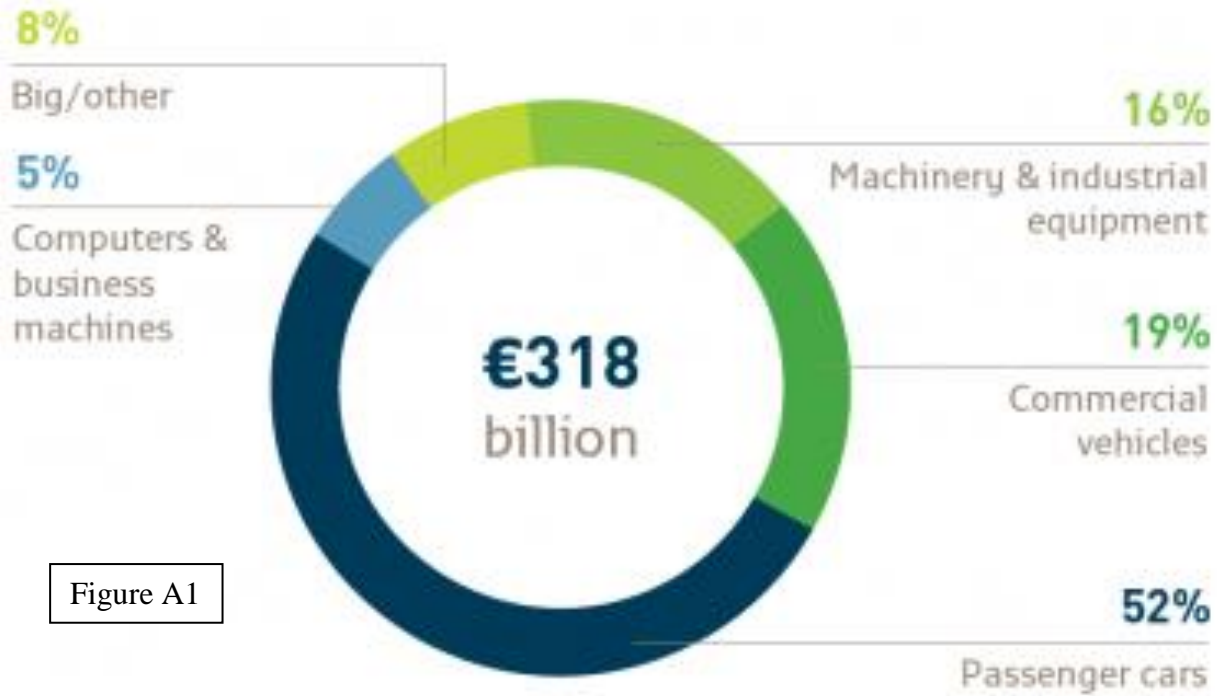
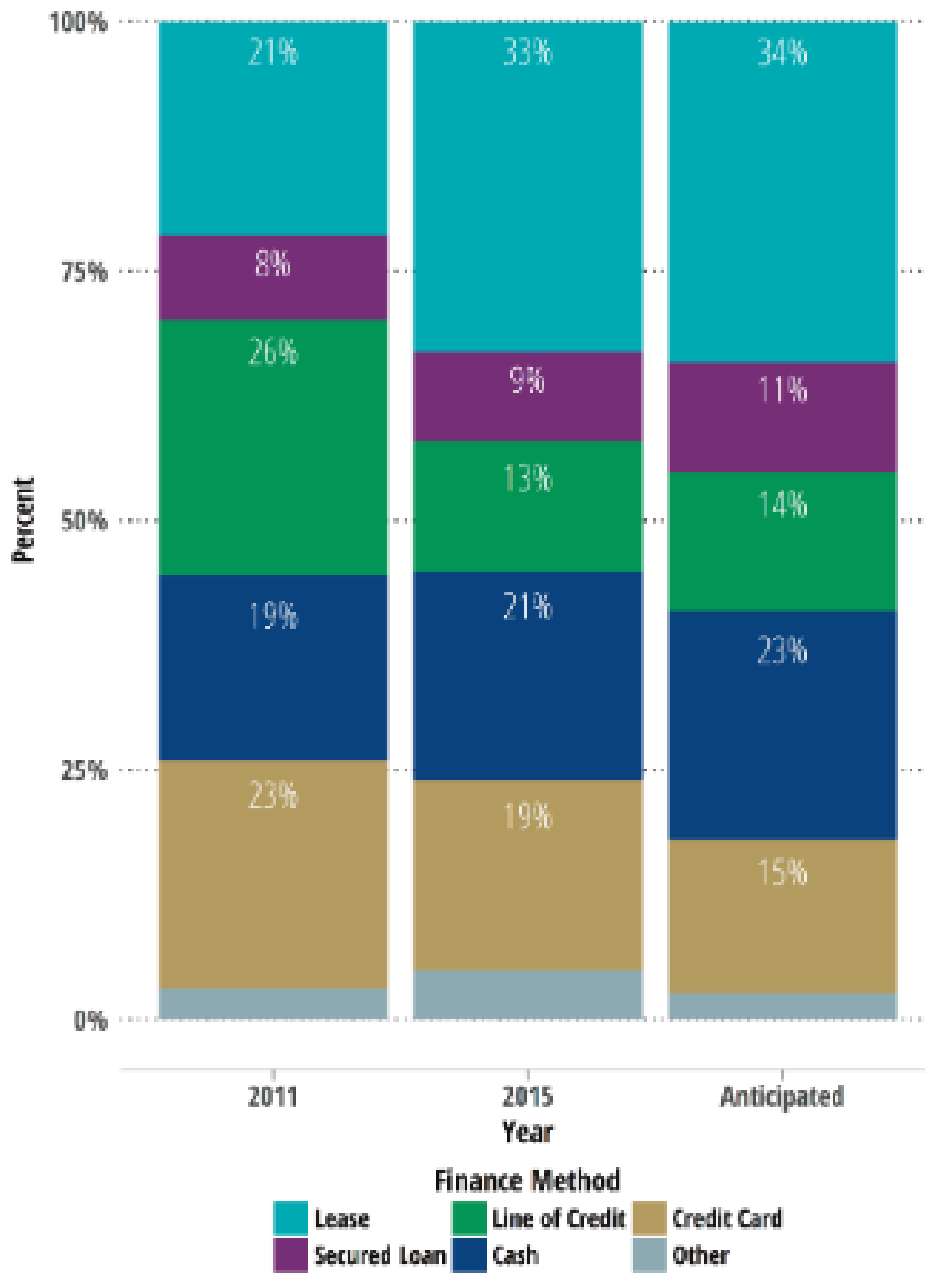


Figure A1

Fig 4: Equipment Investment by Method of Finance

Figure A2



Source: The 2016 Foundation Borrower Survey

Fig 5A: Method of Finance by Total Acquisition Amount, 2016

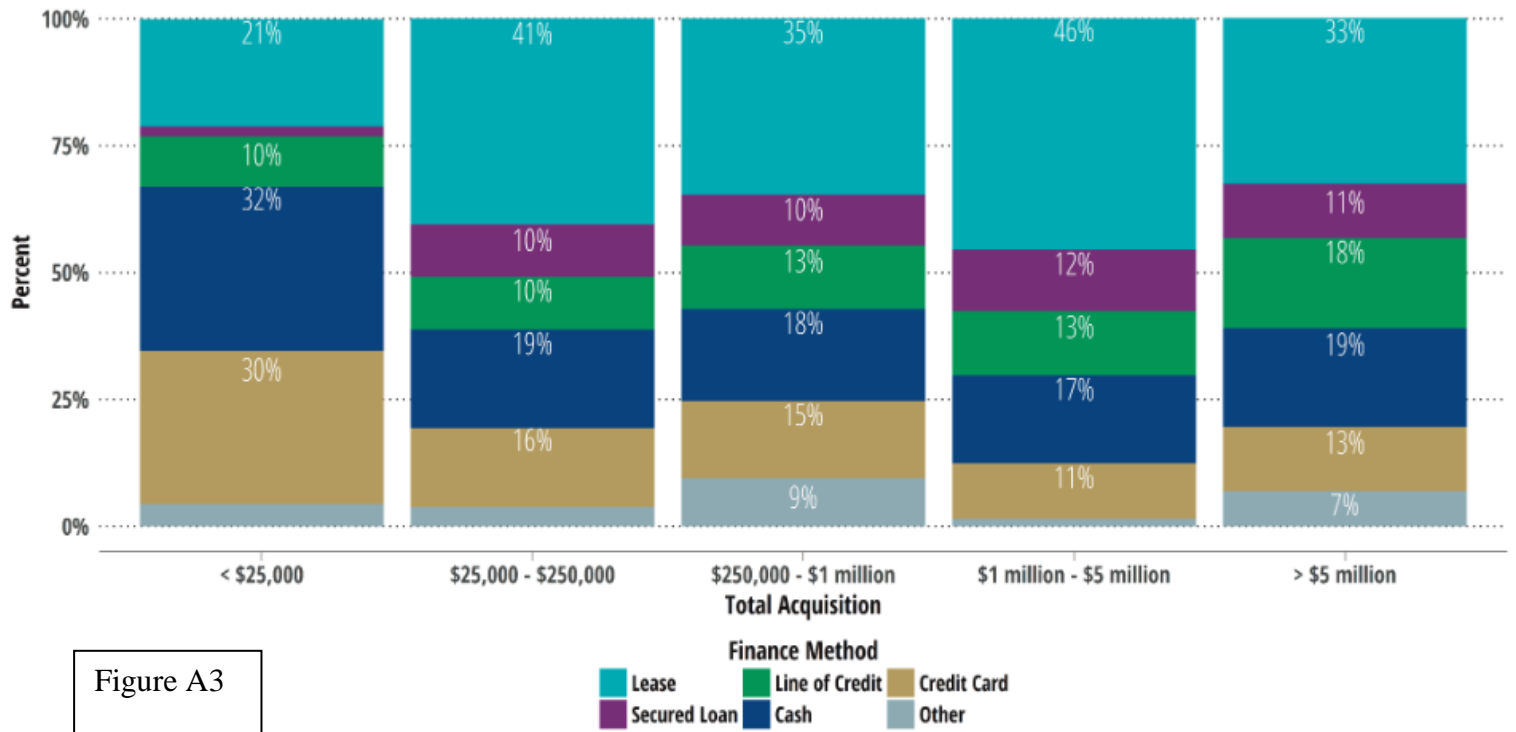


Figure A3

Source: The 2016 Foundation Borrower Survey