




Australian corporate real estate lease reporting ahead of *IFRS 16*

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ABSTRACT

To improve the transparency of companies' financial commitments the *International Financial Reporting Standard (IFRS) 16* requires companies to report their leased corporate real estate (CRE) on their balance sheets from 1 January 2019. This paper reports Australian CRE balance sheet lease reporting ahead of *IFRS 16*. This is the first time this has been reported and is also a baseline to evaluate how it changes Australian CRE reporting. 2016 Annual Reports were content analysed to identify current practices with the selected period pre-dating any effects from the standard's introduction. Detail was limited, other than recording lease expenses. To calculate possible effects of including leased CRE these expenses were capitalised as a proxy for the standard's methods. Indicative upper and lower end capitalisation rates added between \$127.7 billion and \$397.0 billion to balance sheets equating to 2.5% and 7.7% (respectively) of the owned PP&E. This also represents an additional 178.6% to 555.2% of current real estate only values. The individual sectors varied but the smallest increase exceeded 100% and the largest increase exceeded 4,000%. This clarifies past assertions about the standard's effects on CRE Management, but it is still unclear whether *IFRS 16* changes tenure preferences towards ownership.

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Introduction

Corporate Real Estate (CRE) constitutes a significant component of organisations' performance, both as reported financial statements, and as the platform for corporate operations. This paper focuses on the former. Corporate Real Estate (CRE) is the owned or leased real estate held by firms for operational business purposes where real estate is not core business and which, incidental to that core business, firms manage to support core business purposes (CoreNet Global, 2015). This paper calls such organisations "CRE organisations" or firms. The reporting of CRE quanta has a longstanding history in the CRE discipline and has been influential in raising CRE Management's (CREM) profile within organisations. This quanta reporting has always focused on owned CRE, never on leasehold CRE, even though this is a longstanding CRE tenure form.

Corporate financial reporting allows stakeholders to review business performance making the information's accuracy and transparency critical. In the past this information has been analysed to indicate CRE's effect on business financial performance, and its

transparency. Past research into these parameters analysed owned real estate, either because this was the only information available or an assumption, even a bias, that ownership is what matters in real estate. Based on Corporate Real Estate's own definition this only partially captures firms' operational real estate quanta. An Australian investigation of balance sheet CRE has not occurred for approximately a decade (Parker, 2008; Wills, 2008). It is therefore timely to revisit this information given the new *International Financial Reporting Standard (IFRS) 16* which, from 1 January 2019, required CRE lease commitments be reported on balance sheets as an asset and a liability (International Financial Reporting Standard Foundation, 2016).

The possible effects of the standard have been examined in the accounting literature ahead of *IFRS 16* for changes to financial ratios (Joubert, Garvie, & Parle, 2017; Magli, Nobolo, & Ogliari, 2018; Sacarin, 2017). The results were noted as being of interest to various organisational functions (Magli et al., 2018), though CRE was notable for its absence. The accounting literature has examined various sectors, for instance, aviation which is thought to have significant effects due to prevalence of leased aircraft (Joubert et al., 2017) and retail (Giner & Pardo, 2018).

The *IFRS 16* change raises important questions for Corporate Real Estate Management (CREM) (Baltussen et al., 2014; Timm, 2018) including who has responsibility and to what degree – finance or CREM (Maiona, 2017). Variously this has been presented as a golden opportunity for CREM to raise their profile in organisations, a potential disaster for CREM where senior executives' bonuses paid on ratios calculated using asset values reduce due to increased asset quanta, a golden era for owned CRE as organisations realise that there are no advantages in off-balance sheet CRE (Baltussen et al., 2014; Billing, 2018; Timm, 2018). It is this paper's intention to allow the veracity of these suggestions to be tested by providing a baseline from which future studies may compare changes in response to the new standard.

This paper is structured as follows. The next section reviews the history and the state of the art on Corporate Real Estate and financial statements with regard to CRE quanta, and forms of information transparency. The subsequent section presents the research questions and methods used to answer them. The results are in the following section which has sub-sections for results on leasehold-related identification in Annual Reports, the extent of owned CRE as a baseline, leasehold CRE quanta, and leasehold improvements quanta. The discussion section shows how the question has been answered and draws out implications for CREM practice. The conclusion section closes the paper with statements of significance and contribution and because this is a baseline study pre-*IFRS 16* change this section points to future research into post-*IFRS 16* implementation.

It should be noted that ownership results from the study are reported separately. Consequently, the papers may have partial similarities from shared literature reviews and research methods.

Literature review

The issue of Corporate Real Estate (CRE) quanta and financial statements has been a small but persistent theme in the CRE literature but has not been examined for almost a decade. Several sub-themes are identifiable.

One sub-theme examines owned CRE quanta on balance sheets, a sub-theme that is continued here. This sub-theme was influential in CRE Management's emergence as a property discipline and is usually traced to Zeckhauser and Silverman (1983) and Veale (1989). Other studies found national variations in real estate as a percentage of total assets, for instance, Brounen and Eichholtz (2005), Kenley et al. (2000), Holt and Eccles (2001), and Laposa and Charlton (2001) and this percentage diminished over time (Brounen & Eichholtz, 2005). The latter was traced to changes in tenure practices from ownership to leasehold (Brounen & Eichholtz, 2005).

A second sub-theme seeks relationships between CRE and CREM actions and firms' sharemarket performance. Various actions which changed CRE balance sheet quanta and real estate expenses and effects in equity market values were investigated, for example, Laposa and Charlton (2001), Rodriguez and Sirmans (1996), Seger, LI, and Pfnuer (2020). While some papers found relationships, taken collectively the evidence is mixed on relationships between changes in CRE and changes in firms' market value.

The third sub-theme critiques sub-theme 2 saying that what really mattered was CRE's economic value as an indicator of shareholder value (Booth, 1999; Louargand, 1999; Trundle, 2005). These indicators were not to be found in balance sheets but may be present in different parts of the financial statements, for example, lease costs in expenses and ownership costs as depreciation charges.

A fourth sub-theme examines transparency and therefore usefulness of CRE information in financial statements which enable stakeholders' evaluation of company performance. Notionally, the financial statements' record of owned real estate corresponds to the business' financial standing (Evans, French, & O'roarty, 2001). CRE reporting practices are thought to indicate CREM's level of rigor with higher reporting levels indicating more rigorous and potentially more evolved CREM (Simpson & Mcdonagh, 2010). This sub-theme played out in several ways in the literature including:

- The amount and quality of information useful to stakeholders, which was often found to be less than fulsome (Parker, 2008; Simpson & Mcdonagh, 2010; Wills, 2008);
- Valuation methods for reporting purposes, whether as depreciated historical costs, like other property, plant and equipment (Adendorff & Nkado, 1996; Kessler-Park & Butler, 2002; Parker, 2008; Simpson & Mcdonagh, 2010; Trundle, 2005) or market-based "fair value" (Parker, 2008; Simpson & Mcdonagh, 2010). Arguably the latter provides a better picture of firms' assets, should it be subject to liquidation (Baltussen et al., 2014; Brounen, 2014);
- Use of off-balance sheet CRE tenure, such as leases, that obscure not only CRE's presence but also firms' liabilities (Brounen & Eichholtz, 2005; Holt & Eccles, 2001; Wainwright, 2000); and
- Changes to accounting standards to improve such transparency such as the *International Financial Reporting Standards (IFRS)* (Parker, 2008) and more recently *IFRS 16* (Baltussen et al., 2014).

Taken as a whole across the four transparency sub-themes, conclusions were reached that the veracity of CRE-related information was poor, and that this obscured firms' true CRE-related positions. In regard to, particularly, the latter two sub-themes there have been moves since the IFRS' initial introduction, to increase the veracity of leases'

reporting in financial statements. Largely, this has focussed on representing leases on balance sheets instead of just appearing as an expense in the Profit and Loss statements. This culminated in the release of *IFRS 16 Leases* in January 2016 to be operative from January 2019 (International Financial Reporting Standard Foundation, 2016). In drafting the standard, various forms of determining the value were considered including treating all leases longer than twelve months as forms of capital or finance leases, and capitalisation of lease expenses (Maiona, 2013) but a form of the latter was finally adopted.

The *IFRS 16* changes have potential positive and negative consequences for CREM (Baltussen et al., 2014) which include organisations' changed attitudes to CRE tenure methods, and preferred length of leases (Hunt, 2017). To know whether there are changes and what they are requires a pre-change benchmark against which to compare post-change analysis. Furthermore, in Australia it has been about a decade since CRE on financial statements were analysed in any way, typically with relatively small samples – Top 20 on the Australian Stock Exchange (ASX) (Parker, 2008), and 30 of the *Business Review Weekly (BRW)* Top 200 ASX (Wills, 2008).¹ A larger, New Zealand sample (68) from the New Zealand Stock Exchange (NZSX) was reported in Simpson and McDonagh (2010). A large global sample of 4,636 (Australian sample 205) examined few CRE reporting practices concentrating on calculating a ratio of Property, Plant and Equipment (PP&E) – as a proxy for CRE – to total assets (a CRE Ratio – CRER) (Brounen & Eichholtz, 2005). This suggests that a study of CRE reporting practices ahead of *IFRS 16* introduction would be timely. Property Plant and Equipment (PP&E) is defined as the 'tangible items that: (a) are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and (b) are expected to be used during more than one period (Australian Accounting Standards Board (AASB), 2015) Section 6. Practically, PP&E represents the totality of a CRE organisation's productive and supportive physical assets.

Notwithstanding its potential importance to CREM, limited attention has been paid to the effect of *IFRS 16* which suggests a gap in knowledge that requires addressing. Baltussen et al. (2014) and Timm (2018) have already been noted. Possible effects on CRE transactions have been considered (Hazar, 2019; Matho, 2018), as have effects on CREM practices – interrelationship with finance (Koh & Chua, 2017), changing CREM work practices (Stillebroer & Jaspers, 2017), and relationships with landlords (Hunt, 2017). The possible effects on accounting outcomes (Maiona, 2017) and own-lease decision-making have also been covered (Billing, 2018). None have attempted to quantify the possible effects on overall CRE commitments.

There are several ways of identifying classes of CRE quanta on balance sheets used in the past:

- Based on CRE as the physical infrastructure (Property Plant and Equipment (PP&E)) that supports business operations (Materna & Parker, 1998);
- Though most plant and equipment is associated with real estate, a land and buildings quanta, either individually or conflated as real estate, represent more pure real estate reporting; and
- Because standard CRE definitions usually reference leasehold there are two balance sheet categories evident for these – leasehold CRE and leasehold improvements (typically things like fitout and such like which support operations).

Previous studies of CRE in financial statements have used a variety of quanta measures, though most do not consider leasehold aspects. Arguably this is influenced by axiomatic assumptions that real estate is owned, or that the leasehold information is unavailable or difficult to access. This study collected data on all methods of reporting CRE because it intends to be a baseline for changes ahead of *IFRS 16*. This paper concentrates on leasehold CRE because this is a gap in previous studies and is relevant in light of the standard's introduction.

Methods

The study's primary research method used content analysis of the sampled organisations' Annual Reports (Carney, 1972). Analysis consisted of summation and descriptive statistical analysis of the extracted data. Quanta summation is a longstanding method in Corporate Real Estate (CRE) to capture the significance of CRE holdings traceable back to Veale (1989) and Zeckhauser and Silverman (1983). The descriptive statistics were calculations of averages and maximum and minimum values – overall and by sectors. It should also be noted that this method and analytical basis are also common in the accounting literature that address comparable problems. The method sought to answer the following question:

What was the baseline state of leasehold CRE reporting on Australian financial statements ahead of *IFRS16*? A secondary question concerns the possible effects on CRE quanta post-*IFRS 16*.

The data collection captured both owned and leased CRE data. CRE ownership is not the focus here but some results are included to provide a comparator for CRE leasehold reporting, and a basis for understanding the total CRE commitments of the organisations. Reporting of leasehold improvements was also captured as this had been overlooked previously.

Sample population

The sample was constructed to present a comprehensive picture of CRE reporting practice in Australia's largest corporates. To that end, the Top 100 ASX by market capitalisation was initially targeted with the prime sampling parameter of selecting as many CRE firms as possible within those 100 firms. During that selection eleven firms for whom real estate was core business (GCIS code 60) were identified and excluded. This sampling strategy stopped when the count of CRE firms reached 90 and the total sample count was 101 firms (just >100). This total sample of 101 firms accounted for approximately 90% (by calculation 89.98%) of the ASX's market capitalisation as at 30/06/2016, and 81.7% for the 90 CRE firms (Table 1). Therefore, the sample can be said to represent the pinnacle of for-profit CREM in Australia.

These 90 CRE firms were classified by industry sectors based on ASX information and the latest GICS codes (after September 2016), excluding the real estate classification, as noted above. Nineteen financial firms (GICS Code 40) were separated into a Financial CRE group on the basis that they were special cases in reporting – all assets are treated as

Table 1. CRE quanta (owned Land & Buildings) on Australian balance sheets, by sector (millions).

	No. of firms	Firms' % of market cap	RE assets (2016 carrying value)	Ave/ firm
Financials	19	33.46%	\$6,735.60	\$354.51
Materials	19	12.41%	\$29,903.13	\$1,573.85
Consumer Discretionary	10	3.43%	\$7,464.31	\$746.43
Industrials	9	6.40%	\$3,314.50	\$368.28
Health Care	8	6.97%	\$4,640.67	\$580.08
Utilities	6	2.96%	\$2,879.11	\$479.85
Consumer Staples	5	5.90%	\$6,970.93	\$1,394.19
Information Technology	5	0.77%	\$73.93	\$14.79
Energy	4	3.30%	\$8,532.74	\$2,133.18
Telecommunication Services	4	5.75%	\$988.90	\$247.23
Professional Services	1	0.37%	\$ -	\$ -
Total	90	81.72%	\$71,503.81	\$717.49

Source: Author

current. However, Financial firms are CREM leaders in Australia, so it was important to include them in the overall CRE firm sample.

The following firms were excluded from the sample even though they fell within the Top 100 sampling criteria:

- Asciano Limited (AIO), because it was split into three distinct businesses during the sampling period; and
- CYBG PLC Cdi 1:1 (CYB) was listed on 2016 and did not provide a consolidated annual report by the research date.

It was intended, in assembling the sampled population, to create a larger sample than any previous detailed Australasian study. Previously, Parker (2008) analysed the ASX Top 20 Australian companies by market value. Wills (2008) randomly selected 30 from the BRW 200 ASX firms by market capitalisation and Simpson and Mcdonagh (2010) had 68 CRE organisations from the NZSX. It is noted that Brounen and Eichholtz (2005) sample was larger, but the study was not as detailed, though it was longitudinal.

“CRE-ness” was tested by examining real estate-based income. Generally, this was <5%. Seven firms reported real estate income >5%, like Sydney Airport’s 37.8%, which was the outlier firm. Their business has both an operationally required corporate real estate for flight operations and a substantial landlord element mimicking investment real estate in terminal leases to airlines and retailers which generate substantial real estate-based income.

Data collection

Annual Reports were downloaded from the ASX website (www.asx.com.au) for the 2016 reporting period as this was the most recent period at the time of data collection. This timing meant that the reports’ publication dates spanned from 30/06/2015 to 03/07/2016. While this is a little more than twelve-months, which has implications for some results, like depreciation values, the whole period was earlier than transitional arrangements in place for the new standard (reporting periods two years prior to the implementation from 01/01/2019).

The Annual Reports were analysed to identify and collect property-related information evident in the accounts (numeric data) and associated notes and explanations (textual data). Data was collected from the following broad categories:

- Firm characteristics;
- Revenue;
- Expenses;
- Total assets;
- Non-current assets; and
- Property, Plant and Equipment details.

Reported values were converted to Australian dollars at the reporting date where the reporting currency was not Australian dollars.

Analysis

The entire data set was compiled into a master Excel spreadsheet with separate worksheets for:

- 11 Investment real estate firms (not analysed here);
- All 90 CRE firms which were subsequently disaggregated into worksheets for:
 - 19 Financial CRE firms; and
 - 71 “conventional” CRE firms – as a whole and further disaggregated in sectors.

For this paper, analysis consisted of a summation of values reported for owned real estate (Land and Buildings) and calculation of averages, overall and by sector as well as identifying maximum and minimum values. Lease expense quanta were similarly treated. These were then capitalised by two methods. This is important because identical leases can have very different accounting outcomes depending on how they are treated and calculated (Maiona, 2017) and the approach here shows those differences. Also, the discount rates adopted in the accounting literature appear both simplistic, for example, just adopt 5% (Magli et al., 2018), and not relevant to real estate because they do not represent the underlying fair value which the standard requires. The resultant figures were added to the owned CRE to calculate the total CRE commitments in the sampled firms. Leasehold improvements were aggregated by sector and overall.

Results

The results are presented in five sub-sections:

- Types of firms by industry sector in the data set;
- Owned real estate quanta as a statement of the *status quo* and to allow the identification of potential changes post-*IFRS 16*. This was done in aggregate & by sector;
- Separate leasehold CRE identification in the Annual Reports;

- Leasehold CRE quanta capitalised from the lease expenses with total post-IFRS 16 quanta. This was also done in aggregate & by sector; and
- Leasehold improvements which fall into CREM's bailiwick but have previously been overlooked.

Industries in the data set

This analysis of the 90 CRE firms shows the industry types where the CREM need is highest in Australia. The Australian Top 90 CRE organisations are numerically dominated by firms in Financial, Materials and Consumer Discretionary product sectors (Figure 1). These three sectors account for more than 50% of the sample by number (53.33%).

The Financials group (19 organisations – 21.11%) is made up of banks – the so-called “4-pillars” and regional banks – and insurance, superannuation and financial asset management firms. The Materials firms (19 organisations – 21.11%) are, broadly, of two types. One type is mining companies who, in essence, dig up their CRE and export it as minerals. The second type is manufacturers of building products, packaging, and chemicals to, largely, serve the mining and agricultural industries. The Consumer Discretionary sector (10 organisations – 11.11%) has several gambling companies, most of which are casino operators. Other business types in this industry classification are retailers of fast food, household furniture and goods, and travel services.

The Industrial firms (9–10.00%) are numerically dominated by transport businesses, mostly as owners and operators of road, rail and airport infrastructure where the real estate is usually subsumed into the infrastructure asset. Other firms in this group are also often transport related – an airline and a construction firm known for its civil engineering construction. In the Healthcare group (8–8.88%) there are four sub-types of firms – two types of manufacturers (pharmaceuticals, and medical devices and products), private hospital operators, and providers of pathology and laboratory services. Utilities firms (6–6.67%) are those that own infrastructure assets for energy distribution. Consumer Staples firms (5–5.55%) are those in the manufacturing or distribution and retailing of

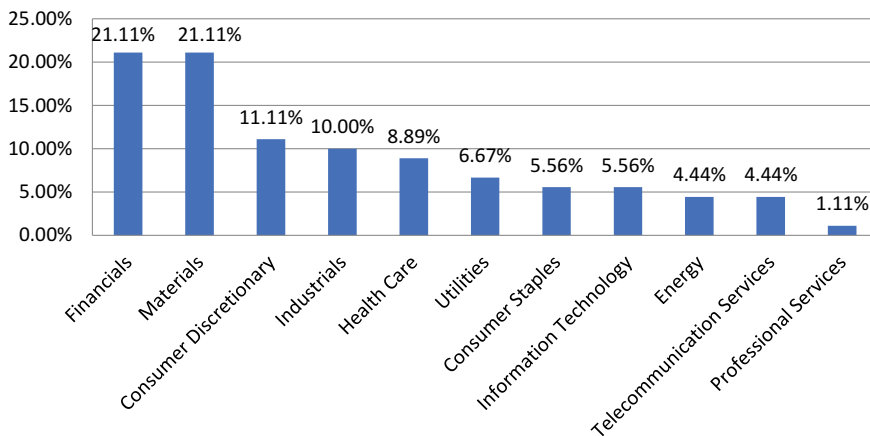


Figure 1. Industry sector types in the sample (n = 90).

“everyday” consumption goods. These include, for retail firms – supermarkets, hardware, and office supplies, for manufacturing and distribution – beverages (wine and soft drinks), and complementary medicine pharmaceuticals.

Information technology firms (5–5.55%) consist of forms of document management and information management firms, and online sales and information platforms. The Energy firms (4–4.44%) consist of energy exploration and extraction companies (not unlike the miners in the Materials sector above) and petroleum refiners and retailers. Telecommunication Services firms (4–4.4%) can constitute Australia’s largest holders of CRE with one firm known to have in excess of 10,000 sites. The sole Professional Services firm (1.11% of the sample) is an online employment technology company.

The quanta of owned CRE (land and buildings)

This section reports the quanta of owned CRE ahead of *IFRS 16* (Table 1) as a foundation for understanding potential changes in leasehold-ownership CRE from *IFRS 16*. Ownership matters are discussed more fully in the Author’s ownership paper.

Take in Table 1 about here

The studied companies reported a total 5.14 USD trillion in Property, Plant & Equipment (PP&E), of which 71.5 USD billion (1.4%) was identifiable as owned CRE. This was an average of 717.5 USD million per firm. The averages varied considerably between sectors, but four bands are evident – three sectors had averages of more than 1.00 USD billion, two sectors had between 500 USD million and 1.00 USD billion, four between 240 USD million and 500 USD million and two sectors had less than 50 USD million each. One sector, a single firm, reported no owned CRE at all.

Specific leasehold CRE identification in the annual reports

To begin examining CRE reporting this section presents results of specific references to leasehold CRE in the Annual Reports. These were, typically, annotations in the Unique classifications notes.

Of the 90 companies, fourteen (15.6%) reported something in relation to leasehold CRE. Various categories and terminologies were evident, as was previously found for owned CRE (Simpson & Mcdonagh, 2010). Six distinct categories were found:

- Two financial firms reporting leasehold assets as lessor or assets under operating leases. The former captures a firm acting as a landlord, and the latter is indicative of post-*IFRS 16* type reporting;
- One firm’s leased PP&E though the property was not separately identifiable;
- Four firms reported leasehold CRE using various synonyms or terms;
- Two firms reported leased buildings, which presumably are somehow attached to land with leasehold tenure though that was not articulated;
- Miscellaneous lease forms for three firms, one of which – capitalised leased assets – is possibly an indicator of post-*IFRS 16* type reporting; and

- Mining leases (two firms) which, given the nature of Materials and Energy firms in the sample would be expected. Perhaps it is surprising that there are not more given the number of such firms in the sample.

The total assets value in the notes was not insignificant (\$27.6 billion) though most of this (\$25.8 billion (93.5%)) is in just two companies' leasehold identification.

Leasehold CRE and potential effects on balance sheets

The recognition of lease commitments on balance sheets is expected to be the greatest change from *IFRS 16*'s implementation. This section examines potential implications for balance sheet figures from this new quantum of reported assets and provides a baseline for post-implementation comparisons.

The standard specifies methods for calculating reported values from which this section's methods are derived. The standard's methods are:

- Initial measurement (Clauses 23–28), essentially at cost of the lease payments being the discounted present value of commitments; and
- Subsequent measurement (Clauses 29–35), essentially at a depreciated cost basis with cost calculated as above. There are, though, subsequent adjustments allowable based on changes in the lease and discount rates (Clauses 36–46).

The discount rates are specified as either the “interest rate implicit in the lease” or the “lessee's incremental cost of borrowing rate” (Clause 23). The former is the rate of interest that causes the present value of the lease payments (and any residual value) to equal the underlying asset's fair value and the lessor's initial direct costs' (derived from *IFRS 16* Appendix A).

For CRE the implicit rate could come from several possible sources:

The landlord's Weighted Average Cost of Capital (WACC) on the basis that this discount rate is the hurdle rate in calculating the fair value of the underlying asset's lease-derived income stream;

Valuer's capitalisation rate for the property on the basis that this represents the accounting standards' basis of fair value. The actual rate adopted for any lease would depend on the individual property to which the lease applied; and

The CRE organisation's WACC on the basis that this would be used the hurdle rate in their discounted cashflow (DCF) calculations for the leased property and therefore represent their fair value of the asset.

There are issues with these methods. For instance, it is typical that the organisations studied here have extensive leasehold CRE portfolios consisting of hundreds or even thousands of leased properties. Regardless of the basis adopted, but particularly for the first two sources of discount rates, a large leasehold portfolio provides a substantial, new logistical exercise requiring the WACC from every landlord (Source 1) or capitalisation rates for every leased property from valuers (Source 2).

With Source 1 it is unknown whether landlords would be willing to provide this potentially commercially sensitive information, let alone provide this to all their tenants. For Source 2, previous studies show that CRE organisations strongly avoid using valuers

for reporting their owned real estate's balance sheet values, for example, (Parker, 2008; Simpson & Mcdonagh, 2010). This suggests that Source 2 will not be used much. It is then possible that the lessee's WACC could become the default rate, should the implied rate method be adopted. This WACC should be readily available for the internal finance function. However, at least two issues exist with this. First, is whether DCFs are frequently used, or at all, to analyse the lease cashflows in decision-making and which would provide the discount rate. CRE textbooks frequently reference DCFs in pre-decision analyses but there is little empirical evidence available to confirm or deny their use or extent of use in practice. The second issue is that this approach breaches the standard's requirements.

Overall, this suggests that it is possible that the most likely method to calculate leases' balance sheet figures could become the firms' marginal cost of borrowing, even though this is *IFRS 16*'s fallback or secondary method. This may produce "anomalies" where different tenants in the same property have different discount rates due to their lenders' assessment of different risk profiles (Timm, 2018). The calculation basis is definitely something to examine in post-implementation studies.

The method used here capitalises the reported lease expenses from the Profit and Loss Statements by rates representing an implicit interest rate and an incremental borrowing cost (Table 2). This is a simplified, proxy method that produces indicative results comparable to those from DCF methods that will actually be used.

Take in Table 2 about here

The implicit rate was adopted from a published WACC figure (11.0%) for a landlord-like entity – Macquarie Bank (Ahmed, 2011). This was taken as being indicative of landlord WACC figures. Arguably, in the current economic environment, this figure could be high but, nevertheless, it serves as a useful reference "top end" rate. The incremental cost of borrowing figure was sourced from an internet search of commercially available loan rates (Canstar PTY LTD, 2018). This showed figures ranging from a low of 3.54% (a National Australia Bank variable loan) to a high of 7.10% (Australia and New Zealand Bank variable loan). The 3.54% figure, though somewhat unusual, was adopted here to illustrate the effects of a "low end" figure. Arguably the two selected figures represent upper and lower limits of the range within which will fall most discount rates adopted to calculate lease values.

In this reporting the analysis is at overall and aggregate level of industry sector (Table 2). It is evident that the change for individual firms depends on their CRE leasehold portfolio, the individual lease terms themselves (Timm, 2018), the valuation methods used, and discount rates adopted (International Financial Reporting Standard Foundation, 2016).

This analysis shows that in 2016 reporting period, depending on the capitalisation rate used, between 127.77 USD billion (at 11.0% cap. rate) and 397.01 USD billion (at 3.54% cap. rate) would have been added to the Top 90 CRE organisations' property assets, had *IFRS 16* applied at that time. These are significant dollar amounts but when considered relative to the PP&E assets these figures equate to an additional 2.5% (11.0% cap. rate) and 7.7% (3.54% cap. rate). These are relatively modest changes to the PP&E quantum, though not insignificant. This does suggest that the changes to asset-based corporate ratios, some of which are used for executive bonus calculations, will be small to modest as

Table 2. Capitalisation of reported lease expenses and new balance sheet asset values (millions).

	@ Nominal marginal cost of borrowing (3.54%)				@ Landlord's cost of capital (11.0%)		
	Lease expenses	Leasehold RE values	New Total RE balance sheet value	% Change to RE	Leasehold RE values	New Total RE balance sheet value	% Change to RE
Financials (n = 19)	\$2,743.47	\$77,499.04	\$84,234.64	1,250.6%	\$24,940.60	\$31,676.20	470.3%
Materials (n = 19)	\$1,625.06	\$45,905.56	\$75,808.69	253.5%	\$14,773.24	\$44,676.37	149.4%
Consumer Discretionary (n = 10)	\$626.61	\$17,700.93	\$25,165.24	337.1%	\$5,696.48	\$13,160.79	176.3%
Industrials (n = 9)	\$1,197.65	\$33,832.05	\$37,146.55	1,120.7%	\$10,887.77	\$14,202.27	428.5%
Health Care (n = 8)	\$756.19	\$21,361.33	\$26,001.99	560.3%	\$6,874.46	\$11,515.13	248.1%
Utilities (n = 6)	\$17.00	\$480.23	\$3,359.33	116.7%	\$154.55	\$3,033.65	105.4%
Consumer Staples (n = 5)	\$4,316.00	\$121,920.79	\$128,891.72	1,849.0%	\$39,236.33	\$46,207.26	662.9%
Information Technology (n = 5)	\$102.80	\$2,903.87	\$2,977.80	4,027.8%	\$934.52	\$1,008.45	1,364.0%
Energy (n = 4)	\$1,973.72	\$55,754.81	\$64,287.55	753.4%	\$17,942.91	\$26,475.65	310.3%
Telecommunication Services (n = 4)	\$672.15	\$18,987.34	\$19,976.24	2,020.0%	\$6,110.47	\$7,099.37	717.9%
Professional Services (n = 1)	\$23.50	\$663.84	\$663.84	n/a	\$213.64	\$213.64	n/a
Total	\$14,054.15	\$397,009.79	\$468,513.60		\$127,764.97	\$199,268.78	

n/a – percentage change could not be calculated on account of the reported \$0.00 value of current owned CRE

Source: Author

PP&E represents a small proportion of companies' total assets which are used as the basis for such calculations.

When the additional leasehold assets are considered relative to reported, owned real estate values (Table 1) a different picture emerges. Here, the 3.54% rate produces a 555.2% increase and the 11.0% rate produces a smaller, though still very large, 178.6% increase over the previous total real estate figures.

When examined at a sector level the Consumer Staples sector has the largest quantum of additional CRE (\$121.9 billion/\$39.2 billion at 3.54% and 11.0%, respectively). Financials and Energy have the next highest quanta added to CRE balance sheet figures – 77.5 USD billion (at 3.54%)/\$24.5 billion (at 11.0%) and 55.8 USD billion (at 3.54%)/\$17.9 billion (at 11.0%), respectively. The Materials sector (\$45.0 billion/\$17.8 billion), Industrials (\$33.8 billion/\$10.9 billion), and Health Care (\$21.4 billion/\$6.9 billion) are the 4th to 6th ranked sectors by additional, leasehold CRE on balance sheets. Telecommunication Services sector (\$19.0 billion/\$6.11 billion), the Consumer Discretionary sector (\$17.7 billion/\$5.7 billion) and the Information Technology Sector (\$2.9 billion/\$934 million) rank 7th to 9th by sectors with additional leasehold CRE. Under this calculation, Professional Services (\$663 million/\$214 million) is shown to have CRE, unlike the ownership analysis which showed no CRE, making it the 10th ranked sector. The Utilities sector was the lowest ranked one (\$480 million/\$155 million) for additional leasehold CRE. These firms would, typically, only lease corporate offices, though the reported lease expenses that are the basis of this figure seem quite low as 17 USD million is spread across 6 organisations – average 2.8 USD million each.

The percentage changes also require examination because they point to the sectors where there is the largest change over the ownership *status quo*. It also points to where there will be greatest “pain” and opportunities for CREM to become visible in organisations due to this reporting change. Looked at collectively, five sectors (at 3.54% cap. rate) report percentage changes in CRE at greater than 1,000% – Information Technology (4,028%), Telecommunication Services (2,020%), Consumer Staples (1,849%), Financials (1,251%) and Industrials (1,251%). Two sectors (Energy and Health Care) report between 500% and 1,000% increases, two sectors (Consumer Discretionary and Materials) report between 250% and 500%, and one sector (Utilities) has a less than 250% increase. One sector (Professional Services) could not have its increase calculated because it did not report any owned CRE. Using the low-end capitalisation rate, as above, the increases can only be called dramatic, though they are still very large when the higher rate is used.

If balance sheet, asset minimisation strategies persist post-*IFRS 16*, as was the case with past off-balance sheet treatments like leased CRE then adopting the highest plausible discount rate (or capitalisation rate here) would be preferred. If valuers’ capitalisation rates are used this could encourage the leasing of lower quality CRE which have higher capitalisation rates. Perversely, this runs contrary to a perceived “Push for posh” (that is higher quality real estate) (Boreham, 2019) observed in recent Melbourne CRE leasing transactions. This suggests that firms’ CRE quality should be examined further as done by Kimura, Heywood, and Winson-Geideman (2019).

However, asset values may not be the critical decider when strategic approaches to CRE and CREM are adopted by CRE organisations. Therefore, the change may not make that much difference as strategic factors would prevail over financial asset values in decision making.

Leasehold improvements quanta

Affiliated with leasehold CRE are various improvements required to produce CRE fit for operational purposes. This class of CRE assets is rarely, if ever, addressed in considerations of CRE balance sheets assets even where they are owned assets within the leased premises. This analysis (Table 3) shows that these are not insignificant CRE quanta – 5.89 USD billion in total for the 90 firms, an average of 65.4 USD million per firm. These improvements could take a variety of forms but typically would be workplace fitout and workplace plant and equipment built into the leased premises.

Take in Table 3 about here

The Consumer Staples sector had the largest quantum – 2.74 USD billion, average 547 USD million per firm (46.5% of the total). Financials were the second largest quantum – 1.63 USD billion, 85.7 USD million per firm – and the only other sector reporting more than 1.00 USD billion. Industrials had 750 USD million (\$83.7 million/firm) and every other sector had less than 300 USD million in leasehold improvements. Five sectors reported less than 50 USD million (Information Technology, Utilities, Telecommunication Services, Energy and Professional Services). The latter two reported no leasehold improvements at all which seems less than plausible given they have leasehold CRE. These figures may be reported somewhere else in the Annual Reports and not captured in this data collection.

Table 3. Leasehold improvements (millions).

	No. of firms	Leasehold improvements	
		Total	Average per firm
Financials	19	\$ 1,628.07	\$ 85.69
Materials	19	\$ 166.31	\$ 8.75
Consumer Discretionary	10	\$ 269.69	\$ 26.97
Industrials	9	\$ 753.20	\$ 83.69
Health Care	8	\$ 279.73	\$ 34.97
Utilities	6	\$ 12.70	\$ 2.12
Consumer Staples	5	\$ 2,739.13	\$ 547.83
Information Technology	5	\$ 36.11	\$ 7.22
Energy	4	\$ -	\$ -
Telecommunication Services	4	\$ 2.20	\$ 0.55
Professional Services	1	\$ -	\$ -
Total	90	\$ 5,887.15	\$ 65.41

Source: Author

Discussion

In the past, owned Corporate Real Estate (CRE) has been the basis for examining CRE's financial reporting. When looking at CRE's own definition, to only concentrate on owned CRE is an incomplete representation of firms' total CRE obligations. *IFRS 16* seeks to redress this inadequacy with its requirement of reporting capitalised values of lease commitments.

This study quantifies the possible effects for the Top 90 Australian CRE firms by calculating indicative post-*IFRS 16* CRE balance sheet quanta using their Profit and Loss statements' lease expenses. This capitalisation provides proxy figures in the absence of the standard's required DCF calculations for individual leases.

These calculations show that the dollar value changes are large in comparison to the existing owned CRE values, though the magnitude varies depending on the capitalisation (discount) rate adopted. Also, the owned values are typically depreciated historical cost of acquisition and the effect would almost certainly be less if more current, market values were used, regardless of the discount rate adopted for leasehold CRE.

This evidence suggests that higher discount rates will be preferred as this reduces the leasehold CRE values. It seems likely at this point in time that the CRE firms' own WACC would be the easiest rate to adopt. It is questionable whether this fully matches the standard's requirement of the discount rate equating to the underlying (leased) asset's fair value. Given CRE firms' past avoidance of fair value bases in valuing their CRE (Parker, 2008; Simpson & McDonagh, 2010) it seems quite possible that this mismatch will not concern reporting organisations. Though it was suggested above, that for simplicity reasons, the marginal cost of borrow will be adopted as a discount rate, doing this, certainly at the rate adopted here, has a more deleterious effect on reported values.

These firms are large holders of both owned and leased CRE, in some instances having hundreds or even thousands of properties in their CRE portfolios. The requirement to report balance sheet values is a major, new logistical exercise for these firms and makes the use of lease management software even more critical than it was in the past. Whoever manages firms' lease reporting will have a substantial addition to their workload, be they an in-house CRE function or an outsourced service provider, or the accounting function (Koh & Chua, 2017).

Past studies (Baltussen et al., 2014; Timm, 2018) have identified potential effects on CREM from the change but without evidence of the magnitude of the change this identification is only indicative of what could occur, or are things to look out for in the transition. This study shows that there are potentially large changes in CRE (though not necessarily relative to PP&E or Total Assets) so there is certainly evidence supporting suggestions that the CRE function could become more visible and therefore provide opportunities for leveraging arguments about its value to organisations. It seems less likely that this change will prove disastrous for CREM where senior executives' bonuses shrink or collapse due to changes in asset values. This is because the change in asset values appears to be quite small, certainly if the proportion of CRE to PP&E is any indicator. This might also mean that there may be little opportunity for CREM to raise its profile from this change, notwithstanding comments made above.

Whether the change in reporting produces major changes in preferences for CRE ownership is less clear. Certainly, based on the percentage changes in the CRE portfolio there is evidence to support the suggestion. This is certainly so when all sectors report changes more than 100% and five of the eleven sectors have changes greater than 1,000%. However, there is anecdotal evidence from practice that there are mixed responses in light of the pending *IFRS 16*. Some are still opting for lease (sale and leaseback) and others are considering having more ownership. This variability is likely to continue because there are a number of strategic as well as financial reasons that shape own-lease decisions (Haynes & Nunnington, 2010). This study focused on financial aspects, but the strategic aspects can be as, or more, influential. Also, what increasingly matters for CRE organisations is the accommodation benefit for operations from the CRE rather than being caught up in the minutia of managing property. This suggests that there are still attractions to leasehold CRE, notwithstanding the balance sheet changes from the standard's introduction.

Conclusion

This study, the most extensive yet, of top Australian CRE organisations in the 2016 reporting period shows that there is limited reporting of leasehold CRE information ahead of *IFRS 16*. Other than lease costs in Profit and Loss statements, evidence of leasehold reporting is mostly found in the supplementary notes as Unique classifications. Analysis of possible balance sheet changes based on capitalisation of those lease expenses, as a proxy for the standard's DCF methods, shows that there are substantial (>100%) changes in every CRE sectors' portfolios' values. This extent of change does not necessarily extend to PP&E values as the proportional change is much smaller given that CRE is a small percentage of PP&E in Australia.

This paper's contribution is that it reports leasehold CRE, which is rare to non-existent in previous studies of CRE and financial reporting. It also provides a useful and important baseline study of Australian CRE reporting practices ahead of *IFRS 16*'s implementation. While useful as a snapshot of Australian CRE and balance sheets, the study's full value will only be realised when post-implementation studies repeat this work to identify actual effects which have only been pointed at here. The 2020 reporting period is the earliest practical time when this could be repeated.

The repeat study is clearly future research but this paper identified several other possibilities including investigating firms' CRE quality whether owned or leasehold, discount rates adopted in calculating leases' balance values, and the use of DCFs in CRE in own-lease decision-making.

Note

1. While 30 firms were sampled only 25 were actually analysed due to the author's requirement of having 5 years of analysable information.

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