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IFRS 16 (leases) implementation: Impact of entities' decisions on financial statements

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Abstract

The IASB recently issued a new lease standard (IFRS 16) that will be applicable for annual periods beginning on or after 1 January 2019. This standard changes the accounting model applied by lessees. The new model (known as the capitalisation model) will entail recognising most previous operating leases in the balance sheet, thus impacting the financial statements of companies in many sectors. The impact on an individual company will vary depending on several decisions that the company's management must make. These decisions can be divided into two groups: 1) alternative accounting treatments that IFRS 16 permits for certain aspects and 2) estimations. We analyse each of these decisions, their effect on financial statements and how companies are expected to address them. In general, companies are expected to make decisions that reduce the impact of IFRS 16 on their leverage level.

Keywords:

IFRS 16, Lease accounting, Financial statements.

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Implementación de la NIIF 16 (arrendamientos): **impacto de las decisiones de la empresa en los estados financieros**

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Resumen

El IASB ha emitido recientemente una nueva norma contable de arrendamientos (NIIF 16) que será aplicable para ejercicios que comiencen a partir de 1 de enero de 2019. Esta norma cambiará el modelo contable que aplican los arrendatarios. El nuevo modelo (conocido como modelo de capitalización) conllevará reconocer en balance la mayoría de los antiguos arrendamientos operativos, creando un gran impacto en los estados financieros de las compañías en numerosos sectores. El impacto en cada empresa individual puede ser diferente en función de una serie de decisiones que la Dirección de la empresa debe tomar. Estas decisiones pueden dividirse en dos grupos: 1) tratamientos contables alternativos que la norma permite para ciertos aspectos y 2) estimaciones. Analizamos cada una de esas decisiones, su efecto en los estados financieros y cómo se espera que las empresas las utilicen. En general, se espera que las empresas utilicen estas decisiones para reducir el impacto en el nivel de apalancamiento.

Palabras clave:

NIIF 16, contabilidad de arrendamientos, estados financieros.

1. Introduction

In January 2016, the International Accounting Standards Board (IASB) issued a new standard for lease accounting (International Financial Reporting Standard – IFRS 16) that will be applicable for annual reporting periods beginning on or after 1 January 2019[1]. In the US GAAP context, the Financial Accounting Standards Board (FASB) issued an equivalent standard (Accounting Standards Codification - ASC Topic 842) with a similar mandatory application date[2].

These standards have come to light following a lengthy debate about lease accounting. They introduce a new lessee accounting model (known as the capitalisation model), which entails recognising almost all lease operations in the balance sheet. For current operating leases, instead of just recognising a lease expense, entities will have to recognise a lease asset (right-of-use of the underlying asset) and a lease liability (for the present value of future lease payments).

The impact of the new model on the financial statements of companies is expected to be considerable, both in the balance sheet and in the profit and loss account, as well as with respect to many ratios and metrics that take balance sheet and/or profit and loss figures as a reference. This impact has been analysed and estimated by many authors using several methodologies to capitalise operating leases and measure the average impact on financial statements and on ratios of a sample set of companies. See, for example, Bennett and Bradbury (2003), Duke *et al.* (2009), Durocher (2008), Fitó *et al.*, (2013), Fülbier *et al.* (2008), Goodacre (2003), Grossman and Grossman (2010), Imhoff and Lipe (1991) (1997), Mulford and Gram (2007), or Singh (2012).

Depending on the sample used by the authors, results vary, nevertheless all of them show a notable impact, for example, on:

- Leverage: increases due to the recognition of new liabilities (present value of future lease payments).
- Return on Assets (ROA): decreases due to the recognition of new assets (right-of-use).
- EBITDA: increases due to the substitution of operational expense (lease expense) by depreciation expense and interest expense.

The impact is expected to be more significant in sectors with a higher operating lease intensity (Morales and Zamora, 2017), such as retail (real estate leases), airlines (aircraft leases), hotels (real estate leases), etc.

[1] Early adoption is permitted but only if the entity also applies IFRS 15 – Revenue from Contracts with Customers.

[2] Annual reporting periods beginning on or after 15 December 2018 in the case of quoted companies (15 December 2019 for the remaining companies). Earlier adoption is permitted.

Given that application of the new standards will not be mandatory until 2019, entities are currently starting to analyse the real IFRS 16 impact on their own financial statements. In this context, entities will have to take several decisions that will affect the final impact. These decisions can be divided into two groups:

- **Group 1.** The standard allows the entity to choose between alternative accounting treatments with respect to separation of non-lease components, capitalisation model exceptions, and transition.

- **Group 2.** Entities must make estimations regarding lease term and discount rate.

The main objective of this paper is to help entities in making those decisions, by clarifying the possible options offered by the standard and highlighting the effect of each option on financial statements. In general, we assume that, when the standard provides alternative accounting treatments, the entity will try to use the alternative that entails capitalising fewer lease operations and results in lower operational costs[3]. Nevertheless, we will also contemplate other scenarios.

The rest of the paper is organised as follows: in section 2, we introduce lease accounting reform and the new lease accounting model. Sections 3 to 7 are dedicated to the different decisions to be made by the companies: separation of non-lease components (section 3), capitalisation model voluntary exceptions (section 4), transition (section 5), discount rate (section 6) and lease term (section 7). Finally, section 8 presents the conclusions.

2. Lease accounting reform and the new lease accounting model

2.1. The lease accounting reform

The current lease accounting model was introduced 40 years ago through a standard issued in 1976 by the FASB: Statement of Financial Accounting Standard (SFAS) 13 "Accounting for Leases" (now ASC Topic 840). In the IFRS context, the current lease standard (International Accounting Standards – IAS 17) was issued in 1994 by the former IASC[4] (including a model similar to SFAS 13).

The IAS 17 and SFAS 13 model has been criticised by academics (Reither, 1998), practitioners (AICPA, 1994), and users (Beattie *et al.*, 2006), who argue that lessees

[3] Not operational cost in a profit and loss sense, but rather referring to the cost of implementing the new standard and complying with its requirements.

[4] International Accounting Standards Committee. The IASC was replaced by the IASB on 1 April 2001.

are not currently recognising all lease obligations and assets in their balance sheets, which leads to a lack of comparability. Lessees (as well as lessors) must classify all lease operations into two categories: finance leases and operating leases. While finance leases are recognised as a financed purchase (recognising the value of the leased asset in the balance sheet and the associated debt), operating leases are not recognised in the balance sheet (except for accrued lease rent payable).

The fact that many leases (operating leases) are accounted for as an "off-balance sheet" operation leads to difficulties when comparing financial statements and financial ratios between companies using metrics such as total debt level. If one company decides to buy a certain asset (financing the purchase through a loan) and a second company decides to lease the same asset, the two operations may essentially be very similar from an economic perspective. Nevertheless, under current accounting standards (IAS 17 and SFAS 13), the first operation is recognised as a financed purchase while the second may not be recognised at all if it is considered to be an operating lease (apart from lease expense and the accrued lease payable).

Duke *et al.* (2009) indicate that companies have enjoyed the benefits of operating leases for decades, since both leased assets and liabilities can effectively be kept off the balance sheet with only footnote disclosures of future lease obligations. Many authors find that companies (lessees) structure lease transactions to be able to maintain lease commitments off-balance sheet, i.e. in order to be able to treat them as operating leases (see, for example, initial research by Abdel-Khalik (1981) in relation to the SFAS 13 model, and also Duke et al. 2009; Beatty *et al*. 2010; Bryan *et al*. 2010; Dechow *et al*. 2011; Cornaggia *et al*. 2011). Cornaggia *et al*. (2011) find that, as a proportion of total debt, operating leases used as fixed-cost financing for US corporations increased by 745% from 1980 to 2007 and capital (on-balance-sheet) leases fell by half.

Empirical evidence also supports the idea that market participants do, in some cases, consider off-balance lease liabilities (i.e. liabilities that would arise if operating leases disclosed in the financial statement footnotes were capitalised). According to Sakai (2010), the market appears not to react to lease capitalisation, but Lindsey (2006) shows that, from an economic perspective, investors consider operating lease liabilities real liabilities, and that market participants price them differently from financial leases. These commitments have the same risk impact on valuation models as financial leases (Dhaliwal *et al.*, 2011). For credit investors, operating leases not disclosed in balance sheets are incorporated into debt ratings and bond yields (Lim *et al.*, 2003; Sengupta *et al.*, 2011).

The reform of the lease accounting model (SFAS 13 and IAS 17) has been under discussion for several years. The first document jointly prepared by several accounting

issuers (G4+1, including the former IASC and the FASB) proposing the possibility of capitalising operating leases (i.e. proposing to change the current model), was issued as early as 1996 (McGregor, 1996). The process accelerated in 2005, when the US Securities and Exchange Commission (SEC) recommended that the accounting guidance for leases be reconsidered (SEC, 2005). During IASB meetings in 2006 (March and April), the possibility of incorporating leases into the agenda was discussed. Finally, a joint IASB-FASB project was approved in July 2006. Since then, the IASB and the FASB started working together on a new lease accounting standard (lease accounting joint project).

During the project, the Boards (IASB and FASB) concluded (in line with previous studies) that although it can be argued that when entering into an operating lease contract the lessee immediately obtains an asset (the right-of-use of the leased goods) and a liability (the obligation to pay future lease rental), said asset and liability are typically not recognised in the balance sheet.

In this context, the Boards began to develop a new accounting model for leases whereby lessees would reflect most of their lease obligations in the balance sheet (that is, very few off-balance sheet lease operations would remain following its implementation by companies). The first proposal for the new model (i.e. the first draft standard) was issued by the IASB in 2010, and a revised draft was subsequently issued in 2013[5]. Throughout the process, there was substantial opposition to the lease accounting model change, especially among financial statement preparers, as can be seen in the response letters to the Exposure Drafts (EDs)[6] (Barone *et al.*, 2014; Molina and Mora, 2015). In fact, the IASB itself acknowledges (in the documents accompanying the issuance of IFRS 16) that "some preparers questioned the benefit of reporting all leases in the balance sheet". Several media specifically referred to the fact that in 2010 a number of Spanish companies (including Santander, BBVA, Inditex, Telefónica, Iberia, Repsol, NH Hoteles and El Corte Inglés) had lobbied against the IASB in order to avoid changes to the IAS 17 model. They were even supported by the Spanish Ministry of Economy, and partially by the European Commission (Expansión, 2016; Fitó *et al.*, 2013). These companies argued that in the context of a general economic crisis, an increase in balance sheet debt would make ratings decline, increase costs and impact investment levels. They also claimed that there is a difference between a loan (that must be paid to eliminate the commitment) and many leases where an entity can at any time freely leave the contract (without paying any fee or, in some cases, just a penalty fee).

[5] The FASB also issued a first draft in 2010 and a revised draft in 2013, as this was a joint project. Before issuing the Exposure Drafts (ED) they issued a Discussion Paper in 2009 ("Leases. Preliminary Views").

[6] 760 letters were received in response to the 2010 ED, and 640 letters in response to the 2013 ED, from companies, other standards issuers, governments, professional bodies, academics, individuals, etc.

Despite these arguments, the Boards finally concluded that the benefits of the new model for investors and users of financial information outweighed the costs. In fact, approximately half of the letters received as a response to the EDs supported the project based on the argument of improved information quality (Fitó *et al.*, 2013). The IASB issued the final standard (IFRS 16) in January 2016, and the FASB issued its standard in February 2016 (ASU No. 2016-02, Leases (Topic 842)) with a long period until mandatory first application to allow both financial statement preparers and users to adapt to the new model. The IASB and FASB new lease standards are very similar (the general model is comparable), but some significant differences remain.

2.2 New accounting model for lessees

As mentioned above, the most important change under IFRS 16 in comparison to IAS 17 is the new accounting model to be applied by lessees.

Under IFRS 16, when an entity enters into a lease contract (as a lessee), it will recognise a right-of-use (asset) and a debt (lease liability)[7]. The lease liability is initially recognised as the present value of future lease payments during the lease term. Section 6 shows an analysis of the discount rate that the entity should use for cash flow discounting. Right-of-use is initially recognised as an amount equal to the liability, plus other concepts such as the lessee's initial direct costs, prepayments made to the lessor, estimated costs of restoration, removal and dismantling; and less any lease incentives received from the lessor.

For the subsequent measurement of lease liability, entities should accrue interest using the discount rate determined at lease commencement (provided that a reassessment and a change in the discount rate has not occurred, see below), and reduce lease liability by payments made. Right-of-use is subsequently amortised following IAS 16 principles and impaired following IAS 36. The revaluation / fair value model included in IAS 16 and IAS 40 can also be applied in certain cases for subsequent measurement of the right-of-use. According to IFRS 16.34, if a lessee applies the fair value model in IAS 40 to its investment property, the lessee shall also apply that fair value model to right-of-use assets that meet the IAS 40 definition of investment property. If right-of-use assets relate to a class of property, plant and equipment to which the lessee applies the IAS 16 revaluation model , a lessee may elect to apply that revaluation model to all right-of-use assets that relate to that class of property, plant and equipment (IFRS 16.35).

[7] As discussed in more depth in Section 4, there are voluntary exceptions for short-term leases (leases with a term equal to or less than one year) and leases of low-value assets.

In certain cases, lease liability should be remeasured during lease life. The difference between previous liability and new liability is recognised against the right-of-use (unless the carrying amount of the right-of-use is reduced to zero and there is a further reduction in the measurement of the lease liability, in which case, any remaining amount is recognised in the profit and loss account, see IFRS 16.39).

The liability is remeasured by discounting new estimated cash flows using the initial discount rate if there is a change in the amounts expected to be payable under a residual value guarantee, or if there is change in future lease payments resulting from a change in an index or a rate used to determine those payments, including, for example, a change to reflect changes in market rental rates following a market rent review[8] (see IFRS 16.42).

The liability is remeasured by discounting new estimated cash flows using a revised discount rate if there is a change in the lease term or there is a change in the assessment of an option to purchase the underlying asset (see IFRS 16.40).

For a complete practical example, see Appendix 1, where we also illustrate the treatment of a rent linked to the Consumer Price Index (CPI) under the IFRS 16 model.

Two additional important concepts in relation to this model that may affect the measurement of the lease asset and liability are the lease term (see Section 7) and the discount rate (see Section 6).

Finally, there are a number of differences between IFRS 16 and Topic 842 model. Under IFRS 16, there is a single accounting model for all capitalised leases (as seen above). Under Topic 842, there are two accounting models depending on whether the lease is an operating lease or a finance lease. In the case of an operating lease, expense recognition is made on a linear basis while for a finance lease, expense recognition is made as in IFRS 16. Another relevant difference is that under US GAAP, the voluntary exception for low-value assets does not apply.

3. Separation of Non-Lease components

3.1. Default accounting treatment

A lease contract may also include other components that are not leases (generally services or supplies). For example, a lease contract for a car may also include

[8] If the change in lease payments is the result of a change in floating interest rates (for example, Euribor), the lessee shall use a revised discount rate that reflects changes in the interest rate (IFRS 16.43).

maintenance, while a lease contract for a building may also include security, cleaning, supplies, trash removal, etc.

In principle, IFRS 16 (paragraph 12) states that an entity shall account for each lease component[9] within the contract as a lease separately from non-lease components. In this sense, contract rent would be divided into two parts (each part could also be further subdivided if there were more than one lease component or more than one non-lease component):

1) **Lease components:** the capitalisation model is applied to each lease component (except when the exceptions described in Section 4 apply). The present value of this part of the rent is recognised in the balance sheet as lease asset (right-of-use) and lease liability.

2) **Non-lease components:** these components are accounted for depending on the nature of the component. In many cases, they are services that are recognised as an expense on a straight-line basis during the service period[10].

In some types of contracts, allocating the rent to each component is fairly straightforward. Nevertheless, in other types of contract, it will be more difficult because, for example, the breakdown is not disclosed in the contract. According to IFRS 16, the allocation should be made on the basis of the relative stand-alone price of the lease components and the aggregate stand-alone price of the non-lease components (IFRS 16.13). Even if the breakdown is disclosed in the contract, the entity should pay attention to whether or not that breakdown represents relative stand-alone prices.

It should be noted that a contract could include payment for other items that are not independent lease or non-lease components because they do not relate to the transfer of goods or services by the lessor to the lessee. In other words, contracts can even include payments for a third class of items. Examples include fees or other administrative costs that a lessor charges a lessee. Such amounts payable do not give rise to a separate component of the contract, but are considered part of the total consideration that is allocated to the separately identified components of the contract (IFRS 16.B33).

In practice, doubts may arise in relation to the cases where the lessee reimburses (or makes certain payments on behalf of) the lessor for activities and costs that do not

[9] A contract may include more than one lease component. For example, a single contract may include leases of land, building and equipment (see IFRS 16.BC133). A right to use an underlying asset is a separate lease component if both (IFRS 16.B32): a) the lessee can benefit from use of the assets on their own, or together with other resources that are readily available to the lessee and, b) the underlying asset is not dependent on, or highly interrelated with other assets.

[10] IFRS 16 only deals with the accounting for lease components of a contract, and does not deal with the accounting for a service. The IASB considered that the accounting for services (or the service components of a contract) should not be affected, regardless of whether the contract is only for services or includes the purchase, or lease, of an asset as well as services (IFRS 16.BC135).

transfer a good or service to the lessee. Examples include reimbursement of real estate taxes[11] or payments made for insurance that protects the lessor's investment in the asset and the landlord will receive the proceeds from any claim.

According to EY (2016, p.24), these payments correspond to the third class of items explained above: "under IFRS 16, such costs are not separate components of the contract because they do not represent payments for goods or services and are considered to be part of the total consideration that is allocated to the separately identified components of the contract (i.e., the lease and non-lease components). Entities also need to evaluate whether such payments are fixed (or in-substance fixed) lease payments or variable lease payments".

That is, if these payments / reimbursements are considered variable lease payments that do not depend on an index or a rate (as defined in IFRS 16.28) they are not included in the capitalisation model but are recognised as an expense on a linear basis in the period in which they are incurred. This could be the case, for example, for local real estate taxes if the entity considers that the amount is variable and is not dependent on inflation.

3.2. Practical expedient

The requirement of separating lease from non-lease components may change current entities' practices. This is because, under IAS 17, in the case of operating leases, the accounting for the lease and non-lease components was generally the same, and entities did not focus on separating the components. When implementing IFRS 16, entities will have to start separating components if they did not do so before.

Nevertheless, paragraph 15 of IFRS 16 includes a practical expedient: a lessee may elect, by class of underlying asset[12], not to separate non-lease components from lease components, and instead account for each lease component and any associated non-lease components as a single lease component.

Appling this practical expedient may require less operational effort when implementing IFRS 16, but it involves an increase in lease payments and, therefore, an increase in lease asset (right-of-use) and lease liability (lease debt). This is because the lease payments to be used for the capitalisation model would increase. According to Deloitte (2016, p.30), "separating non-lease components reduces the amounts recognised as the leased asset and lease liability. It will also give a smoother expense profile, but the expense related to the non-lease components is classified as operating".

[11] In Spain: IBI (Impuesto de Bienes Inmuebles).

[12] A class of underlying asset is a grouping of underlying assets of a similar nature and use in an entity's operations (IFRS 16.8).

If an entity wishes to capitalise as few leases as possible (and to have as lower an impact as possible on leverage ratios), in principle it will:

- Apply the practical expedient to classes of underlying assets for which it is not possible (from an operational perspective) to separate components.
- Apply the practical expedient to classes of underlying assets for which, although it is possible (from an operational perspective) to separate components, it is not cost effective to do so due to aspects such as materiality.
- Not apply the practical expedient to the rest of the classes of underlying assets.

It should be noted that the practical expedient does not allow lessees to account for multiple lease components of a contract as a single lease component.

4. Capitalisation model voluntary exceptions

4.1. Short-term leases and low-value assets

In principle, under IFRS 16, all leases in which the entity is a lessee should be recognised in the balance sheet by applying the capitalisation model. Nevertheless, the standard includes two voluntary exceptions to that model: short-term leases and leases for which the underlying asset is of low value (IFRS 16.5). If these exceptions are applied, the lease payments associated with those leases are recognised as an expense on either a straight-line basis over the lease term or another systematic basis[13] (IFRS 16.6) i.e. in these cases, entities would apply the same principles as those of the IAS 17 operating lease model.

For short-term leases, the election shall be made by class of underlying asset. Short-term, in this context, means 12[14] months or less (except for lease contracts that contain a purchase option). The IASB considered that, for this kind of lease, the benefits of requiring a lessee to apply the capitalisation model do not outweigh the associated costs (IFRS 16.BC87).

In principle, entities are expected to apply this exception for short-term leases to all classes of underlying assets, assuming that the aim is to have as little impact as

[13] The lessee is required to apply another systematic basis if that basis is more representative of the pattern of the lessee's benefit.

[14] The lease term is 12 months or less. Lease term as explained in Section 7: it includes the non-cancellable period, the period covered by an option to extend the lease if the lessee is reasonably certain to exercise that option, and the period covered by option to terminate the lease if the lessee is reasonably certain not to exercise that option.

possible on leverage ratios and due to the increase in operational costs that would occur if all short-term leases were included in the capitalisation model.

For leases of low value assets, the choice can be made on a lease-by-lease basis (instead of by class of underlying asset). Low value refers to the value of the leased asset when it is new, regardless of its age at the commencement of the lease (IFRS 16.B3).

Low vale is an "absolute value" that is not explicitly established in IFRS 16. Paragraph 100 of IFRS 16 "Basis for Conclusions" states that: "the IASB had in mind leases of underlying assets with a value, when new, in the order of magnitude of US$5,000 or less". However, this is not an exact figure; moreover, it is given in USD whereas the functional currency of the entity may not be USD. Each company should decide on a figure in the region of USD 5,000 (or its equivalent in functional currency). The figure should be similar regardless of the size of the entity i.e. it is not a relative figure that depends on materiality or the company size[15].

Examples of low-value assets could include desktop and laptop computers, small items of office furniture, telephones and other low-value equipment.

According to IFRS 16.B6: "a lease of an underlying asset does not qualify as a lease of a low-value asset if the nature of the asset is such that, when new, the asset is typically not of low value. For example, leases of cars would not qualify as leases of low-value assets because a new car would typically not be of low value".

For Deloitte (2016, p.45): "in practice, determining whether items are of 'low value' is going to be challenging given that the pointers in the guidance are so limited. While US$ 5,000 may be considered 'low' in some jurisdictions, it may not be in others, and it is possible that some lessees will put more focus on the nature of the underlying assets (...). It is likely that this will continue to be a significant area of judgement which may become clearer as practice develops".

It should be noted that a lessee must assess whether an underlying asset is of low-value for each separate lease component. In this sense:

- If a lessee enters into a contract to lease 100 laptops, assuming that each laptop is a separate lease component and that each one is low value according to IFRS 16 criteria, the low-value exception can be applied.

[15] In Mexico, draft standard D-5 that adopts IFRS 16 in the context of local Mexico GAAP, the figure is relative in relation to the company's size.

- If a lessee enters into a contract to lease several assets but these assets are considered to be a single lease component under IFRS 16 because they are highly dependent (see IFRS 16.B32), the low-value exception must be assessed in relation to the sum of the value of all assets. Imagine, for example, a lease of a car. Maybe the tyres are low-value assets but they cannot be excluded as they are part of the car.

As with the short-term leases exception, this low-value exception is expected to be widely used by companies.

Reasons why some entities may choose not to use these two voluntary exceptions (low-value and short-term) could include the following:

- ASC Topic 842 does not contemplate the low-value exception. Entities that are subsidiaries of groups with a parent company reporting under US GAAP may not apply the exception in their IFRS financial statements, in order to reduce differences with US GAAP i.e. to reduce consolidation adjustments.

- The performance of some companies is analysed by comparing operational expenses to total investments. The more leases the capitalisation method is applied to, the lower the operational expenses[16] in relation to total assets (instead of recognising operational expenses, entities recognise the depreciation charge and interest expense). Nevertheless, balance sheet (liability increase) effects should also be considered and the entity should analyse the pros and cons of each decision.

For Deloitte (2016, p.43): "some entities may decide that they do not wish to take advantage of these exceptions, perhaps because recognising lease assets and liabilities and presenting the lease expense and interest and depreciation is considered preferable to an off-balance sheet treatment with an operating expense. Or, for some lessees, while they may see benefit to having such leases off-balance sheet, that benefit may not be sufficient to justify the additional cost or complexity of having two lease accounting systems".

4.2. Lease of intangible assets

IFRS 16 includes another voluntary exception, but this time not in relation to the capitalisation model, but rather in relation to all standard requirements. Paragraph 3 of IFRS 16 states that the standard is not applicable to leases of several types of assets including "(e) rights held by a lessee under licensing agreements within the scope of IAS 38 Intangible Assets for such items as motion picture films, video recordings, plays, manuscripts, patents and copyrights".

[16] We assume that, if the capitalisation model is not applied, the recognised expense would be an operational expense.

Paragraph 4 of IFRS 16 states that "a lessee may, but is not required to, apply this Standard to leases of intangible assets other than those described in paragraph 3(e)". Therefore, leases of intangible assets such as software or exclusive licences for brands or trademarks held by a lessee can be voluntarily excluded from IFRS 16.

According to IFRS 16.BC 71, there is no conceptual basis for excluding leases of intangible assets from the scope of IFRS 16 for lessees. However, the IASB concluded that a separate and comprehensive review of the accounting for intangible assets should be performed before requiring leases of intangible assets to be accounted for applying the requirements of IFRS 16.

The standard does not clarify whether the voluntary exclusion for intangible assets is applicable to all assets at the same time (i.e. all or nothing) or according to each class of intangible asset. We believe that this second interpretation would be more in line with IFRS 16.

Entities are generally expected to apply the voluntary exclusion for all intangible assets unless, as stated above, entities are more focused on reducing operating costs in the profit and loss account than on reducing liabilities or avoiding operational costs.

5. Transition

In relation to IFRS 16 first adoption for leases previously classified as operating leases (for a lessee), the standard provides two possible approaches (one of which contains two possible models for the right-of-use). The two approaches are: full retrospective approach and modified retrospective approach.

The full retrospective approach implies (following IAS 8) (IFRS 16.C5a):

- Restating comparative financial statements and recording the accumulated effect on the opening balance sheet of the comparative periods. For example, for an entity with a year-end of 31 December and presenting one comparative period, the first year-end to incorporate IFRS 16 requirements would be 31 December 2019, the comparative period that should be restated is the period ending on 31 December 2018 and the opening balance sheet would be as of 1 January 2018.

- The cumulative equity and balance sheet effect to be recognised as of 1 January 2018 would be the same as if the entity had always applied IFRS 16. In other words, as of 1 January 2018, lease asset and liability should be calculated and recorded

for outstanding operations. The difference between the asset and the liability should be recorded against equity.

- 2018 (comparative) and 2019 financial statements would include IFRS 16 effects for outstanding lease operations.

- According to IAS 1, a restated opening balance sheet on 1 January 2018 will also need to be disclosed.

This will be a very difficult approach to apply for entities with a high volume of leases, due to the amount of historical information and calculations required. The entity will have to go back to each lease inception and recalculate all lease entries from that moment until 2018 (for comparative financial statements) and 2019. This includes, among other things, all historical recalculations of lease liabilities (and the corresponding entry against lease asset) when there has been a change in cash flow due to CPI reference or when there has been a change in estimation in relation to the lease term (see section 7). It also implies going back to estimate initial discount rates for each lease.

This approach will generally lead to a negative equity impact, net of taxes, on the opening balance sheet for each lease depending on the initial value of lease asset vs. lease liability:

- If lease asset and lease liability started with the same amount at lease commencement date, from that moment on, lease asset is normally depreciated on a linear basis while lease liability is amortised on an incremental basis. In the opening balance sheet, the magnitude of lease liabilities will tend to be higher than the magnitude of lease assets (negative impact on equity).

- This could not be the case if the lease asset was higher than the lease liability at lease commencement date due to aspects such as prepaid rent, initial direct costs, etc.

The second approach is the modified retrospective approach. If this approach is used (IFRS 16 C5b), the comparative financial statements are not restated and, therefore, the first IFRS 16 accounting entry for a company with a year-end of 31 December, will be 1 January 2019.

This method consists of calculating lease liability as of 1 January 2019 (or the corresponding opening date) by discounting future lease cash flows (from 1 January 2019 on) using the current discount rate. For lease asset, there are two possible methods:

- Method 1 (IFRS 16.C8bii): the lease asset starts as of 1 January 2019 (or the corresponding opening date) with an amount equal to the lease liability (adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognised in the statement of financial position immediately before the date of initial application).

- Method 2 (IFRS 16.C8bi): the lease asset is recalculated and depreciated from the beginning of the lease and the corresponding amount is registered as of 1 January 2019 (or the corresponding opening date). The current (not historical) discounting rate is used.

As with the full retrospective method, with the modified retrospective approach, the difference between the lease asset and lease liability in the opening balance sheet is registered against equity, net of taxes. In general, this approach will lead to a negative equity impact on the opening balance sheet (this time as of 1 January 2019). Nevertheless, as in the full retrospective method, this would depend on factors such as whether lease payments are made in arrears or in advance.

Paragraph C10 of IFRS 16 includes several practical expedients that entities can apply if the modified retrospective approach is used.

If possible, entities may calculate the three alternatives and compare their effect on financial statements in order to decide which one to choose. Using the example included in Appendix 1, the comparison of the three alternatives would be as follows:

Table 1. **First application options (1)**

Full retrospective				Modified retrospective method 1				Modified retrospective method 2			
Lease asset	Lease liability	Net Equity effect	Remaining expense	Lease asset	Lease liability	Net Equity effect	Remaining expense	Lease asset	Lease liability	Net Equity effect	Remaining expense
219,585	-203,794	15,791	-244,591	236,509	-215,709	0	-249,600	235,057	-215,709	19,348	-248,148

SOURCE: COMPILED BY THE AUTHORS

To prepare Table 1, we have assumed that as of 1 January 2019, the interest rate would be 2% instead of 4%. This is because, in the current context, we expect that current rates are almost always lower than past rates (see Figures 1 and 2).

Note that the figures have been compared as of 1 January 2019i.e. for the sake of comparability, all figures refer to the same date. Nevertheless, in the case of the full retrospective approach, the adjustment (opening balance sheet) would be as of 1 January 2018.

The net equity effect in the full retrospective approach and modified retrospective approach method 2 is positive and not negative. This is because payments are made in advance. In the case of the modified retrospective approach method 1, the lease asset is higher than the lease liability and there is no equity effect. This is because we assume that the prepayment of €20,800 made on 31 December 2018 was already recognised as an asset in the previous standard (and is now reclassified).

It is also interesting to note that in the full retrospective approach, the liability is lower than in the modified retrospective approach. This is because the discount rate is higher in the first case (4% vs. 2%).

We repeated the same exercise but this time assuming that the rent is paid at the end of each period (in arrears) rather than being prepayable.

Table 2. **First application options (2)**

Full retrospective				Modified retrospective method 1				Modified retrospective method 2			
Lease asset	Lease liability	Net Equity effect	Remaining expense	Lease asset	Lease liability	Net Equity effect	Remaining expense	Lease asset	Lease liability	Net Equity effect	Remaining expense
216,111	-220,232	-4,121	-245,479	234,925	-234,925	0	-249,600	233,493	-234,925	-1,433	-248,167

SOURCE: COMPILED BY THE AUTHORS

In this case, the net equity effect of the full retrospective approach and the modified retrospective method 2 is negative because the lease asset is lower than the lease liability.

6. Discount Rate

6.1. Introduction

To calculate the initial value of the lease asset and liability, entities must discount future lease payments. The discount rate to be used is the "interest rate implicit in the lease" (IFRS 16.26) which is defined as "the rate of interest that causes the present value of (a) the lease payments and (b) the unguaranteed residual value to equal the sum of (i) the fair value of the underlying asset and (ii) any initial direct costs of the lessor" (IFRS 16 Appendix A).

In many cases, this rate will be difficult to obtain for lessees as they will not have sufficient information about the fair value of the underlying asset, the residual value or the direct costs for the lessor. For EY (2016, p.46), "lessees may find it difficult to determine the interest rate implicit in the lease". This is also recognised by the IASB (IFRS 16.BC161).

In cases where the implicit rate "cannot be readily determined" (IFRS 16.26) (which we understand will be the majority of cases) a lessee may use what IFRS 16 calls the "lessee's incremental borrowing rate" 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".

In other words, the entity would estimate the interest rate (or more precisely, the yield) of a hypothetical loan that it would have obtained for purchasing the underlying asset, considering aspects such as the lease term or the fact that the loan would have had the leased asset as collateral or guarantee.

The effect of the discount rate in the capitalisation model is shown in Table 3.

Table 3. Effect of the discount rate

Discount rate		
Initial value of the right-of-use		
Initial value of the lase liability		
Interest expense		
Depreciation charge		
Total expense structure over the lease life	+ decreasing	- decreasing

SOURCE: COMPILED BY THE AUTHORS

The higher the discount rate, the lower the present value of the lease asset and liability. This means less depreciation charge (as the amount of the asset to depreciate is lower), more interest expense (as the interest rate is higher), and therefore a more decreasing expense structure (as the depreciation charge is generally linear while interest expense decreases over time). As a practical example, we have applied different discount rates to the example included in Appendix 1.The results can be seen in Table 4:

Table 4. Effect of the discount rate. Practical example.

Discount rate	Initial value of the right-of-use	Initial value of the lease liability	Interest expense	Depreciation charge	Total expense
1%	313,361	288,361	11,639	313,361	325,000
2%	302,407	277,407	22,593	302,407	325,000
3%	292,090	267,090	32,910	292,090	325,000
4%	282,363	257,363	42,637	282,363	325,000
5%	273,184	248,184	51,816	273,184	325,000
6%	264,515	239,515	60,485	264,515	325,000
7%	256,321	231,321	68,679	256,321	325,000

SOURCE: COMPILED BY THE AUTHORS

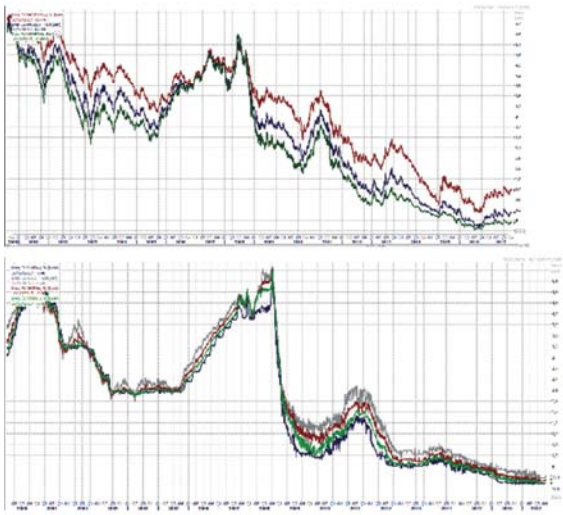
IFRS 16 states that the lessee's incremental borrowing rate should account for the following aspects (IFRS 16.BC161):

- Moment in time.
- The maturity of the lease.
- The economic environment in which the transaction occurs.
- The credit quality of the lessee.
- The nature and quality of the collateral.

6.2. Moment in time

The level of interest rates (both the risk-free rate and the corresponding credit spread) vary over time depending on various factors: supply and demand, central banks' monetary policy, changes in the issuer's credit risk (credit spread), etc. This can be seen in Figures 1 and 2 for interbank ("risk-free") rates. Figure 1 shows the evolution of long-term interest rates (3-, 5- and 10-year swap rates) since 2000. Figure 2 shows the evolution of short-term interest rates (1-, 3-, 6- and 12-month deposit rates) since 2000.

Figures 1 and 2. **Evolution of long-term and short-term interbank ("risk free") interest rates since year 2000.**



SOURCE: EIKON REUTERS

For this reason, it would not be appropriate to calculate a single interest rate curve and maintain it over time for all new leases (or for applicable liability recalculations). The curves must be updated to be applied to any new leases entered into and to liability re-measurements that involve using a new discount rate. The update should consider changes in risk-free interest rates and changes in the applicable credit spread.

For a company that seldom enters into leases, it may only be necessary to estimate a curve or a rate for each date on which a lease is entered into or for each date on which the lease liability should be re-measured with a new rate.

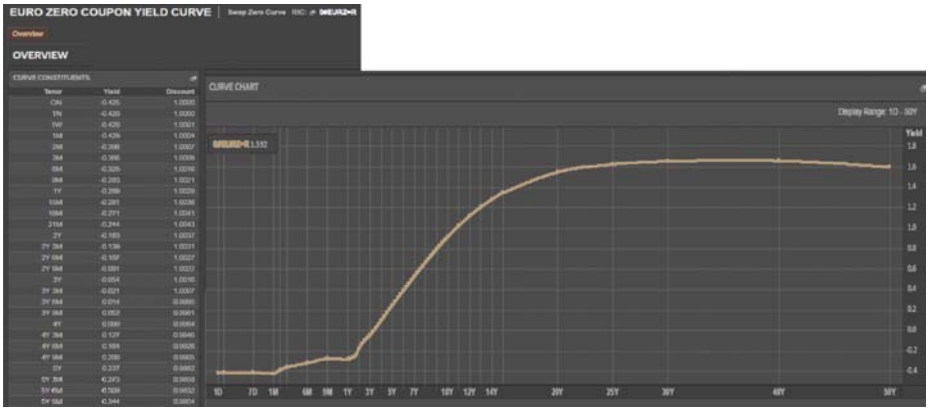
On the other hand, many large groups enter into multiple lease operations on a daily basis. In these cases, at least one[17] discount curve should theoretically be calculated every day. Nevertheless, for operational reasons, many groups will not be able to estimate a curve on a daily basis. In such cases, a practical solution could be to obtain a discount curve on a monthly (rather than daily) basis. That is, for all leases entered into or whose flows are modified in the same month, the same interest rate curve will be used, assuming that any potential error would be non-material.

Nevertheless, if this proxy is applied, management controls should be implemented to detect sudden intra-month interest rate movements that can invalidate the assumption of the abovementioned non-material effect.

6.3. Lease maturity

In the interest rate market, the level of interest rates depends on the term (maturity). Generally, the higher the maturity of the operation, the higher the interest rate. In other words, interest rate curves tend to have a positive slope due to factors such as risk (longer-term higher risk): in loans and financing (as in leases) the longer the term, the higher the interest rate (assuming other conditions remain unchanged).

Figure 3. **Euro zero-coupon yield curve (interbank) as of 10 October 2017**



SOURCE: EIKON REUTERS

In Figure 3, we can see that the Euro zero-coupon yield curve (interbank) is not flat.

[17] It may be necessary to estimate more than one on a recurrent basis depending on factors such as the number of currencies in which the group maintains lease operations, how many group entities there are, etc. See following subsections.

In this sense, for the same date, a single interest rate would not be obtained for all leases with different maturities, but rather a discount interest rate curve based on the market data used to obtain it.

An interest rate curve is a series of interest rates based on the term of the transaction. The discount rate curve can be expressed in two ways: zero interest rate or yield. In fact, most of the curves that can be obtained from the most widely-used sources of financial information on the market (Reuters or Bloomberg) are expressed in both ways.

- If the zero-coupon interest rate curve is used, each future lease payment would be discounted at its zero-coupon interest rate to obtain the current value. That is, the one-year flow is discounted at the zero-coupon rate at one year, the two-year flow is discounted at the zero-coupon rate at two years, etc. However, the "lessee's incremental borrowing rate" is a single rate and not a series of rates. It would be the one rate that, used to discount all flows, obtains the same result as in the previous calculation.

- If the yield curve is used, all future flows are discounted using a single rate, corresponding to the maturity of the lease. This would be the lessee's incremental borrowing rate. In principle, it would be more operative to use yield curves, as long as they are correctly calculated. For example, if the curve is obtained from bond yields, it should be taken into account that with bonds, the whole principal is normally returned at the end of the operation, whereas in the leases, it is returned during the life time of the lease (through the amortisation of the leased asset that is theoretically included in the lease payment).

Figure 4. **Euro AA benchmark (obtained from bonds) as of 10/10/2017**

O#AAEURBMK=
AA EUR BMK CRV
Full Rating
Result: Curve updating

	Yield			Yield	
	Par	Zero		Par	Zero
3M	-0.349	-0.346	8Y	0.827	0.842
6M	-0.339	-0.339	9Y	0.968	0.989
1Y	-0.275	-0.275	10Y	1.089	1.117
2Y	-0.176	-0.176	12Y	1.300	1.344
3Y	-0.021	-0.021	15Y	1.570	1.642
4Y	0.147	0.147	20Y	1.923	2.052
5Y	0.318	0.320	25Y	2.135	2.312
6Y	0.492	0.497	30Y		
7Y	0.666	0.675			

SOURCE: EIKON REUTERS

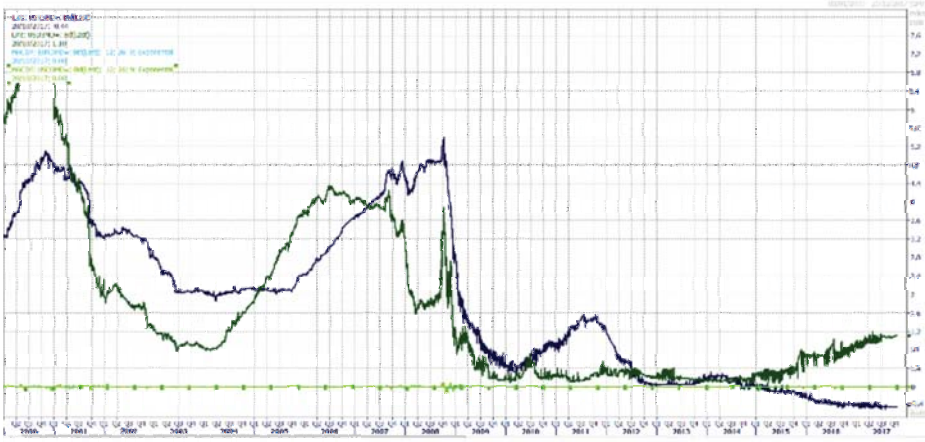
In Figure 4, we can see the same curve expressed as a yield curve and a zero-coupon curve.

6.4. Currency

The "risk free" market interest rate varies depending on the economic environment of the operation (understood as the currency in which the payments are expressed). This is mainly due to supply and demand and to the monetary policies of the different central banks.

Thus, for example, the risk-free interest rate of the Euro is, in 2017, lower than the US Dollar (USD) due to the European Central Bank's expansionary monetary policy, while the Fed is immersed in an environment of moderate increases in official deposit interest rates.

Figure 5. **Euro vs. US 3-month deposit rates since 2000**



6.5. Credit risk

Another factor influencing the interest rate level of a financing or leasing transaction is the credit risk of the issuer. The discount rate must include the risk-free rate and the corresponding credit spread. In general, the higher the credit risk, the higher the required return and, therefore, the higher the applicable credit spread.

In some cases, the lessee's credit quality (which is associated with a credit spread) will be easy to obtain as the lessee has issued quoted bonds, or has a public rating issued by a rating agency. Nevertheless, in other cases it will be more difficult, as no such data exists.

[18] Note that, in this case, the entity will have exchange rate differences (that are recorded through P&L) due to the effect of the movements in the foreign currency rates on the liability value. The lease liability is considered a monetary item under IAS 21 (see paragraph 16 of IAS 21 as amended by IFRS 16).

In the latter cases, an entity can use information such as:

- A theoretical credit rating obtained by comparing an entity's financial ratios with the ratios of other comparable companies that have a public rating.

- Recent financing obtained by the company.

In 6.7, we include a general process that entities can follow.

A question arises as to whether a subsidiary can use the credit quality / credit spread of the parent company or the group. In general, the answer to this question is that it cannot. Each individual entity should calculate its own rate depending on its own credit quality (which will depend on factors such as the quality of its assets, sector, business, leverage, etc.). Nevertheless, there may be some cases where it may be able to do so:

- The parent company has issued a guarantee in relation to the payments of the lease. In other words, from a legal perspective, the lease payments are specifically secured by the parent company.

- In the example included in US GAAP Topic 842 paragraphs 842-20-55-17 to 842-20-55-20, the subsidiaries use the debt interest rate of the parent company to obtain the lessee's incremental borrowing rate. However, the example specifies that the subsidiary companies are not rated and do not carry out external treasury operations. That is, they would be financed exclusively through a loan from the parent.

For KPMG (2017, p.22): "as a principle, the subsidiary cannot automatically default to using its parent or group rate in its separate financial statements. However, in some cases it might be reasonable for a subsidiary to use its parent's or group's incremental borrowing rate as an input and would need to adjust it as needed when determining the appropriate discount rate for a lessee. For example, this might be appropriate when the subsidiary dos not have its own treasury function, all funding for the group is managed centrally by the parent and this results in the parent providing a guarantee of the lease payments to the lessor. In this case, the pricing of the lease may be more significantly influenced by the credit standing of the parent than that of the subsidiary".

6.6. Underlying asset (collateral)

Finally, the last factor that could influence the discount rate is the guarantee for the lease. The better (or greater) the collateral, the lower the interest rate because the risk is lower.

In lease operations, this results in the recovery of the leased asset in the event of the bankruptcy of the lessee. The greater the residual value of the asset at the time of recovery in relation to the amount of the unpaid instalments, the greater the guarantee.

If an entity uses bond yields as a basis for estimating a lessee's incremental borrowing rate, it should consider that bonds are generally unsecured, and that the lease operation is secured by the leased asset. This means that the lease operation can have a higher guarantee that the bond and, therefore, the yield should be lower.

6.7. General process

A group could implement the following process to obtain the lessee's incremental borrowing rate for each company:

1) If the company maintains issued bonds that are quoted in a liquid market, the corresponding curve can be constructed using the yield of those bonds (as in Figure 4). Bond yields include both the risk-free rate and credit spread. These rates can be used as a starting point. Other rates that can be used are:

- Rates of recently obtained loans.
- Property yields. According to EY (2017, p.1697), "observable rates, such as property yields can be used as a starting point (...) but adjustments need to be considered for the specific right-of-use asset". Credit risk adjustment may also be made to these rates as the payer would be different.

2) Otherwise, the corresponding company's rating must be obtained. If there is no rating issued by an official credit rating agency, a theoretical rating will be calculated.

3) The standard zero-coupon yield curve for that rating and sector is obtained from Bloomberg / Reuters. The curve will differ depending on the currency.

4) When using bond rates as a basis, it should be noted that, generally, bonds are marketable securities (often with a high liquidity) and leases are not transferable. This means that a liquidity spread should be added to bond yields. In other words, the yield of a lease is expected to be higher than that of a bond yield due to this fact (assuming all other aspects are similar: credit spread, collateral, maturity, etc.).

5) Once the standard curve has been obtained, the curve is modified to the recovery rate. One possibility is to change the recovery rate of the same or a similar company's CDS and observe the movement of the CDS premium. This movement (in relative terms) is applied to the curve.

7. Lease Term

7.1. Introduction

The lease term is defined as IFRS 16.18 as "the non-cancellable period of a lease, together with both:

a) periods covered by an option to extend the lease if the lessee is reasonably certain to exercise that option; and
b) periods covered by an option to terminate the lease if the lessee is reasonably certain not to exercise that option".

In many cases, an option to extend a lease and an option to terminate a lease are two ways of expressing the same idea. For example, having a lease with a lease maturity of three years with an extension option for three more years is the same as having a lease with a lease maturity of six years with a termination option in year three.

IFRS 16.18 states that the lease term includes the non-cancellable period and it can also include additional periods covered by extension / termination options depending on the entity's estimations in relation to the exercise of these options. For example, assume that a company enters into a lease with the following term structure:

- Non-cancellable period: 5 years.

- Extension option: at the end of year 5, the entity can choose to continue for an additional period of 2 years.

Initially, the term can be 5 or 7 years depending on the entity's estimation in relation to the exercise of the extension option (depending on whether it is "reasonably certain" to exercise that option). Moreover, the estimation can change during the lease life. If there is such a change, the entity must apply IFRS 16.40 and: 1) calculate new liability discounting new cash flows using an updated discount rate; 2) recognise the difference between the new and the previous liability against the lease asset (unless this asset is reduced to zero, in which case, the remaining amount is recognised in the profit and loss account).

It should be noted that there are three kinds of extension / termination options:

1) Options in favour of the lessee: periods covered by these options must be considered when estimating the lease term depending on lessee estimations (IFRS 16.B35)

2) Options in favour of the lessor: periods covered by these options must always be considered when estimating the lease term. In the above case, if the lessor is the party that can extend the option to 7 years, the non-cancellable period of the lease is considered to be 7 years. According to IFRS 16.B35: "if only a lessor has the right to terminate a lease, the non-cancellable period of the lease includes the period covered by the option to terminate the lease".

3) Options that depend on both the lessee and the lessor: periods covered by these options should not generally be considered when estimating the lease term. According to IFRS 16.B35: "in determining the lease term and assessing the length of the non-cancellable period of a lease, an entity shall apply the definition of a contract and determine the period for which the contract is enforceable. A lease is no longer enforceable when the lessee and the lessor each has the right to terminate the lease without permission from the other party with no more than an insignificant penalty".

A lease can also include a purchase option. The payment of the purchase option (the option premium) is also included in the lease cash flows if the entity considers its exercise to be "reasonably certain" (IFRS 16.27) i.e. the same criteria as in the extension / termination options.

If the entity has a lease termination option that includes a penalty and the lessee estimates that it will exercise the option, then the payment of the penalty must be also included in the lease cash flows.

7.2. Estimating the exercise of the option

If an entity estimates that it is reasonably certain to exercise an extension option, then the period covered by the option is included in the lease term and the additional rent for that period is included in the lease cash flows. Therefore, the greater the expectation that the extension options will be exercised[19], the higher the lease asset and liability (as the cash flows are higher).

It should be noted that the phrase "reasonably certain" can be very subjective. In general, it should be interpreted as having a relatively high probability. According to EY (2016, p.33), "the phrase 'reasonably certain' which was also used in IAS 17 is generally interpreted as a high threshold".

[19] And the greater the expectation that the termination options will not be exercised.

The assessment of the degree of certainty is based on the facts and circumstances at lease commencement, rather than on the lessee's intentions. And, as stated above, facts and circumstances can change, as can the initial assessment (IFRS 16.B41).

IFRS 16.16 states that "in assessing whether a lessee is reasonably certain to exercise an option to extend a lease, or not to exercise an option to terminate a lease, an entity shall consider all relevant facts and circumstances that create an economic incentive for the lessee to exercise the option to extend the lease, or not to exercise the option to terminate the lease". An example of factors to consider include (IFRS 16.B37):

- Contractual terms and conditions for the optional periods compared with market rates, such as:
  - The amount of payments for the lease in any optional period.
  - The amount of any variable payments for the lease or other contingent payments, such as payments resulting from termination penalties and residual value guarantees.
  - The terms and conditions of any options that are exercisable after initial optional periods (for example, a purchase option that is exercisable at the end of an extension period at a rate that is currently below market rates).
- Significant leasehold improvements undertaken (or expected to be undertaken) over the term of the contract that are expected to have significant economic benefit for the lessee when the option to extend or terminate the lease, or to purchase the underlying asset, becomes exercisable.
- Costs relating to the termination of the lease, such as negotiation costs, relocation costs, costs of identifying another underlying asset suitable for the lessee's needs, costs of integrating a new asset into the lessee's operations, or termination penalties and similar costs, including costs associated with returning the underlying asset in a contractually specified condition or to a contractually specified location.
- The importance of that underlying asset to the lessee's operations, considering, for example, whether the underlying asset is a specialised asset, the location of the underlying asset and the availability of suitable alternatives.
- Conditionality associated with exercising the option (i.e. when the option can be exercised only if one or more conditions are met), and the likelihood that those conditions will exist.

Depending on the company's lease contracts and their terms, the judgment about whether the extension options will be exercised can be one of the most difficult points in IFRS 16 implementation. This can be the case, for example, of a retail company that maintains many real estate leases for its stores and all of them have extension options. In these cases (with a large number of lease operations), it may not be possible to conduct an analysis on a lease-by-lease basis. The company's IT systems would need to include an automatic mechanism for deciding on the exercise of the option, based on factors that could lead to the termination of a lease because they play a part in potential store closure. Examples of factors could be:

- The performance of the stores. For example, a company can have an internal policy that stipulates that if a store experiences three years of negative results, it will be shut down. The performance of each store would be uploaded into the system.

- The age of the stores. For new stores, the entity may permit more than three years of negative results.

- General business plans. For example, a company may have a plan for divesting in a certain geographical area.

- The moment in time when the option must be exercised. In principle, it seems more likely for an option to be exercised as the deadline approaches, as the entity has more reliable forecasts, or because of replacement costs. According to IFRS 16.B39: "The shorter the non-cancellable period of a lease, the more likely a lessee is to exercise an option to extend the lease or not to exercise an option to terminate the lease. This is because the costs associated with obtaining a replacement asset are likely to be proportionately higher the shorter the non-cancellable period".

- Investments made in each store.

- Current rate vs. market rent. For example, if contract rent is too high in relation to the market, the entity will tend to change to another nearby location.

8. Conclusions

The implementation of IFRS 16 will have an important impact on entities' financial statements that will depend on factors such as the lease intensity of each company. Generally, new assets and liabilities will arise, and ratios such as ROA will decrease and metrics such as EBITDA will increase.

Previous studies show that the impact will differ depending on the sectors, as a result of the different lease intensity of each sector (Morales and Zamora, 2017). The most affected sectors will include retail, airlines and hotels.

The magnitude of the impact on each individual company will also depend on several decisions, which can be divided into two groups: alternative accounting approaches that the standard allows; and the estimation that should be made. In general, to have a lower lease liability (if this is the entity's objective in the implementation project), the entity should:

1) Separate non-lease components from lease components as much as possible. If non-lease components are not separated, lease payments are higher. In some cases, operational costs can outweigh the advantages of separating certain kinds of non-lease components.

2) Apply the model voluntary exceptions for short-term leases and leases of low-value assets. This would mean applying the capitalisation model for fewer lease operations and, therefore, having less lease liability.

3) Apply the model voluntary exceptions for leases of intangible assets. This would also mean applying the capitalisation model for fewer lease operations.

4) Justify a lease term as short as possible according to IFRS 16 requirements (assessing extension / termination options) and the entity's business model. The shorter the lease term, the lower the lease payments and the lower the lease liability.

Nevertheless, if an entity's performance is measured by analysing the level of operating expenses in relation to total assets, its objective could also be to have the lowest possible operating expenses. In such a case, the more widely the capitalisation model is used, the lower the operating expenses, as lease expenses would be recognised as depreciation and interest expenses. In this scenario, entities would not separate lease components and would not apply the voluntary exceptions unless it was operationally unfeasible.

In relation to the discount rate, the higher the discount rate, the lower the present value of the lease asset and liability. This means a lower depreciation charge (as the amount of the asset to depreciate is lower), higher interest expenses (as the interest rate is higher), and therefore a more decreasing expense structure (as the depreciation charge is generally linear and interest expense decreases over time).

In relation to transition possibilities, in general, the full retrospective approach and modified retrospective method 2 will lead to a negative initial equity but to a lower

lease expense in the future (nevertheless, this depends on the lease payment structure). The full retrospective approach can be very difficult to apply in entities with a high volume of leases, due to operational costs.

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Appendix 1 – Lease accounting example

Initial data

Entity A enters into a lease contract (as a lessee) with the following main terms:

- Leased asset: Real Estate
- Lease inception: 31/12/2016[20]
- Lease maturity: 31/12/2024
- Lease payments (semi-annually at period inception): EUR 20,000.
  - Two initial payments (31/12/2016 and 30/06/2017) amount to EUR 20,000 and then they are recalculated annually according to the local CPI. Thus, 31/12/2017 and 30/06/2018 payments will be calculated as 20,000 x (1 + 2017 CPI). Nevertheless, the 2017 CPI is not issued until 31/03 of the following year (2018). When the CPI is issued, payments are updated and the difference between 20,000 and the new rent is paid. This is done each year until maturity.
- Initial direct cost: EUR 5,000
- Lease implicit rate: 4%

Initial calculation (lease commencement) and accounting entries

The initial calculated lease asset (right-of-use) and lease liability as of 31/12/2016 would be as follows under IFRS 16:

[20] IFRS 16 will not be mandatory until 2019. Nevertheless, we include this example of a lease starting in 2016 in order to analyse transition adjustments in Section 5. For the sake of clarity in the illustrative example, we assume that the entity was applying IFRS 16 as of 31/12/2016. We change this assumption in Section 5.

Date	Cash Flow	Present value
31/12/2016	20,000	20,000
30/06/2017	20,000	19,612
31/12/2017	20,000	19,231
30/06/2018	20,000	18,857
31/12/2018	20,000	18,491
30/06/2019	20,000	18,132
31/12/2019	20,000	17,780
30/06/2020	20,000	17,435
31/12/2020	20,000	17,096
30/06/2021	20,000	16,764
31/12/2021	20,000	16,439
30/06/2022	20,000	16,119
31/12/2022	20,000	15,806
30/06/2023	20,000	15,499
31/12/2023	20,000	15,198
30/06/2024	20,000	14,903
	320,000	**277,363**

Direct costs	5,000
Initial amount right-of-use	282,363
Initial amount lease liability	257,363

Cash flows are discounted as: Cash Flow/(1+4%) ^ (time in years between 31/12/2016 and the cash flow date using the base 30/360).

The initial amount of the lease liability is the present value of the remaining cash flow i.e. without considering the EUR 20,000 upfront payment or the EUR 5,000 initial direct costs that are paid on that date.

The initial amount of the lease asset (right-of-use) equals the lease liability plus EUR 20,000 (upfront payment, first lease quote) and EUR 5,000 (initial direct costs).

Note that even though the rent is linked to CPI and, most probably, future cash flows from 31/12/2017 on will not be EUR 20,000, but a different amount, initial rent has been used for the calculation as if the rent were not linked to CPI. IFRS 16 establishes that, at inception of the lease, when measuring future lease payments, the initial quota should be considered, without assuming any increases due to the reference to inflation. That is, neither current inflation nor potential future increases in inflation should

be considered, instead simply using the current quota. This issue is clarified in both paragraph BC166 (Basis of Conclusions) and in the example IE6.

The initial accounting entry (as of 31/12/2016) would be:

Db Lease asset (right-of-use)	282,363
(Cr) Lease liability	(257,363)
(Cr) Treasury	(25,000)

Initial tables for lease asset and liability would be as follows:

Right-of-use (lease asset)

Period inception	Period end	Asset initial value	Depreciation	Asset final value
31/12/2016	30/06/2017	**282,363**	17,491	264,872
30/06/2017	31/12/2017	264,872	17,781	247,092
31/12/2017	30/06/2018	247,092	17,491	229,601
30/06/2018	31/12/2018	229,601	17,781	211,820
31/12/2018	30/06/2019	211,820	17,491	194,330
30/06/2019	31/12/2019	194,330	17,781	176,549
31/12/2019	30/06/2020	176,549	17,587	158,962
30/06/2020	31/12/2020	158,962	17,781	141,181
31/12/2020	30/06/2021	141,181	17,491	123,691
30/06/2021	31/12/2021	123,691	17,781	105,910
31/12/2021	30/06/2022	105,910	17,491	88,420
30/06/2022	31/12/2022	88,420	17,781	70,639
31/12/2022	30/06/2023	70,639	17,491	53,148
30/06/2023	31/12/2023	53,148	17,781	35,368
31/12/2023	30/06/2024	35,368	17,587	17,781
30/06/2024	31/12/2024	17,781	17,781	0
		282,363		

Lease liability

Period inception	Period end	Liability initial value	Interest expense	Cash flow	Liability final value
31/12/2016	30/06/2017	**257,363**	5,097	20,000	242,459
30/06/2017	31/12/2017	242,459	4,802	20,000	227,261
31/12/2017	30/06/2018	227,261	4,501	20,000	211,762
30/06/2018	31/12/2018	211,762	4,194	20,000	195,955
31/12/2018	30/06/2019	195,955	3,881	20,000	179,836

30/06/2019	31/12/2019	179,836	3,561	20,000	163,398
31/12/2019	30/06/2020	163,398	3,236	20,000	146,634
30/06/2020	31/12/2020	146,634	2,904	20,000	129,537
31/12/2020	30/06/2021	129,537	2,565	20,000	112,103
30/06/2021	31/12/2021	112,103	2,220	20,000	94,323
31/12/2021	30/06/2022	94,323	1,868	20,000	76,191
30/06/2022	31/12/2022	76,191	1,509	20,000	57,700
31/12/2022	30/06/2023	57,700	1,143	20,000	38,842
30/06/2023	31/12/2023	38,842	769	20,000	19,612
31/12/2023	30/06/2024	19,612	388	20,000	0
			42,637		

Depreciation has been calculated as [(282,363 x period number of days) / total number of days between 31/12/2016 and 31/12/2024].

Interest expense has been calculated as [Liability initial value x (1 + 4%) ^ 1/2 - Liability initial value].

Total P&L expense for the whole lease life (before future liability re-measurement) would be: 282,363 (depreciation) + 42,637 (interest expense) = 325,000, which equals total rent payments plus initial direct costs. This total expense is recognised decreasingly as:

- Depreciation expense is linear.
- Interest expense is decreasing.

The higher the interest expense in relation to the total expense, the greater the decrease in the total expense.

Accounting entry for 30/06/2017

Accounting entry for 30/06/2017 would be:

■ Db P&L (depreciation)	17,491
■ (Cr) Lease asset (right-of-use)	(17,491)
■ Db P&L (interest expense)	5,097
■ Db Lease liability	14,903
■ (Cr) Treasury	(20,000)

Situation as of 31/12/2017

As of 31/12/2017, rent is recalculated due to CPI. Nevertheless, the data is still not available, and the Entity still pays previous rent.

■ Db P&L (depreciation)	17,781
■ (Cr) Lease asset (right-of-use)	(17,781)
■ Db P&L (interest expense)	4,802
■ Db Lease liability	15,198
■ (Cr) Treasury	(20,000)

According to paragraph 42 of IFRS 16, "a lessee shall re-measure the lease liability by discounting the revised lease payments, if either: (...) (b) There is a change in future lease payments resulting from a change in an index or a rate used to determine those payments, including for example a change to reflect changes in market rental rates following a market rent review.

The lessee shall remeasure the lease liability to reflect those revised lease payments only when there is a change in the cash flows (i.e. when the adjustment to the lease payments takes effect). A lessee shall determine the revised lease payments for the remainder of the lease term based on the revised contractual payments".

Situation as of 31/03/2018

As of 31/03/2018, CPI data for 2017 is made public and the rent is recalculated. New rent is EUR 20,800 and the Entity now pays EUR 800.

Depreciation for the period from 31/12/2017 to 31/03/2018 using initial table:

■ Db P&L (depreciation)	8,697
■ (Cr) Lease asset (right-of-use)	(8,697)

Interest expense for the period from 31/12/2017 to 31/03/2018 using initial table:

■ Db P&L (interest expense)	2,239
■ (Cr) Lease liability	(1,439)
■ (Cr) Treasury	(800)

Present value of new cash flows is calculated as follows:

Date	Cash Flow	Present value
31/03/2018		
30/06/2018	20,800	20,597
31/12/2018	20,800	20,197
30/06/2019	20,800	19,805
31/12/2019	20,800	19,420
30/06/2020	20,800	19,043
31/12/2020	20,800	18,673
30/06/2021	20,800	18,311
31/12/2021	20,800	17,955
30/06/2022	20,800	17,606
31/12/2022	20,800	17,265
30/06/2023	20,800	16,929
31/12/2023	20,800	16,601
30/06/2024	20,800	16,278
	270,400	**238,680**
	Previous liability	**228,700**
	Adjustment	**9,980**

Previous liability, considering above entries, amounts to:

$$257{,}363 - 14{,}903 - 15{,}198 + 1{,}439 = 228{,}700^{21}.$$

- Db Lease asset (right-of-use) 9,980
- (Cr) Lease liability (9,980)

New tables for the lease asset and liability:

Right-of-use (lease asset)

Period inception	Period end	Asset initial value	Depreciation	Asset final value
31/12/2016	30/06/2017	282,363	17,491	264,872
30/06/2017	31/12/2017	264,872	17,781	247,092
31/12/2017	31/03/2018	247,092	8,697	238,395
31/03/2018	30/06/2018	248,375	9,162	239,213
30/06/2018	31/12/2018	239,213	18,525	220,688

[21] There is a difference of 1 due to the rounding of decimals.

31/12/2018	30/06/2019	220,688	18,223	202,465
30/06/2019	31/12/2019	202,465	18,525	183,940
31/12/2019	30/06/2020	183,940	18,324	165,617
30/06/2020	31/12/2020	165,617	18,525	147,092
31/12/2020	30/06/2021	147,092	18,223	128,869
30/06/2021	31/12/2021	128,869	18,525	110,344
31/12/2021	30/06/2022	110,344	18,223	92,121
30/06/2022	31/12/2022	92,121	18,525	73,596
31/12/2022	30/06/2023	73,596	18,223	55,373
30/06/2023	31/12/2023	55,373	18,525	36,848
31/12/2023	30/06/2024	36,848	18,324	18,525
30/06/2024	31/12/2024	18,525	18,525	0
		292,343		

Lease liability

Period inception	Period end	Liability initial value	Interest expense	Cash flow	Liability final value
31/12/2016	30/06/2017	**257,363**	5,097	20,000	242,459
30/06/2017	31/12/2017	242,459	4,802	20,000	227,261
31/12/2017	31/03/2018	227,261	2,239	800	228,700
31/03/2018	30/06/2018	**238,680**	2,352	20,800	220,232
30/06/2018	31/12/2018	220,232	4,361	20,800	203,794
31/12/2018	30/06/2019	203,794	4,036	20,800	187,030
30/06/2019	31/12/2019	187,030	3,704	20,800	169,934
31/12/2019	30/06/2020	169,934	3,365	20,800	152,499
30/06/2020	31/12/2020	152,499	3,020	20,800	134,719
31/12/2020	30/06/2021	134,719	2,668	20,800	116,587
30/06/2021	31/12/2021	116,587	2,309	20,800	98,096
31/12/2021	30/06/2022	98,096	1,943	20,800	79,238
30/06/2022	31/12/2022	79,238	1,569	20,800	60,008
31/12/2022	30/06/2023	60,008	1,188	20,800	40,396
30/06/2023	31/12/2023	40,396	800	20,800	20,396
31/12/2023	30/06/2024	20,396	404	20,800	0
			43,857		

Total expense is now: 292,343 (depreciation) + 43,857 (interest expense) = 336,200 = (20,000 x 2) + (20,800 x 14) + 5,000