The REIT Vehicle: Its Value Today and in the Future

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Abstract

The value of the basic REIT structure has come under increasing scrutiny given the problems the structure poses for firms wishing to retain earnings in today's depressed equity and debt markets for real estate firms. We estimate the net benefits of the structure to be no more than 2-5 percent of industry equity market capitalization, although the benefits are larger for firms that have lower payout ratios. Stated differently, if the government were to outlaw the structure and force all REITs to reorganize as regular C-corporations, we would expect equity prices to decline by from 2-5 percent on average. Our analysis suggests it is unlikely that another structure will prove economically superior to the REIT format over the long run. In addition, the value of the format doubles as the share of tax exempt/deferred investment in REITs increases to 40 percent, the fraction obtaining in the broader equity market. Consequently, educating this investor clientele on the benefits of the REIT structure is an important goal for REIT management.

The real estate industry is beginning to rethink the value of the REIT structure. The decline in REIT share prices and the ensuing capital crunch beginning in 1998 highlighted a drawback of the REIT structure: the difficulty of running a growing, capital intensive operating company when the ability to retain earnings at will is limited. In addition, last year's changes in the tax code that aimed to remove the advantages of paired share or "stapled" REITs has increased uncertainty about whether the government would reduce some of the broader tax benefits that REITs enjoy. While the paired share legislation applied to only a few firms, it suggests that this may not be the government's last attempt to attack real estate tax preferences, especially since no other industry besides real estate has such a visible shield against the corporate income tax. These events offer an opportune time to reexamine the costs and benefits of the REIT format, both for firms in the industry and for the federal government.

In this paper, we examine the cost-benefit tradeoff of electing REIT tax status relative to what we refer to hereafter as a 'regular' C-corporation.[1] Implicitly, we take the viewpoint of a real estate company that has decided it requires access to public equity markets and is determining which organizational form is best. Although much real estate is held in private partnerships, we are considering firms that have outgrown being able to efficiently raise capital via a private partnership form.[2] Using firm-level data and a range of reasonable parameter values, we simulate the net value to real estate firms from choosing REIT status and the net cost

[1]For a select group of firms primarily in the hotel and health care sectors, the need to avoid 'bad' income arising from active management activities also is an important driver as evidenced by Starwood's recent decision to convert to C-corporation status. We abstract from this narrower issue in this paper.

[2]If REITs could easily revert to a tradeable master limited partnership form, the benefit of the REIT form would be less than we calculate in this paper.

to the government from allowing the REIT tax preferences. We find that the value of the structure to real estate firms is low, on the order of 2 to 5 percent of equity market capitalization on average. However, the value of the structure to firms is greater than the tax cost to the government, which currently totals less than $500 million per year. This average disguises substantial across-firm variation. Five to eight percent of the equity market value of low dividend payout REITs, for example, is due to the structure.

Three factors, two positive and one negative, drive the cost-benefit tradeoff of electing REIT tax status relative to what we refer to hereafter as a 'regular' C-corporation. In the first section of this paper, we consider the most obvious benefit of the REIT structure: the shield provided against the corporate income tax. Valuing this benefit is complicated by the fact that while a real estate firm avoids paying tax at the corporate level if it elects REIT status, it must pay out higher dividends to its shareholders. Since dividend tax rates are higher than capital gains tax rates, the value of not paying corporate tax as a REIT is reduced since REIT shareholders must pay higher taxes.

Section two weighs the tax advantage of the REIT structure against the remaining two factors. One important saving from choosing to be a REIT derives from not having to engage as intensely in the costly tax-minimizing strategies followed by taxable firms. The primary cost of the REIT structure results from having to raise more capital externally than would otherwise be the case if REITs could retain all the earnings they desired.

In section 3, we consider how the value of the REIT structure may evolve as time passes. While capital raising costs should not rise much for REITs relative to C-corporations, we expect the tax benefits of the REIT form to rise as they develop a larger tax-exempt shareholder

clientele. We briefly conclude in section 4.

I. Tax Savings Associated With the REIT Structure

REITs by their nature do not pay tax, but their shareholders do. While most REITs technically are C-corporations, they avoid paying corporate income tax because they receive a proportional tax deduction for every dollar of net income paid to shareholders. However, since REITs are required to pay a high dividend stream and income tax rates are higher for dividend income than for capital gains, REIT shareholders pay a lot of taxes, offsetting much of the savings associated with eliminating corporate tax payments. Consequently, taxes paid on all REIT-generated income must be calculated to estimate the net tax saving associated with the structure.

Information from the SNL Securities data base indicates that equity REITs in 1997 paid out $7.6 billion in dividends and retained $2.0 billion in cash (not accounting earnings), for a combined $9.6 billion in REIT-generated income on which shareholder tax payments could have been generated.[3]

[3]The dividend figure is the sum of actual payments made by each firm and reflects all payments to equity--common, preferred, and operating partnership units. Retained cash is computed via the following formula:

Retained Cash = Total Revenues - Cash Operating Expenses + Gains + Extraordinary Items - All Payments to Equity Investors.

Interest payments are included in the Cash Operating Expenses figure, but no adjustment is made for recurring, non-value-enhancing depreciation and amortization. This leads to some overstatement of the firms' true cash position.

The actual amount of taxes paid to the government depends upon the tax bracket of the shareholders and the extent to which capital gains are realized. We assume that any taxable investors face a marginal tax rate of 21 percent[4], but allow the fraction of shares owned by tax exempt investors to vary. Determining the actual fraction of REIT ownership held in tax exempt or tax-deferred form is difficult since such data is not readily available. While a number of authors have examined institutional holdings of REIT stock (see Chan, *et al* (1998) and Ling and Ryngaert (1997), not all institutional holdings are tax exempt and not all tax-deferred investments are held by institutions.[5] Appendix A details our calculations of the share of the entire equity market that is held in tax exempt or deferred accounts. Using Federal Reserve Board and Investment Company Institute data, we find that tax exempts hold 40 percent of U.S. equities. While returns in tax deferred accounts such as IRA, 401(k), and 403(b)s are not completely tax exempt, we assume a tax rate of zero for these accounts for simplicity. Moving from the broad equity market to REIT ownership, we examine three cases:

> (a) 20 percent tax exempt share ownership. This case presumes the fraction of tax exempt investment in REIT shares is far less than that in the broader equity market. The current fraction of tax exempt/deferred ownership of REIT stock may be no higher than 20 percent for several reasons. Until very recently, REITs have been of such small capitalization that they did not attract much investor interest, leading to a relatively low fraction of tax exempt investment. In addition, many pension funds have relatively low target allocations for real estate in general and for real estate stocks in particular.[6]

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[4]The 21 percent figure is based upon marginal tax rate calculations on Survey of Consumer Finances data that are reported in Samwick (1998). The 21 percent figure is the marginal tax rate of the average person with dividend income, as well as the marginal tax rate faced by the mean shareholder.

[5]For example, mutual fund companies are institutions with taxable holdings while individually held IRAs are tax-deferred but not institutional.

[6]Chan *et al* (1998) find that institutional ownership of REITs is similar to that of a matched sample of C-corporations, with the fraction of institutional ownership rising over time

to about 30 percent. Ling and Ryngaert (1997) report an even higher fraction of REIT equity offerings are purchased by institutions. While this evidence does not speak directly to the issue of tax exempt ownership, if the fraction of tax exempt ownership is proportional to institutional ownership, our second case which assumes 40 percent tax exempt ownership of both REITs and C-corporations may be the more appropriate baseline.

(b) 40 percent tax exempt share ownership. This case presumes the fraction of tax exempt investment in REIT shares equals the approximately 40 percent tax exempt share in the broader equity market that we calculate using Federal Reserve Board and Investment Company Institute data.

(c) 60 percent tax exempt share ownership. This case presumes a strong "tax clientele" has developed so that the percentage of tax exempt investment is far greater than that in the broader market. While such a strong clientele clearly has not yet developed in REITs, we include this case to illustrate the effects should it develop in the future.[7]

Taxes paid on dividend income depend upon the extent to which the income reflects return of capital, as opposed to return on capital. Data from the Vanguard Equity REIT Index show that 19 percent of aggregate dividends paid by firms in that index reflected return of capital in 1997. This income is not taxed as ordinary income but does lower the investors' basis for capital gains taxation. We assume that very few gains are realized, with the effective gains tax rate being 5 percent.[8]

[7]The results in Chan *et al* (1998) showing that institutional investment in REITs has been increasing over time supports our claim in section III that tax exempt shareholders should naturally be increasing their holdings of REITs.

[8]Poterba (1987), Bailey (1969), and Protopapadakis (1983) among others assume the effective capital gains tax rate is one-fourth of the statutory rate due to the ability of investors to defer paying the tax until realization and the probability of an investor dying with an appreciated asset, thus generating a basis step-up. However, Poterba (1987) and Auerbach, Burman, and Siegel (1998) find that most investors do not lower their effective rates further by using sophisticated loss-offset strategies to reduce their tax liability when they realize capital gains. While this recent evidence implies investors may not be savvy about tax minimization, it does not diminish the value of deferring the realization of capital gains or stepping-up the basis at death. If the effective capital gains tax rate were higher than we have assumed, both the value to electing REIT status and the tax loss to the government would rise.

Using these data and the first assumption that 20 percent of shares and debt are held in tax exempt or deferred accounts, we report in the first column of Table 1 estimates of the total taxes arising from REIT-generated income. Over $1.8 billion in taxes were paid on REIT-generated income even though there are no corporate income taxes paid as reflected in the top row.[9] Most of the taxes paid are on dividends received by taxable shareholders, although a significant fraction of taxes paid are on interest received by REIT debt holders. Very little is paid in the form of capital gains taxes.

The figures in the second column of Table 1 reflect our estimates of the payments forthcoming if all equity REITs adopted 'regular' C-corporation status in lieu of the REIT structure.[10] We also assume that 20 percent of shares are held by tax exempt or tax deferred accounts.[11]

[9]The SNL Securities data base does show that a few firms paid corporate-level income taxes that year, but the aggregate amount was under $10 million in 1997. We round to zero for simplicity.

[10]Since we do not allow REITs to transform into private partnership form or to create easily tradeable master limited partnership structures, the estimates of tax payments generated in the absence of the REIT structure are maximized in this analysis.

[11]There also is an underlying assumption of tax avoidance costs equal to 1 percent of firm NOI. These results are not at all sensitive to this assumption which is discussed more fully below.

The top row of column 2 indicates that, if treated as regular C-corporations, real estate firms would have paid $1.11 billion in corporate income taxes in 1997. This figure assumes that REITs would incur the same tax rate on net operating income as other non-financial firms which do not have a shield against the corporate income tax.[12] Data from the 1996 Compustat files shows that the effective tax rate on NOI was 8.4 percent for the median non-financial firm.[13] Assuming that REITs would be able to adjust their capital structures, depreciation strategies, payout policies, and the like so that they would pay the same effective rate as other non-financial firms on the $13.24 billion of REIT net operating income in 1997 yields the $1.11 billion in corporate taxes ($13.24B*0.084).[14]

[12]Net operating income, not taxable income, is used as the base for the tax calculation because it captures income before capital structure and depreciation, both of which can be manipulated by firms to affect their taxable income. A base for taxation is needed that is invariant to such behavior and net operating income nicely meets that criteria. Non-financial firms are used as the comparison group because they tend to be more like REITs in the sense they are operating companies

[13]It still is the case that the median non-financial firm paid approximately 35 percent of its taxable income in corporate income taxes, which is roughly equal to the top corporate rate. The wide difference in the two rates partially reflects the forces mentioned in footnote 12. In addition, 1996 data are used for this variable because that is the latest year for which data on all non-financial companies are available. We know of no reason why this ratio would vary much by year. In addition, it is noteworthy that the result based on actual taxes paid is only 7.3 percent. The 8.4 percent number we use includes adjustments for two credits--the foreign tax credit and the U.S. asset credit--that are enjoyed by many non-financial firms, but probably would not be used by real estate companies. Those credits amount to about 15 percent of total income taxes paid by the median non-financial corporation, with 8.4 percent being 1.15 times 7.3 percent.

[14]Even this figure is an upper bound on the potential tax liability since REITs would naturally pay lower taxes without additional tax planning than other non-financial companies due to their greater capital intensity and thus depreciation shields.

Aggregate taxes paid on all income generated by these 'regular' C-corporations is estimated to be $2.33 billion. This is approximately $490 million more than under the REIT format.[15] The reason the aggregate tax burden on the industry does not rise by the full $1.11 billion of corporate income taxes is that shareholder-level taxes are much lower. For example, income taxes on dividend receipts are only $150 million. This amount is so low because the Compustat files indicate that the median non-financial corporation pays out only 10 percent of its available cash flow in the form of dividends. Leverage and interest payments do increase for real estate firms operating as 'regular' C-corporations (see Appendix B for the details), with bondholder taxes on interest payments amounting to $800 million. Capital gains taxes amount to another $270 million so that total shareholder taxes amount to about $1.22 billion.

Thus, the REIT structure provides firms with net tax savings, but the amount is not all that great in terms of its contribution to firm value. Treating these savings as a perpetuity and valuing them at a 13 multiple indicates that the tax savings alone contribute about 4 percent of industry market capitalization in 1997.

II. The Net Benefit Today of the REIT Structure to the Industry

While tax savings undoubtedly are the most discussed feature of the REIT structure, there are other benefits and costs. The most prominent cost is associated with the need to raise extra external capital because of restrictions on the ability to retain cash. It is difficult for REITs to reduce their dividend payout rates much below 60 percent of cash flow. Consequently, unless a

[15]Net tax savings are smaller the lower the fraction of tax exempt or deferred investment holdings, but they do not approach zero. If only 10 percent of REIT shares were owned by this clientele of investors, net tax savings drop to $410 million. The analogous figure for a 5 percent share is $370 million.

REIT has very low expectations of growth, it has extra capital raising costs beyond those it would incur if organized as a 'regular' C-corporation.

We assume that the financially-related costs of raising capital (e.g., investment banker fees and the like) amount to 7 percent. Total capital raising costs are then computed to be 7 percent of the difference between the funds real estate companies would have available to invest after paying corporate taxes as 'regular' C-corps and the cash the same companies retain in a REIT form after all payments to equity. Based on industry figures for 1997 this turns out to be about $330 million.[16]

Thus, at the industry level in 1997, the net tax savings outweighed the costs associated with having to raise capital externally, with these two components generating a net benefit to the industry's firms of $170 million. Assuming this situation would exist in perpetuity and valuing the net benefit at a 13 multiple yields a benefit of the structure equal to 1.3 percent of the $154 billion REIT equity market capitalization in December 1997.

[16]See Appendix B for the details of these calculations. Another cost not explicitly accounted for is the foregone profit on activities REITs could profitably engage in but for 'bad income' generation restrictions. Essentially, we assume that REITs find a way around this via a paper clip structure, a preferred stock subsidiary, or some other vehicle.

Still, another benefit arises from the fact that the shield against the corporate income tax means that REITs do not have to engage in potentially costly tax avoidance strategies to the same extent as 'regular' C-corporations. Common strategies include hiring lawyers and accountants, increasing leverage to generate deductible interest payments, and buying more depreciable assets than would otherwise be purchased in order to increase the depreciation tax shield. Such activities represent an inefficient use of capital that is costly to the economy but can make perfect economic sense to the taxable firm. For example, higher leverage makes the firm more risky, but the firm will tolerate that risk up the point where its cost equals the tax savings generated by the leverage. Precisely how much companies actually do spend is an issue in urgent need of more research, as there is no doubt that lowering the corporation's tax liability is costly both in terms of dollar expenditures, lower return, and added risk to the firm.[17] Economic theory implies that companies would be willing to spend up to a dollar to lower their tax liability by a dollar (in present value terms), but it provides little guidance beyond that.

Two cases are modeled that we believe span the range of possibilities regarding avoidance costs. The low avoidance cost case assumes that these costs amount to 1 percent of net operating income (or 12 percent of corporate income taxes paid). Given the $13.2 billion NOI for the REIT industry in 1997 according to the SNL Datasource, avoidance costs are approximately $130 million per year in this scenario. The high avoidance cost case assumes that 3.5 percent of net operating income, or $460 million, is spent by companies to reduce

[17]The only research of which we are aware on this topic, Mills *et al* (1998), finds that firms spend 0.39 percent of SG&A expenses on tax planning. This figure is clearly a lower bound on total avoidance costs since it only measures direct expenditures on tax department salaries and accounting and attorney fees. Mills *et al* (1998) also finds that for each dollar spent on tax planning, firms save four dollars in taxes on average.

firm-level income taxes. This amounts to 42 percent of actual taxes paid.

Table 2 then combines all the benefits and costs to arrive at a net benefit estimate of the REIT structure to the industry. Two cases are reported, one for each level of avoidance costs. The first column reports the net tax savings of being a REIT over a 'regular' C-corporation. As indicated from Table 1, these savings amount to $490 million for the one percent avoidance costs case. The figure in the second row shows that these savings are not particularly sensitive to the level of avoidance costs. The level of avoidance costs themselves are reported in the second column, and naturally vary widely as noted above. The third column simply sums these two benefits to reflect the gross benefits of being a REIT. Column four then reports our estimates of added capital raising costs, with the next column netting the costs from the benefits. They, too, are not sensitive to the level of avoidance costs. Consequently, the net benefits of the structure vary widely depending upon the level of tax avoidance costs.

Focusing now on the low avoidance cost case reported in the first row, the net benefits to the industry in 1997 amounted to $300 million (row 1, column 5). If this was a recurring, annual saving it would have a value of $3.9 billion using a 13 multiple, as reflected in column six of the table. Column seven reports this as a percentage of the December 1997 industry equity market capitalization of $154 billion. The last column indicates that the REIT structure accounts for 2.5 percent of the industry's equity market value. That is, if the format were outlawed and REITs had to reorganize as 'regular' C-corporations, we would expect equity market values to fall by 2.5 percent on average. If avoidance costs are high (row 2), the structure's benefits more than double to 5.4 percent of industry equity capitalization, with roughly half the benefits arising from tax savings and the other half from avoidance cost

savings.[18] We view these estimates as the lower and upper bounds on the current net benefit of the REIT format to its firms.

These figures mask significant variation across firms. The most important characteristic influencing structure value is the payout ratio. A lower payout ratio generates greater tax savings because it converts high tax rate dividends into low tax rate capital gains. Company value also is increased because capital raising costs are lower for low payout ratio firms.

While the SNL Database indicates that equity REITs as a whole had a 79 percent payout ratio during 1997, firm ratios varied widely. Table 3 presents results analogous to those in Table 2 for two cases–one in which all firms have a payout ratio of 95 percent (top panel) and another in which all firms have a payout ratio of 60 percent (bottom panel). In the high payout ratio scenarios, the net tax savings decline from nearly one-half to one-third of a billion dollars. Unless avoidance costs are high, the REIT structure bestows no meaningful current net benefit to high payout ratio firms since capital raising costs outweigh the tax benefits (see the last column of rows 1 and 2).

The bottom panel shows that the net tax savings increase to two-thirds of a billion dollars if the aggregate industry payout ratio were to fall to 60 percent (first column, rows 3 and 4). In addition, the added capital-raising costs associated with being a REIT drop to around $200 million (fourth column, rows 3 and 4). The last column indicates that the REIT structure contributes from 5.2 percent to 8.1 percent of equity value for low payout ratio firms.

[18]The REIT structure still provides positive net benefits to the industry, equal to 1.4 percent of equity market capitalization, even if no additional tax avoidance measures were taken by the firms as 'regular' C-corporations.

One caveat to this result is that it does not account for the possibility that investors reward firms for paying out a higher fraction of their cash. That is, we effectively assume that firms really do have profitable investment opportunities that will be funded with the greater retained cash and that investors believe this, too. However, it is possible that committing to paying high dividends by electing REIT status could lead to a higher share price. To the extent that REIT status enhances managerial discipline, the value of the structure will be increased beyond what we simulate here.[19]

III. The Net Benefit in the Future of the REIT Structure to the Industry

The future benefits of the REIT structure can be quite different from those at present because both benefit and cost components can change over time. On the cost side, capital raising costs clearly have risen since 1997. If one thinks this change is permanent (or at least long term), a big enough change could eliminate the financial viability of the REIT structure. Our calculations show that the increase would have to be over 6 percentage points--from 7 percent to 13.2 percent–for capital raising costs to become so large that they outweigh the tax and avoidance cost savings associated with the REIT structure. While liquidity or risk premia vary over time, we view the likelihood of such a long term increase for U.S. REITs as highly unlikely. That said, there are opportunity costs that do increase the full price above 7 percent. Windows of (lost) opportunity may pass. That is, capital may be very scarce when buying or

[19]See Myers and Majluf (1984) for the classic explanation of this phenomenon in the finance literature. This issue has been examined for REITs by Wang, Erickson and Gau (1993) and Bradley, Capozza and Seguin (1998). Both those articles find evidence consistent with REITs paying out more dividends than are required for tax purposes, presumably because of the signaling effect on share price.

development opportunities are great.

It is important to understand why the increase in external capital raising costs needs to be so large for it to render the REIT format valueless. The added capital costs associated with being a REIT arise only from the difference in cash that could be retained under the two organizational forms. The real estate industry is so capital intensive, and the cost of acquiring or developing even a few properties so high, that even modest acquisition or building programs typically cannot be financed out of retained earnings–even in the absence of a 95 percent payout rule. Essentially, the rent-to-value ratio in real estate is low enough that acquisitions cannot be financed out of one or two years rents on existing product. Consequently, the actual level of capital raising needed largely is irrelevant to the calculation. And, faster growing firms may not be much more harmed than slower growing firms by REIT format restrictions on retained earnings as long as both types of firms expect to have a reasonable level of new capital needs.

To understand this better, consider that equity REITs retained $2 billion in cash (not accounting earnings) in 1997, while we estimate they would have been able to retain nearly $6.7 billion as 'regular' C-corporations, largely due to the far lower dividend payout ratio. If the industry were going to finance only $6.7 billion in acquisitions, the additional financing costs due to being a REIT would be $320 million ($4.7 billion*.07). While equity REITs actually acquired nearly $50 billion in properties in 1997, the excess financing costs still are only $320 million. If organized as 'regular' C-corporations, they would have had to raise $43.3 billion ($50-$6.7) at the same cost of seven cents per dollar. As equity REITs, they had to raise $48 billion ($50-$2). The difference is the $4.7 billion figure noted above. It turns out that only if capital raising costs are 13.2 cents per dollar do the costs of the REIT structure outweigh its

benefits (e.g., $4.7 billion*0.132=$620 million, which just equals the sum of the tax saving and avoidance cost benefits in the one percent avoidance cost case).[20]

While we believe it is very unlikely that added capital-raising costs would rise this much, we do expect net tax savings to increase over time. The reason is that we expect a clientele of tax exempt and tax deferred investors to develop.[21] The reason is that the lower the shareholder's tax bracket, the more she should be willing to pay for the firm's high dividend flow. In fact, low tax bracket investors should value REITs even more than an otherwise equivalent taxable, high dividend paying firm because REIT returns are not taxed at either the firm or individual level. The benefit of the REIT structure is not as great for higher tax bracket investors because some of the return is shifted from relatively low tax capital gains to higher tax dividends.

[20]This analysis abstracts from the possibility that 'regular' C-corporations could take actions so that more than $6.7 billion could be retained. Payout ratios could be reduced to zero, but little more is retained since the median non-financial firm already has a 10 percent payout ratio. Maintenance could be deferred to cut expenses, but that can only go on for so long.

[21]Perhaps the most studied investor clientele is that of high tax rate investors in municipal bonds. Because of the tax shield offered by the interest on municipal bonds, high tax rate investors are willing to pay more for the bonds, leading to a clientele effect whereby they become the predominant owners of the asset by bidding up the price.

The first column of Table 4 reports our estimates of the net tax savings if the fraction of tax exempt or deferred shareholders in REITs were to increase over time to 40 or 60 percent.[22] A comparison of the first columns of Tables 2 and 4 highlights the importance of the REIT industry educating these investor groups about the benefits of the REIT structure. Net tax savings are well over $600 million if the share of tax exempt/deferred investment in REITs rises to 40 percent–the level obtaining in the broader market. If that fraction were to rise even more, to 60 percent, net tax savings increase to $1.11 billion.

How long it will take for a clientele to develop is unknown. Our guess is that when it does happen, it will build quickly. Inclusion in prominent stock indexes might serve as a trigger. The more intense the educational effort by the REIT industry, the more rapidly the change in ownership will occur. That said, there is a heightened risk of government intervention in this scenario. Tax savings to the industry are foregone tax receipts from the government's perspective. While we believe that the current level of tax savings is so low that the government is unlikely to try to eliminate the REIT shield against the corporate income tax, our opinion would be different if a 60 percent tax-exempt clientele were the norm for REITs, leading to the substantial tax savings outlined in Table 4. Recall that those figures are based upon 1997 data. Imagine a tenfold growth in the equity market capitalization of the industry to over $1 trillion–something we think is possible in the relatively near future. In that case, the foregone tax receipts would be nearly $11 billion per year, enough to attract the attention of any Treasury official.

[22]These comparisons also presume that, in the long run, real estate C-corporations would have the same proportion of tax exempt/deferred investors as in the broader market, or 40 percent.

This situation leaves the REIT industry in a quandry. The value of the REIT structure and the risk of government intervention both increase with the fraction of tax exempt or deferred shareholdings. The last three columns of Table 4 demonstrate just how large are the potential benefits and associated risks. With only low avoidance costs, the REIT structure contributes 3.8 percent of industry equity market capitalization when 40 percent of the shares are held by tax-exempt investors and contributes 7.7 percent in the 60 percent case. If avoidance costs are as high as 3.5 percent of NOI, the analogous figures are 6.7 percent and 10.6 percent, respectively.

One way to counter the increased political risk from increased tax savings associated with increasing tax exempt investors is to emphasize the efficiency-enhancing features of the REIT structure. They are evidenced by the savings in tax avoidance costs. Increasing leverage and buying larger depreciation shields may make perfect economic sense to taxable firms trying to minimize corporate income taxes, but these behaviors are economically wasteful to the economy because they represent inefficient uses of scarce capital. REITs do not have as strong an incentive to engage in these socially costly strategies that waste valuable capital. In this sense, the REIT format integrates the corporate and personal income taxes, something that public finance economists long have noted is efficiency enhancing. The problem with relying on this line of argument is that following to its logical conclusion may itself lead to the conclusion that there is no *net* efficiency increase associated with the REIT format. The reason is that the higher tax savings effectively represent a subsidy to the real estate companies–a subsidy that leads to an inefficiently large amount a capital flowing to the industry. If the inefficiency from this subsidy is greater than the efficiency enhancement from lower avoidance costs, the structure

does not increase net efficiency in the economy.[23]

A better defense against government intervention down the road may be an argument that emphasizes the biggest losers from such intervention will be pension fund and individual retirement fund account investors. Not only are those groups generally more popular than real estate company executives, it seems to us that there is a cogent argument to be made regarding the fairness of changes in the tax code once clienteles have developed.

Our final point regarding the longer run value of the REIT value is that firms which flip between REIT and 'regular' C-corporation structures depending upon equity market conditions (i.e., electing REIT status when equity is attractively priced and reverting to C-corporation status in downturns) will find their values harmed. Since we expect REITs to develop larger tax-exempt shareholder bases, switching to a C-corporation form is bound to upset the tax-exempt shareholders who will see the worth of their shares fall. Switching back to the REIT form will distress taxable shareholders. This clientele does not currently appear to exist for REITs, so de-REITing now may be inexpensive although switching back later may anger shareholders at that time.

IV. Conclusions

The REIT structure may seem less valuable to many firms hampered by its restrictions on retaining earnings in today's depressed equity markets. However, calculations of the net benefit

[23]Economic theory tells us that the size of these effects depends on underlying relative supply and demand schedules. An examination of the supply and demand for REIT capital is well beyond the scope of this paper. Given the large size of the tax savings associated with higher levels of tax exempt/deferred investors, our guess (and it is only a guess) is that it will difficult to argue credibly that the REIT format is efficiency enhancing on a net basis.

of the structure to firms in the industry show that it presently contributes from 2-5 percent to aggregate industry equity market capitalization, with the benefits being higher (lower) for lower (higher) payout ratio firms.

Recent declines in equity markets and increasing illiquidity in corporate bond markets highlight that capital raising costs can increase, possibly for long periods of time. The full price of raising capital include both fees and opportunity costs arising from missed deals in periods of tight capital markets. Consequently, firms with profitable growth opportunities must consider whether the gains from investments made with higher retained earnings are likely to amount to more than 2-5 percent of equity market value on average. Our analysis suggests this is unlikely for the typical firm because the real estate industry is so capital intensive that even modest amounts of acquisitions or development cannot be financed solely through retained earnings. However, this does not rule out the possibility that some firms will find it optimal to de-REIT and, thereby, retain more earnings.

Firms also need to consider whether the net benefits of the REIT structure will grow over time. They would if the percentage of tax exempt or tax deferred shareholders in their firms were to rise. Our calculations suggest that efforts to raise the fraction of tax exempt/deferred investment to 40 percent, which is the level we estimate exists in the broader equity market, would more than double the net benefits of the REIT structure. The downside of a strategy to increase investment by tax exempt institutions and tax deferred accounts is that the industry faces increased political risk, as the larger net tax saving associated with a bigger tax exempt investor clientele is more likely to attract the attention of the federal government. This risk may be manageable, however, once it is understood that some of the biggest losers from any

reduction in the value of the REIT shield against the corporate income tax would be pension fund and individual retirement account investors.

Finally, it is important that management view their choice of structure as a long-term, even permanent, decision. If a REIT were to develop a tax-exempt shareholder base, switching to a 'regular' C-corporation to retain cash when external financing is temporarily expensive (and switching back when raising equity is cheaper) will anger these shareholders. Further, although de-REITing now may be inexpensive since the proportion of tax-exempt investors in REITs is low, switching back or de-REITing later may anger shareholders once a clientele of investors has developed more fully.

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Table 1: Taxes Paid on Real Estate Company-Generated Income ($Billions)

	Case #1: REIT Structure; 20% Tax Exempt/Deferred Investment	Case #2: 'Regular' C-Corp; 20% Tax Exempt/Deferred Investment
Corporate Income Taxes	$0.00	$1.11
Shareholder Taxes		
Income Taxes on		
Dividends	1.03	0.15
Interest	0.67	0.80
Capital Gains Taxes	0.14	0.27
Total Taxes Paid	1.84	2.33

Notes: See Appendix B

Table 2: The Value to the REIT Industry Today of the Shield Against the Corporate Income Tax ($Billions)

	(1) Savings via lower taxes	(2) Savings via lower avoidance	(3) Gross benefits (1) + (2)	(4) Added Capital-Raising Costs	(5) Net benefits (3) - (4)	(6) Value at 13 multiple	(7) Percent of equity market cap.
20% tax exempt investors, 1% avoidance costs	$0.49	$0.13	$0.62	$0.32	$0.30	$3.9	2.5
20% tax exempt investors, 3.5% avoidance costs	0.48	0.46	0.94	0.31	0.64	8.3	5.4

Notes: See Appendix B.

Table 3: The Value to the REIT Industry Today of the Shield Against the Corporate Income Tax
High and Low Payout Ratio Scenarios ($Billions)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Savings via lower taxes	Savings via lower avoidance	Gross benefits (1) + (2)	Added Capital-Raising Costs	Net benefits (3) - (4)	Value at 13 multiple	Percent of equity market cap.
95% Payout Ratio Scenarios							
20% tax exempt investors, 1% avoidance costs	$0.33	$0.13	$0.46	$0.43	$0.03	$0.4	0.3
20% tax exempt investors, 3.5% avoidance costs	0.32	0.46	0.78	0.41	0.37	4.8	3.1
60% Payout Ratio Scenarios							
20% tax exempt investors, 1% avoidance costs	$0.68	$0.13	$0.81	$0.20	$0.61	$8.0	5.2
20% tax exempt investors, 3.5% avoidance costs	0.67	0.46	1.13	0.18	0.95	12.4	8.1

Notes: See Appendix B.

Table 4: The Potential Value to the REIT Industry of the Shield Against the Corporate Income Tax if Tax Exempt/Deferred Investment Increases (Billions)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Savings via lower taxes	Savings via lower avoidance	Gross benefits (1) + (2)	Added Capital-Raising Costs	Net benefits (3) - (4)	Value at 13 multiple	Percent of equity market cap.
40% tax exempt investors, 1% avoidance costs	$0.65	$0.13	$0.78	$0.32	$0.45	5.9	3.8
40% tax exempt investors, 3.5% avoidance costs	0.64	0.46	1.10	0.31	0.80	10.4	6.7
60% tax exempt investors, 1% avoidance costs	1.11	0.13	1.24	0.32	0.91	11.8	7.7
60% tax exempt investors, 3.5% avoidance costs	1.10	0.46	1.56	0.31	1.26	16.3	10.6

Notes: See Appendix B

Appendix A: Calculating the percent of equity owned by nontaxable investors

To estimate the percent of equity that is owned by tax exempt firms or held in tax deferred accounts, we take as a baseline the Federal Reserve Board's *Flow of Funds* table L.213, which breaks out ownership of corporate equities (see Table A1 below). Of the nearly $13 trillion worth of corporate equities at the end of 1997, the household sector owned $5.6 trillion directly. However, the household sector includes both households and nonprofit organizations. To decompose the ownership stakes, we multiply the percent of equities in the household sector owned by nonprofits in 1994 (the most recent year for which data is available) from tables B.100 and L.100.a by $5.6 trillion. That calculation yields the estimate that households owned $5.2 trillion of corporate equities directly and nonprofit organizations owned $506 billion. We further assume that returns on equity held by tax-exempt institutions or in tax-deferred accounts are untaxed while equity held in taxable accounts is taxed at 21 percent based on the work by Samwick (1998).

Table L.213 indicates that state and local governments owned $63 billion worth of corporate equities at the end of 197. However, they do not pay taxes, as table A1 shows in line 3. Foreign residents, commercial banks, savings institutions, and bank personal trusts are all assumed to be fully taxable on their $1.3 trillion of equities. In line 8, equities held by life insurance companies on behalf of their shareholders are assumed to generate tax-free returns, an approximation to the limited tax shield provided by whole life insurance. The return on the $177 billion in equities held by other insurance companies is taxable. Of course, the $3 trillion of equities owned by private and governmental pension funds is tax-exempt.

In line 12, we attempt to see through the veil of mutual funds to estimate what proportion of equities are held in tax-deferred accounts. From the *Flow of Funds* table L.213, mutual funds held $2 trillion worth of equities at the end of 1997 on behalf of the fund owners. Applying the percent of mutual fund equities owned by nonprofits in 1994 to the 1997 holdings, only $77 billion is tax-exempt. However, households may hold some of the remaining $1.95 trillion in tax-deferred retirement accounts. The Investment Company Institute's *Mutual Fund Factbook 1998*, a mutual fund industry group's publication, reports that 48.4 percent of all equity fund value is held in tax-deferred accounts. We apply that ratio here.

After adding small amounts of equities owned by closed-end mutual funds and brokers and dealers (both assumed to be fully taxable), we arrive at the percent of the value of all corporate equities that are taxable. Line 1 reports the dollar-weighted average of the percent taxable in lines 2 through 14: 60.5 percent. Thus, nearly 40 percent of corporate equities are owned by tax-exempt institutions or are held in tax-deferred retirement accounts. In this paper, we assume all non-REIT firms have 40 percent of their equity owned by tax-exempt institutions and individuals.

Appendix Table A1: Calculating the percent of equity owned by nontaxable investors

	Corporate Equities:	Value ($ billions):	Percent Taxable:
(1)	**Total:**	**12,958.7**	**60.5%**
(2)	Directly Held Equities:	5,624.6	91.0%
	Household Sector:	5,119.0	100.0%
	Nonprofits:	505.6	0.0%
(3)	State and Local Govt:	63.0	0.0%
(4)	Foreign Residents:	881.7	100.0%
(5)	Commercial banking:	2.6	100.0%
(6)	Savings Institutions:	23.3	100.0%
(7)	Bank Personal Trusts:	401.0	100.0%
(8)	Life Insurance:	582.2	21.1%
	Household Sector:	459.1	0.0%
	Other:	123.1	100.0%
(9)	Other Insurance:	176.9	100.0%
(10)	Private Pension Funds:	1,765.1	0.0%
	Household Sector:	1,048.5	0.0%
	Other:	716.6	0.0%
(11)	State/Local Government Retirement:	1,305.8	0.0%
(12)	Mutual Funds:	2,026.1	49.6%
	Household Sector:	1,948.7	51.6%
	Nonprofits:	77.4	0.0%
(13)	Closed-End Funds:	54.2	100.0%
(14)	Brokers and Dealers:	52.2	100.0%

Sources: Federal Reserve Board, *Flow of Funds*, Z.1, June 11, 1998; Investment Company Institute, *Mutual Fund Factbook 1998*

Appendix B: Construction of Tables 1-4:

This appendix outlines the data, assumptions, and calculations used to create the tables in this paper.

Parameters: While we vary the proportion of tax-exempt investor clienteles and the magnitude of avoidance costs, we hold the rest of the parameters of the model constant. These parameters are:

(1) *Net Operating Income:* Aggregate net operating income (NOI) before debt service, depreciation and amortization, and taxes for all REITs in 1997 was $13.24 billion according to the SNL Securities REIT Datasource. We use this figure as our baseline income measure because it is invariant to financing strategy, capital intensity, and organizational form.

(2) *Dividend Payout Ratio:* By law, REITs must pay 95 percent or more of their taxable income to shareholders in the form of dividends. However, the dividend payout ratio out of cash is lower since REITs can lower their taxable income through depreciation and amortization. In 1997, the REIT industry paid $7.6 billion in dividends according to the SNL Securities REIT Datasource. On a base of available cash – total revenues -cash operating expenses + gains + extraordinary items – of $9.6 billion, the dividend payout ratio from cash was 79 percent. For the median non-financial corporation in the 1996 *Compustat* files, the equivalent dividend payout ratio was 10 percent. Given the very high variance across (non-financial) firms in different industries, we generally use median values of variables to reflect what real estate companies could do were they not organized as REITs.

(3) *Retained Cash:* All cash that is not paid out in the form of dividends must be retained. Thus REITs retain 21 percent of their after-tax cash and corporations retain 90 percent.

(4) *Interest Payments:* In 1997, according to the SNL Securities REIT Datasource, the median REIT made interest payments equal to 30 percent of its NOI. According to PaineWebber, in 1997 the average REIT had a 35 percent debt-to-value ratio. The median non-financial corporation, on the other hand, had a 42 percent debt-to-value ratio based on data in the *1997 Compustat* files. This represents 20 percent greater leverage than for equity REITs on average. Consequently, we assume that a REIT would have 20 percent higher interest payments, or 36 percent of NOI, if it were a C-corporation.

(5) *Return of Capital:* If a REIT pays more than 100 percent of its taxable income as dividends, the excess dividends are considered to be return of capital and are taxed as a capital gains distribution. For 1997, the Vanguard Equity REIT Index report notes that 19 percent of REIT dividend payments were return of capital.

(6) *Shareholder Tax Rates:* Taxable investors are assumed to be taxed at the 21 percent rate for income and at a 5 percent rate on capital gains. See the text for the sources of these figures.

(7) *Corporate Tax Rates:* The effective corporate tax rate for the median non-financial company is 8.4 percent as computed from data in the *Compustat* files for 1996. See the text and the notes therein for the details. REITs pay no corporate tax if they distribute all of their taxable income as dividends.

(8) *Tax-exempt Investors:* Described in Appendix A.

(9) *Tax Avoidance Costs:* Expressed as a percent of NOI, the direct and indirect costs of minimizing the tax bill. Direct costs include accountant and attorney fees, filing costs, and other related wage bills. Indirect costs include deviating from an optimal investment strategy to reduce the tax bill and the cost of management distraction. These costs are less for REITs since they naturally have higher depreciation shields due to the capital intensive nature of their balance sheets.

(10) *Investment Banker Fees:* We assume the direct costs of raising capital by issuing new equity is 5 percent of the funds needed to be obtained.

(11) *Additional Capital Raising Costs:* We assume a company incurs indirect costs equal to 200 basis points of the funds needed to be raised due to not being able to issue new shares at par.

(12) *Industry Multiple:* According to PaineWebber, in 1998 the industry-wide CAD multiple for REITs was 13.

(13) *Industry Market Capitalization:* Using the SNL Securities REIT Datasource, we calculated that the aggregate market capitalization of all REIT common equity and operating partnership units at the end of 1997 was $153.8 billion.

Table Calculations:

1. *Table 1: Taxes paid on real estate company-generated income.*
   a. For REITs (column 1):
      i. *Corporate income taxes:* Always zero since REITs pay no corporate tax if they distribute all their taxable income in the form of dividends.
      ii. *Shareholder dividend income taxes:* (REIT dividend payout ratio * NOI) * (1-return of capital) * (dividend tax rate) * (1-share of tax-exempt investors in REITs)
      iii. *Shareholder interest income taxes:* (REIT interest payout ratio * NOI) * (interest income tax rate) * (1-share of tax-exempt investors in REITs)
      iv. *Capital gains taxes:* (REIT retained cash + return of capital) * (effective capital gains tax rate) * (1-share of tax-exempt investors in REITs)
      v. *Total taxes paid:* The sum of (i) through (iv)..
   b. If REITs were treated as regular C-corporations (column 2). In general, we assume that REITs will behave similarly to current non-REIT non-financial corporations if they were unable to elect REIT tax status. Also, in the absence of the REIT form, we assume investors in real estate C-corporations would have the same percent tax-exempt as for the entire market -- 40 percent. For several possible tax avoidance costs, we calculate:
      i. *Corporate income taxes:* (effective corporate tax rate * REIT NOI)
      ii. *Shareholder dividend income taxes:* (corporate dividend payout ratio * REIT NOI) * (dividend tax rate) * (1-share of tax-exempt investors in corporations)
      iii. *Shareholder interest income taxes:* (corporate interest payout ratio * REIT NOI) * (interest income tax rate) * (1-share of tax-exempt investors in

corporations)

iv. *Capital gains taxes:* (corporation retained cash * effective capital gains tax rate) * (1-share of tax exempt investors in corporations)

v. *Total taxes paid:* The sum of (i) through (iv).

2. *Table 2: The value to the REIT industry of the shield against the corporate income tax.* We assume that 20 percent of the investors in REITs and 20 percent of the investors in non-REIT C-corporations are tax-exempt. For two permutations of tax avoidance costs we calculate:

   a. *Savings via lower taxes:* (total corporate and shareholder taxes calculated as in column 2 of Table 1 - total shareholder taxes calculated as in column 1 of Table 1)

   b. *Savings via lower avoidance:* (corporate tax avoidance cost * REIT NOI)

   c. *Gross benefits:* the sum of (a) and (b)

   d. *Costs of raising capital:* Calculated as 7 percent multiplied by the difference in retained cash available to a non-REIT real estate company after paying corporate income taxes, tax avoidance costs, interest, and dividends and the cash available to the same firms organized as REITs after all payments to equity. (Investment banker fees + additional costs of raising equity) * (REIT NOI) * [(1-effective corporate tax rate - corporate tax avoidance cost - corporate interest payment ratio - corporate dividend payment ratio) - (1-REIT interest payment ratio - REIT dividend payout ratio)]

   e. *Net benefits:* Difference of (c) minus (d).

   f. *Value at 13 multiple:* Net benefits (e) times the industry CAD multiple, 13.

   g. *Percent of equity market cap.:* Value at 13 multiple (f) divided by the industry market capitalization, 153.8.

3. Table 3: The Value to the REIT Industry Today of the Shield Against the Corporate Income Tax High and Low Payout Ratio Scenarios ($Billions)

Calculations are the same as noted above for Table 2 except that 95 percent and 60 percent payout ratio scenarios are modeled.

4. Table 4: The Potential Value to the REIT Industry of the Shield Against the Corporate Income Tax if Tax Exempt/Deferred Investment Increases ($Billions)

Calculations are the same at noted above for Table 2 except that clienteles with 40 percent and 60 percent tax exempt/deferred investors are modeled.