Tax Benefits as a Source of Merger Premiums In Acquisitions of Private Corporations

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ABSTRACT: Scholes et al. (2005) predict that S corporations, and other conduit entities such as partnerships and LLCs, can sell for a tax-driven purchase price premium relative to C corporations. We test this conjecture by comparing purchase price multiples in a sample of taxable stock acquisitions of S corporations to purchase price multiples for a matched set of taxable stock acquisitions of privately held C corporations. Consistent with Scholes et al.’s (2005) predictions, we find evidence that the organizational form of the target influences acquisition tax structure and acquisition price. Specifically, the evidence supports the conclusion that conduit entities (S corporations) fetch a tax-based purchase price premium relative to similar C corporations. Furthermore, our estimates indicate that average tax benefits in S corporation acquisitions are equal to approximately 12–17 percent of deal value.

Keywords: taxes; tax benefits; mergers; acquisitions.

Data Availability: Most data were obtained from SEC filings, but some data were obtained from confidential sources.

JEL Classifications: H25; G34.
I. INTRODUCTION

We investigate how a target’s organizational form influences an acquisition’s tax structure, and how organizational form-driven acquisition structuring differences influence purchase prices.\(^1\) We first model the effect of organizational form (C corporations and conduit entities) on the choice of transaction structure. We use S corporations to represent conduit entities, rather than partnerships or LLCs, because they are similar to C corporations along many nontax dimensions, but are different along tax dimensions. The model shows that the acquisition of an S corporation is typically completed using a tax structure that results in a step-up in the tax basis of the target’s assets. This step-up in tax basis is chosen because the value of incremental depreciation and amortization deductions resulting from the step-up, which generates tax savings and increases acquirer cash flow, is greater than the immediate tax liability on the gain from the step-up. Since acquiring firms are unable to obtain these tax benefits without the explicit cooperation of selling firm shareholders, they should be willing to pay target shareholders, in the form of a higher purchase price, to cooperate in the deal’s tax structuring. For example, when Coca-Cola Enterprises acquired Herb Coca-Cola in May 2001, Coca-Cola Enterprises paid the shareholders of Herb Coca-Cola a $100 million premium to obtain this beneficial tax structure.\(^2\)

On the other hand, our analysis shows that such a step-up tax structure is typically not viable in the acquisition of a C corporation because the tax costs of the step-up exceed the tax benefits. This result is in contrast to the view that a step-up structure normally prevails in acquisitions due to the tax benefits from the step-up. It also shows that the optimal tax structure in the acquisition of a C corporation is different from the optimal structure in an S corporation acquisition. This part of the analysis indicates that the organizational form of the target affects an acquisition’s tax structure.

After illustrating the effect of organizational form on acquisition tax structure, we demonstrate that differences in acquisition tax structure can result in differences in purchase prices. The analysis suggests that an S corporation can be sold for a higher price than a C corporation with identical tax attributes and cash flows. For this reason, we hypothesize that S corporations can fetch a tax-based purchase price premium relative to similar C corporations.

To empirically test this hypothesis, we analyze 77 matched pairs of taxable stock acquisitions of S corporations and C corporations completed during the period 1994 through 2000. As predicted, we find that the target’s organizational form does influence the acquisition’s tax structure. Specifically, all sample S corporation acquisitions are structured in a manner that steps up the tax basis of the target’s assets, while none of the sample C corporation acquisitions result in a step-up. Because all of our sample firms (S and C corporations) are privately held, we compare purchase price multiples (e.g., price to EBITDA) across target organizational form to determine if acquisition prices vary by target firm organizational form. We find that purchase price multiples are generally higher in the S corporation acquisitions than in the matched sample of C corporation acquisitions. We estimate the tax benefits in the S corporation acquisitions and find that on average, these benefits equal 12–17 percent of the deal’s value. In our sample of S corporation acquisitions,

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\(^2\) Sources: Coca-Cola Enterprises 8-K filed July 11, 2001; and conversations with Neil Monroe and Sara Andersen at Coca-Cola Enterprises. As discussed later, in other transactions about which we are familiar, the seller did not obtain any premium for the tax benefits associated with the sale of the S corporation due to seller ignorance.
the aggregate present value of tax savings generated is about $700 million. Finally, we present several pieces of anecdotal evidence that support the conclusion that S corporations often fetch a tax-based purchase price premium relative to similar C corporations.³ We interpret the body of evidence as supporting the conclusion that a target’s organizational form affects the tax structure of the acquisition and that such structuring differences lead to differences in acquisition prices.

This study makes several contributions. Most broadly, it contributes to the taxes and asset-pricing literature. To our knowledge, this is the first study that provides evidence that the purchase price of a business systematically varies as a function of the organizational form of that entity. Current valuation literature (e.g., Palepu et al. 2000) is silent on the impact of organizational form on fair market values—the price at which assets change hands between willing sellers and buyers. This study also contributes to the growing literature that analyzes how taxes influence transaction structure (e.g., Erickson 1998; Maydew et al. 1999; Erickson and Wang 2000). Specifically, we show that the target’s organizational form influences acquisition structure.

Furthermore, there is an extensive body of literature in corporate finance (e.g., Asquith et al. 1983) that investigates the determinants of merger premia (e.g., form of consideration, deal attitude). There is also literature (e.g., Kaplan 1989; Erickson and Wang 2000) that analyzes the effects of tax benefits on acquisition premia. Neither of these streams of research has investigated if and how a target’s organizational form affects merger premia. For that reason, this study presents an initial investigation of that issue.

With the recent interest in venture capital transactions, the analyses in this paper are particularly important because many new ventures are operated through conduit-type organizational forms, such as LLCs, and not through traditional C corporations. Furthermore, one study indicates that approximately 90 percent of successful new ventures are acquired before becoming public companies (see Anders 1999). Given that the majority of successful new ventures are acquired, understanding how organizational form affects exit strategy cash flows is important in its own right. Because most joint ventures are likewise operated through a conduit organizational form, understanding how organizational form influences acquisition pricing adds to our understanding of the valuation of joint ventures.

This study also contributes to the literature examining organizational form choice (e.g., Shevlin 1987; Guenther 1992; Scholes and Wolfson 1992; Gordon and MacKie-Mason 1994; Ayers et al. 1996; Hodder et al. 2001). Although prior research has analyzed the effect of numerous tax and nontax factors on organizational form choice, to our knowledge the effect of organizational form on acquisition price has not previously been considered.⁴ That is, the economic effect that we analyze in this paper is absent from a mature literature in accounting, economics and finance.⁵ Because the exit strategy for many new ventures is acquisition/sale (Anders 1999), organizational form-related purchase price effects could have significant wealth consequences for many investors. Therefore, this study suggests that

³ In that section, we also provide some evidence that not all sellers are aware of the potential purchase price premium available in S corporation acquisitions.
⁴ Other than Scholes et al. (2005), the economic effect of an entity’s organizational form on owner wealth is not considered in other tax texts. The omission of the issue analyzed in this study from standard tax accounting texts, namely the portion of the material that discusses the selection of an organizational form for a new business, is somewhat remarkable.
⁵ For example, Scholes and Wolfson (1992, Chap. 3) expresses algebraically the returns to investing through C corporations and conduit entities (e.g., S corporations). Scholes and Wolfson (1992) do not account for the organizational form driven tax-based acquisition pricing effects analyzed in this study. Furthermore, major corporate tax textbooks do not discuss the effect of organizational form on acquisition price as an important factor that investors should consider when deciding how to organize the firm.
differential acquisition taxation of organizational forms is an additional tax factor that likely influences the organizational form choice.\(^6\)

In sum, the paper makes a contribution to several major bodies of literature and provides an analysis of an economically important factor that has previously been unexplored. The remainder of the paper proceeds as follows. In Section II, the taxation of taxable acquisitions of C corporations and S corporations is discussed in detail. In that section, we also develop a simple model of acquisition pricing for the two organizational forms. Section III describes sample selection procedures and presents descriptive data on the sample of acquisitions. Section IV includes the empirical analyses and Section V concludes.

II. BACKGROUND ON ORGANIZATIONAL FORM TAXATION AND TAXABLE ACQUISITION STRUCTURES

Prior Tax-Related Acquisition Research

The tax benefits analyzed in prior acquisition related research include post-acquisition use of the target’s net operating loss carryforwards, tax benefits from increasing the target’s leverage and tax benefits from creating non-debt tax shields via a step-up in the tax basis of the target’s assets. Two prior studies (Kaplan 1989; Schipper and Smith 1991) focus on how non-debt tax shields affect premiums in management buyouts (MBOs) of C corporations. Those studies simultaneously analyze the effect of debt-related tax shields on MBO premiums. Both studies conclude that non-debt tax shields generated in MBOs create substantial value for the acquirer and that these tax benefits are equal to a significant portion of the observed acquisition premium. Other studies (e.g., Ayers et al. 2003) investigate how shareholder capital gains taxes influence acquisition prices.

Studies that analyze how taxes affect the structure of an acquisition generally conclude that target tax factors (e.g., step-up in basis, net operating losses) are not of first-order importance in a deal’s structure (cash versus stock). For example, Erickson (1998) concludes that tax benefits from stepping up the tax basis of a target’s assets are not a primary determinant of deal structure. Similarly, Franks et al. (1988) and Erickson (1998) conclude that shareholder tax consequences were not a significant determinant of the form of consideration employed in a sample of U.K. and U.S. acquisitions, respectively. Both streams of prior research analyze acquisitions of C corporations, but do not consider tax effects in acquisitions of conduit entities such as S corporations.

“C” versus “S” Corporation

When the corporate form is chosen for a business entity, the firm is considered by U.S. tax law to be a “regular” corporation subject to corporate income tax. The “regular” corporation is generally referred to as a “C” corporation because most tax provisions applicable to this type of corporation are contained in Subchapter C of the Internal Revenue Code. This corporate form gives rise to double taxation because shareholders are subject to individual income tax when (1) the after-tax corporate profits are distributed or (2) when they sell their stock.\(^7\)

With the intent of providing shareholders with the advantages of the corporate form (e.g., limited liability), without the disadvantage of double taxation, the tax law allows a corporation to be taxed as a flow-through entity (e.g., partnership) if certain conditions are met and a tax election is made. The tax rules governing this type of corporate organization

\(^6\) In the interest of brevity, and because consideration of this issue here would expand the scope of this study significantly, we leave an analysis of this issue to future research.

\(^7\) President Bush’s initial 2003 Tax Plan would have eliminated this second level of tax.

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are contained in Subchapter S of the Internal Revenue Code. Thus, corporations making such an election for tax purpose are referred to as “S” corporations. The result of such an S corporation election is that no income tax is imposed at the corporate level.8 Instead, shareholders are considered to have received the corporate profits immediately, on which individual income tax has to be paid, effectively making shareholders of such organizations subject to only one level of income tax.

To qualify as an S corporation for tax purposes, the corporation has to meet several requirements relating to: the type of shareholders (no C corporation or partnership shareholders), the number of shareholders (no more than 100 shareholders during the taxable year), the class of stock (only one class of stock is permitted), etc. Once these requirements are met, a revocable election is made, but only with the consent of all shareholders. There is no limit on the size of the corporation (e.g., total assets), and some S corporations are rather large.

S corporations provide several advantages relative to C corporations. First, there is only one level of tax levied on the firm’s earnings. The disadvantage of the single level of tax is that it falls on the firm’s income immediately—there is no tax deferral. Moreover, during the period of study, the top individual investor federal tax rate was 39.6 percent, while the tax rate on corporate income was 35 percent. Thus, operating as an S corporation results in an immediate tax rate on the firm’s income that is 4.6 percent in excess of the rate that would apply if the firm were a C corporation. The pass-through nature of an S corporation provides significant tax benefits in the event of losses. Specifically, S corporation losses flow through to owners and can offset other income of the owner. C corporation losses do not similarly flow through to the firm’s owners. Rather, they can only be used to offset future period income of the C corporation.

C corporations provide several significant advantages relative to S corporations. First, C corporations face no limit on the type or number of shareholders. For that reason, most publicly traded entities are organized as C corporations. Second, the top marginal tax rate applicable for a C corporation was less than the top marginal tax rate for an individual investor during the period of study. Thus, earnings arising in a C corporation are subject to tax at a lower rate than earnings generated by an S corporation, ignoring the second level of tax on the C corporation. If shareholder taxation of the C corporation’s earnings is deferred for a sufficiently long period, then the total tax on the C corporation can be lower than the total tax levied on an S corporation.

It is not difficult to switch from an S corporation to a C corporation or vice versa. In addition to transaction costs, there can be tax costs associated with such a conversion, particularly the conversion from C corporation to S corporation. For example, built-in gains on certain assets (e.g., inventory, accounts receivable) are taxable upon conversion, if the C corporation is a cash basis taxpayer pre-conversion.

Optimal Acquisition Tax Structure

Various tax structures can be used in the acquisition of a corporation. Our discussion focuses on taxable acquisition structures only, because the tax effect of interest only arises in taxable transactions. We first describe the tax consequences of taxable acquisitions of freestanding C corporations and S corporations. Our analysis then identifies the optimal transaction tax structure for each organizational form and the range of purchase prices associated with the optimal transaction structure. We also estimate and quantify the tax-based purchase price premium available in S corporation acquisitions by comparing the

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8 Some states levy state income taxes on S corporations.

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acquisition prices under the derived optimal transaction structure for each organizational form.

**Taxable Acquisitions of C Corporations**

In a taxable purchase of a freestanding C corporation, the acquiring corporation (acquirer) may buy either the assets or the stock of a target corporation (target).\(^9\) In the latter case, it is possible via election to treat a stock purchase, for tax purposes, as if the acquirer had purchased the target’s assets (a regular §338 election).\(^10\) As a result, the three basic taxable acquisition structures are:

1. a taxable asset acquisition of the target,
2. a taxable stock acquisition followed by a regular §338 election, and
3. a taxable stock acquisition that is not followed by a regular §338 election.

Table 1 details the major tax consequences of each structure to the contracting parties (the target, the acquirer, and the target’s shareholders).

If the target’s assets are purchased or if a §338 election is made in a taxable stock acquisition (Structures 1 and 2), then the acquirer takes a stepped-up tax basis in the target’s assets. As a result of the step-up, the acquired assets are depreciated and/or amortized by the acquirer from a base equal to their fair market value at the time of acquisition. Such a step-up generates an increase in future non-debt tax deductions, an accompanying reduction in future tax liabilities and therefore, positive cash flows. The step-up in tax basis is not obtained without a cost, however, because there can be substantial taxes associated with the asset sale or deemed asset sale.\(^11\)

Table 1 indicates that: (1) a step-up in the tax basis of the target’s assets occurs only if the target corporation recognizes a taxable gain, and (2) the target’s tax attributes (e.g., net operating loss carryforwards) survive only with Structure 3. Under all three tax structures, target shareholders recognize a taxable gain or loss equal to the difference in value received and their tax basis in the shares surrendered. Thus, with tax Structures 1 and 2, there are two levels of tax (corporate and shareholder), while with Structure 3, there is only one level of tax.

Because the tax consequences of a taxable stock sale accompanied by a §338 election (Structure 2) and a taxable asset sale (Structure 1) are the same for the target shareholders, we compare taxable stock acquisitions without a §338 election to taxable asset acquisitions. Target shareholders are indifferent between transaction tax structures when their after-tax wealth is the same. In a taxable asset sale, the target receives payment for its assets and then distributes the after-corporate-tax proceeds to its shareholders. The distribution to shareholders is equal to:\(^12\)

\[
\text{CLP} = \text{\(P_{\text{ass}}\)} - [\text{\(P_{\text{ass}}\)} - \text{ASB} - (\text{\(NOL + CL + TC\)})]t_c
\]

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\(^9\) Much of the discussion in this section is based on Scholes et al. (2005, Chap. 15).

\(^10\) If the acquirer makes an election under §338, then the target is considered as having sold all of its assets at the close of the acquisition date at fair market value in a single transaction.

\(^11\) Although the target is paying the tax resulting from the §338 election, the tax cost of the election is the contractual obligation of the acquirer.

\(^12\) It is important to note that the analysis below ignores income tax on the state level and target shareholder tax attributes (e.g., capital loss carryforwards) due to the lack of uniformity in tax attributes across shareholders. We also assume that all involved parties face the maximum individual or corporate tax rate.

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### TABLE 1
Major Tax Consequences of Various Taxable Acquisition Structures

<table>
<thead>
<tr>
<th>Structural or Tax Issue</th>
<th>C Corporation Target</th>
<th></th>
<th>S Corporation Target</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Asset Acquisition a</td>
<td>Stock Acquisition</td>
<td>Without a $338(h)(10) Election c</td>
<td>Stock Acquisition</td>
</tr>
<tr>
<td>Taxable Gain at Target Corporation Level</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Taxable Gain Recognized by Target Shareholders</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Nature of Target Shareholder Gain</td>
<td>Capital Gain</td>
<td>Capital Gain</td>
<td>Capital Gain</td>
<td>Ordinary Income and Capital Gain</td>
</tr>
<tr>
<td>Step-Up in the Tax Basis of the Target’s Assets</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Target’s Tax Attributes Survive</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>NA</td>
</tr>
</tbody>
</table>

a Transaction in which the target corporation sells its assets to the acquirer for cash. The target corporation pays any resulting tax (or receives a tax refund) on the gain (loss) recognized and distributes the after-tax proceeds of the asset sale to its shareholders in redemption of all of their target stock. The target’s stock is then cancelled and the target corporation vanishes.

b Target corporation shareholders receive cash from the acquiring firm in return for their target corporation shares. The acquiring corporation then makes a regular §338 election, post-stock acquisition, which results in a deemed sale of the target’s assets to a phantom new company. This deemed sale results in a step-up in the tax basis in the target’s assets.

c Target corporation shareholders sell their stock to the acquirer, but the acquirer does not make the step-up election (regular §338 election). There is no step-up in the tax basis of the target’s assets; the acquirer takes a carryover basis in the target’s assets.

d Transaction in which the target corporation sells its assets to the acquirer for cash. The target corporation does not pay any resulting tax (or receive a tax refund) on the gain (loss) recognized. Any gain or loss recognized passes through to target shareholders.

e Target corporation shareholders receive cash from the acquiring firm in return for their target corporation shares. The acquiring corporation and the target’s shareholders then make a §338(h)(10) election, which results in a deemed sale of the target’s assets. The acquirer takes a stepped-up tax basis in the target’s assets.

f Target corporation shareholders sell their stock to the acquirer, and the §338(h)(10) election is not made. There is no step-up in the tax basis of the target’s assets; the acquirer takes a carryover basis in the target’s assets.
where \( CLP \) is after corporate tax liquidation proceeds available to target shareholders; \( t_c \) is the corporate tax rate (ordinary and capital gain); \( P_{\text{ast}} \) is the price paid to the target corporation for its assets in a taxable asset acquisition; \( ASB \) is the net tax basis of the target’s assets; \( NOL \) is target net operating loss carryforwards; \( CL \) is target capital loss carryforwards; and \( TC \) is the target’s tax credits on a pretax basis.\(^{13}\) The selling corporation can use these tax attributes \((NOL, CL, TC)\) to offset taxable income resulting from the asset sale. Hereafter, we will represent the aggregate of these three tax attributes as \( ATT \).

Target shareholders are subject to capital gains tax on the distribution by the target, and their after tax wealth is equal to:

\[
SLP_{\text{ast}} = CLP - (CLP - SKB)*t_{cg}
\]  

(2)

where \( SLP_{\text{ast}} \) is the target shareholder’s after-tax cash in a taxable asset sale; \( SKB \) is target shareholder’s stock basis; and \( t_{cg} \) is the individual investor capital gains tax rate. Substituting the definition of \( CLP \) from Equation (1) into Equation (2) and simplifying, the after-tax cash received by target shareholders in a taxable asset sale is:

\[
SLP_{\text{ast}} = [P_{\text{ast}} (1 - t_c) + ASB*t_c + ATT*t_c] *(1 - t_{cg}) + SKB*t_{cg}.
\]  

(3)

Similarly, we can represent target shareholder’s after-tax cash in a taxable stock sale without a §338 election by the following expression:

\[
SLP_{\text{stk}} = P_{\text{stk}} - (P_{\text{stk}} - SKB)*t_{cg}
\]  

(4)

where \( SLP_{\text{stk}} \) is target shareholder’s after-tax cash in a taxable stock sale; \( P_{\text{stk}} \) is the pretax price paid to target shareholders in a taxable stock acquisition; and other variables are as defined above.

Target shareholders will be indifferent between transaction tax structure when their net after-tax wealth is the same, i.e., \( SLP_{\text{stk}} = SLP_{\text{ast}} \). Simplifying, we find the relationship between the price paid in a taxable stock sale \((P_{\text{stk}})\) and the price demanded by the target shareholders in a taxable asset sale \((P_{\text{ast}})\) is:

\[
P_{\text{ast}} = (P_{\text{stk}} - ASB*t_c - ATT*t_c)/(1 - t_c).
\]  

(5)

The major difference between a taxable stock purchase without a §338 election and a taxable asset purchase is that the latter produces a step-up in the tax basis of the target’s assets, which gives rise to valuable tax benefits. To obtain the additional tax benefits from the step-up in basis, the acquirer should be willing to offer a higher price in a taxable asset purchase than in a taxable stock purchase, all else equal. The additional price offered by the acquirer in a taxable asset purchase is limited by the value of these tax benefits from the step-up in basis. The additional price is similarly reduced by the value of the target’s tax attributes extinguished in a step-up structure.\(^{14}\) If we assume straight-line depreciation and amortization for the assets acquired, then the relationship between the price paid in a

\(^{13}\) To be able to aggregate all tax attributes, \( TC \) is stated on a pretax basis to make it comparable to other tax attributes such as \( NOL \) and \( CL \). That is, \( TC \) is equal to the amount of tax credit divided by \( t_c \).

\(^{14}\) The target’s tax attributes are extinguished in step-up basis type transactions (Structures 1 and 2), but survive in carryover basis transactions (Structure 3).

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taxable stock purchase \((P_{stk})\) and the maximum price that the acquirer is willing to pay in a taxable asset purchase \((MXP_{ast})\) is:

\[
MXP_{ast} = P_{stk} + [(MXP_{ast} - ASB)*d/N]*PV_a^*t_c - P_{stk}*r*PV_a^*t_c
\] (6)

where \(ASB\) is the target’s pre-acquisition net asset basis; \(d\) is the percentage of the step-up in basis attributable to depreciable or amortizable assets;\(^{15}\) \(PV_a\) is the present value of an \(n\) period annuity for the step-up; \(t_c\) is the corporate tax rate; \(N\) is the period over which the step-up will be depreciated/amortized on a straight-line basis; \(r\) is the long-term tax-exempt rate set by the government; and \(PV_a\) is the present value of an annuity for the tax attributes preserved after a taxable stock purchase.\(^{16}\) After rearranging and simplifying, we can express Equation (6) as:

\[
MXP_{ast} = [P_{stk}(1 - r*PV_a^*t_c) - ASB*d*F*t_c]/(1 - d*F*t_c)
\] (7)

where \(F\) is a present value factor equal to \(PV_a/N\).

Target shareholders will accept a taxable asset transaction structure if the price that the acquirer is willing to pay exceeds the price they demand, i.e., when \(MXP_{ast} > P_{ast}\) or when Equation (7) is greater than Equation (5):

\[
[P_{stk}(1 - r*PV_a^*t_c) - ASB*d*F*t_c]/(1 - d*F*t_c) > (P_{stk} - ASB*t_c + ATT*t_c)/(1 - t_c).
\] (8)

Generally, when discount rates are greater than zero percent and when tax rates are constant, the left-hand side of Equation (8) is less than the right-hand side of the equation. For this reason, the taxable acquisition of a freestanding C corporation is typically accomplished as a stock purchase rather than a taxable asset purchase (or a taxable stock purchase with the §338 election).\(^{17}\)

**Taxable Acquisitions of S Corporations**

Like taxable acquisitions of freestanding C corporations, there are three basic taxable transaction structures used to acquire an S corporation. These three structures are listed below and the tax consequences of each structure are described in Table 1.

(1) a taxable asset acquisition of the target;  
(2) a taxable stock acquisition followed by a §338(h)(10) election; and  
(3) a taxable stock acquisition that is not followed by a §338(h)(10) election.\(^{18}\)

\(^{15}\) A step-up in the basis of depreciable and amortizable assets leads to tax benefits, while a step-up in nondepreciable assets (e.g., land) does not. A step-up in land can provide tax benefits if and when the land is sold. At that time, the stepped-up basis either reduces the gain on the sale or increases the loss. For the data analyses, we assume that a percentage of the step-up in basis, \(d\), is assigned to depreciable assets.

\(^{16}\) The annual amount of a target’s tax attributes, e.g., net operating loss carryovers, that are available to the acquirer post-acquisition in a taxable stock purchase is limited to the target’s pre-acquisition market value \((P_{stk})\) multiplied by the long-term tax-exempt rate \((r)\) (I.R.C. §382). Other target tax attributes can also be utilized by the acquirer post-acquisition but are subject to similar limitations.

\(^{17}\) If the target has very large net operating loss carryforwards (NOLs), then a taxable asset purchase or a §338 election can be optimal because the use of the target’s NOLs will be limited after a taxable stock acquisition (with no §338 election) due to I.R.C. §382.

\(^{18}\) Note that in acquisitions of S corporations, the election to step-up asset basis is under §338(h)(10) instead of §338, the election used in the acquisition of freestanding C corporation. While a §338 election is unilaterally made by the acquirer, a §338(h)(10) election has to be jointly made by the acquirer and the target S corporation’s shareholders.
As indicated in the far-right columns of Table 1, the target corporation recognizes a
gain or loss on the sale when the target sells assets, or when the acquirer purchases the
target’s stock and the target’s shareholders and the acquirer jointly, under §338(h)(10),
to treat the transaction as a sale of assets.\textsuperscript{19} A §338(h)(10) election is available in the
acquisition of an S corporation or in the acquisition of an 80 percent or more owned
subsidiary of a C corporation. This election results in the stock sale being taxed as if the
target’s assets were sold for the stock purchase price.

Shareholders of the target company recognize a taxable gain in each of the three trans-
action structures. In the first two structures, the taxable gain at the target corporation level
flows through to shareholders. Under the third structure, target shareholders directly rec-
nognize a capital gain on the sale of their stock.\textsuperscript{20} In a taxable asset acquisition or a taxable
stock acquisition with a §338(h)(10) election, the acquirer takes a valuable stepped-up basis
in the target’s assets.

In a stock sale with the §338(h)(10) election (or a taxable asset sale), the gain recog-
nized by the target corporation is either ordinary income or capital gains. In general, re-
captured depreciation gives rise to ordinary income, while the excess of the purchase price
over the historical cost of the assets is taxed as a capital gain. To the extent the target
corporation sells inventory or is deemed to sell inventory, such a gain will be ordinary
income. The target S corporation level gains then pass through to shareholders retaining
their character (ordinary income or capital gains). Target shareholder after-tax wealth in a
taxable stock sale with a §338(h)(10) election is:

\[ SLP_{338} = P_{338} - [(P_{338} - HC)t_{cg} + DPRt_{oi}] \]  \hfill (9)

where \( SLP_{338} \) is target shareholder’s after-tax cash in a taxable stock sale with the election;
\( P_{338} \) is the purchase price in a taxable stock sale with the election; \( HC \) is the historical cost
basis of the target’s assets; \( DPR \) is the accumulated depreciation and amortization associated
with the target’s assets; \( t_{cg} \) is the capital gains tax rate for individual shareholders; and \( t_{oi} \)
is the ordinary income tax rate for individual shareholders.\textsuperscript{21}

In a taxable stock sale without the step-up election under §338(h)(10), target share-
holder’s after-tax wealth can be expressed as:

\[ SLP_{no338} = P_{no338} - [(P_{no338} - SKB)t_{cg}] \]  \hfill (10)

where \( SLP_{no338} \) is target shareholder’s after-tax cash in a taxable stock sale without a
§338(h)(10) election; \( P_{no338} \) is the price paid in a taxable stock purchase without the
§338(h)(10) election; \( SKB \) is the target shareholder’s basis in the stock of the target firm;
and the other variables are as defined previously.

\textsuperscript{19} With the election, the deal is taxed as if it were a taxable asset sale. However, for all other purposes, the
transaction is a stock sale. Thus, there are no differences between transactions structured with and without
the §338(h)(10) election, beyond the tax effects we analyze.

\textsuperscript{20} With the first two structures, target shareholders generally do not recognize a taxable gain on the liquidation or
deprecated liquidation because at the S corporation level, an asset sale or a §338(h)(10) election increase share-
holders’ stock basis by the amount of the gain. However, it is possible for a taxable gain or loss to be triggered
on the liquidation if shareholder stock basis is not equal to the net asset basis of the S corporation. In such
case, the net gain (pass through and upon liquidation) is the same as if the stock was sold directly, but the
character of the gain (ordinary or capital gain) is not typically the same.

\textsuperscript{21} This formulation assumes that the target does not own any inventory, all assets are §1231-type assets, and
recaptured depreciation is taxed at ordinary income tax rates. Relaxing these assumptions does not change the
tenor of the analyses, only the complexity. Also, it should be noted that as a flow-through entity, an S corporation
does not generally retain tax attributes (e.g., NOLs), because it is not taxed at the corporate level.

\textit{The Accounting Review, March 2007}
The target shareholders of the S corporation will be indifferent between the two transaction structures when their after-tax wealth is the same, i.e., when \( SLP_{338} = SLP_{no338} \). We can find shareholders’ indifference price with the §338(h)(10) election by setting Equations (9) and (10) equal. After simplifying, the relationship between the price demanded by target shareholders in a taxable stock sale with the election and a taxable stock sale without the election is:

\[
P_{338} = \frac{P_{no338} + (SKB*tcg - HC*tcg + DPR*tau)(1 - tcg)}{1 - t_{cg}}. \tag{11}
\]

Because of the step-up in tax basis of the target’s assets, the acquirer should be willing to pay a higher pretax price if the deal includes the §338(h)(10) election. The maximum price that the acquirer should be willing to offer to obtain the election \((MXP_{338})\) can be expressed as:

\[
MXP_{338} = \frac{P_{no338} + [(MXP_{338} - ASB)*d/N]*PV_{s}*t_c}{1 - d*F*tc} \tag{12}
\]

where \(P_{no338}\) is the purchase price in a stock sale without the election, and all other variables are as defined previously. After rearranging and simplifying, we can express Equation (12) as:

\[
MXP_{338} = \frac{(P_{no338} - ASB*d*F*tc)}{(1 - d*F*tc)} \tag{13}
\]

where \(F = PV_{s}/N\).

A taxable stock sale with §338(h)(10) election is optimal when the maximum price the acquirer will pay to obtain the election exceeds the minimum price demanded by target shareholders to make the election, i.e., when \(MXP_{338} > P_{338}\) or when Equation (13) is greater than Equation (11):

\[
(P_{no338} - ASB*d*F*tc)/(1 - d*F*tc) > \frac{P_{no338} + (SKB*tcg - HC*tcg + DPR*tau)/(1 - tcg)}{1 - t_{cg}}. \tag{14}
\]

Because the left-hand side of Equation (14) is often greater than the right-hand side of the equation, a §338(h)(10) election is typically the optimal tax structure in the taxable acquisition of an S corporation. This is true because the incremental tax costs of making the election are generally far less than the incremental tax benefits from the step-up (as discussed momentarily). Any price between \(MXP_{338}\) and \(P_{338}\) leaves both the acquirer and target shareholders better off after-tax than if the deal was structured without the §338(h)(10) election at a price of \(P_{no338}\). The increase in wealth derives from the tax benefits generated by the step-up in the tax basis of the target’s assets.

**Comparison of the Sale of Similar S and C Corporations**

The above analyses show that a taxable stock sale with §338(h)(10) election is usually the optimal transaction structure in the acquisition of S corporations. When the target is a C corporation, the optimal transaction structure is a taxable stock purchase without a regular

---

22 Our analysis assumes an all-equity-financed firm. In the presence of target firm leverage, the computations and implications are unchanged with one exception. If the target and the acquirer are sufficiently highly leveraged that additional tax deductions from a step-up in the tax basis of the target’s assets provide little incremental tax savings, then the benefits of a step-up are overstated in Equation (12).

*The Accounting Review, March 2007*
§338 election. The difference in optimal deal structure is a function of the incremental tax costs and incremental tax benefits of a step-up.

In contrast to C corporations, sales of S corporations taxed as asset sales or deemed asset sales under §338(h)(10) generally do not increase the total amount of the taxable gain. Without such additional taxable gain, the incremental tax cost arising from a step-up when the target is an S corporation arises only from a potentially higher ordinary income tax rates applying to a portion of the gain in an asset sale or deemed asset sale.\textsuperscript{23} If such asset sale tax treatment does not create any ordinary income, then the incremental tax cost of a §338(h)(10) election is $0. The incremental tax benefit of a §338(h)(10) election is quantitatively the same benefit available when the target is a C corporation. In sum, the incremental tax cost of stepping up the tax basis of the target’s assets is much lower when the target is an S corporation, while the tax benefits of a step-up are equivalent to those available when the target is a C corporation.

The optimal transaction structure in the acquisition of a freestanding C corporation is a taxable stock sale under which the transaction price is \( P_{stk} \) (see Equation (8)). Further, the optimal transaction structure in the acquisition of an S corporation is a taxable stock sale with §338(h)(10) election under which the maximum price that the acquirer is willing to pay is \( (P_{no338} - ASB\star d\star f\star t_{c})/(1 - d\star F\star t_{c}) \) (see Equation (13)). We define the size of the purchase price premium that an S corporation can fetch relative to an identical C corporation as the difference between these two prices assuming that \( P_{stk} \) and \( P_{no338} \) are equivalent, and that premium is:\textsuperscript{24}

\[
PM_{S-corp} = [(P_{no338} - ASB\star d\star f\star t_{c})/(1 - d\star F\star t_{c})]. \tag{15}
\]

Under a reasonable set of assumptions about depreciable lives and discount rates,\textsuperscript{25} Equation (15) indicates that S corporations can fetch a tax-based premium of up to 10–20 percent relative to a similar C corporation.\textsuperscript{26}

Notice, however, that if the acquirer obtains all the tax benefits from a step-up in the tax basis of the target's assets, the price at which an S corporation sells will not be different from the price at which a C corporation sells. If acquirers have most or all of the bargaining

\textsuperscript{23} This can happen in a transaction taxed as an asset sale, because a portion of the gain can be ordinary income at the S corporation level. This ordinary income passes through to shareholders and is taxable to them as ordinary income (taxed at federal income tax rates as high as 39.6 percent during the period of study). A stock sale results in capital gains, which are taxed at lower rates typically. The total gain in an asset sale or a stock sale is often the same because the shareholders in the S corporation have the same basis in their stock as the S corporation has in its net assets.

\textsuperscript{24} This is the upper bound for the premium that the acquirer has to pay in the acquisition of an S corporation. The lower bound of the premium can be computed as the difference between the minimum price demanded by the shareholders in a §338(h)(10) transaction of an S corporation, \( P_{no338} + (SKB\star t_{g} + HC\star t_{g} + DPR\star t_{c})/(1 - t_{c}) \) (see Equation (11)), and the price of a taxable stock purchase for a C corporation, \( P_{stk} \). The lower bound can be $0. Notice also that this analysis assumes that the acquirer is a C corporation. If the acquirer were an individual or a pass-through entity, then the analysis would lead to the same fundamental conclusion, but the applicable tax rates would be different (individual investor tax rate instead of the corporate tax rate).

\textsuperscript{25} We define reasonable depreciable lives as 10–30 years and reasonable discount rates as 5–15 percent. Other depreciable lives may be appropriate for some assets (e.g., technology, natural resource reserves). Similarly, discount rates change over time with economic and firm specific conditions.

\textsuperscript{26} See Scholes et al. (2005, Chap. 15, Table 15.5) for a numerical illustration of potential differences in purchase prices between similar S corporations and C corporations. Equation (15) suggests that C corporations should switch to S corporation status just prior to being acquired. However, C corporations making such a change in organizational form, if subsequently acquired within ten years of the change, are effectively taxed as if they were a C corporation under I.R.C. §1374. Thus, changing organizational form pre-acquisition will not allow selling shareholders to capture the acquisition premium derived in Equation (15).
power in the market for private corporations, then it is quite possible that the acquirer does not pay the target S corporation shareholders a premium for the tax benefits associated with the §338(h)(10) election. If the seller is unaware of the incremental value of the §338(h)(10) election, then it is also possible for S corporation purchase prices to be the same as those for C corporations.27 Therefore, it is an empirical question as to whether S corporations actually sell at a premium to similar C corporations, and if so, how much of the tax benefits of the election are captured by the seller.

Before proceeding to the empirical tests, it is important to note several limitations of the analyses in this section. First, we only compare taxable acquisitions of the two organizational forms and our model does not consider tax-free acquisition structures. We also implicitly assume that nontax factors that might influence purchase prices are constant across organizational form.

III. SAMPLE, EMPIRICAL METHOD, AND RESULTS

Sample Selection

We identified a sample of S corporation acquisitions through a keyword search of the Lexis/Nexis database. Specifically, we searched SEC disclosures (8-Ks, 10-Qs, 10-Ks, etc.) for the period 1994–2000 using keywords such as “subchapter S acquisition,” “acquisition and S corporation,” and “Section 338(h)(10).” The sample includes completed transactions that were announced between January 1, 1994 and December 31, 2000. We restrict the period of study to the post-1994 period because the Omnibus Budget Reconciliation Act of 1993 created Section 197, which makes goodwill tax deductible. This change in acquisition taxation likely had an impact on acquisition structures and prices. We initially identified 104 taxable stock acquisitions of S corporations. We select taxable stock acquisitions of S corporations, rather than taxable asset acquisitions, for our sample because taxable asset acquisitions of C corporations are rare. That is, the population of matched sample C corporation acquisitions includes almost exclusively stock acquisitions, so we choose only stock acquisitions of S corporations to avoid nontax differences between stock and asset acquisitions.28 All of our S corporation stock acquisitions included §338(h)(10) elections, consistent with our model.29

Our empirical tests require target firm financial statement data and we searched the Lexis/Nexis and EDGAR databases for this information. Such data are most often contained as an attachment or exhibit to an acquiring firm’s form 8-K, however, in some cases, these data were disclosed in the acquiring firm’s 10-Q, 10-K or other SEC filing. Typically, we were able to identify audited financial statements for the acquired S corporation, with one to three years of audited financial statement data provided. Of these 104 transactions, we

27 We present anecdotal evidence in the following section that some S corporation sellers are ignorant of the value of the election and do not capture any purchase price premium.

28 Similarly, we could have analyzed a sample of acquisitions of partnerships relative to a sample of C corporation acquisitions. However, partnerships are different from corporations on nontax dimensions, and we therefore chose to analyze two types of corporations that are taxed differentially, but that are similar on nontax dimensions.

29 One investment banker with whom we spoke indicated that every S corporation stock acquisition he has completed involved a Section 338(h)(10) election. Stoneridge’s January 15, 1999 8-K regarding the acquisition of Hi-Stat is typical of the disclosure regarding a deal’s tax structure:

Section 338 Election. With respect to the acquisition of the Shares, the Parties shall together make a timely election under Section 338(h)(10) of the Code. The Parties agree to jointly prepare and timely file Form 8023 and shall allocate the Purchase Price of the Shares in the manner provided in Section 13.3 as soon as practicable after the election is made. Sellers shall execute the Form 8023 at or prior to the Closing.
were unable to locate target firm financial statement data in 27 transactions.\textsuperscript{30} After eliminating those deals lacking financial data, we have a final sample of 77 stock acquisitions of S corporations. The aggregate value of these 77 acquisitions is just less than $4 billion. Panel A of Table 2 presents the sample selection procedure.

Panel B of Table 2 presents the sample by year, and indicates that the 77 transactions are clustered in the years 1996 through 1998 with 81 percent of the transactions announced during this period. The sample is distributed across 33 two-digit SICs and there is no significant clustering across two-digit industry (data not tabulated). Panel C of Table 2 presents the sample by one-digit SIC and indicates that the transactions are spread relatively evenly across industries. Panel D provides information on the form of consideration paid to the seller. 47 percent of the S corporation acquisitions were all cash deals. Surprisingly, over 30 percent of transactions involved acquirer stock as part of the total consideration paid to target shareholders. A primary benefit of using stock as consideration in an acquisition is the ability of the seller to garner tax-free treatment. In this sample of transactions, stock is routinely used in taxable transactions.\textsuperscript{31} 14 percent of the transactions include a note payable as part of the consideration paid to target shareholders, while 7 percent include some other form of consideration (e.g., warrants).

Our tests require, for comparison, a sample of taxable stock acquisitions of C corporations. We sought an industry-matched sample of taxable stock acquisitions of privately held C corporations. We chose acquisitions of privately held C corporations as matches, rather than acquisitions of public C corporations, because the target S corporations were all private and differences in public/private status might affect purchase prices. We first identified a set of taxable acquisitions of privately held U.S. regular C corporations using the Securities Data Company (SDC) mergers and acquisition database. For each S corporation acquisition, we selected the matched acquisition that was closest in deal size to the S corporation acquisition. Next, for the identified matched transaction, we searched for target firm financial statement information and acquisition agreement documents in acquiring firm SEC financial disclosures. In many cases, we could not find these documents—acquirers did not disclose the purchase agreement and the acquired target financial statements. In that case, we picked the next closest match and repeated the process until we found a matched deal with sufficient disclosures. Based on these disclosures, we assured that the matched transaction involved the taxable purchase of the stock of a freestanding C corporation. We determined the target’s organizational form based on disclosures in the target firm’s tax footnotes.

Panel A of Table 3 presents the sample of matched freestanding C corporations by year, and indicates that the 77 transactions are clustered in the years 1996 through 1999 with about 90 percent of the transactions announced during this period. The industry distribution is similar to that of the S corporation sample due to matching. Specifically, the sample is distributed across 30 two-digit SICs and there is no significant clustering across two-digit industry (data not tabulated). Panel B of Table 3 presents the sample by one-digit SIC and indicates that the transactions are spread relatively evenly across industries. Panel C provides information on the form of consideration paid to the seller. 65 percent of the S

\textsuperscript{30} In 11 transactions, we identified financial data relating to the acquisition, but the data were aggregated in a way that was unsuitable for our purposes. For example, in some transactions, the target firm’s financial data was aggregated with other unrelated acquisitions in the acquirer’s disclosures. Similarly, in some transactions, the acquirer purchased several entities from the same seller. Only one of the entities was an S corporation, but all of the acquired firms’ financial information was aggregated into one set of financial statements.

\textsuperscript{31} This pattern in the data seems somewhat consistent with Shleifer and Vishny (2003) because acquirers use stock as consideration when it provides no tax benefit to sellers.

\textit{The Accounting Review, March 2007}
TABLE 2
Sample Selection and Composition
Acquisitions of S Corporations Completed during the Period 1994–2000

Panel A: Sample Selection
Initial Sample of S corporation stock acquisitions completed during 1994–2000 as identified with a keyword search of Lexis/Nexis
Less: Deals lacking target firm financial statement documents
Final Sample of S Corporation Acquisitions

Panel B: Sample Composition by Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Deals</th>
<th>Percentage of Total</th>
<th>Deal Value ($ millions)</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>4</td>
<td>5.2%</td>
<td>$182.4</td>
<td>4.7%</td>
</tr>
<tr>
<td>1995</td>
<td>1</td>
<td>1.3%</td>
<td>3.7</td>
<td>0.1%</td>
</tr>
<tr>
<td>1996</td>
<td>10</td>
<td>13.0%</td>
<td>647.5</td>
<td>16.7%</td>
</tr>
<tr>
<td>1997</td>
<td>20</td>
<td>26.0%</td>
<td>659.7</td>
<td>17.0%</td>
</tr>
<tr>
<td>1998</td>
<td>33</td>
<td>42.9%</td>
<td>1,550.0</td>
<td>40.0%</td>
</tr>
<tr>
<td>1999</td>
<td>5</td>
<td>6.5%</td>
<td>456.7</td>
<td>11.8%</td>
</tr>
<tr>
<td>2000</td>
<td>4</td>
<td>5.2%</td>
<td>374.6</td>
<td>9.7%</td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>100.0%</td>
<td>$3,874.6</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Panel C: Sample Composition by One-Digit SIC

<table>
<thead>
<tr>
<th>One-Digit SIC</th>
<th>Number of Deals</th>
<th>Percentage of Total</th>
<th>Deal Value ($ millions)</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>6.5%</td>
<td>$61.2</td>
<td>1.6%</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>7.8%</td>
<td>236.8</td>
<td>6.1%</td>
</tr>
<tr>
<td>3</td>
<td>16</td>
<td>20.8%</td>
<td>1,195.0</td>
<td>30.8%</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>7.8%</td>
<td>343.4</td>
<td>8.9%</td>
</tr>
<tr>
<td>5</td>
<td>12</td>
<td>15.6%</td>
<td>524.2</td>
<td>13.5%</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>6.5%</td>
<td>238.7</td>
<td>6.2%</td>
</tr>
<tr>
<td>7</td>
<td>13</td>
<td>16.9%</td>
<td>471.2</td>
<td>12.2%</td>
</tr>
<tr>
<td>8</td>
<td>14</td>
<td>18.2%</td>
<td>804.1</td>
<td>20.8%</td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>100.0%</td>
<td>$3,874.6</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Panel D: Sample Composition by Form of Payment

<table>
<thead>
<tr>
<th>Form of Payment</th>
<th>Number of Deals*</th>
<th>Percentage of Total</th>
<th>Deal Value ($ millions)*</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% cash</td>
<td>42</td>
<td>46.7%</td>
<td>$2,700.9</td>
<td>60.4%</td>
</tr>
<tr>
<td>Partially stock</td>
<td>29</td>
<td>32.2%</td>
<td>1,035.2</td>
<td>23.2%</td>
</tr>
<tr>
<td>Includes a note payable</td>
<td>13</td>
<td>14.4%</td>
<td>565.3</td>
<td>12.6%</td>
</tr>
<tr>
<td>Includes other consideration</td>
<td>6</td>
<td>6.7%</td>
<td>168.1</td>
<td>3.8%</td>
</tr>
<tr>
<td>Total</td>
<td>90</td>
<td>100.0%</td>
<td>$4,469.5</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

* Does not sum to total because some transactions include multiple forms of consideration (e.g., cash and stock).
TABLE 3
Sample Selection and Composition
Acquisitions of C Corporations Completed during the Period 1994–2000

Panel A: Sample Composition by Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Deals</th>
<th>Percentage of Total</th>
<th>Deal Value ($ millions)</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>1</td>
<td>1.3%</td>
<td>3.2</td>
<td>0.1%</td>
</tr>
<tr>
<td>1995</td>
<td>3</td>
<td>3.9%</td>
<td>6.2</td>
<td>0.2%</td>
</tr>
<tr>
<td>1996</td>
<td>14</td>
<td>18.2%</td>
<td>1,181.5</td>
<td>32.0%</td>
</tr>
<tr>
<td>1997</td>
<td>21</td>
<td>27.3%</td>
<td>1,070.3</td>
<td>29.0%</td>
</tr>
<tr>
<td>1998</td>
<td>20</td>
<td>26.0%</td>
<td>866.6</td>
<td>23.5%</td>
</tr>
<tr>
<td>1999</td>
<td>14</td>
<td>18.2%</td>
<td>461.3</td>
<td>12.5%</td>
</tr>
<tr>
<td>2000</td>
<td>4</td>
<td>5.2%</td>
<td>102.3</td>
<td>2.8%</td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>100.0%</td>
<td>3,691.3</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Panel B: Sample Composition by One-Digit SIC

<table>
<thead>
<tr>
<th>One-Digit SIC</th>
<th>Number of Deals</th>
<th>Percentage of Total</th>
<th>Deal Value ($ millions)</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>6.5%</td>
<td>309.6</td>
<td>8.4%</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>7.8%</td>
<td>176.2</td>
<td>4.8%</td>
</tr>
<tr>
<td>3</td>
<td>16</td>
<td>20.8%</td>
<td>1,226.9</td>
<td>33.2%</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>7.8%</td>
<td>594.0</td>
<td>16.1%</td>
</tr>
<tr>
<td>5</td>
<td>12</td>
<td>15.6%</td>
<td>483.5</td>
<td>13.1%</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>6.5%</td>
<td>91.8</td>
<td>2.5%</td>
</tr>
<tr>
<td>7</td>
<td>13</td>
<td>16.9%</td>
<td>460.5</td>
<td>12.5%</td>
</tr>
<tr>
<td>8</td>
<td>14</td>
<td>18.2%</td>
<td>348.9</td>
<td>9.5%</td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>100.0%</td>
<td>3,691.3</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Panel C: Sample Composition by Form of Payment

<table>
<thead>
<tr>
<th>Form of Payment</th>
<th>Number of Deals*</th>
<th>Percentage of Total</th>
<th>Deal Value ($ millions)*</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% cash</td>
<td>54</td>
<td>65.1%</td>
<td>2,961.7</td>
<td>77.2%</td>
</tr>
<tr>
<td>Partially stock</td>
<td>14</td>
<td>16.9%</td>
<td>502.6</td>
<td>13.1%</td>
</tr>
<tr>
<td>Includes a note payable</td>
<td>8</td>
<td>9.6%</td>
<td>234.5</td>
<td>6.1%</td>
</tr>
<tr>
<td>Includes other consideration</td>
<td>7</td>
<td>8.4%</td>
<td>138.7</td>
<td>3.6%</td>
</tr>
<tr>
<td>Total</td>
<td>83</td>
<td>100.0%</td>
<td>3,837.5</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

*Does not sum to total because some transactions include multiple forms of consideration (e.g., cash and stock).

corporation acquisitions were all cash deals. 17 percent of transactions involved acquirer stock as part of the total consideration paid to target shareholders. About 10 percent of the transactions include a note payable as part of the consideration paid to target shareholders, while 8 percent include some other form of consideration (e.g., warrants). This indicates that the matched C corporation sample does not deviate significantly from the S corporation sample.

The Accounting Review, March 2007
Table 4 presents descriptive data relating to the 77 S corporation acquisitions and the matched sample of taxable stock acquisitions of C corporations. The average purchase price in the S corporation transactions is $50.31 million, while the average C corporation sold for $47.94 million. The average (median) S corporation reported revenues of $48.80 ($31.64) million in the year prior to the acquisition, while the average (median) C corporation reported revenue of $66.02 ($34.46) million for the same time period. The S corporation and matched C corporation target firms reported similar operating results (e.g., pretax income; earnings before interest, taxes, depreciation and amortization [EBITDA]) in the year prior to the acquisition. The average (median) S corporation target reported average EBITDA to sales of 14.77 percent (8.67 percent). The average (median) EBITDA to sales for the matched C corporation acquisitions is 16.36 percent (11.59 percent). Revenue growth is likewise similar across target organizational form. Overall, the data in Table 4 indicate that the matched sample of C corporations is quite similar to the sample of S corporations in terms of size and financial performance.

Empirical Method

To test the hypothesis that purchase prices are higher in acquisitions of S corporations than in acquisitions of C corporations, we compare purchase price multiples across target organizational form. We compute six purchase price multiples: price to book value, price to revenues, price to pretax income, price to EBITDA, price to operating cash flows, and price to operating cash flows before working capital adjustments. These purchase price multiples are commonly referenced acquisition benchmarks noted in the financial press (e.g., Wall Street Journal) and academic texts (e.g., Brealey and Myers 2000). They also provide an objective metric from which to analyze the effect of organizational form on price.

There are, however, several limitations associated with the use of accounting-based multiples. First, for some transactions, the accounting value for the target is negative (e.g., negative cash flows from operations), which produces a purchase price multiple that is meaningless. Second, if organizational form is correlated with some nontax factor that influences purchase prices, such as growth, then purchase price multiples will indicate a tax-based purchase price premium where none exists. To mitigate this problem, in our multivariate tests we attempt to control for growth and other factors that may lead us to incorrectly reject the null hypothesis.

We first perform univariate comparisons of purchase price multiples across target organizational form, and we also estimate a two-stage regression to examine the relationship, if any, between tax benefits and acquisition premiums. In the first stage of the regression, we estimate Equation (16):

\[
\text{Acquisition Multiple}_i = \alpha + \beta_1 \text{ORGFORM}_i + \beta_2 \text{ROA}_i + \beta_3 \text{STOCK}_i + \beta_4 \text{DEBT}_i + \beta_5 \text{GROWTH}_i + \epsilon_i
\]  

(16)

In Equation (16), the dependent variable is one of the acquisition multiples mentioned above. ORGFORM is an indicator variable that takes the value 1 if the acquisition target

32 None of the matched sample of transactions included a regular §338 election. This empirical regularity in the data is consistent with conventional wisdom regarding the structure of acquisitions of C corporations.

33 We add corporate income tax expense to both operating cash flow measures for target C corporations. Because S corporations do not face corporate-level income taxes, adjusting the target C corporation cash flow measures for corporate tax expense provides some control for this difference in target firm financial information.
TABLE 4

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>$50.31</td>
<td>$8.34</td>
<td>$48.80</td>
<td>$3.59</td>
<td>$4.92</td>
<td>$4.18</td>
<td>$4.22</td>
<td>14.77%</td>
<td>15.06%</td>
<td>23.90%</td>
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<tr>
<td>Median</td>
<td>29.50</td>
<td>5.03</td>
<td>31.64</td>
<td>1.99</td>
<td>3.42</td>
<td>2.54</td>
<td>2.77</td>
<td>8.67%</td>
<td>12.08%</td>
<td>21.80%</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>62.32</td>
<td>10.69</td>
<td>53.14</td>
<td>4.98</td>
<td>5.91</td>
<td>5.54</td>
<td>4.66</td>
<td>18.96%</td>
<td>27.11%</td>
<td>49.10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>$47.94</td>
<td>$13.02</td>
<td>$66.02</td>
<td>$5.05</td>
<td>$7.94</td>
<td>$4.78</td>
<td>$5.74</td>
<td>16.36%</td>
<td>13.54%</td>
<td>13.54%</td>
</tr>
<tr>
<td>Median</td>
<td>24.00</td>
<td>5.94</td>
<td>34.46</td>
<td>2.37</td>
<td>4.05</td>
<td>3.18</td>
<td>3.01</td>
<td>11.59%</td>
<td>9.63%</td>
<td>9.63%</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>60.31</td>
<td>22.93</td>
<td>85.19</td>
<td>9.26</td>
<td>12.54</td>
<td>6.27</td>
<td>8.69</td>
<td>26.37%</td>
<td>28.08%</td>
<td>56.31%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>$2.37</td>
<td>$(4.68)</td>
<td>$(17.22)</td>
<td>$(1.46)</td>
<td>$(3.02)</td>
<td>$(0.60)</td>
<td>$(1.52)</td>
<td>-1.59%</td>
<td>1.52%</td>
<td>10.36%</td>
</tr>
<tr>
<td>Median</td>
<td>$5.50</td>
<td>$(0.91)</td>
<td>$(2.82)</td>
<td>$(0.38)</td>
<td>$(0.63)</td>
<td>$(0.64)</td>
<td>$(0.24)</td>
<td>-2.92%</td>
<td>2.45%</td>
<td>12.17%</td>
</tr>
</tbody>
</table>

Transaction value is defined as the price paid for the target’s stock. Target book value of equity is the book value of equity of the target in the period prior to the acquisition. Target revenue is gross sales for the target in the year prior to the acquisition. Pretax income is income before taxes for the target in the period prior to the acquisition. Target EBITDA is the target’s earnings before interest, taxes, depreciation, and amortization for the year prior to the acquisition. Target operating cash flow is cash flow from operations for the year prior to the acquisition. For C corporations, we add corporate income tax to the operating cash flows as reported in the statement of cash flows. Target operating cash flow before working capital adjustments is cash flow from operations before adjustments for changes in working capital (e.g., accounts receivable). For C corporations, we add corporate income tax expense to operating cash flows before adjusting for working capital changes. Target EBITDA to Revenue is the target’s EBITDA in the period prior to the acquisition divided by revenue for that same period.
is an S corporation; 0 if the target is a matched C corporation. As noted above, all transactions are taxable stock acquisitions, so there are no nontax differences associated with the legal structure of the deal across target organizational form. Because we expect to observe higher purchase prices in S corporation acquisitions, the predicted sign of the coefficient on ORGFORM is positive. However, the coefficient on ORGFORM may pick up both tax and nontax factors.

STOCK is an indicator variable taking the value 1 if the consideration in the deal included acquirer stock; 0 otherwise. All of the transactions in the sample are taxable, so there is no tax benefit associated with stock payments. If the acquirer’s stock is fairly priced, then the coefficient on STOCK should not be significantly different from zero. If the use of stock is correlated with uncertainty about the target’s future profitability, then we expect the coefficient on STOCK to be negative. DEBT is an indicator variable that takes the value 1 if acquirer debt securities were used as consideration in the acquisition; 0 otherwise. Like STOCK, if fairly priced, the coefficient on DEBT should be insignificantly different from zero. Using debt in a taxable transaction can provide tax benefits to the seller as a result of installment sale tax treatment.\textsuperscript{34} If the acquirer shares in the beneficial tax treatment, the coefficient on DEBT will be negative.

GROWTH is the target’s asset growth for the period two years prior to the acquisition to the year prior to the acquisition. While imperfect, this variable is designed to capture expected growth in the target’s operations. To control for target profitability and profitable growth opportunities, we also include the target’s return on assets (ROA) in Equation (16). Higher growth firms and more profitable firms should command a higher purchase price and we therefore expect a positive coefficient on GROWTH and ROA. However, because the numerator in ROA is related to the denominator in several of the purchase price multiples, the coefficient on ROA may be negative due to this mechanical relationship.

In order to isolate tax benefits associated with the target’s organizational form and the transaction’s structure, we use the residuals from Equation (16) to proxy for acquisition premiums in the second stage of the analysis. In the second stage, we regress those residuals on an estimate of the tax benefits generated in the S corporation acquisition using Equation (15) above. Specifically, we regress the residuals from Equation (16) on our estimate of the tax benefits from a step-up in asset basis.

IV. RESULTS

Table 5 presents a comparison of purchase price multiples across organizational form for the sample of S and C corporation acquisitions. Panel A presents the price to book multiple where book value is the target firm’s book value of shareholder’s equity prior to the acquisition. Both the mean and median price to book multiple is higher in S corporation acquisitions.\textsuperscript{35} However, the size of the difference is too large to be explained only by tax benefits derived in the acquisition. This is true because the magnitude of the difference implies a purchase price premium in the range of 40–50 percent. Equation (15) suggests a maximum premium in the 20 percent range. Panel B compares price to revenue multiples where revenue is the target firm’s gross revenue for the year prior to the acquisition. In the

\textsuperscript{34} During the period of study, there was substantial uncertainty about the availability of installment sale tax treatment in sales of S corporations. Currently, installment sale treatment is available to selling S corporation shareholders.

\textsuperscript{35} S corporations often have lower shareholder’s equity than C corporations, for a given amount of corporate earnings, because S corporations pay dividends to shareholders to compensate for the shareholder taxes immediately due on S corporation earnings. However, shareholder’s equity is measured and computed the same way for S and C corporations.
## TABLE 5
Comparison of Purchase Price Multiples across Target Firm Organizational Form for 77 Matched Pairs of S Corporation and C Corporation Acquisitions Announced during 1994–2000

<table>
<thead>
<tr>
<th>Panel</th>
<th>S Corporation Targets</th>
<th>C Corporation Targets</th>
<th>Difference</th>
<th>Matched Pair Difference</th>
<th>S Corporation Targets</th>
<th>C Corporation Targets</th>
<th>Difference</th>
<th>Matched Pair Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel A: Price to Book Multiple</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>8.28</td>
<td>5.11</td>
<td>3.17*</td>
<td>2.88*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>5.55</td>
<td>3.48</td>
<td>2.07*</td>
<td>1.66*</td>
<td>65.1%*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% positive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panel C: Price to Pretax Income Multiple</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>16.14</td>
<td>12.81</td>
<td>3.33*</td>
<td>3.06*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>10.88</td>
<td>10.18</td>
<td>0.70</td>
<td>1.89**</td>
<td>61.8%**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% positive</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panel E: Price to Cash Flows from Operations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>12.17</td>
<td>7.07</td>
<td>5.10*</td>
<td>4.26*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>10.36</td>
<td>6.24</td>
<td>4.12*</td>
<td>3.15*</td>
<td>63.5%*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% positive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* ** Significant at the 5 percent and 10 percent levels, respectively (one-tailed test).

Price in all multiples is the price paid for the target’s equity. The target corporations book value of equity as of the period prior to the acquisition is the denominator in the price to book multiple. Gross revenues is the denominator in the price to revenues multiple, while income before taxes (corporate) is the denominator in the price to pretax income multiple. Earnings before interest, taxes, depreciation, and amortization is the denominator in the price to EBITDA multiple. Price to cash flows from operations uses operating cash flows in the denominator. We add corporate income tax expense to operating cash flows for C corporation targets. Similarly, cash flows from operations before working capital adjustments is the denominator in the price to cash flow from operations multiple. We also add corporate income tax expense to the denominator’s value for C corporation targets.
average (median) S corporation transaction, the price to revenue multiple is 1.30 (.96). In the matched C corporation acquisitions, the average (median) price to revenue multiple is 1.04 (.86). The mean and median price to revenue multiple are higher (p < .05) in S corporation acquisitions as predicted. We compute both a simple difference in multiples and a difference in acquisition multiple for each matched pair of acquisitions. Both tests yield similar results and the size of the difference in median multiples implies a premium in S corporation acquisitions of about 11.6 percent.

Panel C of Table 5 presents the price to pretax income multiple where pretax income is earnings before income taxes, while Panel D presents price to EBITDA multiples. For both metrics, the mean and median multiple is higher in S corporation acquisitions. Panels E and F present price to cash flow from operations multiples. The mean and median multiples are generally higher in S corporation acquisitions as predicted, but the magnitude of the difference in multiples suggests acquisition premiums in S corporation acquisitions in the range of 30–45 percent, which are too large to be due solely to the tax effect we analyze.

We also report, in each panel of Table 5, the percentage of matched transactions in which the purchase price multiple is higher in the S corporation acquisition than in the C corporation acquisition. In each panel of Table 5, in more than 50 percent of the matched paired transactions, the S corporation multiple exceeds the C corporation multiple. Overall, we interpret the data in Table 5 as supporting the conclusion that S corporations sell for a higher price than similar C corporations.36

In Table 6, we provide estimates for the tax benefits generated in the sample of S corporation acquisitions.37 Specifically, for each acquisition, we estimate the gross step-up in the tax basis of the target’s assets as the difference between the purchase price and the target’s book value of equity pre-acquisition. As Panel A of Table 6 indicates, in the average (median) S corporation acquisition, the step-up in basis is $42.7 ($23.8) million. We next compute the present value of the tax savings from the step-up in tax basis under differing assumptions about the useful life of the target’s assets (15 or 20 years) and the appropriate discount rate (7 percent or 10 percent).38 The average present value of tax benefits ranges from $6.3 to $9.0 million, which is equivalent to between 12.1 percent and 17.2 percent of the transaction’s value (Panel B).39 For the 77 S corporation acquisitions, our estimates suggest that the aggregate present value of tax benefits is between $490 and $700 million.

In Panel A of Table 7, we estimate Equation (16). The coefficient on ORGFORM is consistently positive and significant in Panel A of that table consistent with the conclusion that sample S corporations sell for more than their matched C corporation counterparts. The coefficient on STOCK is significant in only one of the regressions in Table 7. If the use of stock by acquirers is prompted in part by information asymmetries about the target, and uncertainty about future target performance, then it does not appear to influence the deal’s value for our sample of transactions. Similarly, DEBT is not significant in any of the

36 Results are similar when we use enterprise value in the appropriate multiples.
37 Kaplan (1989) performs similar analyses for a sample of management buyout transactions.
38 In several transactions, acquirers report their estimate of the present value of tax benefits generated. Based on the acquirer’s disclosures and the target’s financial statements, it appears that acquirers used discount rates in the 7–9 percent range.
39 Our estimates calibrate with disclosures made by several acquiring firms. For example, Stoneridge estimated that the tax benefits generated in its acquisition of Hi-Stat were equivalent to about 17 percent of the deal’s value ($62 million of tax benefits/$362 million deal value; see the Stoneridge 8-K, January 15, 1999). Likewise, Regal Beloit estimated the tax benefits generated in its acquisition of Leeson Electric were equal to about 18 percent of the deal’s value ($47 million of tax benefits/$260 million deal value; see the Regal-Beloit 8-K, October 13, 2000).
TABLE 6
Analysis of Estimated Tax Benefits from a §338(h)(10) Election for 77 S Corporation Acquisitions Completed during 1994–2000

Panel A: Estimated Average and Median Tax Benefits in S Corporation Acquisitions

<table>
<thead>
<tr>
<th>Estimated Gross Step-Up</th>
<th>Present Value of Tax Benefits from Stepping Up the Tax Basis of the Target’s Assets (in $ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amortization Period = 15 years</td>
</tr>
<tr>
<td></td>
<td>Discount Rate = 7%</td>
</tr>
<tr>
<td>Average</td>
<td>$42.7</td>
</tr>
<tr>
<td>Median</td>
<td>$23.8</td>
</tr>
</tbody>
</table>

Panel B: Estimated Average and Median Tax Benefits in S Corporation Acquisitions as a Percentage of Deal Value

<table>
<thead>
<tr>
<th>Estimated Gross Step-Up</th>
<th>Present Value of Tax Benefits from Stepping Up the Tax Basis of the Target’s Assets (as a percentage of deal value)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amortization Period = 15 years</td>
</tr>
<tr>
<td></td>
<td>Discount Rate = 7%</td>
</tr>
<tr>
<td>Average</td>
<td>81.4%</td>
</tr>
<tr>
<td>Median</td>
<td>84.8%</td>
</tr>
</tbody>
</table>

Land accounts for less than 1 percent (about 0.5 percent) of the book value of total assets. We assume that land basis is stepped up at the same ratio as other assets.

*a Computation assumes straight line depreciation over the useful life indicated and that the appropriate tax rate is 35 percent.

*b Gross step-up is the difference between the purchase price and the tax basis of the target’s assets pre-acquisition.

regressions. The coefficient on \(GROWTH\) is positive as predicted, but insignificant in all regressions in Panel A of Table 7. Changes in total assets over only one year pre-acquisition may be a poor proxy for growth and we unfortunately do not have analyst forecasts or market ratios (e.g., price-to-book) for the private target firms in our sample.\(^{40}\) Both types of data would likely provide more accurate growth proxies. \(ROA\) is significant in only one of the regressions, but it is opposite of the predicted sign due to the mechanical relationship between the numerator in \(ROA\) and the denominator in the dependent variable.\(^{41}\) The \(R^2\) from these regressions range from .09 to .21. The results in Panel A of Table 7 suggest that purchase prices were higher in the S corporation acquisitions than in the C corporation

\(^{40}\) Results are similar when we use change in revenue as a growth proxy.

\(^{41}\) We also included measures of target tax attributes (NOLs) in Equation (16), and found that they were insignificant. However, it should be noted that only C corporation targets have such tax attributes. Thus, we did not include those variables in the tabulated results presented in Table 7.

The Accounting Review, March 2007
## TABLE 7

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Price to Operating Cash Flow</th>
<th>Price to EBITDA</th>
<th>Price to Revenue</th>
<th>Price to Book Value</th>
<th>Predicted Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>3.98 (3.67)</td>
<td>18.20 (4.31)**</td>
<td>1.09 (2.03)**</td>
<td>3.98 (2.61)*</td>
<td>+</td>
</tr>
<tr>
<td>ORGFORM</td>
<td>2.12* (2.12)**</td>
<td>3.53** (3.24)**</td>
<td>0.43** (2.12)**</td>
<td>2.12* (0.43)</td>
<td>+</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.14 (0.14)</td>
<td>-0.14 (0.13)</td>
<td>-0.14 (0.13)</td>
<td>-0.14 (0.13)</td>
<td>+</td>
</tr>
<tr>
<td>STOCK</td>
<td>-0.78 (0.78)</td>
<td>-0.78 (0.78)</td>
<td>-0.78 (0.78)</td>
<td>-0.78 (0.78)</td>
<td>+</td>
</tr>
<tr>
<td>DEBT</td>
<td>0.85 (0.85)</td>
<td>0.85 (0.85)</td>
<td>0.85 (0.85)</td>
<td>0.85 (0.85)</td>
<td>?</td>
</tr>
<tr>
<td>GROWTH</td>
<td>2.86 (2.86)</td>
<td>2.86 (2.86)</td>
<td>2.86 (2.86)</td>
<td>2.86 (2.86)</td>
<td>+</td>
</tr>
<tr>
<td>MRT</td>
<td>-1.62 (0.62)</td>
<td>-1.62 (0.62)</td>
<td>-1.62 (0.62)</td>
<td>-1.62 (0.62)</td>
<td>+</td>
</tr>
<tr>
<td>R²</td>
<td>0.14 (0.14)</td>
<td>0.14 (0.14)</td>
<td>0.14 (0.14)</td>
<td>0.14 (0.14)</td>
<td>0.14 (0.14)</td>
</tr>
<tr>
<td>n</td>
<td>107 (107)</td>
<td>113 (107)</td>
<td>107 (107)</td>
<td>106 (106)</td>
<td>108 (103)</td>
</tr>
</tbody>
</table>

(continued on next page)
TABLE 7 (continued)

Panel B: Estimate of the Effect of Tax Benefits on Acquisition Premium for S Corporation Acquisitions

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Price to Book Value</th>
<th>Price to Revenue</th>
<th>Price to Pretax Income</th>
<th>Price to EBITDA</th>
<th>Price to Operating Cash Flow</th>
<th>Price to Operating Cash Flow b/Working Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax benefits</td>
<td>0.18</td>
<td>0.26</td>
<td>0.14</td>
<td>0.30</td>
<td>0.26</td>
<td>0.32</td>
</tr>
<tr>
<td></td>
<td>(3.08)**</td>
<td>(3.49)**</td>
<td>(2.92)**</td>
<td>(4.28)**</td>
<td>(3.58)**</td>
<td>(4.48)**</td>
</tr>
<tr>
<td>F-stat</td>
<td>9.48**</td>
<td>12.19**</td>
<td>8.52**</td>
<td>18.29**</td>
<td>12.83**</td>
<td>20.05**</td>
</tr>
<tr>
<td>R²</td>
<td>0.12</td>
<td>0.16</td>
<td>0.10</td>
<td>0.20</td>
<td>0.15</td>
<td>0.23</td>
</tr>
</tbody>
</table>

*, ** Significant at the 5 percent and 10 percent levels, respectively (one-tailed test).

The independent variables are defined as follows. ORGFORM is an indicator variable taking the value 1 if the target is an S corporation, 0 if the target is a C corporation. STOCK is an indicator variable taking the value of 1 when acquirer stock is a component of the consideration paid to the target’s shareholders, 0 otherwise. DEBT takes the value 1 if the acquirer purchased the target with debt securities, 0 otherwise. GROWTH is the percentage change in the target’s gross revenue between year 0 and year −1, where year 0 is the year prior to the acquisition. Acquisition multiples are defined in Table 5. ROA is return on assets. MRT is acquirer’s marginal tax rate as defined by Graham (1996). Tax benefits are the present value of depreciation tax shield estimated by using an interest rate of 7 percent and depreciation life of 15 years deflated by transaction price. Premium is computed as the residual from regressions in Table 6 multiplied by the denominator of the respective multiple (e.g., book value, revenue, EBITDA, etc.), then deflated by transaction price.
acquisitions, after controlling for target growth, profitability, and form of payment.\footnote{As pointed out by one referee, S corporations and C corporations differ in the growth in EBITDA and a potentially more appropriate measure of growth is the growth in EBITDA. We also analyze the model by defining growth as the growth in EBITDA. The results across price multiples are not sensitive to the change of growth factor. For example, when growth is measured by the growth in EBITDA and price multiple is defined as price to EBITDA, the overall model is statistical significant at the .03 level, the coefficient on \textit{ORGFORM} is 3.72 (t-statistic = 3.44, p-value < .01), and the coefficient on growth factor is -.04 (t-statistic = -.42, p-value = .67).} In Panel B, we investigate the link between tax benefits and acquisition premiums in the S corporation acquisitions.

We expect that acquisition premium increases with the tax benefits generated by the §338(h)(10) election. To test this prediction, in Panel B of Table 7, we estimate the acquisition premium for S corporation acquisitions as the regression residuals from Panel A. To measure the premium as a percentage of price, we first convert the regression residuals, which are in the form of an accounting multiple, to a price equivalent. We do so by multiplying the residual by the denominator of the multiple (e.g., revenue, net income, EBITDA, etc.). We then deflate that price premium by the transaction’s value, which produces a percentage premium. In Panel B of Table 7, we report the results of regressing this percentage premium estimate, for each of the six multiples, on our estimate of tax benefits generated in the S corporation acquisitions from a step up in tax basis, also scaled by the transaction’s value. Thus, we use only the S corporation acquisition data in Panel B.

The coefficient on tax benefits is positive and significantly associated with our estimate of acquisition premium across all specifications in Panel B. The positive coefficient indicates that premiums paid by the acquirer are positively related to the tax benefits generated in the deal. The coefficients on tax benefits range between 0.36 and 0.46, which indicates that for every one dollar of tax benefits generated in the transaction, the premium increases by $.36 to $.46. In other words, sellers appear to capture about 40 percent of the tax benefits generated from the §338(h)(10) election, and these benefits are reflected in the acquisition premium. The results in Panel B also suggest that acquirers capture more than 50 percent of the tax benefits arising from the §338(h)(10) election. In other words, acquirers appear to pass on $.36 to $.46 of every dollar to tax benefits from stepping up the targets assets, and keep the remainder.

**Additional Evidence**

The analyses presented in Tables 5 through 7 provide evidence that supports the conclusion that acquisition prices are higher in S corporation acquisitions than in C corporation acquisitions, and that the observed pricing difference is associated with tax effects. In this section, we provide some additional evidence that sellers of S corporations are able to extract a tax-driven purchase price premium in return for joining acquirers in making the §338(h)(10) election.

When Regal-Beloit acquired Leeson Electric (an S corporation) in October 2000, Regal-Beloit described the effect of the §338(h)(10) election on the purchase price paid for Leeson. Specifically, Regal-Beloit noted in its October 13, 2000 8-K that the purchase price multiple for Leeson was higher than the purchase price multiple paid in a recent acquisition of a similar C corporation (Marathon Electric). Moreover, Regal-Beloit seems to represent that the premium was a direct result of the tax benefits derived from the §338(h)(10) election:
Leeson Electric was acquired for approximately $260 million in cash. The definitive agreement provides for treating the acquisition as a purchase of assets for tax purposes, utilizing a 338(h)(10) election under the Internal Revenue Code. This election will provide Regal-Beloit with a net present value of future tax benefits of an estimated $47 million. When this tax benefit is deducted from the $260 million purchase price, the result is a 7.6 times purchase multiple on Leeson’s adjusted EBITDA of approximately $28 million for the 12 months ended June 30, 2000. The purchase multiple paid for the Company’s acquisition of Marathon Electric in March 1997 was 7.5 times trailing 12-month EBITDA.

Coca-Cola Enterprises (CCE) acquired Herb Coca-Cola, Inc. in May of 2001 and CCE noted in its July 11, 2001 8-K that:

The purchase price was comprised of $1.3 billion for the bottling operations and $100 million for the value of incremental tax benefits associated with the structure of the transaction.

We contacted CCE and learned that Herb Coca-Cola, Inc. was an S corporation pre-acquisition and CCE paid Herb Coca-Cola’s shareholders a $100 million purchase price premium (as mentioned in the press release) to make the §338(h)(10) election. CCE also represented to us that it valued the tax benefits from the §338(h)(10) election at $145 million. In other words, CCE paid about 70 percent of the total tax benefits ($100 million/$145 million) in the deal to Herb Coca-Cola’s shareholders in the form of a higher purchase price. Our estimates suggest that sellers capture about 40 percent of the tax benefits from the §338(h)(10) election, so this premium is at the higher end of our estimates and CCE personnel confirmed that the seller captured a slightly larger share of the tax benefits in this deal than is typical. The financial professionals to whom we spoke at CCE also indicated that they often pay more for an S corporation than for an identical C corporation for the reasons articulated in Section II.43

Similarly, when Stoneridge acquired Hi-Stat (an S corporation) for $362 million in 1998, Stoneridge disclosed that it placed the present value of the tax benefits resulting from the §338(h)(10) election at $62 million. We spoke to individuals involved in the deal and they indicated that Stoneridge paid a premium of between $30 and $35 million to get the §338(h)(10) election, which is equal to about 50 percent of the total estimated tax benefit arising from the election.44

We are aware of sales of S corporations involving §338(h)(10) elections in which the seller received absolutely no purchase price premium to make the election. We were contacted by the owner of a relatively large S corporation that was acquired by a publicly held company in 2001 for about $500 million.45 This seller agreed to make the §338(h)(10) election for no additional compensation.46 Subsequent to the deal’s closing, and based upon the acquirer’s 8-K filing, the seller learned that the acquirer valued the incremental tax

43 Source: Sara Andersen, Corporate Manager of Acquisitions, at CCE. In the HerbCo deal, Ms. Andersen confirmed that the transaction would not have included the $100 million premium if HerbCo were a C corporation. Thus, consistent with our model and empirical analyses, she confirmed that because HerbCo was an S corporation, Coca Cola paid an approximate 10 percent premium relative to what it would have paid if HerbCo were a C corporation. See also McKay (2001).

44 The individuals spoke to us on the condition of anonymity. They also indicated that in deriving the $62 million present value of tax savings, Stoneridge used a discount rate equivalent to the then-current Treasury bill rate.

45 The individual contacted us after reading a Wall Street Journal story that mentioned this study.

46 A possibility is that the S Corp might lack tax sophistication in the transaction resulting in no or a low premium. With the engagement of a tax expert, this disadvantage may vanish.
benefits of the election at $90 million. The seller received $0 of the $90 million of incremental tax benefits arising from the tax election. 47 Similarly, an individual who attended a recent executive education course taught by one of this study’s authors explained that six months prior to selling his company to a publicly traded firm, he switched from S corporation status to C corporation status. He further indicated that his advisors did not make him aware of the potential tax-based acquisition premium and that he ultimately lost the option to receive it due to his organization form change.

V. IMPLICATIONS AND CONCLUSIONS

This paper presents a simple model that demonstrates that S corporations can fetch a tax-derived purchase price premium relative to similar C corporations. Based on this model, we compare purchase price multiples in a sample of taxable stock acquisitions of S corporations and a sample of taxable stock acquisitions of C corporations during the period 1994–2000. In general, the empirical results provide evidence supporting the conclusion that the organizational form of a target firm affects acquisition prices. Although the empirical analyses are not uniformly consistent with that conclusion, the data presented in Section IV provides additional evidence that S corporation targets fetch a tax-based purchase price premium relative to similar C corporations. We also estimate the tax benefits realized in the sample of S corporation acquisitions, and on average, these tax benefits are equal to about 12–17 percent of the deal’s value. We interpret the overall body of evidence in this study as providing support for the conclusion that the organizational form of a target firm affects the firm’s value in an acquisition. Specifically, S corporations can fetch a tax-derived purchase price premium relative to similar C corporations and purchase price premiums can be in the range of 10–20 percent of a deal’s value.

Current organizational form, valuation, and corporate finance research (e.g., Palepu et al. 2000; Brealey and Myers 2000) are silent on the impact of target firm organizational form on fair market values—the price at which assets change hands between willing sellers and buyers. This study provides evidence that in sales of privately held corporations, the target’s organizational form influences purchase prices.

The results of this study indicate that investors opting to organize the firm as a C corporation forgo significant cash flows if and when the firm is sold. The fact that so many entities are C corporations suggests that the nontax benefits associated with this organizational form (e.g., access to capital markets, ability to accommodate institutional ownership, stock option compensation plans) must be greater than the tax benefits associated with conduit organizational forms documented in this study. 48 Future research that identifies and quantifies these nontax benefits of the C corporation form may therefore be very insightful.

47 We received independent (unsolicited) corroboration of these facts from a former student who worked at the investment bank that advised the acquirer on the transaction. Consistent with our discussions with the seller, this student indicated that the seller was ignorant of the incremental benefits of the 338(h)(10) election and that the acquirer captured the entire $90 million of tax benefits resulting from that election.

48 Consider for example Cerent, which was acquired by Cisco for $6.9 billion in 1999 (see Seattle Times 1999). Privately held Cerent was organized as a C corporation. Had it been an S corporation, an additional purchase price premium of up to $1 billion would have been possible. Such a premium would have left Cerent’s shareholders with approximately three-quarters of a billion dollars more after-taxes than they actually received in the acquisition.

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REFERENCES


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