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THE VALUE RELEVANCE OF THE OPERACIONAL LEASES

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Abstract

So far, the operational leases are accounted as an expense and not as an asset but there is a proposal by the International Accounting Standards Board (IASB) to accounting them as finance lease because IASB believes that that improves the quality and comparability. So, I test whether the accounting of an operational lease as a finance lease is more value relevant to investors, whether this has changed over time and whether the operating lease liabilities is more value relevant for the investor. My results suggest for the largest European firms, that the investor incorporates the information of operating leases on the share price but I do not conclude that there was a change of this over time neither the liability is more value relevant than the asset. These results confirm that the accounting of the operational leases as a finance lease provides information which is much more useful.

1. INTRODUCTION

This study examines whether an operational lease accounting as a finance lease is more value relevant for investors addressing whether the assets and liabilities of an operational lease have a significant association with equity market value. Until so far, the operational lease under the International Accounting Standard (IAS) 17 Leases, of the International Accounting Standards Board (IASB) is accounted as expense when the lease payments are made in a straight-line basis over the lease terms. This means, in the case of an operating lease that is not required to recognize assets and liabilities, which could be seen as a off-balance-sheet financing operations, consequently the investors have to estimate the effect of operating leases on financial leverage and earnings. Those amounts that are not in the balance sheet should be disclosed, but for the IASB this is not a substitute of the reporting of the asset and liability in the balance sheet, even enhancing disclosures. The underline theory of the IAS 17 is to try to identify when there is a lease that is economically similar to purchasing the asset being leased and if it happens the lease is classified as a finance lease and so, reported on the lessee's balance sheet as an asset and liability in the initial recognition.[1] This implies at the beginning of the contract the verification whether the risks and rewards are substantially transferred to the lessee and if so the lease is classified as a finance lease (the asset is recognized by the lessee with a corresponding liability to the lessor). To make the decision for classifying a lease as finance lease the IAS 17 has defined some indicators. The process of changing the lease accounting standards has beginning in 2006 by the IASB and the Financial Accounting Standards Board (FASB) when the boards added to their agendas a joint project on lease accounting. The overall approach proposed then, was to develop a sole model that should be applied for all leases, eliminating the necessity of separating the leases in finance or operational and instead recognizing the physical asset on the balance sheet of the lessee, should be recognized the right of use as an asset and at the same time should be recognized a liability for the obligation to make the payments of the lease contract. This project was undertaken because it is difficult to classify a lease as a finance or operational lease (this could be very subjective), even for an operational lease there is an obligation that is not recognized as a liability (in a non-cancellable lease) and the concept of the IAS 17 is based on the concept of deferral and matching (the statement of income approach) rather than on the asset/liability concept (balance sheet approach). In March 2003 was issued by IASB a discussion paper (DP), purposing an approach in wherein the lessee obtains a right to use the leased item that is an asset and the obligations to pay the rentals is a liability, deciding that the asset should be measured initially at cost (present value of the lease payments plus any initial direct costs) and the liability should be measured initially in the same way of the asset (present value of the lease payments). In the subsequent measurement the asset would be amortized over the shorter of the lease term or the economic life of the leased item and the liability would be measured using the amortized cost basis.[2] In August 2010 was published an exposure draft (ED) taking in consideration the proposals of the DP (IASB, 2003) and the feedback that the IASB had received this ED is a proposal of a new standard. Following the proposals of the ED (IASB, 2003), a lessee would record an asset for its right to use the underlying asset (presented in the tangible fixed asset item but separated from those owned by the lessee) and a liability to pay the rentals. The proposal for the subsequent measurement is the same of the DP (IASB, 2003). There may be an exception for short-term leases (those which lease term is twelve months or less) which the asset and the liability on the initial lease contract can be measured using an undiscounted amount of the lease payments

[1] The first IASB standard about leases was issued in September 1982 (IAS 17 Accounting for leases) and was replaced by IAS 17 in December 1997. This last one was changed in April 2001. Other standards have changed the IAS 17.

[2] This DP was preceded by another DP Accounting for leases: a new approach-recognition by lessees of assets and liabilities under lease contracts (McGregor, 1996) issued in 1996 by the G4+1 that are a group of standard setters (of Australia, Canada, New Zealand, the United Kingdom (UK), the United States (US) and the International Accounting Standards Committee (IASC)) and another DP Leases: implementation of a new approach, issued in 2000 by the G4+1 (Nailor & Lennard, 2000).

(the asset could include the initial direct costs). Because of the feedback received on the 2010 ED, in 2013 was issued another ED. The major difference between this new ED (IASB, 2013) and the previous one (IASB, 2010) is the need of classifying the leases in two types, type A, applicable for assets other than property (for instance, equipments, aircraft, car, trucks), implying in the initial recognition a record of an asset (the right-of-use) and a lease liability and booth measured at the present value of the lease payments and in the subsequent measurement, measuring the asset by amortizing it on a straight-line basis and the liability using the amortised cost (recognizing the discount as interest expense). The type B, applicable for most leases on property in which a lessee recognized a right-of-use asset and a lease liability measured initially at the present value of the lease payments (equal to type A lease) and in the subsequent measurement, measuring the asset amortizing it by the amount of amortised liability and considering this amount and the discount of the lease as a single lease cost. Besides this matter of recognition the proposed definition of lease is considering a lease as "a contract that conveys the right to use an asset (the underlying asset) for a period of time in exchange for consideration" (IASB, 2013), which is pretty the same of the IAS 17 definition. Just like the previous ED (IASB, 2010) there is an exception for the short-term leases, and for those and as an accounting policy, the lessee may recognize the payments in profit or loss on a straight-line basis over the lease term (just like it is now for the operating leases). The principle underlying the different approaches to apply to leases is the amount of consumption of the underlying asset. In the type A lease it is assumed that part of the underlying asset is consumed (that is the case of a car, a truck, a ship or a aircraft), but in the type B lease a lease merely pays for use the underlying asset and not consumes more than an insignificant part of the asset (that is the case of the real estate).[3]

The main reasons to undertake this study are the fact that, both, the IASB and FASB, have intended a process to change the current standards that is not yet finished. The leasing is a major industry and a very important source of finance for a wide range of entities (IASB, 2006), and according with the World Leasing Yearbook 2013 the new leases entered into in 2011 amounted to almost USD800 billion worldwide (Euromoney Yearbooks, 2013). Beattie, Edwards and Goodacre (1998) said that the annual operating lease is eighteen times that of finance lease. The accounting for operational leases are not in conformity with the concepts of assets and liabilities, because even giving rise to assets and liabilities they are not accounted for, understated some leverage indicators (debt to equity and asset to equity ratios), forcing the investors to adjust the financial statements of the lessees (which are based in estimates or are arbitrary) to capitalise operating leases and so there is a lack of comparability because of the separation between finance and operational lease. Several studies (Bowman, 1980; Imhoff, Lipe & Wright, 1993; Ely, 1995) have found evidence that the market equity risk incorporate the off-balance sheet information of the operating lease.

This study contributes to reinforce the IASB and FASB options of recognizing the asset and liability of an operating lease and to the recognition or disclosure debate. No one until so far has studied the value relevance of the unrecorded operating lease asset and liability using a valuation model and for the largest European companies. My results confirms the option of the IASB and FASB that accounting the operating lease as finance lease improves the accounting quality, because I have concluded that the operating lease is more relevant when it is accounted as a finance lease. However I do conclude that the investors do distinguish between the operating lease asset and liability and they have different importance to assess the risk of the firm. Still I cannot confirm that the perception of the investor over time on the unrecorded operating lease assets and liabilities has changed, after the issuing of the ED 2010.

[3] To understanding the differences between the type A and type B lease, look to the example presented in appendix A.

2. LITERATURE REVIEW

Imhoff et al. (1991) find evidence that firms are using much more assets than they report (because of noncancelable operating leases), underestimating the amounts of assets and liabilities, and so, the debt to equity ratio. Imhoff et al. (1993) have capitalized the operating leases of sample of twenty nine airlines and fifty one grocery stores and the median of the present value of the lease liability is USD252 million, which demonstrate the materiality of the operating lease liability showing that the median off-balance-sheet liability is approximately 40 percent as large as the median total on-balance-sheet liabilities in each industry. Using an amended version of the method proposed by Imhoff (1991) to capitalize the assets and liabilities arising from the operating lease Beattie et al. (1998) analyze the impact of this on nine key financial ratios in a sample of the United Kingdom (UK) firms and conclude that the unrecorded liability represents 39 percent of the reported non current debt and the unrecorded asset represents 6 percent of the total assets. They also conclude that the capitalisation have a significant impact on the profit margin, return on assets, asset turnover and the three measures of gearing. Fulbier, Silva and Pferdehirt (2008) have simulated general lease capitalization and its consequences on the financial statements of a set of listed German firms and show a material capitalization impact for a considerable number of firms in particular for the fashion and retail industry groups. They also have analysed the impact on financial ratios and conclude that the main changes occur in assets and liabilities relations and only minor changes occur on profitability ratios and market multiples used for valuation purposes.

Some empirical research on operating lease accounting relates the unrecorded lease liabilities with the shareholder risk (association between equity risk and leases). Bowman (1980) tests the association between leases (leases-to-equity ratio, measuring leases liabilities as the present value of the minimum future lease payments that were not capitalized) and market risk (beta) and has found evidence for the United States of America (USA) firms that the leases made a significant contribution to the association test on market risk. Instead using the market beta to measure market risk Imhoff et al. (1993) use the standard deviation of stock returns (total equity risk) and they have found evidence for the USA airline and grocery industries that the shareholder risk is better explained by debt-to-asset ratio after being adjusted for the operating lease liability. Ely (1995) also analyze the influence of the operating lease in the equity risk, relating the equity risk not only with the debt to equity ratio but also with the return on assets, both adjusted for the operational leases liability, asset and expenses (withdrawing the rent expense and adding the amortization expense), finding a significant relation between the equity risk and the debt to equity ratio and also between the asset risk (defined by the standard deviation of the return on assets). Beattie, Goodacre and Thomson (2000) using two different methods of incorporating the assets and liabilities rising in an operating lease (present value and a simple multiplier factor) and for the UK market have found evidence of an association between equity risk (measured by total equity risk instead market risk) and the operating lease adjustments to financial risk. So I can say that investors do recognize assets and liabilities arising from operating lease in their assessment of equity risk and capital of operating leases behave similarly to debt in their association with equity risk.

Song (2013) has studied the value relevance of the lease contingent payments for USA firms finding a negative association between equity values and lease contingent payments, leading to a conclusion that the investors view the contingent payment as a liability.

3. HYPOTHESES

The main objective of the joint project between IASB and FASB is to recognize the right of use an asset and so avoiding off-balance sheet assets and liabilities. The main studies have concluded of the importance in the balance sheet of the unrecorded assets and liabilities (Imhoff et al., 1991; Imhoff et al., 1993; Beattie et al., 1998, Fulbier et al., 2008) and some studies findings are that there is a relationship between equity risk and those unrecorded lease liabilities (Bowman, 1980; Imhoff et al., 1993; Ely, 1995; Beattie et al., 2000). Until so far there is not any study that I know analyzing the association between market data and the accounting numbers, so the main objective of this study is to relate the share price with the assets and liabilities arising on the operating lease and therefore the first two hypotheses of this study are:

H1: The investors consider the unrecorded operating lease assets and liabilities value relevant.

H2: The unrecorded operating lease liabilities and assents has got different value for investors.

Just like Song (2013) I examine whether the increased public and regulatory importance given to lease accounting because of the unrecorded assets and liabilities of operating leases has had an impact on the value relevance of those off-balance sheet lease assets and liabilities and so, I have the third hypotheses of this study:

H3: The value relevance of the unrecorded operating lease liabilities and assets has changed over the years.

The liability of the operating lease is calculated using the information on the notes about the minimum total future operating lease discounted using as a discounted rate the rates used to compute the pensions liability disclosed by the firm. This is made at year-end instead throughout the year. This procedure is very similar to the one used by Imhoff et al. (1991) with the difference on the discounted rate (since they used a constant discount rate of 10 percent). The asset of the operating lease at the beginning is calculated in the same way of the liability that is the unrecorded lease asset is equal at the inception of the lease to the unrecorded liability lease and then they are depreciated using the straight-line method just like Imhoff et al. (1991) also used the same method.

4. RESEARCH DESIGN

The share price models are often used to provide standard setter with insights about the value relevance of specific accounting information (Barth, Beaver & Landsman, 2001). Using the share price as a measuring criteria for the information that is considered by the investor as relevant, and investigating the ability of the accounting numbers to explain that measurement there are the equations (1 up to 2). Those equations relate the share price and the unrecorded lease asset and liabilities and whether this relation has changed over time. Those models used to assess the value relevance of the unrecorded lease liability and asset are derivations of the Ohlson model (Feltham & Ohlson, 1995; Ohlson, 1995) where I estimate them using a pooled cross sectional regression in which all variables are deflated by the number of common shares outstanding in order to reduce the effects of heteroscedasticity (Barth & Clinch, 2009). The Ohlson (1995) model represents firm value as a linear function of book value of equity and the present value of expected future abnormal earnings and is one extension of the Preinreich model (Dumontier & Raffournier, 2002). Following Aboody, Barth and Kasznik (1999) and Barth and Clinch (1998) the first equation (1) investigates the association between equity value and the unrecorded operating lease liability and asset:

$$P_{it} = \alpha_0 + \alpha_1 A_{it} + \alpha_2 L_{it} + \alpha_3 NI_{it} + \alpha_4 LA_{it} + \alpha_5 LL_{it} + \varepsilon_{it} \quad (1)$$

where *P* is the ending share price. *A* is the reported assets at the ending period, *L* is the reported liabilities also at the ending period, *NI* is the net income of the period, *LA* is the unrecorded lease asset at the ending period *and LL* is the unrecorded lease liability at the ending period. I predict that the coefficients of the unrecorded lease assets and liability are value relevance and so α_4 is positive and α_5 is negative and both statistically significant. Based on prior research, I also predict positive coefficients on *NI* and *A*, α_1 and α_3, and negative coefficient on *L*, α_2.The coefficients α_4 and α_5 are used to confirm the first hypothesis. To confirm the second hypothesis I use the Wald test comparing the coefficients of the *LA* and *LL* variables.

The second equation (2) is used to confirm the third hypothesis that is the changing of the value relevance on the lease accounting over the years and I use the equation (1) adding a dummy variable *T* that assumes the value of 1 for years after 2009 and 0 otherwise. This year is chosen because the first ED issued by IASB was in 2010 and so I have detailed information about the methods chosen/proposed by IASB to capitalize the operating lease asset and liability. Song (2013) has chosen the year 2006 and that period was justified because was the year that the joint project on leases between the IASB and FASB began.

$$P_{it} = \alpha_0 + \alpha_1 A_{it} + \alpha_2 L_{it} + \alpha_3 NI_{it} + \alpha_4 LA_{it} + \alpha_5 LL_{it} + \alpha_6 T_{it} + \alpha_7 D \times LA_{it} + \alpha_8 D \times LL_{it} + \varepsilon_{it} \quad (2)$$

In the equation (2) the interest variables are *D*×*LA* and *D*×*LL* and I expect that the coefficient for the first variable to be positive and for the second to be negative indicating that the investors value more the off-balance sheet operating lease asset and liability after the issuing of the ED 2010.

5. SAMPLE AND RESULTS

The sample of this study includes the one hundred largest European companies of the *Stoxx® Europe* 600 for the period of 2007 to 2012. The accounting figures are obtained from the database DataStream Worldscope Global Database, excluding some operating lease amounts and the discounted rate which are hand collected directly from the financial reports. The insurance and bank companies are excluded because of their specific legislation. Either both companies with a different fiscal year of the civil year and the companies with no accounting data are excluded. Lastly, the outliers' observations are eliminated using the Cook's distance for the dependent variable and the studentized residuals for the independent variables.

In Table 1 are shown the descriptive statistics for all variables (equations), either of the dependent variable, share price (*P*), either of the variables of interest, operating lease asset and liability (*LA* and *LL*) and other independent variables, assets (*A*), liabilities (*L*) and net income (*NI*) for the period 2007 up to 2012. In this table, the mean (median) for the dependent variable share price (*P*) is 30.48 (26.11). For one of ours variables of interest the operating lease asset (*LA*) the mean per share is 1.10 representing 2.64 percent of the assets. For the other variable of interest the operating lease liabilities the mean per share is 1.24 being 4.67 percent of the liabilities.

Table 1
Descriptive statistics

Variables	Mean	Median	Standard deviation
P	30.478	26.105	19.785
A	41.692	30.768	37.263
L	26.466	16.617	28.871

NI	2.070	1.739	1.628
LA	1.100	0.664	1.202
LL	1.236	0.687	1.361

To analyze the correlation between the variables of each model is used the measure of association R Pearson. In Table 2 I analyze the relation among all of the variables of the equation (1) (*P*, *A*, *L*, *NI*, *LA* and *LL*). The R Pearson correlation present in the Table 2, permits verifying that the *P* is positively associated with all the other variables in this case with all the independent variable *A, L, NI*, *LA* and *LL*, which is strange in the case of the association between share price with both the liability and the operating lease liability, for a 5 percent level of significance.

Table 2
Pearson correlation

	P	*A*	*L*	*NI*	*LA*	*LL*
P	1					
A	0.458***	1				
L	0.340***	0.977***	1			
NI	0.722***	0.454***	0.359***	1		
LA	0.339***	0.445***	0.417***	0.197***	1	
LL	0.269***	0.404***	0.379***	0.145***	0.961***	1

*** significant at a 0,01 level; ** significant at a 0,05 level; * significant at a 0,10 level.

In Table 3 I present the results for the first equation (1) where I relate the share price with the operating lease asset and liability. The regression is corrected for the existence of heteroscedasticity using the White's (1980) method and I use this procedure for all the regression with heteroscedasticity problems. The results of the equation (1) show as predicted and consistent with prior studies that there is a significant at a 1 percent level, positive association between the share price (*P*) and both assets (A) and net income (*NI*) and a negative association with liabilities (*L*). Confirming my first hypotheses the coefficients on operating lease assets and liabilities are significantly positively in the case of assets and negatively in the case of liabilities to share prices. However, the p-value (0.000) associated with the Wald test coefficients comparison do implies the rejection of the null hypothesis that the coefficient of operating lease asset and operating lease liability are identical. So this result suggests that investors do distinguish between the operating lease asset and liability and they haven't the same importance to assess the risk of the firm. Therefore my second hypothesis is confirmed by the results of the Wald test.

Table 3
Value relevance of the operating lease asset and liability

Variables	Prediction	Coefficient	t-statistic	
Intercept		7.412	7.777	0.000***
A	+	0.800	2.515	0.014***
L	–	-0.942	-4.442	0.000***
NI	+	5.907	12.212	0.000***
LA	+	8.276	5.095	0.000***
LL	–	-5.406	-4.604	0.000***
N	342			
Adjusted R^2	0.638			
F-value	120.996***			

Test of coefficients equality results (Wald test)

Restriction	t-statistic	
$\alpha_5=\alpha_6$	11.620	0.000

*** significant at a 0,01 level; ** significant at a 0,05 level; * significant at a 0,10 level.

In Table 4 there is presented the results of the equation (2) to confirm the third hypothesis and as predicted all the coefficients of the assets, liabilities, net income and operating lease assets and liabilities have the estimated signal and are statically significant at a 1 percent level, unless for the coefficient of the operating lease liability that is significant ate a 5 percent level. However I cannot confirm the third hypothesis that the perception of the investor over time on the unrecorded operating lease assets and liabilities has changed, because the coefficients on the *D×LA* and *D×LL* are not statistically significantly at a 10 percent level, and so, I can conclude that the investors do not value more the lease accounting changes after the issue of the ED 2010.

Table 4
Value relevance of the operating lease asset and liability over time

Variables	Prediction	Coefficient	t-statistic		
Intercept		5.937	5.430	0.000	***
A	+	0.816	8.007	0.000	***
L	–	-0.959	-7.962	0.000	***
NI	+	6.020	9.511	0.000	***
LA	+	9.111	3.749	0.000	***
LL	–	-5.548	-2.555	0.011	***
D	+	4.096	2.107	0.036	**
D×LA	+	-5.212	-1.505	0.133	
D×LL	–	0.675	0.807	0.420	
N	342				
Adjusted R^2	0.641				
F-value	76.959***				

*** significant at a 0,01 level; ** significant at a 0,05 level; * significant at a 0,10 level.

5. CONCLUSIONS

I test whether the unrecorded amounts of operating lease assets and liabilities are value relevant for investors, and so whether they are associated with the share prices and whether that has changed over the time. Besides this I test which of the operating lease asset or operating lease liability has got different value relevance for the investors to assess the risk of a company. Most of the studies focus on the relation between the equity risk and the unrecorded operating lease assets and liabilities. This is a very important subject because of the relevance of the amounts of operating leases off-balance and so, the IASB and FASB has launched a project on leases to change the accounting of the leases proposing a new approach based in the right of use the underlying asset and not in a property concept.

I find evidence that the operating lease assets and liabilities not recognize in the balance sheet are value relevant for investor since they are associated with the share price. I also find evidence that the investor do value in a different manner assets and liabilities arising in an operating lease. I do not find that the value relevance of the unrecorded operating leases assets and liabilities have changed over time, and the investors did not value differently the lease accounting after the issuing the ED 2010. The findings of this study support the view expressed in the ED issued by the IASB and either the definition of liability of the conceptual framework of financial reporting.

This study could have one weakness that is the estimation of the unrecorded assets and liabilities of the operating leases. The capitalization of the operating asset and liability is

computed using several estimates such periods of depreciation, methods of depreciation and the discounted rates to determine the initial amount of the asset and liability, even if I follow in most cases the previous literature.

6. References

Aboody, D., Barth, M. & Kasznik, R. (1999). Revaluations of fixed assets and future firm performance: evidence from the UK. Journal of Accounting and Economics, 26, 149-178.

Barth, M. & Clinch, G. (2005). Scale effects in capital markets-based accounting research. Journal of Business Finance & Accounting, 36(3,4), 253–288.

Barth, M., Beaver, W. & Landsman, W. R. (2001). The relevance of the value relevance literature for financial accounting standard setting: another view. Journal of Accounting and Economics, 31, 77-104.

Beattie, V., Edwards, K. & Goodacre, A. (1998). The impact of constructive operating lease capitalisation on key accounting ratio. Accounting and Business Research, 28(4), 233-254.

Beattie, V., Goodacre, A. & Thomson, S. (2000). Recognition versus disclosure: an investigation of the impact on equity risk using UK operating lease disclosures. Journal of Business, Finance & Accounting, 27(9), 1185-1224.

Bowman, R. (1980). The debt equivalence of leases: an empirical investigation. The Accounting Review, 55(2), 237-253.

Dumontier, P. & Raffoutnier, B. (2002). Accounting and capital markets: a survey of the European evidence. The European Accounting Review, 11, 119-151.

Ely, K. (1995). Operating lease accounting and the market's assessment of equity risk. Journal of Accounting Research, 33(2), 397-415.
Euromoney Yearbooks (2013). World leasing yearbook 2013. Euromoney Yearbooks.
Feltham, G.A., Ohlson, J.A., 1995. Valuation and clean surplus accounting for operating and financial activities. Contemporary Accounting Research, (11), 689–732.
Fulbier, R., Silva, J. & Pferdehirt, M. (2008). Impacto f lease capitalization on financial ratios of listed German companies. Schmalenbach Business Review, 60, 122-144.
Imhoff, E., Lipe, R. & Lipe, R. (1993). Operating leases: impact of constructive capitalization. Accounting Horizons, 5(1), 51-63.
Imhoff, E., Lipe, R. & Lipe, R. (1993). The effects of recognition versus disclosure on shareholder risk and executive compensation. Journal of Accounting,& Finance, 8(4), 335-368.
International Accounting Standards Board (2001). International Accounting Standard 12 Leases. London, IASB.
International Accounting Standards Board (2006). Information for observers (leases). London, IASB. Retrieved June 24, 2014, from http://www.ifrs.org/Current-Projects/IASB-Projects/Leases/Pages/Leases.aspx
International Accounting Standards Board (2009). Discussion Paper DP/2009/1 Leases: preliminary views. London, IASB.
International Accounting Standards Board (2009). Exposure Draft ED/2010/9 Leases. London, IASB.
International Accounting Standards Board (2013). Exposure Draft ED/2013/6 Leases. London, IASB.
McGregor, W. (1996). Accounting for leases: a new approach — recognition by lessees of assets and liabilities arising under lease contracts. Norwalk, Financial Accounting Standards Board.
Nailor, H. & Lennard, A. (2000). Leases: implementation of a new approach. Norwalk, Financial Accounting Standards Board.
Ohlson, J. (1995). Earnings, book values, and dividends in equity valuation. Contemporary Accounting Research, 11(2), 661–687.
Song, X. (2013). The valuation relevance of lease contingent payments. Global Review of Accounting and Finance, 4(1), 104-118.

Appendix A
Example of a type A and B lease

1. Two operational leases for a three year term beginning in 31 December X0, one for equipment and the other for land.
2. The lease agreement is noncancelable, the rental payments are of 900, to be paid monthly and the interest rate is 5.065 percent.
3. The cash flows are the following.

	X1	X2	X3	Total
Interests paid	1,301	809	290	2,400
Rental payments	10,800	10,800	10 800	32,400
Principal paid	9,499	9,991	10 510	30,000

4. The present value of the lease payments is 30,000 (900 × $((1 - [(1 + 0.05065)]^{\uparrow}36)/0.05065$).
5. The records of the two leases at the beginning are the following.

	A (equipment)		B (property)	
Right-of-use asset	30,000		30,000	
Lease liability		30,000		30,000

6. The records of the two leases during the X1 period and the amounts that should be presented in the balance sheet and the income statement are the following.

	A (equipment)		B (property)	
Lease liability	9,499		9,499	
Operating expense			1,301	
Financing expense	1,301			
Cash		10,800		10,800
Operating expense	10,000		9,499	
Right-of-use asset		10,000		9,499

	A	B
Balance sheet		
Right-of-use asset	20,000	20,501
Lease liability	20,501	20,501
Income statement		
Operating expense	10,000	10,800
Financing expense	1,301	

7. The records of the two leases during the X2 period and the amounts that should be presented in the balance sheet and the income statement are the following.

	A (equipment)		B (property)	
Lease liability	9,991		9,991	
Operating expense			809	
Financing expense	809			
Cash		10,800		10,800
Operating expense	10,000		9,991	
Right-of-use asset		10,000		9,991

	A	B
Balance sheet		
Right-of-use asset	10,000	10,501
Lease liability	10,501	10,501
Income statement		
Operating expense	10,000	10,800
Financing expense	809	

8. The records of the two leases during the X3 period and the amounts that should be presented in the balance sheet and the income statement are the following.

	A (equipment)		B (property)	
Lease liability	10,510		10,510	
Operating expense			290	
Financing expense	290			
Cash		10,800		10,800
Operating expense	10,000		10,510	
Right-of-use asset		10,000		10,510

	A	B
Balance sheet		
Right-of-use asset		
Lease liability		
Income statement		
Operating expense	10,000	10,800
Financing expense	290	