Securitisation and Institutional Property Investment

Robert Ashurst, Gerald Blundell, Philip Booth, Martin Cumberworth, Glynn Griffiths and Guy Morrell

Abstract

This paper looks at the reasons for the reduction in institutional property investment over the last twenty years. We then consider whether the introduction of further securitised vehicles would lead to this trend being reversed. Current securitised vehicles are examined both in the UK and overseas. Finally, we ask whether there are long term trends in property use, which may have affected institutional attitudes towards property in ways which would not be affected by the development of further securitised vehicles.

Cet expose examine les raisons pourquoi il a eu une baisse dans le domaine des investissements immobiliers des grands organismes. On considère, par la suite, si l’introduction de plus de moyens d’investissements indirects menerait à un renversement de cette tendance. On examine les moyens d’investissements indirects actuels au Royaume Uni et à l’étranger. Finalement on se pose la question s’il y a des tendances à long terme en ce qui concerne l’habitation des immeubles qui pourraient avoir influencé les attitudes des grands investisseurs envers la propriété d’une autre manière que le développement de plus de moyens d’investissements indirects.

Keywords

Property, securitisation, intermediation, facilities management.
SECURITISATION AND INSTITUTIONAL PROPERTY INVESTMENT

1. Introduction

1.1 Over the past fifteen years pension fund exposure to property has fallen from just under 17% to less than 5% of assets. It has reached a point where its relative return is hardly contributing to differential fund returns and where it is frequently ring fenced from quantitative asset liability modelling. Yet the asset class, with all its limitations of liquidity and valuations, ought to be of increasing interest to UK pension funds as their liabilities shorten. It offers a predictable, high yield income stream with a degree of insulation against unexpected inflation. The mean duration on occupational leases is around 15 years, midway between equity and gilt mean durations. There appear to be some diversification benefits even after allowing for valuation inefficiency.

1.2 Why is it then, that UK pension funds have been reducing property exposure? One potential answer that has gained in prominence over the past few years is the lack of liquidity on offer. This not to say the volume of activity has fallen; data from the Independent Property Databank's sample of the market indicates it has risen. Rather, investors' appetite for liquidity has grown.

1.3 But the demand for increasing liquidity is not unique to this country and overseas pension funds have higher property exposures. In an eleven country study of Europe, Mercers estimate that nine other countries' pension funds have higher property exposures than UK funds, a finding echoed by Watson Wyatt. Perhaps it is no coincidence that most of these overseas markets offer pension funds a tax transparent, fungible means of holding an interest in property, whereas we do not.

1.4 This paper explores why pension funds should have down weighted an asset class that seems suited to their future needs (section 2) and considers whether property securitisation in its widest sense will reverse this trend (section 3). These issues are then placed within the wider context of changing occupier attitudes towards the quantum of space required and ownership of that space (section 4). A summary of conclusions is presented in the fifth section.

1.5 Although property is now only a small proportion of pension fund assets, the issue of pension fund ownership is important, and not only for funds and their advisers. Whilst the duty of trustees is to make provisions for liabilities in a prudent manner, (as well as meeting the Pension Act's requirements), there are two other sets of interested parties.

1.6 Firstly, there are scheme sponsors who have a responsibility to search for cost effective ways of funding schemes, and if property could offer benefits in this direction, their advisers (who are frequently actuaries) have a duty of care to consider every avenue on their clients' behalf.
1.7 Secondly, there is a wider economic issue. It has been argued that UK infrastructure, buildings included, has been historically under funded by a capital market focus that has become increasingly short term. The further withdrawal of the pension funds from property and related infrastructure will increase the use of shorter term funds to finance long term schemes. History has demonstrated the impact that the resultant price instability has on the capital markets. Long term assets need to be matched against long term investors. Since property has been estimated at around 25% of corporate assets these issues are, indirectly, of strategic importance, even to investors who still predominantly hold equities.

1.8 The authors hope that this paper throws some light on “the property question” and stimulates discussion of it amongst a group of increasingly influential fund advisers.
2. Historic Perspective

2.1 What have the historic levels of investment in property been?

2.1.1 An estimate of the actual size of UK pension funds' property holdings over the last 30 years is shown in Table 1 below:

<table>
<thead>
<tr>
<th>31 December</th>
<th>Actual £M</th>
<th>Uplifted by RPI to end of 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963</td>
<td>90</td>
<td>979</td>
</tr>
<tr>
<td>1968</td>
<td>486</td>
<td>4,290</td>
</tr>
<tr>
<td>1973</td>
<td>1,708</td>
<td>10,287</td>
</tr>
<tr>
<td>1978</td>
<td>5,664</td>
<td>16,392</td>
</tr>
<tr>
<td>1983</td>
<td>14,482</td>
<td>24,965</td>
</tr>
<tr>
<td>1988</td>
<td>26,740</td>
<td>36,316</td>
</tr>
<tr>
<td>1993</td>
<td>23,225</td>
<td>24,518</td>
</tr>
</tbody>
</table>

Notes:

1. Source: HMSO Financial Statistics, as quoted in PDFM's 'Pension Fund Indicators'.

2. The column headed "Uplifted by RPI to end 1995" has been obtained by increasing the actual figures in the ratio of the RPI for December 1995 to the RPI for December of the year in question.

The above table shows that the value of property holdings within UK pension funds (expressed in constant retail price terms) was on a rising trend until the late 1980s, but has since fallen back quite markedly. However, these figures need to be set in the context that UK pension fund assets in total increased in value from £4.5bn as at the end of 1963 to approximately £500bn as at the end of 1995; the corresponding increase in real terms is from £49.1bn in 1963 to some £500bn in 1995.

2.1.2 Over almost all of this period, the actual allocation of pension fund's total new money to property assets was positive. Negative figures were only shown in 1987, 1990 and 1994, although 1986 and 1989 showed a zero allocation and figures for 1995 are not yet available. However, Table 2 shows how the allocation of new money to property has declined sharply as a percentage of the total new money available, from the mid-1980s onwards.
2.1.3 The result of these allocations, together with price movements in all markets, has been the following pattern of average pension fund exposure to property, as shown in Table 3.

Table 3

<table>
<thead>
<tr>
<th>Date</th>
<th>Average Percentage of Total Assets Held in Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963</td>
<td>2</td>
</tr>
<tr>
<td>1968</td>
<td>6</td>
</tr>
<tr>
<td>1973</td>
<td>14</td>
</tr>
<tr>
<td>1978</td>
<td>16</td>
</tr>
<tr>
<td>1983</td>
<td>13</td>
</tr>
<tr>
<td>1988</td>
<td>10</td>
</tr>
<tr>
<td>1993</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: HMSO Financial Statistics, as quoted in PDFM's 'Pension Fund Indicators'.

2.1.4 It may be seen from inspection of more detailed year-by-year figures that pension funds' exposure to property reached a peak between 1973 and 1983, with the highest value not surprisingly being 19% as at 31 December 1974, when the UK equity market was particularly depressed.

2.1.5 However, consideration of statistics relating to average property exposure does not give an adequate insight into the extent to which some funds were prepared to adopt property as a very major asset category within their portfolios. At that stage, concern about deviations from peer group benchmarks was of less significance in formulating asset allocation policy, especially in respect of funds managed in-house. This is demonstrated by Table 4, which summarises figures for the funds within an independent performance measurement survey as at 31 December 1978.
Table 4

<table>
<thead>
<tr>
<th>Percentage in Property</th>
<th>Over £50m</th>
<th>£20m to £7½m</th>
<th>Up to £7½m</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 50%</td>
<td>-</td>
<td>0.8</td>
<td>-</td>
<td>0.8</td>
</tr>
<tr>
<td>40%-50%</td>
<td>0.8</td>
<td>-</td>
<td>-</td>
<td>0.8</td>
</tr>
<tr>
<td>30%-40%</td>
<td>1.6</td>
<td>0.8</td>
<td>0.8</td>
<td>3.2</td>
</tr>
<tr>
<td>20%-30%</td>
<td>6.3</td>
<td>2.3</td>
<td>2.3</td>
<td>13.2</td>
</tr>
<tr>
<td>10%-20%</td>
<td>7.0</td>
<td>8.5</td>
<td>5.5</td>
<td>28.8</td>
</tr>
<tr>
<td>Positive but less than</td>
<td>5.5</td>
<td>7.8</td>
<td>9.4</td>
<td>30.5</td>
</tr>
<tr>
<td>10% 0%-10%</td>
<td>0.8</td>
<td>9.4</td>
<td>7.0</td>
<td>22.7</td>
</tr>
</tbody>
</table>

Source: R Watson & Sons Survey of the Investment Performance of Pension Funds for 1978. The size bands shown were those relevant at the time to very large, large, medium and small funds.

2.1.6 Inspection of the table above shows that high levels of property holding were surprisingly found in quite small funds, but that clearly the bigger funds had a stronger tendency towards significant property weightings. This feature has persisted over a long period of time and Table 5 below shows the development of the trend.

Table 5

<table>
<thead>
<tr>
<th>Date</th>
<th>All Funds %</th>
<th>Largest Funds %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>11.0</td>
<td>17.6</td>
</tr>
<tr>
<td>1983</td>
<td>7.5</td>
<td>12.2</td>
</tr>
<tr>
<td>1988</td>
<td>3.1</td>
<td>8.7</td>
</tr>
<tr>
<td>1993</td>
<td>1.6</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Notes:

1. Sources: R Watson & Sons Survey of the Investment Performance of Pension Funds for pre-1984 information. Thereafter from the General Reports of CAPS.

2. The above figures are unweighted averages and are therefore not directly comparable with those shown in Table 3.

2.1.7 The figures shown in this section demonstrate that, whilst the value of pension funds' property holdings has only been in decline in the 1990s, the role of property in terms of its percentage allocation within a typical pension fund has been waning since the early 1980s. In particular, the very high levels of property weighting found within some funds during the late 1970s have now disappeared and, although definitive figures are not available, it seems likely that a property weighting above about 15% of a fund's assets would now be rare.
2.1.8 It may be instructive to consider briefly some of the reasons for this marked change in the position of property which include:

- disillusionment with the return on property, as compared to other asset classes;
- the increasing emphasis over this period on peer group performance measurement, leading to a much greater homogeneity of asset allocation among funds managed by external managers;
- a decline of in-house fund management, which had generally been one of the strongholds of significant allocations to property;
- the perceived problems of fitting property, with its different time horizons for investment decisions and performance measurement, into investment management structures where all decision making has been delegated by trustees to outside bodies; and
- the availability of index-linked gilts as an alternative low risk real asset class.

Since 1979 the removal of exchange controls has allowed funds to diversify without investing in property.

- quality of performance data on property. The low recorded variance, for example, is often perceived to be artificial.
- the illiquidity of property, whether held in direct or pooled form;
- the high cost of management of property compared to other asset classes;

The last two points have always been a problem of property investment. However 'investors' perceptions of these problems may have become more acute.

2.2 History of Property Returns Relative to Other Asset Classes

2.2.1 The previous section suggested that investors have become disillusioned with past returns from property relative to other asset classes, and that this partly explains its decreasing weight within multi-asset portfolios. This could impact in two ways: lower relative returns will lead to a general decline in weighting due to market movements; and poorer historic performance may have influenced expectations of future returns, thereby influencing asset allocation decisions.

2.2.2 Whilst there are other benefits from holding property in a multi-asset portfolio (such as its diversifying qualities when combined with other assets) it is nonetheless helpful to consider historic returns and these are considered below.
2.2.3 Between 1950 and 1994, property recorded a compounded real return of around 2.2 per cent per annum, compared with 6.6 per cent from UK equities and 0.3 per cent from UK gilts. Over this period, therefore, property significantly under-performed equities but delivered a higher return than gilts.¹

2.2.4 It is also helpful to look at property returns relative to the other main asset classes over rolling five year periods, as illustrated by Figure 1. It shows that property out-performed gilts for most of this period, but under-performed equities except during the mid-1970s. Table 6 gives the rolling real returns for each asset class, expressed in absolute terms.

Figure 1: 5 year annualised returns from UK property relative to UK equities and gilts, 1950-94 (%pa)

Table 6: Annualised real returns (%pa) for the main UK asset classes for 5 year periods

<table>
<thead>
<tr>
<th>5 years ending</th>
<th>Property</th>
<th>Equities</th>
<th>Fixed Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Gilts</td>
</tr>
<tr>
<td>1994</td>
<td>-2.1</td>
<td>5.4</td>
<td>6.6</td>
</tr>
<tr>
<td>1990</td>
<td>6.8</td>
<td>7.3</td>
<td>3.1</td>
</tr>
<tr>
<td>1985</td>
<td>3.0</td>
<td>16.3</td>
<td>9.0</td>
</tr>
<tr>
<td>1980</td>
<td>3.8</td>
<td>6.3</td>
<td>1.5</td>
</tr>
<tr>
<td>1975</td>
<td>-2.6</td>
<td>-4.7</td>
<td>-7.7</td>
</tr>
<tr>
<td>1970</td>
<td>4.3</td>
<td>4.7</td>
<td>-3.1</td>
</tr>
<tr>
<td>1965</td>
<td>3.5</td>
<td>1.7</td>
<td>0.5</td>
</tr>
<tr>
<td>1960</td>
<td>1.9</td>
<td>13.7</td>
<td>-2.0</td>
</tr>
</tbody>
</table>

¹ Equity and gilt returns were obtained from Barclays de Zoete Wedd (1994). Property returns were taken from IPD (1994), Jones Lang Wootton (various) and Prudential Portfolio Managers Ltd (PPM).
2.2.5 In summary, property returns have generally been disappointing relative to other asset classes. It is generally acknowledged that property is less risky than equities and a lower return might reasonably be expected. However, theory also suggests that property should deliver a higher margin above gilts, which have lower risk characteristics. It certainly seems to be the case that investors have not been adequately rewarded for the uncertainties, illiquidity and other features associated with direct property investment.

2.2.6 Disappointing historic returns are likely to have influenced investors' expectations of the returns. It is therefore worth trying to explain the pattern of past returns.

2.3 Historical analysis of pricing

2.3.1 The following explanations may be offered for the under-performance of property relative to the main asset classes:

- investors have historically demanded lower returns from property; and/or
- investors have priced property to deliver returns which are competitive with, say, equities but they have been disappointed due to lower than expected rental growth; and/or
- other asset classes (particularly equities) have delivered higher than expected returns and/or
- property has been re-rated to stand on a higher prospective yield, relative to other asset classes, at the end of the period.

2.3.2 This section reports on a study which was undertaken in 1993 by Prudential Portfolio Managers Ltd to explore these reasons. Making certain assumptions about investors' expectations historically, the analysis first identifies prospective long-run returns implied by market prices, and compares these with actual performance. The analysis then reviews whether the returns actually achieved were due to less demanding return expectations, or whether the market was surprised by disappointing rental growth.

2.3.3 To establish market prices historically, a yields series was constructed using a variety of data sources. The results are shown in Figure 2. The steady rise in property yields over this period is clearly visible.

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2 The artificially low risk historically attributed to property due, among other things, to valuation smoothing is now well documented.
2.3.4 An essential component in understanding investors' return expectations at any point in time is the market's view of future rental growth. Explicit forecasting of rental growth is relatively new to the property market. In the absence of published records of what was being expected at any given time, some assumptions must be made about investors' rental growth expectations.

2.3.5 It is reasonable to suggest that the market will have had significant regard to past experience but will also have had some views about the immediate future. A rental expectations series was compiled by combining the average historic rental growth in the preceding ten years with the out-turn for subsequent two years, and converting this into an annual average rate. This gives greater weight to past experience but credits the investor with some level of foresight. An inflation expectations series was also compiled using a similar approach.

There are certainly difficulties with this approach and it can only give an indication of expectations. Essentially, it assumes that investors based long term forecasts on adaptive expectations combined with the next two years rental growth, which can be forecast reasonably accurately.

2.3.6 Figure 3 shows real rental growth expectations in each year (the line) and the actual outturn (the bars). Since 1975, real rental values have declined at an average annual rate of over 2.0 per cent.³

³ The rental value series is based on actual investment portfolios (rather than the rents which could be achieved on new buildings). Some of the impact of depreciation and obsolescence is therefore reflected.
2.3.7 Having derived a series of rental growth expectations and historic yields, it is then possible to estimate prospective long-run returns implied by market prices at any point in time. Full allowance is made for the costs of owning property portfolios: day-to-day management, rent reviews, transaction fees and so on. Assumptions were also made to reflect the decrease in rent review periods between 1950 and now. The prospective returns can then be compared with actual performance. The line in Figure 4 depicts the prospective long-run returns in each year; the bars show the historic 5 year annualised average historic returns. Annex 1 briefly describes the approach adopted.
The first observation from this chart is that implied returns have risen over this period, particularly during the late 1980s. In short, investors have become more demanding over time. The precise reasons for this are complex and difficult to explain. Other investment classes have entered the arena of investible assets, such as index-linked gilts in 1981 and international equities (which became more accessible to UK investors following the abolition of exchange controls in 1979). Property has therefore had to compete with other investment media and prospective returns have risen accordingly. The increase may also reflect the transition as property changed from exhibiting fixed income qualities in the early part of this period, when rents were typically fixed for 21 year intervals or more, to its more equity-like characteristics now, with reviews every five years.

The second observation from the analysis is the extent to which the market has been surprised when actual returns were either lower or higher than expected. This is denoted by the gaps between the bars and the line in Figure 4, which are more clearly displayed in Figure 5 which shows the ranked differences between implied and historic returns. There are two main periods when returns were significantly lower than the market had expected: the early to mid 1970s, and the late 1980s/early 1990s. By contrast, the market was pleasantly surprised during the early 1980s when performance exceeded expectations. It is interesting to note that both anticipated and actual returns were relatively closely aligned during most of the 1960s. Overall, however, the market has delivered returns which are lower than expected.
Several reasons may be put forward to account for this disappointment in returns.

- **The impact of boom/bust property cycles.** The market appears to have been shocked by the boom and bust cycles of the 1970s and late 1980s/early 1990s. The precise mechanisms behind these cycles may differ but a common theme to both is that investors failed to anticipate the magnitude of the supply response which resulted from development activity. Strong rental growth, caused by buoyant economic conditions and/or low levels of vacant space in the early stages of the cycle, helped to stimulate new development. By the time new accommodation was completed, the magnitude of over-supply became apparent and a downturn in economic activity was experienced. Pricing mechanisms clearly failed to anticipate the impact of the supply response on rental values and vacancy rates.

- **Depreciation.** It is also likely that investors have consistently failed to appreciate the true impact of depreciation on net income streams. It is difficult to assess the effect of this phenomenon, but the literature suggests that investors did not properly acknowledge depreciation until the 1980s. This implies that the actual level of rental growth has been consistently below that which is implied by the market.
The lack of an appropriate property evaluation framework. Until recently, explicit forecasts of future rental growth were rarely undertaken. Traditional property valuation methodology focuses on determining current open market prices. Whilst these are essential in determining where the market is at any point in time, investment policy should be driven by expectations of future returns which, for property, requires some assessment of future net income streams. It is hardly surprising that investors failed to anticipate significant changes in rental values if explicit forecasting is a relatively recent activity and if few investors based their decisions on an appropriate evaluation framework. It is also essential to reflect fully all the incidental costs of owning property incurred by on-going management, rent reviews, lettings and transactions.

Real rental growth rates could have disappointed expectations: this may have happened due to the general economic situation or a reduction in property use demand at given rental levels.

If investors have become more demanding, in terms of prospective returns, this would lead to a reduction in capital values, affecting historic returns.

2.4 Summary

2.4.1 Property returns have historically been significantly below those achieved from UK equities and have often only just exceeded those from UK gilts. Investors have not been sufficiently rewarded for the risks and illiquidity associated with direct property investment. This may have influenced investors' asset allocation decisions, and the poor relative performance will also have contributed to the decline in weightings.

2.4.2 The analysis suggests that poor returns have occurred because of a mixture of reasons. First, investors have demanded low target returns (relative to other asset classes) until relatively recently. The increase in yields, which reflect more onerous return expectations, could be attributed to the increased availability of alternative investment media during the 1980s and to growing concerns over illiquidity. Second, the market has been surprised by significant declines in rental values following boom and bust cycles in the 1970s and 1980/early 1990s. In addition, it is likely that the full effects of depreciation, and the total costs of owning and managing property portfolios, have not been adequately reflected historically in market pricing.

2.4.3 The current level of property yields, compared both to other markets and to the past, suggests that the market could be priced to deliver more attractive relative returns in the future although this paper does not seek to address this issue directly.

2.4.4 Some of the problems which have caused institutional disinvestment in property and which have caused investors to increase their required prospective returns could be addressed through the development of securitisation. In the following sections, we look at how securitised vehicles could add value in the property market.
Annexe to Section

The implied returns were computed using a version of the dividend discount model used for the equity market. A simplified version is given below. The model solves for \( r \), the implied long-run real return, such that both sides of the equation equal each other.

\[
\text{Market price}_t = \frac{1}{(1 + r_t) \times (1 + RPI_t) - 1 - ((1 + g_t) \times (1 + RPI_t) - 1)}
\]

Where:
- \( \text{Market price}_t \) = Market price in year \( t \) given prevailing market yield
- \( r_t \) = implied long-run real return in year \( t \)
- \( RPI_t \) = long-run inflation expectations, in year \( t \)
- \( g_t \) = long-run real rental growth expectations in year \( t \)

The actual model used in this study was slightly more complex, reflecting the impact of rent review periods and timing of rental payments, and also management and associated property holding costs.
3. The Benefits of Indirect Property Vehicles

3.1 Property Securitisation and Intermediation

3.1.2 It is worth considering property securitisation in the context of intermediation. Intermediation can be regarded as the process by which saving is transformed into physical capital investment through intermediate securities and institutions. Intermediation does not form part of traditional actuarial syllabi; this is surprising, as it is the raison d'être of those institutions for which actuaries work.

Consider an individual who saves through contribution of part of his salary to a pension fund (exactly the same chain of events exists for an individual taking out a savings type insurance policy). For that part of the fund which is invested in equities, the following intermediation "chain" is followed. The individual forgoes consumption and saves. The pension fund takes the savings and invests in equity investments. The equity investments form part of the capital of the company, which facilitates physical capital investment by the company. There are two intermediating vehicles in this process, each of which has an equal and opposite asset and liability: the pension fund has the liability to the pensioner and an equity asset. The company has a liability to the shareholder and an asset of physical capital. The purchase of shares by the pension fund does not, of course, lead directly to the addition of more physical capital but sets off the chain of events which can lead to that.

3.1.3 Banks would have a slightly different intermediation path, insurance companies a similar one. If we re-package the equity, so that the pension fund invests in an investment trust, we add a further stage in the process of intermediation. If the process of intermediation is to prevail, it must "add value". If it did not, there would be no pension funds, no actuaries and no investment analysts. Individuals would invest only in personal physical capital investment. It is pertinent to ask, "what value does the chain of intermediation add?". We should also consider whether, if property is re-packaged, using securitised or derivative vehicles, it will add more value for investors. In addition, we should consider whether the chain of intermediation, in the commercial property market, could take an unexpected turn, as it did in the residential property market, leading to owner occupation and the demise of a separate commercial property market. This would involve the dis-intermediation of the property market.

3.2 The Benefits of Intermediation

3.2.1 In the property market, the most important benefit from the development of a further intermediating vehicle is likely to come from the transformation of the liquidity of the underlying instrument. It is often said that if the underlying property investment is illiquid, it cannot be made liquid by changing the packaging. In general, this is not true. The highly illiquid physical capital investment of a company is made liquid by securitisation in the form of shares and debt instruments. Similarly, physical property investment can be made more liquid and easier to trade through securitisation or the development of derivative securities, as the underlying title does not have to be transferred, when the interests in the asset are transferred. Liquidity is
often cited as the reason for a reduction in the popularity of property investment (see Booth and Matysiak (1995)). Increased liquidity allows insurers and pension funds to divest themselves of assets when necessary but also facilitates the essential market process of the transfer of interests in assets to the holder who regards them as most valuable. Whilst the liquidity issue may be over-played, an increase in liquidity could do much to aid the property market.

3.2.2 Secondly, intermediation can reduce risk in a number of ways. In the case of the development of a property investment vehicle, it is the facilitation of the reduction of risk through diversification and the pooling of risk which is important. The large scale operation of a financial intermediary ensures that it can invest in a diversified pool of assets, which the original investor might not have been able to achieve. This is one of the advantages of pooled insurance funds and of property companies. However, this advantage may not be very significant if we are considering the development of a securitised vehicle which will, in general, be used by other intermediaries. Thus this advantage would not accrue to a large pension fund but may accrue to smaller institutions or individuals who are unable to invest in the property market. Whether a further intermediating vehicle would find popularity for its risk spreading characteristics would therefore depend on the group to whom it was aimed.

3.2.3 Intermediating vehicles can also reduce the cost of information gathering and analysis; the cost of investment management and the cost of transfer of property interests. This is particularly pertinent in the property market. Economies of scale can be obtained in the management and research of investments, also, the original investor only has to analyse the credit risk and management skills of the intermediary. All investors do not have to assess every single project and securities come in a standard, "packaged" form. These benefits are not necessarily found from synthetic instruments or from single property instruments, although a property index futures market may reduce the cost of information gathering and a single property instrument may have standardised contract terms. The reduced cost of information gathering also facilitates the development of the active market, described above, which can be of value to investors.

3.2.4 A securitised vehicle may also have tax advantages, although this is unlikely in the case of property investment. Direct investment in property does not bear tax for pension fund investors. Life insurance companies would pay tax on the income stream at the concessionary rate of corporation tax paid by life insurers. However, it could be said that because the current, commonly used securitised vehicles are not tax transparent, they have not yielded to investors, the benefits of intermediation described above. There may be room in the market for a further securitised vehicle, which does not have these tax disadvantages.
3.3 Other Securitised Vehicles?

3.3.1 If we were starting from the position of there not being an available securitised vehicle, it would appear likely that the reduced transactions, management and information gathering costs; the reduced risk; and increased liquidity of a securitised vehicle may well outweigh the costs of increased intermediation through a securitised vehicle. A synthetic index vehicle may also have these advantages, although at the expense of depriving the investor of the ability to use fundamental analysis to increase portfolio returns.

3.4 The Benefits of an Indirect Vehicle: the Perspectives of a UK Pension Fund

3.4.1 The theory of intermediation, described above, outlines quite effectively, the perceived advantages of indirect property investment by pension funds.

3.4.2 Pension funds outside the large pension fund sector may obtain the ability to spread risk between investments, which have a large lot size using a securitised vehicle. Large shopping schemes, City office blocks etc. may not be available to any but the largest property investor. This particular advantage can probably be achieved by pension schemes from the vehicles which already exist: in particular from pooled funds. Expertise in the management and selection of investments may also be difficult to achieve directly. For most pension funds it is difficult to justify recruiting a team of property specialists and the development of securitised vehicles may add value in the market by making this unnecessary.

3.4.3 The pension fund industry would also welcome any improvement in liquidity that a securitised vehicle would bring. The liquidity of securitised vehicles varies but is invariably greater than that of direct investment. Similarly, if an active market is to prevail, it will be important to facilitate valuation of the securitised instrument in a straightforward manner. This may be through a unit price or a quoted share price.

3.4.4 Some securitised vehicles add value in other respects. The financial gearing may be regarded as important as may the ability to invest in specialist areas (such as overseas property).

3.5 Problems with Securitised Vehicles

3.5.1 An additional link in the intermediation chain has costs, which should be outweighed by the benefits. There will be management costs of the instrument or vehicle itself. There will also be a loss of control of the underlying investments which prevents managers making use of market inefficiencies. There may also be tax difficulties with indirect vehicles which have already been mentioned. They may also be outside the scope of regulatory controls, although this is not always a disadvantage.
Securitisation and Market Pricing

3.6.1 If a securitised vehicle is to add value in the ways that have been suggested, the added value should be reflected in the market pricing of the instrument. It is through the market pricing mechanism that the incentive arises to set up the vehicles. If the advantages are in the form of increased liquidity, reduced costs or tax advantages, it would be expected that the securitised instrument would, initially, need to stand at a market premium to the underlying investment otherwise there would be no incentive to create the new vehicle. However, to assume that this situation would prevail is to ignore the dynamics of the market. The premium would exist because investors saw value being added to the underlying investments by the securitised instrument; alternatively, we could view this as the investor requiring a lower long term return from the securitised instrument (because of its inherent advantages) thus raising its initial price. The existence of the premium would encourage the development of the instrument and property would be re-packaged in the form of the instrument until an equilibrium was reached where there was no market incentive to pursue the process further. The end of the process may not be reached until a significant amount of property was re-packaged (as has happened with the equity market, where nearly all capital projects are securitised through company shares), or, if the instrument satisfies the demands of only a small number of investors, the process will end when only a small amount of property is re-packaged. Although it could be argued that a potential securitised vehicle would not succeed unless it added value which was demonstrated by a market premium, the situation is not always that simple. Adams (1991) discussing an Australian securitised vehicle suggests that a new issue discount of up to 10% would be feasible and that subscribers often subscribe to property vehicles which immediately move to a discount. In a mature active market, a number of factors can combine together to determine whether a premium or discount should exist. These are also discussed in Adams (1991) and with different vehicles the factors will have a different impact.

3.6.2 However, it is of interest to ask “what value do investors put on the re-packaging and securitisation?” This could be best measured by the reduction in prospective return implied by any increase in the value of the instrument, over and above the value of the underlying property. If the main advantage of the securitised vehicle is increased liquidity, this could be regarded as the “premium for liquidity”.

3.6.3 Any reduction in the cost of managing and researching property portfolios may, of course, be partially, or even more than, offset by the costs of managing the securitised vehicle. Insofar as this is the case, and if those costs are taken out of the income stream paid to the investor, this will reduce any premium the investor is willing to pay.

Generic Types of Securitised Vehicle

3.7.1 The types of securitised or synthetic vehicle in which a market has already developed or could develop are as follows:
3.7.2 Shares in joint stock companies which invest in property: these are normally geared and quoted on the stockmarket. A number of different pooled fund investments exist which are open ended and bought or sold through their managers. Some of these are suitable for personal investors; other have been developed for smaller pension funds. Vehicles to invest in single properties where the lot size is too vast could develop; these could be traded as shares or be pooled investments. Finally, it would be possible to develop synthetic instruments such as futures which are linked to a suitable index, with possible variations by type of property. This still comes under the heading of the development of an intermediary vehicle, as the purchaser of the future would have exposure to the underlying asset and the institution who was short would need to offset the position through the market.

3.8 What has been the UK Experience So Far?

3.8.1 The types of vehicles that have been available and the reasons for their success or failure are as follows:

(a) UK property companies

The property sub-sector of the FT-SE-A All-Share Index had a market capitalisation of £14 billion at 31/12/95. (1.6% of the total). Its performance has been disappointing relative to other shares and to direct property investment (see table 7 below).

The reasons include: poor performance of underlying net asset values (and lower income relative to direct property - dividend yield on the index sub-sector of 4.4% @ 31/12/95), effect of gearing (in a period of high real interest rates and mediocre performance of underlying property holdings), taxation inefficiencies and management costs, poor management (especially reflected in over-enthusiasm at peaks of the market).

Although property shares may be considered as a surrogate for direct property, in practice they are regarded as a sector of the equity portfolio. Accordingly fund managers are reluctant to take an extreme position because of the risks to their overall equity performance.

(b) Unauthorised property unit trust

These open ended, pooled investment vehicles which are tax efficient are designed for pension funds and charities. They total some £2.4 billion in value and have been static or declining in volume in recent years. They were a popular way of investing in property in the early and mid 1970s. Performance has been not dissimilar to direct property, which itself has been disappointing relative to other asset classes. In the past there has been an impression of performance being diluted by valuation habits (slow to increase values in a rising market when there are net purchases and slow to decrease values in a falling market when there are net redemptions). Marketability of units can be poor, especially for sellers in a weak market when it can be impossible to deal. There is always a sizeable bid/offer spread.
(c) **Authorised property unit trusts**

This is a small market designed for retail investors and can be ignored. Performance has been disappointing reflecting the underlying investment in property.

(d) **Property Investment Trusts**

Investment trusts can put 15% of their assets in property and can invest in property shares. Total market capitalisation is under £200m.

(e) **Managed Funds**

These open ended trusts are used by retail investors in conjunction with life and pension policies. The total market is currently around £2 billion.

(f) **Synthetics**

Limited experience to date with Property Index Certificates being the principal example. Around £200m of which have been issued since 1994. Recent issues of these instruments are quoted on the Stock Exchange and there is a reasonable secondary market. There has been a healthy demand but a lack of issuers is restricting volume.

Table 7: Property Returns over 5 and 10 years

<table>
<thead>
<tr>
<th>Total Return Performance</th>
<th>5 Years</th>
<th>10 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT-SE-A All Share Index</td>
<td>16.8</td>
<td>15.2</td>
</tr>
<tr>
<td>FT-SE-A Property Sector</td>
<td>4.3</td>
<td>7.7</td>
</tr>
<tr>
<td>ID Monthly Index</td>
<td>65.0</td>
<td>N/A</td>
</tr>
<tr>
<td>WM. UK Property Universe</td>
<td>6.1</td>
<td>9.6</td>
</tr>
</tbody>
</table>

3.9 **Aspects of Taxation - importance of tax neutrality**

3.9.1 Over the last 30 years or so pension funds have been the fastest growing investor class in the market so that they now represent over 30% ownership of UK shares. They are not subject to tax on income or capital gains within the UK. It is considered paramount to capitalise on this advantage and any tax inefficiencies are regarded as a major impediment for an investment vehicle for pension funds.
3.9.2 This is not so crucial for property shares which are more likely to be compared with shares of companies in other sectors. There are tax inefficiencies within companies but the tax credits on dividends are reclaimable. Exempt unauthorised property unit trust and synthetics are tax efficient but other forms of indirect property investment (actual or mooted) suffer serious drawbacks on taxation. It is difficult to see further securitised vehicles developing unless the taxation position is similar to that of direct property investment. If it is not, many of the benefits of the intermediating vehicle would be removed.

3.10 Valuation and Pricing Mechanisms

3.10.1 The valuation of property shares is straightforward if quoted on a stock exchange. Similarly, prices for transactions will be straightforward being subject to market forces.

3.10.2 Unauthorised property unit trusts are usually subject to monthly pricing by their managers, with the underlying portfolios normally valued independently by professional valuers, usually on an annual rolling basis. Hence valuation is simple but transactions less so. Purchases should always be possible on a monthly basis but sales can often be difficult and most managers reserve the right to defer sales up to three months or more. There is a reasonable secondary market in units of some trusts.

3.10.3 The valuation and trading of synthetics will present no problems if they are traded on a recognised exchange, otherwise there will be extreme difficulties.

3.10.4 Once again, it is felt that a vehicle that is easy to value and trade is required, otherwise it will not capture the benefits that an intermediating vehicle needs to provide.

3.11 Examples of Securitised Property Vehicles from Other Countries

3.11.1 In order to understand the problem of securitisation in a wider context it is helpful to consider some examples from overseas markets. Brief outlines of three of the most successful vehicles are given below:

3.11.2 US Real Estate Investment Trusts (REITs)

The US REITs constitute the world's largest securitised property market. Although established in the 19th century, tax transparency (subject to certain conditions) was achieved in 1960 but the main growth has been in the 1990s when the size of the market has trebled.

REITs invest in either properties (Equity REITs), mortgages (Mortgage REITs) or a combination of the two (Hybrid REITs). The market is dominated by Equity REITs. The instruments themselves must distribute 95% of income. Gearing is generally in the 30-40% range, though no maximum is specified.
Although the market has been growing significantly in recent years and there has been a degree of institutional participation, many of the assets held within the REIT vehicles are not of institutional quality. The risk and return characteristics are much more akin to equity investment than direct real estate investment.

3.11.3 **Australian Listed Property Trusts (ALPTs)**

ALPTs have been available since the early 1970s though, as in the US, the majority of growth in holdings has been in the 1990’s. Gearing is typically 10-20% with a maximum of 60%. Unlike REITs, these vehicles are predominantly externally managed by specialist property investment managers (either developers or the property arms of fund management institutions).

There is anecdotal evidence that this market is used quite widely by institutions - either to invest in specialist sectors of the market or to mop up short term liquidity to ensure the funds are fully invested.

3.11.4 **Belgian Closed-Ended Real Estate Investment Companies (SICAFs)**

Recently legislation by the Belgian Government has allowed the creation of tax transparent closed-ended real estate companies to invest in either Belgian or overseas real estate. 80% of net income must be distributed and maximum borrowings are limited to 33.3% of total assets. No individual property can comprise more than 20% of total assets.

The ability to hold overseas assets suggests that there is potentially a route to offer securitised vehicles holding UK property assets to UK investors, despite the instrument being established in Belgium. This is a situation that should be watched with interest.

3.11.5 **Overview of Trends**

In general securitised vehicles are gaining an increasingly large share of the real estate markets. In the US REITs amounted at the end of 1994 to almost 20% of the direct holdings, with larger proportions in both Australian and Belgian securitised vehicles. By contrast the figure for the UK market is under 10%, though the activity of property companies is much greater than elsewhere. Table 8, sourced from Jones Lang Wootton, gives a more global perspective.
### Table 8: Estimated Value of Securitised Real Estate Vehicles 1994

<table>
<thead>
<tr>
<th>Country</th>
<th>Est Value $US Bn</th>
<th>Main Types</th>
<th>Quoted Property</th>
<th>Institutional Direct Holdings $US Bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>36</td>
<td>REITs</td>
<td>6</td>
<td>183</td>
</tr>
<tr>
<td>Belgium</td>
<td>1</td>
<td>SCICAV</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>France</td>
<td>12</td>
<td>SCICOMI, SCPIs</td>
<td>2</td>
<td>47</td>
</tr>
<tr>
<td>Germany</td>
<td>24</td>
<td>Open ended UTs</td>
<td>0</td>
<td>37</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0</td>
<td>Open ended UTs</td>
<td>1</td>
<td>48</td>
</tr>
<tr>
<td>Australia</td>
<td>7</td>
<td>APTs, UAPT</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>UK</td>
<td>6</td>
<td>PUTs, Managed Bonds</td>
<td>19</td>
<td>82</td>
</tr>
</tbody>
</table>

Notes:
1. MSCI property companies.
2. Includes overseas investors, excludes debt/mortgages secured on property. Main sources Watson, Frank Russell, Mercers.
3. Tax status varies depending on how held. REITs are taxed on dividends only, SCICAVs are subject to withholding tax only now.

3.11.6 What is unclear, however, is to what extent these vehicles are being actively used by institutions in the local markets and to what extent they act as a proxy for direct real estate investment. The nature of the underlying assets and the gearing effects of the balance sheets may well be producing an asset that has very different characteristics indeed. This is a subject worthy of further investigation.
4. The Long Term Demand for Property

4.1 In this section, we consider issues not directly related to the development of securitised vehicles but which may affect their success. If the fall in demand for institutional let property is not caused by the actions of institutions, repackaging in a securitised vehicle will not lead to an increase in demand. Furthermore, any malaise in the property market may be prolonged and not temporary. Here we consider whether the attitudes of property users and increased efficiency of property use is causing a fall in the demand for let property and is affecting the institutional property market. The dynamics of any such structural change in demand on the property market are also discussed: this is an area for further research.

4.2 Nutt (1995), writing from a facilities management point of view, identifies a number of demand side changes in the property market. Those which may adversely affect the demand for let property include: changing work practices requiring less space per employee; information technology placing less demand on buildings; professional facilities management increasing the efficiency with which the building stock is used. All these could have a potentially depressive effect on the demand for let property and contribute to the low (and negative) real rental growth which has been seen over the decades. Combined with these features, we also see a demand for greater flexibility in the uses to which buildings can be put and under-provision in some sectors.

4.3 Assuming that there is no change in the required returns from property by institutions, if there is a fall in the demand for let property, there will be a fall in the level of rents and then capital values. The new level of capital values would be such that they reflected the institution's required return at the new level of rents. At the new level of capital values developers would not be attracted to develop, as they would not make their required return on capital. This would then impact on land values: essentially the land on which property was built would fall to reflect the new levels of marginal productivity experienced by firms.

4.4 Two points are of interest here: firstly, if the process were to happen instantaneously, there would be an immediate adjustment of property values causing a sudden capital loss for current institutional owners of property (the extent of the capital loss depending on the length of existing lease commitment). There would then be a fall in land values and equilibrium would be restored at a lower level of rents and the same level of use: however, the process will not be instantaneous. Secondly, there may be alternative uses to which land can be put which will also change the dynamics of the process.
4.5 If adjustments take place over a period of time, a number of things could happen. Firstly, expected rental growth would fall. Institutions would be less inclined to invest in property and capital values would then fall (possibly quite quickly). There would essentially be a surplus of property at the new use-levels and marginal productivity of property. The lower rental levels may encourage a take-up of the property made empty by the reduced demand: however, rents may take some time to fall to equilibrium levels, particularly if the reduction in demand took place over some time. This would lead to prolonged vacancies. If land values did not fall (because land had another use) there would be a fall in development and an increase in the change of land use: in the long term, this could bring supply and demand for property back into balance at a lower level of stock and bring capital values and rents back towards former levels with lower supply of property and of ownership by institutions.

4.6 All these factors can explain some of the aspects of the behaviour of institutions over the last few years. Capital values have gone through a period of depression and rental growth has been poor. Similarly the stock of property in institutional portfolios has fallen. Nutt confirms increased change of use activity as less property is needed for traditional uses. He estimates that around 18% of all refurbishments may involve change of use. The fewer institutional and planning controls there are on changing use (for example from commercial to residential) the easier it will be for any fall in demand for let commercial property to be absorbed into another sector: thus keeping up capital and rental values in the commercial sector although at a lower level of stock.

4.7 Another interesting feature in the market would arise if there were a move towards owner occupation in the commercial sector. This could happen if institutions required higher prospective returns from property. This might drive up rents and decrease capital values. This, in turn, may lead businesses to use property more efficiently leading to some of the consequences described above. However, it will also change the relative demand for let and owner occupied property as the financial advantages of the latter will become more apparent to businesses. This would not change the overall stock of property in business use but would significantly change its ownership profile: this would have implications for property investment professions and would reduce activity by institutions in the property market.

4.8 The above factors can have a profound long and short term influence on the property market and on its investment prospects. Property investors and actuaries should investigate these trends and study the market dynamics of any changes in the pattern of use and demand. This will involve collaboration not just with property investment surveyors but also with the facilities management profession. Many of the problems faced by the latter profession are, in fact, the kind of complex financial and risk management problems the solution to which actuaries could make a contribution.
5. Conclusion

5.1 There is pressure from the property industry for a new securitised property investment vehicle which will mitigate some of the disadvantages of direct property investment for institutions. It is clear from section 2 that there has been a significant reduction in property investment by institutions over the last twenty years. The proportion of property in pension funds has fallen from 14% in 1973 to 5% in 1993. Smaller funds appear to hold less than larger funds, perhaps indicating that some of the problems that securitised vehicles are supposed to solve may be causing funds not to invest in property. Property returns have been lower than investors expected over the last twenty years. It also appears that investors have become more demanding over time: this is indicated by the fact that property stands on a higher yield basis and prospective return than it did twenty years ago. A securitised vehicle may encourage more property investment if it were to reduce investors' required return from property or if it increased the actual returns available, as compared with direct property, due to, for example, low management costs.

5.2 The theory of intermediation tells us that a securitised vehicle may be successful in increasing property investment if it provided more liquidity, reduced risk, reduced the cost of information gathering and research, reduced the cost of portfolio management or reduced tax. It is clear the securitised vehicles can provide solutions to some of these problems. However, it is unclear that the benefits of securitisation are not already provided by existing securitised vehicles. Some existing vehicles may be tax inefficient, but it should be pointed out that they are no more tax inefficient than overseas equities which, to a large extent, have replaced property in institutional portfolios.

5.3 Some of the factors which have caused a reduction in property investment may be more deep-seated than the problems which can be solved by securitisation. It is possible that property use has become more efficient and that the higher returns that are demanded by institutions lead owner-occupation to be more efficient for property users than leasing. Any long-term shift in structural demand for property will lead to a long-term overhang in the market and, quite possibly, a long period over which property returns may be low and property holdings amongst the institutions would be reduced. Whilst better securitised vehicles may help the property market in such circumstances, it is more likely to be helped by greater flexibility in allowing property to have its use changed. Property professions should also not overlook the importance of encouraging more rapid change of ownership to increase liquidity and reduce transactions costs.
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