

Listed real estate

6

6.1 What is listed real estate?

Figure 6.1 shows the so-called four quadrants of real estate investing. Some have argued — erroneously, in our opinion — that the four quadrants can be used to drive a portfolio strategy (see, for example, Rees, Wood and Wright, 2006), but this is merely an elegant way to categorise products and market real estate services, originated in the US by Gordon (1994) and Hudson-Wilson and Guenther (1995).

Figure 6.1: Four quadrants

	Public	Private
Equity	REITs	Opportunity funds
Debt	Listed CMBS	Mortgages

Source: Baum, 2008

Within the real estate investment universe, it is possible to invest in public (listed) securities, or in private funds (chapter 7). An alternative categorisation is between instruments, such as REITs or opportunity funds, which provide access to returns on equity, and instruments, which provide access to returns on debt, such as commercial mortgage-backed securities (CMBS). These, in turn, can be listed or private.

By public real estate we mean listed real estate securities. These can be split further into equity instruments — real estate investment trusts (REITs) and real estate operating companies or property companies (REOCs or PropCos) — and debt instruments.

Banks making senior loans or providing mortgages secured on real estate are investors in private debt. Since the late 1980s, creative real estate banking professionals have developed publicly listed debt instruments, examples of which are CMBS and residential mortgage-backed securities (RMBS). We deal with CMBS in section 6.10.

6.2 Public equity real estate — the background

The production and ownership of high-quality real estate needs to be financed through large-scale equity and debt capital. This requires the presence of an active international banking system, which will supply most of the debt capital, but also of entrepreneurs using equity capital. Pension funds, insurance companies, endowment funds, sovereign wealth funds and family offices, the major suppliers of equity capital (see chapter 2), have all shown a desire to access global property markets. Property companies, representing entrepreneurial equity, have offered an attractive conduit.

In chapter 1 we identified several key problems for property investors. These include (i) illiquidity and (ii) lot size. In an unpublished survey carried out for Henderson Investors in 1996, institutional investors suggested that the greatest deterrent to real estate investment was illiquidity. The best remedy for illiquidity was thought to be a public market quotation.

Baum and Struempell, 2006, on the other hand, identify lumpiness — the large and uneven sizes of individual assets — as the key inhibitor of global property investment. Direct property investment (buying buildings) requires considerably higher levels of capital investment when compared with securities, and diversification within property portfolios may prove to be more challenging than in equity and bond portfolios.

To illustrate, let us assume that there are four core global regions that investors need to access: Europe, Asia, North America and the emerging markets (Latin America, Africa, others). Assume that in each region there are 10 markets to be accessed. (In Europe, for example, we may choose the UK, Germany, France, Spain, Italy, Poland, the

Netherlands, Sweden, Denmark, Ireland.) There are four property types within each market: office, retail, industrial/logistics, and residential.

To assemble a sample that is representative of each market (see Brown and Matysiak, 2000 and Baum and Struempell, 2006) let us assume we need 10 buildings. If each costs an average of \$50m, how much capital will we need? The answer is a staggering \$80bn. If a global investor puts a typical 8% of his investment into real estate, he will need assets of £1,000bn, or \$1trn. Chapter 2 shows that the largest real estate investment manager in the world manages assets of just over €100bn, say \$150bn, and there are only two global investors known to have \$1trn or so in assets.

This analysis has limitations — it is highly approximate, it ignores the use of leverage, and it understates the impact of diversification across markets — but it illustrates an obvious truth. The vast majority of investors do not have enough capital to build diversified portfolios of global real estate.

The result is that indirect property investment (investing through securities and funds) has become commonplace. A boom in cross-border property investing has been paralleled by a boom in indirect real estate, taking two forms: listed real estate markets, especially the Real Estate Investment Trust (REIT) format, and unlisted property funds (see chapter 7). Listed real estate equity vehicles have obvious advantages, providing access to both liquidity and diversification of specific risk.

Publicly listed real estate equity securities can be split into REITs and REOCs, and the definition can be expanded to include mutual funds (section 6.4) and exchange-traded funds (ETFs, section 6.5). Under normal market conditions, these listed markets have fewer problems with liquidity, and trades can be made quickly and easily on a daily basis, albeit sometimes with a pricing penalty for transactions of scale. Listed securities also allow immediate exposure to the market, while some unlisted funds will take capital only as it is required to buy assets. The case for these instruments is therefore strong.

6.3 REITs and REOCs (property companies)

In the first edition of this book, we suggested that growth in global securitised property investment seems to be inhibited by a lack of supply, largely created by taxation and regulatory conservatism in markets outside the US, Australia and a few others. The potential for development of the European market in particular seemed great.

Germany, France, Italy and Spain had less securitised real estate product per unit of GDP than any other country, while the relatively mature securitised markets of the US, Australia, UK and Hong Kong had most.

The global universe of real estate companies has expanded dramatically over the past decade due to the very strong performance of the sector, ongoing equity issuance and a proliferation of REIT vehicles across the globe. The early major REIT markets included the US (1961), and Australia and Canada; Japan, Singapore and Hong Kong followed in the 1990s. In the US, the REIT market has grown from tiny market capitalisations to more than \$280bn in 20 years, much of it held by overseas investors. In Australia, rapid growth in the listed property trust market over the same 20-year period created a 2007 market capitalisation of A\$125bn, representing over 50% of the institutional real estate market.

The Japanese REIT led to enacted or planned REIT legislation in other Asian countries, including Malaysia, Korea, and India and China.

In Europe, the example provided by the 2003 launch of French REITs (*Sociétés d'Investissements Immobiliers Cotées*, or *SIICs*) led to the UK and Germany REIT market launches in 2007 and 2008 respectively. However, the success of REIT formats in Europe appears to have been limited by bad timing, coming as they did at the beginning of the financial market collapse of 2007–08. (In 2008, Macquarie Securities Group's Global Property Securities Analytics suggested that the total return performance of their global universe of real estate stocks — including both REITs and REOCs — was a negative 53.5%. Substantially every region was affected, with the Americas least far down at 43.5%, and Asia most down — by 58.5%.)

It is interesting to note that REITs outperformed REOCs everywhere in 2008 — see table 6.1.

Time will tell how large the new European REIT markets will become, but in early 2009 there were only two German REITs despite the large size of the German direct market, and no new UK REITs were launched in 2008. REITs have become more popular in some markets than others, and as a result there are now three different market situations. REITs are the predominant form of public-listed property equity instruments in the US, Australia, UK and France. In Japan, REITs co-exist with traditional property companies. In Hong Kong, Malaysia, Germany and several other markets REITs are a small percentage of the listed market.

Table 6.1: REIT and REOC/PropCo performance, 2008

	REITs	PropCos	Closed-end funds	Total
Asia	−46.2	−59.6		−58.5
Americas	−38.3	−56.8		−43.5
Europe	−39.3	−61.6	−85.6	−52.8
Oceania	−54.0	−65.5		−55.3
Middle East & Africa	−5.6	−57.0		−55.9
Global	−41.8	−59.4	−85.6	−53.7

Source: Macquarie Global Property Securities Analytics

Now a global brand, although the regime controlling them is not formally consolidated in any way, REITs are generally distinguished from property companies or REOCs by two factors: tax treatment and regulation.

A property company is a taxable entity, like any company. Profits are taxed within the firm, and management has unlimited discretion to distribute dividends to shareholders from post-tax income. Tax-paying shareholders are then taxed on the dividend income they receive, so double taxation arises in their hands.

REITs generally do not pay taxes at the company level provided they conform to a number of restrictions, which typically include the following:

- a) they discharge a majority of taxable income as a dividend;
- b) leverage is limited; and
- c) the portion of income derived from development is limited.

Tax is one reason why investment in non-REIT property companies has, generally, not been popular. The key advantage created by this tax treatment of the REIT is that capital gains tax charged on the disposal of assets — arguably a key reason for PropCos trading at discounts to net asset value (see section 6.9) — is extinguished.

In some markets, the UK being a prime example, long-term returns from property company shares have been no better than returns from direct property, while risk has been much higher (see section 6.6). Performance has been strongly linked to equities in the short term — so

property companies have not diversified equity portfolios. Finally, tax leakage has put all investors in property company shares at a disadvantage to investors in direct property. REITs, however, have been more popular, and both the tax advantage and improved performance characteristics appear to have been significant.

6.4 Listed funds and mutual funds

The distinction between a company and what is commonly thought of as a fund is not based on the legal structure — funds may also be corporate structures, as explained in chapter 7 — but on the way the two are managed. The typical listed property company is internally managed, meaning that there is no legal separation of assets and management team, while a fund (like an investment trust) has external management and a contract is put in place between the fund manager and the assets, held in a separate corporate structure.

Listed funds popular in the UK market include a group of Jersey and Guernsey-listed investment companies created in the period before UK REIT legislation became live, seeking tax efficiency, with external management. These are usually closed-ended but may be open-ended, such as open-ended investment companies (OEICs). For more about this distinction, see chapter 7.

A mutual fund — a US term not widely used in the UK — is a listed fund that invests in other listed companies, similar to an investment trust. This is similar in effect to a fund of funds (see chapter 7), but a mutual fund invests in companies rather than funds. Hence there are listed (mutual) funds investing in UK, European and global REITs providing a diversified exposure to the sector. Outside the US, these are more commonly known as property securities funds.

6.5 Exchange traded funds (ETFs)

Traded like normal shares, but more similar to mutual funds in their investment performance characteristics, ETFs allow investors to spread investments even more by tracking the performance of an entire index, but by buying a share in a single asset that represents that index.

The range of ETFs includes the EPRA universe of European REITs and real estate stocks, and the global listed real estate sector can be accessed through the EPRA/NAREIT Global Property Yield Fund.

ETFs provide exposure to global property companies and REITs without the manager selection risk — or benefit — of a mutual fund.

Also available are short and ultra short ETFs, which provide returns that are perfectly negatively correlated with the underlying index returns. This is a useful tool for a hedge fund (see chapter 8).

6.6 Do property shares offer the ideal property vehicle?

What characteristics would the ideal property vehicle have? It would deliver returns that were representative of property as an asset class, offering diversification against equities and bonds. It would have risk and return characteristics that reflected the nature of property as an asset class — moderate returns for low apparent volatility or risk. It would be divisible into small lot sizes, so that global diversification were possible for all investors. It would be liquid. It would use leverage where this was beneficial.

At first glance investing in property shares looks promising. The instruments are certainly reasonably liquid, and very divisible. But the performance characteristics offered need to be carefully examined. The ideal vehicle will offer both short and long-term performance characteristics in line with the asset class. Will public equity real estate do this?

6.6.1 Tactical asset allocation

The tactical asset allocation process is designed to generate performance from short-term expectations of returns at the asset level. This means that when property is thought to be cheap, public real estate equity securities should be about to outperform. The tactical asset allocation process, running month by month, will require this to be so, or otherwise it will be risky or illogical to go overweight, and a neutral weight or an underweight position will be maintained.

However, by examining historical monthly returns, volatilities and correlations between property, property companies and equities, it can be seen that UK property companies have been a hybrid between property and equities in terms of short-term performance. They delivered a return between 1987 and 2006 only slightly greater than that on property, while being far more volatile than both direct property and equities. And, while correlations will always be time-

variant and subject to shocks, on a monthly and quarterly basis over the longest available time period the return on property shares was much more similar to returns delivered by the equity market than to returns delivered on the direct property market.

Comparing the short-term total return of direct property (IPD), property companies (the FTSE property company sector) and equities (the FTSE All Share index) — see tables 6.1 to 6.6 — shows that property companies and the equity market have been very volatile compared with direct property. This is a bad thing: low reported volatility is what investors want, even if the numbers are massaged by valuations. This has been seen as a ‘phoney argument’ but, while the numbers themselves may be phoney, they go into the performance numbers nonetheless. And this issue is not only about volatility; it is also about correlation.

Tables 6.2 to 6.7 analyse UK data for the longest possible time series — 1987 to 2006 — for which data is available for direct property and pre-REIT UK property companies. Tables 6.2 and 6.3 show the short-term — monthly — performance characteristics of UK property company shares relative to property (the IPD monthly index) and equities. Table 6.2 shows the risk and return data, while table 6.3 is a correlation matrix.

Table 6.2 shows that property company returns (0.81% per month, or around 10% per annum) were less than direct property returns, despite the higher financial risk (through leverage) of property companies. This is reflected in the volatility of property company shares, over seven times greater than the volatility of the direct market and greater than the equity market as a whole.

We should condition this bald statement. Property volatility is artificial, due to valuation smoothing (see chapter 1), and any industry sector might have higher volatility than the equity market as a whole due simply to the smaller sample taken from a bigger market. Nonetheless, the plain reported facts remain, and UK property shares look highly inefficient over this period.

Table 6.2: Risk and return, monthly, UK asset classes, 1987–2006

	Return (%)	Risk (%)
Direct property	0.88	0.77
Equities	0.94	4.71
Property companies	0.81	5.86

Source: IPD, Property Funds Research

Can we use property shares effectively in short term asset allocation? In a monthly tactical asset allocation process, it is difficult, if not impossible, to change allocations to direct property with the same effect as changes to equity and bond allocations, as it will typically take much longer than one month to complete the purchase or sale of any directly-held property assets. When equities appear expensive or unattractive and property appears cheap or attractive, then what is to be done?

An increased allocation to property may fail to achieve any required result. Should the equities be sold immediately as direct property assets are sought? This may mean investing in cash for at least one tactical asset allocation round. What happens if equities fall in price over that period and become attractive again? Should prospective property acquisitions be aborted?

Alternatively, why not invest in property shares? They can be acquired with the same speed with which equities can be sold. So when equities appear expensive or unattractive and property appears cheap or attractive why not buy property shares?

Table 6.3 provides a clear answer to this. Because property company shares were correlated 70% with equities, and only 2% with direct property, the performance of property shares in the short term was likely to be much more like equities than property. What happens to property shares if equities fall in price over that period? Property shares were very likely to have fallen as well. Yet direct property, being slightly (5%) negatively correlated with equities, may have risen in value at the same time.

Table 6.3: Correlation, monthly, UK asset classes, 1987–2006

	Direct property	Equities
Direct property	1	
Equities	−0.05	1
Property companies	0.02	0.70

Source: IPD, Property Funds Research

Moving to a quarterly analysis, we see much the same results, shown in tables 6.4 and 6.5.

Table 6.4: Risk and return, quarterly, UK asset classes, 1987–2006

	Return (%)	Risk (%)
Direct property	2.66	2.25
Equities	2.69	8.24
Property companies	2.51	11.50

Source: IPD, Property Funds Research

Table 6.5: Correlation, quarterly, UK asset classes, 1987–2006

	Direct property	Equities
Direct property	1	
Equities	−0.01	1
Property companies	0.11	0.71

Source: IPD, Property Funds Research

An annual analysis, shown in tables 6.6 and 6.7, presents a slightly different picture, especially in terms of the correlation results, which show returns on property company shares becoming more correlated with property, albeit still less so than with equities.

(The period since the introduction of REITs in the UK has changed the picture somewhat. 2007 and 2008 were poor for both property and real estate shares, with the result that the monthly correlation coefficient rose to 0.25.)

Table 6.6: Risk and return, annual, UK asset classes, 1987–2006

	Return (%)	Risk (%)
Direct property	11.18	8.75
Equities	10.27	15.35
Property companies	9.30	26.76

Source: IPD, Property Funds Research

Table 6.7: Correlation, annual, UK asset classes, 1987–2006

	Direct property	Equities
Direct property	1	
Equities	0.07	1
Property companies	0.30	0.55

Source: IPD, Property Funds Research

6.6.2 Strategic asset allocation

The strategic asset allocation process is designed to produce a set of assets that are most appropriate taking into account the liabilities of a pension scheme. The allocation to property is determined using asset-liability models and inputs that reflect the nature of the assets in terms of return, risk and correlation.

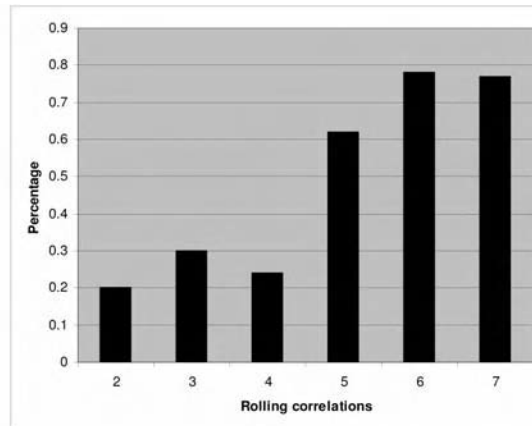
It is therefore important to examine the characteristics of indirect property vehicles compared with direct property to assess whether the use of indirect property vehicles within the property portfolio damages the integrity of the strategic asset allocation. Comparing the longer-term annual total returns of direct property, property companies and equities shows that property companies are a hybrid between property and equities. They have delivered a return since 1971 of close to that on property while being far more volatile than direct property, indeed being more akin to equities. This is broadly true whichever time horizon is examined.

It can also be seen that the pattern of delivery of the historical return on property companies has been more similar to the return on the equity market than the return on the direct property market. On an annual basis, the correlation between property companies and the property market was only 30%, while that between the property company sector and the equity market was around 55%.

Over longer periods, there is evidence that property companies begin to behave more like direct property (see figure 6.2). Over rolling three-year and four-year periods, the relationship between property companies and direct property remains low, but rolling five, six and seven-year analyses show much higher correlations, approaching 80%.

Property shares might therefore be an appropriate way to access longer-term property exposure and returns. And REITs may have

Figure 6.2: Rolling correlations, property shares and direct property, 1987–2006



Source: Curzon, March 2007

advantages over REOCs. We have inadequate performance history in Europe to examine this empirically, and for evidence we must turn to the US.

6.7 The US REIT experience

REITs were created in the US in the 1960s to allow smaller investors to participate in property markets. They are tax neutral, or tax transparent, vehicles provided they meet the qualification rules. In the US, these rules include the following.

- There must be a minimum of 100 shareholders, with limited insider dominance.
- At least 75% of total assets must be held in real estate assets, cash or government securities.
- At least 75% of gross income must be generated from rents of real property, interest on mortgages, gains on sales of property and dividends from other REITs.

US REITs can be public or private vehicles; in this chapter we focus on the listed (public) variety. There are equity REITs, mortgage REITs and hybrid REITs. In this chapter we focus on the equity variety.

The major growth period for US REITs began in 1991, as the vehicle proved ideal for re-capitalising a distressed real estate market. The creation of the Umbrella Partnership REIT or UPREIT in 1992 allowed a boom in securitisation, as it permitted owners of assets to contribute them to a REIT in return for shares, without having to pay capital tax on the transfer.

US REITs are now one of the longest-standing and most researched tax-transparent property vehicles in existence. There is a large number of articles in the academic literature relating to REITs, focused on the extent to which US REITs perform like real estate or stocks (see reviews of the literature in Corgel et al, 1995 and Worzala and Sirmans, 2003). This is a key question, and there is a strong lobby that argues that REITs will be more like pure real estate equity than will REOCs. A possible reason for REITs performing more like direct real estate are the regulations that have the effect of maintaining income distributions (see section 6.7.1, which is derived from Baum and Devaney, 2008).

6.7.1 Distributions

When REITs were introduced in the US in 1960, a high compulsory income distribution level of 90% was set. This was designed to ensure that the risk to investors was reduced (after all, “a bird in the hand is worth two in the bush”).

The distribution level was later increased to 95%. These distributions were to be made from net income after the deduction of expenses, interest and (as is common in accounting for any company) a depreciation allowance, recognising the following.

- Real estate vehicles need the ability to retain some earnings through which reinvestment and renewal of the stock can be made.
- In a particular year, a real estate owner can be faced with significant costs to repair and maintain buildings for existing or prospective occupiers.

More recently, in the REIT Modernisation Act 1999, the compulsory distribution level was reduced to 90% of net income. The change did

not appear to have a big impact on US REIT values. The reason for this limited impact was that REIT dividends are only partially constrained by the minimum distribution requirement. The average payout by US REITs is often over 100% of accounting earnings. This is confirmed by the studies of Wang et al (1993) and Bradley et al (1998), with the former reporting an average payout ratio of 1.65, where payout ratio is the ratio of dividends to reported net income. This was compared with an expected 0.95 if regulation were the only driver.

(In 2009, extreme circumstances forced many REITs to cut or suspend dividends. This encouraged the US Internal Revenue Service to provide REITs with the option of paying up to 90% of the dividend in stock.)

The reason for these high payout proportions is that there is a big difference between reported net income and the net cash flow that an equity (property-owning) REIT has available to distribute. This difference is created by large provisions for depreciation and amortisation, associated with the cost-based treatment of commercial real estate assets in accounts.

In the US REIT industry, it is recognised that the accounting measure of net income is not a useful measure of equity REIT profitability (Yungmann and Taube, 2001). Therefore, other measures have been developed, such as Funds from Operations (FFO), Adjusted Funds from Operations (AFFO) and Funds Available for Distribution (FAD). FFO adds back the depreciation allowance necessitated by cost accounting to estimate the cash flow that can be capitalised to assess value per share; AFFO makes a deduction from this cash to reflect the fact that property depreciates and that without it an overdistribution might lead to overvaluation, ignoring the cost of property refurbishment.

While these different metrics offer alternative ways of assessing REIT earnings, there is a lack of consistency in how they are calculated between firms. Nonetheless, the maintenance of higher distributions than can be relied upon from a REOC is likely to stabilise returns and create a more real estate-like asset. Does the data support this hypothesis?

6.7.2 Performance

Table 6.8 shows the annual returns on direct property (the NCREIF Property Index, or NPI), US REITs (the NAREIT Index) and US Equities (the S&P 500). Unlike UK property companies, REITs have

outperformed direct property, and the increase in risk has not been disproportionate.

Table 6.8: Risk and return, annual, US asset classes, 1978–2006

	Return (%)	Risk (%)
NPI	9.53	9.70
NAREIT	14.79	15.77
Equity	13.41	14.53

Source: NCREIF, NAREIT

The correlation data shown in table 6.9 is also more positive for REITs. While US REITs have been more highly correlated with equities on an annual basis than with direct property, the correlation of 30% is less than the UK REOC equivalent of 55%.

Table 6.9: Correlation, annual, US asset classes, 1978–2006

	NCREIF	NAREIT
NAREIT	0.07	1
Equity	0.11	0.3

Source: NCREIF, NAREIT

Rolling monthly correlations (see figure 6.3) show that the relationship between direct real estate and REITs has strengthened over time, from 20% around 2001 to 55% in 2007. Nonetheless, this value remains below the strength of the correlations with equities and bonds, firm at around 80%.

In conclusion, there are promising signs that, when compared with REOCs, REITs offer superior performance characteristics for real estate investors.

Figure 6.3: Rolling correlations, REITs and other asset classes, 1996–2007



Source: UBS, NCREIF, NAREIT

Box 6: Case study: have US REITs been beneficial for US investors?

This study examines the evidence of the returns delivered by REITs to investors over two decades (1979–1998). It sets out to answer the question: over this period, have US REITs been beneficial for US investors?

In this case study, the following definitions are used.

- NAREIT is the return series for REITs maintained by the National Association of Real Estate Investment Trusts.
- S&P 500 is the Standard and Poor index of the performance of the largest US stocks.
- R2000 is the Russell Company's index of the performance of smaller US stocks.
- 90-day is the return delivered by 90-day treasury bills in the US.
- NCREIF is the return series for private real estate maintained by the National Council of Real Estate Investment Fiduciaries in the US.
- Mean is the arithmetic mean of annual returns.
- SD is the standard deviation of annual returns, a measure of risk.
- Correlation is the correlation co-efficient between two variables, with a maximum value of 1 indicating perfect positive correlation, a minimum value of -1 indicating perfect negative correlation and a value of 0 indicating no correlation.

For the multi-asset US investor, for example a US pension fund, did REITs add to return or reduce portfolio risk? Were they demonstrably superior in these respects to direct US real estate?

Table 6.10, which uses quarterly data, shows that REITs (3.17%) outperformed direct US property (2.2%) over the period 1979–98 by almost 1% per quarter, in return for significantly higher volatility (7.49% against 1.84%). For an investor who requires liquidity, REITs have a great advantage over the private market, but the volatility would be a serious problem. On the other hand, the outperformance may have been enough to compensate for this.

Table 6.10 also shows that REITs underperformed both larger stocks (3.17% against 4.40% for the S&P 500) and the smaller stock benchmark, which is accepted as more appropriate (4.11% for the Russell 2000). Volatility for REITs was similar to that of the larger stocks, but the Russell 2000 showed greater volatility (10.77%) than REITs. Comparing REITs with smaller stocks also seems to reveal a fair game: REITs produced slightly less return for slightly less risk.

Table 6.11 shows that the S&P 500 and Russell 2000 were themselves highly correlated (88%), and REITs were reasonably highly correlated with both. REITs, as expected, attached themselves more to the smaller Russell 2000 benchmark (72% correlation against 59% with the S&P).

Private property represented by the NCREIF offered much greater diversification (effectively nil correlation) against stocks; but, while T-bills were quite highly correlated with NCREIF, they showed no correlation with REITs. REITs would have been better diversifiers than private property for a fixed interest investor, but slightly less effective than stocks.

Table 6.10: Stock, bond, real estate and REIT performance, 1979–98 (quarterly)

	NAREIT	NCREIF	S&P500	R2000	90-day
Mean (%)	3.17	2.20	4.43	4.11	1.75
SD (%)	7.49	1.84	7.45	10.77	0.68

Source: NAREIT, NCREIF, Datastream

Table 6.11: Stock, bond, real estate and REIT correlation, 1979–98 (quarterly)

	NAREIT	NCREIF	S&P500	R2000	90-day bills
NAREIT (%)	100				
NCREIF (%)	−4	100			
S&P500 (%)	59	−1	100		
R2000 (%)	72	−5	88	100	
90-day T-bills (%)	−2	54	−13	−6	100

Source: NAREIT, NCREIF, Datastream

Conclusion: over this period, REITs performed similar to low-risk, lower-return, smaller US companies. They offered greater returns than the private property market and better diversification against T-bills, but provided less diversification against stocks than direct property.

6.8 The UK REIT

The UK REIT market began trading on 2 January 2007. A small number — but all of the largest by value — of traditional property companies became (at the price of a one-off tax charge) early converters. The converting companies included Land Securities, Hammerson, British Land and Brixton.

The rules under which they must operate include requirements to:

- a) be a 'property rental business', with 75% of income arising from that business and 75% of assets dedicated to it (2006 Finance Act, s 108). However, as long as these tests are satisfied, a UK REIT may carry out taxable ancillary activities, which can include property (re-)development; and
- b) distribute at least 90% of the profits of the property rental business (2006 Finance Act, s 107). This does not include capital gains from selling property, though, which can either be distributed or re-invested in the portfolio (2006 Finance Act, s.118).

The qualifications to each requirement are important, as they appear to give UK REITs flexibility to renew their portfolios. It is important that distributions will be from profits rather than gross income. These steps have, on the face of it, reduced the level of dividends to investors. However, because UK and European property companies adopt accounting standards that do not permit the deduction of depreciation, those profits (and therefore the distributions) are higher than would be the case in the US. If distributions were to be made from gross income, UK REITs could have been left with insufficient cash to maintain properties and thus forced to defer expenditure, sell assets or make regular capital issues, with potentially serious impacts on vehicle performance and success.

Because UK REITs are required to carry properties at market value in their accounts and no allowance for depreciation is made to offset taxable income, values change with market conditions rather than being written down each year. This key difference from the US treatment means that the distributable profits of a UK REIT will be much closer to its cash flow.

Other differences exist between accounting practices and various REIT regimes that may influence distribution and retention decisions. In particular, a key difference lies in the nature of the leases granted in each country. The terms and conditions of leases granted will determine whether the REIT or the tenant is responsible for repairs and maintenance. This, in turn, not only influences the pattern of income and expenditure, but potentially also the extent and amount of depreciation in the portfolio (Baum and Turner, 2004).

Although UK leases have become shorter and opportunities to break have increased, traditional repairing and rent review provisions still predominate (Crosby et al, 2005). In the US, leases are shorter on average and more of the repairing obligations are borne by the landlord. This means that there are more opportunities for the US owner to actively manage its buildings and more incentive to do so owing to the need to achieve re-lettings more often. In contrast, UK leases have encouraged more passive management of the stock. Responsibility for regular maintenance to combat physical deterioration is passed to the tenant, especially in single-let buildings, but there is no guarantee that the tenant will perform these obligations in the same way and, often, they are discharged through payment of a dilapidations charge at the end of the lease. While, in theory, this compensates the landlord for lost value, the impact of not performing work when it is necessary may mean greater depreciation overall.

Both accounting and property market differences mean that the experiences of the US and other jurisdictions are of limited value when assessing the likely returns from the UK REIT.

6.9 REIT pricing: introduction

6.9.1 Earnings or asset values?

The valuation of a REIT involves different approaches in different regimes. In the US, REIT valuations are typically made by reference to earnings (defined in different ways — see section 6.7.1) and a price/earnings ratio, or a variant of this model. In the UK, valuations of assets are available and pricing by reference to net asset value is common.

It has also become common to analyse REIT prices by reference to implied yields. For example, a City office building yielding 6.5% may appear unattractive if the ‘correct yield’ (see chapter 4) is assessed as 7.5%. A listed property company owning City offices and trading at a 30% discount to NAV would have a higher implied yield, say 8%, which may be attractive.

Although the pricing of listed securities is linked to that of the real estate portfolio, there is also a significant degree of variability around the underlying net asset value. This is because both REITs and property company shares are influenced by price movements in the equities markets in general. Consequently, there can be price anomalies compared with the underlying real estate market that can be exploited tactically. (It is commonly suggested by REIT analysts that property equities, unconstrained by valuations and comparable evidence, forecast the direct market by up to 18 months ahead.) However, this issue can also increase the risk of REITs underperforming the underlying property market, and REITs are unlikely to provide access to the same level of pure real estate performance in the short term as the unlisted market.

6.9.2 Market capitalisation and net asset value

EPRA and NAREIT maintain REIT and listed property vehicle data of the type one would expect to find in listed securities markets. The market capitalisations of the global REIT markets are therefore readily available. But to estimate how much of the world’s real estate is held by listed vehicles, as we did in chapter 2, we need the gross asset value or GAV.

Simplifying, $GAV = \text{net asset value (NAV)} + \text{debt}$, so we need to estimate the vehicle's debt or gearing, and then we can arrive at NAV. However, the value of a REIT is reported as its market capitalisation. This is almost the same as NAV — but not quite, because shares can trade at a premium or discount to NAV. Market capitalisation is therefore equal to $NAV \pm \text{the discount or premium to NAV}$.

6.9.3 Premium or discount to NAV?

Data produced by Green Street Advisers suggests that over the period 1990–2007 US REITs traded at an average premium to NAV (this is estimated NAV — REITs are not required to value their assets) of 4.8%. At the end of 2008, however, the estimated discount to NAV was around 40%, rivalling the record discount seen in 1991, while in 1997–98 the estimated premium to NAV touched 30%. What explains the premium — or discount?

Arguments about the source of this variation can become heated. This is because the well-known valuation smoothing issue, which affects direct real estate prices is seen by some — REIT proponents included — as wholly destructive of the value of valuations and, by extension, NAV estimates. Compared with 'real' pricing in the stock markets, this is mere opinion, and systematically flawed at that. To proponents of direct property, valuations can and should be professional estimates of the most likely selling price of a property in the absence of a distressed market, while stock market prices are volatile, unreliable reflections of short-term sentiment in the absence of a more objective logic. The debate is philosophical and unresolvable.

Assuming that both NAV estimates and REIT trading prices contain useful information, why might the price of a REIT share be higher (or lower) than its NAV per share? Several commentators (for example, Clayton and MacKinnon, 2000) have considered this issue. The following propositions are the most convincing.

6.10 Explaining the premium/discount to NAV

6.10.1 Instant exposure

In chapter 7, we will examine the so-called J-curve effect. This describes the phenomenon that affects any investor in direct real estate or in a

blind (unpopulated by assets) real estate fund. \$100m invested in either of these formats is converted, all things held equal, into around \$95m of assets, because legal fees, other due diligence costs and property taxes (stamp duty, for example) will likely add up to around 5% of the acquired property's value.

Investors in REITs and REOCs do not suffer this problem. The investor usually gains instant exposure to a fully invested real estate portfolio in the assembly of which these costs have already been incurred. All things held equal, this should drive REIT prices to a natural premium of around 5% — close to the observed average premium in the US.

6.10.2 Liquidity/divisibility

What creates liquidity? Listing a security provides a shop window, advertising the product and encouraging buyers and sellers to transact. But a quotation is not sufficient to attract the attention of a market maker. Many quoted assets — including many small property companies — will not be taken onto the market maker's book. He will require matched bargains and/or require a large spread from buy to sell price.

Market makers are essential to ensure that a market can operate at volume. Hence market makers are important in the delivery of liquidity. They require:

- a) a large spread between buying and selling prices;
- b) high market capitalisation; and
- c) derivatives to offset risk.

Speculators or arbitrageurs also need to be attracted to add to market capacity. They also help to provide volume, but they require volatility to encourage them to transact. This will mean that average holding periods become shorter. They also require perfectly standard vehicles that they can understand and arbitrage between. We can now add the following requirements:

- a) daily quotation of prices; and
- b) standard vehicles.

In summary, volume is crucial: and it will be created by large market capitalisation of the combined sector of standard vehicles plus short

average holding periods. Short holding periods and volatility go together, hand in glove, and require the participation of market makers, investors and speculators. They, in turn, will be attracted by large spreads, a large volume of similar vehicles, and quotation, plus the opportunity to offset risk through derivatives.

The case for REITs revolves around the solution they provide to the twin problems direct property investors face — illiquidity and lot size. The best remedy for illiquidity is a public market quotation, and the problem of lumpiness is solved by the securitisation of real estate and the consequent divisibility of the REIT instrument.

Given a REIT's potential liquidity, these advantages should drive REIT prices to a premium to NAV. When REITs trade at premiums, the sector can be expected to grow, as REITs can buy property for less than the increase in share price which results. This is accretive to earnings. In these circumstances, rights issues by existing companies, and new REIT launches, become attractive to investors.

6.10.3 Asset values are higher than the reported NAV

If asset values are perceived to be higher than the reported NAV, then efficient REIT pricing will drive share prices above NAV. Because valuation smoothing is expected to depress valuations below trading prices in a rising market, this is a likely phenomenon in a strong market for property investing. (Observed or estimated US REIT premiums have generally been positive in strong markets and negative in weak markets.)

If asset values are perceived to be lower than the reported NAV, then REIT prices can be expected to be below NAV. This is a likely phenomenon in a falling or weak market for property investing.

6.10.4 Projected asset values are expected to exceed the reported NAV

If asset values are expected to rise, REIT prices might act as a coincident indicator of these expectations and a leading indicator of property prices. Because property prices are somewhat auto-correlated, this is a likely phenomenon in a strong market for property investing, and will work in the same direction as the perceived difference between current and reported NAVs. Note, however, that these are different, albeit related, factors.

If asset values are expected to fall, then REIT prices will be expected to be below NAV.

6.10.5 Other issues

Other factors often considered in connection with the REIT premium/discount include the following.

Management skills

If management skills and efficiency are perceived to be of high quality relative to the overheads of running the business, it is argued that this would drive REIT share prices to a premium against NAV.

Tax

If there is an embedded tax liability (usually a capital gains tax liability which is contingent on the sale of assets) this is likely to drive prices to a discount to the gross of tax NAV. As with many factors, it is difficult to estimate how large this effect will be. If a property company is sold with such an embedded contingent liability, there is usually a negotiation about how much of that tax risk is deducted from the price, as it is not possible to be certain how large the tax will be or, indeed, if any tax will arise.

Debt

REOCs and REITs will have agreed debt facilities and loans in place. The interest rate will be fixed, or a varying rate agreement may have been swapped into fixed price debt. The average interest rate on this debt may be above or below current market rates, or the average for the sector. In either case, the cost of this debt may be 'marked to market', so that expensive debt will reduce the REIT share price below NAV, while cheap debt will have the opposite effect.

Box 7: What next for US REITs?

New Year's predictions are normally a fool's game, but a forecast for '09 that can be taken to the bank is that it will be one of, if not the, toughest years for owners of/investors in commercial real estate in modern history. Property operating fundamentals will decay across virtually all sectors, and looming maturities of unrefinancable debt will cast a dark shadow on both the availability of capital and the value of properties. However, because one man's distress is usually another's opportunity, 2009 will also be a year in which the savviest, best-capitalized real estate companies begin to take advantage of what is stacking up to be one of the greatest "buyer's markets" of all time. Performance for any given REIT will be dependent on whether the company is likely to spend the next few years on its heels playing defense or whether it will be able to play offense when opportunity knocks.

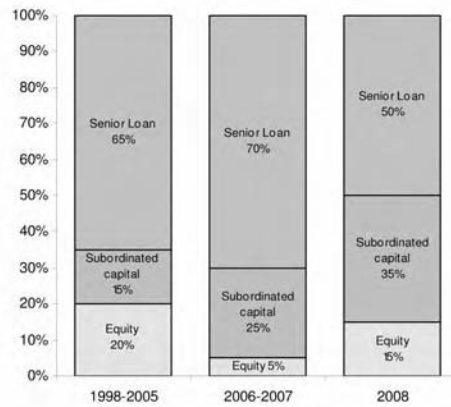
Of all the boogeymen that visited the REIT sector in 2008, none was scarier than the prospect that a sizable number of REITs could encounter severe financial distress if credit markets remain dysfunctional. Unfortunately, this fear is likely to persist through 2009 and beyond, as worsening fundamentals and maturities of unrefinancable debt are problems without easy resolutions. While this theme will continue to weigh heavy on the share prices of many REITs, 2009 is likely to be a year in which REIT investors grow increasingly intrigued with the flip side of this story: one man's distress can be another's opportunity.

On the heels of a year in which REITs have been thrashed, the idea that they may be able to capitalize on, as opposed to being the victims of, distress may seem a stretch. However, the last time the real estate industry went through a deep downturn — '89–94 — REITs played a major role in cleaning up the mess, as numerous landlords went bankrupt, foreclosures were commonplace, and no other source of capital wanted to have anything to do with real estate. A review of that history provides a reasonable scenario as to what may lie ahead for REITs. Suffice it to say that savvy landlords with solid balance sheets should soon begin to have exciting external growth opportunities.

Meanwhile, many REITs will be so busy playing defense over the next few years that they are unlikely to have the opportunity to take the offensive side of the field. Prices of both equity and debt indicate that investors are assuming that a sizable number of REITs will encounter financial distress, and this factor will almost certainly impact pricing for a long time to come.

Green Street Advisors, 5 January 2009

Figure 6.4: A typical real estate capital structure



Source: CBRE Investors

6.11 Public debt and mortgage-backed securities (CMBS)

The value of debt-like property investment has been evidenced in the UK for many years by the appeal of the fixed incomes produced, for example, by over-rented office property in the City of London since 1991. It was brought into sharp focus by the activities of Rotch, a property company that exploited the yield gap between high-yielding long lease property and corporate bonds, by the securitisation of Broadgate by British Land and by other 1990s asset-backed securitisations.

The property-backed debt market in the US, including the enormously successful public commercial mortgage-backed securities (CMBS) market, is huge. American players and others encouraged the securitisation of property-backed debt in some volume in Europe, and as a result the European property market entered a new phase. The introduction of public debt securities provided opportunities for corporates and developers to raise finance by selling property-backed debt instruments, either quoted securities or private mortgage-type paper. It produced interesting implications for the valuation, performance and tradeability of residual property interests.

CMBS are securities that provide the right to receive interest and capital payments from a (hopefully) diversified package of borrowers. They may be listed to provide liquidity and a broader buyer universe, dominated by institutional investors seeking higher yields than government bonds provide, yet secured against low-risk real estate assets. They are debt securities collateralised by a pool of senior commercial real estate mortgage loans, themselves secured against a diverse portfolio of commercial real properties.

CMBS are credit rated by independent agencies. The credit rating attached to CMBS securities is dependent upon several factors, including in particular the position or seniority of the securities' claim on the cash flow from the underlying portfolio of loan cash flows, which may be supporting more than one source of debt, as shown in figure 6.4.

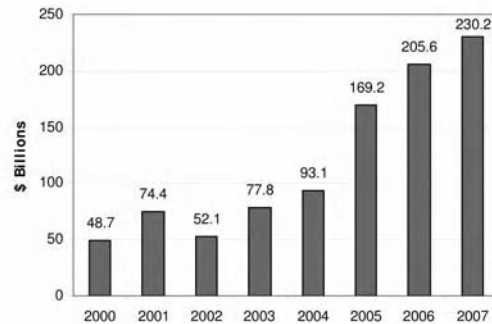
The 'senior loan' will have first call on any cash flows from the asset, while the subordinated loans will have the next call. At the time the loans are made, interest cover (interest as a proportion of net rents) limits will mean that the 'stabilised' (expected) cash flow produced by the asset will be more than enough to pay all interest charges on all loans with something significant left over for the equity owners. However, things can change: variable rate interest charges can rise, and vacancies and defaults can arise in tenancies.

If and when the cash flow declines relative to its expected level, the equity owner will have to lose all of his income before the subordinated debt provider loses some of his. Only if the net income falls a long way, and both the equity owner and the subordinated debt provider lose all of their income, will the senior debt provider be at risk. Hence the senior debt will be more highly rated than the subordinated debt. This applies to CMBS issues, which will typically be split into 'tranches' of debt to maximise their value. Through this mechanism, loans could be re-engineered to have a higher aggregate market value. This led to a boom in CMBS issuance in the US (see figure 6.5).

A CMBS issuance comprises a pool of first mortgages secured by income-producing commercial real estate (office, retail, industrial, multi-family and hotels). The mortgages are in turn bundled together into a pool or portfolio, tranced according to their priority entitlement to the underlying mortgage loan payments, assigned a credit rating and sold to third-party investors who buy the bonds based upon their risk/return objectives.

The highest rated bonds are AAA and the lowest rated are non-investment grade. Accordingly those with the highest ratings (AAA) achieve the tightest pricing and therefore the narrowest spread to the

Figure 6.5: CMBS issuance, US, 2000–07



Source: Commercial Mortgage Alert

risk-free rate or treasuries, while the lowest ranking securities have higher spreads.

The probability of defaults and the expected returns for each class of a securitisation vary with its rating. AAA-rated tranches offer the lowest probability of default and the lowest returns, whereas below-investment grade and unrated tranches offer higher returns as well as higher risks of default. Because the default probability is highest for below-investment grade and unrated classes, investors in these classes have traditionally been real estate private equity-focused organisations with in-depth knowledge of the underlying assets and their respective markets and with property asset management skills on hand.

As the ratings within a specific CMBS issuance decline, the interest rate spread or margin over base rate and relative to more senior and protected tranches increases. As the debt investment becomes more junior in the capital structure, the performance return becomes less predictable and interest rate sensitive and more reliant on the changes in the net cash flow of the collateral commercial real property.

Senior tranches (AAA through BBB), also known as 'rated' tranches, should earn their return from the coupon (interest payment) on the tranche and should be viewed as a fixed-income investment in 'normal' market conditions. Moving from BB, the first level of 'unrated tranches', up the risk scale in any CMBS issuance to B and Z tranches, investors get less and less protection and more risk of loss.

The US residential subprime mortgage shock that emerged in mid-2007 triggered a wave of global risk repricing. Due to a sharp increase in risk aversion and liquidity preference, credit spreads widened dramatically on both residential and commercial real estate debt securities, as shown in table 6.12.

Table 6.12: Indicative debt investment spreads

Yield range	1Q07 (%)	2Q/3Q08 (%)
CMBS — AA & A	T+5–6	T+7–20
CMBS — BBB	T+6–7	T+10–25
CMBS — sub-investment grade	T+8–20	T+20–50
B-notes	T+6–12	T+7–15
Mezzanine loans	T+7–13	T+8–20

Source: Markit, ING Clarion Capital

Note: T means the yield on treasuries.

As a result of the pricing change, CMBS issuance dried up completely for a period. For example, while 2007 issuance was \$230bn only \$12bn was issued in 2008.

Despite the fall in new issuance, the CMBS market experienced an imbalance of supply and demand. Investors retreated in the face of aggressive underwriting standards and a lack of available capital. This imbalance placed substantial pressure on CMBS spreads to widen further and opportunities arose to negotiate investments in the secondary market on very favourable terms (high coupons or running yields).

After the credit crunch, it became clear that financial market investors failed to adequately assess real estate fundamentals and credit risk. This lack of focus on the true underlying real estate fundamentals meant that loan pools were overpriced in the period before mid-2007. In the aftermath, the spreads seen on commercial real estate debt securities, notably AAA CMBS securities, clearly exaggerated the losses that might be anticipated even in a severe recessionary phase, presenting a unique buying opportunity and

momentarily replacing equity investment for some investors. There is little doubt that this opportunity would be brief, and that the normal capital return relationship would re-assert itself, with equity expected to earn considerably more than debt.