

Does Tax Transparency Pay?

Hans Op 't Veld*

JEL classification: G11, G14, G15, G34

This draft: March 2005

Abstract

Tax transparency for publicly quoted property companies is a hot topic with international property investors. Among the main reasons to promote tax transparent vehicles are the claims that tax transparency improves equity securitization as well as performance. However, there are large differences between tax transparent property vehicles around the world investors have to both acknowledge and appreciate. This paper identifies the differences between tax transparent structures and investigates how these differences might explain performance behaviour of tax transparent companies. The evidence suggests that REITs do outperform tax paying companies, and that this is partly the result from limitations REITs have to their activities.

* Investment Property Databank Ltd., 7-8 Greenland Place, London NW1 0AP, United Kingdom, Phone +44 (0)20 7643 9323, email: h.veld@terra.es.

Global Property Research in Amsterdam are thanked for providing data. Dirk Brounen of the Erasmus University in Rotterdam is thanked for providing data and his comments.

Introduction

An increasing number of Far Eastern and European countries have created tax transparent structures for publicly listed property companies. Government bodies in other countries, among which the United Kingdom and Germany, are currently looking into the benefits of adopting a regulation for tax transparent vehicles. Whereas in the past, the introduction of listed tax transparent property vehicles have been a response to a crisis in the property market, it currently seems primarily driven by a strong lobby from investors and the listed property sector. It is widely believed that tax transparency spurs the growth of the (public) property market, boosts returns, lowers volatility and increases governance within property companies. Investor appetite is witnessed by the introduction of various REIT-focussed mutual funds investing in tax transparent structures worldwide. However, tax efficient structures are also in place in other countries around the world, in which growth has not been as substantial as in the US situation. Listed tax transparent property vehicles generally are referred to as 'REITs', suggesting strong similarities between structures, although the similarities in reality might not be that clear. This paper examines the existing structures around the world and the impact the existence of a tax transparent structure has on a property share market in a given country. Next step is to assess whether the performance tax transparent structures deviates from tax paying structures, and if so, what causes the difference in performance. This is done by focussing on the key characteristics tax transparent structures seem to have in common: tax transparency, restrictions to operating activities and ceiling levels of debt. The paper will from time to time refer to listed tax transparent property vehicles as 'REIT-type vehicles'.

Literature

Existing literature relating to the impact of tax transparency on property markets to date has largely been on domestic data sets rather than international data. The US REIT market offers a

large data set which facilitates analysis. The existing stream of literature focuses on the way in which tax efficiency influences decisions of management on dividends and financing structure of property companies. Gau and Wang (1990) looked at capital structure decisions, and find that tax rates have a significant impact on the capital structure of investors. In an international setting, Brounen and Eichholtz (2001) look at differences in capital structure using data on the European property share markets with varying corporate tax rates within the context of equity and debt offerings. They find that the level of corporate taxation is impacting the response of the stock market to equity offerings. An explanation for this could be given by the static trade-off theory, which proposes that there is an optimum debt/equity level. Equity issues will cause the capital structure to move away from this optimum. The magnitude of the move is dependent on the tax shield, hence the level of corporate taxation.

In a study of international property company discounts, Bond and Shilling (2004) study discounts to net asset values for a set of 50 European listed property companies. As explanatory variables, they look at corporate structure and liquidity. They find that European property share markets with a tax transparent property investment vehicle in place or announced show substantially smaller discounts to net asset values than markets without a tax transparent structure. The findings suggest that tax transparent vehicles are priced more like their underlying real estate investments than tax paying vehicles. An important finding of the paper is the relation between the debt level and the discount to NAV: the higher leverage, the higher the discount to NAV. The authors find that risk is the most important variable explaining variation in discounts.

History of tax transparent property vehicles around the world

Tax transparent real estate investment vehicles have been around for a long time. In the United States, tax transparent 'business trusts' investing in property have existed since the latter half of

the 19th century. With the business trusts behaving increasingly like operating companies, the tax advantages they had were largely abolished. However, mutual funds did manage to get tax relief in the 1940's. This time, real estate investors were unable to profit from this, and started their own lobby. The first bill proposing a tax transparent property vehicle in the United States dates from 1956. Only after four years, a second bill, the Real Estate Investment Trusts Act passed through Congress, creating the first tax transparent listed property vehicle. Partly due to an overhaul of the structure in the early 1990s, interest in the REIT structure was renewed. In other countries, a similar process created similar structures. In 1970, the Netherlands was the second country to adopt a tax transparent structure for listed property companies¹. Australia was to follow one year later. Only in the 1990's, more countries became interested in creating a tax transparent structure for property investment. In 1990, the Belgian Sicafi² structure was introduced. Canada followed suit in 1994. By the end of the 1990's, several countries contemplated the introduction of new structures, especially in the Far East. Singapore (1999), Japan (2000) and Korea (2001, 2003) introduced tax transparent structures in rapid succession. The speed with which structures were introduced in the Far East in the 1999-2003 period is explained by the 1997 financial crisis, forcing Far Eastern countries to improve the financial stability and governance of capital markets. In most cases, the assets of the Far-Eastern REIT type structures originate either from existing listed property companies or from financially distressed operating companies (e.g. the Corporate Restructuring or CR-REIT in Korea was created especially for this purpose). One of the latest additions to the countries with tax transparent listed property vehicles is France, which introduced the SIIC³ structure in 2003. The SIIC structure was introduced with the goal to attract capital to the French real estate industry. Hong Kong recently (2004) opened the REIT market with an IPO of a property company that

¹ The FBI structure is not limited to property companies, but is a general investment fund structure being applied to property companies

² Société d'Investissement à Capital Fixe en Immobilier

³ Société Immobilière d'Investment Cotée

owns residential real estate previously owned by the government. Currently, there is a strong lobby in some other countries to introduce a tax transparent vehicle, for various reasons. In the United Kingdom, Germany and Finland new legislation enabling the introduction of tax transparent property vehicles is to be expected within the next couple of years. In the UK, the government is currently in a consultation process, in which suggestions for a structure are discussed with lobby groups. The consultation should lead to the introduction of a UK-REIT, possibly as soon as 2006. The rationale for a REIT in the UK is to boost home building and to offer private investors the opportunity to invest in real estate through the equity market. Another reason for introducing a REIT type structure is to prevent property investment companies from seeking alternative company structures abroad. In Germany, one of the reasons to introduce a tax transparent vehicle is the current market structure in which the so-called open end funds, which are aimed at private investors, dominate the market. The open-end fund market is of substantial size (close to US\$ 125 billion in assets) and has recently experienced problems, which triggered further discussions about the proper market structure.

Characteristics of listed tax transparent property companies

The current universe of tax transparent property company structures is presented in Table 1. In 23 countries around the world, REIT-type vehicles exist or are in an advanced stage of planning.

[Insert Table 1]

Not in all of these 23 countries vehicles have actually been introduced to the market yet. In countries like Greece, Turkey, Puerto Rico and Taiwan, the structure is in place, but the investor appetite or the assets appear to be lacking. Another reason for this might be that in most cases, the structure is very young and it takes time to actually structure a vehicle. This is the case for

Hong Kong, that is just seeing the first REIT being launched almost a year after introduction of the REIT regime.

The characteristics of vehicle structures differ substantially between countries. Although a tax transparent vehicle is often dubbed a ‘REIT’, particularly in the Far East the similarity between structures themselves and the conditions under which the structures were introduced can be fairly remote. In discussing the benefits of the introduction of tax transparent property vehicles, it is crucial to have an understanding the structural differences and the specific background that created REIT type structures, before extrapolating results to another market. The relative success of the introduction of the CR-REIT in South Korea does not guarantee success in the UK, just because the name of the vehicle is similar.

Tax transparency for most REIT type structures comes at a price, as the companies complying with the regime will also have to abide by certain regulations. Typically, these regulations involve limitations to capital structure and activities. Key characteristics of each structure include the (i) financial structure, (ii) operational activities, (iii) distribution and (iv) shareholder requirements. These key characteristics differ from country to country, and are likely to impact the performance of property companies.

[Insert Table 2]

(i) Capital structure

REIT type vehicles in most countries are set up as passive investment vehicles, which need to offer their shareholders low risk in combination with returns stability. To protect the shareholders and to safeguard the stability of the property investment companies, regulators often curtail debt financing. In at least 10 of the structures identified, a limit to borrowing exists.

This could have a substantial impact on the financial performance of a property company. Although the costs of borrowing are higher for a tax transparent than for a tax paying property company due to the lack of a tax shield, borrowing still contributes to performance as most of the time, there is a positive yield gap between the cost of debt and property yields. Therefore, putting a ceiling on the amount of debt is likely to have a negative impact on the performance of property companies. The key rationale for having a leverage ceiling is the protection of shareholders against risky borrowing.

(ii) Operational activities

Besides being limited in terms of the choice for a specific capital structure, most REIT-type vehicles also are confronted with limitations in operational activities. The most important limitation is the ability to develop or not. As mentioned above, most REIT-type structures are considered to be ‘investment funds’, which would imply that any activity that would actually be of an operational nature should not be allowed. Development clearly is an operational activity, and it is considered to be rather risky as well. However, there are different types of development. Complete development of a property for the market without pre-lettings and with the intention to sell the building as quickly as possible is entirely different from a situation in which a company adds to an existing building or refurbishes the property. This is far less risky, and does not confront pure-play developers with unfair competition. Looking at the various tax transparent vehicles around the world, we find very different regulations with respect to property development. There are roughly four categories of treatment for development activities: 1. No development activity is allowed; 2. Development is allowed, but only to upgrade or add to the existing investment portfolio; 3. Development is permitted albeit only in a separate, tax-paying entity (‘stapled’) and 4. All types of development are allowed within the structure.

[Insert Figure 1]

Figure 1 presents the breakdown of structures over the different categories. There does not appear to be a clear consensus on the treatment of developments across countries. When looking at introductions of structures over time, no particular pattern is showing. The recently introduced SIIC structure in France (introduction in 2003) is considered to be very liberal in allowing for development activities to occur, whilst the Far Eastern REIT structures (introduced 1999-2003) are taking the investment fund stance and are not allowing development. As previous research suggests development to have an impact on performance (Brounen 2001), investors need to be aware of development restrictions.

(iii) Distribution

As tax transparent companies are not taxed at the entity level, taxes are levied at the investor level. To make sure taxation indeed takes place at some level, REIT-type vehicles are in most cases obliged to distribute a significant part of earnings. Both the level of distribution as well as the basis of distribution differs from country to country. Typically, payout is between 80% and 100% of realised earnings (recurring earnings). In some cases, distribution is even higher than this. In Japan, not only 90% of income but also all earnings from sales need to be distributed, making it hard to hold on to capital. The French structure also requires 50% of earnings from sales to be distributed. The high levels of distribution are considered to be attractive to investors. Since the recent fall of common equity markets, investors are looking for high cash yields, and REITs do provide these. However, it also implies that property companies need to rely on the stock market to raise capital. In the last years, listed property companies have been confronted

with discounts to net asset values, making it unattractive to issue new shares. This implies there are both advantages as well as disadvantages to high payout levels.

(iv) Shareholder requirements

Quite often, a tax transparent structure has to comply with certain shareholder requirements. The rationale is to ensure the proper use of the structure and liquidity in the shares. In most cases, shareholder requirements translate to a minimum in the absolute number of investors or a specific percentage of shareholders are allowed to hold in a company. However, the actual levels of holdings vary between a maximum of 10% in South Korea to a maximum of only 0.67% in Canada (minimum of 150 investors). This potentially influences the free float market capitalization and liquidity in the share. In turn, this might affect share price performance.

Data

To measure the impact of tax transparency on the composition and performance of property share markets, a universe of property companies worldwide is identified. The universe of the Global Property Research (GPR) database is used as the base universe. The GPR database holds information on 981 companies in 34 countries around the world. From the 34 countries in the database, only those with sufficient data are included in the sample. Only those markets consisting of at least four companies with an individual market capitalisation of at least US\$ 50 million are considered. This leaves 23 countries out of the 34 in the sample. The total number of companies included in the sample is 674. Table 3 presents the list of countries included and the number of companies in each country as per September 2004 (see appendix A for the full list of property companies included). Using Datastream, prices, dividends and market capitalisations on all companies are collected, as well as quarterly information on the gearing level of each company. Information regarding tax status and company activities are derived from company

accounts. All data is for the period July 1994 to November 2004, which is the period for which the leverage data is available.

[Insert Table 3]

Methodology

We take a first look into the differences between the tax transparent and tax paying property companies by comparing their characteristics (returns, leverage and level of development activity). For each company, it is determined whether it is a tax-paying (TP) or tax transparent (TT) company at any given quarter in the sample. For a number of markets, the tax status has been identical for all companies in the sample (all are tax paying or all are tax transparent). For those markets in which more than one structure exists, the sample tends to be heavily skewed towards one preferred (typically tax transparent) structure (see Table 3). This limits the possibility of comparing performance within a single market. Therefore, all information is aggregated into a global index to compare performance. Indices are calculated in local currencies (*loc*), excluding the impact of currency movements.

Total share returns are calculated as follows:

$$TR(TT,TP)_{n,t}^{loc} = \frac{Ri(TT,TP)_{i,t1}^{loc} - Ri(TT,TP)_{i,t0}^{loc}}{Ri(TT,TP)_{i,t0}^{loc}} \quad (1)$$

where $Ri(TT,TP)_i$ is the value of the tax transparent (TT) or tax paying (TP) company at time t , W is the company weight and $TR_{i,t}$ is the total return on i at time t .

Weights are determined by taking the individual market weight and dividing this by the sum of the US\$ market capitalizations of the whole all market (M) in the same cohort (i.e. tax paying (TP) or tax transparent (TT)):

$$W(TT, TP)_{i,t0}^{US\$} = \frac{M(TT, TP)_{i,t0}^{US\$}}{\sum_{i=1}^{Nt=0} M_{i,t0}^{US\$}} \quad (2)$$

With the individual weights and returns, we derive a total return index:

$$I(TT, TP)_t^{loc} = I(TT, TP)_{t0}^{loc} \sum_{i=1}^{Nt-1} (W_{i,t0}^{US\$} * TR(TT, TP)_{n,t}^{loc}) \quad (3)$$

To determine if the performance of these indices is explained by financial structure and limitations to operating activities or by the structure itself, we measure borrowing and development exposure. We also take a look at the size of the company (by means of market capitalisation) as this often proves to be influencing performance. The analysis is done using the Jensen alpha (1969). The Jensen alpha is the outperformance of the average return on a stock versus the expected market return:

$$\alpha = R_i - (R_f + \beta_i (R_m - R_f)) + \varepsilon_i \quad (4)$$

Subsequently, the alphas and betas are related to the level of borrowing (LEV) of the company, the presence of development activities (DEV), tax transparency (REIT) and the log-size of the company in terms of market capitalization (CAP) as explanatory variables. The amount of borrowing used in each company is calculated by dividing the nominal amount of debt by the amount of common equity. Development exposure of each company is determined through the

balance sheet of the company. Of each company, it is recorded whether the company does (1) or does not (0) develop in a dummy variable. Tax transparency is also captured in a dummy variable.

We use the following models:

$$\alpha = c + \gamma_1 \text{LEV} + \gamma_2 \text{DEV} + \gamma_3 \text{REIT} + \gamma_4 \text{CAP} + \varepsilon \quad (5)$$

$$\beta = c + \gamma_1 \text{LEV} + \gamma_2 \text{DEV} + \gamma_3 \text{REIT} + \gamma_4 \text{CAP} + \varepsilon \quad (6)$$

Results

After dividing the sample into tax paying and tax transparent property companies, we look at the characteristics of the cohorts. At first, we calculate the market development of both cohorts. In nominal terms, the market capitalization of tax transparent listed property companies as a percentage of the total market capitalization has gone up substantially through time. Figure 2 provides the growth of tax transparent and tax paying markets through time.

[Insert Figure 2]

From Figure 2 it is clear that there have been specific periods of strong growth. There are three periods we can distinguish in global market capitalization development in the 1994-2004 period. The first phase is the 1994–1996 period, in which period tax transparent companies were growing broadly in pace with the tax paying property companies. Sources of growth were very different, however. In the United States, the REIT boom got underway, leading to strong growth of tax transparent vehicles. Tax paying companies elsewhere in the world profited from improved conditions. In the Far East, growth accelerated in tax paying property companies, notably in

Hong Kong. Severely restricted development and economic growth was driving up prices. In Europe, most markets started to recover from a severe property crisis. All in all, the total market capitalization of the property companies in the sample increased from US\$ 341.5 billion to US\$ 433.6 billion. The percentage contributed by tax efficient property companies remained stable, climbing marginally from 25.1% in June 1994 to 30% at the end of 1996. In 1997, the pattern changed.

The second phase of development starts when the financial crisis hits in the Far East and continues until 2000. Whereas the REIT boom in the US continued, the Far East was faced with a financial crisis, causing share markets to plunge. Property shares prove not to be immune to this fall, particularly in the biggest Far Eastern property share market of Hong Kong. The Far Eastern markets did not have tax transparent vehicles. Consequently, the market capitalization of the tax paying property companies included in the database fell from US\$ 302.6 billion to US\$ 211.6 billion at the end of 1999, a decrease of 30% in three years time. The financial crisis caused the proportion of tax transparent vehicles to grow in two ways. First of all, the fall in prices of Far Eastern stocks affected the size of the tax paying proportion of the global property share market directly. A second effect of the financial crisis was that the need for a restructuring of financial markets was felt throughout Asia, especially in Japan, Singapore and South Korea. This restructuring would eventually trigger the introduction of tax transparent vehicles in these countries. In the 1996-1999 period, the contribution of tax transparent companies grew from 30.2% to 46.6%.

The third phase of development is the period from 2000 extending to present day. This third period sees accelerating growth of tax transparent markets in the Far East, as well as in some European countries. In the Far East, the structures are bringing new assets to the market (with the exception of Japan where some assets were previously already held by publicly listed companies). In Europe, listed property companies already existed in most cases, but are now able

to elect the tax transparent status. This has led to a substantial shift in favour of the percentage of tax transparent companies. Particularly the introduction of the French SIIC is reflected in the accelerated growth of the tax transparent part of the market in 2003-2004. In this last period, the percentage of tax transparent vehicles increases from 46.6% to 55.7%.

Over the period as a whole, the percentage of REIT-type vehicles changed from 25.1% in June 1994 to 55.7% in November 2004, which is illustrated by Figure 3.

[Insert Figure 3]

The success of the tax transparent vehicles in terms of the size of the market is quite clear from this. However, it only shows the growth, and not the success of structures in terms of returns.

Ultimately, the performance of tax transparent companies relative to markets in which companies pay corporate tax will interest investors. As a first indication, we calculate and compare the aggregate performance of tax paying property companies (TP) with the aggregate performance of tax transparent property companies (TT).

[Insert Figure 4]

From the figure it is evident that the performance behaviour of the tax transparent companies is quite different from the paying property companies. The correlation between the index of tax paying property companies and the index for tax transparent companies is only 41.3% (on a quarterly basis).

Over the sample period, returns of tax transparent property companies have been exceeding those of the tax paying property companies, both in absolute terms as well as when adjusted for

risk. Over the sample period, the annual total return difference in local currencies amounts to 1.10%. Table 4 provides data on three subsequent time periods in accordance with the developments of the markets described above. In two of the three sub-periods, investors would have been better off investing in tax paying property companies rather than in tax transparent property companies.

[Insert Table 4]

Tax transparent companies show far less volatile return behaviour than tax paying companies. Over the past decade, tax paying property companies have shown almost twice as much volatility as tax transparent property companies. The standard deviation of returns over the sample period is 21.01% for the tax paying and only 12.64% for the tax transparent companies.

We now analyze the variables that might explain the differences between the return patterns observed. On a country level, debt/equity ratios show significant differences. As discussed before, a large portion of the tax transparent regimes put a ceiling level on the amount of debt a company can issue. For governments, this is a way of reducing the risk of the company and to protect (private) investors from losses. In the UK, the Treasury consultation on the introduction of a tax transparent vehicle gives as the rationales for imposing a gearing limit the higher debt servicing costs and the tilt towards capital return companies with higher debt levels are subjected to. Additionally, it mentions increased market scrutiny by raising finance through the equity market⁴. Table (5) presents the average debt level for property companies broken down by country. The average is equally weighted, to avoid the figures being skewed towards large cap companies.

⁴ HM Treasury, Promoting more flexible investment in property: a consultation, 2.31-2.33

[Insert Table 5]

The table suggests that the introduction of a ceiling level of debt only has limited impact on the actual levels of borrowing observed. Average debt levels for those companies that are subject to a ceiling level are lower than for companies that are free in determining their capital structure (39.2% versus 46.9%), which is in line with intuition. If we look at those countries that have stringent ceilings on borrowing, particularly the Netherlands (60% of assets), Belgium (50% of assets, previously 30%) and Singapore (35% of assets), we do see debt levels substantially below the average levels for companies without restrictions.

However, there also seems to be a ceiling level to borrowing imposed by the market. This might be explained by lenders applying similar methodologies to calculate and price risk in all cases, which will lead to an 'optimum' level of gearing. Furthermore, investors might have a preference for moderate risk levels. The average levels of debt we observe throughout the world do seem to support this idea. Furthermore, on a continental level, the average debt levels vary. North American companies show higher levels of borrowing than their European counterparts. Far Eastern companies even have lower levels of debt.

Development exposure

Development exposure is common among Far Eastern property companies. Development is limited in most European companies. An exception are the Spanish companies which engage in home building as a separate activity, and part of the British property companies. Extensive development in North America is limited to the real estate operating companies, with REITs participating less actively in development. An interesting point to note is that some companies

that formally cannot develop (e.g. some of the Dutch property companies) do develop in practice.

Regression results

The results from the Jensen alpha regression provide insight into the market characteristics. The mean alphas and betas are presented in Table 5. Alphas of tax transparent structures appear to be higher than those of tax paying structures. Betas of Far Eastern companies tend to be a lot higher than betas for European and North American companies, which might be explained by the higher development exposure of property companies in these countries.

[Insert Table 6]

The second set of regressions shows that the variables for market capitalization, development and REIT status are significant for alpha. The level of borrowing is not a significant factor (which might be explained by the theory that in fact, the ceiling level of borrowing is imposed by the market). The R-squared of the regression is 31.7%. All the signs of the regression are in line with expectation. Size has a positive impact on alpha. This might be caused by the fact that the larger companies are concentrated in some of the countries that have done well. Both development and leverage have a negative sign, indicating that both do not contribute positively to performance. REIT status has a positive sign.

Market capitalization is not statistically significant at the 95% level for beta. All other variables are. Leverage has a negative sign, suggesting that a higher debt/equity ratio brings about a lower beta, which seems counterintuitive. A possible explanation is in the relatively low borrowing figures for the Far Eastern countries. Development has a positive sign, indicating increased risk

from development activity. The REIT variable is negative, indicating that tax transparency in itself decreases risk.

The fact that in both equations the REIT variable is significant, suggests that other factors besides the ones tested drive REIT returns.

Conclusion

This paper analyses the characteristics and performance of tax transparent listed property companies versus tax paying companies. The data sample includes information from 674 companies in 23 countries around the world. We analyse performance over the 1994-2004 period. Tax transparent structures for listed property companies are in place in 11 of the countries included in the study. Another handful of other countries has introduced such a structure recently or will be introducing it in the near future. Growth of tax transparency in terms of percentage of the global market capitalization has been significant, and tax transparent structures are outperforming tax paying companies by a substantial margin.

An explanation for this success might be the restrictions in the regime many of the tax transparent structures face. The most important limitations are in the level of borrowing and the ability to develop. To test whether these factors are explaining the difference in performance, this study regresses the outperformance of stocks against debt/equity ratio, the presence of development activities, the size of the company and the fact whether the company is tax transparent or not.

Tax transparent companies show lower risk and higher outperformance than tax paying companies. The regressions results show that this is explained in part by limitations in development activities. The actual level of borrowing does not seem to influence returns much, although the subject of debt ceilings is a topic which continues to play a role in the introduction

of new REIT legislation around the world. The figures suggest that there is a case for REITs from an investor perspective. However, since the REIT characteristics continue to differ between countries, the evidence should be reviewed with caution.

Literature

Bond, S.A., Shilling, J.D., *An Evaluation of Property Company Discounts in Europe*, 2004

Brounen, D., Eichholtz, P.M.A., *Capital Structure Theory: Evidence from European Property Companies' Capital Offerings*, Real Estate Economics, 2001

Brounen, D., Eichholtz, P.M.A., *Development Involvement and Property Share Performance: International Evidence*, Journal of Real Estate Finance and Economics, 2003

Brounen, D., Eichholtz, P.M.A., Kanters, P., *The Effects of Property Development Activities on the Performance of REITs*, Real Estate Finance 4, 2000, 17-29

Eichholtz, P.M.A. et al., *Global Property Investment and the Costs of International Investment*, Journal of International Money and Finance, 2001

Gau, G.W., *Capital Structure Decisions in Real Estate Investment*, Real Estate Economics, 2001

Gordon, J. Canter, T., *International Real Estate Securities: A Test of Capital Market Integration*, Journal of Real Estate Portfolio Management, 1999

HM Treasury, British government, *Promoting more flexible investment in property: a consultation*, 2004

Ling, D.C., Naranjo, A., *Commercial Real Estate Return Performance: a Cross-Country Analysis*, Journal of Real Estate Finance and Economics 24, 2002, 119-143

PriceWaterhouseCoopers, *Japanese REITs; a market in its infancy*, Global Real Estate Now, Spring 2002

Sharpe, W.F., *Capital Asset Prices: a Theory of Market Equilibrium Under Condition of Risk.*, Journal of Finance 19, 1964, 425-442.

Sharpe, W.F., *Mutual Fund Performance*, Journal of Business 39, 1966, 119-138.

Table 1: Overview of listed tax transparent property vehicles

The table presents the names of listed tax transparent property vehicles around the world. Data as per March 2004. Some of the vehicles may not be used at this time.

Country	Structure name	Full structure name
Australia	LPT	Listed Property Trust
Austria	ImmoInvFG	Immobilien-Investmentfonds[gesetz] (ImmoInvFG)
Belgium	Sicafi / Bevak	Societe d'Investissement a capital fixe
Brasil	FII	Fundos de Investimento Imobiliario
Canada	REIT	Real Estate Investment Trust
France*	SIIC	Societe d'Investissements immobiliers cotees
Germany**	G-REIT	German Real Estate Investment Trust
Greece	REIC	Real Estate Investment Company
Hong Kong*	H-REIT	Hong Kong Real Estate Investment Trust
Italy	FII	Fondi di Investimento Immobiliare
Japan	J-REIT	Japanese Real Estate Investment Trust
Malaysia	M-REIT	Real Estate Investment Trust
Netherlands	FBI	Fiscale Beleggingsinstelling
New Zealand	PT	Property Trust
Puerto Rico	REIT	Real Estate Investment Trust
Singapore	S-REIT	Singapore Real Estate Investment Trust
South Korea	K-REIT	Korean Real Estate Investment Trust
	CR-REIT	Corporate Restructuring Real Estate Investment Trust
	RETF	Real Estate Trust Fund
South-Africa	PUT	Property Unit Trust
Switzerland	FPI	Fonds de Placement Immobilier
Taiwan*	REIT	Real Estate Investment Trust
Turkey	Gayrimenkul Yat	Gayrimenkul Yat
United Kingdom**	UK-REIT	UK Real Estate Investment Trust
United States	REIT	Real Estate Investment Trust

* Transition phase: legislation has been adopted very recently
 ** Structure is in consultation phase and is expected to be introduced in 2006
 Sources: Equity Property Databank Ltd., Investment Property Databank, Ltd., HSBC, PriceWaterhouseCoopers, Deloitte & Touche

Table 2: Listed property structure characteristics

Key structural characteristics of tax transparent listed property company structures. Sources: HSBC, NAREIT, PriceWaterhouseCoopers, Deloitte & Touche.

Country	Structure	Inception	Debt ceiling	Development	Minimum payout
Australia	LPT	1971	Unlimited	Permitted ("stapled company")	100%; otherwise taxed
Austria	ImmoInvFG	2003	20% (short term)	Permitted	
Belgium	Sicafi / Bevak	1995	50%	Permitted	80%
Brasil	FII	1993	N/A	Not permitted	95%
Canada	REIT	1994	50%	Permitted ("stapled company")	100%
France*	SIIC	2003	Unlimited	Permitted (taxed) up to 20% of gross assets	85% + 50% of sales
Germany	G-REIT	2006**			90%
Greece	REIC	N/A	N/A	N/A	N/A
Hong Kong*	H-REIT	2003	35%	Permitted within investment portfolio; properties are required to generate income	90%

Italy	FII	1994	60% / 20% on non-direct property	Permitted up to 10% of activities	
Japan	J-REIT	2000	Unlimited	Permitted within investment portfolio	90% + sales
Malaysia	M-REIT	1993	10%	Not permitted	
Netherlands	FBI	1970	60% / 20% on non-direct property	Permitted within investment portfolio	100%
New Zealand	PT	1956	Unlimited	Permitted	
Puerto Rico	REIT	1972/2000	Unlimited	Limited	90%
Singapore	S-REIT	1999	35%	Not permitted	90%
South Korea	K-REIT	2001	0%	Not permitted	90%
	CR-REIT	2003		Not permitted	0%
	RETF	2004	200%		100%
South-Africa	PUT	1981	30%	Not permitted	
Switzerland	FPI	N/A	N/A		
Taiwan*	REIT	2003	t.b.d.	t.b.d.	t.b.d.
Turkey	Gayrimenkul Yat	1998	N/A	Not permitted	
United Kingdom	UK-REIT	2006*	t.b.d.	Permitted within investment portfolio	95%
United States	REIT	1960	Unlimited	Permitted ("stapled company")	>90%

Table 3: Description of dataset

The table presents the composition of the data set as per 30/09/2004 by number of companies per country. The sample is broken down into tax transparent and tax paying vehicles.			
Continent	Country	Number of tax transparent	Number of tax paying companies
<i>World</i>		237	235
<i>Africa</i>		11	
	South Africa	11	
<i>Asia/Pacific</i>		34	127
	Australia	20	6
	Hong Kong		39
	Japan	4	31
	Korea	3	
	Malaysia		20
	New Zealand	5	
	Philippines		11
	Singapore	2	13
	Thailand		7
<i>Europe</i>		26	97
	Austria	1	4
	Belgium	8	
	Finland		3
	France	8	5
	Germany		12

	Italy		4
	Netherlands	9	
	Norway		2
	Spain		5
	Sweden		14
	Switzerland		7
	United Kingdom		41
<i>North America</i>		<i>166</i>	<i>11</i>
	Canada	18	3
	United States	148	8

Figure 1: Breakdown of tax transparent listed property vehicles by development restrictions

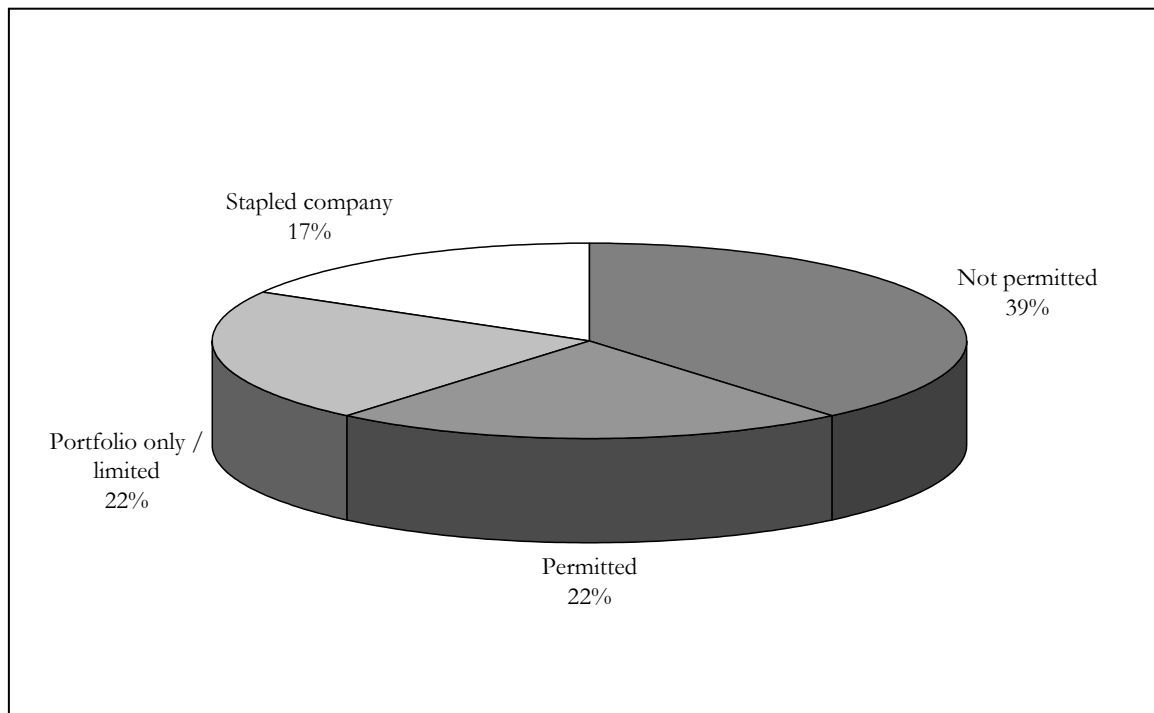


Figure 2: Growth in market capitalization of listed property markets
1994-2004, in US\$ millions

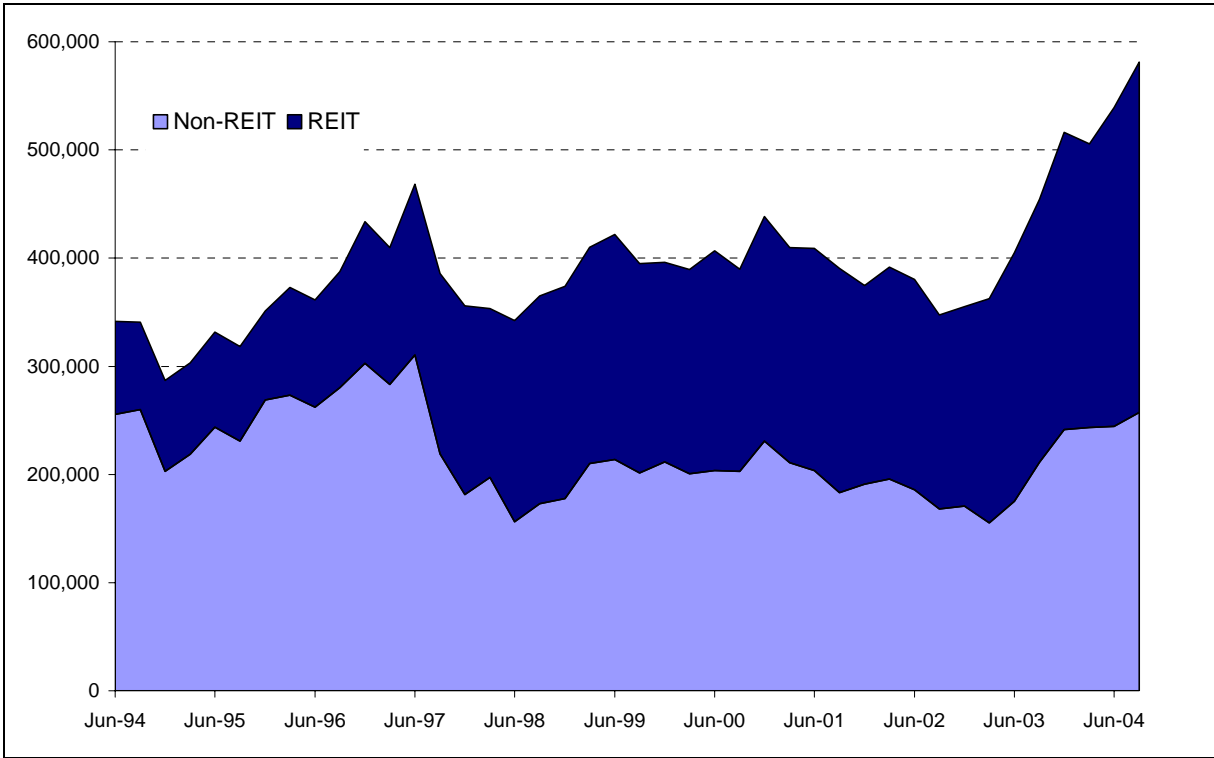


Figure 3: Percentage of tax transparent listed property companies through time
% of total market capitalization, June 1994 – September 2004

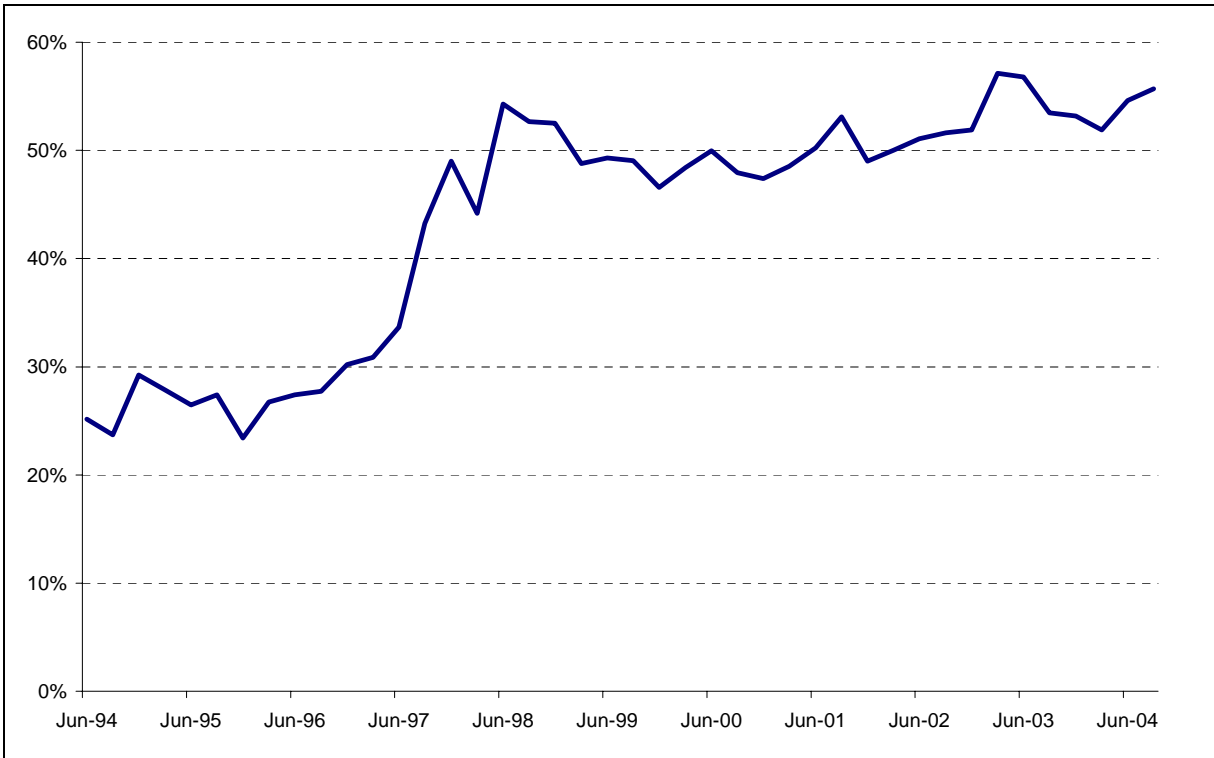


Figure 4: Tax transparent versus tax paying property companies

Total return index in local currencies, 06/30/1994 = 100

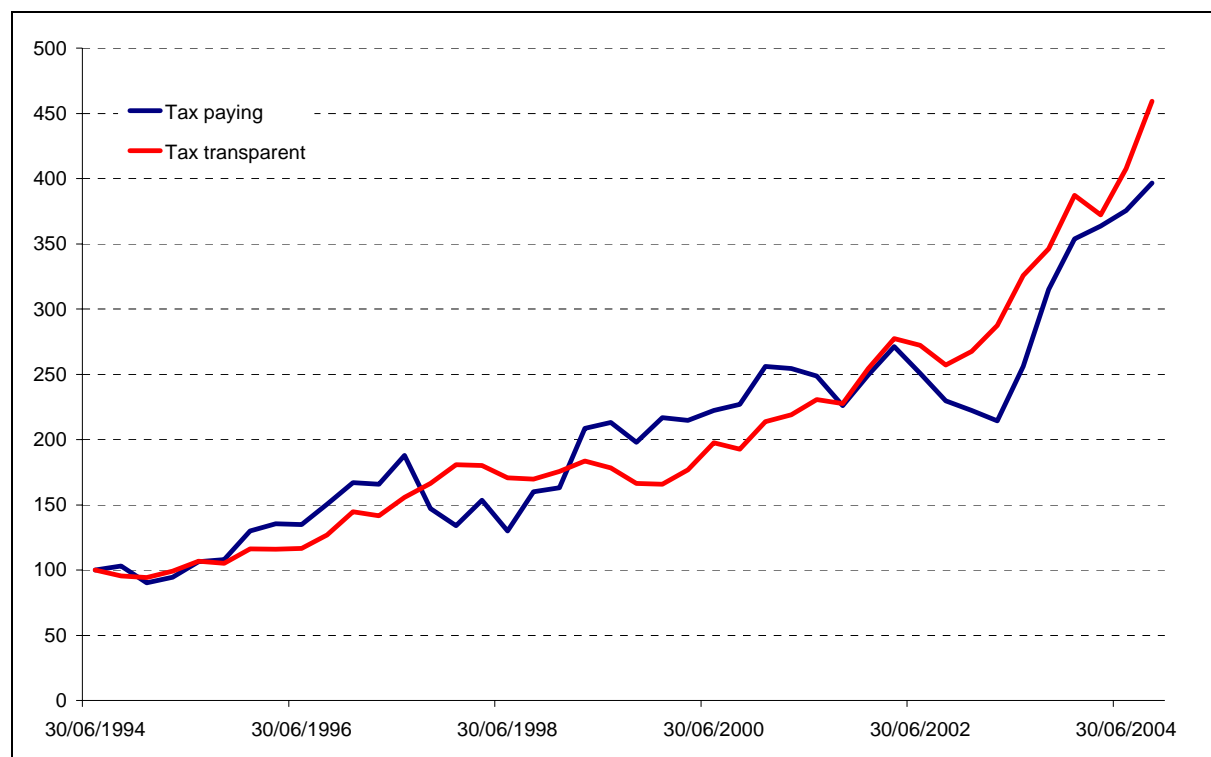


Table 4: Performance statistics in local currencies

Key performance statistics expressed in local currencies. Data is for the period June 1994 – September 2004. All returns and standard deviations are annualised.

	Tax paying markets		Tax transparent companies	
	Total return	St. deviation	Total return	St. deviation
1-year	12.95%	7.66%	18.13%	14.27%
3-year	22.45%	19.06%	24.87%	12.82%
5-year	16.67%	17.19%	21.99%	12.12%
10-year	14.72%	21.27%	17.11%	12.32%
Since inception	14.34%	21.01%	15.45%	12.64%
1994-1996	17.79%	17.32%	16.54%	12.50%
1997-1999	9.53%	27.70%	3.64%	11.26%
2000-2004	25.86%	17.49%	31.44%	12.30%

Table 5: Debt/equity ratios by country and structure

The table provides the equally weighted average debt/equity ratio by country and divided into tax transparent and tax paying companies, measured as per September 2004

Country	Debt / Equity tax transparent companies	Debt/equity tax paying companies
Australia	27.63%	34.92%
Austria	46.12%	40.39%
Belgium	25.53%	
Canada	57.43%	74.25%
Finland		49.07%
France	42.74%	37.40%
Germany		62.07%
Hong Kong		21.56%
Italy		42.54%
Japan	30.31%	51.41%
Malaysia		30.92%
Netherlands	38.39%	
New Zealand	31.54%	
Philippines		19.80%
Singapore	28.66%	29.24%
South Africa	37.00%	
Spain		49.60%
Sweden		61.95%
Switzerland	47.54%	
Thailand		79.85%
United Kingdom		51.93%
United States of America	57.34%	59.81%

Table 6: Results from Jensen regression

This table provides the results from regression (4). Mean alphas and betas are given on a country-by-country basis. The number of observations relates to the number of companies in the sample as per 30 September 2004

Name	Alpha		Beta		N	
	Tax Paying	Tax Transparent	Tax Paying	Tax Transparent	Tax Paying	Tax Transparent
Australia	-0.03	-0.01	0.24	0.14	6	19
Austria	0.00	0.01	0.08	0.02	2	1
Belgium		-0.04		0.18		9
Canada	-0.13	-0.01	0.03	0.43	2	13
Finland	-0.11		0.36		3	
France	-0.10	0.03	0.26	0.56	5	4
Germany	-0.17		0.58		5	
Hong Kong	-0.23		2.30		37	
Italy	-0.09		0.47		3	
Japan	-0.18	0.05	0.58	-0.29	27	2
Malaysia	-0.23		1.10		16	
Netherlands		-0.05		0.48		9
New Zealand		-0.07		0.36		5
Philippines	-0.22		1.79		9	
Singapore	-0.19		2.02		12	0
South		-0.01		0.05		11

Africa						
Spain	-0.10		0.45		5	
Sweden	-0.03		0.54		14	
Switzerland		-0.10		0.14		7
Thailand	-0.21		1.03		5	
United Kingdom	-0.09		0.61		39	
United States of America	-0.15	0.06	0.83	0.66	7	138

Table 7: Regression of variables on alphas and betas

This table presents the results from regressions (5) and (6). Alphas and betas are regressed against variables for leverage (γ_1), presence of development activities (γ_2), tax transparency (γ_3) and the size of the company (γ_4)				
	γ_1	γ_2	γ_3	γ_4
alpha	-0.00655	-0.06047	0.052639	0.016966
	-0.40043	-4.43442*	4.12524*	6.011326*
beta	-0.31488	0.398246	-0.27062	0.006875
	-2.31894*	3.516876*	-2.55388*	0.29334
* Denotes significantly different from zero at 95% confidence level				