

# Lease Accounting in Australia: Further Empirical Evidence<sup>1</sup>

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## Abstract

**Key words:** Australia; Accounting standard; Efficient contracting; Lease accounting; Signalling

The objective of this study is to examine the economic factors motivating Australian listed lessee firms to adopt capitalization of finance leases policy from 1985 to 1987 as permitted by the transitional provision of AAS 17. Capitalization is considered as the preferred accounting policy for finance leases compared to footnote disclosure. Adopting a joint efficient contracting and quality signaling perspective, support for the research hypotheses would be construed as suggesting that capitalization is a means for lessee firms to reduce or mitigate agency and/or political costs and concurrently as a signal to the market that they are better quality firms. The sample consists of 314 lessee firms; 67 firms as capitalizers and 247 firms as non-capitalizers. A pooled multivariate cross-sectional analysis for 1985 to 1987 was performed incorporating sensitivity analysis to determine the "best" logistic regression model. This model was then assessed to determine its validity and predictive efficacy. The results provide evidence that lessee firms adopted the capitalization as response to the media attention as being politically visible firms and concurrently as a signal to the market that they are better quality firms. The evidence also suggests limited usefulness of a lengthy transitional period.

## Introduction

The measurement and disclosure ways of finance leases were vexing and contentious issues in Australia, as reflected in the discussions it generated and the time it took to develop an accounting standard (Roberts, 1980; Whittred and Zimmer, 1992). This study examines the economic factors motivating Australian listed lessee

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companies to adopt capitalization or footnote disclosure of their finance lease commitments during the period 1985 to 1987, as permitted by the transitional provision of accounting standard AAS 17: Accounting for Leases (Australian Accounting Research Foundation [AARF], Accounting Standards Board [ASB], 1984).

This study makes a contribution in two aspects. First, this study proposes that a joint contracting-signaling theory of the economic consequences paradigm will better explain the phenomenon than a separate contracting theory or signaling theory analyses. Second, the findings of this study will also provide a further view on the usefulness of a lengthy transitional provision in an accounting standard. Whilst there is a cost/benefit argument supporting such provision (Langer and Lev, 1993), there is also a claim that a transitional provision provides firms with opportunity to indirectly manipulate their income (Pincus and Wasley, 1994).

The remainder of this paper is organized as follows. The next section provides an overview of the main issues related to capitalization of finance leases, and continues with the literature review and the research hypotheses. The last three sections contain the research method, the discussion of the results, and the summary and conclusion to the paper, including alternative plausible hypotheses, and some suggestions for future research.

### **Capitalization of Finance Lease**

The AAS 17 permitted lessees, during the transitional period, to adopt a policy of capitalizing all finance leases or to adopt a policy of treating all minimum lease payments as periodic expenses (para. 60). However, further disclosures were required in respect of non-capitalized finance leases so as to provide sufficient information to permit financial statement users to appreciate the effect on the balance sheet if finance leases had been capitalized.

With regard to the financial statements effects, the literature reveals that capitalization affects lessees Balance Sheet and Income Statement in terms of higher gearing and negative effect on reported income respectively, at least in the year of

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<sup>2</sup> Originally, AAS 17 defined a finance lease as "a lease which effectively transfers from the lessor to the lessee substantially all the risks and benefits incident to the ownership of the leased property" (para 5 ). However, the revised AAS 17 and also ASRB 1008 (AARF, ASB, and Accounting Standards Review Board [ASRB], 1987) defines a finance lease as any lease which is not an operating lease. Thus, a finance lease is a lease that effectively (in the economic rather than legal sense) represents the purchase of an asset.

adoption (Abdel-khalik, 1981; Ashton, 1985; ElGazaar, Lilien and Pastena, 1986; ElGazaar and Jaggi, 1997; Whittred and Zimmer, 1992).

Although the evidence from the literature suggests that either policy brings the same information into the market, we believe capitalization is the preferred policy compared to footnote disclosure. This is because: (1) Capitalization reflects the true economic substance of lessee firms' resources and obligations. The literature indicates that leases and debts are substitutes in firm's capital structure (Marston and Harris, 1983), and that users are more likely to consider recognized obligations [due to capitalization] as debt than disclosed obligations as debt (Gopalakrishnan and Parkash, 1996). (2) Capitalization has economic consequences because it affects users' economic decision making process which used the accounting numbers that are altered by capitalization (Brown, 1994; Holthausen and Leftwich, 1983).

## Literature Review

Senteney and Strawser (1990) attempted to determine whether management's decision to adopt SFAS 87 Pension Accounting during the two-years transitional period was influenced by financial statements effects.<sup>3</sup> They tested the firm's leverage and size as possible explanatory factors. Senteney and Strawser (1990) inferred from their evidence that the timing of management's adoption of SFAS 87 might be influenced by its financial statements effects<sup>4</sup>.

Sami and Welsh (1992) extended the earlier study by Senteney and Strawser (1990) by incorporating a number of improvements in certain areas<sup>5</sup>, including developing testable hypotheses based on the agency and political costs theoretical

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<sup>3</sup> Benjamin, Grossman and Wiggins (1986) had earlier examined the financial impact of the adoption of SFAS 52 Foreign Currency Translation during the transitional period. However, this study lacks relevance due to its approach which is descriptive rather than a positive accounting theory study.

<sup>4</sup> This was an inconclusive inference because only one of three financial statements variables tested in their study was significant. However, they offered no suggestions as to what could be the possible underlying motive for management to adopt SFAS 87 during the transitional period. This query remains further unanswered because both of the other firm specific characteristics, i.e., firm size and leverage, were not statistically significant. Moreover, contrary to the political cost hypothesis; size was found to be positively associated with adoption of SFAS 87 - an income increasing accounting policy.

<sup>5</sup> A major difference between these studies is their objective. While Senteney and Strawser (1990) hypothesised that the financial statement effects of SFAS 87 influenced management's decision to adopt/not, adopt, Sami and Welsh (1992) hypothesised that the decision was influenced by managers' economic incentives.

framework. They investigated whether management's voluntary choice to adopt the provisions of SFAS 87 in the first two of the three years transitional period was associated with factors influencing manager's economic incentives. They inferred that early adopters were more frequently subjected to accounting-based debt constraints; related to firm size, funding status, and ownership control.

Wilkins and Mok (1991) analysed lessee firms' discretionary finance leases accounting policy choice (i.e., either capitalization or footnote disclosure) during the first year (1985) of the transitional period for AAS 17. In summary, they found that (1) leverage, interest coverage, increase in profits, and increase in interest coverage influence management's choice of finance lease disclosure, and (2) profits, increase in leverage, size industry, and audit firm do not appear to influence the accounting policy choice. They concluded that "managers make capitalization decisions aimed at maximizing near term profits and minimizing accounting measure of financial risk" (p. 177).

The preceding studies have limitations which we sought to remedy in this study. The lack of sound theoretical framework that would explain firm's accounting policy choices is evident in Senteney and Strawser 1990) and Wilkins and Mok (1991). The preceding three studies also suffer from the limitation of incomplete samples. That is, these studies had neglected to analyse firms' accounting policy choice throughout the transitional period of the relevant accounting pronouncements.

## Research Hypotheses

Modern corporations are characterized by the separation of ownership and control/management (Fama and Jensen, 1983). This characteristic leads to two related issues; conflict of interest and information asymmetry between the owners, managers and debtholders. Evidence from the literature suggests that these issues are resolved by the managers of the firms through adopting a combination of, efficient contracting<sup>6</sup> and quality signaling. In the context of this study, it is hypothesised that the efficient contracting and quality signaling by way of the lessee firms' decisions to adopt capitalization rather than footnote disclosure of finance leases. This is because the former possesses favourable features compared to the latter policy. As

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<sup>6</sup> We believe the other two alternative perspectives of contracting; opportunistic behaviour and information perspectives (Holthausen, 1990) are not relevant in the context of this study because (1) Capitalization of finance leases is not an income increasing policy in the year of adoption (Abdel-khalik, 1981; El-Gazaar et al., 1986; El-Gazaar and Jaggi, 1997; Whitted and Zimmer, 1992); and (2) Capitalization does not affect lessee firms' cash flows and thus, it is not an accounting policy that provides additional information about managers' expectation of firms' future cash flows.

stated earlier, capitalization would (1) reduce expected opportunism through its negative financial statement effects, and (2) reduce opportunity loss due to adverse selection via facilitating decision making since true economic substance is revealed and also less flexibility in reporting finance lease commitment [thus, mitigating creative accounting] (Christie and Zimmerman, 1994).

Hence, the general premise of the research hypotheses is: The objective of the firms' decisions to capitalize finance leases is to mitigate the agency/political costs incurred by these firms, and to signal as being better quality firms to the financial statements users<sup>7</sup>. This accounting policy choice has the implication of maximizing the value of the firm (Holthausen, 1990). The relevant variables and their operational definitions, as empirical proxies, are presented in Table 1.

### Table 1 Here

#### *Corporate control structure*

the degree of separation between management / control and ownership is not uniform across firms. The degree is greater for management-controlled firms (hereafter called MC firms) than it is for owner-controlled firms (hereafter called OC firms); resulting in MC firms experiencing greater agency costs and information asymmetry than OC firms. In this situation, rational outside shareholders would resort to price protection<sup>8</sup> and other mechanisms that aim to reduce the costs of expected opportunism by managers. In view of the situation, managers of MC firms have greater incentives to choose appropriate accounting policy to mitigate the agency costs and opportunity loss resulting from information asymmetry, since capitalization of finance lease is the preferred accounting policy compared to footnote disclosure, hypothesis H1 is formulated as follows.

**H1:** *Management-controlled (MC) firms are more likely to capitalize finance leases than owner-controlled (OC) firms.*

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<sup>7</sup> The research hypotheses are formulated in the uni-directional form because of the generally expected effect of finance lease capitalization in the year of adoption on lessees' balance sheet (i.e. higher gearing) and income statement (i.e. shifts to defers income to later years). (Ashton, 1985; Blake, Sales and Clarke, 1995; El-Gazaar et al., 1986; El-Gazaar and Jaggi, 1997; Whittred and Zimmer, 1992).

<sup>8</sup> Price protect refers to the action where "the outside debt-and share-holders discount the price they are willing to pay for their claims for any expected managerial actions that reduce their future returns" (Christie and Zimmerman, 1994 p. 541).

### *Debt contracting*

Conflict of interest and information asymmetry also exist in the relationship between outside debtholders and managers (as agents to the owners) of firms. In order to prevent wealth transfers away from debtholders to equityholders, the former would price protect themselves and implement a mechanism of restrictive covenants which are present in most debt issues, private and public. These types of reactions suggest a positive relationship between leverage and agency costs of debt (Watts and Zimmerman, 1986). Since the provisions contained in these covenants such as leverage and interest coverage are usually defined with reference to generally accepted accounting principles, a lessee could be in technical default if it capitalized its finance leases rather than disclosed them in the footnotes of their financial statements. This is because lease capitalizations is likely to increase leverage ratios (Abdel-khalik, 1981; Ashton, 1985; El-Gazaar et al., 1986; ElGazaar and Jaggi, 1997; Whittred and Zimmer, 1992). Thus, the incentive for the decision to opt for capitalization of finance leases is not constant across lessees.

Firms can be grouped into high and low-leveraged firms. In this study, it is proposed that the latter stand to gain more from capitalization of finance leases. This is because apart from the benefits [as mentioned earlier] of capitalization, low leveraged lessee firms have greater capacity to increase debt to the extent that they are further away from the need to renegotiate their debt covenants brought about by the increase in debt through capitalization of finance leases. thus, the debt contracting hypothesis is formulated as follows.<sup>9</sup>

**H2:** *Low leveraged firms are more likely to capitalize finance leases than high leveraged firms.*

### *Firm size / information production cost*

Evidence from the literature suggests that if information production costs related to certain accounting policy are high, then large firms are more likely to have the resources necessary to adopt such accounting policy (Ball and Foster, 1982; Firth, 1979). In the case of finance lease capitalization, it is considered that the

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<sup>9</sup> An ideal research design to test this hypothesis is to measure the spread between each firm's maximum contractual leverage ratio and its prevailing leverage ratio. However, this information is not readily available. Nevertheless, evidence from Duke and Hunt (1990), and Press and Weintrop (1990) indicate that leverage ratios are correlated with closeness to actual debt covenant constraints, and therefore are good proxies for tightness of debt covenant constraints.

information production costs are non-trivial. These costs include the following: (1) Certain costs are incurred to assess the impact of capitalization on lessees financial statements, i.e., higher gearing and negative effect on income statement; (2) Addition bookkeeping costs associated with a new reporting system that differs from tax requirements (Whittred and Zimmer, 1992); and (3) Costs of training and education to enable preparers of financial statements to be familiar and competent with the capitalization requirement and related concepts, for example, implicit interest rates, present value of future obligations, and fair values (Harris, 1983).

In view of the positive relationship between information production costs relating to capitalization and firm size, it is apparent that large lessee firms have greater motivation to capitalize their finance leases. This motivation is further supported by the potential gains offered by capitalization policy. Thus, hypothesis H3 is formulated as follows.

**H3** *Larger firms are more likely to capitalize finance leases than smaller firms.*

#### *Political visibility*

Political visibility refers to the situation whereby a firm attracts a disproportionate share of scrutiny by the government and its regulatory agencies or other interest groups (including the general public and trade unions), Making it a potential target for tighter regulation which imposes extra costs on the firm. Financial statements are a source of information used by interested parties in singling out firms for wealth transfers through devices such as imposition of taxes, removal of subsidies and licenses, and restriction of firm's activities. However, the extent to which these devices rely on accounting based data varies widely. Thus it is hypothesised politically visible firms are more inclined to adopt appropriate accounting policy that will reduce the political costs.

It is proposed that since capitalization of finance leases is an accounting policy that minimises expected opportunism and opportunity loss, it is also policy that will help firms from being subjected to further imposition of political costs. In this context, large lessee firms stand to gain more from adopting capitalization than small lessee firms. Thus, it is hypothesised that:

**H4:** *Firms with higher political visibility are more likely to capitalize finance leases than firms with lower political visibility.*

The level of press coverage is used to measure firms' political visibility. This is considered to be an appropriate proxy because of "an expectation that firms that are constantly in the media spotlight are more susceptible to political [wealth]

transfers that firms that rarely receive media attention" (Deegan and Carroll, 1993 p. 223). Thus, the level of press coverage (a component of the media) encapsulates "the media's perception of the aggregate political visibility of firm arising from one or a combination of specific sources" (Panchapakesan and McKinnon, 1992 p. 75). Empirical evidence supports the contention of a strong link between the level of press coverage and political visibility (Panchapakesan and McKinnon, 1992).

### *Financial performance*

It is proposed in this study that even in the absence of explicit income-based bonus plans, management may have an incentive to mitigate decreases in the level of reported income (Christie and Zimmerman, 1994; Sami and Welsh, 1992; Trombley, 1989). The primary reason for this is that poor performance relative to the preceding year may lead to termination, whereas improved performance can justify requests for increased compensation. Since capitalization of finance leases adversely affects the lessees' financial statements, *ceteris paribus*, the incentive to adopt the capitalization method is not uniform across lessee firms.

Thus it is hypothesised that firms with greater improved financial performance relative to the preceding year have greater incentive to capitalize leases than firms with smaller improved (or no improvement) financial performance relative to the preceding year. This hypothesis is supported by the argument that the former group of firms have greater capacity to absorb the expected negative effects of capitalization, and at the same time take advantage of the benefits offered by the capitalization policy relative to footnote disclosure. Thus, hypothesis H5 is stated as follows.

**H5:** *Firms with bigger percentage growth in pre-adoption income are more likely to capitalize finance leases than firms with smaller percentage growth in pre-adoption income.*

### *Overseas association*

A lessee is considered to have an overseas association if it is either (1) a subsidiary of a foreign parent in Canada or the UK or the USA, or (2) where its shares are simultaneously listed in Canada or the UK or the USA. It is hypothesised that firms with either one or both of these characteristics are more likely to capitalize finance leases during the transitional period. The arguments for this hypothesis are as follows.

First, Australian subsidiaries of foreign parents in Canada, the UK or the USA, where finance lease capitalization policy is already fully in force, are likely to adopt the same practices of their parents (Bazley et al., 1985; Gay, Farley and



Peirson, 1993). Since these foreign parents are capitalizing their finance leases, it is hypothesised that their subsidiaries in Australia are more likely to capitalize their finance leases.<sup>10</sup> This uniform practice of accounting for finance leases would facilitate the consolidation of financial statements by the parents, and at the same time allow comparability of performance between subsidiaries in Australia and in the home country.

Second, Australian lessee firms that are also listed in Canada, the UK and the USA where capitalization of finance leases is mandatory have greater incentive to follow suit and capitalize their finance leases. This is because the additional costs to account for and to report capitalized finance leases have already been incurred in complying with the overseas listing requirements (Leftwich, Watts and Zimmerman, 1981). In addition, these lessee firms have the necessary experience, which makes them more likely to capitalize finance leases early.

The benefit accruing to firms with an overseas association that adopt the capitalization of finance leases is in terms of the favourable perception by external parties, including Australian investors, analysts, and regulators, this would in lower agency costs, lower political costs and being perceived as better quality firms. Thus hypothesis H6 is formulated as follows.

**H6:** *Firms with an overseas association are more likely to capitalize finance leases than firms with no overseas association.*

## Research Method

### *Data sources and sample selection*

This study is a cross-sectional study of financial reporting practices of listed lessee firms, finance leases during the transitional period between 1985 and 1987. Lessees' reported in the Australian Graduate School of Management (AGSM) Annual Reports Microfiche Files (1985, 1986 and 1987) was used as the sample of this study.<sup>11</sup> The sampling design of this study is as follows. Upon inspection of the

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<sup>10</sup> It is assumed here that since the finance lease capitalization requirement has become mandatory in these countries, there is no reason to believe that lessees in these countries are not complying with this requirement.

<sup>11</sup> The AGSM File consists of the top 500 listed companies in Australia by market capitalisation. The AGSM File that was used in this study is housed at the Edith Cowan University, Churchlands' campus library.

This study acknowledges the limitations of the AGSM File. Deegan and Carroll (1993) note that due to the fact that the AGSM File only consists of the top 500 Australian listed companies, the results based on this sample may be more specific to larger firms. Further,

AGSM File, Australia lessee firms who adopted AAS 17 (either capitalizing or disclosing in the footnotes their finance leases transactions) in 1985, 1986 and 1987 were identified. The sample selection is subjected to the constraint that a lessee firm once identified as a capitalizer (footnote discloser) in one year could not be selected again as footnote discloser (capitalizer) in the subsequent year(s). Subsequently, these lessee firms were classified as capitalizer and non-capitalizer (i.e., footnote discloser) across time.<sup>12</sup> thus, the test or treatment group consists of the capitalizers, and the control group is made up of the non-capitalizers.<sup>13</sup>

### *Research design*

The research design of this study is pooled cross-sectional analysis for the period 1985 to 1987.<sup>14</sup> A between groups quasi-experimental design is used to test the research hypotheses using a multivariate logistic regression analysis.<sup>15</sup> Pre-and post-logistic regression diagnostics were performed to assess multicollinearity among the independent variables, and to identify influential observations that would

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Bazley, Brown and Izan (1985) assert that the AGSM File does not include large private companies, and allowance has not been made for the different accounting methods, e.g., depreciation/amortisation policies, used by companies in arriving at balance sheet and profit and loss figures.

<sup>12</sup> This sample selection process is consistent with the approach taken by Whittred and Chan (1992), but differs slightly with respect to whether the process is with or without replacement of subjects. This is because, the sample selection process in this study is non-random.

<sup>13</sup> This sample selection and classification process gives rise to potential self-selection bias problems normally encountered in most accounting studies in which firms are not randomly assigned to treatment and control groups (Foster, 1980; Abdel-khalik, 1990; Rayburn, 1990). One method for correcting self-selection bias is the employment of "two-stage switching regression" (Abdel-khalik, 1981; Maddala, 1991; Shehata, 1991). However, due to the unavailability of appropriate factors to be incorporated into the regression analyses, this study is unable to assess or correct for any such bias.

<sup>14</sup> Whittred and Chan (1992) found difficulty in deciding between a time series or a pooled cross-sectional analysis methodology for their study. However, in this study a pooled cross-sectional analysis is considered appropriate because: First, it is conceivable that lessee firms that adopted capitalisation differ from those that adopted note disclosure policy. Second, it is not difficult to define what constitutes an appropriate control group, i.e., lessee firms that had finance lease commitments and chose to disclose such commitments in the notes, rather than capitalizing them.

<sup>15</sup> The technique and tool chosen are considered in view of the arguments and findings in the literature (Bazley et al., 1985; Maddala, 1991; Scott, 1991, Stone and Rasp, 1991; and Tabachnik and Fidell, 1989)

impact the logistic estimations (Belsley et al., 1980; Fox, 1991; Hair, Anderson, Tatham and Black, 1995; Hosmer and Lemeshow, 1989; Maddala, 1991; Stone and Rasp, 1991).

The logistic regression model has six independent variables. However, since alternative proxy variables have been developed for OCMC, SIZE, and PERF, this study employs a sensitivity analysis by testing a total of 12 logistic regression models, of which one will be selected based on its goodness-of-fit with all independent variables (thereafter referred to as the explanatory power), significance level, and classification accuracy rate. In order to support this selection, the selected model is subjected to a split-sample validation process (Hair, et al., 1995 p. 147).<sup>16</sup>

## Results

### *Descriptive statistics and diagnostics*

Table 2 reports the composition and industry membership of the 1985-1987 sample; a total of 314 lessee firms classified into the capitalizer group with 67 lessee firms and the non-capitalizer group with 247 lessee firms.<sup>17</sup> A preliminary analysis of Table 2 shows that the number of resource firms in the capitalizer group is relatively more than those in the non-capitalizer group. This is also the case for the other industries. This suggests that there is a relationship between industry membership and the decision to capitalize finance lease commitments. The statistical evidence supports this proposition. The chi-square analysis reveals that there is a significant relationship between firms' industry membership and their finance lease accounting policy choice ( $\chi^2 = 12.850$ ; *d.f.* = 3; *p* = 0.005).

### **Table 2 Here**

The descriptive statistics, after data transformation, of the independent variables appear in Table 3. Data transformation was necessary because six of these variables suffer substantial skewness indicating non-normality. Natural logarithmic transformation was used on PRESS, SIZE(1), and SIZE(2) and DEBT. Square-root transformation was used on SIZE(3) and PERF(1). Table 4 reports the correlation analysis among the independent variables. The correlation analysis indicates some

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<sup>16</sup> Hair et al., (1995) state that the objective of the validation process "is to ensure that the results are generalizable to the population and not specific to the sample used in estimation (p. 147). Demaris (1992, pp. pp. 55-56) suggests a statistic-cross-validation probability of chance error ( $PRE_{cv}$ ) -that measures that predictive efficacy in logistic regression. This  $PRE_{cv}$  indicates the level of reduction in prediction errors when the full model is used to predict the phenomenon.

<sup>17</sup> A list of these firms is available on request from the authors.

inter-dependence amongst the independent variables, and thus, lends support to the appropriateness of multivariate regression analysis, specifically the logistic regression (Bazley et al., 1985; Tabachnik and Fidell, 1989).<sup>18</sup>

### Table 3 and 4 Here

#### *Multivariate results*

Results of the sensitivity analysis and the assessment of the validity and efficacy of the “best” logistic regression appear in Table 5. An examination of the result of the “best” model shows that the coefficient LnDEBT, LnPRESS, and OSEAS are in the hypothesised direction, but only LnPRESS is highly significant at  $p < 0.05$ . Thus there is strong support for the efficiency/signal perspective hypothesis H4, that capitalization is positively related to the of press coverage as proxy for a firm’s political visibility. There is no evidence to accept the other five research hypotheses. The coefficients OCMC(2), LnSIZE(2), and SqPERF(1) are not in the expected direction. However, only OCMC(2) and SqPERF(1) are significant at  $p < 0.05$ . The implication of this finding is that the capitalization decision is more likely for lessee firms that had narrowly-held shareholdings; and lessee firms with negative change in net income from prior year.<sup>20</sup>

### Table 5 Here

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<sup>18</sup> Except for the bivariate correlations among the alternative constructs for firm size (to be used separately in sensitivity analysis), none of the other bivariate correlations reach 0.8. Thus, it is inferred that harmful multicollinearity among the independent variables is not present. (Farrar and Gaulber, 1967; Lewis-Beck, 1987). An examination of the tolerance levels and VIF, also corroborates this inference (Belsley et al., 1980; Fox, 1991).

<sup>19</sup> Sensitivity analysis was performance because for certain variables, there are more than one construct to proxy for the variables. Consequently, 12 logistic regression models were developed and tested. Only models 7,8,10,11 and 12, are statistically significant. On an overall basis, the “best” model is Model 10 because it has the highest explanatory power (model  $\chi^2 = 12.672$ ; *d.f.* = 6), most significant ( $p = 0.0485$ ), and a comparatively high classification accuracy rate of 81.53%

<sup>20</sup> Additional multivariate diagnostics were considered necessary to determine the presence of any influential observation that could have impacted and biased the model’s estimations, the studentized residuals, leverage points, DFBETA and Cook’s statistics were examined and compared with the numerical cutoffs proposed by Hair et al., (1995) and Fox (1991). The finding indicates absence of influential observations.

The validity and efficacy of the “best” model is achieved by performing the split-sample validation process and the estimation of cross-validation probability chance of error ( $PRE_{CV}$ ). Results of this process appear in Table 5. On an overall comparason, it appears that the “best” model is valid and generalisable beyond the sample. This is inferred from the result that it has higher explanatory power and at a lower significance level than sub-1 sub-2. And its classification accuracy rate is in between that of sub-1 and sub-2.

In terms of the predictive efficacy, estimation of  $PRE_{CV}$  yields evidence suggesting that the “best” model is an efficacious model. When compared with the result of sub-1 and sub-2, the estimated  $PRE_{CV}$ , is 41.72% and 44.60% respectively. thus, it is inferred that the prediction error is reduced by about one half when using the “best” model to predict whether a lessee firm will capitalize its finance lease commitments. In conclusion, based on the evidence derived from the split-sample validation process and the estimation of  $PRE_{CV}$ , Model 10 is a valid, generalisable and efficacious model.

There is number of factors that could have confounded the preceding results. First, the impact of new accounting pronouncements that were introduced during the concerned period. Specifically, these accounting standards limit the options for firms to account for goodwill, joint venture transactions, foreign subsidiaries financial statements, and research and development costs respectively. As a results, these events influenced firms’ accounting policy choices and also their profitability and financial structures.<sup>21</sup>

Another factor that could have confounded the result relates to the significance of finance lease arrangement for lessee firms that chose to capitalize them. We have found that on average, throughout 1985-1987, capitalized leased assets and capitalized lease liabilities only represented about three percent of capitalizer’s total assets and total liabilities respectively. This is further supported by a finding that in 1988 (the first year the requirements of AAS 17 became mandatory), on average the capitalized leased assets and capitalized lease liabilities represented about three per cent of capitalizers’ total assets and five per cent of capitalizers’ total liabilities respectively. This preliminary evidence suggests that finance lease accounting policy was not a major agenda in terms of policy choices and its effect on the lessee firms’ profitability and financial structure. This finding also leads to the inference that for the non-capitalizers, their finance lease commitments may even be less significant than those of the capitalizers, and consequently adopted the footnote disclosure accounting policy based on the arguments that it is an adequate form of

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<sup>21</sup> This explanation suggests and re-affirms that a firm has a portfolio of accounting policies at its disposal (Zmijewski and Hagerman, 1981).

reporting (Abdel-khalik, 1981; Lawrence and Bear, 1986; Murray, 1982; Narayanaswamy, 1994; Wilkins and Zimmer, 1983a and b).

### **Summary and Conclusion**

The objective of this study is to examine the economic factors motivating Australian listed lessee companies to adopt capitalization of footnote disclosure of their finance lease commitments throughout 1985 to 1987 as permitted by the transitional provision of the accounting standards AAS 17: Accounting for Leases. It is hypothesised that the decision to capitalize, rather than to disclose finance lease commitments in the footnoted of the financial statements, is positively related to a firm's (1) corporate structure, (2) debt contract financial constraints, (3) size, (4) political visibility, (5) financial performance, and (6) overseas association.

The result reveals that hypotheses H2, H4 and H6 are in the expected direction. However, only H4 is statistically significant which suggests that the capitalization decision was positively related to lessee firm's political visibility as measured by the level of press coverage. It can also be inferred that capitalization may be used by lessee firms as a means of reducing wealth transfers related to the political process and also as a signal to the market that they are better quality firms.

There are perhaps other plausible explanations for firms' capitalization of leases during the transitional period. For example, firms that capitalized their finance leases, timed their adoption with a view to "earning management" prior to the mandatory compliance date of AAS 17 (Ali and Kumar, 1993; Gujarathi and Hoskin, 1992; Pincus and Wasley, 1994).

A potential limitation of this study is that the practices relating to accounting treatment of finance leases in the year of issuance of AAS 17 and during the period of exposure draft ED 17 were not examined and may confound the analysis of this study. Other limitations are the very modest explanatory power and the lack of explanations for findings that are contrary to expectations.<sup>22</sup>

Even though only one of the research hypotheses was supported, the findings have some implications. First, the level of press coverage has been found to be a significant predictor for firm's political visibility; an evidence that firms will respond

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<sup>22</sup> As noted by Bazley et al., (1985) that "the results here [as in the case of this study] have confirmed the difficulty we have in explaining discretionary accounting policy choice. This 'relatively modest' explanatory power...is not unique to this study" (p. 61). Other accounting policy studies which exhibit modest explanatory power include the studies by Brown, Izan, and Loh (1992), Whittred and Chan (1992), and Wilkins and Mok (1991)

efficiently to media coverage. From a signaling theory perspective, the firm is signaling to the market that it is adopting a more restrictive (income reducing) accounting policy and thus indicating it is a better quality firm.

Second, whilst the standard setters may believe that a lengthy transitional period is useful to the lessee firms and users of financial statements, the evidence of this study suggests otherwise. This is because at the end of 1987 only about 21% of the total sampled lessee firms (67 out of 314 firms) that had finance lease commitments opted to capitalize early. Furthermore, there is *prima facie* evidence that among the first-time capitalizers, the level of average capitalized leased assets had reduced from 1985 to 1987. This suggests that lessee firms during the period not only re-negotiated the existing finance lease agreements but possibly re-negotiated with the lessors to make the existing finance lease commitments appear as an operating lease and thus not brought into account (Abdel-khalik, 1981; Godfrey and Warren, 1995; Whittred and Zimmer, 1992).<sup>23</sup>

The findings of this study also suggests a lack of support for any proposal to have a lengthy transitional period in future accounting standards. This is because during this period, as in this case, the transitional period of AAS 17, the financial statements of lessee firms were incomparable due to different finance lease accounting policies adopted by the lessees. There are costs, private and social, resulting from a reduction in cross-company (lessee) comparability and thus complicates "the cross-sectional adjustment of financial statements to a uniform basis", (Langer and Lev, 1993 p. 516).

One area for future research is to test the hypothesis of income smoothing by the capitalizers. this study could also be extended to include the industry effect as Table 2 reveals a significant relationship between firms' industry membership and their finance lease accounting policy choice. Another area for future research is to extend the application of the joint contracting/signaling framework in examining the economic factors motivating lessee firms' choice to either adopt early to defer the adoption of the requirement to capitalize their finance lease within the transitional period. Finally this study could be replicated in other countries especially in countries that developed their accounting standards based on IASC standard on lease accounting, IAS 17: Accounting for Leases which also has a lengthy

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<sup>23</sup> This form of reaction by the lessee is contrary to the spirit of the standard, which did not intend to encourage lessees to circumvent the provisions of AAS 17 but to allow lessees the opportunity "to gain experience in presenting...information relating to leases" (para. 34). Therefore, it is plausible to hypothesise that multi-year adoption period is a political rather than an economic arrangement (Langer and Lev, 1993) which gave firms the opportunity to manipulate income (Pincus and Wasley, 1994).

transitional period. The findings of such studies would enhance understanding on cross-cultural behaviours of managers in accounting policy choices (Hofstede, 1983 and 1984).

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**Table 1.** Descriptions of Variables

<b>Variables</b>	<b>Descriptions</b>
<b><u>Dependent variables</u></b>	
ADOPT	(0,1) finance lease accounting choice: footnote disclosure (0); capitalization (1).
<b><u>Independent variables</u></b>	
OCMC (1)	(0,1) owner-controlled (OC) if one party has more than 10% of voting shares, and exercise active control, or if one party has more than 20% of voting shares (0); otherwise manager-controlled (MC) (1).
DEBT	Total liabilities divided by total tangible assets
SIZE(1)	Total assets
PRESS	Level of press coverage as cited in the Australian Business Index (ABI)
PERF(1)	Adoption year net income less prior year net income divided by prior year net income
OSEAS	(0,1) no overseas association in terms of foreign parent relationship, or overseas listing status (0); otherwise (1).
Financial variables. DEBT, SIZE and PERF. are adjusted	To remove the effect of capitalization of finance leases.
<b><u>Alternative proxy</u></b>	<b>Description</b>
OCMC(2)	Percentage of ordinary shares held by other than the top 20 shareholders; widely held = MC firm; narrowly held = OC firm.
SIZE(2)	Total revenue
SIZE(3)	Net income after tax before extraordinary items
PERF(2)	(0,1) firms with negative change (i.e., decrease in profit or increase in loss) in net income tax before extraordinary items with positive change (i.e., increase in profit or decrease in loss) (1).

**Table 2**

Sample Companies Grouped Under Major Industry Classification: 1985-1987

Industry	Capitalizer		Non-Capitalizer		Total	
	<i>n</i>	<i>0/0</i>	<i>n</i>	<i>0/0</i>	<i>n</i>	<i>0/0</i>
Industrial and Commercial Resources	35	52	183	74	218	69
Financial Institutions	2	3	4	2	6	2
Diversified companies	9	14	13	5	22	7
Total	67	100	247	100	314	100

$$\chi^2 = 12.850; d.f. = 3; p = 0.005$$

**Table 3.**

Descriptive Statistics 1985-1987 (After Data Transformation)

Expected relation	Interval-variable	(1) Capitalizers ( <i>N</i> = 67)			(2) Non-capitalizers ( <i>N</i> = 274)		
		Mean	Median	SD	Mean	Median	SD
(1) > (2)	OCMC(2)	24.122	21.010	13.443	27.565	26.700	14.698
(1) > (2)	LnDEBT	0.411	0.406	0.167	0.407	0.409	0.251
(1) > (2)	LnSIZE(1)	11.380	11.129	1.644	11.540	11.367	1.624
	LnSIZE(2)	10.751	10.972	2.166	11.110	11.207	2.244
	SqSIZE(3)	333.916	318.866	80.183	334.444	319.149	53.066
(1) > (2)	LnPRESS	3.238	3.091	1.293	3.112	3.091	1.268
(1) > (2)	SqPERF(1)	174.918	178.126	23.914	178.444	178.160	6.102
	Ordinal-Variable	(0)	(1)		(0)	(1)	
	OCMC(1)	51	16		186	61	
	PERF(2)**	22	34		60	184	
	OSEAS	62	5		222	25	

\*\* Due to missing values, some companies are excluded.

**Table 4**  
Spearman Rank Correlation Matrix (with Probabilities in Parentheses): 1985-1987

Variable	OCMC (1)	OCMC (2)	LnDEBT	LnSIZE (1)	LnSIZE (2)	LqSIZE (3)	LnPRES S	SqPERF (1)	PERF (2)	OSEAS
OCMC (1)	1.000									
OCMC (2)	0.510 (0.000)	1.000								
LnDEBT	-0.069 (0.110)	-0.085 (0.069)	1.000							
LnSIZE (1)	0.075 (0.091)	0.131 (0.011)	0.0323 (0.000)	1.000						
LnSIZE (2)	0.106 (0.029)	0.190 (0.000)	0.297 (0.000)	0.850 (0.000)	1.000					
LqSIZE (3)	0.114 (0.023)	0.190 (0.001)	0.107 (0.031)	0.696 (0.000)	0.706 (0.000)	1.000				
LnPRES S	0.077 (0.086)	0.190 (0.000)	0.213 (0.000)	0.670 (0.000)	0.515 (0.000)	0.459 (0.000)	1.000			
SqPERF (1)	0.019 (0.372)	-0.026 (0.328)	0.093 (0.054)	0.070 (0.114)	0.042 (0.233)	0.263 (0.000)	0.079 (0.087)	1.000		
PERF (2)	0.003 (0.473)	0.059 (0.156)	0.039 (0.251)	0.200 (0.000)	0.219 (0.000)	0.476 (0.000)	0.088 (0.064)	0.269 (0.000)	1.000	
OSEAS	-0.084 (0.068)	-0.149 (0.005)	-0.040 (0.241)	0.122 (0.015)	0.169 (0.001)	0.172 (0.001)	-0.064 (0.126)	0.003 (0.478)	0.079 (0.084)	1.000



**Table 5**  
Split Sample Validation of Logistic Regression Estimation: 1985-1987

Independent Variable	Expected relation	"Best" model (N = 314) Coefficient Wald stat.	Sub-1 (n = 155) Coefficient Wald stat.	Sub-2 (n = 159) Coefficient Wald stat.
Constant	?	0.1550 0.0151	1.1529 0.3431	-0.5545 0.1062
OCMC (2)	-	-0.0194 2.7514 <sup>a</sup>	-0.0193 1.2750	-0.0105 0.3939
LnDEBT	-	-0.1316 0.0499	-0.8542 0.6669	1.5972 1.3998
LnSIZE(2)	-	-0.1759 1.5114 <sup>b</sup>	-0.2378 1.1036	-0.1884 0.9448
LnPRESS	-	0.4388 4.9971 <sup>a</sup>	0.5267 3.1075 <sup>a</sup>	0.3510 1.8405 <sup>b</sup>
SqPERF(1)	-	-0.7117 4.6389 <sup>a</sup>	-1.1899 5.5020 <sup>a</sup>	-0.3937 0.7405
OSEAS	+	0.0973 0.0311	0.5350 0.3415	0.0499 0.0049
Model $\chi^2$		12.672 ( $p = 0.0485$ )	11.521 ( $p = 0.0735$ )	5.171 ( $p = 0.5221$ )
% correctly classified		81.53%	82.27%	80.82%

a Significant at  $p \leq 0.05$

b. significant at  $p \leq 0.10$