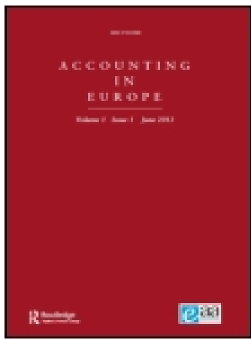

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Lease Accounting: A Review of Recent Literature

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ABSTRACT Current lease accounting standards classify leases as either operating or finance leases. Operating leases do not require recognition of lease assets or lease liabilities on the balance sheet. Proposed changes to lease accounting would require a lessee to recognise assets and liabilities for most leases over 12 months and may improve the quality and comparability of financial reporting of the entity. In this paper we summarise the literature that can be related, directly or indirectly to the proposed changes by the IASB and the FASB on lease accounting. In summary, the literature highlights that the proposed changes would potentially have economic implications for both preparers and users of accounting reports; including changes to financial ratios, assessment of risk and providing an audit of the accounting reports.

1. Introduction and Background to the FASB and IASB Lease Convergence Project

One of the objectives of the European Accounting Association (EAA) Financial Reporting Standards Committee is to identify and analyse research that is relevant to discussions surrounding current IASB issues. Accounting for Leases is a major Financial Accounting Standards Board (FASB) and International Accounting Standards Board (IASB) convergence project. This current paper focuses on recent literature that can be related, directly or indirectly to the proposed changes by IASB and FASB in lease accounting. This review is particularly timely, as the comment letter period on the latest Exposure Draft (ED) on lease accounting recently closed and the FASB and IASB will be finalising the content of the accounting standard in the not too distant future.

Since 2006, the IASB and the FASB have been engaged in a joint project to develop a new single approach to lease accounting resulting in all assets and liabilities arising from a lease recognised in the balance sheet (or statement of financial position). 'The objective of the lease project is to develop a standard that establishes the principles that lessees and lessors shall apply to report useful information to users of financial statements about the amount, timing and uncertainty of cash flows arising from a lease. To meet that objective, an entity shall recognise all assets and liabilities arising from a lease' (IASB, 2013). Existing models for accounting for leases involves lessees and lessors classifying their respective leases as either finance or operating leases. Only finance leases are reported as assets and liabilities.

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The new standard would result in the capitalisation of most leases. This would have implications for comparability, quality and transparency and assist in understanding the relative risks of entities (IASB, 2013).

In May 2013, the IASB and FASB issued ED 2013/6 Leases which closed for comment in September 2013. There were an initial 640 comment letters representing companies, NGOs, accounting standards boards, government regulators, professional bodies, accounting firms and academics and individuals. Initial analysis of the comment letters reveals that most respondents are not in favour of the changes to lease reporting (Barone *et al.*, 2014). Over half the respondents were from the USA and the other half represented respondents from Continental Europe, Africa, Latin America, Australia, Canada, the UK, and Asian countries such as Korea, Taiwan, India and China. Respondents were concerned about issues such as: (1) unnecessary complexities associated with interpretations of the standard, (2) excessive costs of applying the standard, (3) irrelevance of information for the majority of stakeholders, (4) no benefits for small businesses or SMEs, (5) a lack of consistency with existing GAAP and finally (6) the costs outweighing the benefits.

This paper will focus on a review of the literature that is related directly or indirectly to the proposed changes in lease accounting. Recently, there has been a growing interest in the research associated with issues regarding leases, in particular those relating to the changes proposed by the IASB and FASB to their regulatory framework. For example, Biondi *et al.* (2011), provide a discussion of the current lease proposals and comment on five issues such as the definition of a lease, initial measurement and reassessment using fair values, the impact of lease accounting on recognition of assets and liabilities and income measurement and the impact on financial ratios.

However, research on leases also extends over several decades as shown by Morais (2011) who notes that it has been a controversial topic since US regulators issued the first lease standard in 1949 (Beckman and Jervis, 2009). Morais (2011) conducted a comprehensive literature review including more than 80 papers categorised in the following five areas: economic consequences of accounting standards, determinants of leases, value relevance, leases' valuation and the impact of leases on accounting ratios.

In this paper, we analyse papers (published and unpublished) for the period 2003–2013 that focus primarily or refer to accounting for operating leases by lessees and provide some implications regarding the regulators' proposal that they should be capitalised. We have not identified research relating to proposals for changes to lessor accounting, and have considered few papers specifically on capital/finance leases. We have organised our review into two sections. The first section focuses on papers that specifically refer to the proposal and cover areas such as: *ex ante* impact analysis, discussions on the content or methodologies related to discussion papers or exposure drafts available up to now; assessments of the proposal from different perspectives, and on papers that refer to perceptions of users and/or preparers regarding the proposal. The second section includes papers that do not specifically address the proposal but provide results or implications that are considered to be of interest to the current debate.

2. Literature Directly Related to Regulators' Proposals Currently in Debate

An important part of the recent literature regarding operating leases refers to the proposal being debated regarding the capitalisation or not of operating leases on the balance sheet. Some studies conduct *ex ante* impact research that attempts to evaluate the potential impact of the changes proposed while other studies assess the effects of the proposal by means of various perspectives. *Ex ante* impact studies are discussed in the following section.

2.1. *Impact Studies (Ex ante* Research)

In this first section of academic research related to operating leases, we focus on impact studies of the regulators' proposal. These studies attempt to evaluate the potential impact of including operating leases on the balance sheet both as an asset and as a liability. Several studies have attempted to measure the impact in terms of key financial ratios and accounting variables (see Durocher, 2008; Jesswein, 2009; Grossman and Grossman, 2010; Fitó *et al*., 2013). In summary, these studies have largely found a significant impact from capitalising leases on financial ratios, these varying across different industries.

There are two methods generally known to capitalise off balance sheet debt, in this particular case operating leases, on the balance sheet (Beattie *et al*., 2004). The first one, known as the constructive method (Imhoff, 1991, 1997) consists of incorporating in the balance sheet the present value of the discounted future payments derived from operating lease contracts. The second one, known as the factor method, is a much simpler method, and rarely referred to in the academic literature but occasionally used by international credit rating agencies or analysts. This method involves multiplying annual operating lease rentals by a factor (eight is often quoted[1]). Academic research has largely focused on the constructive capitalisation method which, in our opinion, is much more accurate.

One of the first studies in this area is a New Zealand study by Bennett and Bradbury (2003). This paper analyses the expected impact of operating lease capitalisation for 38 New Zealand companies quoted on the New Zealand Stock Exchange in 1995. They use the constructive methodology and show that lease capitalisation has a material impact on reported liabilities and financial ratios. In particular they look at the effects on the debt ratio, the current ratio and ROA. They conclude that leverage will significantly increase while liquidity and profitability are expected to decrease.

They also discuss the methodology used by analysts arguing that the choice of methodology leads to an overstatement of lease assets and liabilities. They argue that factor-based methods, may lead to wrong conclusions. The paper supports the constructive method but does not provide any arguments on the adequacy or not of the proposal. However, the paper concludes by suggesting that the regulators should consider the requirement to disclose the net book amount of the lease asset.

Goodacre (2003) focuses on the expected impact of operating lease capitalisation for UK retail companies. He illustrates how leasing is a major source of finance while finance leases result in immaterial changes. Based on the analysis of 102 firms for the period 1994–1999, the paper shows how operating leased assets, the major part of which are land and buildings (98%), represent a significant proportion (28%) of reported total assets. After applying the constructive method, the paper provides evidence of a major impact on nine key performance ratios that include gearing, profitability (including profit margin, ROA and ROE), interest coverage and assets turnover. The paper also considers how managers try and minimize the effect on those ratios substituting long rentals with short and more flexible ones. The paper finds that the capitalisation of operating leases alters the ranking of companies in terms of retailers' financial risk, in performance comparisons and in capital structure considerations. The paper concludes by explaining the negative effects for the industry and arguing that companies in the sector may try to avoid the effects by means of the substitution effect already mentioned.

A related study, Mulford and Gram (2007) also focuses on the retail industry and investigates the expected impact of operating lease capitalisation. The study analyses 19 US companies in 2006 and finds an increase in EBITDA together with a reduction in income from continuing operations and earnings per share They also find significant increases for financial leverage and reduction for debt coverage measures, and the profitability measures ROA and ROE are

also reduced. The paper also finds an increase in the operating cash flows and in free cash flows. The authors conclude that until regulators amend the lease standards, users will have to manually adjust financial statements to more appropriately reflect the true financial condition of a company.

Further, a Canadian study by Durocher (2008) uses a refined constructive capitalisation method to compute the impact of operating leases on key financial ratios. Results show significant impacts to the debt-to-asset ratio and a significant decrease for the current ratio for all industries considered. Profitability effects were significant only for some industry segments like merchandising and lodging, oil and gas and financial services.

A German study by Fülbier *et al.* (2008) analyses the impact of operating lease capitalisation for a sample of 90 companies belonging to the three major indices, DAX 30, MDAX and SDAX for years 2003 and 2004. The authors use the two alternative methods, i.e. constructive capitalisation and the factor method. Their results show a considerable impact for companies, in particular in the fashion and retail industry. The strongest impact is found in balance sheet ratios (leverage) but the impact on profitability ratios and market multiples often used for valuation purposes are only minor. Further, they find that most industries remain almost unaffected and that the relative position in their sample of the companies included remains quite unchanged. Their results are consistent using both methods.

The authors conclude that the effects of operating lease capitalisation should not be overstated, even though there is a relevant impact for the analysis in the balance sheet, as there is no impact for valuation. However, they state how the decision about the appropriateness of current lease accounting in relation to the true and fair view, the costs of adjusting financial statements and other market frictions are still open questions.

Duke *et al.* (2009) assess the expected impact of operating lease capitalisation for 366 firms included in the S&P 500 in 2003. They demonstrate how companies can 'hide' billions of dollars of liabilities and enhance earnings, income and ratios by reporting leases as operating. Building on this result the authors state that the capitalisation proposal should be fully considered. Beckman and Jervis (2009) show how the US construction and engineering industry would be particularly affected by the proposal. The authors find a larger impact on leverage compared to profitability consistent with other studies. The authors conclude that a single model of lease capitalisation would make sense, in particular for financial statement analysis.

Singh (2010) analyse the expected impact for a sample of 234 firms (64 restaurants and 170 retail firms) for the period 2006–2008. Consistent with prior studies, they find significant relative and absolute differences across and within the two industries in relation to financial ratios related to leverage, profitability and interest coverage. Their findings show that in both industries, firms will be dramatically affected, although retail firms would be affected to a greater extent than restaurant firms. They also state that firms that plan proactively in assessing the impact of the proposed leasing rules will not only minimize the added administrative and financial costs of compliance but also stand to gain a competitive advantage. A new standard would be expected to provide investors and financial statement users with more precise information to assess and value the debt obligations of firms instead of requiring investors to make estimations under the existing standard that is currently imprecise. Incrementally new and valuable information would enable external users of financial statements to more accurately assess the risks undertaken by the firm. Thus, from this point of view, the authors find support for the proposal from a users' perspective.

Grossmann and Grossmann (2010) conduct an impact analysis for 91 companies included in the top 200 companies of the Fortune 500 list for 2009. Results show significant impacts for the current ratio and also for debt-to-assets ratio and a minor effect on profitability. The authors conclude that there may be some drawbacks derived from the capitalisation of operating leases, in

particular due to the economic consequences that may arise related to the analysis of the financial position of companies. Additionally, the authors also warn about the potential negative effects that this could have for firms regarding access to financing and meeting debt covenants.

Further, Kostolansky and Stanki (2011) adopt a similar approach and investigate the impact of the proposal on the financial statements and ratios of the firms and industries represented in the S&P 100 under a variety of discount rates. The results show a material impact on specific firms and industries, and large increases and decreases for financial ratios. The authors support the proposal stating that a more representative balance sheet would be achieved.

Bryan *et al.* (2010) report on the effect of operating leases in the U.S using Walgreen as a case study. The paper states that off-balance sheet leasing rose to $1.26 trillion by 2007 which represented an annual growth rate of 8.25% since 2005. They find that financial numbers such as EBITDA and EBIT increase significantly due to the removal of the rent expense (lease expense) from the SG&A expense. Also, total debt and the debt to capital ratio increases.

The ratios ROA and the interest coverage both fall significantly which has implications for measuring the efficiency and riskiness of the firm. An additional implication for firms relates to their debt covenants which may need to be rewritten to allow for the change in debt ratio. The authors also comment on the industries that would be most affected by the capitalisation of leases and find that ROA in retail, transportation and service sectors decreases significantly and also these industries show increases to their debt-to-capital ratio.

The most recent paper investigating the impact of operating lease capitalisation is Fito *et al.* (2013). They focus on Spanish companies for the period 2008–2010. In this study, Spain has been chosen as an interesting setting due to significant lobbying activities by companies in order to change or even cancel the implementation of this new draft. This is illustrated in the comment letters from Spanish companies in response to the new proposal for lease accounting (www.fasb.org/jsp/FASB/CommentLetter; www.iasb.org).

They find that total unrecorded liabilities resulting from operating leases represent 18.3% of total liabilities and total unrecorded assets represent approximately 19% of total non-current assets, for the sample analysed. Results show the overall impact on financial ratios of the capitalisation of operating leases is statistically significant. In particular, the authors find significant changes for the leverage ratios that may affect their capital structure, their debt covenants, their relative position in the market and, in the end, their image before investors and users.

A significant effect is also found for ROE and ROA. Further tests are conducted by industry sector and find stronger effects for retail goods and services, energy and technology. Additional analysis on a longer window notes how the effect decreases over the years which possibly suggests that Spanish companies could be trying to avoid the new regulations.

These studies also look at key factors that may explain the strength of the impact. Size is considered as a key factor, with a general positive relationship between size and impact (Fito *et al.*, 2013) although for some industries the relationship could be in the opposite direction, as shown by Singh (2010) who finds that, for the particular case of restaurants, the smaller the firm the bigger the effect (as they use more operating leases compared to big ones). In relation to industry, studies find that the retail industry would experience a larger impact.

In summary, the literature shows *ex ante* analysis of the expected impact of operating lease capitalisation and its effect on profitability and leverage ratios. This section also considers the potential implications for financial statement analysis, companies financial position, debt covenants and relative position of companies in the market. The impact appears stronger for leverage ratios than profitability ratios. These results could be partly explained by the assumptions considered in the capitalisation process.

2.2. Assessing the Proposal Beyond the Analysis of Impact: Archival Research

In this section we consider papers that attempt to assess the proposal from a market perspective, including valuation of operating leases from the investors' and lenders' perspective, and from an empirical approach.

Lim *et al.* (2003) investigate operating leases and market perceptions by specifically comparing the impact of operating leases on debt ratings and the yield of new debt issues to that of balance sheet debt for a sample of 6800 firms for the period 1980 to 1999. The authors conclude that while keeping debt off balance sheet may be useful for debt ratios, it does not fool the market because bond yields reflect off balance sheet obligations despite their limited disclosure, in the same manner as balance sheet debt.

However, a more recent study by Cotten *et al.* (2013) examines the impact of operating leases on bond ratings by comparing actual bond ratings with synthetic ratings. They find that when operating leases are classified as debt, coverage ratios and synthetic ratings are significantly lower. This suggests that the debt impact is important to ratings agencies. They conclude by stating that ratings may become more accurate under future lease standards.

Lindsey (2006) examines whether capitalised operating leases and finance lease liabilities are both relevant and sufficiently reliable to be priced and explored if they are valued differently. The results show that the market views both operating and capital leases as economic liabilities of the firm. However, the results also show that capital market participants price them differently consistently with the bright line that separates them. In this regard, the author believes that this information should continue to be disclosed in order to maintain the value relevance of financial information.

Sakai (2010) focuses on finance leases and investigates the effect of finance lease capitalisation in Japanese firms. He compares the market reaction of the change to recognition of leases on the balance sheet from prior disclosure of finance leases information. The author finds that the market does not react to this change. This suggests that there are no differences between recognition and disclosure. From this analysis the author concludes that there is no need to extend the recognition of assets and liabilities, because the footnotes disclosure is adequate from a market point of view.

Sengupta and Wang (2011) examine whether the debt market prices off balance sheet debt arising from operating leases for a sample of 173 companies and for the period 1999–2001. They hypothesise that credit rating agencies do consider off balance sheet in their analysis and test empirically their assumptions. They find that bond rating agencies do price off balance sheet debt derived from operating leases contracts. They conclude that rating agencies not only price such debt but also consider it to be as important as capital lease liabilities on the balance sheet. From this point of view, the authors do not provide empirical evidence that supports the inclusion of operating leases on the balance sheet.

Andrade *et al.* (2011) study the impact of operating leases and purchase obligations on CDS market prices and on bankruptcy. They find that credit spreads are positively related to off balance sheet debt derived from operating lease contracts. In other words, operating leases increase credit spreads. Their results show that the price impact (measured as the CDS spreads for a sample of 376 firms in the period 2004–2006) per unit of leverage from leases is consistent with balance sheet debt and quite larger than that of purchase options.

They conjecture that this could be due to the fact that leased assets are more essential for the functioning of a distressed firm than purchased ones. From this perspective, leases would be more likely to be assumed rather than rejected by bankruptcy trustees. The authors conclude that their results could be interpreted as providing support for the proposal although they also

state that regulators are ultimately responsible for responding to the trade-offs associated with standard setting (Holthausen and Watts, 2001; Barth *et al.*, 2011).

Dhaliwal *et al.* (2011) analyse how stock market participants view the economic substance of the leased assets and obligations, regardless of their accounting treatment. In their study, the authors use *ex ante* cost of capital measures based on accounting valuation models to assess the risk relevance of operating leases. Their objective is to assess if operating leases have the same risk relevance for explaining *ex ante* measures of risk as a firm's capital leases. They also investigate the changes in the perception of risk derived from off balance sheet operating leases of investors considering the increase in scrutiny of them.

Their results show that firms' *ex ante* cost of equity is positively associated with adjustments resulting from capitalised operating leases and that this relation is weaker for operating leases compared with capital leases. The authors state that their findings add more weight to the evidence that market participants believe that lessees retain (at least in part) both the financial and the operating risk associated with operating leases and provide some support for the proposal to eliminate the requirement to classify leases as capital or operating and, instead, require lessees to capitalise all leases.

Bratten *et al*. (2013) conclude that audited footnote disclosures about recognized capital leases and unrecognized operating leases are the same. They provide evidence that (a) 'as-if recognized' operating lease obligations (estimates of the obligations that would be recognized on the balance sheet if the leases were accounted for as capital leases) are generally reliable; (b) both as-if recognized operating lease obligations and recognized capital lease obligations are linked to proxies for costs of debt and equity, and that the associations are statistically indistinguishable in magnitude. For a subsample of firms with less reliable as-if recognized operating lease obligations, they find differences in the association between recognized versus disclosed lease obligations and proxies for the costs of debt and equity. These results suggest that capital market participants can and do process recognized and disclosed information similarly, provided the disclosed information meets certain conditions, including a reliability threshold.

A recent study analysing the proposal from a lenders' perspective by Altamuro *et al.* (2014) examines whether banks incorporate operating leases in their credit assessments through the interest rate charged on loans and if lease and lessee's characteristics affect loan spreads. Additionally, they analyse the role of credit agencies regarding operating lease adjustments.

Comparing as-reported financial ratios with lease adjusted ones for a sample of 5812 loans in the period 2000–2009, their results support that the latter explain better loan spreads, especially for larger lenders. They find that banks do price operating leases and also make distinctions about which leases should be priced. Regarding the credit agencies, they also find support for the assessments that credit agencies include operating lease' adjustments in their ratings. The authors conclude that there is no need to worry about current operating lease accounting treatment and also that concerns should be given to a proposal that capitalises all leases.

Boastman and Dong (2011) study the impact of operating leases from an equity valuation perspective. The authors use an example of naive reliance on financial statements (unadjusted by operating leases) and valuation models to demonstrate that lease accounting makes no difference in the context of estimating equity value. Using models such as discounted free cash flows, residual net income and residual operating income models, they conclude that equity value is independent of whether a lease is accounted for as an operating lease or a capital lease.

There are several conclusions from this section of the review. From a market perspective and also from the investors' and lenders' perspective, there is no consensus in the support for the proposal as both the market and the most relevant users of IFRS financial statements, i.e. investors and lenders, appear to factor operating leases disclosed in the notes into their credit and

investing decisions. The majority of studies find that the market does price operating leases and that sophisticated investors consider them in their decision making.

2.3. Perceptions Regarding the Proposal: Surveys and Comment Letters

In this section we include literature that provides results from surveys of different users and preparers of financial statements regarding the proposal. We also look at a recent paper by Comiran (2013) which conducted a content analysis of the lobbying positions of firms and other entities in relation to the ED.

Beattie *et al.* (2006a,b) examine the perceptions of 132 UK investment analysts and finance directors to assess their views on the proposal and also on its potential economic consequences. Their results show that both investment analysts and finance directors agree that there are some deficiencies in the current rules, in particular regarding the possibility that similar transactions will be accounted for in different ways.

However, while users support the proposal, preparers are not that positive; they only give moderate support for removing the finance and operating lease distinction and do not support issues like the treatment of renewal options or contingent rentals. The main arguments concern cost–benefit considerations and issues surrounding operationality. The authors add that given that preparers bear the costs and users benefit from improved financial information, a contradiction in views is understandable.

Durocher and Fortin (2009) also focus on a user perspective and examine Canadian private business bankers' preferences relating to operating lease capitalisation. Their results are based on 65 interviews of private bankers and show that while bankers use both capital and operating lease information, they give significantly more consideration to the former when analysing private business loan requests in terms of improving their ability to evaluate lessees' financial commitments and increasing their estimates of the risks involved in financing the lessees. The authors conclude that from a cost–benefit perspective their results show the advantages of the proposal to users. Hussey and Ong (2011) provide an analysis and comparison of 63 Canadian accountants and 54 Malaysian accountants on the implications of the proposed standard. Both groups of respondents overall support one method of accounting for leases. However, there is not much support for the removal of the current finance and operating lease classifications.

Comiran (2013) conducts content analysis of the comment letters arising from the FASB's ED 840/842. He analyses 1421 comment letters and finds that only a small number of respondents were in favour of the proposed changes. Most of the concerns raised by respondents were related to the costs associated with the change for increase in audit fees, change of IT systems and renegotiation of debt covenants. He conducts further tests on a sub-sample of 299 unique lobbying firms traded in the US and matches these firms to non-lobbying firms in size, 3-digit-SIC code and year. He finds that lobbying firms are larger, have more debt covenants as well as higher stock owned by institutional investors. He finds no evidence of lower accounting quality for lobbying firms compared to non-lobbying firms.

The discussion in this section leads us to conclude that the perceptions of users and preparers differ significantly and are framed in terms of costs versus benefits. While users provide their support for the proposal based on the fact that operating lease capitalisation will lead to higher quality financial information, the preparers do not seem to be that supportive. Some preparers, based on the economic consequences of the proposed regulation, would recommend not to change accounting rules regarding operating leases, while others, while supporting some of the content in the proposal, would advocate a modified proposal where the particularities of lease contracts and industries are considered.

2.4. Methodological Issues Related to the Proposal

To our knowledge there are currently three papers that have discussed methodological issues regarding the proposal. Jennings and Marques (2013) consider depreciation impacts and explain how some respondents to the proposed standard argued against straight line depreciation as it does not reflect the economics of the leased asset. The authors compare straight line depreciation with present value depreciation and show how the latter provides information that more faithfully represents the future cash flows of the leased assets.

Additionally, they find that investors value firms as if the lease assets were capitalised and depreciated using a present value approach. As for financial ratios, they observe that comparability is increased using both methods (further increased with the present value method). They conclude that there is no evidence for favouring straight-line depreciation over present value for capitalised operating leases.

In a second paper discussing methodological issues, Zeff (2014) explains that, although in their second draft of the proposal (May 2013) the regulators claim that they have decided to discard the annuity method for operating leases, they actually use it when accounting for amortisation of the right-of-use asset for Type B leases. He disputes that annuity depreciation is prohibited under US GAAP. A US study by Mundstock (2012) reviews the proposed standard in the context of its impact on the USA, Federal, State and local tax-related matters. The paper concludes that the proposal would improve US tax law as it would provide an enhanced foundation for rules for sourcing income of multinational firms. This would in turn assist in future tax reform.

3. Other Issues in Lease Research

In this section we have included papers that do not address specifically the proposal but provide results or conclusions that are relevant to the current debate regarding operating lease capitalisation.

3.1. Business Strategies Regarding Leases

A paper by Deloof *et al.* (2007) investigates the lease–debt relationship for Belgian SMEs. They hypothesise that, due to the Belgian tax regulation for leases, there is no advantage to leases versus debt and, as a consequence, they expect that debt and leases are substitutes for each other. Their results provide empirical evidence that supports this statement, showing that more debt is associated with a lower usage of leases. Yan (2006) also provides support for the substitutability of leases and debt, showing that in firms where there are more growth options or higher marginal tax rates or in those that pay no dividends, the substitutability is more pronounced.

Another paper by Eisfeldt and Rampini (2008) investigates the financing role of leasing and secured lending and provides empirical evidence about the higher debt capacity of leasing compared to secured loans derived from the fact that the repossession of a leased asset is easier than the foreclosure on the collateral of a secured loan. In this sense, more financially constrained firms value the additional debt capacity more and lease more of their capital than less constrained firms.

Franzen *et al.* (2009) demonstrate the remarkable increase in off balance sheet financing and simultaneous decrease in capital leases for a sample of more than 100,000 firm year observations for the period 1980–2007. The authors state that this trend is consistent with the regulators' and press views about the intentional use of leasing to structure firms' financing as off balance sheet. They find that companies rely on operating leases additionally to conventional debt. The authors

conclude that common financial risk metrics underestimate risk as the lower debt ratios may be associated with higher off balance sheet debt financing.

An interesting study by Gavazza (2010) conducts an analysis based on the aircraft industry and investigates the relationship between liquidity and operating lease financing for a sample of 14,000 aircraft. The author concludes that firms with more liquid assets are more likely to use operating leases, have shorter operating lease periods, have longer capital leases and command lower mark ups for operating lease rates.

Cornaggia *et al.* (2012) test whether firms use the off balance sheet (OBS) treatment of operating leases in order to strengthen their balance sheets. They find that firms' lease versus buy decisions have changed over time. Time series evidence suggests that firms and industries not expected to have traditional economic benefits of leasing are increasingly financing with operating lease. They suggest that firms use operating leases to expand OBS debt capacity and explore their incentives to report conservative balance sheets. They find that (1) OBS leasing allows firms to better manage debt covenants limiting debt or capital expenditures, (2) unexplained OBS leasing is diminished by scrutiny of institutional investors and (3) firms investigated by the SEC or DOJ for financial misrepresentation exhibit high levels of unexplained operating leases.

The studies in this section demonstrate reasons for choosing operating leases as a source of finance and how they have previously played a role in the financing of the company.

3.2. Perceptions Regarding the use of Leases

In this section we include papers that focus on perceptions of the use of lease as a source of finance. Literature on capital structure has attempted to ascertain the preferences of financial directors regarding different sources of finance.

Beattie *et al.* (2006a) conduct a survey of UK financial directors with the objective of understanding how companies determine their financing strategy and to find out reasons why they would choose a particular mix of financing instruments, trying to compare results with the existing theories on capital structure. Their results show that firms in general follow quite heterogeneous policies regarding financing strategy, and while half of them claimed to respect a debt limitation, others stated they followed a hierarchic process.

They find that respondents' preference for operating leases is similar to that of finance leases right after internal reserves and normal debt. This result is a surprise result given the evidence of the growing importance of operating leases in the last years. In conclusion, there does not appear to be a preference for a particular type of lease by financial directors.

Consistent with research discussed in the prior section, this study confirms the relevance of operating leases as a source of finance to be considered by financial directors.

3.3. Auditors and Operating Lease Disclosures

In this section we include papers that relate to audit and operating leases. Libby *et al.* (2006) examine whether information in footnotes might lack reliability because auditors permit more misstatements in disclosed amounts compared with recognised ones. They find that for the lease setting, audit partners require greater correction of misstatements in recognised amounts than in the equivalent disclosed amounts and that they take these decisions knowingly although they expect greater client resistance to correcting recognised amounts because they view recognised ones as more material. These results suggest the actual choice to disclose versus recognise can also reduce information reliability.

A recent paper by Krishnan and Sengupta (2011) examines the auditor perception of recognised versus disclosed information in relation to audit fees determination and going concern opinions. They find that operating leases are positively and significantly associated with audit fees but not capital/finance leases. For going concern decisions, auditors regard off balance sheet leases as real liabilities.

Finally, a paper by Strand *et al.* (2011) provides the results of an experiment conducted where 73 chief audit executives and deputy chief audit executives determine the amount of adjustment required to correct a misstatement depending on the location of the information. Results indicate that financial reporting location has significant effects on internal auditors' decisions to correct misstatements. They find that internal auditors are more willing to waive disclosed misstatements relative to recognised misstatements.

In conclusion, from an audit perspective, it appears that information recognised is subject to more auditing than disclosed information, although results are not completely consistent.

4. Conclusions and Discussion

This paper provides a review of the research relevant to discussions surrounding the current FASB and IASB proposals on accounting for leases. Leasing is an important activity for many business entities as it assists in the use of assets, obtaining finance and reducing an entity's exposure to risks associated with business finance (IASB, 2013). In this review, we focus on recent literature that can be related, directly or indirectly to the proposed changes by IASB and FASB in lease accounting.

The first part of our literature review focuses on papers conducting *ex ante* impact analysis, discussing contents or methodologies related to discussion papers or exposure drafts and papers that refer to perceptions of users and/or preparers regarding the proposal. The second part includes papers that indirectly address issues in the proposal by providing results or discussing implications that are considered to be relevant issues.

The *ex ante* literature that we have included in the review discusses the two methods for analysts to capitalise operating leases which are known as the constructive method and the simpler factor method. Overall, research using the constructive method finds that lease capitalisation does have a material impact on financial ratios such as profitability and financial stability (Bennett and Bradbury, 2003; Goodacre, 2003; Durocher, 2008; Beckman and Jervis, 2009).

We have also included in our review papers that assess the impact of changes in the lease standard from a capital market perspective. The results of these studies are mixed. Some studies report differences in the perceptions of the market in terms of off-balance and on-balance sheet debt (Andrade *et al*., 2011; Dhaliwal *et al*., 2011; Lim *et al*., 2013). However, the majority of studies find no differences in the perceptions of on-balance and off-balance sheet debt (Lindsey, 2006; Sakai, 2010; Sengupta and Wang, 2011; Altamuro *et al*., 2014). They find that the market does factor operating leases already into their decision making for investment purposes.

Another strand of the literature uses surveys of important stakeholders. Several studies examine the perceptions of users such as bankers and investment analysts (Beattie *et al.*, 2006a,b; Durocher and Fortin, 2009). In summary, these studies support the proposed changes to lease accounting due to the provision of higher quality information which would ultimately lead to better decision making. However, the preparers of financial information offer only moderate support for the proposals. Preparers claim that the costs would outweigh the benefits and they also raise issues with the treatment of renewal options and contingent rentals. These findings seem to concur with the initial findings in a recent review of the comment letters (see Barone *et al.*, 2014).

We also refer to studies that have addressed methodological issues related to the proposal and conclude that there are issues concerning lease amortization and specifically the use of the annuity method (Jennings and Marques, 2013; Zeff, 2014). There are also several papers that investigate business strategies associated with lease use. They conclude that there are distinct strategic uses for operating leases relating to debt capacity but these are mitigated by regulatory and investor scrutiny (Cornaggia *et al*., 2012).

The final section of our review focuses on studies that have investigated auditors perceptions of operating lease disclosures. The studies overall conclude that the auditors perceive reporting in footnotes to be less reliable than the amounts recognised in the financial statements. They also suggest that the location of the lease i.e. in footnote or recognised disclosure impacts on the auditor's decision to make an amendment to the financial statements.

In conclusion, the bulk of the literature which forms this review, highlights that the proposed changes to the lease standard will have significant implications for preparers and users of financial reports. Through our inclusion of both *ex ante* research on lease capitalisation and our coverage of additional studies which directly or indirectly assess the proposed standard, the current state of the literature suggests significant differences in terms of financial ratios, perceptions of users, bond ratings, etc.

We believe that our review of the literature, highlights several opportunities for future research. First, it would be interesting to know the level of support from the different stakeholders such as professional associations, accounting firms, regulators, etc. for the proposed new standard. This could be undertaken by a content analysis of the 640 comment letters that were recently received by the FASB and the IASB. It would also be interesting to know if there are any significant firm characteristics such as debt, usage of operating leases, industry, firm size associated with the support/non-support of the proposed standard.

Future studies will be able to conduct a post-implementation study of the impact of the standard and investigate the impact on financial ratios and bond ratings, etc. Further insights could be provided by investigating industry differences, longevity of the firm and also corporate governance issues.

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Note

[1]See Koller *et al*. (2010) for detailed explanations on the assumptions considered for the 8 times multiplier.

References

Altamuro, J., Johnston, R., Pandit, S. and Zhang, H. (2014) Operating leases and credit assessments, *Contemporary Accounting Research*. doi:10.1111/1911-3846.12033

Andrade, S. C., Henry, E. and Nanda, D. (2011) The impact of operating leases and purchase obligations on credit market prices, Working paper, University of Miami.

Barone, E., Birt, J., Katselas, D. and Moya, S. (2014) Implications of proposed lease accounting standards – a review of the comment letters, Working paper, University of Queensland.

Barth, M. E., Ormazabal, G. and Taylor, D. J. (2011) Asset securitization and credit risk, *The Accounting Review*, 87(2), pp. 423–448.

Beattie, V. A., Goodacre, A. and Thomson, S. (2004) *Leasing: Its Financing Role and Accounting Treatment* (London: Institute of Chartered Accountants in England and Wales).

Beattie, V., Goodacre, A. and Thomson, S. J. (2006a) International lease-accounting reform and economic consequences: The views of UK users and preparers, *The International Journal of Accounting*, 41(1), pp. 75–103.

Beattie, V., Goodacre, A. and Thomson, S. J. (2006b) Corporate financing decisions: UK survey evidence, *Journal of Business Finance & Accounting*, 33(9–10), pp. 1402–1434.

Beckman, J. K. and Jervis, K. (2009) The FASB IASB lease accounting project: implications for the construction industry, *Construction Accounting and Taxation*, 19, pp. 30–35.

Bennett, B. and Bradbury, M. (2003) Capitalizing non-cancelable operating leases, *Journal of International Financial Management and Accounting*, 14(2), pp. 101–114.

Biondi, Y., Bloomfield, R. J., Glover, J. C., Jamal, K., Ohlson, J., Penman, S. H., Tsujiyama, E. and Wilks, T. J. (2011) A perspective on the joint IASB/FASB exposure draft on accounting for leases, *Accounting Horizons*, 25(4), pp. 861–871.

Boastman, J. and Dong, X. (2011) Equity value implications of lease accounting, *Accounting Horizons*, 25(1), pp. 1–16.

Bratten, B., Choudhary, P. and Schipper, K. (2013) Evidence that market participants assess recognized and disclosed items similarly when reliability is not an issue, *The Accounting Review*, 88(4), pp. 1179–1210.

Bryan, S. H., Lilien, S. and Martin, D. R. (2010) The Financial statement effects of capitalizing operating leases. Assessing the impact of the right-to-use model, *The CPA Journal*, August, pp. 36–41.

Comiran, F. (2013) Lobbying Behaviour: Evidence from Proposed Changes in Lease Accounting, Working paper, Berkeley.

Cornaggia, K. J., Franzen, L. A. and Simin, T. T. (2012) Managing the balance sheet with operating leases, Working paper, Loyola Marymount University.

Cotten, B. D., Schneider, D. K. and McCarthy, M. G. (2013) Capitalisation of operating leases and credit ratings, *Journal of Applied Research in Accounting and Finance*, 7(1), pp. 2–17.

Deloof, M., Lagaert, I. and Verschueren, I. (2007) Leases and debt: complements or substitutes? Evidence from Belgian SMEs, *Journal of Small Business Management*, 45(4), pp. 491–500.

Dhaliwal, D., Lee, H. S. G., and Neamtiu, M. (2011) The impact of operating leases on firm financial and operating risk, *Journal of Accounting Auditing & Finance*, 26(2), pp. 151–197.

Duke, J., Hsieh, S. and Suj, Y. (2009) Operating and synthetic leases: exploiting financial benefits in the post-Enron era, *Advances in Accounting*, 25(1), pp. 28–39.

Durocher, S. (2008) Canadian evidence on the constructive capitalisation of operating leases, *Accounting Perspectives*, 7(3), pp. 227–256.

Durocher, S. and Fortin, A. (2009) Proposed changes in lease accounting and private business bankers' credit decisions, *Accounting Perspectives*, 8, pp. 9–42.

Eisfeldt, L. and Rampini, A. (2008) Leasing ability to repossess and debt capacity, *Review of Financial Studies*, 22(4), pp. 1621–1657.

Fito, M. A., Moya, S. and Orgaz, N. (2013) Considering the effects of operating lease capitalisation on key financial ratios, *Spanish Journal of Finance and Accounting*, 159, pp. 341–368.

Franzen, L. A., Rodgers, K. J. and Simin, T. T. (2009) Capital structure and the changing role of off-balance-sheet lease financing. Working paper, Loyola Marymount University, American university, Pennsylvania State University.

Fülbier, R., Lirio, J. and Pferdehirt, M. (2008) Impact of lease capitalisation on financial ratios of listed German companies, *Schmalenbach Business Review*, 60, pp. 122–144.

Gavazza, A. (2010) Asset liquidity and financial contracts: evidence from aircraft leases, *Journal of Financial Economics*, 95(1), pp. 62–84.

Goodacre, A. (2003) Operating lease finance in the UK retail sector, *International Review of Retail, Distribution and Consumer Research*, 13(1), pp. 99–125.

Grossmann, A. M. and Grossmann, S. D. (2010) Capitalizing lease payments: potential effects of the FASB/IASB plan, *CPA Journal*, 80, pp. 6–11.

Holthausen, R. W. and Watts, R. L. (2001) The relevance of the value-relevance literature for financial accounting standard setting, *Journal of Accounting and Economics*, 31, pp. 3–75.

Hussey, R. D. and Ong, A. (2011) Proposes to change lease accounting: evidence from Canada and Malaysia, *Journal of Law and Financial Management*, 9(2), pp. 2–15.

IASB, (2013) Leases. Accessed at 16 December 2013 http://www.ifrs.org/Current-Projects/IASB-Projects/Leases/Pages/Leases.aspx

Imhoff, E., Lipe, R. and Wright, D. (1991) Operating leases: impact of constructive capitalization, *Accounting Horizons*, 5, pp. 51–63.

Imhoff, E., Lipe, R. and Wright, D. (1997) Operating leases: income effects of constructive capitalization, *Accounting Horizons*, 11, pp. 12–32.

Jennings, R. and Marques, A. (2013) Amortized cost for operating lease assets, *Accounting Horizons*, 27, pp. 51–74.

Jesswein, K. P. (2009) Analyzing creditworthiness from financial statements in the presence of operating leases, *Academy of Accounting and Financial Studies Journal*, 13(1), pp. 75–90.

Koller, T., Goedhart, M. and Wessels, D. (2010) *Valuation: Measuring and Managing the value of Companies* (New York: Wiley, 5th Edition).

Krishnan, G. V. and Sengupta, P. (2011) How do auditors perceive recognized vs disclosed lease and pension obligations? Evidence from fees and going-concern opinions, *International Journal of Auditing*, 15, pp. 127–149.

Kostolansky, J. and Stanki, B. (2011) The joint FASB/IASB lease project: discussion and industry implications, *Journal of Business Economic Research*, 9, pp. 29–35.

Libby, R., Nelson, M. W. and Hunton, J. E. (2006) Recognition versos disclosure auditor tolerance for misstatement and the reliability of stock-compensation and lease information, *Journal of Accounting Research*, 44(3), pp. 533–560.

Lim, C. S., Mann, C. S. and Mihov, T. V. (2003) Market Evaluation of Off-Balance Sheet Financing: You Can Run but You Can't Hide. Working paper, Texas Christian University.

Lindsey, B. P. (2006) A Value Relevance Examination of the Current Leasing Standards. Working paper, University of North Carolina at Chapel Hill.

Morais, A. I. (2011) *Accounting for Leases: A Literature Review* (Bamberg: EUFIN).

Mulford, C. and Gram, M. (2007) The effects of lease capitalisation on various financial measures: an analysis of the retail industry, *Journal of Applied Research in Accounting and Finance*, 2, pp. 3–13.

Mundstock, G. (2012) The tax import of the FASB/IASB proposal on lease accounting, *Virginia Tax Review*, 32, (Winter), pp. 1–28.

Sakai, E. (2010) The Market Reaction to the Finance Lease Capitalisation from the View Point of Risk Assessment. Working paper, Musashi University.

Sengupta, P. and Wang, Z. (2011) Pricing of off-balance sheet debt: how do bond market participants use the footnote disclosures on operating leases and postretirement benefit plans?, *Accounting and Finance*, 51(3), pp. 787–808.

Singh, A. (2010) Proposed lease accounting changes: implications for the restaurant and retail industries, *Journal of Hospitality & Tourism Research*, 36(3), pp. 335–365.

Strand, N. C., Rose, J. M. and Suh, I. S. (2011) The effects of disclosure type and audit committee expertise on chief audit executives' tolerance for financial misstatements, *Accounting Organisations and Society*, 36, pp. 102–108.

Yan, A. (2006) Leasing and debt financing: substitutes or complements?, *Journal of Financial Quantitative Analysis*, 41(3), pp. 709–731.

Zeff, S. (2014) The IASB and FASB stumble over the annuity method of depreciation, *Accounting in Europe*, 11(1). doi:10.1080/17449480.2014.891380

Appendix – Papers Included in the Review

Year	Authors	Title	Output	Journal	Research Topic	Sample	Methodology
2013	Bratten, Choudhary, and Schipper	Evidence that market participants assess recognized and disclosed items similarly when reliability is not an issue	PP	*The Accounting Review*	Associations between costs of debt and equity and recognized vs. disclosed financial information	1750 observations for the period 1980–2008	Empirical
Forthcoming	Altamuro, Johnston, Pandit, and Zhang	Operating leases and credit assessment	WP	N/A	Impact of leases capitalisation	5812 loan banks for the period 2000–2009	Empirical
2013	Zeff	The IASB and the FASB stumble over the annuity method of depreciation	WP	N/A	Accounting treatment	N/A	Theoretical
2013	Jennings and Marques	Amortised cost for operating leases assets	PP	*Accounting Horizons*	Accounting treatment	41,753 observations US firms for the period 1998–2008	Empirical
2013	Fito, Moya, and Orgaz	Considering the effects of operating lease capitalisation on key financial ratios	PP	*Spanish Journal of Finance and Accounting*	Impact of leases capitalisation	Quoted Spanish Companies for the period 2008–2010	Empirical
2013	Cotten, Schneider, and McCarthy	Capitalisation of Operating Leases and credit ratings	PP	*Journal of Applied Research in Accounting and Finance*	Impact study	8159 firm year observations (2000–2010) from S&P compustat	Empirical
2013	Comiran	Lobbying behaviour: evidence from proposed changes in lease accounting	WP	N/A	Perceptions of stakeholders	n.a.	Empirical
2012	Cornaggia, Franzen, and Simin	Managing the balance sheet with operating leases	WP	N/A	Level and use of OL (determinants of lease?)	All companies in compustat from 1980 to 2007	Empirical
2012	Mundstock	The Tax Import of the FASB/ IASB Proposal on Lease Accounting (11 September 2012)	PP	*Virginia Tax Review*	Tax issues	N/A	Descriptive

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Appendix Continued

Year	Authors	Title	Output	Journal	Research Topic	Sample	Methodology
2011	Andrade, Henry, and Nanda	The impact of operating leases and purchase obligations on credit market prices	WP	N/A	Leases Valuation/ Market relevance of leases	376 US firms for the period 2003 and 2004	Empirical
2011	Hussey and Ong	Proposes to Change Lease Accounting: Evidence from Canada and Malaysia	PP	*Journal of Law and Financial Management*	Perceptions from users	63 qualified accountants in Canada and 54 in Malaysia	Empirical
2011	Biondi, Bloomfield, Glover, Jamal, Ohlson, Penman, Tsujiyama, and Wilks	A Perspective on the Joint IASB/FASB Exposure Draft on Accounting for Leases	PP	*Accounting Horizons*	Summary of issues	N/A	Descriptive
2011	Sengupta and Wang	Pricing of off-balance sheet debt: how do bond market participants use the footnote disclosures on operating leases and postretirement benefit plans?	PP	*Accounting and Finance*	Recognition vs disclosure	S&P senior bond ratings companies for the period 1999–2001	Empirical
2011	Krishnan and Sengupta	How do auditors perceive recognized versus disclosed lease and pensions obligations? Evidence from fees and going concern opinions	PP	*International Journal of Auditing*	Impact of operating leases on audit fees and going concern	2000–2004 US companies	Empirical
2011	Morais	Accounting for leases. A review	CP	N/A	Literature review	N/A	Descriptive
2011	Strand, Rose, and Seon	The effects of disclosure type and audit committee expertise on chief audit executives' tolerance for financial misstatements	PP	*AOS*	Recognition vs disclosure	73 internal auditors	Experiment
2011	Kostolansky and Stanki	The joint FASB/IASB lease project: discussion and industry implications	PP	*Journal of Business Economic Research*	Impact of leases capitalisation	2003 S&P 100 companies	Empirical

2011	Dhaliwal, Lee, and Neamtiu	The impact of operating leases on firm financial and operating risk	PP	*Journal of Accounting, Auditing & Finance*	Market reaction (cost of capital)	1984–2006 quoted US companies	Empirical
2011	Boastman and Dong	Equity value implications of lease accounting	PP	*Accounting Horizons*	Impact of leases capitalisation	N/A	Descriptive
2010	Sakai	The market reaction to the finance lease capitalisation from the view point of risk assessment	WP	N/A	Market reaction (risk assessment)	900 Japanese companies with capitalised leases and 351 with non-capitalised	Empirical
2010	Grossmann and Grossmann	Capitalizing lease payments: potential effects of the FASB/IASB plan	PP	*The CPA Journal*	Impact of leases capitalisation	91 US companies in Fortune 500 in 2009	Empirical
2010	Gavazza	Asset liquidity and financial contracts: evidence from aircraft leases	PP	*JFE*	Relation between liquidity and OL financing	14,000 aircrafts	Empirical
2010	Bryan, Lilien, and Martin	The financial statement effects of capitalizing operating leases. Assessing the impact of the right-to-use model	PP	*The CPA Journal*	Impact of leases capitalisation	Case study	Empirical
2010	Singh	Proposed lease accounting changes: Implications for the restaurant and retail industries	PP	*Journal of Hospitality & Tourism Research*	Impact of leases capitalisation	Restaurant and retail firms from 2006 to 2008	Empirical
2009	Beckman and Jervis	The FASB, IASB lease accounting project: implications for the construction industry	PP	*Construction Accounting and Taxation*	Impact of leases capitalisation	US construction and engineering companies	Empirical
	(descriptive)	2009	Duke,	Hsieh, and Suj	Operating and synthetic leases: exploiting financial benefits in the post-Enron era	PP	*Advances in Accounting*

(*Continued*)

Appendix Continued

Year	Authors	Title	Output	Journal	Research Topic	Sample	Methodology
Impact of leases	capitalisation	366 companies included in S&P 500 in 2003		Empirical	2009	Durocher	Proposed changes in Lease accounting and private business bankers' credit decisions
PP	*AP*	Perceptions of bankers	65	interviews to private bankers	Survey		
2009	Jesswein	Analysing creditworthiness from financial statements in the presence of operating leases	PP	*Academy of Accounting and Financial Studies Journal*	Impact of leases capitalisation	n.a.	Empirical
2008	Eisfeldt and Rampini	Leasing, ability to repossess and debt capacity	PP	*Review of Financial Studies*	Capital structure	1650 manufacturers in the year 1992	Empirical
2008	Fülbier, Lirio, and Pferdehirt	Impact of lease capitalisation on Financial ratios of Listed German Companies	PP	*Schmalenbach Business Review*	Impact of leases capitalisation	90 German companies for the period 2003–2004	Empirical
2009	Franzen, Rodgers, and Simin	Capital structure and the changing role of off-balance-sheet lease financing	WP	N/A	Capital Structure/ Determinants	1908–2007	Empirical
2008	Durocher	Canadian evidence on the constructive capitalisation of operating leases	PP	*Accounting Perspectives*	Impact of leases capitalisation	100 Canadian companies for the period 2002–2003	Empirical
2008	Wong, Wong, and Jeter	Asset specificity and the ownership of buildings	WP	N/A	Others	Listed Australian Companies for the year 2002	Empirical
2007	Mulford and Gram	The effects of lease capitalisation on various financial measures: an analysis of the retail industry	PP	*Journal of Applied Research in Accounting and Finance*	Impact of leases capitalisation	US retail companies for the period 2005 and 2006	Empirical

2007	Deloof, Lagaert, and Verschueren	Leases and debt: complements or substitutes? Evidence from Belgian SMEs	PP	*Journal of Small Business Management*	Capital structure	1119 Belgian companies for the period 1995–1999	Empirical
2006	Hamill, Sternberg, and White	Valuation of the embedded option in a non-cancellable lease: theory and application	PP	*Journal of Applied Business Research*	Leases valuation	N/A	Analytical
2004	Beattie, Goodacre, and Thomson	Leasing: its financial role and accounting treatment	Doc	*ICAEW*	Impact and perceptions	Questionnaires	Survey
2006	Beattie, Goodacre, and Thomson	International lease-accounting reform and economic consequences: the views of UK users and preparers	PP	*IJA*	Users and preparers perceptions	Questionnaire to investment analysts and finance directors	Survey
2006	Beattie, Goodacre, and Thomson	Corporate Financing decisions: UK survey evidence	PP	*JBFA*	Capital structure	Questionnaire to 192 finance directors	Survey
2006	Chau, Firth, and Srinidhy	Leases with purchase options and double moral hazard	PP	*JBFA*	Leases valuation	N/A	Analytical
2006	Libby, Nelson, and Hunton	Recognition vs disclosure, auditor tolerance for misstatement and the reliability of stock compensation and lease information	PP	*JAR*	Recognition vs disclosure	External auditors	Experiment
2006	Lindsey	A value relevance examination of the current leasing standard	WP	N/A	Value relevance	US companies for the period 2001 and 2002	Empirical
2006	Yan	Leasing and debt financing: substitutes or complements	PP	*Journal of Financial and Quantitative Analysis*	Capital structure	3245 firms included in the S&P compustat for the period 1983–1997	Empirical
2003	Lim, Mann, and Mihov	Market evaluation of off-balance sheet financing: you can run but you cannot hide	WP	N/A	Market perception of OL: cost of debt	6800 firms for the period 1980 to 1999	Empirical

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Appendix Continued

Year	Authors	Title	Output	Journal	Research Topic	Sample	Methodology
2003	Bennett and Bradbury	Capitalizing non-cancelable operating leases	PP	*Journal of International Financial Management and Accounting*	Impact of leases capitalisation	38 firms in New Zealand	Empirical
2003	Goodacre	Operating lease finance in the UK retail sector	PP	*The International Review of Retail, Distribution and Consumer Research*	Impact of leases capitalisation	102 UK retail companies for the period 1994–1999	Empirical

N/A: Not applicable.
n.a.: not available.