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# Market Valuation of UK Real Estate Investment Trust (REIT) legislation

Briefing

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# 1 Introduction

Taxation is often portrayed as impenetrable for all but the most expert in the field. Calls for tax simplification occur regularly. Combined with increasingly complex business operations an obvious question is to what extent investors in quoted companies understand the implications of corporate taxation. Extensive evidence in market based accounting research already exists showing investor limitations in processing accounting information eg, under-over reaction hypothesis, post-earnings announcement drift (Richardson et al, 2010).

Recently an emerging literature is examining whether investors correctly price tax related disclosures.<sup>1</sup> This research is primarily US based and examines company specific tax disclosures. Initial research focused on the pricing of deferred tax balances and found general agreement that they are reflected in companies' equity valuation (Ayers, 1998, Amir and Sougiannis, 1999, Dhaliwal et al, 2000 and in the UK, Citron, 2001, Lynn et al, 2008). Subsequent research has started to examine more detailed aspects of companies' tax disclosures. Hanlon et al, (2005) and Ayers et al, (2009) address the question of the information content of book-tax differences (BTDs) ie, the difference between accounting income and estimated taxable income. While these papers do not directly address the issue of investor response they show BTDs have information content. Raedy et al, (2011) extends Hanlon et al, (2005) by using disaggregated BTDs and find little evidence that investors use the full information available, a result the authors describe as 'baffling'.

An implicit assumption underlying the above research is that an observed valuation or pricing response indicates recognition of a tax consequence by investors. However, the research generally does not question whether the observed response or non-response is indicative of a full and informationally efficient market (Graham et al, 2012). The absence of a response could indicate either market inefficiency or disclosure with little or no information content while an observed response could be 'wrong'. In a direct test of the effect of tax complexity, Plumlee (2003) examines analysts' forecast errors as a metric of their ability to understand changes introduced by the Tax Reform Act of 1986. She concludes that analysts' ability to interpret, or their motivation to use, more complex information is limited. Research by Lev and Nissim (2004), Thomas and Zhang (2007) and Weber (2009) examines the efficiency of market pricing of BTDs. If BTD disclosures are fully reflected in share prices when announced, no relation should exist between BTDs and future returns. All three papers report such a relation consistent with market inefficiency. Collectively the literature on accounting for corporate taxes has produced inconclusive evidence as to the market's ability to price correctly tax information (Graham et al, 2012).

The research in this report examines an easily identifiable, highly visible and conceptually simple piece of legislation. The events surrounding the establishment of Real Estate Investment Trusts (REITs) in the UK provides an ideal setting in which to examine the ability of markets to interpret tax related events and disclosures. Evaluating the effect of the REIT legislation involves two distinct processes. Firstly, investors are required to understand the technical aspects of the legislation and its interaction with existing legislation and secondly, apply this knowledge of the legislation to assess its effect on individual companies and their likely responses. This second stage requires a detailed understanding of individual companies, which in part is influenced by their tax and more general disclosures to date.

The REIT legislation allows, *inter alia*, existing quoted property investment companies (PICs) to elect for taxation at the shareholder level only, in contrast to continuing to be subject to taxation at both the company and shareholder levels. A number of official announcements by HM Treasury and HM Revenue and Customs (HMRC) preceded the introduction of the legislation in 2007 and these provide an opportunity to observe investors' responses at various stages in the formulation and announcement of the legislation.<sup>2</sup> The research method involves:

- a series of interviews with a range of general market participants to provide a broader context for the research;
- an examination of share prices;
- and an analysis of levels of shareholding by shareholder groups.

The findings show that while investors identified the legislation as wealth increasing, they had limited ability in discriminating or predicting which PICs would subsequently convert to REIT status, and those that have not done so to date ie, both groups of 'subsequent converters' and 'non-convertors' experienced similar share price increases. More widely, the interviews with market participants generally support the view that a correct assessment of tax related information is difficult because of a variety of factors. These include, a relatively low level of tax related disclosure by companies, the complexity of companies' operations, further compounded when operating across several tax jurisdictions and general observations about the complexity of the corporate tax system. The remainder of this briefing summarises the REIT legislation and its introduction, sets out the research question and methods, discusses the results, and draws a conclusion.

# 2 Real estate investment trust legislation

## 2.1 Summary of legislation

This section summarises the UK REIT legislation and describes the process surrounding its introduction with effect from 1 January 2007. The legislation is set out in Finance Act 2006.<sup>3</sup> Within the REIT regime a company's income and gains on property investment activities are exempt from the UK corporate income tax (corporation tax).<sup>4</sup> In contrast, a company outside of the REIT regime would continue to be subject to corporate income tax on all of its profits. When a company converts to REIT an entry charge is payable equal to 2% of the carrying (market) value of its properties used in property investment activities at the date of conversion. The charge in effect compensates HM Treasury for the loss of corporate income tax arising on unrealised property gains at the date of conversion, which subsequently can be realised tax-free along with income and gains arising in the future. In contrast, debt interest ceases to be deductible.

After conversion at least 90% of the annual tax exempted (rental) income must be paid to shareholders in the form of a Property Income Distribution (PID). The amount of tax exempt income is calculated using normal taxation rules including the (notional) deduction of debt interest. To prevent the level of PID and therefore amount of investor level taxation being reduced by 'high' levels of debt interest, an avoidance provision limits the amount of interest that can be notionally deducted. A PID received by a UK resident individual shareholder is taxed as rental income, potentially at a top marginal income tax rate of 40% compared with 32.5% on dividend income. Certain UK shareholder groups eg, UK resident companies, charities, local authorities and pension schemes can receive PIDs gross. The ability of non-UK resident shareholders to reclaim the tax credit is dependent on the terms of any double taxation agreement.

Table 1 summarises the levels of effective tax rate (ETR) by shareholder groups when investing in a standard taxable (non-REIT) company and a REIT respectively.<sup>5</sup> Pension fund shareholdings benefit to the greatest degree with an effective rate of 0% when investing in a REIT compared with 30% prior to conversion. Non-resident shareholders could also benefit although to a lesser degree dependent on the level of withholding taxes payable on the PID. Given the magnitude of the changes in relative ETRs, they have the potential to influence shareholders' asset allocation decisions. Section 4.3 examines whether observable changes occurred in the period around REIT conversion.<sup>6</sup>

Table 1

## Summary of effective tax rates by shareholder tax status pre- and post-conversion to REIT status

| Shareholder                               | PRE-REIT |                 |                        |           |                    | REIT      |                   |                    |
|---|----------|-----------------|------------------------|-----------|--------------------|-----------|-------------------|--------------------|
|   | PBT      | Corporation Tax | Income Tax on dividend | After Tax | Effective Tax Rate | PBT = PAT | Income Tax on PID | Effective Tax Rate |
| UK higher rate tax payer                  | 100      | 30              | 17.5                   | 52.5      | 47.5%              | 100       | 40                | 40%                |
| UK basic rate tax payer                   | 100      | 30              | 0                      | 70        | 30%                | 100       | 22                | 22%                |
| UK Pension Fund                           | 100      | 30              | 0                      | 70        | 30%                | 100       | 0                 | 0%                 |
| Non-resident shareholder (non-treaty)     | 100      | 30              | 0                      | 70        | 30%                | 100       | 22                | 22%                |
| Non-resident shareholder (treaty country) | 100      | 30              | 0                      | 70        | 30%                | 100       | 15                | 15%                |
| PEPs/ISAs/CTFs                            | 100      | 30              | 0                      | 70        | 30%                | 100       | 0                 | 0%                 |
| Authorised unit trust/OEIC                | 100      | 30              | 0                      | 70        | 30%                | 100       | 20                | 20%                |
| UK corporate                              | 100      | 30              | 0                      | 70        | 30%                | 100       | 30                | 30%                |

## 2.2 Legislative process

In his Budget Speech on 22 March 2006, the Chancellor of the Exchequer announced legislation to introduce a REIT regime would be included in the following Finance Bill. The announcement was the culmination of a consultative process prompted by publication of the Government commissioned *Barker Review of Housing Supply: Securing Our Future Housing Needs* in 2004. The review included a recommendation to consider introducing a REIT regime in the UK. Subsequently, on 16 March 2005 the Government published *UK Real Estate Investment Trusts: a discussion paper* (HM Treasury, 2005) which confirmed the Government's intention to include legislation on REITs in 2006. On 14 December 2005, draft legislation was published (HM Revenue and Customs, 2005), which was extended on 27 January 2006 (HM Revenue and Customs, 2006) to include discussion of Group REITs.

Although these publications included a detailed discussion of the range of potential REIT structures and factors to be considered by Government in deciding on the form of the legislation, eg, rules governing levels of debt, distributions and the imposition of an entry charge, the form and magnitude of the entry charge was first announced on 22 March 2006 in the Chancellor's Budget speech (HM Treasury, 2006). Each of these five publications or announcements has the potential to convey price sensitive information. For ease of subsequent reference, each announcement is referred to by event number as summarised in table 2. On each event the appropriateness of any share prices changes is assessed. Subsequent to the legislation being enacted, 17 existing quoted PICs converted to REIT status.<sup>7, 8</sup>

Table 2

Cumulative Average Abnormal Returns (CAARs<sub>t0:t2</sub>) by event date

| Event   | CONVERTORS n=17                |     |        |                    |        |       |  | NON-CONVERTORS n(n=23) |     |        |                    |        |       |  |
|---|--------------------------------|-----|--------|--------------------|--------|-------|--|------------------------|-----|--------|--------------------|--------|-------|--|
|   | Mean                           | n>0 | median | Standard deviation | min    | max   |  | Mean                   | n>0 | median | Standard deviation | min    | max   |  |
| 1: Barker Review<br>10 December 2004                                  | 0.011<br>(0.862)<br>[-0.572]   | 13  | 0.008  | 0.016              | -0.011 | 0.048 |  | 0.022<br>(1.748)       | 21  | 0.008  | 0.030              | -0.013 | 0.121 |  |
| 2: Discussion paper<br>HM Treasury<br>16 March 2005                   | -0.012<br>(-1.293)<br>[-1.408] | 5   | -0.011 | 0.016              | -0.040 | 0.014 |  | 0.004<br>(0.622)       | 15  | 0.014  | 0.025              | -0.047 | 0.062 |  |
| 3: Draft legislation<br>HM Revenue and<br>Customs<br>14 December 2005 | 0.023<br>(1.842)<br>[1.051]    | 12  | 0.018  | 0.026              | -0.016 | 0.074 |  | 0.005<br>(0.381)       | 10  | -0.003 | 0.021              | -0.044 | 0.052 |  |
| 4: Update of draft<br>legislation<br>HMRC 27 January 2006             | 0.005<br>(0.432)<br>[-0.031]   | 13  | 0.008  | 0.016              | -0.040 | 0.026 |  | 0.006<br>(0.487)       | 12  | 0.006  | 0.022              | -0.025 | 0.061 |  |
| 5: Budget Speech<br>announcement<br>22 March 2006                     | 0.037<br>(2.589**)<br>[1.597]  | 15  | 0.035  | 0.031              | -0.008 | 0.091 |  | 0.011<br>(1.256)       | 13  | 0.002  | 0.026              | -0.024 | 0.079 |  |
| Events 1-5<br>combined  | 0.064<br>(2.329*)<br>[0.475]   | 17  | 0.058  | 0.046              | 0.002  | 0.162 |  | 0.047<br>(2.082*)      | 20  | 0.040  | 0.054              | -0.065 | 0.171 |  |

1. Figures in curved brackets are t-statistics  $H_1: \overline{CAR} \neq 0$  and square brackets are t-statistics:  $H_1: \overline{CAR}_{CONVERTORS} \neq \overline{CAR}_{NON-CONVERTORS}$  respectively.  
 2. \*, \*\*, \*\*\* indicate significance at 5%, 2.5% and 1% respectively (two-tailed).

# 3 Research questions and methods

A combination of qualitative and quantitative research methods was employed. Eight interviews were conducted with the following individuals: sell side analysts (x2); finance director 'large' quoted company; tax director 'large' quoted company (x2); big 4 tax partner; asset managers (x2) and a representative body.

The purpose of the interviews was to examine how investors are informed on companies' tax positions and to provide context to the question of whether investors correctly process tax related information. The interview participants were drawn from a range of industry specialists and therefore, the conclusions are not restricted or exclusive to the real estate sector. Given the relatively small number of interviews, the conclusions drawn should be considered as tentative.

The quantitative analysis addressed two questions:

1. Were any PICs' share price changes following the various general REIT related announcements reasonable given publically available information at the time?

As a test of their reasonableness PICs' price changes were compared with various company characteristics hypothesised to be associated with the potential tax effects of conversion eg, levels of deferred tax as a measure of unrealised gains, rental income and interest paid. Further testing for differences in the price changes of companies that subsequently converted with those that have not, allowed a judgment of whether investors could discriminate between subsequent convertors and non-convertors. This was a joint test of investors' understanding of the legislation and their knowledge of the companies to make an informed prediction of which companies would subsequently convert. The necessary share price data and initial financial statement derived data was obtained from Thomson Financial. The remaining financial statement data, ie, deferred tax disclosures, was hand collected from the companies' latest financial statements in the public domain before 22 March 2006.<sup>9</sup>

2. Did the shareholder profile of PICs change around the time of the legislation's introduction and are any such changes consistent with tax induced effects?

As discussed above, after converting to REIT status, payments to shareholders ceased to be treated as dividends and instead are taxable as rental income. The extent to which predictable changes in shareholdings or 'clientele' are observed,

could provide an indication of the various shareholder groups' understanding of the REIT tax changes. However, changes could also result from non-tax related asset allocation factors. The analysis of changes in shareholdings was performed using the Bureau van Dijk Nominus database for the six year period commencing on the balance sheet date approximately three years prior to conversion ie, covering both pre- and post-conversion periods.

# 4 Results

## 4.1 Interviews

The interviews were analysed by three themes:

1. the availability of tax related information;
2. the effects of complexity of companies operations and tax legislation on investors' understanding; and
3. an assessment of investors' ability to understand tax related events and disclosures.

The interviews were conducted in late 2010 and early 2011 and on average lasted 48 minutes. Each interview was recorded and transcribed.

### Availability of information

The two analysts and tax director 1 all commented on the amount of information being available as being relatively limited. Analyst 1 attributed it to a relative lack of supply or communication on the part of companies with analysts and in turn, relatively little interest or demand from analysts. A situation described as 'chicken and egg', analyst 2 was of the view that companies are reluctant to disclose because of uncertainty about whether an item of tax information could be price sensitive and therefore subject to formal disclosure rules. This uncertainty was driven by complexity and often led companies deciding not to disclose as the lower risk option. Tax director 1 argued a lack of information combined with a lack of understanding made it difficult for investors and analysts to form a full understanding of companies' tax position. Furthermore, tax director 1 commented that even tax specialists are hampered by a lack of publically available information when assessing competitor companies' tax positions.

### Complexity

Providing additional information about companies' tax affairs would not necessarily lead to greater understanding. A combination of a complex tax system and complexity of companies' operations could still lead to lack of understanding if users lack necessary skills. Finance director commented on how analysts vary in their approach. Some perform detailed modelling of companies' tax rates while others use the rate provided or signalled by a company. Analyst 2 commented that analysts vary in their strengths over a range of areas, including taxation, accounting and industry knowledge and this is reflected in how they allocate their time and attention. Finance director identified complexity of taxation as a barrier to discussion within and outside of companies. Complexity creates an 'aura' around taxation leading to reluctance on the part of some to discuss taxation related matters for fear of revealing a lack of knowledge.

## Consequences

Against a background of perceived relatively low levels of disclosure and tax system complexity, it is pertinent to examine interviewees' views on the ability of investors to evaluate correctly tax related information. Tax director 2 observed that investors would not routinely question a company's tax position. While the company was prepared to explain changes in its tax position, it did not always receive questions from shareholders or analysts following significant changes.

More generally tax partner big 4 commented on a lack of 'sophistication' among capital markets in general at looking at tax performance, often analysis is performed on a pre-investor level tax basis.<sup>10</sup> Analysts and other participants' attitudes towards taxation may be reasonable in terms of costs and benefits of obtaining sufficient expertise and remaining informed. In the context of changes in legislation tax partner big 4 links the decision to become informed with the potential benefits, in effect a cost benefit decision, which could explain the apparent lack of sophistication.

Similarly analyst 2 identified taxation as generally an area of low return for investment of time, unless the company has a specific tax risk. Analyst 1 observed a reduction in the level of attention given to taxation because of falling corporate tax rates. In contrast, representative body identified analysts as having a 'knowledge gap', although in their view analysts have become more sophisticated in their ability to understand taxation in recent years. Analyst 2 commented that analysts are primarily rewarded for their industry expertise, with other factors such as knowledge of accounting and taxation also important albeit less so.

The idea that investors in general and analysts particularly could fully appreciate companies' tax positions was described by analyst 2 as unrealistic. With analysts organised on an industry sector basis and companies routinely operating across several countries, their ability to keep informed of tax developments in several jurisdictions was limited according to analyst 2.

In conclusion, firstly there is general agreement that an increase in the supply of tax related information could assist in more informative analyses, although capacity constraints, conflicting incentives and processing ability could influence the effectiveness of any increase. Secondly, there is recognition of a limited understanding on the part of market participants in general about companies' tax positions, although the consequences in terms of valuation may be becoming less important given falling corporate tax rates. However, there are potential non-tax costs associated with tax position that arguably could affect companies' pre-tax profitability eg, reputation costs (Holland, Lindop and Zainudin, 2013).

## 4.2 Share prices

At the time of the above five events investors could only speculate as to which companies, if any, would subsequently convert.<sup>11</sup> On 31 December 2005 there were 40 UK resident companies included in the FTSE Real Estate Holding & Development

industry classification. Taking these firms to represent a sample of potential REITs, the cumulative abnormal returns (CARs) of the 17 convertors are compared with those of the remaining 23 non-convertors.<sup>12, 13</sup> The price responses are summarised in table 2 which reports the mean CARs and their descriptive statistics for each of the five events. To allow time for dissemination of the information and its assessment, the CARs are calculated over the three day period commencing the day of disclosure ie,  $CAR_{t_0, t+2}$ . Taking the five events collectively, the CARs ( $CAR_{Combined}$ ) are statistically different from zero for both the convertors and non-convertors.<sup>14</sup> When the events are analysed individually the CARs are statistically significant at event five ( $CAR_{Event5}$ ) for the convertors. Of the converting companies, all 17 experienced positive  $CAR_{Combined}$  while 16 experienced positive  $CAR_{Event5}$ . Clearly on average the REIT legislation increased shareholder wealth.

If investors using information available at the time could assess with reasonable accuracy which companies would subsequently convert, the mean CARs should be higher for the 17 convertors than the non-convertors. However, the difference between the mean CARs is not statistically significant on any of the five events. Even when all five events are combined the difference between the two groups is not significant. This suggests that while investors judged the REIT legislation would be wealth increasing at the sector level, they were unable to identify which companies would convert and benefit. An alternate explanation for a lack of discrimination is that investors considered the legislation would benefit the property sector in general, both convertors and non-convertors alike. While this could explain the significant increase experienced by the non-convertors, it is not obvious why it would lead to a lack of significant difference between the two groups.

As the decision to convert to REIT status is optional, significant differences should exist between the convertors and non-convertors in terms of companies' characteristics related to the benefit and costs of conversion (Goolsbee and Maydew, 2002). These consist, firstly, of the level of deferred tax on unrealised gains in respect of past gains, which post-conversion can be realised free of corporate income tax. Secondly, current rental income can act as a proxy for future non-taxable rental income. Thirdly, potential future gains can be modelled using the level of total assets which also captures costs of conversion. The debt interest ratio is used as a proxy for the loss of deductibility of debt interest.<sup>15</sup>

Relative to the non-convertors, the convertors have a higher mean level of rental income as a proportion of total income before tax<sup>16</sup>, a higher level of unprovided deferred tax relating to unrealised gains<sup>17</sup> and a higher level of provided deferred tax relating to factors other than unrealised gains and losses.<sup>18</sup> These characteristics represent two of the three potential sources of wealth effects discussed above. The third factor, the difference in mean level of debt, is not statistically significant. Convertors are larger than non-convertors when measured by total assets.<sup>19</sup>

These differences in company characteristics are used to assess the appropriateness of the CARs using multivariate regression analysis.<sup>20, 21</sup> For both  $CAR_{Event5}$  and  $CAR_{Combined}$  incorporating the effect of the four variables simultaneously shows a positive relation between CARs and size. The association between CARs and

unprovided deferred tax on unrealised gains is significant in  $CARs_{Combined}$ . The explanatory power of the two models is 9.46% and 15.4% for  $CARs_{Event5}$  and  $CARs_{Combined}$  respectively. To allow some variation between the convertors and non-convertors the above models are re-estimated with the inclusion of a dummy variable to capture companies' subsequent conversion decisions. However, the variable is not significant in either of the two models. This implies that perfect foresight on which companies would subsequently convert, would not allow an investor to obtain higher returns than simply investing in a portfolio consisting of all 40 firms over a three day period commencing on each announcement.

### 4.3 Share ownership

There is no evidence of significant changes in holding by shareholder type when the 17 convertors are examined in aggregate, see table 3.

The shareholder category group potentially benefiting the most in terms of reduction in ETRs, Mutual and Pension Fund/Nominee/Trust/Trustee, decreased its holding by a mean -1.17% leading up to conversion. Post-conversion this group further decreased its holding by -1.57% across the 17 companies. Within this shareholder category there is little evidence of a consistent response. Only a slight majority of converter companies, nine and 10, experienced a reduction in the level of shares held pre- and post-conversion respectively by investors in the Mutual and Pension Fund/Nominee/Trust/Trustee sector.

However, a systematic decision by the Mutual and Pension Fund/Nominee/Trust/Trustee category to invest in the REIT sector could be concentrated within a small number of REITs. This would be consistent with a consensus on the relative attractiveness of potential REITs in which to invest. Yet, comparing the absolute maximum increase and decrease both pre- and post-conversion, the level of decrease is greater in both periods: pre-conversion the respective changes are 7.40% (increase) and 11.02% (decrease) while post-conversion the rates are: 4.86% (increase) and 20.53% (decrease). There is no evidence that the shareholder group Mutual and Pension Fund/Nominee/Trust/Trustee increased its holdings in either anticipation of or consequent to REIT conversion. Within the other shareholder groups there is little evidence of a consistent pattern of increased or decreased shareholding.

Table 3

## Summary of changes in shareholdings by shareholder category for 17 converters

| Shareholder category*                         | PRE-CONVERSION |       |         |       |     |      | POST-CONVERSION |        |         |        |     |      |
|---|----------------|-------|---------|-------|-----|------|-----------------|--------|---------|--------|-----|------|
|   | Mean           | Max   | Min     | Sd    | N>0 | N<0> | Mean            | Max    | Min     | Sd     | N>0 | N<0> |
| Bank  | 0.43%          | 8.39% | -2.22%  | 2.26% | 3   | 11   | -2.81%          | 13.17% | -15.65% | 7.42%  | 5   | 16   |
| Financial company                             | -0.41%         | 1.00% | -3.41%  | 1.00% | 1   | 6    | -0.52%          | 2.39%  | -4.44%  | 1.84%  | 8   | 16   |
| Insurance company                             | -2.88%         | 3.08% | -22.05% | 7.49% | 5   | 11   | -0.80%          | 13.24% | -9.14%  | 4.54%  | 5   | 16   |
| Industrial Companies                          | 0.01%          | 7.09% | -10.22% | 3.50% | 3   | 7    | -1.22%          | 1.17%  | -8.17%  | 2.80%  | 6   | 16   |
| Mutual and Pension Fund/Nominee/Trust/Trustee | -1.17%         | 7.40% | -11.02% | 3.60% | 3   | 12   | -1.57%          | 4.86%  | -20.53% | 5.50%  | 6   | 16   |
| Foundation/Research Institute                 | 0.00%          | 0.00% | 0.00%   | 0.00% | 0   | N/A  | 0.00%           | 0.25%  | -0.40%  | 0.13%  | 3   | 5    |
| Public authorities, States, Governments       | -0.07%         | 0.00% | -1.13%  | 0.27% | 0   | 2    | 0.43%           | 6.58%  | -1.63%  | 1.74%  | 7   | 14   |
| One or more known individuals or families     | -0.48%         | 5.44% | -10.63% | 2.90% | 3   | 11   | 3.84%           | 74.47% | -10.52% | 17.95% | 6   | 11   |
| Employees/Managers/Directors                  | -0.05%         | 0.00% | -0.89%  | 0.21% | 0   | 1    | 0.00%           | 0.00%  | 0.00%   | 0.00%  | 0   | N/A  |
| Private equity firms                          | -0.63%         | 0.00% | -10.70% | 2.52% | 0   | 1    | -0.06%          | 0.03%  | -0.75%  | 0.19%  | 1   | 3    |

\*As defined in Nominus database.

An analysis of changes in shareholding by shareholders' country of origin shows a reduction held by UK registered shareholders in both the pre- and post-conversion periods of 4.50% and 2.21% respectively. A higher degree of consistency exists with 11 and 13 companies experiencing a reduction in the two periods respectively. The corresponding increase in shareholding is not concentrated in any one country. Among three major investor economies the changes pre- and post-conversion are: China 0.05% and -0.54%, Germany, 0.03% and -0.04%, and US -0.21% and 0.14% respectively. The maximum increase and decreases both pre- and post-conversion among all the countries analysed, excluding the UK, were 0.05% and -0.07% and 0.85% and -1.30%. Overall there is no evidence of a systematic change in either shareholder category or country of origin either prior or subsequent to REIT conversion.

# 5 Conclusion

Interpreting tax legislation to assess its effect on companies and their likely responses involves overcoming legislative complexity and acquiring a detailed knowledge of companies' characteristics. Against this setting it is reasonable to examine the ability of investors and other capital market participants to interpret tax announcements, including legislation. Collectively the literature on accounting for corporate taxes has produced inconclusive evidence of investors' ability to correctly price tax information (Graham et al, 2012).

This report extends the literature by interviewing a series of market participants and examining share prices and levels of shareholding surrounding the development and introduction of a specific and well-defined piece of tax legislation. The legislation enabling REITs allows qualifying companies currently subject to corporate income tax at the company level, to elect, on the payment of an entry charge, to be subject to taxation at the shareholder level only. The findings show that while investors identified the legislation as wealth increasing, they had limited ability in discriminating or predicting from within a sample of potential REIT converters, which would subsequently convert to REIT status and those that have not done so to date ie, both groups of converters and non-convertors experienced similar increases in share prices. More widely, the interviewees generally identified the difficulty of fully interpreting the effect of taxation on companies. Contributory factors are relatively low levels of disclosure by companies, time constraints on analysts, the complexity of companies' operations, particularly when operating across several tax jurisdictions, and general observations about the complexity of the corporate tax system.

## Endnotes

- 1 Graham et al, (2012) provide an excellent review on the accounting for income taxes (AFIT) literature which inter alia includes a discussion of pricing effects and market efficiency.
- 2 A summary of the taxation consequences of converting to REIT status is given in the next section and is followed by a summary of the legislative process.
- 3 The discussion in this briefing reflects the legislation as introduced in Finance Act 2006. However, since its introduction the legislation has been amended, most significantly with effect from 17 July 2012 when inter alia, the 2% conversion charge was abolished, the requirement to be listed on a recognised stock exchange was relaxed to include AIM in addition to the London Stock Exchange, and diverse ownership rules were reduced. In addition to these changes REIT operating rules were relaxed and simplified (HMRC, 2011).
- 4 In order to qualify as a REIT a company's income and gains on property investment must represent at least 75% of total activities measured in terms of both income and assets.
- 5 Adapted from KPMG (2007).
- 6 The researcher is grateful to the practitioner reviewer of the funding proposal for this suggestion.
- 7 The 17 companies and dates of conversion are as follows: 1 January 2007 – British Land plc, Brixton plc, Great Portland Estates plc, Hammerson plc, Land Securities plc, Liberty International plc, Primary Health Properties, Slough Estates plc and Workspace Group plc; 15 January 2007 – Big Yellow plc; 1 April 2007 – Shaftesbury plc and Warner Estate Holdings plc; 1 July 2007 – Derwent London plc and Mucklow (A&I) Group plc; 1 October 2007 – Town Centre Securities plc; and 1 April 2008 – Highcroft Investments plc and McKay Securities plc.
- 8 In converting, three further events typically occurred for each company: the publication of a circular to shareholders seeking approval for related changes to the Article of Association at an EGM; publication of the results of the EGM; and finally conversion. Unlike the five legislative related events above the dates of these three events are company specific.
- 9 The necessary data has been extracted from the companies' latest financial statements produced in the public domain before 22 March 2006 (event five). The range of PICs' financial statement year-ends used runs from 31 December 2004 to 30 September 2005. All of these statements were produced under UK GAAP which inter alia did not allow the provision of deferred tax on unrealised gains unless a 'binding agreement' to dispose of the related asset existed at the balance sheet date, see section 4.2 Share prices.
- 10 This could explain the lack of observable changes in holdings by shareholder groups with differing tax characteristics, see section 4.3 Share ownership.
- 11 In the period under review none of the convertors made unconditional statements about their intention to convert. Only after the exact form of the legislation was confirmed in November 2006 (TSO, 2006) were any unconditional announcements made by the convertors.
- 12 The abnormal or unexpected return is calculated as the actual return over a given period less the return on the market over the same period ie, market adjusted returns or Index Model (Strong, 1992). The difference is therefore abnormal or unexpected for a given change in share prices overall. The return on the market is modelled by returns on the FT-All Share Index.
- 13 The reported t-statistics are based on the simple Brown-Warner (1980) adjustment for cross sectional correlation due to temporal clustering.
- 14 As the level of CAR for a particular event could be conditional on the level of CARs on earlier events, the combined CARs for all five events are examined.
- 15 In the subsequent analysis accounting variables are deflated by a size control variable, total assets to remove scale effects which could induce spurious regressions (Barth and Kallapur, 1996).
- 16 Mean of 0.858 compared with 0.474 (t-statistic 3.953, significant at the 1% level).
- 17 Mean of 0.057 compared with 0.024 (t-statistic 3.232, significant at the 1% level).
- 18 Mean of 0.015 compared with 0.000 (t-statistic 3.844, significant at the 1% level).
- 19 Mean of £2,453.970M compared with £432.592M (t-statistic 2.349, significant at the 5% level).
- 20 As each event has the same calendar date for all companies the Huber-White sandwich estimator is used to control for the potential lack of independence among error terms (Rogers, 1993).
- 21 To obtain a reasonable, although small sample size, the model is estimated combining the convertors and non-convertors to produce a sample size of 40 companies.

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