JPIF
17,5

430

Received July 1998
Revised April 1999

ACADEMIC PAPERS

An assessment of property investment vehicles with particular reference to German funds

Jim Berry, Stanley McGreal
University of Ulster, Co. Antrim, Northern Ireland, UK
Karen Sieracki
KASPAR Associates, UK, and
Ramon Sotelo
Flachenmarkt, Germany

Keywords *Property investment, REIT, Germany, Funding*

Abstract *Property investment vehicles are reviewed from a literature perspective drawing upon the experience of real estate investment trusts in the USA and contrasting this with European examples. The primary focus of the paper is upon German funds, using survey evidence to evaluate their structural characteristics. The paper forwards from a theoretical perspective an assessment framework indicating how different types of fund can be matched to product opportunities on the basis of risk, appreciation potential, nature of contract, location and use.*

1. Introduction

The objective of property investment is to obtain sufficient performance relative to the risk of the asset. Performance is normally measured in terms of income received or capital appreciation while risk encompasses issues such as the security of the investment and liquidity. The downswing of real estate markets in the early 1990s and the subsequent withdrawal of equity capital created a major void for property as an asset class. As the effects of low inflation and low trading volumes became increasingly apparent the property profession realised that it must take steps to re-define property as an investment medium. The search for increased liquidity through new investment vehicles has been to the forefront and is recognised as vital in placing property on a par with other asset classes. Given the illiquidity, indivisibility and lack of flexibility associated with direct property investment, there has been a concerted attempt in recent years towards the conversion of major single property assets into tradeable securities. Indeed, new forms of indirect ownership based on real estate investment trusts (REITs) have transformed the US commercial property industry assets.

In section two of this paper the development of property investment vehicles is discussed contrasting the growth of REITs in the USA with much lower profile vehicles in the UK. Section three is based on the results of a survey of German funds with an emphasis towards open-ended funds, given their greater comparability

Journal of Property Investment & Finance, Vol. 17 No. 5, 1999, pp. 430-443. © MCB University Press, 1463-578X

with REIT structures. The performance of funds, their understanding of long term investment and valuation standards arise as themes. In contrast, and reflecting the combination of topic matter in this paper, section four, coming from a more theoretical perspective, proposes a framework that attempts to explain the relationship between usage and the financing of properties. Conclusions drawn in section five highlight the need for wider access to property investment vehicles within the UK if real estate investment is to appeal to an expanded investor base.

2. Property investment vehicles

The investment upsurge in REITs in the USA during the1990s has been attributed by Newell and Fife (1995) to improved management structures and taxation benefits. Inclusion of REITs in a multi-asset portfolio in theory reduces the illiquidity and management risk associated with direct ownership in real estate and enables investors to benefit from the dividend cash flow, as at least 75 per cent of the REIT's investment portfolio must consist of income-producing real property. However, to qualify as a REIT and avoid payment of tax liabilities several regulations must be adhered to. Most significantly, not more than 50 per cent of the value of the REIT's shares can be owned by five or fewer individuals and the shares must be owned by 100 or more persons. At least 95 per cent of the REIT's taxable income must be distributed as dividends to its shareholders annually, and at least 75 per cent of the gross income must be derived from property assets each year (Jennings, 1993; Staveley, 1997). This high payment is an attractive feature for investors seeking to take advantage of the income potential of indirect commercial real estate (Shelor and Anderson, 1998). Although the market capitalisation of REITs represents only 3 per cent of the value of all commercial real estate in the USA (Mueller, 1998), the REIT market has achieved the necessary size, investor breadth and management depth to attract the substantive investor demand necessary for property securitisation (Chan *et al.*, 1998). Indeed, the drive for combined revenue growth to increase share price is causing many REITs to seek faster growth strategies based on real estate acquisitions.

Many factors have contributed to the growth of REITs as investment vehicles. Risk reduction, which is often cited as a reason for including REITs in an investment portfolio, is attributed to the fact that these funds are spread over wide geographical areas and across various property categories. The benefits of including REIT stock in an investment portfolio are higher yields, better liquidity, inflation hedge and diversification (Scherrer and Mathison, 1995). However, a number of studies such as Chen *et al.* (1990) and Chatrath and Liang (1998) indicate that REITs provide a somewhat unstable or relatively weak relationship as a long-run inflation hedge. Capozza and Lee (1995) refer to the changes in capital requirements for commercial lenders that have made mortgage loans more costly and to changes in tax laws that reduce the tax-favoured status of other ownership forms.

Investment in real estate through REIT ownership does not require the large and long-term financial commitment typical of other real estate investments (Han and Liang, 1995). Furthermore, the ownership of most REITs can be transferred easily and with low transaction costs as shares in REIT stocks are publicly tradeable. In this respect, REITs as property securitisation vehicles enable investors, especially small investors, to pool resources to obtain the economic benefits of commercial real estate investments as well as offering greater investment flexibility to react to changing market conditions (Newell and Fife, 1995). Regulations permit REIT companies to own property and to dividend to their stockholders all their pre-tax income without the payment of corporation tax.

For many investors the purchase of shares in REITs offers an easy and relatively liquid method of investing in real estate. Buyers of REIT shares purchase assets that have characteristics different from most common stock whilst the return earned, as in the case of mutual funds, can be expected to be determined by the productivity of the assets owned by the trusts (Redman and Manakyan, 1995). Research on the performance of REITs has focused on four main strands which include first, identifying the general characteristics that influence return using risk-adjusted performance measures (Howe and Shilling, 1990); second, comparing REIT performance to that of common stock and real estate investment (Giliberto, 1990; Martin and Cooke, 1991); third, determining the economic characteristics affecting the performance of REITs (Chan *et al.*, 1990) and fourth, analysing the systematic risk of equity REITs (Khoo *et al.*, 1993).

Results from various studies on the performance of the REIT industry show mixed opinion, although evidence would appear to indicate that equity REITs, in particular in the context of efficient markets, can provide returns that are better than those of other equities (Sagalyn, 1990). Nelling and Gyourko (1999) argue that the predictability of REIT stock returns is no different from the predictability of the returns of general stocks in the market. However, in considering the portfolio composition and characteristics of REITs, Redman and Manakyan (1995) argue that the types of real estate investment, the regional location of properties and the financial ratios (gross cash flow, leverage and asset) can affect the risk-adjusted returns. These findings indicate that a REIT investor should consider the portfolio characteristics in addition to the financial ratios when evaluating REITs as an investment medium. Liao and Mei (1998), in analysing the risk characteristics of real estate related securities, found that the expected returns of REITs are more predictable than the expected returns of value-weighted stocks and bonds. It is also significant that their research findings show that real estate stocks have a very high sensitivity toward stock market portfolios, which suggests that the former are not particularly good instruments in diversifying stock market risk.

These conclusions build on the wider body of research which suggest that REITs may co-move with stock market indicies. Recent literature presents convincing data that REIT returns follow indicies constructed from small company stocks (Han and Liang, 1995). Oppenheimer and Grissom (1998) provide evidence of strong co-movements in price between REITs and stocks. From this inference, if REIT prices move in the same direction as broad-based stock indices, then the inclusion of REITs into mixed-asset portfolios may not provide the same diversification benefits that direct ownership in real estate provides to a portfolio.

The somewhat variable nature of research findings within the literature is primarily due to the short sample periods used for an industry which is prone to booms and busts. However, there is a wide body of opinion which would support securitised investment vehicles as a necessary complementary facet of a more liquid and vibrant property investment sector. According to Shelor and Anderson (1998) the combination of increased asset size and improved international interest in REITs is likely to generate greater demand among both foreign and domestic investors. On the downside, potential disadvantages of property securitisation include the normal market risks of price volatility in the trading of shares, lack of established trading markets and loss of directional control over the management of property assets. The increase in securitised investment with tax transparent advantage is considered as vital to the future of property as an asset class.

Experience in the UK is somewhat different, with the need for readily understandable, liquid investment vehicles that generate indirect property type returns. Although several property investment vehicles were introduced in the UK in the 1980s, namely single asset property companies (SAPCOs), single property ownership trusts (SPOTs) and property income certificates (PINCs) to improve the liquidity of the property market, most have been relatively unsuccessful in gaining the necessary market support or in offering tax neutrality (Sexton and Laxton, 1991). In the UK the owners of property pay tax on income and capital gains on the properties held. If the owner is a corporate entity raising capital and paying dividends, then holders of security in that entity will also end up paying tax on income from that security. This means that indirect vehicles need to be discounted to compensate for the extra tax costs compared to holding direct property (McNamara, 1998). The effect of double taxation means that securitising direct property immediately loses value. It was against this background that the Financial Service (Regulated Schemes) Act 1991 permitted the introduction of Authorised Property Unit Trusts (APUTs). Such a fund must hold between 20 per cent and 80 per cent of its assets in property shares, up to 35 per cent of its assets in government/public securities and up to 5 per cent in other collective investment schemes. Hence there is considerable flexibility in the composition of APUTs. Furthermore APUTs are relatively tax transparent, being exempt from capital gains tax with no double taxation of income as in the case of investing in property company shares (Kato, 1995). The regulations require that the fund reaches £5 million during its offer period and within two years must comply with the diversification/asset spread requirements.

In the UK, other forms of property investment such as property company shares, unlike REITs in the USA, do not operate under special rules or receive any special tax privileges. As a result, property company returns are net of tax, whilst the companies themselves include more development and short term trading activity than is the case of REITs (Barkham and Geltner, 1995). Although there are some dissimilarites between property company shares and REITs, both are considered as highly liquid real estate investments in their respective countries and might be seen as complementary assets in an international diversification strategy. Lizieri *et al.* (1998) attempt to determine whether or not these two publically traded real estate investment vehicles exhibit similar behaviour traits. By utilising a threshold autoregressive (TAR) model to conceptualise situations where behaviour differs in distinct market states, research shows that the real rate of interest plays a significant role as an indicator of real estate performance. In particular the price/return falls in high real interest environments are sharper than the rise associated with lower real rates. This may imply that there are assymetries in real estate performance which could be of significance in the analysis of real estate cycles.

It is somewhat ironic that while securitised property vehicles have failed to establish their position in the UK property market, German open-ended funds, which are subjected to similar liquidity and investment requirements, have taken up a significant amount of top quality UK property (1996-98).

German open and closed-end real estate funds serve different needs and objectives of investors. The former usually invest in only one property, occasionally up to five properties, whereas the latter must have a diversified portfolio composed of different properties. There has been no requirement for pension funds, insurance companies or publicly quoted companies in Germany to have their property assets re-valued on a regular basis, the only sector of the market requiring such investment valuation is the open-ended property funds (Morgan, 1998). However, since 1999, German life insurance companies also have to re-value their direct real estate investment regularly in accordance with EU law.

The relatively high yield obtained after the deduction of taxes has encouraged many investors to participate in closed-end funds. Although there are no statutory regulations closed-end funds are normally in the form of a limited partnership. In contrast, open-ended funds are subject to detailed statutory regulation and offer investors tax benefits provided that they do not have more than ten investors which are not private individuals. This model permits the creation of tailor-made real estate funds for single or small groups of investors who are able to influence the investment policy of their special fund through representation on the investment committee. Open-ended funds are, however, bound by certain strategic limitations, namely, at a maximum, only 49 per cent of their assets can be liquid (section 35 KAGG). This means that open-ended funds must invest in real estate at times when the market may not be favourable. In these circumstances investment is liquidity driven rather than by real estate opportunity.

3. German property funds

Arguably German property funds are at a crossroads, having achieved a degree of maturity by virtue of their sheer scale yet at the same time appearing to lack a robust strategic investment framework in which to optimise the benefits of this weight of money. Both managers and investors are becoming aware of this shortcoming with questions being asked about performance assessment, risk and similar issues, particularly when property is compared against other asset classes such as equities and government bonds. This has been exacerbated by the ready movement of capital, its ease of access and relative cheapness. Real estate in Germany, as with the other asset classes, has not been immune to this process. Furthermore, tax laws changed at the beginning of 1999 to limit tax write-offs available on property investment, particularly those favoured by closed-ended funds. This may act to make these funds less attractive to investors and favour the alternatives of open-ended funds and quoted property companies.

In considering German property funds four main issues were investigated as part of a structured interview survey by telephone with 12 leading German property funds (listed in Appendix). These included the types of available German property funds, sources of money into these funds, the funds' strategies, and changes in progress. By their nature, the interviews were qualitative with the findings providing judgmental interpretation. Although not intended as an exhaustive survey, the interviews provide useful evidence of German property funds in this transitional period. For this section, the paper draws upon findings from the survey with attention focused upon open-ended funds. The statutory requirement for these funds, including their construction, regulation and tax treatment, is based on KAGG (Kapitalanlagegesetz), the law concerning capital investment (Downie *et al.*, 1996) with valuations based on the Wertermittlungsverordnung (Wert, V88) and the Baugestzbuch (BauGB). Legislation is designed to protect the investor with the requirement that each open-ended fund values its real estate annually for its published accounts. Comparisons are made to closed-ended funds as these represent the two principal vehicles for indirect property investment in Germany.

The majority of the respondents indicate that an open-ended property fund usually consists of at least ten properties, though there is an apparent absence of any particular framework for property fund construction in terms of sector and region. Rather this is driven by stock selection. There is some evidence from the interviews that properties are purchased on the basis of a discounted cash flow over a 10-15-year period, a finding at variance with the belief that German valuation is static with discounted cash flow purchases rarely used. Property purchases are seen by most respondents to be on an individual basis with each property analysed in terms of its location and potential for growth. Hence the individual property's contribution is not seen as part of the total property portfolio or part of an optimising strategy. Analysis is seemingly undertaken on the basis of subjective assessment in lieu of forecasts and index benchmark comparison not only for the entire property fund, but also for each property. Risk is acknowledged as a factor, but it is not quantified. These criticisms reflect earlier work by Bone-Winkel (1994), who considered that German property investments are characterised by a strong orientation to the property with management concentrating on short-term planning rather than a longer-term perspective.

Banks control most of the retail market for the open-ended property funds providing a distribution channel that touches a mainly middle-class consumer base with a high disposable income for savings. The open-ended property funds are a tax efficient means for these savings and in order to qualify for benefits at least 51 per cent of the total portfolio value needs to be invested in real estate, creating pressures for the property fund manager to spend the money when cash inflows are high. The funds provide a higher return than merely cash or German Government bund deposits.

Closed-ended funds offer higher tax advantages and different tax structures relative to open-ended funds and provide an appropriate vehicle for higher income earners. Due to their structure, closed-ended funds have a different target group in the form of limited partnership. Smaller funds may commonly have up to 20 partners though larger closed-ended funds may have several hundred investors, all equal in law and all undertaking to subscribe their due share of money to the fund as properties are acquired. Unlike open-ended funds, closed-ended funds will not have any ready liquid secondary market with the expectation that investor participation is for the long-term, implicitly for 10 to 15 years. Gasteyer (1991) suggests that closed-ended funds can be distinguished by the structure of financing, with some funds highly leveraged and others relying on equity financing. The former enables an investor to benefit from the allocation of tax losses from other income while equity financed funds are considered to be attractive to medium income investors.

The scale of closed-ended funds is much smaller and usually comprises portfolios of no more than one to five properties. The purchase of each is financed by cash draw-downs from the partners. The survey respondents acknowledge in the main that risk issues do not enter into the analysis of property purchases. Shares are sold to individual investors for the individual property (or properties if the fund has more than one) with money collected from the shareholders to purchase the property. Regular draw-downs occur according to how fast the money is being invested.

However, this can be distorted by money flows. When there is a surge of investment inflows for both the open- and closed-ended funds, new properties need to be purchased which would be unknown to the investor. Also, when investors make redemptions, the portfolio composition is affected, but this is unknown until the disinvestment programme is completed. At the time of writing (1999), this route has not been rigorously tested as cash inflows have dominated.

Both the German open- and closed-ended funds are retail based and are mainly controlled by the banks to their captive customer base. However property funds are coming under much greater scrutiny as to performance with a growing competition from other types of investment such as equities and bonds. Furthermore, privatisation equity issues are increasing and new investment products are being offered to the individual, a trend which is likely to accelerate under the single currency. Nevertheless, the survey respondents perceive that investors consider property to be more secure than other forms of equity investment and less risky with investment in property funds due to higher returns than inflation and better than those returns available in the money market funds. The other important component is tax efficiency of the funds, which is a key consideration in the high personal tax environment that exists in Germany (57.2 per cent with the top rate, 1998). In essence, respondents consider that the German investor is seeking from property a return in excess of inflation which, after taxation benefits, provides a yield spread normally in excess of that achieved from government bunds.

The main issues facing German property funds in structuring their future portfolio strategies include the following.

- *Risk.* Can the level of risk a fund undertakes be quantified? Does the fund manager know the level of risk? Is a risk-adjusted return sought, which is the highest level of return for the minimum amount of risk? As the funds carry low risk as currently structured, the need for greater risk management is likely to be a future concern.
- *Benchmarking.* Can the property fund manager compare return against an independent measure, which will be seen as an assessment of the fund's strategy? Currently this may be achieved against average portfolio performance, though the German property index (DIX) ought to facilitate more sophisticated analysis.
- *Sector allocation.* Does the property fund manager have a framework in which to assess how to develop strategy in relation to objectives in terms of an independent benchmark? Can forecasts for the different sectors be utilised in order to determine and adjust overweight/underweight positions for the different sectors? Open-ended funds with their emphasis on office or prime retail property provide limited diversification opportunities by sector though regional allocation is possible.
- *Lot size.* Can the property fund manager do an analysis of lot size to determine the contributory weighting effect in terms of performance – past, present and future?
- *Required return.* Does the property fund manager have a target rate of return for the portfolio and each property? What analysis of expected returns is undertaken?

The results of the survey suggest that German property funds do not embrace strategies that reflect these considerations. For example, the interaction of the different properties in a portfolio is not analysed, rather properties are purchased on the basis of subjective assessment and there is not an established use of explicit and quantifiable forecasts. It appears that the strategy is stock selection specific using a bottom-up approach with parameters based on qualities relating to individual buildings such as location, tenant, lease and building quality.

The majority of respondents indicate that each property is analysed on a subjective basis at the point of purchase with little indication of ongoing analysis as to continuing suitability. Location is assessed in terms of its relative advantages and disadvantages as a site. It is apparent that the main focus is on capital appreciation and seeking to ensure re-letting at the end of the prevailing lease period, which in Germany is on average between five to ten years (DTZ, 1998). Yield is analysed on the basis of the income return alone with the inputs in the analysis derived from what is felt instinctively about the future rather than emanating from economic models that could be quantified. In the opinion of respondents, exit strategies on single properties are not commonly employed. The property fund manager does not seek to trade properties and does not look beyond the purchase although it is recognised that sales will need to occur when redemptions are enacted. The German property portfolio composition for the open-ended funds is loosely 60 per cent in offices and 40 per cent in other uses, including retail.

German property funds are judged against their peers, but this is solely by performance figures. How such a performance is achieved is not analysed in depth due to the previous lack of an appropriate index to use as a benchmark, although this should change with the Deutscher Immobilien Index. The open-ended funds normally show a return of between 4.0 per cent and 6.0 per cent per annum. However, those property funds that have invested outside the domestic German market have on the whole done better than those solely domestic based and have been able to take short to medium-term advantage of the property cycle and market recovery in the UK as well as currency gains. Positive cash inflows have encouraged property investment outside Germany due to the lack of adequate domestic investment opportunities and the higher relative yields.

The recently launched property index for Germany (DIX) published by Deutsche Immobilien Datenbank GmbH has provided at time of writing information on the German institutional property market for 1996 and 1997. The size of the index has grown from 12bn DM in 1996 (approximately £4.3bn) to 20bn DM in 1997 (approximately £6.7bn) representing 10 per cent of German institutional stock. In terms of sector allocation, offices dominate at 62.8 per cent followed by retail and residential at 6.1 per cent. The development of DIX is an important step in bringing more transparency to the market, in analysing property portfolios, and their strategies, whether or not performance objectives will be achieved.

4. Property investment preferences

This section of the paper comes from a theoretical perspective and seeks to build a framework explaining the relationships between the fund (open, closed, and public limited property company), use of property, the rental situation and financing. In this respect the dual nature of property investment, with transaction-cost-economic aspects on the one hand and finance aspects on the other, involves linkages between property investment and the type of financing independent of investor preferences. However, from the perspective of the investor, property vehicles can be differentiated according to a range of factors, namely the intended investment period, the availability of the capital employed, the minimum lot size of the capital, risk spreading of the investments, treatment of the investment for tax purposes and degree of liability (Table I). Moreover, property investment vehicles can be distinguished through the extent to which the result of the economic activity can be monitored and the degree to which the investor may intervene in the management of the fund. In addition, the different degrees of official regulation as well as the production of public information need to be taken into account.

The various forms through which the investor may monitor, intervene and sanction are independent of individual preferences. Rather there is a theoretical relationship between the risks, the appreciation potential of the property

Investor preferences	Open-ended funds	Closed-ended funds	Property shares
Investment period	Medium to long term	Long term	Short, medium or long term
Availability of capital employed	Market daily	Practically impossible, limited availability of secondary markets	Market daily
Minimum lot size	Very small	Medium to large (from approximately 20,000DM)	Very small
Risk spreading	Yes	Generally not	Yes
Tax treatment	Income from capital funds	Income from rentals and roylaties	Income from capital funds
Liability extending the contribution	No	Depending on the legal form, generally not	No

Table I. Investor's preferences and investment vehicles

investment and the optimum investment vehicle. In this context the closed-ended investment fund is the only mechanism through which investors receive taxable income from rentals and royalties. It is also the investment vehicle with the longest investment period, the largest minimum capital lot size and at the same time displays minimal risk spreading (Table I).

The extent to which different investment vehicles allow investor intervention, monitoring and sanctioning capabilities is variable (Table II). For example, the

Intervention, monitoring and sanction rights	Open-ended funds	Closed-ended funds	Property shares
Direct capability to influence the management/services	No	Very low, through shareholders' meeting	Low
Official regulation	Very strong, through the Bundesaufsichtsamt für das Kreditwesen (Federal Banking Supervisory Office)	No	Low, through B̀rsenaufsicht (Stock Exchange Supervision)
Monitoring capability of the appreciation potential	Very high, through monitoring of repurchase prices	Indirectly through settlement of accounts	High, through valuation on secondary markets
Opportunities for sale on secondary markets	No, but repurchase at least minimum of the equivalent value	No functioning secondary markets, issuer often acts as market maker	Yes, at admission to stock exchange
Influence on management through capital withdrawal	Very strong, through market daily obligation of repurchase	No, generally notice can not be given to a partnership agreement before the end of a period of 20 years	Medium, influence only when the plc increases share capital

Table II. Intervention, monitoring and sanction rights degree to which the investor is capable of exerting direct influence on management is very low, though the investment vehicles differ in scope in terms of monitoring possibilities and the extent to which repurchase or sale is possible.

In evaluating different property investment types, the analysis demonstrates that appreciation is to be expected where the location is appropriate for the use and can not be repeated. The risks are especially high when the respective use is not price sensitive, when the operator's market structure is oligopolistic or when various operators are to be co-ordinated. In considering the relationship between the qualities of the property as defined by appreciation and risk, and the necessary monitoring and intervention rights of the corresponding investment vehicle, fundamental differences are apparent between open and closed-ended funds. Daily publication of prices makes open-ended funds suitable for financing properties with appreciation potential. However, closed-ended funds are not suitable for financing properties with appreciation potential due to lack of monitoring capabilities. Open-ended funds have limited suitability due to repurchase obligations, with German banking law restraining market risk, while behavioural risk is limited through official regulation. In comparison, property shares offer a suitable vehicle for appreciation and taking risks.

The relationship between different types of fund and property asset leads to product differentiation (Table III). Closed-ended funds are not suitable for financing high-risk properties due to the limited capability of influencing management and the lack of fungibility through sales on secondary markets or repurchase through the issuer. Due to their unsatisfactory ability to show appreciation, only properties without appreciation potential should be considered. Consequently, only locations which are repeatable should be financed by closed-ended funds, for example supermarkets let on a long-term basis.

Closed-ended funds possess a strategic advantage to other investment vehicles as it is possible to pass on tax benefits to the investor within the categories of income rentals and royalties (Table I). If property investment is combined with high tax benefits these advantages may compensate for the relative disadvantageous qualities of closed-ended funds. As a result, these funds sometimes invest in property types which are more suitable for other investment vehicles such as prime retail locations as well as in high-risk sectors such as shopping centres. Also, subsidies for social welfare housing represent a secure income, which makes financing through closed-ended funds attractive. In this respect closed-ended funds are suitable as a financing instrument when a high income security is to be expected taking tax benefits and subsidies into account. This explains the development of closed-ended funds since the F'rdergebietsgesetz (development area law) was introduced.

Open-ended funds can only take limited risks as they imply an asymmetrical distribution of information between the investor and management (principal and agent). This could lead to a situation in which insecure investors increasingly make use of their repurchase rights and promote the equivalent of a bank run. In order to avoid such dangers, the Kreditwesengesetz (German

Property type	Open-ended funds	Closed-ended funds	Property shares
Retail prime location	Suitable, low risks and appreciation potential	Not suitable, no appreciation potential	Suitable only for plpcs with low risk tendency
Retail secondary location	Limited suitability, low appreciation potential	Suitable, no appreciation potential and low risks	Limited suitability, no appreciation potential
Shopping centre lcnd	Limited suitability, high risk	Not suitable, appreciation potential and medium risks	Suitable, appreciation potential and medium risks
Shopping centre lcd	Not suitable, no appreciation potential and high risks	Not suitable, low appreciation potential and high risks	Suitable, high risks
Office lcnd	Suitable, low risks and appreciation potential	Not suitable, appreciation potential	Suitable only for plpcs with low risk tendency
Office lcd	Limited suitability, no appreciation potential	Suitable, low risks and no appreciation potential	Suitable only for plpcs with low risk tendency
Residential lcnd	Limited suitability, medium risks	Not suitable, high appreciation potential and medium risks	Suitable, high appreciation potential and medium risks
Residential lcd	Limited suitability, no appreciation potential	Suitable, especially if supported, low risks and no appreciation potential	Suitable only for plpcs with low risk tendency
Specific use (e.g. hospitals, old people's homes, etc.) lcnd	Suitable, low risks and medium appreciation potential	Limited suitability, medium appreciation potential	Suitable only for plpcs with low risk tendency
Specifc use (e.g. hospitals, old people's homes, etc.) lcd	Not suitable, no appreciation potential and medium risks	Limited suitability, medium risks	Suitable, medium risks

Notes:
lcnd = location which cannot be duplicated
lcd = location which can be duplicated

Table III. Property types and their ideal investment vehicles

Banking Law) stipulates that open-ended funds are obliged to pursue risk-averse policies. Furthermore, as open-ended funds are able to appreciate, they invest predominantly in prime locations. Hence typical assets of open-ended funds are offices within city-centre locations.

5. Conclusion

This paper has examined the use of property investment vehicles through an initial discussion of the growth of REITs in the USA and subsequently by an analysis of open and closed-ended funds in Germany. Within the UK the use of such vehicles is more restricted and the individual private investor has less opportunity to invest into property vehicles. However, whether such models are adaptable or workable within a UK context remains more questionable and seemingly requires greater tax transparency.

Within Germany the funds are tax-driven due to the higher taxation environment. A concern is apparent that more volatile property conditions may pertain in Germany, though how this will be reflected in prices remains to be seen. The German property market and its investors are being squeezed into two different mindsets – the parochial and the international – with increased volatility based on greater cross-border investment. Domestic pressures mean that tax reform is on the agenda, which could affect property investment as the preferred choice of savings for high-income individuals. Furthermore, it is debatable whether the German market can be responsive to the current conditions of property oversupply as the indexation of rents protects the income stream, with the concern that non-indexation would undermine the use of property. The analysis of the open- and closed-ended funds infers a relationship between the qualities of a property and its optimum financing. This is extremely relevant in terms of investment decision-making with the various qualities of properties and different investment forms assigned differing product opportunities.

References

Barkham, R. and Geltner, D. (1995), "Price discovery in America and British property markets", *Real Estate Economics*, Spring, Vol. 23 No. 1, pp. 21-44.

Bone-Winkel, S. (1994), "The strategic management of open-ended property funds", *Journal of Property Finance*, Vol. 5 No. 4, pp. 43-55.

Capozza, D. and Lee, S. (1995), "Property type, size and REIT value", *The Journal of Real Estate Research*, Vol. 10 No. 4, pp. 363-79.

Chan, K.C., Hendershott, P.H. and Sanders, A.B. (1990), "Risk and return on real estate: evidence from equity REITs", *AREUEA Journal*, Vol. 18, Winter, pp. 431-52.

Chan, S.H., Leung, W.K. and Wang, K. (1998), "Institutional investment in REITs: evidence and implications", *Journal of Real Estate Research*, Vol. 16 No. 3, pp. 357-74.

Chatrath, A. and Liang, Y. (1998), "REITs and inflation: a long-run perspective", *Journal of Real Estate Research*, Vol. 16 No. 3, pp. 311-25.

Downie, M.L., Schulte, K.W. and Thomas, M. (1996), "Germany", in Adair, A.S., Downie, M.L., McGreal, W.S. and Vos, G. (Eds), *European Valuation Practice*, E&FN Spon, London, pp. 125-52.

DTZ (1998), *Property Obligations of Occupation*, p. 6.

Gasteyer, T. (1991), "Closed-end German property funds", *Journal of Property Finance*, Vol. 1 No. 4, pp. 564-9.

Giliberto, S.M. (1990), "Equity real estate investment trusts and real estate returns", *Journal of Real Estate Research*, Vol. 5, pp. 259-63.

Han, J. and Liang, J. (1995), "The historical performance of real estate investment trusts", *The Journal of Real Estate Research*, Vol. 10 No. 5, pp. 235-62.

Howe, J.S. and Shilling, J.D. (1990), "REIT advisor performance", *AREUEA Journal*, Vol. 18, Winter, pp. 479-500.

Jennings, R.B. (1993), "The resurgence of real estate investment trusts (REITs)", *Journal of Property Finance*, No. 4 No. 1, pp. 13-19.

Kato, T. (1995), "How to attract pension funds", *Estates Gazette*, 22 April, No. 9516, pp. 62-4.

Khoo, T., Hartzell, D. and Hoesli, M. (1993), "An investigation of the change in real estate investment trusts", *Journal of American Real Estate and Urban Economics Association*, Vol. 21 No. 2, pp. 107-30.

Liao, H. and Mei, J.E. (1998), "Risk characteristics of real estate related securities – an extension of Lui and Mei (1992)", *Journal of Real Estate Research*, Vol. 16 No. 3, pp. 279-90.

Lizieri, C., Satchall, S., Worzala, E. and Dacco, R. (1998), "Real interest regimes and real estate performance: a comparison of UK and US markets", *Journal of Real Estate Research*, Vol. 16 No. 3, pp. 339-56.

Martin, J.D. and Cooke, D.O. (1991), "A comparison of the recent performance of publicity traded real property and portfolios and common stock", *AREUEA Journal*, Vol. 19, Summer, pp. 184-212.

McNamara, P. (1998), "Property securitisation: a UK perspective", paper presented at the European Real Estate Conference, Maastricht, June, p. 11.

Morgan, J.F.W. (1998), "The natural history of professionalisation and its effects on valuation theory and practice in the UK and Germany", *Journal of Property Valuation and Investment*, Vol. 16 No. 2, pp. 185-206

Mueller, G.R. (1998), "REIT size and earning growth: is bigger better or a new challenge?", *Journal of Real Estate Portfolio Management*, Vol. 4 No. 2, pp. 149-57.

Nelling, E. and Gyourko, J. (1999), "The predictability of equity REIT returns", *Journal of Real Estate Research*, Vol. 17, pp. 3-20.

Newell, G. and Fife, A. (1995), "Major property investor attitudes to property securitisation", *Journal of Property Finance*, Vol. 6 No. 2, pp. 8-19.

Oppenheimer, P. and Grissom, T. (1998), "Frequency space correlation between REITS and capital market indices", *Journal of Real Estate Research*, Vol. 16 No. 3, pp. 291-310.

Redman, A.L. and Manakyan, H. (1995), "A multivariate analysis of REIT performance by financial and real asset portfolio characteristics", *The Journal of Real Estate Finance and Economics*, Vol. 10 No. 2, pp. 169-75.

Sagalyn, L.B. (1990), "Real estate risk and the business cycle: evidence from security markets", *Journal of Real Estate Research*, Vol. 5 No. 2, pp. 203-19.

Sexton, P. and Lexton, C. (1991), "Authorised property unit trusts", *Journal of Property Finance*, Vol. 2 No. 4, pp. 468-75.

Scherrer, S. and Mathison, T.J. (1995), "Strategies for investing in real estate investment trusts (REITs)" *Business Credit*, pp. 38-45.

Shelor, R.M. and Anderson, D.C. (1998), "The financial performance of REITs following initial public offerings", *Journal of Real Estate Research*, Vol. 16 No. 3, pp. 375-87.

Staveley, C.W.P. (1997), *Lessons from the REIT market: UK Property Securities and the Implications of the Development of a Tax Neutral Property Investment Vehicle*, College of Estate Management, Reading, p. 125.

Appendix. German funds approached

Bank Gesellschaft BerlinGesellschaft Berlin
BfG
CGI
Credis (CS-Eureal)(CS-Eureal)
DEGI
Depfa-Fond Europe
DESPA
DIFA
Hamburger Landesbank
HansaInvest
ICN
WestInvest