THE EFFECTS OF DEPRECIATION AND OBSOLESCENCE ON FACILITIES AS PROPERTY ASSETS

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Abstract

The position of real property assets in the corporate balance sheet is discussed in the context of the currently popular move for corporate entities to divest these assets. This has the potential to contribute to some significant savings and investment issues. Companies are institutionalising real property assets through sale and leaseback to create long-term liabilities. Investment returns and property values may be overstated by entities that ignore depreciation and obsolescence of buildings. Significant dilution of corporate returns and investment and superannuation funds may be required for capital expenditure on rectification works to overcome depreciation and obsolescence. The enormity of the problem is illustrated using property market data recorded over the past three decades.

Keywords: Asset, depreciation, facilities, obsolescence, property

INTRODUCTION

It has become increasingly popular in recent years for business entities to move their property assets “off balance sheet”. This is particularly relevant where businesses want to concentrate on owning productive assets such as plant and stock in order to avoid tying up capital in property and absorbing its risks. Those entities that own property and wish to divest often enter into a sale and leaseback transaction where a decision is made to sell the property fully leased back to the vendor to release funds for business expansion. Some organisations acquire and modify a property, or acquire land and build suitable premises, take occupation and then sell and lease back.

The sale and leaseback or outright disposal has become very effective as a result of the seemingly insatiable demand for non-residential investment property across the investment quality spectrum. Two main groups of investors have dominated the market, namely, the superannuation funds and the listed property trusts (real estate investment trusts). In order to overcome the negative effects of illiquidity facing investors in real estate, many different approaches have been used to enable investors to have access to property by creating smaller parcels of property. This has included physical subdivision as well as the creation of indirect ownership through securitisation. Physical subdivision enables buildings to be subdivided into separate elements including company shares, stratum titles, strata titles and cluster titles. Securitisation enables real estate to be subdivided into much smaller components through debt and equity investments also including syndication, company shares as well as trust units. In the context of facilities management, the decision is about retaining properties and absorbing the risks associated with depreciation and obsolescence on the one hand or divesting of the properties to another entity which in theory takes on the risks of depreciation and obsolescence but in practice may ignore these effects such that they impinge on the property occupants. If the other entity is a trust, then this may be a very real problem.

Residential and office units in large scale multi-unit developments are managed by bodies corporate that levy annual charges on unit owners, but they are usually only a fraction of the contributions required to establish a realistic sinking fund that will enable replacement of the asset. Returns on company shares and, in particular, trust units appear to be overstated because of the failure to properly allow for depreciation and obsolescence. In either case, a proper sinking fund allowance would reduce net operating income and therefore value. If nothing

is done to correct this shortfall resulting from depreciation and obsolescence, then asset vales will diminish over time.

The phenomenon of overstatement of returns and values is investigated and the reducing returns from and increasing operating costs of investment property are illustrated. This phenomenon may explain why property trust units and shares appear to produce a higher return than the underlying property and why a parcel of units appears to have a higher value than the underlying property portfolio. The market data provide a guide to the timing and costs of rectifying depreciation and obsolescence as well as a guide to property returns and values. Depreciation and obsolescence needs to be reflected in statements about property returns and values.

Depreciation and obsolescence are outlined in the next section. The property investment market is discussed in Part 3 and the effects of depreciation and obsolescence on investment returns and values are discussed in Part 4. Part 5 applies the recorded market data to illustrate the main points and the paper closes with some concluding comments.

Property has always been viewed to be one of the major asset classes in a balanced portfolio. However, it has always been considered to have a number of disadvantages when compared with other asset classes, the major ones being illiquidity and management. In the context of property investment, illiquidity is a major deterrent to investment and divestment because of the time required to complete a transaction in a market in which there are either few buyers and/or few sellers. The hands-on management required to operate an investment property and maintain it in a satisfactory market position is another deterrent to investment in property. These property management activities are increasingly outsourced by facilities managers to specialist firms. If companies retain real properties on the balance sheet, their earnings records may be affected by poorly performing assets. If they divest, they may be faced with an alternative though smaller balance sheet liability in the lease. Either way, the effects of depreciation and obsolescence will affect the corporate occupier of real property.

DEPRECIATION AND OBSOLESCENCE

Depreciation and investment property has been analysed in only a few situations (see for example, Baum, 1991). A key issue in property investment is the wasting asset in the building component that depreciates over time and requires constant upgrading to maintain market position. It has been postulated that one fifth of the income from investment property would need to be set aside for depreciation (Bowie, 1982). This may have resulted in property being overpriced in the market. Most companies make provision for building refurbishment (as well as expansion, new products and so on) by setting aside part of the net income in reserves. The illustration of this is the difference between the yield and the earnings/price ratio (the reciprocal of the price/earnings ratio) which is a measure of the retained earnings. However, trusts are unable to keep reserves as all income is required to be distributed. Therefore, it is difficult to retain reserves or sinking funds out of income. In direct contrast, investments in property companies generate profits out of which dividends are distributed to shareholders and funds are usually retained as reserves. Accordingly, this appears to lead to an overstatement of the yields from property trusts.

Given that the typical property trust returns 6.75%, a depreciation allowance of 1.35% (one fifth) would be required. Ten year bonds currently (September 2004) yield 5.4% (5.415% Australian Financial Review, 30 September 2004), so the margin covering the risks associated with property investment is NIL (6.75% - 1.35% - 5.4%). There is a view expressed that all of the risks can be reflected in the cash flow so that the discount rate can be a risk free rate such as long term government bonds (gilts) (Purvis, 1995, p. 19). But it is not deemed possible to reduce the internal rate of return to a risk free yield due to the traditionally listed real property factors including immobility, fashion, tenant risk, legislation and regulation standards.

Many trusts are obtaining funds by the sale of trust units for development purposes as distinct from investment and trusts which are also able to borrow finance for development purposes. In order to obtain funds for refurbishment, trusts need to raise capital through borrowings, through divesting of some of the assets, through distribution of additional units or through retaining some of its assets in cash. In all of these cases, the investor's holdings are diluted. Thus it appears that some of the returns from listed property trusts appear to include an element of capital. Thus it is up to the individual investors to set aside some of their own returns in a sinking fund.

In addition to the investor class, entities of all types that once owned and occupied their premises are selling to and leasing back from the investment vehicles discussed above. Many past owners have become managers of the trusts into which their properties were sold, and many entities have effectively sold their properties to their employees by transferring the assets into superannuation funds.

The divestment of real assets by many entities has the effect of major balance sheet changes. Fixed assets have been reduced and replaced by substantial lease liabilities so that asset backing may not have the strength, which it had in the past. In order to balance their portfolios, investors would need to consider vehicles that own these fixed assets. As discussed earlier, unitised property has demonstrated a closer relationship with stocks and shares than with direct property, so the diversification benefits may be illusory in asset class terms.

THE INVESTMENT MARKET

Investment strategies associated with property have changed to keep up to the competitive returns demanded by investors. However serious issues are now being raised that question the increasing divergence between managerial and shareholder interests in property (Howton, Howton & Friday, 2000). Property has typically been viewed as 'bricks and mortar', being a relatively long term and low risk vehicle and suitable for superannuation and retirement funds. It has been viewed in this manner by those interested in both direct and indirect investment. In addition property is viewed as a 'growth stock', having returns to shareholders from two sources, first, lease payments on a regular basis e.g. lease payments from tenants and second, the growth in value of the property, realised on sale. Both of these income sources are a function of net operating income where all income-producing expenses are deducted from total income received from the property. The onset of depreciation and obsolescence over time tends to reduce both income and value. Capital investment is required to reverse this situation. An increase in expenses bought about by the costs of refurbishment required to overcome obsolescence causes a substantial decrease in regular income just to maintain capital value. This paper focuses upon these expenses, which may be kept from investors and unit holders until after the expenditure is made. Unfortunately most of this information is hidden from investors, with access denied to everyone outside the REIT (or property trust) management (Graff, 2001). This is a common characteristic of the industry, and prevents potential problems from being highlighted in management practices before the situation becomes irreversible.

The inevitable effect of depreciation and obsolescence in property has recently been acknowledged in the U.S.A. leading to new trust legislation in 2001. REITs or property trusts must now distribute no more than 90% of their earnings to shareholders, recognising the long-term need for reserves that provide for re-investment and refurbishment (Graff, 2001).

A large proportion of these investment vehicles hold substantial properties that form a significant proportion of their total assets. However with the trend away from traditional property investment and into indirect ownership vehicles, such as property trusts and company entities, little consideration appears to have been given to the inherent characteristics of property. These vehicles are being managed not by traditional property managers but by financial market managers. This relationship has placed undue pressure on property trust managers who compete in the open marketplace. This gives rise to the potential for the incorrect management of property and the lack of understanding by the typical individual investor.

In recent times there have been a continually increasing number of individual Australian investors acquiring property. This includes small investors purchasing residential real estate, and large investors buying commercial and retail property. In addition, there are numerous investment funds with large interests in both direct and indirect real estate although the heterogeneous nature of property should affect how each of these funds operates (Gyourko & Keim, 1992). There is little evidence to prove they differ, with all appearing to follow a 'herd mentality' with their management practices in both good and bad times (Robinson, 2002).

Historically, investment in property has provided a safe haven for savings and retirement funds. There has always been a perceived level of protection against typical risks commonly associated with other forms of investment, such as sudden decreases in the value from a sudden sharemarket crash. Property has traditionally been promoted as a 'hedge against inflation' over the long term, although accompanied by illiquidity problems. However, low levels of risk are no longer valid in real estate due to the changing nature of property and the management of real

estate assets. This applies to a broad range of property, from relatively small housing allotments to multi-tenanted high rise buildings. Consequently serious flaws are emerging and only now becoming apparent in this particularly low inflation investment environment. Unless this situation is rectified with proactive management, the increased risk could potentially result in widespread losses to a large cross-section of individuals in society. The main tasks that this project endeavours to accomplish are to:

- highlight and identify these issues;
- quantify the number of individual investors currently exposed to this risk;
- examine the potential for future losses;
- list and detail specific remedies and policy recommendations to avert this loss of income.

This paper highlights a potential loss resulting from specific management practices with regard to property investment. For example, a number of trends have developed with the partial transfer of fixed assets from a company and into long term liabilities (i.e. selling the property on a leaseback arrangement). In this scenario a company may sell its freehold property holdings and enter into a long-term leaseback arrangement that might be undertaken in order to solve short-term cash flow problems. Another example is the often large discrepancy between the financial market valuation (via the sharemarket) of a property trust and the actual market value of the property. It has been suggested that both prices should be identical, but reference to any financial market dispels this notion. Transactions occur as a result of differing opinions about price and worth, and this is of significant relevance to property (Peto, et al., 1996). It has been argued that the valuation of property trusts is as much a function of consumer expectations as it is of understanding their underlying properties (Dowd, 1993). Therefore critical information is not disseminated to the investing public regarding long-term costs and management styles, a potential mismatch in values could occur. Clearly this future shortfall would be drawn from investors' pockets to make up the difference, directly as a result of decisions made by today's financial management.

EFFECTS ON RETURNS AND VALUES

The effects on asset and income value of the wasting asset in the improvements on the land have been dealt with in only a summary fashion. As real estate has always been considered to be a growth asset, it has been assumed that inflation would amortise the wasting component of the asset. This appeared to be true in the low inflation economies of times past where the depreciation and obsolescence associated with buildings proceeded at a slow rate. For example, a property has been analysed to show a yield of 7%. Growth in value in a low inflation environment is forecast at 3% per annum and the property is forecast to have an investment life of 50 years (thus is depreciating at 2% per annum). The overall picture is that there is a real yield of 8% and the growth in value offsets the depreciation. The assumption in freehold real estate is that the appreciation in value of the land component at least offsets the depreciation in value of the improvements.

Amortisation of the wasting asset also appeared to be true in the high inflation economies of the recent past even though the rate of depreciation and obsolescence had substantially increased. Using the same property, growth is now forecast at 10% and the real yield has increased to 15%. Even with a shorter investment life of 20 years (depreciation being 5% per annum) the real yield is 12%. Thus depreciation is masked by high inflation. However, it is now evident that the return to a period of low inflation coupled with the continuing acceleration in change reflected in rapidly increasing depreciation and obsolescence is leading to a situation in which there is insufficient allowance for amortising the wasting asset. Returning to the example, growth is 3% per annum but investment life remains at 20 years (depreciation 5% as before). The real yield has now reduced to 5% showing that growth in value no longer offsets the depreciation.

Using a simple discounted cash flow spreadsheet, a broad assessment of the effectiveness of overcoming depreciation and obsolescence by capital expenditure during the investment period can be illustrated. Using the same property outlined above, the effects of ignoring depreciation and obsolescence are shown in Table 1 whilst the benefits of ongoing capital expenditure are shown in Table 2.

Table 1: Property scenario with no capital expenditure

Year	0	1	2	3	4	5	6	7	8	9	10	11
Growth		3.00%	3.00%	3.00%	3.00%	3.00%	2.50%	2.50%	2.50%	2.50%	2.50%	
Gross income		100,000	103,000	106,090	109,273	112,551	115,927	118,826	121,796	124,841	127,962	131,161
		3.00%	3.00%	3.00%	3.00%	3.00%	3.50%	3.50%	3.50%	3.50%	3.50%	
Outgoings		25,000	25,750	26,523	27,318	28,138	28,982	29,996	31,046	32,133	33,257	34,421
Net Income		75,000	77,250	79,568	81,955	84,413	86,946	88,829	90,750	92,708	94,705	96,740
Yield	7.00%					7.50%					8.00%	
Value	$1,071,429										1,209,248	
Capital Expenditure						0					0	
Net cash flow	-$1,071,429	75,000	77,250	79,568	81,955	84,413	86,946	88,829	90,750	92,708	1,303,953	
Discount rate	11.00%											
Present Value	$916,649											
	8.67%											

Table 2: Property scenario with capital expenditure

Year	0	1	2	3	4	5	6	7	8	9	10	11
Growth		3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
Gross income		100,000	103,000	106,090	109,273	112,551	115,927	119,405	122,987	126,677	130,477	134,392
		3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
Outgoings		25,000	25,750	26,523	27,318	28,138	28,982	29,851	30,747	31,669	32,619	33,598
Net Income		75,000	77,250	79,568	81,955	84,413	86,946	89,554	92,241	95,008	97,858	100,794
Yield	7.00%					7.00%					7.00%	
Value	$1,071,429										1,439,910	
Capital Expenditure						50,000					100,000	
Net cash flow	-$1,071,429	75,000	77,250	79,568	81,955	34,413	86,946	89,554	92,241	95,008	1,437,768	
Discount rate	10.00%											
Present Value	$1,001,828											
IRR	9.03%											

If depreciation is ignored (Table 1), rental growth is reduced, outgoings growth increases and the capitalisation rate at the end of the investment period increases to reflect the risks of depreciation and obsolescence. The present value of the forecast cash flow in these conditions is much lower than the market value (capitalised initial net income). The difference between the two is an illustration of the hidden costs of depreciation and obsolescence to the unwary investor. If depreciation is rectified by capital expenditure, all projections remain the same. Although the illustration (Table 2) shows a present value that is lower than market value, the differential is much smaller.

APPLICATION OF MARKET DATA

The broad underlying goal of this illustration is to conduct an investigation into the role and long-term viability of property improvements as a viable investment medium. The emphasis will also be placed on the unique characteristics of these assets and the potential effect of incorrect management upon the investments of individual investors.

The context of this illustration is a multi-level commercial office building located in the CBD of Melbourne, Australia. This case study examines the exposure of the individual investor/owner to potential future risk due to the internal management of the property.

The primary aim is to determine whether the effect of obsolescence and depreciation is adequately accounted for in the financial management of a building.

This part of the study examines to what extent (if any) property asset managers are adequately factoring an allowance into their cash flow projections for dealing with the inevitable onset of obsolescence and the associated cost of refurbishment at a later date. This can become a substantial outlay in excess of the original capital cost of the project (Bowie, 1982). The

construction cost of the case study in Melbourne was $AUD57million in the early 1970s and a refurbishment was undertaken in the early 1990s for $AUD120million (these sums are not indexed). If the monetary provision for the refurbishment during the life of the investment is inadequate, this additional and substantial sum must be found when the effects of depreciation and obsolescence are reflected by falling rents or vacancies (which were exacerbated in the case study by the property cycle of the early 1990s). This may be borne by relatively new investors who may have purchased equity in the property at a later date, but were unaware of this unavoidable and somewhat 'hidden' financial liability. All property improvements, and in particular all office buildings, are subject to lifecycle characteristics which result in inevitable obsolescence and subsequent depreciation. The rate of obsolescence has altered substantially in recent times, partly due to rapid changes in technology, telecommunications and general work practices. Demands by tenants for office accommodation have also varied significantly and these have increased the rate of obsolescence dramatically. No longer is it possible to construct a building that will meet the demands of tenants well into the future. It is quite common for tenants to relocate to another newer building, showing little loyalty to the existing building as it may not meet their needs completely due to partial obsolescence.

An analysis has been conducted of a city office building and it considers a number of aspects from a historical perspective over the last 30 years:

- The initial cost of designing and constructing the building to lease-up stage;
- The characteristics of the building through its lifecycle, with emphasis placed on the variations between buildings in each lifecycle stage;
- The requirement for refurbishment to combat obsolescence, including when it is undertaken and the optimal time for refurbishment;
- Occupancy record;
- Rental income record;
- Details of the economic cycle.

Falling rents and vacancies over the lifecycle are addressed in the overall management of the property asset. With the rate of obsolescence depending on factors such as design, construction and location, the question to be asked is: Are adequate allowances for depreciation being reflected in the investment returns and incorporated in the day-to-day operation of this investment property?

Expenses of this nature would not necessarily be apparent on the company balance sheet and not completely understood by those without a property asset management background. The corporate or fund investor is likely to understand the problem. But the "small" investor could cause substantial hardship and financial burden to a wide cross-section of the community.

When the property was developed, it had a projected life of 60 years. In the event, this building was stripped back to its structure and façade and all building contents were renewed and this process commenced within 18 years of its completion date. It is appropriate to look specifically at three portions of the overall 18-year period, namely:

- 1973 to 1979 (Table 3);
- 1976 to 1982 (Table 4);
- 1987 to 1993 (Table 5).

Tables 3 to 5 rely on data recorded by one of the authors including inflation, interest rates, rental rates and capitalisation rates. They provide calculations of market value year to year. They also provide IRR calculations before and after a sinking fund allowance which, with the benefit of hindsight, replaces the $120 million refurbishment cost over the 18-year period at the interest rates applying year to year.

The three scenarios in Tables 3 to 5 reflect not only the depreciation and obsolescence of the subject property but also the cyclical nature of the property market. Table 3 assumes a development scenario. Table 4 is an investment scenario where the investor has acquired the property "counter-cyclically" (ie, in a recession) and Table 5 is another investment scenario where the investor has acquired the property "cyclically" (ie, in a boom). These are hypotheticals used to illustrate the argument about depreciation and obsolescence. In the two investment scenarios, the purchase price is taken to be the calculated market value at the time. In the event, the developer is along-term investor who still owns the property (some 30 years later). The IRR for this investor for the period from 1973 to 1993 (covering the refurbishment period and even

allowing for the depressed market of 1993) is 7% (and 8.5% with a sinking fund to replace the refurbishment cost at the interest rates applying through the 1970s and 1980s) (not illustrated).

Table 3: Returns to developer as investor

Year	0	1973	1974	1975	1976	1977	1978	1979
Inflation		10.60%	26.60%	16.50%	12.20%	9.00%	6.00%	9.90%
Interest rate		12.00%	16.00%	10.00%	10.50%	10.50%	10.50%	10.00%
Rental rate per m2		$60	$65	$45	$50	$55	$60	$70
Initial cost	-57,000,000							
Net Income		2,400,000	2,600,000	1,800,000	2,000,000	2,200,000	2,400,000	2,800,000
Yield		6.50%	6.50%	7.50%	7.50%	7.25%	7.50%	6.75%
Present Value		36,923,077	40,000,000	24,000,000	26,666,667	30,344,828	32,000,000	41,481,481
Capital Expenditure								
Net income	-57,000,000	2,400,000	2,600,000	1,800,000	2,000,000	2,200,000	2,400,000	44,281,481
IRR	0.19%							
Sinking Fund		2,152,477	1,426,182	2,631,627	2,503,562	2,503,562	2,503,562	2,631,627
Net cash flow	-57,000,000	247,523	1,173,818	-831,627	-503,562	-303,562	-103,562	41,649,855
IRR	-4.51%							

The period covering the development of the property and the leasing-up phase is shown in Table 3. This timeframe is characterised by a substantial initial investment of $57,000,000 which turned out to be an over-capitalisation of the land. It demonstrates poor development returns as rentals and values were insufficient in the falling market. The result is an internal rate of return close to zero. Notably there was a constant yield with no capital expenditure required due to the 'as new' state of the building. Any expenses associated with the inevitable need for future refurbishment are factored into the alternative net cash flow by way of the sinking fund which leads to the inevitable negative return.

Table 4: Countercyclical investor

Year		1976	1977	1978	1979	1980	1981	1982
Inflation		12.20%	9.00%	6.00%	9.90%	10.00%	11.50%	12.00%
Interest rate		10.50%	10.50%	10.50%	10.00%	10.50%	12.50%	14.50%
Rental rate per m2		$50	$55	$60	$70	$80	$110	$140
Initial cost	-24,000,000							
Net Income		2,000,000	2,200,000	2,400,000	2,800,000	3,200,000	4,400,000	5,600,000
Yield		7.50%	7.25%	7.50%	6.75%	5.50%	5.00%	5.50%
Present Value		26,666,667	30,344,828	32,000,000	41,481,481	58,181,818	88,000,000	101,818,182
Capital Expenditure								
Net income	-24,000,000	2,000,000	2,200,000	2,400,000	2,800,000	3,200,000	4,400,000	107,418,182
IRR	29.82%							
Sinking Fund		2,503,562	2,503,562	2,503,562	2,631,627	2,503,562	2,045,847	1,666,361
Net cash flow	-24,000,000	-503,562	-303,562	-103,562	168,373	696,438	2,354,153	105,751,821
IRR	23.82%							

Table 4 details another seven-year period that is also without any capital expenditure. It reflects the counter-cyclical investment and the benefits of the improving market (note that yields have already started to decline over this period). The IRR is almost 30%. The building would have been showing signs of ageing due to the inherent depreciation and obsolescence factors, but the returns are still quite high even after allowing for the sinking fund.

Finally, Table 5 shows the effect of ageing on the property over a later seven year time frame before and after an allowance from earlier years is built into the cash flow. Although Tables 3 and 4 benefited significantly from the newly constructed building, the period identified in Table 5 was adversely affected by the substantial cash outflow required for refurbishment, resulting in substantial negative returns exacerbated by the market collapse of the late 1990s. The outlay of $120,000,000 over 1991 and 1992.

Table 5: Cyclical investor

Year		1987	1988	1989	1990	1991	1992	1993
Inflation		94.00%	8.00%	9.40%	0.70%	-6.90%	-2.60%	2.80%
Interest rate		17.00%	15.00%	19.50%	18.50%	14.00%	11.00%	9.50%
Rental rate per m2		$310	$350	$315	$275	$220	$150	$70
Initial cost	-157,142,857							
Net Income		12,400,000	14,000,000	12,600,000	11,000,000	0	0	2,800,000
Yield		7.00%	7.00%	5.90%	6.60%	7.50%	7.80%	7.00%
Present Value		177,142,857	200,000,000	213,559,322	166,666,667	0	0	40,000,000
Capital Expenditure						-60,000,000	-60,000,000	
Net income	-157,142,857	12,400,000	14,000,000	12,600,000	11,000,000	-60,000,000	-60,000,000	42,800,000
IRR	-50.55%							
Sinking Fund		1,284,719	1,582,354	987,519	1,097,432			
Net cash flow	-157,142,857	11,115,281	12,417,646	11,612,481	9,902,568	0	0	42,800,000
IRR	-11.00%							

Exceeded the net income, necessitating a cash injection from existing shareholders. This contrasting scenario highlights the dilemma facing potential property investors who are unfamiliar with management styles regarding depreciation and obsolescence. If they are fortunate and choose to invest in the period covered by Table 3 or 4, they will benefit from a relatively secure cashflow with minimal or no capital expenditure. However, if they invest during the period covered in Table 5 there is a distinct need for huge cash injections, emphasising the difference between these three time periods even though they pertain to the identical property.

CONCLUSIONS

Taking into account the various factors identified above, it has been demonstrated that current and/or future owners/investors may sustain monetary losses unless the issue of cost allocation for future expenditure is clearly acknowledged and addressed. This dilemma can be traced to the inevitable and unavoidable effect of depreciation and obsolescence, an inherent characteristic of property along with illiquidity and indivisibility. These factors have serious ramifications for the REIT and superannuation industry. They are also significant for facilities managers who are responsible for owner-occupied property. They provide a reason for corporate entities to divest, namely, the doubtful continuance of retaining a high management cost and potentially poorly performing asset on the balance sheet. They also provide a reason for corporate entities to retain property, namely, to ensure that the facilities remain in good condition and that the depredations of depreciation and obsolescence are offset by the necessary periodic capital expenditure.

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