

Considering the effects of operating lease capitalization on key financial ratios^{*}

Consideración de los efectos de la capitalización de arrendamientos operativos en las principales ratios financieras

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ABSTRACT Current IFRS accounting regulation does not require capitalization of operating leases. However, this may change once the new IASB proposal is published. Relevant Spanish companies have been lobbying strong for the delay or even the cancellation of the proposal. In this paper we assess the potential impact that would be derived from operating leases capitalization. We have built on the constructive capitalization method as the basis for our analysis but we have also run the tests with the factor method. Results show how the impact on financial ratios is statistically significant. When the sector is considered, retail and energy show to be most affected. We also find a positive relationship between size, ratio variation and retail sector membership. Our results answer to the question of why Spanish companies show themselves against this proposal. This study is an ex ante research and can not go beyond the effect analysis of this new standard.

KEYWORDS Operating leases; International financial reporting standards; Impact assessment; Constructive method; Factor method; Operating leases.

RESUMEN La normativa contable internacional actual no prescribe la capitalización de los arrendamientos operativos. Sin embargo, esto puede sufrir cambios a tenor de la posible publicación de la nueva propuesta del IASB. Destacadas empresas españolas han ejercido una fuerte presión a favor del retraso o la cancelación de dicha propuesta. En este trabajo se evalúa el potencial impacto que se deriva de la capitalización de contratos de arrendamiento operativo. Para nuestro análisis nos hemos basado en el constructivo capitalization method si bien también hemos realizado las pruebas con el factor method. Los resultados muestran cómo el impacto en los ratios financieros es estadísticamente significativo. Cuando se considera el sector, comercio minorista y la energía se revelan como los más afectados. También encontramos una relación positiva entre el tamaño, variación del ratio y la pertenencia al sector de comercio minorista. Los resultados dan respuesta a la pregunta de por qué las empresas españolas se muestran contrarias a esta propuesta. Este estudio es una investigación ex ante y no puede ir más allá del análisis de los efectos de esta nueva norma.

PALABRAS CLAVE Arrendamientos operativos; Normas internacionales de información financiera; Valoración del impacto; Método constructivo; Método de factores.

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1. INTRODUCTION

The International Accounting Standards Board (hereinafter IASB) has issued a new draft on leases which introduces significant changes in the way operating leases should be recognized and measured in the financial statements. This draft was issued in August 2010 and, at the moment, it is under discussion. A preliminary document was issued by IASB and FASB in March 2009 «Leasings preliminary considerations» collecting all previous work that had been done by the experts' committee appointed to this effect in relation to what should the new leases regulation refer to. The first deadline for the draft issued in August 2010 was June 2011. However, strong lobbying from private companies has delayed its publication. In fact, on the 21st of July 2011 the IASB published an announcement indicating their intention to re-expose their revised proposals and a new draft is expected in 2013⁽¹⁾.

This proposal of a new regulatory framework for the operating leases is included in a wider and more ambitious project born in 2002 with the Norwalk Agreement signed between the Financial Accounting Standards Board (hereinafter FASB) and the IASB. In this agreement each regulator acknowledged their commitment to the development of high-quality, compatible accounting standards that could be used for both domestic and cross-border financial reporting. At that meeting, both the FASB and IASB pleaded to use their biggest efforts to (a) make their existing financial reporting standards fully compatible as soon as is practicable, and (b) to coordinate their future work programs to ensure that once achieved, compatibility was maintained.

Although the Norwalk agreement was the first step for all the joint projects IASB-FASB, for the particular issue of leases, the 2006 IASB meetings were the starting point. As stated both in the IASB Update (IASB, 2006a) corresponding to the meetings in March and April 2006 and also in the «Information for the Observers» documents (IASB, 2006b), it was then when the first discussions on the possibility of incorporating leases to the agenda took place. The Board discussed a draft proposal to add a leasing project to its agenda. The project would build on the work carried out in the joint research project with the UK Accounting Standards Board (hereinafter ASB), and would initially result in a discussion paper. The Board was not asked to make a decision at that stage, but to give initial comments on whether the project would meet the Board's agenda criteria. In addition, the draft project plan was discussed, and the Board expressed the view that a joint project with the FASB would be preferable. Finally, in July 2006 the joint project on leases was approved.

Having in mind that, in 2002, when the Norwalk agreement was signed, the 2005 effective date of IFRS implementation for all Europe was already quite close, it seemed important to enhance a convergence process that would allow multinational companies to move easily between different countries. These movements would be much easier if a common or closer accounting regulation was agreed for financial reporting. In fact, a very relevant date of this process took place in 2007 when the SEC issued a Final Rule eliminating its requirement for international companies to reconcile financial statements prepared under IFRS as issued by the IASB. This created an unprecedented situation of two co-existing financial reporting standards in the US. At that moment

(1) A very interesting summary of the main deliberations that have been taking place after issuing the first draft in 2010, based on the many comments received, can be found in Mora and Pardo (2012).

it seemed that US companies might be tempted to drop UP GAAP entirely, which was unimaginable some time before⁽²⁾.

However, it is important to notice that, in the recent times, the convergence process seems to be at risk, In this sense experts from both regulators' bodies declare⁽³⁾ that increasing politicization of the accounting process and tensions over sovereignty are making it harder to achieve. They also state that the SEC keeps delaying its view on convergence as the loss of US sovereignty that would come with a move to IFRS is a key concern. However, and up to the moment, the ongoing projects are moving on and, from our point of view, modifications in the leases recognition and measurement are very probable to come.

The current overall accounting for leases under US GAAP (ASC 840) and IFRS (IAS 17) could be considered as similar although US GAAP, following a rules-based model, has more specific application guidance than IFRS (based on principles-based accounting)⁽⁴⁾. Both regulators classify leases into capital and operating and do not require the capitalization of the operating ones, being recognized as an expense in the year they are accrued. What the joint exposure draft proposes is the capitalization of those operating leases in the Statement of financial position of companies so that users are provided with a complete and understandable picture of an entity's leasing activities. Following David Tweedie (former president of the IASB) considerations:

«Current accounting treatment for leases omits relevant information about rights and obligations that meet the definitions of assets and liabilities in the boards' conceptual framework».

The main advantage of this new proposal is that users of financial information will be able to know about assets controlled by the companies which, at the present moment, are off balance sheet amounts. At the same time, the bright line between operating and capital leases would be avoided and also differences between rules and principles based models. However, some disadvantages expected, basically for preparers, would be the economic effects derived from this new inclusion and the complexity added.

The IASB proposal for operating leases has received nearly 1.000 comment letters (290 answers after the consulting process in 2009 and 760 after the 2010 draft) from individuals, auditors, private companies and other institutions, some time supporting and some time complaining about the project. It is interesting to note here that approximately half of the letter writers supported the project based on the increasing quality of the information argument. Although it is not the objective of this paper to go into deep analysis of those comment letters, it is relevant to point out that, when supporting the proposal, advantages as the ones mentioned related to the more comprehensive information about assets and debt of the company will

(2) It is important to note here that this Final Rule of the SEC required that companies not wanting to do the reconciliation to US GAAP complied with IFRS «as issued by the IASB». This is hardly applicable to the Spanish Companies analyzed in this paper as many of them do not disclose information on operating leases and, therefore, do not comply with IFRS 17. The justification of the Final Rule would be in the protection of investors and the increase in the efficiency of capital markets.

(3) www.ft.com/accountancy (2011)

(4) Similarities and differences between IFRS and US GAAP in relation to leases can be found in the 2011 Ernst and Young document: US GAAP versus IFRS: The basics. As detailed in the next section, the different approach of USGAAP and IFRS using «criteria» the first and «indications» the last (rules based vs. Principles based), may lead to different classifications (as finance or operating lease) of similar transactions leading to non comparable information.

be provided. When complaining, the issues mentioned more often are the ballooning effect in the balance sheets (so that issue is seen as an advantage by some and as an inconvenient for some others), economic effects such as leverage, and compliance costs and complexity derived from implementation. This last issue about complexity seems to be a very recurrent one, often related with the imprecision that users find in the definitions and contents of the exposed draft.

In Spain, there has been a considerable lobby against the proposed standard. Relevant Spanish quoted companies such as Telefónica, NH Hotels or Inditex⁽⁵⁾ have taken positions against IASB. Indeed and apart from the complexity issue already mentioned, the implementation of the new draft may affect on the one hand, the level of leverage of companies as it is recognizing as a liability the total payments expected due to the operating lease contracts in force. On the other hand, a change in the net income is expected due to the different recognitions of expenses. The current recognition of the annual lease payment in the income statement would be substituted by the recognition of interests (included in the annual payment) and amortization of the right of use asset which would result in a different amount recognized as an expense.

Prior literature on the impact of new accounting standards shows how the potential magnitude of the effect can be measured by means of the analysis of key ratios. Beattie (1998) or Fülbier (2008) demonstrate that the capitalization of operating leases can have a significant impact on financial ratios which, at the same time, may lead to relevant economic consequences related to the financial structure, financial contracts and performance of companies affected.

The objective of this study is to determine, first, if the potential effect of the revised standard for quoted Spanish companies is relevant and second, who is going to be the most affected. If the effect is relevant and financial analysis is substantially modified, some economic consequences may be derived from its implementation. In this first ex ante research (Schipper, 1994) we will only be able to determine if the impact is significant or not but if it is, we will be on guard about the possible economic consequences that arise after the implementation.

The data analyzed will be that of public Spanish companies quoted for the period 2008-2010 as they would be the ones affected in the first moment by the new draft⁽⁶⁾. The reason to choose Spain as our scenario has been the strong prediction of an important effect due to the important lobby that Spanish companies are doing to change or even cancel the implementation of this new draft as can be derived from the comment letters that those Spanish companies have sent to the IASB in response to the new proposal for lease accounting (www.fasb.org/jsp/FASB/CommentLetter; www.iasb.org).

Expected results are a significant change in the accounting numbers of Spanish companies should the draft be issued and, therefore, some possible economic consequences related to the way companies choose their financial resources (not testable for the moment, only based in prior literature on economic consequences derived from new standards implementation). Total unrecorded liabilities due

(5) These companies are the 1st, 7th and 15th in Spain by sales (2010). The main brands of Inditex are Zara or Bershka, which are pretty well known around the world.

(6) Spain has implemented IFRS only for quoted companies. Individual companies are currently presenting their annual report under the new Spanish GAAP issued on December 2007.

to operating leases represent 18.3% of total liabilities and total unrecorded assets represent approximately 19% of total noncurrent assets, for the sample analyzed. Therefore, we expect a substantial increase in the level of leverage of companies analyzed and a diminishing of the net income due to the change in the expenses recognition in the income statement. We also expect that not all companies are equally affected (we expect a relevant sector effect) and that this may explain why some of them are lobbying proactively against the draft.

The debate on the effects of accounting standards is at the moment greatly in force. The European Financial Reporting Advisory Group (henceforth EFRAG), together with the Accounting Standards Board (henceforth ASB) and some national standard setters (the Spanish *Instituto de Contabilidad y Auditoria de cuentas* included) have issued a discussion paper on the necessity of conducting effects analysis of accounting standard⁽⁷⁾. The questions discussed are if these effects analysis should be done, if yes then how they should be done and who should do them. In this paper we do not pretend to provide an answer to those questions [some very interesting ideas on the subject can be found in Fülbier *et al.* (2009), Schipper (2010) and Hail, Leuz and Wysocki (2010a and 2010b)] but we pretend to make regulators and users aware of the fact that the accounting standards do have significant effects which, in our opinion, must be taken into consideration. Therefore, the paper pretends to contribute to the literature on the impact of the implementation of new standards in European countries and also to warn users of financial statements of the possible change in the predictions of companies' performance. The paper contributes also to the debate on intended versus unintended consequences of accounting standards (Brüggenman *et al.*, 2011). Changes in the relative position of companies due to changes in the accounting rules is an unexpected consequence that may be, in some cases, also undesirable and this cannot be ignored by regulators.

The remainder of our paper is as follows: section two includes the main changes incorporated in IASB's draft. Section three revises previous literature and proposes the hypothesis. Section four explains the data and methodology, section five describes results and finally some conclusions are provided.

2. REGULATORY FRAMEWORK

Lease is generally considered to be an important source of finance and, therefore, it should take part of the financial decisions of companies [see Gomez-Bezares and Santibañez (2011) for an interesting study on the financial decision problem]. It seems important that lease accounting should provide users of financial statements with a complete and understandable picture of an entity's leasing activities.

The existing accounting models for leases require lessees to classify their leases as either finance or operating leases. Both US GAAP and IFRS (Ernst and Young, 2011) require the party that bears substantially all the risks and rewards of ownership of the leased property to recognize a lease asset and corresponding obligation, and provide criteria (ASC 840) or indicators (IAS 17) to determine whether a lease is capital or operating. The criteria or indicators of a capital lease are similar in both standards

(7) EFRAG (2011). Considering the Effects of Accounting Standards. Discussion Paper.

but not the same. ASC 840 requires capital lease treatment if the lease term is equal to or greater than 75% of the asset's economic life, while IAS 17 requires such treatment when the lease term is a —major part— of the asset's economic life. ASC 840 specifies capital lease treatment if the present value of the minimum lease payments exceeds 90% of the asset's fair value, while IAS 17 uses the term —substantially all— of the fair value. In practice, while ASC 840 specifies bright lines in certain instances, IAS 17's general principles are interpreted similarly to the bright-line tests. As a result, lease classification can be sometimes the same under ASC 840 and IAS 17 but not always (and this may lead to undesirable differences when recording transactions that may be substantially similar)⁽⁸⁾. Under both US GAAP and IFRS, a lessee would record a capital (finance) lease by recognizing an asset and a liability, measured at the lower of the present value of the minimum lease payments or fair value of the asset. A lessee would record an operating lease by recognizing expense on a straight-line basis over the lease term.

However, those models have been criticized for failing to meet the needs of users of financial statements as they do not provide a faithful representation of leasing transactions (IASB, Exposure draft, 2010). In particular, they omit relevant information about rights and obligations that meet the definitions of assets and liabilities in the boards' conceptual framework. One of the main advantages of the new proposal is that they will not allow that companies have long term assets that are not in their balance sheet.

Proponents of this new modification on lease accounting also argue that the model now in force leads to a lack of comparability and undue complexity because of the sharp «bright line» distinction between finance and operating leases. As a result, many users of financial statements adjust the amounts presented in the statement of financial position to reflect the assets and liabilities arising from operating leases.

Accordingly, the IASB and the FASB have jointly developed a draft standard on leases which introduces relevant changes in the way operating leases are measured and recognized in the financial statements. This draft incorporates substantial changes both for lessees and for lessors, although the scope of our study is the impact assessment in the lessees' financial statements.

The exposure draft proposes that lessees should apply a right-of-use model in accounting which means that, at the date of commencement of a lease, a lessee shall recognize in the statement of financial position a right of use asset and a liability to make «lease payments». To measure the liability, the lessee will estimate the present value of the leases payments discounted using the lessee's incremental borrowing rate or, if it could be readily determined, the rate that the lessor charges the lessee. The asset will be valued as the liability plus any direct costs incurred by the lessee.

After the date of commencement of the lease, the lessee shall measure the liability at amortized cost using the effective interest method and the right of use asset also at amortized cost.

(8) There are some other differences between US GAAP and IFRS but an extended study on them is beyond the scope of our study.

Considering that, up to the moment, IFRSs and US GAAP account for the lease payments arising from operating leases by recognizing them in the period in which they occur, the draft incorporates substantial changes to the current accounting policy.

As for the recognition of income, there would be an effect both in operating and financial income. If the operating leases are recorded as an expense, they will be included in the operating income. However, if operating leases are capitalized, the expense corresponding to the amortization would be included as an operating income while the interests would be included as financial. That means that not only the total amount of expense per year would change but also the proportion between operating and financial.

With the new regulation, users would be able to know about assets controlled by companies that, at the moment, are off balance sheet amounts. Lessees would be more affected if they have a significant portfolio of assets held under operating leases.

3. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

In our paper we are trying to predict what will be the impact for financial statements' users of a change in the leases regulatory framework in Europe. We understand that our study can be considered like an *ex ante* research as described by Schipper in 1994. In her discussion paper, she defines *ex ante* research by reference to its opposite, *ex post* research, and states that the former deals with an item that the standard setters are considering while the latter uses results of already promulgated standards as an input to the research analysis. *Ex ante* leases literature focuses basically on the predicted impact of the new regulation while *ex post* leases debates on the economic consequences derived from the new regulatory framework.

The first studies trying to predict the impact of lease capitalization took place in the US, specifically with Nelson (1963) who demonstrated that, for a sample of eleven US companies, most financial ratios were adversely affected by lease capitalization. Already in 1976, the Financial Accounting Standards Board issued a new Standard (number 13) «Accounting for Leases». This standard changed the form of capital lease disclosures by requiring all capital leases to be reported as assets and debt effectively moving them from the footnotes to the balance sheet⁽⁹⁾. Imhoff and Thomas (1988) studied the effect of this new regulation and showed how accounting standards can cause relevant effects in companies and therefore have important economic consequences. They found a significant effect due to the implementation of this new regulation. And they found relevant economic consequences such as a decrease in capital lease versus operating lease, decrease in total lease versus other financial resources and decrease in total debt versus equity. Therefore, the financial structure of companies changed substantially once the standard came into force, corroborating theories supporting the relationship between accounting regulation and economic decisions.

Another paper also by Imhoff *et al.* (1993) constructively capitalized operating leases by estimating the present value of operating leases for a sample of 29 airlines and 51 grocery stores. They also found significant effects derived from the capitalization.

(9) In Spain a similar debate took place by the end of the 80s (see Antolínez, 1985 and Narváez, 1990).

In Europe, local standards prior to IFRS have also been evolving towards the incorporation of leases in the statement of financial position. Beattie et al. (1998) conducted a study with a prospective analysis of the effects of capitalizing operating leases in the accounts of UK lessees. Results for a sample of listed UK companies showed that capitalization had a significant impact on several financial ratios and measures of gearing.

Some other country specific studies can be found in Bennet and Bradbury (2003) for New Zealand, Durocher (2008) for Canada or Fülbiel (2008) for Germany. This study examined the potential effects of an on-balance-sheet accounting treatment for operating leases. They identified a significant capitalization impact for a considerable number of companies in general and for certain industry groups (fashion and retail) in particular. They observed changes on financial ratios for the statement of financial position relations but minor effects for profitability ratios and valuation multiples.

Moving towards a more ex post approach, there is a broad literature on economic consequences of accounting standards, which has constantly tried to answer to the question of whether accounting standard setters should take account of the effects or consequences of the standards they develop⁽¹⁰⁾. Starting from the paper of Holthausen and Leftwich⁽¹¹⁾ (1983), several studies have tried to determine if the effect of accounting standards is significant, why companies choose different options or what is the relationship between lobbying and economic consequences of regulation. If changes in accounting standards generate significant effects in the financial statement of companies, they may also generate relevant economic effects which can affect the process of decision making.

However, our study is an ex ante research and cannot go beyond the effect analysis of this new standard. For the moment we can only assess the potential magnitude of the proposed standard. We believe highly probable that, should the standard be implemented, some economic consequences may be derived. Prior literature has shown how companies modify their financial structures in order to minimize the effects of new regulations

The debate on the effects of accounting standards is at the moment greatly in force as can be derived from the interest show by the EFRAG who has been until 31st August 2011 asking for comments on their discussion paper dedicated to effects analysis of accounting standards. In this sense, our paper can contribute to the debate showing how accounting standards may have a relevant economic effect in relation to the analysis of companies' performance.

Starting from this literature review, in our study we will try to determine if the effect of the implementation of this new standard would be statistically significant for the particular case of Spain. If the effect is relevant and financial analysis is affected substantially, some economic consequences may be derived from its implementation.

(10) The IASC's document «Due Process Handbook for the IASB» explicitly considers the impact analysis as one of the due parts of the process of standard setting. Additionally, the EFRAG together with the ASB and some local standard setters, including the Spanish one, have issued a discussion paper titled «Considering the Effects of Accounting Standards» where they open a debate about how the effects analysis of accounting standards should be carried forward.

(11) Papers which have been very relevant in the development of economic consequences theories are R. Watts (1977) or Watts and Zimmerman (1978). In both papers we can find the basis for the theories that explain the link between firms, cash flows and reported accounting income numbers.

Therefore, our first hypothesis is:

H.1: The capitalization of operating leases will have a significant effect on the financial ratios of Spanish quoted Companies.

We also believe that the impact is going to be different depending on the size and sector. For the size, and although to our knowledge no prior studies have considered size in the analysis of the impact of operating leases capitalization, we can find studies where size is a determinant factor for the impact derived from changes in accounting rules (Lantto and Sahlström, 2009, or Fito *et al.* 2012). We also expect that sectors where lease contracts could be longer (non current assets contracts such as property, plant and equipment) should be more affected by the change in the lease standard. The longest the contracts are, the strongest the effect. This would justify why companies such as Inditex (Zara) would be so proactive in the lobby for the cancellation of the standard. Most shops in the retail business are rented and recognizing those amounts as liability is meant to introduce relevant changes in the financial statements. Additionally, prior studies reveal material consequences for lease-intensive industries such as transport, retail and hospitality (Goodacre, 2003; Gosman and Hanson, 2000; and Lanfranconi and Wiedman, 2000) although, to our knowledge, no comprehensive analysis has been carried out before comparing all sectors.

Our second hypothesis therefore will be:

H.2: There is a significant relationship between the comparability index measured as the variation in percentage terms of financial ratios, size of the company and the sector.

4. DATA SELECTION AND RESEARCH DESIGN

4.1. DATA SELECTION

We selected all quoted Spanish firms (consolidated financial statements) for the period 2008-2010 except for the financial firms that were excluded due to their different regulation. In Spain, only quoted companies use IFRS and may be affected for the new leases regulation. Unlisted companies have to report under the new Spanish GAAP adapted to IFRS published at the end of 2007 which came into force on the 1st January 2008.

Our initial purpose was to gather information for all quoted Spanish companies for the period 2005-2010 and therefore considering the moment since the IFRS were implemented. However, disclosures about operating leases are scarce and including in our analysis all those years meant that our firms' sample was too small for proper analysis. That is why we finally decided to work with the period 2008-2010 where we could keep the maximum number of companies.

For each year, we worked with an initial population of 112 companies. For each of them, we manually analyzed the notes to the accounts in order to extract information about future minimum lease payments. Only 52 companies disclosed the minimum information required for our analysis for the three years considered and that is why our final sample is of 156 year observations.

The operating lease information disclosed by Spanish companies in a note to the financial statements is a schedule of operating lease payments, disclosing separately three different figures (IAS 17, paragraph 35):

- a) Payments due the year after reporting.
- b) Payments due in the period two to five years after reporting.
- c) Payments due after five years.

We also collected accounting numbers and other information like the company-specific weighted interest rate for the recognized debt and the effective tax rate. Other information that would make the capitalization procedure more accurate, as the categories of the assets rented, the assets' useful lives, the leases' period, or the weighted average implicit interest rate for each firm's portfolio of operating leases, were not disclosed by most of the companies selected⁽¹²⁾. Hence the limitation of the availability of public domain data makes it necessary to introduce some assumptions. These assumptions are clearly described in the next section as they determine the final output of the capitalization procedure.

4.2. RESEARCH DESIGN

Our procedure is based on the constructive capitalization model of Imhoff *et al.* (1991; 1997) which simulates the effects of operating lease capitalization on assets, liabilities, equity, and the related income statement positions. Prior literature has taken into consideration the constructive capitalization model (Fulbier *et al.*, 2008, Beattie, 1998) due to the fact that it is a more developed methodology than the alternative one which would be the factor method. The main difference between them is that the former considers the potential effect in equity and net income while the latter ignores it. The factor method is especially useful for practitioners due to its simplicity and easy application.

4.2.1. Constructive capitalization method

The constructive capitalization procedure developed by Imhoff *et al.* (1991) estimates the amount of assets and debt that would be recognized on the balance sheet if the operating leases had been treated as capital leases from their inception. To estimate the off-balance-sheet lease liability we employ the schedule of minimum future cash flows disclosed in the notes to the financial statements. These minimum future cash flows are discounted using an estimate interest rate and an estimate of the remaining life of the leased asset and the result is an estimation of the off-balance sheet debt represented by the present value (PV) of the remaining future minimum lease payments. The off-balance sheet assets are measured by examining the relation between assets and debt. Assuming that the leased assets are totally financed with debt the relationship between asset value and lease liability depends on the proportion of the lease which has expired. The difference between asset value and liability during

(12) This is a limitation for our analysis. However, companies do not disclose this type of information in their annual accounts so, unfortunately, we were not able to perform a more detailed analysis that would distinguish effects based on types of assets rented.

the lease terms causes a decrease of the equity position and an adjustment of deferred taxes.

The constructive capitalization model is based on some general assumptions such as : (i) at the inception of the lease, the book value of the leased asset is equal to the value of the lease liability; (ii) the capitalized asset and the capitalized liability both equal zero at the end of the lease; (iii) straight-line depreciation is used for all assets, (iv) lease payments are constant over the lease terms.

Under these considerations, we introduce further assumptions in order to calculate the unrecorded lease liabilities, unrecorded lease assets and the variation of the equity position:

4.2.1.1. ASSUMPTIONS AND MEASUREMENT OF THE UNRECORDED LEASE LIABILITIES

The present value of unrecorded liability (PV_L) is calculated as the present value (PV) of the future minimum lease payments (FLP) using the effective-interest method.

To obtain the PV_L two fundamental assumptions are required:

- *Interest rate*

Although the appropriate interest rate would be the weighted average implicit rate for each firm's portfolio of operating leases, or the implicit rate in the firms' capital leases (Imhoff *et al.* 1997), this data is not disclosed by many of the companies analyzed. This happens frequently in other countries' annual accounts and, in its absence, prior literature generally applies a fixed discount rate for the complete sample. That is the approach adopted by Imhoff *et al.* (1991) who worked with an interest rate of 10% for all companies, the same approach was used by Ely (1995) and Beattie *et al.* (1998). We believe that working with a constant interest rate for all companies is too general so we adjust the discount rate by estimating the default risk associated with each company⁽¹³⁾. Default risk clearly comprises macro and micro economic risk associated with default and in general these are undertaken by specialist rating agencies. For our sample however, only eight companies namely Repsol and Telefonica among others, are publicly rated, which makes it difficult to interpolate macro and micro default risks for all companies in our sample. As a result, we adopt a compromise approach to estimating company specific idiosyncratic risks by following Damodaran (2012)⁽¹⁴⁾. Using this approach, we estimate a rating and a default spread for each company from the firm's interest coverage ratio (interest expenses/EBIT). To obtain the final discount rate we added the default spread to the risk free rate corresponding to the 10-year Spanish bond rate. We perform additional test with different scenarios (the same weighted interest rate plus one and plus two points) in order to give robustness to our results.

(13) We are grateful to an anonymous referee who suggested that we utilize credit ratings «known» for existing Spanish companies in our sample, and interpolate these to capture the probability of default for companies in specific sectors across the rest of our sample. While more rigorous than our approach, a paucity of rated companies (eight companies have publicly available ratings) in our data set, made it difficult to use this approach.

(14) The table for the rating estimation is available in Damodaran's website <http://pages.stern.nyu.edu/~adamodar/> were a spreadsheet 'rating' is facilitated. We used the table for firms with less than \$5 billion turnover.

- *The annual cash flows after year five*

As most of the companies do not disclose information about the per-year payments, a pattern assumption in this sense is required. The assumptions are the following:

- a) For years two to five we assume a geometric decreasing model in which the lease payments decline at a constant rate (Fülbier *et al.*, 2008). In order to annualize the payments aggregated to year two to five, we determine for each company a constant decreasing factor (df) for the five periods:

$$FLP_{t+1} = FLP_t \times df \quad (1)$$

where:

FLP_t : future Lease Payments in year t ;

FLP_{t+1} : payments in the year after,

df : decreasing factor.

Therefore, the unknown FLP_2 , FLP_3 , FLP_4 and FLP_5 are a function of the known FLP_1 so we can assume that:

$$FLP_{2\text{ to }5} = FLP_1 \times df^1 + FLP_1 \times df^2 + FLP_1 \times df^3 + FLP_1 \times df^4 \quad (2)$$

And therefore,

$$FLP_{2\text{ to }5} = \sum_{t=1}^4 FLP_1 \times df^t \quad (3)$$

- b) Once we calculate the per-year payment for two to five year, we assume, as the original model, that the aggregated payment after year five is divided into equal annual payments of FLP_5 .

Following Fülbier *et al.* (2008), we divide the FLP into five categories. Each one has a different remaining lifetime (one year up to five or more years). We consider that the difference between the FLP in two consecutive years is the FLP of those contracts ending in the first of the two expiry date. Therefore we are assuming that, among the firm's portfolio of operating leases, contracts expire in different moments. Unlike most of prior research where a single lease contract is considered, we agree with Fülbier that this methodology represents much more faithfully the variety of contracts that can be found in different companies.

4.2.1.2. ASSUMPTIONS AND MEASUREMENT OF THE UNRECORDED LEASE ASSETS:

Considering that the present value of the unrecorded asset (PV_A) is, at the lease inception, the present value (PV) of the future lease payments (FLP), the relationship between asset value and lease liability at any time during the contract period is a function of PV_{TL} , PV_{FLP} , the remaining lease life (RL), the total lease life (TL). As the current lease liability is equal to the PV_{FLP} over the remaining life, the ratio of asset to liability can be expressed as:

$$\frac{RL}{TL} \times \frac{PV_{TL}}{PV_{FLP}} \tag{4}$$

where:

RL: remaining life of the lease contract;

TL: total life of the lease contract;

PV_{FLP}: present value of the Future Lease Payments (equal to *PV_L*),

PV_{TL}: present value of the total payments expected for the lease life.

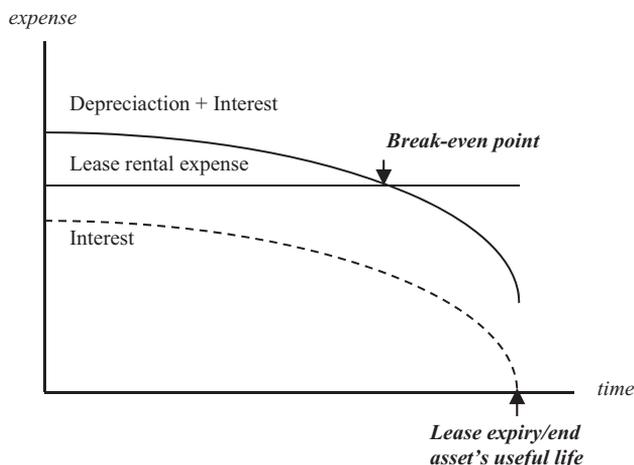
Therefore to obtain the *PV_A* a key assumption is also required: the relationship between the remaining life and the total life of the lease contract.

- *The total lease life*

To calculate de *PV_{FLP}* we calculate the total annual payments corresponding to the remaining life. The assumption about the total life and the proportion between remaining life and total life has an important impact on results because depending on which stage is the lease considered the consequences of the capitalization on the current period's net income would be different⁽¹⁵⁾.

As we can see in figure 1 in the early stages of the lease's life, the expenses under capitalization (depreciation + interest) are bigger than under non capitalization (lease rental). This difference progressively decreases, and then reverses.

FIGURE 1
TOTAL EXPENSES FROM OPERATING VS. CAPITAL LEASES. BASED ON FIGURE 2 IMHOFF ET AL. (1991)



(15) In Annex 1 an example can be found that illustrates the capitalization constructive model.

Imhoff *et al.*, (1991) assumed that for a company with a stable portfolio of leases, the breakeven point where the periodic capital leases expenses equal the periodic operating lease expenses is 50%. In accordance with this assumption and with other prior studies (Ely, 1995; Bennet and Bradbury, 2003; Fülbier *et al.*, 2008) we consider that the ratio of RL/TL is 50% and that the lease term matches up with the asset's estimated life. This assumption entails that the effect on the current period's income of the constructive capitalization is minimal.

In order to prove the consistency of this assumption we calculate the impact on results as the difference between the minimum future lease rental payment of the next year less the straight-line annual depreciation and the next year's interest expense. The weighted average impact is about the 0.13% over the capitalized assets. As we have done for the interest rate we run additional test with different scenarios: The ratio RL/TL equal to 60% and 70% in order to give robustness to our results.

4.2.1.3. ASSUMPTIONS AND MEASUREMENT OF THE EQUITY AND DEFERRED TAXES ADJUSTMENTS:

The difference between the lease asset and liability during the lease contract implies an adjustment of the equity position downwards, due to the accumulated effect of the income reductions in the early years of leases. This reduction in past incomes also implies an adjustment of deferred taxes.

To calculate the adjustment on the net equity position a last assumption is required:

- *The tax rate*

To calculate the tax consequences of capitalization we use an average effective tax rate for 2009 dividing the taxation by the earnings before taxes. Prior studies (Fülbier *et al.*, 2008; Beattie, Edwards and Goodacre, 1998) have also calculated per year the tax effect using an average effective tax rate, preferring company-specific averages over standardized tax multifactor for the complete sample. Some of these studies have recalculated the results using a general tax multifactor of 40%, the tax used by Inhoff, Lipe and Wright (1991), without identifying significant changes.

In annex 1 an example is provided to illustrate the capitalization method applied for Inditex. We obtain the unrecorded lease liability, lease asset and the equity adjustment running the model described, both separately for each basket and aggregating the results.

4.2.2. Factor Model

In order to include other capitalization procedures we apply the factor method to the same sample. This method is also based on a capitalization procedure of the minimum lease payments but it considers that the lease asset always equals the lease liability, and therefore there is no impact in equity, deferred taxes or net income. Considering that prior evidence finds that measures of shareholder risk can be better explained when one includes the financial leverage implicit in unrecorded leases (Lipe, 2001) this method could be a simpler approximation of how capital market participants incorporate the unrecorded operating leases.

In our study, once we have calculated the present value of the unrecorded lease liability as described before, we make the unrecorded lease asset equal. Hence no assumptions to calculate the unrecorded lease assets and the variation of the equity position are needed. Results will show how there are no significant differences between both models although the constructive methodology is more complete. The reason is that, under the assumptions already explained for the constructive method, the impact in net income is rather small and that makes that both methods lead to similar conclusions.

4.2.3. Ratios analyzed

To analyze the impact of the lease capitalization on the financial statements and to facilitate comparison with previous studies (Beattie, 1998; Fülbier, 2008) we calculate eight financial ratios. We separate between ratios related to presentation of items in the balance sheet and financial structure and ratios related with performance.

In the first group of ratios related to presentation of items in the balance sheet, we include a first set of four ratios linked to leverage in order to measure the changes on the companies' financial leverage position due to the increase of the lease liability. These are the equity to assets (*LEV1*), equity to liabilities (*LEV2*), debt quality (*LEVQ*) and financial leverage (*FINLEV*). We also include the liquidity ratio (*LIQ*) which compares current assets with current liabilities, and the non-current assets turnover (*NCT*) which divides the non-current assets by the total sales of each company.

Although we consider minimal effects of the constructively capitalizing method on the income statement, due mainly to the assumptions considered in our model and previously disclosed, the impact on the balance sheet could alter the commonly used profitability ratios. We calculate both return on assets (*ROA*) and return on equity (*ROE*) as these measures have an important influence on financial analysis. Any alteration in these ratios could affect the diagnosis of a firm performance evolution. Considering the modifications on the balance sheet, the capitalization of operating leases will systematically result in a bigger denominator (total assets) in the case of *ROA*, and a smaller denominator (shareholders' equity) in the case of *ROE*. The impact in the numerator is not expected to be significant due to our assumption of *RL/TL* equivalent to 50%.

In tables 1a and 1b we show the ratios considered in our analysis.

TABLE 1A
 RATIO DEFINITIONS: RATIOS RELATED TO THE STRUCTURE OF THE BALANCE SHEET
 AND THE PRESENTATION OF ITEMS

<i>Ratio</i>	<i>Variable</i>	<i>Numerator</i>	<i>Denominator</i>
<i>Leverage 1</i>	<i>LEV1</i>	Total Liabilities	Total equity + total liabilities
<i>Leverage 2</i>	<i>LEV2</i>	Total Equity	Total Liabilities
<i>Debt's Quality</i>	<i>LEVQ</i>	Current Liabilities	Non current liabilities
<i>Financial leverage</i>	<i>FINLEV</i>	Total Assets x EBT	Total Equity x EBIT
<i>Liquidity</i>	<i>LIQ</i>	Current Assets	Current Liabilities
<i>Non-current assets turnover</i>	<i>NCT</i>	Non-current Assets	Total Sales

TABLE 1B
RATIO DEFINITIONS: PERFORMANCE RATIOS

<i>Ratio</i>	<i>Variable</i>	<i>Numerator</i>	<i>Denominator</i>
<i>Return on Assets</i>	<i>ROA</i>	EBIT	Total Assets
<i>Return on Equity</i>	<i>ROE</i>	Net Income	Total Equity

4.2.4. *Statistical Model*

Prior literature on the impact of accounting standards on financial analysis like Fülbier, *et. al.* (2008) following Goodacre (2003) or Fitó *et al.* (2012), indicate that financial ratios do not follow a normal distribution and therefore they use non parametric tests to look for significant statistical differences between the ratios before and after the capitalization. We can confirm that, for our sample, financial ratios also do not follow a normal distribution and therefore we run non parametric Wilcoxon tests to look for significant differences in the means of the ratios before and after operating leases capitalization.

However, and in order to make our study more robust, we calculate a comparability index (CI) as the percentage of variation of the ratios before and after capitalization. This new variable follows a normal distribution which allows us to run parametric tests to contrast differences in the means.

This comparability index (CI) has been calculated in the following way:

$$CI_i = \left[\frac{FRA_i - FRB_i}{FRB_i} \right] \quad (5)$$

where:

FRA_i: financial ratio after the capitalization for company *i*;

FRB_i: financial ratio before the capitalization for company *i*,

CI_i: comparability index for company *i*.

In addition to the Wilcoxon test and the parametric ttest, we have analyzed the impact of two different factors: sector and size. To analyze the impact of the sector, we have divided our set of data into six different sectors following the classification provided by the Madrid Stock Market. The sectors are Energy (sector 1), Construction and Industry (sector 2), Retail goods (sector 3), Retail services (sector 4), Real State companies (sector 5) and Technology (sector 6).

For each sector we have run the parametric ttest considering each of the comparability indexes calculated for all ratios. Additionally, we have run an OLS regression model to look for statistical significance between the CI index and size or sector.

The formal regression model is as follows:

$$CI_i = \beta_0 + \beta_1 SIZE_i + \beta_2 SECTOR_i + \varepsilon_i \quad (6)$$

where:

CI_i: comparability index for each of the ratios considered;

SIZE: Ln Assets;

SECTOR 2: dummy variable; 1= if the company belongs to sector 2; 0= if it does not;

SECTOR 3: dummy variable; 1= if the company belongs to sector 3; 0= if it does not;

SECTOR 4: dummy variable; 1 = if the company belongs to sector 4; 0= if it does not;

SECTOR 5: dummy variable; 1 = if the company belongs to sector 5; 0= if it does not,

SECTOR 6: dummy variable; 1 = if the company belongs to sector 6; 0= if it does not.

Although in our sample we have found some outliers, specially the company Telefónica which is clearly the biggest in our sample, we have not deleted any observation due to the small amount of observations we have available (as a lot of companies do not disclose information about operating leases)

5. DESCRIPTIVES AND MAIN RESULTS

In table 2 and in order to provide a first general assessment of the impact of operating leases capitalization, we present the effect on assets, liabilities and equity

TABLE 2

	<i>Non current Assets</i>	<i>Liabilities</i>	<i>Equity</i>
2010			
<i>MAX</i>	6,047,738.15 €	6,587,679.81 €	-4.93 €
<i>MIN</i>	100.62 €	105.56 €	-539,941.65 €
<i>MEAN</i>	296,530.49 €	325,078.72 €	-28,548.23 €
<i>DESVEST</i>	910,192.85 €	991,143.49 €	82,273.22€
2009			
<i>MAX</i>	4,434,942.01 €	4,822,288.66 €	-4.60 €
<i>MIN</i>	196.71 €	206.26 €	-387,346.66 €
<i>MEAN</i>	270,473.31 €	299,832.79 €	-29,359.48 €
<i>DESVEST</i>	730,598.91 €	799,505.42 €	73,008.32 €
2008			
<i>MAX</i>	3,663,683.67 €	3,986,896.72 €	-0.16 €
<i>MIN</i>	2.09 €	-104.32 €	-323,213.06 €
<i>MEAN</i>	223,410.29 €	243,233.44 €	-19,823.15 €
<i>DESVEST</i>	596,136.62 €	656,225.16 €	51,412.55 €

In this table we show values corresponding to the impact that the capitalization could generate in each of the items. For example, for the Non Current Assets, the minimum impact (difference between the values before and after capitalization) for 2010 is 100.62, while the maximum would be 6,047,738.15. It is important to note that this

does not mean that the minimum impact for a company is 100.62 as these values are expressed in absolute terms but it does show to us how the impact changes a lot between companies.

The mean of the impact for the non current assets for year 2010 is 296,530.49 which represents 19% over total noncurrent assets. For noncurrent and current liabilities the mean is 325,078.72 which together results in an amount similar to the impact on assets and represents a 18.3% over total liabilities. Additionally, there is a negative impact in equity due to the accumulated effect derived from the difference between considering operating leases as an expense or considering as an expense the total sum of interests and amortization.

Prior literature like Goodacre (2003), Gosman and Hanson (2000) or Lanfranconi and Wiedman (2000), shows how factor and size tend to be determinants of the impact on financial ratios of operating leases capitalization. In our sample, we are working with companies belonging to sectors where the presence of operating leases can be very different. Additionally, we can find ourselves with the fact that, even in the same sector, companies make different uses of operating leases as would be the case, for example, of the hospitality and retail sector where the decision buying *versus* renting can make a big difference in our model.

5.1. DESCRIPTIVE STATISTICS

Tables 3a and 3b show the descriptive statistics for the variables used in the empirical analysis. We include the descriptives for the financial ratios before and after the capitalization, and we can see the descriptives for the comparability index based on each ratio. For the financial ratios we show the Wilcoxon test results and for the Comparability index the ttest results.

The first thing to say is that we find an overall statistically significant effect due to the change of regulation. If we now make a more detailed analysis, we can see how the values obtained for the ratios of leverage (*LEV1*), and financial leverage (*FINLEV*) are higher after the operating leases capitalization. Leverage (*LEV1*) has increased 6%, on average and financial leverage (*FINLEV*) 11%. On the contrary, the second leverage ratio (*LEV2*), the quality of debt (*LEVQ*), liquidity (*LIQ*), and return on assets present lower values after capitalization. The second leverage ratio (*LEV2*) has decreased 9% on average due to the impact on equity. Debt quality has also decreased 10%, on average due to the impact on noncurrent liabilities. As expected then, we have found relevant changes for the leverage ratios and therefore a significant impact for the gearing effect. It must be considered that the noncurrent assets turnover and financial leverage are not too comparable due to their dispersion (higher standard deviation).

This is no doubt a very relevant economic consequence (an unintended one following Brüggemann's classification and also an undesirable one in our opinion) of this proposed standard. If we consider the variation of the leverage ratio *LEV 1* for the companies that have been sending comment letters, we see that Inditex moves from 0.36 % before and 0.52% after, NH Hotels moves from 0.67 % before and 0.80 after, and Telefonica moves from 0.80 % before and 0.81 % Changes in the leverage of companies may affect their capital structure, their debt covenants, their relative position in the market and, in the end, their image before investors and users.

When we analyze the performance ratios we also find significance for both Return on Equity and Return on Assets, This means that the proposal does not only affect the presentation of items in the balance sheet and static measures such as gearing, but also the «real» performance of the company (*ROA*) and the return for shareholders (*ROE*).

TABLE 3A
 SAMPLE DESCRIPTIVE STATISTICS FINANCIAL RATIOS (N=156). BALANCE SHEET RATIOS

		<i>Before</i>	<i>After</i>	<i>Diff.</i>	<i>t-test or Wilcoxon Test</i>	<i>CI</i>	<i>t-test or T Student</i>
<i>LEV1</i>	<i>Mean</i>	0.667	0.690	02	10.515 *** (0.000)	0.054	3.9387 *** (0.000)
	<i>SD</i>	0.206	0.192	0.055		0.172	
<i>LEV2</i>	<i>Mean</i>	0.664	0.569	-0.094	-10.623 *** (0.000)	-0.085	-6.8245 *** (0.000)
	<i>SD</i>	0.612	0.482	0.301		0.157	
<i>LEVQ</i>	<i>Mean</i>	3.625	3.049	-0.576	-8.824 *** (0.000)	-0.077	-6.0804 *** (0.000)
	<i>SD</i>	12.371	9.591	2.973		0.158	
<i>LIQ</i>	<i>Mean</i>	1.329	1.254	-0.075	-10.834 *** (0.000)	-0.047	-6.2964 *** (0.000)
	<i>SD</i>	0.804	0.747	0.193		0.093	
<i>NCAT</i>	<i>Mean</i>	1.509	1.509	-0.019	6.235 *** (0.000)	0.173	4.8925 *** (0.000)
	<i>SD</i>	1.991	1.991	1.463		0.443	
<i>FINLEV</i>	<i>Mean</i>	29.646	38.357	8.711	7.987 *** (0.000)	0.110	3.4304 *** (0.000)
	<i>SD</i>	669.464	769.612	106.218		0.402	

LEV1 = Total Liabilities / Total Equity + Total Liabilities; *LEV2* = Total Equity / Total Liabilities; *LEVQ* = Current Liabilities / Non Current Liabilities; *LIQ* = Current Assets / Current Liabilities; *NCAT* = Non-Current Assets / Total Sales; *FINLEV* = Total Assets x EBT / Total Equity x *EBIT*.

*** Significant at the 0.01 level (two-tailed).

TABLE 3B
 SAMPLE DESCRIPTIVE STATISTICS FINANCIAL RATIOS (N=156). PERFORMANCE RATIOS

		<i>Before</i>	<i>After</i>	<i>Diff.</i>	<i>t-test or Wilcoxon Test</i>	<i>CI</i>	<i>t-test or T Student</i>
<i>ROA</i>	<i>Mean</i>	0.027	0.0225	-0.001	-5.517 ** (0.000)	-0.048	-5.8481 * (0.000)
	<i>SD</i>	0.122	0.113	0.022		0.103	
<i>ROE</i>	<i>Mean</i>	-0.266	-0.367	-0.047	2.831 ** (0.004)	0.021	3.9877 *** (0.000)
	<i>SD</i>	1.847	2.552	0.378		0.066	

ROA = *EBIT* / Total Assets; *ROE* = Net Income / Total Equity.

*** Significant at the 0.01 level (two-tailed).

These results confirm our first hypothesis (H1) as we see that there is a significant change for most ratios. Our results support prior evidence in Europe. Both Fülbier et al. (2008) and Beattie et al (1998) conduct similar analysis for Germany and the UK and they also find significant effects for the financial ratios they analyze, especially for the assets/liabilities relation.

5.2. RESULTS

In this section we will answer to Hypothesis 2. We analyze if sector is a determinant factor for the impact of the operating leases capitalization and if there is a significant relationship between the comparability index, sector and size. In Table 4 we can find the results classified by sector after running the ttest.

TABLE 4.A
TTEST RESULTS FOR SECTOR (N=156). BALANCE SHEET RATIOS

	SECTOR1: <i>Energy</i> (n=24)	SECTOR2: <i>Construction</i> (n=39)	SECTOR3: <i>Retail Goods</i> (n=54)	SECTOR 4: <i>Retail Services</i> (n=24)	SECTOR 5: <i>Real Estate</i> (n=9)	SECTOR 6 : <i>Technology</i> (n=6)
<i>LEV1IC</i>	3.823 *** (0.000)	3.402 *** (0.001)	2.528 ** (0.014)	4.736 *** (0.000)	1.468 (0.180)	4.669 *** (0.005)
<i>LEV2IC</i>	-5.022 *** (0.000)	-5.207 *** (0.000)	-3.941 *** (0.000)	-5.097 *** (0.000)	-1.583 * (0.152)	-13.662 *** (0.000)
<i>LEVQIC</i>	-2.755 ** (0.011)	-2.707 *** (0.010)	-3.561 *** (0.000)	-3.938 *** (0.000)	-1.479 (0.177)	-3.787 *** (0.0128)
<i>LIQIC</i>	-5.638 *** (0.000)	-5.222 (0.000)	-3.687 *** (0.000)	-4.543 *** (0.000)	-1.945 * (0.087)	-20.225 *** (0.000)
<i>NCATIC</i>	2.944 ** (0.007)	1.791 * (0.081)	2.371 ** (0.021)	3.459 *** (0.002)	0.225 (0.827)	1.954 * (0.108)
<i>FINLEVIC</i>	5.604 *** (0.000)	5.517 *** (0.000)	3.088 *** (0.003)	2.096 ** (0.047)	1.541 * (0.162)	11.325 *** (0.000)

LEV1IC = *LEV1a* - *LEV1b* / *LEV1b*; *LEV2IC* = *LEV2a* - *LEV2b* / *LEV2b*; *LEVQIC* = *LEVQa* - *LEVQb* / *LEVQb*; *LIQIC* = *LIQa* - *LIQb* / *LIQb*; *NCATIC* = *NCATa* - *NCATb* / *NCATb*; *FINLEVIC* = *FINLEVa* - *FINLEVb* / *FINLEVb*.

*** Significant at the 0.01 level (two-tailed); ** Significant at the 0.05 level (two-tailed); * Significant at the 0.10 level (two-tailed).

TABLE 4.B
TTEST RESULTS FOR SECTOR (N=156). PERFORMANCE RATIOS

	SECTOR1: <i>Energy</i> (n=24)	SECTOR2: <i>Construction</i> (n=39)	SECTOR3: <i>Retail Goods</i> (n=54)	SECTOR 4: <i>Retail Services</i> (n=24)	SECTOR 5: <i>Real Estate</i> (n=9)	SECTOR 6 : <i>Technology</i> (n=6)
<i>ROAIC</i>	-5.321 *** (0.000)	-5.511 *** (0.000)	-3.636 ** (0.000)	-4.081 *** (0.000)	-2.200 * (0.059)	-17.119 *** (0.000)
<i>ROEIC</i>	6.947 *** (0.000)	3.411 *** (0.001)	2.783 ** (0.007)	2.463 ** (0.021)	1.337 (0.178)	4.691 *** (0.005)

ROAIC = *ROAa* - *ROAb* / *ROAb*; *ROEIC* = *ROEa* - *ROEb* / *ROEb*.

*** Significant at the 0.01 level (two-tailed); ** Significant at the 0.05 level (two-tailed); * Significant at the 0.10 level (two-tailed).

When we analyze tables 4.1 and 4.2 we can see how the results change depending on the sector. We have divided all companies analyzed in 6 sectors. The sector which clearly shows to be most affected is sector 4 (Retail Services). This Sector includes companies such as Sol Melia, S.A. NH Hotels, S.A., and other companies such as the Spanish airline Vueling, S.A., which are more affected by the proposed change. No doubt that both air transportation and retail are sectors highly impacted by the proposed change.

Other sectors that show also a relevant effect are sector 3 (Retail Goods), sector 1 (Energy) and sector 6 (Technology). Included in sector 3 we have companies such as Inditex, S.A., where we also expected great impact due, basically, to the high number of operating leases currently included in their financial accounts. It is interesting to note here that those companies are precisely the ones that sent comments letters to the regulator in relation to the proposal.

We expected those results for the retail sectors as we can be referring to hotels, restaurants or stores where generally the use of operating leases is quite intensive and we also corroborate prior studies such as Singh, A (2010) who analyzes the impact of operating leases capitalization for financial ratios in restaurants and retail firms.

In relation to the energy sector, which includes companies such as Repsol, Gas Natural, Iberdrola or Cepsa, we have gone through their annual reports and have found very significant amounts in their operating leases corresponding to properties and equipments. No effect is found for sector 5 corresponding to the Real State Services.

When we compare the results obtained by sector we can see how the ratios more affected are the same ones that we already detected in the analysis of the whole data set which gives consistency to our results. The ratios on leverage and debt quality, are again significantly affected.

We have also run some additional analysis based on the evolution of ratios along the years analyzed. We have not included the results in the paper due to space restrictions⁽¹⁶⁾ but it is interesting to note that the effect decreases over the years. That is, in 2008 the effect seems to be higher than in 2010. Also, the relative weight of operating leases over total assets and over sales also decreases. This leads us to think if, maybe, Spanish companies are acting on the new rule trying to avoid it somehow. It is a question that we cannot answer now and that we pose for future studies.

Even though the number of companies we have found information for is limited, the weight of each sector is quite relevant: in sector 1 we have 44% of the total number of quoted companies, 34% in sector 2, 48% in sector 3, 16% in sector 4, 25% in sector 5 and 45% in sector 6.

In order to give more strength to our results, we analyze also if there is any significant relationship between the variation of financial ratios measured in percentage terms (*CI*) and the variables sector and size⁽¹⁷⁾. We run an OLS regression model where our dependent variable is the comparability index (*CI*) for each of the ratios considered

(16) However they are available upon request.

(17) We have run additional test including the contract term as an independent variable. Due to the lack of information the contract term is an estimated data obtained with the annualizing method used. However, no statistically significant results have been found.

and sector and size are included as the independent variables. For the sector, we introduce a dummy variable that takes value 1 if the company belongs to sector and value 0 otherwise.

The formal regression model is as follows:

$$CI_i = \beta_0 + \beta_1 SIZE_i + \beta_2 SECTOR_i + \varepsilon_i \quad (6)$$

where:

CI_i: comparability index for each of the ratios considered;

SIZE: Ln Assets;

SECTOR 2: dummy variable; 1= if the company belongs to sector 2; 0= if it does not;

SECTOR 3: dummy variable; 1= if the company belongs to sector 3; 0= if it does not;

SECTOR 4: dummy variable; 1 = if the company belongs to sector 4; 0= if it does not;

SECTOR 5: dummy variable; 1 = if the company belongs to sector 5; 0= if it does not;

SECTOR 6: dummy variable; 1 = if the company belongs to sector 6; 0= if it does not.

TABLE 5
DESCRIPTIVES OF VARIABLE SIZE

	<i>Mean</i>	<i>St. dev</i>	<i>Min</i>	<i>Max</i>
<i>SIZE</i>	14.269	1.9468	10.864	18.681

Size: LN Assets.

TABLE 6
CORRELATION MATRIX FOR THE OLS REGRESSION MODEL

	<i>LEV1CI</i>	<i>LEV2CI</i>	<i>LEVQCI</i>	<i>LIQCI</i>	<i>NCATCI</i>	<i>ROACI</i>	<i>ROECI</i>	<i>FINLEVCI</i>
<i>SIZE</i>	-0.173	0.175	0.221	0.138	-0.110	0.054	-0.142	-0.139

$LEV1IC = LEV1a - LEV1b / LEV1b$; $LEV2IC = LEV2a - LEV2b / LEV2b$; $LEVQIC = LEVQa - LEVQb / LEVQb$;
 $LIQIC = LIQa - LIQb / LIQb$; $NCATIC = NCATa - NCATb / NCATb$; $ROAIC = ROAa - ROAb / ROAb$; $ROEIC = ROEa - ROEb / ROEb$;
 $FINLEVIC = FINLEVa - FINLEVb / FINLEVb$.

In tables 5 and 6 we present the descriptives and correlation matrix for the variables in the OLS model. In table 7 we present the results obtained for the regression model. There is a significant relationship between the variation of the ratios and the size and membership to sector 4 (retail services) so we also accept *H2*.

In table 7 we include the regression results considering size as the independent variable.

TABLE 7
OLS REGRESSION RESULTS CONSIDERING SIZE AND SECTOR AS THE INDEPENDENT VARIABLES (N=156)

	<i>Constant</i>	<i>Size</i>	<i>Sector 2</i>	<i>Sector 3</i>	<i>Sector 4</i>	<i>Sector 5</i>	<i>Sector 6</i>	<i>Adj. R²</i>
<i>LEV1CI</i>	0.126534	-0.00674 (-0.82)	-0.01944 (-0.44)	0.0589 (1.27)	0.07217 (1.40)	-0.0320 (-0.47)	-0.00172 (-0.02)	0.0717
<i>LEV2CI</i>	-0.113557	0.00465 (0.67)	0.02255 (0.60)	-0.0495 (-1.26)	-0.182 (-4.19)***	0.021 (0.37)	-0.0229 (-0.41)	0.2046
<i>LEVQCI</i>	-0.18465	0.0090 (1.22)	0.0224 (0.56)	-0.0362 (-0.86)	-0.1054 (-2.26)**	0.01708 (0.28)	-0.00602 (-0.09)	0.1027
<i>LIQCI</i>	-0.06721	0.00293 (0.71)	0.00996 (0.44)	-0.0254 (-1.08)	-0.1089 (-4.17)***	0.02135 (0.62)	-0.0143 (-0.37)	0.1997
<i>NCATICI</i>	0.55897	-0.0253 (-1.21)	-0.08291 (-0.74)	-0.1169 (-0.99)	0.2488 (1.90)*	-0.145 (-0.85)	0.1915 (0.98)	0.0989
<i>ROACI</i>	0.068302	-0.00322 (0.69)	0.00891 (0.35)	-0.0341 (-1.29)	-0.1137 (-3.88)***	0.0180 (0.47)	-0.02038 (-0.46)	0.1775
<i>ROECI</i>	0.0538	-0.00313 (-1.01)	-0.00198 (-0.12)	0.00726 (0.41)	0.05936 (3.05)***	0.01476 (0.58)	0.008374 (0.29)	0.1157
<i>FINLEVCI</i>	0.3546	-0.0211 (-1.11)	-0.0224 (-0.22)	0.0421 (0.39)	0.32115 (2.71)*	-0.0304 (-0.19)	0.03017 (0.17)	0.104

LEV1CI = *LEV1a* - *LEV1b* / *LEV1b*; *LEV2CI* = *LEV2a* - *LEV2b* / *LEV2b*; *LEVQCI* = *LEVQa* - *LEVQb* / *LEVQb*; *LIQCI* = *LIQa* - *LIQb* / *LIQb*; *NCATICI* = *NCATa* - *NCATb* / *NCATb*; *ROACI* = *ROAa* - *ROAb* / *ROAb*; *ROECI* = *ROEa* - *ROEb* / *ROEb*; *FINLEVCI* = *FINLEVa* - *FINLEVb* / *FINLEVb*.

*** p < 0.01; ** p < 0.05; * p < 0.10. Results have been already corrected by heteroskedasticity and autocorrelation.

Size does not seem to be a significant variable for the analysis. However, belonging to sector 4 again shows to be very relevant and confirm our previous results (table 4). These results also could help us to understand why companies such as Inditex or NH Hotels have been lobbying so strong for the delay or even cancellation of the new leases draft.

5.3. SENSITIVITY ANALYSIS

We conduct sensitivity analysis to test the robustness of our results. We have considered different scenarios for the assumptions considered and in line with Imhoff *et al.* (1991) and Fulbier *et al.* (2008) we find only slight alterations. In table 8, we have included five columns. In the first one (Factor-met), we present the results corresponding to the factor method instead of the constructive one. The former does not consider the effect in equity and only adjusts both assets and liabilities in the same terms. We can see how the results are quite similar to those derived from the constructive capitalization method.

In the second column (Scenario_50_i1) and third (Scenario_50_i2) we have run again the tests under the constructive methodology but considering the interest rate plus 1 and two respectively. In the fourth columns (Scenario_60) and fifth one (Scenario_70) we have considered that the ratio Residual Life/Total Life represents a 60% and 70% respectively. We can see how the results do not change substantially and therefore our results show to be robust.

TABLE 8
(N_156) SENSITIVITY ANALYSIS FOR FACTOR METHOD, INTEREST RATE CONSIDERED PLUS 1 PINT,
INTEREST CONSIDERED PLUS 2 POINTS, RATIO BETWEEN RESIDUAL LIFE AND TOTAL LIFE AT 60%
AND RATIO BETWEEN RESIDUAL LIFE AND TOTAL LIFE AT 70%

	<i>Factor_met</i>	<i>Scenario_50_i1</i>	<i>Scenario_50_i2</i>	<i>Scenario_60</i>	<i>Scenario_70</i>
<i>LEV1CI</i>	4.2002 (0.0000)***	4.2013 (0.0000)***	4.2013 (0.0000)***	4.2011 (0.0001)***	4.2008 (0.0001)***
<i>LEV2CI</i>	-7.4111 (0.0000)***	-7.4186 (0.0000)***	-7.4186 (0.0000)***	-7.4171 (0.0000)***	-7.4150 (0.0000)***
<i>LEVQCI</i>	-7.3309 (0.0000)***	-7.3284 (0.0000)***	-7.3284 (0.0000)***	-7.3301 (0.0000)***	-7.3304 (0.0000)***
<i>LIQCI</i>	-1.0272 (0.0006)	-1.0272 (0.3091)	-1.0272 (0.3091)	-1.0272 (0.3091)	-1.0272 (0.3091)***
<i>NCATCI</i>	5.3970 (0.000)***	5.3956 (0.000)***	5.3956 (0.0000)***	5.3963 (0.0000)***	5.3965 (0.0000)***
<i>ROACI</i>	-1.9475 (0.0553)†	-1.9454 (0.0705)†	-1.9454 (0.0881)†	-1.9464 (0.0437)†	-1.9468 (0.0365)†
<i>ROECI</i>	4.2821 (0.0000)***	4.2989 (0.0000)***	4.2989 (0.0000)***	4.2942 (0.0000)***	4.2900 (0.0000)
<i>FINLEVCI</i>	3.1307 (0.1959)	3.1327 (0.0024)***	3.1327 (0.0027)***	3.1323 (0.0013)***	3.1317 (0.0011)***

LEV1IC = *LEV1a* - *LEV1b* / *LEV1b*; *LEV2IC* = *LEV2a* - *LEV2b* / *LEV2b*; *LEVQIC* = *LEVQa* - *LEVQb* / *LEVQb*; *LIQIC* = *LIQa* - *LIQb* / *LIQb*; *NCATIC* = *NCATa* - *NCATb* / *NCATb*; *ROAIC* = *ROAa* - *ROAb* / *ROAb*; *ROEIC* = *ROEa* - *ROEb* / *ROEb*; *FINLEVIG* = *FINLEVa* - *FINLEVb* / *FINLEVb*.

*** Significant at the 0.01 level (two-tailed); ** Significant at the 0.05 level (two-tailed); † Significant at the 0.10 level (two-tailed).

6. CONCLUSIONS

The International Accounting Standards Board has issued a new draft on Leases, included in a wider project of convergence with the US GAAP, which introduces significant changes in the way operating leases should be recognized and measured in the financial statements. Current IFRS and US GAAP accounting regulation do not require operating leases capitalization. However, the new draft proposes considering operating leases on the same level as capital leases and recognize them as and asset and liability in the statement of financial position, trying to avoid the bright line between capital and operating leases and improving, at the same time, the quality of financial information. This proposal has received nearly 1,000 comment letters, half of them more or less supporting the proposal for the improvement in the quality and transparency of the information provided and the rest of them against it, many because of the complexity and implementation costs expected.

The recognition of operating leases in the statement of financial position is expected to have an impact both in the structure of the company (assets and liabilities) and in its performance. Depending on the methodology considered to assess the impact of the new standard (constructive capitalization or factor method) the effects may be different. If the simulation is calculated using the former, total assets and liabilities

would be affected (liabilities more than the assets) but also equity would be modified as the effect and results and therefore in equity is considered. If the simulation is calculated with the factor method, there is no impact on equity.

In this paper we have simulated the effect that would be derived from the inclusion of operating leases in the financial statements of Spanish Companies. We have chosen Spain as our particular scenario due to the fact that there has been a very strong lobbying from very relevant Spanish companies trying that the IASB softens or even cancels the proposal. To our best knowledge, no prior studies have been conducted on Spanish companies and we believe it to be a timely study considering the special moment Spain is going through at the moment.

We have run the constructive capitalization method to recognize the operating leases in 52 listed Spanish companies using consolidated data for the period 2008-2010. Due to the lack of quality disclosed data of these companies we have incorporated several assumptions about the interest rates, the total lease life or the tax rate. Findings are shown to be robust with respect to those assumptions We have chosen the constructive capitalization method as the basis for our analysis but we have also run the tests with the factor method

The results found show how the overall impact on financial ratios of the capitalization of operating leases is statistically significant. We have found relevant changes for the leverage ratios and therefore a significant impact for the gearing effect This may be, no doubt, a very relevant economic consequence of this proposed standard. Changes in the leverage of companies may affect their capital structure, their debt covenants, their relative position in the market and, in the end, their image before investors and users.

When we analyze the performance ratios we also find significance for both Return on Equity and Return on Assets, This means that the proposal does not only affect the presentation of items in the balance sheet and static measures such as gearing, but also the «real» performance of the company (*ROA*) and the return for shareholders (*ROE*).

When we run the tests by sector, we can see how the effect differs significantly and therefore sectors of energy, technology, retail goods and retail services are the ones more affected. The ratios that have shown to be more affected when considering the whole data set are again the more affected in the sector analysis and the companies that have been lobbying strong for the delay or cancellation of the draft mostly belong to those sectors. Those results were expected and confirm our hypothesis that the effect of the implementation of the new standard on leases would be relevant and depends upon the sector. We find statistical significance for the relationship between the variation of the financial ratios and sector, specifically belonging to the retail services sector.

We have also run some additional analysis based on the evolution of ratios along the years analyzed noting how the effect decreases over the years. This leads us to think if, maybe, Spanish companies are acting on the new rule trying to avoid it somehow. It is a question that we cannot answer now and that we pose for future studies.

This study is an ex ante research and can not go beyond the effect analysis of this new standard. We believe that it is highly probable that, should the standard be implemented, some economic consequences may be derived. Prior literature has shown how companies modify their financial structures in order to minimize the effects of new regulations. So we can expect that Spanish companies will react to the new regulation if they find it to be harmful to their reputation, analysis or performance.

It could be said that the expected impact of the regulation proposed is not that relevant as analysts already incorporate the off balance sheet items in their decision making process. In response to this argument it has to be considered that the level of disclosure is scarce as only 50% of the Spanish quoted companies include the note related to the operating leases. On the other hand, prior literature has shown how the potential effect of financial information may differ depending on place it is provided (Jifri and Citron, 2009).

The debate on the effects of accounting standards is at the moment greatly in force. The questions discussed are if these effects analysis should be done, if yes then how they should be done and who should do them. In this paper we have not pretended to provide an answer to those questions but we would like to make regulators and users aware of the fact that the accounting standards do have significant effects which, in our opinion, must be taken into consideration. Additionally, there is another debate going on about the intended versus unintended consequences of international accounting standards. In this sense, and based on the effects that for the analysis of financial statements this new regulation may have, we are facing some unintended and probably unexpected consequences that may lead firms to act on it trying to avoid the damaging effects.

Therefore, the paper pretends, on the one hand, to contribute to the literature on the impact of the implementation of new standards in European countries and also to warn users of financial statements of the possible change in the predictions of companies' performance. On the other hand, the paper contributes to the intended versus unintended effects debate and poses future questions for research related to the decrease in the effect and the possible reaction of European Companies to the proposal.

REFERENCES

- ANTOLINEZ, S. 1985 Problemática contable de las operaciones de leasing financiero. *Revista Española de Financiación y Contabilidad* XV (46): 107-124.
- BEATTIE, V.; EDWARDS, K., and GOODACRE, A. 1998. The impact of constructive operating lease capitalization on key accounting ratios. *Accounting and Business Research* 28: 233-254.
- BENNET, B, and BRADBURY, M. 2003. Capitalizing non-cancelable operating leases. *Journal of International Financial Management and Accounting* 14: 101-114.
- BRÜGGEMAN U.; HITZ, J.M., and SELLHORN, T. 2011. Intended and unintended consequences of mandatory IFRS adoption: Review of extant evidence and suggestions for future research. AAA. Denver.
- DUROCHER, S. 2008. Canadian evidence on the constructive capitalization of operating leases. *Accounting Perspectives* 7 (3): 227-256.
- ELY, K. 1995. Operating lease accounting and the market's assessment of equity risk. *Journal of Accounting Research* 33: 397-415.

- ERNST AND YOUNG (2011): US GAAP versus IFRS: The basics.
- EUROPEAN FINANCIAL REPORTING ADVISORY GROUP (EFRAG). 2010. Considering the effects of accounting standards. *Discussion Paper*.
- FITO, M. A.; GÓMEZ, F., and MOYA, S. 2012. Choices in IFRS adoption in Spain: Determinants and consequences. *Accounting in Europe* 9 (1): 61-83.
- FÜLBIER, R.; LIRIO, J., and PFERDEHIRT, M. 2008. Impact of lease capitalization on financial ratios of Listed German Companies. *Schmalenbach Business Review* 60: 122-144.
- FÜLBIER, R.U.; HITZ, J.-M., and SELFHORN, T. 2009. Relevance of academic research and researchers' role in the IASB's financial reporting standard setting. *Abacus* 45: 455-492.
- GÓMEZ-BEZARES, F., and SANTIBÁÑEZ, J. 2011. Perspectiva histórica de la financiación empresarial. *Revista de Contabilidad y Dirección* 12: 115-143.
- GOODACRE, A. 2003. Operating lease finance in the UK retail sector. *International Review of Retail, Distribution and Consumer Research* 20: 49-66.
- GOSMAN, M. L., and HANSON, E. 2000. The impact of leasing on lenders' evaluations of firms' debt levels. *Commercial Lending Review* 15: 53-60.
- HAIL, L.; LEUZ, C., and WYSOCKI, P. 2010a. Global Accounting Convergence and the Potential Adoption of IFRS by the US (part I): Conceptual Underpinnings and Economic Analysis. *Accounting Horizons*, 24 (3): 355-394.
- 2010b. Global Accounting Convergence and the Potential Adoption of IFRS by the US (part II): Political Factors and Future Scenarios for US. Accounting Standards. *Accounting Horizons* 24 (4): 567-588.
- HOLTHAUSEN, R. W., and LEFTWICH, R. W. 1983. The economic consequences of accounting choice. Implications of costly contracting and monitoring. *Journal of Accounting and Economics* 5: 77-117.
- IMHOFF, E. A. JR., and THOMAS, J. 1988. Economic consequences of accounting standards: The lease disclosure rule change. *Journal of Accounting and Economics* 10: 277-310.
- IMHOFF, E.; LIPE, R., and WRIGHT, D. 1991. Operating leases: impact of constructive capitalization. *Accounting Horizons* 5 (1): 51-63.
- 1993. The effects of recognition versus disclosure on shareholders' risk and executive compensation. *Journal of Accounting, Auditing and Finance* 8 (4): 335-368.
- 1997. Operating leases: income effects of constructive capitalization. *Accounting Horizons* 11 (1): 12-32.
- INTERNATIONAL ACCOUNTING STANDARDS BOARD (IASB) 2006. Updates corresponding to the March and April Meetings. Information provided by the IASB staff under request.
- 2006. «Information for Observers» corresponding to the March and April Meetings. Information provided by the IASB staff under request.
- 2010. *Leases*. IAS Number 17.
- 2010. *Accounting for Leases*. Exposure draft. ED 2010/9.
- INTERNATIONAL ACCOUNTING STANDARDS COMMITTEE FOUNDATION (IASBF) 2008. *Due process handbook of the IASB*.
- LANFRANCONI, C. P., and WIEDMANN, C. 2000. If one goes, will the other follow? Operating leases and off-balances sheet accounting. *Ivey Business Journal* 64: 61-65.
- JIFRI, K., and CITRON, D. 2009. The Value Relevance of financial statement recognition versus note disclosure: Evidence from goodwill accounting. *European Accounting Review* 18 (1): 123-140
- LANTTO, A., and SAHLSTRÖM, P. 2009. Impact of International Financial Reporting Standard adoption on key financial ratios. *Accounting and Finance* 49: 341-361.

- LIPE, R. 2001. Lease accounting research and the G4+1 Proposal. *Accounting Horizons* 15 (3): 299-310.
- MORA, A., and PARDO, F. 2012. Arrendamientos: cambios en la normativa contable internacional. *Revista Contable* 1: 48-61
- NARVÁEZ, A. 1990. Estudio comparativo sobre el tratamiento contable del arrendamiento financiero (leasing) en España, Argentina y Perú. *Revista Española de Financiación y Contabilidad* XX (62): 115-161
- NELSON, A. J. 1963. Capitalising leases- the effect on financial ratios. *Journal of Accountancy* July: 49-58.
- SCHIPPER, K. 1994. Academic Accounting Research and the Standard Setting Process. *Accounting Horizons* 8 (4): 61-73.
- SCHIPPER, K. 2010. How Can We Measure the Costs and Benefits of Changes in Financial Reporting Standards. *Accounting and Business Research* 40: 309-327.
- SINGH, A. 2010. Proposed lease accounting changes: Implications for the restaurant and retail industries, *Journal of Hospitality & Tourism Research*, published online November, 19.

ANNEX 1

ILLUSTRATION OF THE CAPITALIZATION METHOD RUN FOR INDITEX

Year	1	2	3	4	5	6	7	8	9	10	TOTAL	
Amounts payable in years	758.563											
-1	758.563											
1-5												
51												
Annual payment	758.563,00	540.842,02	385.610,80	274.933,69	195.412,49	195.412,49	195.412,49	195.412,49	195.412,49	195.412,49	112.204,03	3.049.216,00
basquet1	217.720,938											
basquet2	155.231,21											
basquet3	110.677,11											
basquet4	79.521,20											
basquet5	195.412,49											
TOTAL	758.563,00	540.842,02	385.610,80	274.933,69	195.412,49	195.412,49	195.412,49	195.412,49	195.412,49	195.412,49	112.204,03	3.049.216,00

	1	2	3	4	5	6	7	8	9	10	TOTAL	
ASSET												
increase												
decrease												
EQUITY												
increase												
decrease												
DEF TAXES												
increase												
decrease												
LIABILITY												
increase												
decrease												
OFFERED TAXES												
increase												
decrease												

	1	2	3	4	5	6	7	8	9	10	TOTAL	
REMAINING LEASE LIFE (years)												
TOTAL LEASE LIFE (years)												
LEASE LIABILITY (€)												
RATIO LEASE LIABILITY TO ASSET TO LIABILITY (€)												
LEASE ASSET (€)												
EQUITY ADJUSTMENT (€)												
OFFERED TAXES (€)												

