

# **Do Corporate Taxes Impede Merger and Acquisition Activity? Evidence from Private Corporations**

## **Abstract**

S corporations are the most popular corporate structure in the U.S. We study the economic effects of recent stimulus acts that remove a corporate tax burden that can fall on private S corporations, which are otherwise not subject to corporate tax, following an acquisition of all or part of the S corporation. While we find some evidence that, on average, these tax law changes reduced the price paid to complete an acquisition (i.e., at the intensive margin), we find conflicting evidence on whether the tax law changes increased the likelihood of acquisition (i.e., at the extensive margin), which was the goal of the law changes. Overall, results suggest the tax changes did not successfully achieve the desired economic stimulus, at a cost to the government of \$24.5 billion over eight years. Our results have important policy implications regarding the effectiveness of tax stimulus, including stimulus enacted following recent economic downturns.

**Keywords:** S corporations; Corporate tax; Mergers; Asset sales; Tax policy; ARRA; ATRA; SBJA; PATH Act

**JEL Classifications:** G34, H25, K34,

**Data Availability:** Some data was accessed by one of the authors under a confidentiality agreement with the Internal Revenue Service (IRS). Remaining data is derived from the public sources described in the paper.

---

One of the authors holds a position as an economist with the Statistics of Income Division of the Internal Revenue Service, however the views expressed in this paper are solely those of the authors and do not represent those of the U.S. Department of the Treasury or the Internal Revenue Service.

## I. INTRODUCTION

Private corporations known as S corporations are now the most common business entity in the U.S., with the number of S corporations growing faster than either partnerships or C corporations (Tax Foundation 2014, 2017). S corporations outnumber C corporations nearly three to one<sup>1</sup> and employ about 25% of the private sector workforce (Tax Foundation 2017). As a result of S corporations' economic significance, recent stimulus packages attempt to encourage economic activity by reducing the tax burden on the sale of either all or a portion of an S corporation's assets (Simons 2013). However, little is known about the success of these economic stimulus packages. We fill this gap in the literature by examining whether these S corporation tax changes 1) reduced acquisition premiums paid to acquire an entire S corporation or 2) increased the likelihood of acquisitions of either all or a portion of an S corporation's assets.

While C corporations are subject to the entity-level corporate income tax, S corporations are pass-through entities that generally do not face an entity-level tax. Rather, the S corporation's income and deductions "pass through" to its owners, who pay tax on their share of the S corporation's income as if they earned it directly. However, there is an important exception that requires the S corporation to pay an entity-level corporate income tax on gains arising from certain transactions *if* the S corporation was previously incorporated as a C corporation. A C corporation is generally allowed to convert to an S corporation in a tax-deferred transaction, meaning that, even if the C corporation's assets have appreciated during its life, no tax is due upon conversion. Instead, the tax on unrealized gains existing at conversion is deferred until a future realization event (i.e., sale) occurs. Prior to the conversion, the C corporation faces both an

---

<sup>1</sup> See the most recent IRS tabulations of the returns of active corporations here: <https://www.irs.gov/statistics/soi-tax-stats-table-1-returns-of-active-corporations-form-1120s>.

entity- and a shareholder-level tax on any realized gains upon a sale of its assets. Following the conversion, these “built-in gains” on the corporation’s assets would theoretically be taxed only at the shareholder level because S corporations usually do not face the entity-level tax. Absent preventative mechanisms in the tax law, this conversion option would effectively make the corporate tax optional, because C corporations could avoid entity-level taxes on their built-in gains by converting to an S corporation just prior to an asset sale or an acquisition by another entity.

The built-in gains (BIG) tax was introduced by the Tax Reform Act of 1986 (TRA86) as a mechanism to prevent C corporations from avoiding the entity-level tax by converting to S corporations prior to an asset sale or an acquisition (Van Vleet 2015).<sup>2</sup> The BIG tax rules impose an entity-level tax on the gains that existed at the time of the conversion from a C to an S corporation, but only if the gains are realized within 10 years of the conversion (Anderson 2012; Hesse 2013). That is, if a sale of the C corporation’s assets would have generated a gain at the time of conversion to S corporation (e.g., \$100 fair market value and \$75 tax basis, yielding a \$25 gain), that gain may be subject to entity-level tax if those assets are sold within 10 years of the S corporation conversion. The same assets would not be subject to the BIG tax if sold outside the 10-year BIG recognition period.

Because of the economic significance of S corporations and the need for many retiring small business owners to sell their businesses around the 2008/2009 financial crisis, lawmakers saw the potential to stimulate the economy by reducing the applicability of the BIG tax (Simons 2013; Marks 2017). Over the years following the financial crisis, numerous laws were enacted to

---

<sup>2</sup> Additional mechanisms that “backstop” the corporate tax so that taxpayers cannot frequently switch between C and S corporation status are a five-year waiting period to re-elect S status after terminating a prior S corporation election and limitations who can own an S corporation (e.g., S corporations cannot be public).

temporarily, and sometimes retroactively, reduce the BIG tax period from 10 years to either five or seven years. In 2015, the Protecting Americans from Tax Hikes (PATH) Act permanently reduced the BIG tax period from 10 years to 5 years. The overarching goal of the reductions to the BIG recognition period was to ease the tax burden on acquisitions, thus encouraging deals that reallocate assets to more productive uses and injecting additional liquidity into markets.

Underlying the reduction in the BIG tax recognition period is an implicit assumption that corporate taxes materially affect acquisition decisions and that a reduction in corporate taxes will stimulate the economy. Thus, we expect the BIG tax law changes to have two related effects.<sup>3</sup> First, removing the entity-level tax burden for S corporations that would otherwise be subject to the BIG tax (i.e., an S corporation that is more than five (or seven) years, but less than 10 years, from its conversion from a C to an S corporation), should reduce the price to acquire the S corporation. That is, owners have an after-tax reservation price at which they are willing to sell (e.g., Bradley, Desai, and Kim 1988; Ayers, Lefanowicz, and Robinson 2003). Removing the BIG tax should reduce the owner's reservation price by the BIG tax cost, thereby reducing the acquisition price. While the price reduction could operate solely at the intensive margin, affecting the price of acquisitions that would occur regardless of taxation, the goal of the tax law changes was to stimulate economic activity at the extensive margin. Thus, our second expectation is that reductions in the BIG tax recognition period encourage acquisitions of all or a portion of an S corporation through lower prices (e.g., Ayers, Lefanowicz, and Robinson 2007). We empirically analyze whether the tax law had these intended effects.

---

<sup>3</sup> Because C corporation income taxes change infrequently, and data is mainly available only for public firms (i.e., C corporations), most research on taxes and acquisition activity focuses on *shareholder-level taxes* (i.e., capital gains), which change somewhat frequently, rather than corporate taxes. We discuss shareholder-level tax research later.

Despite their economic significance, S corporations cannot be publicly held, making it difficult to study how tax law changes affect their actions. However, S corporations must file tax returns with the IRS, including information related to their potential BIG tax and any asset sales they undertake. We examine our research questions using IRS tax return data for S corporations from 2003 to 2016. We use data from the IRS Statistics of Income (SOI) division, which uses statistical sampling techniques to select a sample of tax returns that is representative of the population of returns. Using the sample of tax returns that IRS SOI obtains enables the use of a weighted sample designed to represent the population of tax returns. We use both the unweighted and weighted samples in our study. We limit our sample to those S corporations potentially affected by the BIG tax: those with built-in gains and within 10 years of their S corporation conversion date. We utilize a difference-in-differences design to compare the acquisition prices and acquisition frequencies of S corporations affected versus unaffected by the reductions in the BIG tax recognition periods. Because the BIG tax law changes were unanticipated prior to their announcement, they are plausibly exogenous shocks in our setting.<sup>4</sup>

We first examine the effect of the removal of the BIG tax on acquisition pricing, examining all BIG tax law changes together. We find evidence that the BIG tax changes reduce acquisition premiums when measured as price-to-equity ratios, but not price-to-sales ratios. We then examine the effect of the removal of the BIG tax on the likelihood of acquisitions of S corporations and asset sales by S corporations. We find unexpected evidence that BIG tax changes, when considered collectively, reduce, rather than increase, acquisition activity but have no average effect on asset sales.

We then parse out the effects of each tax law change separately. Notably, most of the law

---

<sup>4</sup> Also, importantly, the BIG tax was not eliminated entirely. Thus, C corporations could not switch to S status just before an anticipated transaction; at a minimum they still must wait 5 years to escape the corporate tax.

changes were temporary. Temporary changes may not affect economic activity because acquisitions often require long periods of due diligence, negotiation, and planning. Results suggest that the Small Business Jobs Act (SBJA) of 2010, which reduced the BIG period from 10 to 5 years only for 2011, increased acquisition activity but only marginally reduced prices, if at all. This provides some evidence that S corporations rushed to engage in transactions before the BIG was scheduled to return, in line with lawmakers' intent. This behavior is also consistent with anecdotal evidence that taxpayers rush transactions ahead of proposed capital gains increases (Karsh, Davis, and Pendleton 2021). Interestingly, however, we find that the PATH Act, which *permanently* reduced the BIG tax period from 10 to 5 years, did not affect prices but *reduced* sale and acquisition activity in the year following its enactment. Counterintuitively, this result suggests that the permanent tax change may have reduced the pressure to squeeze deals into periods with favorable tax rates.<sup>5</sup>

In sum, we find some evidence that BIG tax reductions reduce acquisition prices, as expected. However, this intensive margin effect generally does not appear to spur sale or acquisition activity, which was the larger goal of the stimulus. That is, the government appears to subsidize deals that would occur regardless of taxation. Despite the limited economic effects of these tax law changes, they were costly to the government. Specifically, our study covers 1,479 acquisitions of S corporations and 37,766 asset sales by S corporations potentially subject to BIG tax. Of these, 347 acquisitions (15,749 asset sales) occurred in the 8 years exempt from the BIG tax under the law changes we study (including when the BIG was retroactively suspended, which we do not include in our models because retroactive changes should not affect economic

---

<sup>5</sup> Our sample period ends in 2016, which is the only year affected by the PATH Act. We are unable to evaluate the economic effects of the Path Act after 2016 because these effects are impossible to disentangle from the effects of the Tax Cuts and Jobs Act of 2017.

activity). Although the exact amount of BIG avoided on these sales is not reported by S corporations, we can provide a rough estimation by examining the change in an S corporation's unrealized BIG from the end of the prior taxable year to the end of the current taxable year, less any recognized BIG.<sup>6</sup> These exempt deals represent an aggregate weighted total built-in gain of approximately \$70 billion. BIG is taxed at the highest corporate rate (Putnam 2016), 35% in our sample period, representing lost revenue to the government of \$24.5 billion over 8 years.

This study contributes to the literature in several ways. First, we add to the literature on the effects of taxes on acquisition pricing and activity. Existing literature focuses on *shareholder-level taxes of public firms* (Ayers et al. 2003, 2007), but private S corporations are now the most common business entity type in the U.S. Further, the number of public firms continues to decline as economic activity shifts to private markets (e.g., Doidge, Karolyi, and Stulz 2017; Ewens and Farre-Mensa 2020; Gaver, Mason, and Utke 2020). Despite S corporations' importance, our evidence suggests that the tax law changes in our sample period have limited effects on acquisitions of S corporations.

More broadly, we provide new evidence of the importance of *corporate taxes* in business decisions. The effects of corporate taxes are difficult to study in most settings because corporate taxes change infrequently, leading to the previously mentioned focus on shareholder-level taxes. As such, Jacob (2021) calls for additional research in this area. Our results suggest that, for major corporate decisions such as acquisitions (or divestitures, from the S corporation's perspective), taxes affect the pricing (intensive margin) of transactions but have limited effect on their likelihood (extensive margin).

---

<sup>6</sup> At the simplest level, the change in the unrealized BIG from one year to the next should equal the recognized BIG plus the expired/eliminated BIG. We assume that the change less the recognized BIG equals the expired BIG. An S corporation can have both recognized and expired BIG in the same period because it is possible to acquire BIG (Anderson 2012), so that the acquired BIG is still within the (shortened) BIG recognition window.

Second, we evaluate the success of the BIG tax reductions in terms of economic stimulus, providing important information to policymakers. Our results suggest that the BIG tax reduction provided little economic benefit at a large cost. Policymakers may wish to reconsider this policy change and consider an increase in the BIG tax recognition period as a revenue raising provision. Our study also suggests corporate tax changes may not be effective at stimulating merger and acquisition markets overall, an important consideration given stimulus discussed around recent economic downturns. Overall, our results are consistent with recent evidence in other settings that tax cuts have limited economic effects (e.g. DeBacker, Heim, Ramnath, and Ross 2019).

## **II. BACKGROUND, PRIOR LITEARTURE, MODEL, AND HYPOTHESES**

### **2.1 Tax Law Change Background**

As pass-through entities, S corporations are generally not subject to entity-level tax. Owners pay tax on the S corporation income at their marginal tax rate as if they earned the income directly. An important exception to this rule is the BIG tax, which applies an entity-level, corporate tax to sales of all or a portion of an S corporation's assets. This tax is triggered only under certain circumstances. First, the S corporation must have converted from a C to an S corporation within the past 10 years.<sup>7</sup> Second, the asset or assets being sold must have had a built-in gain at the time the C corporation converted to S corporation status. Thus, even though S corporations are numerous and economically significant, the portion of the population affected by BIG taxes may be small. That said, BIG taxes can be substantial for this segment of the population. In our full, weighted S corporation sample (15,989,382 observations, untabulated), approximately 0.09 percent of weighted S corporation year observations (13,992 observations, untabulated) report a positive BIG tax *liability*. However, the aggregate weighted taxable built-in

---

<sup>7</sup> For details on why C corporations convert to S corporations, see, e.g., Plesko (1994, 1995a, b).



gain reported by these S corporations throughout our sample period is \$4 billion, which would result in an aggregate weighted built-in gain tax equal to \$1.4 billion (\$4 billion \* 35%). Overall, our weighted sample consists of 132,054 S corporation year observations (0.8% of total weighted observations) with positive net *unrealized* built-in gains equal to \$247 billion. If all net unrealized built-in gains were taxed, this would generate \$6 billion of tax revenue ( $\$247/14 * 35\%$ ).<sup>8</sup> In sum, not surprisingly, relatively few S corporations have built-in gains because these only apply to S corporations that were previously C corporations, but the dollar amounts involved are economically significant.

Given these economically significant tax amounts, the BIG tax represents a market friction that potentially: a) results in fewer sales of appreciated assets by S corporations than would otherwise occur in its absence, b) results in higher sales prices than would exist absent the tax, or c) delays sales of appreciated assets until the BIG tax applicability window passes. To mitigate this friction and stimulate the private sector, Congress enacted multiple changes to the BIG recognition period between 2009 and 2015.

First, on February 17, 2009, the American Recovery and Reinvestment Act (ARRA) of 2009 was enacted, reducing the BIG period from 10 to 7 years for sales in 2009 and 2010. Thus, C corporations that converted to S corporations from 2000 to 2003 could avoid BIG tax through sales occurring in 2009 or 2010, while all other S corporations with built-in gains and S corporation election dates before 2000 or after 2003 were unaffected by the change in the BIG recognition period. However, this was a temporary provision only covering sales occurring within a two-year period. Further, and perhaps more problematic than being temporary, the ARRA only deferred the BIG under certain circumstances, allowing it to “spring back” in a later

---

<sup>8</sup> To avoid double counting – that is, an S corporation that does not trigger a BIG tax reports that unrealized built-in gain for up to 10 years – we divide the total unrealized built-in gain by the number of years (N) in our sample.

year after the expiration of the temporary seven-year BIG period (Heese 2013). The BIG tax applies to the lesser of the recognized built-in gain or the S corporation's total taxable income.<sup>9</sup> Under ARRA, if the taxable income limitation applies in computing the BIG tax, any excess BIG tax carries over to a future year until the firm is outside the original (10 year) BIG recognition period.<sup>10</sup> Thus, firms with low current year income would only receive deferral, rather than exemption, from BIG tax under ARRA.<sup>11</sup> Therefore, these low income firms might not benefit substantially from this law change.

The Small Business Jobs Act (SBJA) of 2010, enacted September 27, 2010, reduced the BIG period to 5 years for sales occurring in 2011.<sup>12</sup> Thus, C corporations that converted to S corporations between 2002 and 2006 could avoid BIG tax by undertaking sales in 2011. However, this law still contained the provision allowing the BIG tax to “spring back” in a future year due to the carryover provisions discussed above (Heese 2013).

The American Taxpayer Relief Act (ATRA) of 2012, enacted January 2, 2013, reduced the BIG period to 5 years retroactive for sales that occurred in 2012 and for sales occurring in 2013. These rules benefited C corporations that converted to S corporations between 2002 to 2008. Further, this law eliminated the possibility of a “spring back” by also adjusting the carryover rules. Thus, the ATRA renders the “spring back” provisions under the ARRA and

---

<sup>9</sup> The recognized built-in gain is equal to the lesser of the built-in gain or the gain recognized upon sale.

<sup>10</sup> Consider an S corporation with a recognized built-in gain of \$100, taxable income of \$10, and a corporate tax rate of 35% in the current year. Due to the taxable income limit, the S corporation would only pay \$3.50 of BIG tax in the current year ( $\$10 * 35\%$ ) and would carry forward to a future tax year \$90 of BIG.

<sup>11</sup> A high-income S corporation would be fully exempt from their potential BIG tax on sales made in 2009 or 2010, but a low-income S corporation faces the possibility of paying BIG on asset sales made in 2009 or 2010 in 2011 or later under the carryover rules, but subject to the same current year income limitation where the BIG tax applies to the lesser of recognized BIG or taxable income (Heese 2013). As such, if a low-income S corporation remains persistently low-income, it may never realize sufficient income to trigger the full amount of the BIG tax.

<sup>12</sup> The SBJA also fully exempted some C corporation stock from capital gains taxation. Like the BIG tax change, this provision was initially temporary but became permanent in 2015. Edwards and Todtenhaupt (2020) study the effect of this change, which affected only C corporations and is not relevant to S corporations.

SBJA moot, but taxpayers had no way to predict this change in 2009, 2010, or 2011 (or even 2012). The ATRA and other legislation at this time also increased the maximum ordinary tax rates (from 35% to 39.6%) and capital gains tax rates (from 15% to 23.8%). Because S corporation income flows through to the owners, who must be individuals (with limited exceptions), this tax increase could potentially offset some of the benefits of the reduced BIG tax period.

The Tax Increase Prevention Act (TIPA) of 2014, enacted December 19, 2014, retroactively maintained the five-year BIG period for 2014. This benefited C corporations that became S corporations between 2005 and 2009. However, because this was retroactive, it may not have affected firms' decisions during 2014 (Simons 2015).<sup>13</sup> Finally, on December 18, 2015, the PATH Act was enacted, permanently reducing the BIG tax recognition period to 5 years from 10 years for 2015 and all later years (Putnam 2016). Note that the 2015 change was largely retroactive, similar to the 2014 change. We treat 2016 rather than 2015 as the “post” period for the PATH Act. The change under the PATH Act benefitted C corporations that converted to S corporations between 2006 and 2010, but as a permanent tax change, it also benefits any C corporations converting after this date because those firms can expect to face the five, rather than the 10, year BIG period. Figure 1 presents a timeline of the tax rate changes we discuss here and illustrates how they fit into our empirical analyses.

INSERT FIGURE 1 HERE

## **2.2 Prior Literature and Hypotheses**

We examine the effect of the various changes to the BIG recognition periods on the sales

---

<sup>13</sup> Note that we exclude all retroactive law changes from the “post” periods in our tests because retroactive law changes are unable to affect taxpayer behavior. However, we include these years in our economic magnitude calculations because they represent years with lost government revenue.

of all or a portion of an S corporation's assets. Our study is most closely related to Ayers et al. (2003, 2007), who find that taxes levied on the shareholders of publicly traded corporations affect the prices paid in acquisitions and the likelihood of acquisitions.<sup>14</sup> Guenther and Willenborg (1999) examine how shareholder-level taxes affect the pricing of initial public offerings (IPOs). However, as noted by Edwards and Todtenhaupt (2020), findings on tax effects in public markets do not necessarily carry over to private markets because of substantial differences between the two markets. For example, taxes may not be a first order consideration for private corporations (e.g., Myers et al. 1998); upon receipt of an offer (which can be a substantial dollar amount), S corporation managers may focus primarily on completing the transaction. Notably, our study focuses on corporate income taxes of the selling entity, rather than the seller's shareholder-level taxes that are central to prior work.<sup>15</sup>

Our study also relates to the broader literature on tax-based stimulus programs (e.g., Berger, Turner, and Zwick 2020, among many others). Numerous studies show that tax-based stimulus packages may (Cummins, Hassett, and Hubbard 1994; House and Shapiro 2008; Faulkender and Petersen 2012; Campbell, Chyz, Dhaliwal, and Schwartz 2013; Brennan 2014; Serrato and Zidar 2016; Ohrn 2019) or may not (Blouin and Krull 2009; Edgerton 2010; Dharmapala, Foley, and Forbes 2011; Yagan 2015; Hines and Park 2017; Zwick and Mahon 2017; Bethmann et al. 2018; Langenmayr and Lester 2018; Dobridge 2021; Luchs-Nuñez, Plesko, and Utke 2021) achieve the desired stimulus effect. Several studies examine these questions specifically for small businesses. On one hand, Howell and Mezzanotti (2019) focus

---

<sup>14</sup> Todtenhaupt, Voget, Feld, Ruf, and Schreiber (2020) extend this analysis to acquisitions of corporate subsidiaries in a global sample. Their study focuses on the shareholder-level taxes of the selling *corporation* (i.e., the corporate subsidiary's parent) rather than the selling individuals and institutions as in Ayers et al. (2003, 2007).

<sup>15</sup> Blouin, Fich, Rice, and Tran (2021) examine the effect of a lower corporate tax rate at an *acquirer* on that acquirer's acquisition activity. Thus, their study analyzes how a tax-induced reduction in financial constraints (see Edwards, Schwab, and Shevlin 2016 and Campbell, Goldman, and Li 2021) of an acquirer affects acquisitions. We focus on corporate taxes of the target.

on small business incentives and examine the effect of tax credits for entrepreneurship, finding that these incentives have no meaningful effect on real economic outcomes. DeBacker et al. (2019) similarly find little evidence that a state-level small business income tax cut increases economic activity. On the other hand, Edwards and Todtenhaupt (2020) find that removal of the capital gains tax for sales of small business stock helps these businesses raise capital.<sup>16</sup> Thus, even within the context of small businesses, it is unclear whether tax changes intended to stimulate activity actually achieve the desired objective.

Finally, because S corporations are private, relatively little research examines acquisitions of S corporations, unless the acquisition is completed by a public firm or otherwise reported to a database (e.g., Lynch, Romney, Stomberg, and Wangerin 2019). We overcome this limitation by using IRS data that captures the population of S corporations. Tangentially related to our paper, Erickson and Wang (2007) examine 77 stock acquisitions of S corporations by public firms (i.e., C corporations). The small number of observations illustrates the difficulty in examining S corporations. They find that S corporation targets receive a price premium relative to C corporation targets because the acquiring C corporation can obtain a stepped-up tax basis when acquiring an S corporation. Thus, the acquirer pays extra to receive additional tax benefits (similar to Ayers, Lefanowicz, and Robinson 2000 in a different setting). Erickson and Wang (2007) do not explore corporate taxes faced by S corporations. Also, all targets in our sample consist of S corporations so that differences in prices between C and S corporation targets do not enter into our hypotheses or analyses.

### **2.3 Model and Hypotheses**

---

<sup>16</sup> Studies also find mixed evidence on firms' organizational form choice following recent tax cuts. Henry, Plesko, and Utke (2018) present an analytical model suggesting that a pass-through entity (e.g., S corporation) tax deduction will have ambiguous effects on organizational form. Goodman, Lim, Sacerdote, and Whitten (2021) find empirical evidence consistent with this prediction. Full discussion of organizational form choice is beyond this paper's scope.

In this section, we use a simple model of the effect of the tax law changes on acquisitions to derive our hypotheses, largely following Bradley et al. (1988). Broadly, for a firm to sell itself, the reservation price of the owner controlling the  $i$ th share must be met.<sup>17</sup> That is,

$$P_A \geq P_R \quad (1)$$

where  $P_A$  is the acquisition price and  $P_R$  is the reservation price.

Bradley et al. (1988) note that heterogeneous shareholder level taxes can affect the reservation price so that the reservation price will be higher for some shareholders than for others, because some shareholders face higher taxes than other shareholders. We expand equation (1) to show this, as follows:

$$P_A \geq P_{\text{After-Tax}} + \text{tax} \quad (2)$$

where  $P_{\text{After-Tax}}$  represents the after-tax reservation price that the owner requires, and  $\text{tax}$  represents the total tax upon sale. Thus, in this case, the acquirer must pay the pre-tax acquisition price, which equals the after-tax reservation price the owner must receive, plus the amount of tax that must be paid to the government. In an S corporation sale, income flows through to the shareholders so that they pay tax at the shareholder-level, and the S corporation will pay any BIG tax at the entity level. Thus, further expansion of equation (2) yields:

$$P_A \geq P_{\text{After-Tax}} + \text{tax}_{sh} + \text{tax}_{big} \quad (3)$$

where  $\text{tax}_{sh}$  and  $\text{tax}_{big}$  represent the shareholder-level tax and the BIG tax, respectively.

With the exception of the ATRA discussed above, shareholder-level taxes are not affected by any of the law changes we study. As such, the fact that  $\text{tax}_{sh}$  may vary across shareholders is not relevant to our analysis. The effect of the BIG law change is the removal of the BIG tax that would otherwise be imposed on sales by firms inside of the 10-year BIG

---

<sup>17</sup> For asset sales, this can just as easily be thought of as the managerial team, rather than the shareholders.

window. The next equation, describing the acquisition price with and without BIG tax, naturally follows from equation (3):

$$P_A \geq P_{\text{After-Tax}} + tax_{sh} + tax_{big} > P_{\text{After-Tax}} + tax_{sh} \quad (4)$$

Thus, in this simple model, the acquisition price with BIG exceeds the acquisition price without BIG. This leads to our first hypothesis:

**H1:** Following a reduction in the built-in gains tax recognition period, prices paid to acquire S corporations decline.

From the acquiring firm's perspective, for the acquisition to be worthwhile, the value of the firm to the acquirer ( $V_A$ ) must exceed the price of the acquisition, for example, due to synergistic gains the acquirer can derive from the acquired firm. That is:

$$V_A \geq P_A \quad (5)$$

Thus, the simple model suggests that when  $P_A$  is lower due to the removal of the BIG tax (equation 4), the acquirer can derive a smaller gain (e.g., generate less synergies) but still make the acquisition worthwhile. This leads to our second hypothesis:

**H2:** Following the reduction in the built-in gains tax recognition period, the likelihood of acquisitions of S corporations (or their assets) increase.

Despite the relations presented in this simple model, there are several reasons why these predictions may not hold in our sample. First, upon deciding to undertake an acquisition, the price that the acquirer is willing to pay may substantially exceed the seller's reservation price, regardless of taxes. That is, acquirers may only begin the acquisition process for targets that they value highly, so that at the margin, the tax rate has little effect on the decision to undertake an acquisition. In terms of the pricing effect, the BIG tax may be relatively small compared to the total price paid and, therefore, not materially affect the total acquisition price. Relatedly, taxes may not be a first order factor in firm decisions (e.g., Myers et al. 1998; Maydew 2001). Second,

potentially unsophisticated S corporation owners may be unaware of all the tax consequences to their transactions, making them less likely to factor taxes into their sales negotiations.<sup>18</sup>

### **III. RESEARCH DESIGN**

#### **3.1 Sample Selection**

We use a difference-in-differences methodology to analyze the effects of BIG tax changes on S corporation premiums, acquisition activity, and asset sales between 2003 and 2016. Our data consists of tax return data (Form 1120-S) obtained from the IRS for S corporations.<sup>19</sup> The sample includes firms that become S corporations in 1993 or thereafter, because any firm converting to S corporation status prior to 1993 would be outside of the BIG recognition period in the first year of the sample. This yields an unweighted sample (i.e., tax returns the IRS SOI actually selects) of 186,998 S corporation-years.

Because the maximum BIG period is 10 years, we limit our sample observations to those within 10 years of the effective date of the S corporation election, so that all sample S corporations are potentially subject to the BIG tax, absent any tax law changes. Similarly, we require that S corporations have positive net unrealized built-in gains (NUBIG), which is what triggers BIG tax. Absent NUBIG, BIG tax will not apply. Finally, we require non-missing dependent and control variables for our acquisition activity tests. This results in 11,010 individual (unweighted) S corporation-year observations in our sample, designed by SOI to

---

<sup>18</sup> Discussion with practitioners indicates that this happens in practice. Erickson and Wang (2007, footnote 3) also highlight this fact.

<sup>19</sup> Mason and Utke (2019) highlight potential challenges in dealing with tax return data in that tax returns often do not reflect consolidated business entities (or “firms”). That is, a single business may file hundreds or thousands of separate tax returns with the IRS. S corporations avoid some of these issues because they generally can only be owned by individuals, not other businesses. However, they still may be part of a commonly controlled group of entities with one or several common individual owners. Regardless, because we study an acquisition setting, common ownership structures should not affect the real decisions of acquirers and sellers. Slemrod (2016) also notes challenges of using administrative tax return data in studies. While advantageous and required for our setting, we acknowledge our data are not perfect.



represent 132,054 (weighted) S corporation-years in the population of S corporation filers. For our acquisition price tests, we obtain data for acquired S corporations from their purchase price allocation form, Form 8594. This yields 252 individual (unweighted) S corporation-years, representing 1,479 (weighted) S corporation-years in the population of Form 1120-S filers.

INSERT TABLE 1 HERE

### 3.2 Acquisition Premiums

We first examine the effects of BIG tax changes on the purchase price multiples for acquisitions of a group of assets that makes up a trade or business (i.e., acquisition of the entire S corporation) of affected S corporations.<sup>20</sup> We compare these price multiples in the years before the law change to the years after, controlling for other factors that influence multiples (e.g., Ayers et al. 2003; Erickson and Wang 2007). We estimate the following model as ordinary least squares (OLS) in our unweighted sample and as weighted OLS (WLS) in our weighted sample of S corporation-years as follows:

$$\begin{aligned}
 Multiple_{it} = & \beta_0 + \beta_1 Treat_i + \beta_2 Post_t + \beta_3 Treat_i * Post_t + \beta_4 NUBIG_{it-1} + \\
 & \beta_5 Size_{it-1} + \beta_6 ROA_{it-1} + \beta_7 Sales\_Growth_{it-1} + \beta_8 Liquidity_{it-1} + \\
 & \beta_9 Leverage_{it-1} + \beta_{10} CG\_Rate_t + \beta_{11} MedMTB_{t-1} + \beta_{12} STInt/LTInt_t + \\
 & \beta_{13} AAA_t + \beta_{14} GNP_t + \beta_{15} Agg\_ACash_t + \beta_{16} IndShock_{t-1} + \\
 & \beta_{17} Ind\_Acq\_Percentage_{jt} + Industry\ FE + \varepsilon_{it}
 \end{aligned} \tag{6}$$

The dependent variable in equation (6) is one of two purchase price multiples: price (as reported by the selling S corporation on Form 8594) to either sales or equity, following Erickson and Wang (2007). We estimate equation (6) on only the subset of S corporations that file Form 8594 “Asset Acquisition Statement Under Section 1060” as the seller in a given year.

---

<sup>20</sup> Technically, this includes either taxable asset acquisitions or taxable stock acquisitions treated as asset acquisitions under IRC Section 338. SOI does not collect information about individual asset sales prices from Form 4797. As a result, we are unable to examine purchase price multiples for individual asset sales. That said, the primary goal of the BIG tax changes was to increase the likelihood of sales, which we study below.

In our main difference-in-differences specification, treatment observations are those that are affected by any of the four non-retroactive BIG law changes. The indicator variable *Treat* equals one for firms that converted to S corporation status between 2000 and 2010 and which had positive NUBIG upon becoming an S corporation. Figure 2, Panel A illustrates this feature of our research design. The indicator variable *Post* equals one for years after each of the law changes: 2009, 2010, 2011, 2013, and 2016. Figure 2, Panel B illustrates this feature of our research design. The coefficient on our variable of interest, *Treat\*Post*, represents the effect of BIG tax changes on the price multiples of S corporation acquisitions absent the BIG tax as compared to S corporation acquisitions for which BIG tax applies. Figure 2, Panel C illustrates the *Treat\*Post* observations in our sample. H1 predicts a negative coefficient as prices decrease when BIG tax does not apply.

INSERT FIGURE 2 HERE

We control for firm and macroeconomic characteristics that affect acquisition activity, including control variables from Ayers et al. (2007). At the S corporation level, we control for reported NUBIG, size, profitability, sales growth, liquidity, and leverage of the selling firm. At the macroeconomic level, we control for the maximum long-term capital gains tax rate, median market-to-book ratio for publicly traded firms, ratio of short-term to long-term interest rate on treasury bonds, yield on AAA rated bonds, real gross national product, aggregate change in corporate net cash flows, a proxy for growth shock in a firm's industry, and the percentage of firms acquired in firm *i*'s industry. We also include industry fixed effects based on three-digit NAICS and cluster standard errors by year.<sup>21</sup> Appendix A presents details on variable construction.

---

<sup>21</sup> The IRS SOI sampling procedure is not designed to repeatedly sample the same corporations; rather, the sample is selected to obtain corporations that represent many corporations in the population, indicating that they are

While the primary analyses examine the overall effect of multiple changes to the BIG tax recognition period, we also use two alternative approaches which consider subperiods relating to each of the four law changes that occur during the sample period. Specifically, a concern with our research design is that the *Treat \* Post* interaction includes some observations not directly impacted by the law change (see Figure 2, Panels C and D). This feature is inherent in the static nature of the *Treat* and *Post* variables. In our first approach to address this, we modify equation (6) by replacing *Post* with four separate indicator variables, each representing the post year(s) for each specific law change: *ARRA*, *SBJA*, *ATRA*, and *PATH*.<sup>22</sup> We redefine the treatment indicators to reflect only the observations directly impacted by each tax law change. Our coefficients of interest are then the interactions of each of these indicator variables with *Treat*. In this way, each coefficient represents the effect of each separate law change, which provides additional insight given the different attributes of each law.

As a second approach to address the concern of static treatment and post periods in the main sample, we conduct separate regressions to understand the standalone effects of *ARRA*, *SBJA*, and *ATRA*.<sup>23</sup> In each of the separate regressions, we compare the difference in outcomes for a sample of S corporation-years affected by that specific law change before and after the law change to the difference in outcomes for a control sample of S corporation years unaffected by the law change. In each specification, we define the pre-law change period as tax years ending between 2003 and 2008, prior to the first BIG tax law change. For example, in the *ARRA* standalone analysis, treated S corporation-years are those with positive *NUBIG* and an *S* election

---

interchangeable across years. That said, some corporations are unique and are repeatedly sampled because there are no other equivalent firms. Regardless, clustering by firm is problematic due to few observations per cluster.

<sup>22</sup> As mentioned above, we do not include an indicator variable for *TIPA* because it only retroactively reduced the BIG recognition period and, thus, does not have the potential to affect economic activity in a post enactment period.

<sup>23</sup> Because the *PATH* Act affects only the last year of the sample, it is not subject to the concern that we misclassify observations not affected by the *PATH* Act (see Figure 2, Panels C and D). Thus, this additional test is unnecessary for the *PATH* Act.

date falling between 2000 and 2003, control S corporation years are those with positive NUBIG and an S election date outside of the 2000-2003 window (but still within 10 years of the S election date), and the ARRA indicator is equal to one for tax years ending in 2009 and 2010. The sample window for this example is 2003 to 2010.

### **3.3 Likelihood of Acquisition or Asset Sale**

We next examine the effects of BIG tax law changes on the likelihood of acquisition of, or selling assets by, affected S corporations. Our analysis mirrors that in equation (6), except that we change the dependent variables to indicator variables and use logit estimation rather than OLS. The dependent variables for the likelihood analyses are indicator variables representing either an acquisition (*Acquired*) or asset sale (*Asset\_Sale*). *Acquired* equals one if an S corporation is acquired, as indicated by filing Form 8594 (Asset Acquisition Statement) with the IRS in year  $t$  as a seller, and zero otherwise. *Asset\_Sale* equals one if an S corporation sells assets in year  $t$  but does not sell the entire business, and zero otherwise. We identify such asset sales when a firm reports a non-zero amount on Form 1120-S line 4 for gain or loss on asset sales but does not file Form 8594. Thus, this analysis includes the full sample of S corporations with positive NUBIG and is not restricted to only acquired S corporations. H2 predicts a positive coefficient on *Treat\*Post*, which would indicate that the BIG tax decrease encourages acquisitions and asset sales. As with the likelihood analysis, we also perform these analyses using subperiod indicators and separately for each law change.

## **IV. RESULTS**

### **4.1 Descriptive Statistics**

Table 2, Panel A presents descriptive statistics for our unweighted sample of firms with positive NUBIG. We winsorize all continuous variables at 1% and 99%. Appendix A presents

variable definitions. About 2.3% (58.0%) of firm-years are acquired (sell assets outside of an acquisition), with the likelihood of acquisition (sale) appearing slightly higher in control rather than treatment firms.<sup>24</sup> Price-to-sales appears similar across groups, as does price-to-equity. Treatment and control firms appear relatively similar on other firm-specific dimensions. Because our hypotheses focus on treatment firms in the post period, we defer discussion of results to our multivariate tests.

#### INSERT TABLE 2 HERE

Table 2, Panel B presents descriptive statistics for the weighted sample of positive NUBIG firms. In the weighted sample, we see some larger apparent differences across firm attributes. First, the price-to-sales (price-to-equity) ratio appears higher (lower) for treatment than control firms. Again, our results rely on a “post” period interaction, so these statistics do not provide insight into our hypotheses. We note that the standard deviation of the price-to-equity ratio is quite large in both the unweighted and the weighted sample of S corporation-years, suggesting it is more variable than the price-to-sales ratio. This is because an S corporation can have negative equity, while sales are always positive. If we restrict our sample to the 240 S corporation year observations with positive equity, our results are unchanged.

For reference, Table 2, Panel C presents the unweighted sample when removing the requirement that the control firms have positive NUBIG (i.e., all S corporations within 10 years of their S election date where the election is made in 1993 or later). Interestingly, we find that these control firms have far fewer acquisitions and asset sales than our positive NUBIG firms. Because BIG taxes only apply to positive NUBIG firms, this provides some evidence that taxes are not a first order factor in acquisition and asset sale decisions. The substantial differences

---

<sup>24</sup> IRS regulations prevent us from presenting extensive descriptive statistics (e.g., medians) because these statistics can represent a disclosure of information related to a specific taxpayer.

between treatment and control firms here also suggest that positive NUBIG firms appear to fundamentally differ from other S corporations, supporting our choice to limit our regression sample to positive NUBIG firms.

#### **4.2 Multivariate Results – Acquisition Premiums**

Table 3 presents results for estimating equation (6) for acquisition premiums. Column 1 and 2 (3 and 4) present results for price-to-sales (price-to-equity) multiples. We find no evidence that BIG tax reductions affect price-to-sales multiples in acquisitions either in the unweighted (column 1) or weighted (column 2) samples. In columns 3 and 4, however, we find that the BIG tax reduction results in a significant reduction in premiums measured using price-to-equity ratios (coefficient on *Treat\*Post* equal to -3.712 for the unweighted and -4.172 for the weighted sample, each with  $p < 0.01$ ). Interestingly, we also find some evidence that the size of the NUBIG itself is positively related to acquisition premiums (column 4), perhaps reflecting that firms with larger NUBIG have more valuable assets, on average. Thus, we find some evidence supporting H1, finding that BIG tax reductions reduce acquisition premiums (i.e., an intensive margin effect) measured as a price-to-equity ratio.

INSERT TABLE 3 HERE

#### **4.3 Multivariate Results – Likelihood of Acquisition and Asset Sale**

Reduced acquisition price from BIG tax reductions was not policymakers' primary goal in enacting the reductions, however. Policymakers desired to encourage acquisition activity (i.e., an extensive margin effect) by reducing prices acquirers must pay for targets. To examine this, we re-estimate equation (6) as a logit to assess the likelihood that an S corporation is acquired or sells some of its assets following the removal of the BIG tax.<sup>25</sup>

---

<sup>25</sup> Interactions can be difficult to interpret in nonlinear models such as logit (e.g., Ai and Norton 2003). However, Puhani (2012) shows that difference-in-difference nonlinear models are interpretable.

Table 4, columns 1 and 2 (3 and 4) present results for acquisitions (asset sales). In columns 1 and 2, we find evidence that the reduction of the BIG tax *reduced*, rather than increased, acquisition activity in both the unweighted and weighted samples (coefficient on *Treat\*Post* equal to -0.538 for the unweighted and -2.724 for the weighted sample, each with  $p < 0.05$ ). While this is counterintuitive, we explore this further in additional analyses.

INSERT TABLE 4 HERE

In columns 3 and 4, we find no evidence that the BIG tax reduction increased asset sales. This may reflect asset sales occurring in the ordinary course of business, regardless of tax consequences, or reflect relatively small tax liabilities arising from asset sales. Overall, we are unable to find evidence supporting H2, meaning that our data are not consistent with BIG tax reductions increasing acquisition and asset sale activity. Combined, the results from H1 and H2 suggest that policymakers desiring to raise revenue could consider re-instituting the BIG tax and that this may not have substantial negative economic consequences.

## V. ADDITIONAL ANALYSES

### 5.1 Subperiod Analyses

To provide additional insight on our results, we analyze each BIG tax law reduction separately. As discussed earlier, each law change had different attributes which could alter their economic effects. To perform this analysis, we create separate treatment and post period indicators for those firms and time periods specifically affected by each law change (see Figure 2, Panel D). For example, the ARRA reduced the BIG tax period from 10 to 7 years for sales occurring in 2009 and 2010. Thus, in this example we use these two years as the post period, which we designate *ARRA* to represent the ARRA period. S corporations that otherwise would have been subject to BIG tax in 2009 and 2010 – that is, those in their 8<sup>th</sup>, 9<sup>th</sup>, or 10<sup>th</sup> years of S

corporation status in 2009 or 2010 – are the treatment group, *Treat\_ARRA*. This includes S corporations converting in 2000, 2001, 2002, or 2003. The separate variables for the other three law changes, the SBJA, ATRA, and PATH are created similarly, only designating treatment firms including the specific observations affected by the law change based on the time elapsed since their S corporation election date.

Table 5 presents results. Panel A presents results for acquisition prices. We find that the price effects documented earlier in Table 3 are concentrated in the ATRA. The ATRA may have had a stronger effect on prices because it did not include the BIG “spring back” that existed under the prior law changes (ARRA and SBJA).

INSERT TABLE 5 HERE

Table 5, Panel B presents results for the likelihood of acquisition (columns 1 and 2) or asset sales (columns 3 and 4). We find evidence that the SBJA had the intended effect of increasing both acquisition and sale activity. Specifically, we find that the coefficient estimates for *SBJA\*Treat\_SBJA* are significantly positive for both the unweighted and weighted samples for acquisitions (0.838 and 2.189) and asset sales (0.095 and 0.838) at the 5% level or better. However, this is offset by the reduction in activity following the PATH Act (coefficients of -2.337, -0.233, and -0.413) significant at the 5% level or better. The temporary nature of the SBJA could drive an increase in acquisition activity to “beat the clock” while the PATH Act could have an opposite effect as taxpayers can take time to plan transactions knowing the BIG tax period is permanently reduced to 5 years. Importantly, the effects documented for SBJA may reflect “shifting” of transactions that otherwise would have occurred in later years rather than real increases in economic activity at the extensive margin.

## **5.2 Stand-Alone Analysis for each Separate Period Analysis**



Finally, we analyze the effect of *ARRA*, *SBJA*, and *ATRA* on a standalone basis in Table 6. To do so, we estimate separate regressions containing only the post period applicable to a specific law change. That is, each coefficient estimate in Table 6 represents the result from a separate regression, which is not tabulated for brevity. The pre-period used as the benchmark for each law change is comprised of S corporation years ending in 2003 through 2008. In Panel A, we examine acquisition premiums. Consistent with Table 5, the reduction in price-to-equity ratios is concentrated in the post-*ATRA* period. We also find some evidence of a reduction in price-to-sales ratios following *ARRA*. In Panel B, we also again find that *SJBA* is associated with increased acquisition and asset sale activity using a standalone empirical specification, consistent with Table 5. Note that we do not separately examine the *PATH* Act. As shown in Figure 2 Panels C and D, the subperiod analysis for the *PATH* act is equivalent to a standalone analysis because the *PATH* Act only affects the last year of our sample.

INSERT TABLE 6 HERE

## VI. CONCLUSION

In this study, we use *IRS* data to obtain a comprehensive sample of private S corporations, the most common business entity in the U.S., and examine whether tax laws intended to stimulate acquisitions of, and asset sales by, these corporations were effective. We contribute to the broad academic research that examines the effect of taxes on asset and merger and acquisition prices and activity. Prior studies focus almost exclusively on the acquisition pricing of public corporations, due to data availability, and the effect of only shareholder level taxes, because corporate tax rates rarely change. While we find some evidence that a corporate tax reduction reduced the sales prices of S corporations, we find little evidence that economic activity increased, which was the legislative goal of these tax reductions. Thus, removal of the

BIG tax on S corporations appears primarily to subsidize acquirers, reducing the purchase price they pay, at a tax cost to the government without substantial increases in economic activity.

## References

- Ai, C., and E. C. Norton. 2003. Interaction terms in logit and probit models. *Economic Letters* 80: 123-129.
- Anderson, K. D. 2012. The S corporation built-in gains tax: Commonly encountered issues. *The Tax Adviser* March 1.
- Ayers, B. C., C. E. Lefanowicz, and J. R. Robinson. 2000. The effects of goodwill tax deductions on the market for corporate acquisitions. *The Journal of the American Taxation Association* 22 (Supplement): 34-50.
- Ayers, B., C. Lefanowicz, and J. Robinson. 2003. Shareholder taxes in acquisition premiums: The effect of capital gains taxation. *Journal of Finance* 58 (6): 2783-2801.
- Ayers, B., C. Lefanowicz, and J. Robinson. 2007. Capital gains taxes and acquisition activity: Evidence of the lock-in effect. *Contemporary Accounting Research* 24 (2): 315-344.
- Berger, D., N. Turner, and E. Zwick. 2020. Stimulating housing markets. *Journal of Finance* 75 (1): 277-321.
- Bethmann, I., M. Jacob, and M. Müller. 2018. Tax loss carrybacks: Investment stimulus versus misallocation. *The Accounting Review* 93 (4): 101-125.
- Blouin, J. L., E. M. Fich, E. M. Rice, and A. L. Tran. 2021. Corporate tax cuts, merger activity, and shareholder wealth. *Journal of Accounting and Economics* 71: 101315.
- Blouin, J., and L. Krull. 2009. Bringing it home: A study of the incentives surrounding the repatriation of foreign earnings under the American Jobs Creation Act of 2004. *Journal of Accounting Research* 47 (4): 1027-1059.
- Bradley, M., A. Desai, and E. H. Kim. 1988. Synergistic gains from corporate acquisitions and their division between the stockholders of the target and acquiring firms. *Journal of Financial Economics* 21: 3-40.
- Brennan, T. J. 2014. Where the money really went: A new understanding of the AJCA tax holiday. Working paper, Harvard Law School.
- Campbell, J. L., J. A. Chyz, D. S. Dhaliwal, and W. C. Schwartz. 2013. Did the 2003 Tax Act increase capital investments by corporations? *Journal of the American Taxation Association* 35 (2): 33-63.
- Campbell, J. L., N. C. Goldman, and B. Li. 2021. Do financing constraints lead to incremental tax planning? Evidence from the Pension Protection Act of 2006. *Contemporary Accounting Research* 38 (3): 1961-1999.
- Cummins, J. G., K. A. Hassett, and R. G. Hubbard. 1994. A reconsideration of investment behavior using tax reforms as natural experiments. *Brookings Papers on Economic Activity* 1994 (2): 1-74.
- DeBacker, J., B. T. Heim, S. P. Ramnath, and J. M. Ross. 2019. The impact of state taxes on pass-through businesses: Evidence from the 2012 Kansas income tax reform. *Journal of Public Economics* 174: 53-75.
- Dharmapala, D., C. F. Foley, and K. J. Forbes. 2011. Watch what I do, not what I say: The unintended consequences of the Homeland Investment Act. *Journal of Finance* 66 (3): 753-787.
- Doidge, C., G. A. Karolyi, and R. M. Stulz. 2017. The U.S. listing gap. *Journal of Financial Economics* 123: 464-487.
- Dobridge, C. L. 2021. Tax loss carrybacks as firm fiscal stimulus: A tale of two recessions. *The Accounting Review* forthcoming.
- Edgerton, J. 2010. Investment incentives and corporate tax asymmetries. *Journal of Public*

- Economics* 94 (11–12): 936–952.
- Edwards, A., and M. Todtenhaupt. 2020. Capital gains taxation and funding for start-ups. *Journal of Financial Economics* 138: 549-571.
- Edwards, A., C. Schwab, and T. Shevlin. 2016. Financial constraints and cash tax saving. *The Accounting Review* 91 (3): 859-881.
- Erickson, M. and S. Wang. 2007. Tax benefits as a source of merger premiums in acquisitions of private corporations. *The Accounting Review* 82 (2): 359-387.
- Ewens, M., and J. Farre-Mensa. 2020. The deregulation of the private equity markets and the decline in IPOs. *Review of Financial Studies* 33: 5463-5509.
- Faulkender, M., and M. Petersen. 2012. Investment and capital constraints: Repatriations under the American Jobs Creation Act. *Review of Financial Studies* 25 (11): 3351–3388.
- Gaver, J. J., P. Mason, and S. Utke. 2020. Financial reporting choices of private funds and their implications for capital formation. Working paper.
- Goodman, L., K. Lim, B. Sacerdote, and A. Whitten. 2021. How do business owners respond to a tax cut? Examining the 199A deduction for pass-through firms. NBER working paper.
- Guenther, D. A., and M. Willenborg. 1999. Capital gains tax rates and the cost of capital for small businesses: Evidence from the IPO market. *Journal of Financial Economics* 53: 385-408.
- Heese, C. W. 2013. The new five-year built-in gain recognition period. *The Tax Adviser*, December 1.
- Henry, E., G. A. Plesko, and S. Utke. 2018. Tax policy and organizational form: Assessing the effects of the Tax Cuts and Jobs Act of 2017. *National Tax Journal* 71 (4): 635-660.
- Hines, J. R., and J. Park. 2017. Investment ramifications of distortionary tax subsidies. Working paper, University of Michigan, NBER, and Korea Institute of Finance.
- House, C. L., and M. D. Shapiro. 2008. Temporary investment tax incentives: Theory with evidence from bonus depreciation. *American Economic Review* 98 (3): 737–768.
- Howell, S. T., and F. Mezzanotti. 2019. Financing entrepreneurship through the tax code: Angel investor tax credits. Working paper.
- Jacob, M. 2021. Real effects of corporate taxation. Working paper.
- Karsh, M., M. F. Davis, and D. Pendleton. 2021. A record buyout is just the start as wealthy flee U.S. tax hike. *Bloomberg* June 22.
- Langenmayr, D., and R. Lester. 2018. Taxation and corporate risk taking. *The Accounting Review* 93 (3): 237-266.
- Luchs-Nuñez, J., G. A. Plesko, and S. Utke. 2021. Market and firm reaction to targeted tax benefits: Evidence from the Tax Reform Act of 1986. *The Journal of the American Taxation Association* forthcoming.
- Lynch, D., M. Romney, B. Stomberg, and D. Wangerin. 2019. Trade-offs between tax and financial reporting benefits: Evidence from purchase price allocations in taxable acquisitions. *Contemporary Accounting Research* 36 (3): 1223-1262.
- Marks, G. 2017. A record number of small business owners are selling their companies. *The Washington Post* January 13.
- Mason, P., and S. Utke. 2019. The structure of private funds, their relation to private firms, and the implications for accounting, economics, and finance research. Working paper.
- Maydew, E. L. 2001. Empirical research in accounting: A discussion. *Journal of Accounting and Economics* 31: 389-403.

- Myers, S., J. McConnell, A. Peterson, D. Soter, and J. Stern. 1998. Vanderbilt University roundtable on the capital structure puzzle. *Journal of Applied Corporate Finance* 11 (1): 8-24.
- Ohrn, E., 2019. The effect of tax incentives on U.S. manufacturing: Evidence from state accelerated depreciation policies. *Journal of Public Economics* 180: 104084.
- Plesko, G. A. 1994. Corporate taxation and the financial characteristics of firms. *Public Finance Quarterly* 22 (3): 311-334.
- Plesko, G. A. 1995a. Gimme shelter? Closely held corporations since tax reform. *National Tax Journal* 48 (3): 409-416.
- Plesko, G. A. 1995b. *The Role of Taxes in Organizational Choice: S Conversions after the Tax Reform Act of 1986*. Working paper, Massachusetts Institute of Technology.
- Puhani, P. A. 2012. The treatment effect, the cross difference, and the interaction term in nonlinear “difference-in-difference” models. *Economic Letters* 115: 85-87.
- Putnam, J. 2016. Changes to the BIG recognition period of Sec. 1374(d)(7). *The Tax Adviser* May 1.
- Tax Foundation. 2014. *Business in America Illustrated*. Washington, D.C. Available at: <http://taxfoundation.org/sites/taxfoundation.org/files/docs/BIA%20Chartbook.pdf> (last access November 1, 2016).
- Tax Foundation. 2017. Pass-through businesses: Data and policy. Washington, D.C. Fiscal Fact No. 536.
- Todtenhaupt, M., J. Voget, L. P. Feld, M. Ruf, and U. Schreiber. 2020. Taxing away M&A: Capital gains taxation and acquisition activity. *European Economic Review* 128: 103505.
- Serrato, J. C. S., and O. Zidar. 2016. Who benefits from state corporate tax cuts? A local labor markets approach with heterogeneous firms. *American Economic Review* 106 (9): 2582-2624.
- Simons, P. 2013. Built-in-gains recognition period: 10, 7, or 5 years? DS&B, June 10. Available at: <https://www.dsb-cpa.com/built-in-gains-recognition-period-10-7-or-5-years/> (last access April 2, 2020).
- Simons, P. 2015. Built-in-gains recognition period still 10 years, but for how long? DS&B, January 9. Available at: <https://www.dsb-cpa.com/built-in-gains-recognition-period-still-10-years-but-for-how-long/> (last access April 2, 2020).
- Slemrod, J. 2016. Caveats to the research use of tax-return administrative data. *National Tax Journal* 69 (4): 1003-1020.
- Van Vleet, D. R. 2015. Valuation implications of the built-in gains tax liability. Stout Risius Ross, July 21. Available at: <https://www.stout.com/en/insights/commentary/valuation-impact-of-the-built-in-gains-tax-liability/> (last access April 2, 2020).
- Yagan, D. 2015. Capital tax reform and the real economy: The effects of the 2003 dividend tax cut. *American Economic Review* 105 (12): 3531-3563.
- Zwick, E., and J. Mahon. 2017. Tax policy and heterogeneous investment behavior. *American Economic Review* 107 (1): 217–248.

**Appendix A**  
**Variable Definitions**

<i>Acquired</i>	Indicator variable which equals one if a firm files form 8594 in year $t$ as a seller, zero otherwise
<i>Asset_Sale</i>	Indicator variable which equals one if a firm reports a non-zero amount on Form 1120-S line 4 for gain or loss on asset sales, but does not file Form 8594 as a seller/target in year $t$ (suggesting the firm sold an asset with BIG, but did not sell the entire business), zero otherwise.
<i>PriceToSales</i>	Ratio of acquisition price to target firm's sales in year $t$ (Form 8594 line 3 / 1120-S line 1c)
<i>PriceToBook</i>	Ratio of acquisition price to target firm's book value of assets in year $t$ (Form 8594 line 3 / End of Year Schedule L line 15)
<i>Treat</i>	Indicator variable which equals one for firms that converted to S corporation status between 2000 and 2010 and which had positive NUBIG upon becoming an S corporation, zero otherwise
<i>Post</i>	Indicator variable equal to one for years with a reduced period for determining the BIG tax and where the reduced period is known at the beginning of the year (i.e., not retroactive), zero otherwise. <i>Post</i> equals 1 for tax years beginning in 2009, 2010, 2011, 2013, and 2016; zero otherwise
<i>ARRA</i>	Indicator variable equal to one for 2009 and 2010, the years for which ARRA applies to asset sales, zero otherwise.
<i>Treat_ARRA</i>	Indicator variable equal to one for firms that otherwise would have been subject to BIG tax in 2009 or 2010 – that is, those in their 8th, 9th, or 10th years in 2009 or 2010, or S corporations converting in 2000, 2001, 2002, or 2003 – absent ARRA, zero otherwise.
<i>SBJA</i>	Indicator variable equal to one for 2011, the year for which SBJA applies to asset sales, zero otherwise.
<i>Treat_SBJA</i>	Indicator variable equal to one for firms that otherwise would have been subject to BIG tax in 2011 – that is, those in their 6 <sup>th</sup> through 10th years in 2011, or S corporations converting in 2002 through 2006 – absent SBJA, zero otherwise.
<i>ATRA</i>	Indicator variable equal to one for 2013, the year for which ATRA applies to asset sales, zero otherwise.
<i>Treat_ATRA</i>	Indicator variable equal to one for firms that otherwise would have been subject to BIG tax in 2013 – that is, those in their 6 <sup>th</sup> through 10th years in 2013, or S corporations converting in 2003 through 2008 – absent ATRA, zero otherwise.
<i>PATH</i>	Indicator variable equal to one for 2016, the year for which PATH applies to asset sales, zero otherwise.
<i>Treat_PATH</i>	Indicator variable equal to one for firms that otherwise would have been subject to BIG tax in 2016 – that is, those in their 6 <sup>th</sup> through 10th years in 2016, or S corporations converting in 2006 through 2010 – absent PATH, zero otherwise.

<i>NUBIG</i>	Net unrealized BIG in year $t$ scaled by total assets in year $t$ (Schedule B line 8 / EOY Schedule L line 15)
<i>Size</i>	Natural log of assets in year $t$ (EOY Schedule L line 15)
<i>ROA</i>	Ordinary business income in year $t$ divided by average total assets (1120-S line 21 / [0.5 * (EOY Schedule L line 15 + BOY Schedule L line 15)])
<i>Sales_Growth</i>	Percentage growth in sales from year $t-2$ to year $t-1$ , based on 1120-S line 1c (Gross receipts or sales net of allowances).
<i>Liquidity</i>	Ratio of current assets to total assets in year $t$ (Sum of EOY Schedule L lines 1 through 6 / EOY Schedule L line 15)
<i>Leverage</i>	Debt (mortgages, notes, bonds payable in less than 1 year; loans from shareholders; mortgages, notes, bonds payable in 1 year or more) in year $t$ scaled by total assets in year $t$ (EOY Schedule L line 17 + line 19 + line 20) / EOY Schedule L line 15
<i>CG_Rate</i>	Maximum long-term capital gains tax rate applicable to individuals in year $t$
<i>MedMTB</i>	Median ratio of market to book value for NYSE, AMEX, and NASDAQ firms in year $t-1$ (Ayers et al. 2007)
<i>STInt/LTInt</i>	Ratio of the one-year interest rate on treasury bonds to the 10-year interest rate on treasury bonds firms in year $t$ (Ayers et al. 2007)
<i>AAA</i>	Yield on Aaa rated bonds in year $t$ (Ayers et al. 2007)
<i>GNP</i>	Gross national product in real dollars firms in year $t$ (Ayers et al. 2007)
<i>Agg_ΔCash</i>	Change in corporate net cash flows from year $t-1$ to year $t$ , in real dollars, as reported by the Bureau of Economic Analysis (Ayers et al. 2007)
<i>Ind_Shock</i>	Standard deviation in sales growth across industries for years $t-2$ and $t-1$ (Ayers et al. 2007), where industry is based on 3-digit NAICS.
<i>Ind_Acq_Percentage</i>	S corp data: Number of S corps acquired in firm $i$ 's industry (industry $j$ ) in year $t$ , deflated by the total number of S corps in industry $j$ in year $t$
<i>Industry FE</i>	Industry based on 3-digit NAICS (business activity code number reported on 1120-S line B)

**Figure 1: Timeline of S Corporation Built-In Gains Tax Changes**

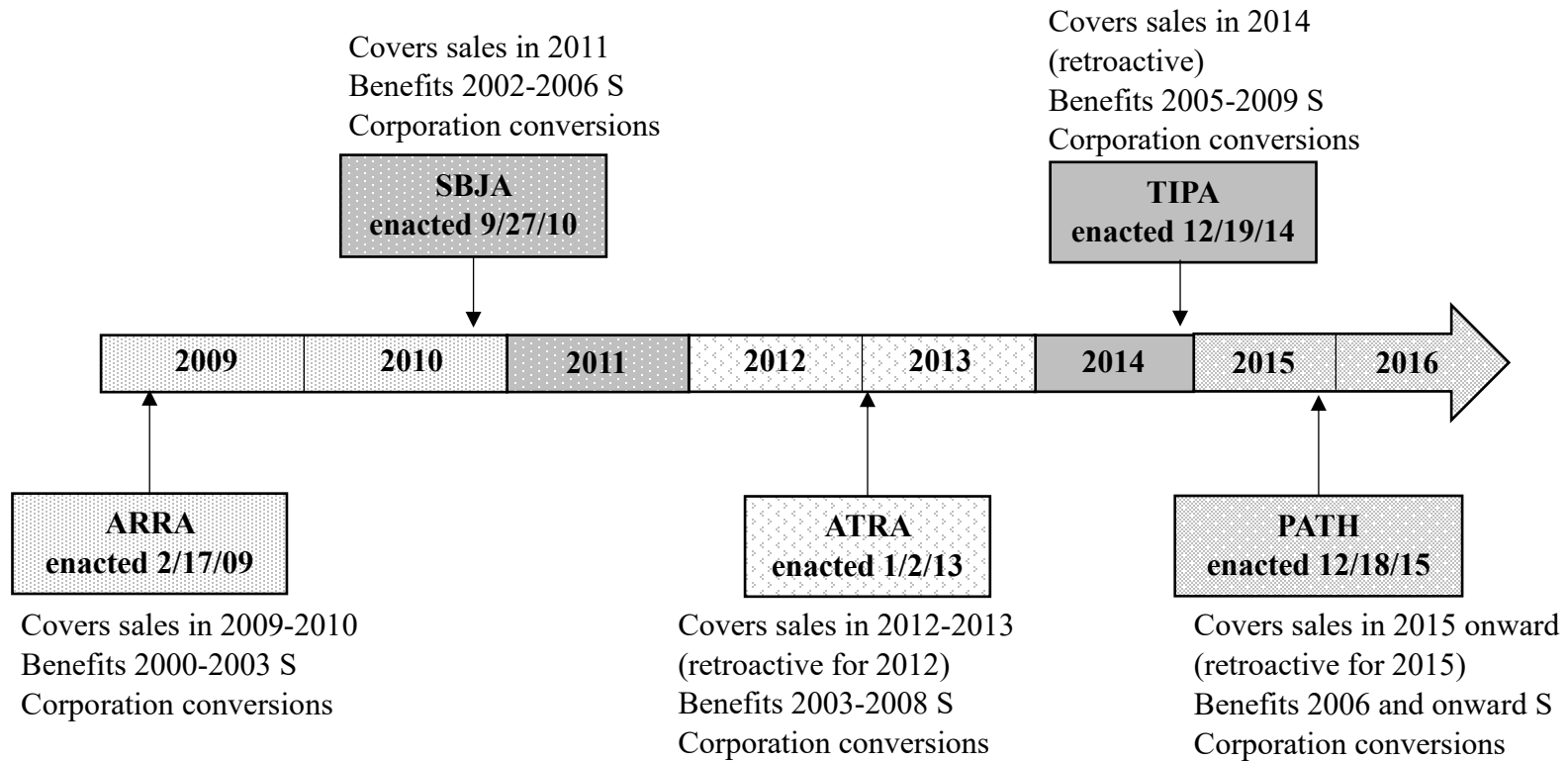




Figure 2

Panel A: Treatment Sample

		SAMPLE YEAR																			
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016						
<b>S ELECTION Y E A R</b>	1994																				
	1995																				
	1996																				
	1997																				
	1998																				
	1999																				
	2000																				
	2001																				
	2002																				
	2003																				
	2004																				
	2005																				
	2006																				
	2007																				
	2008																				
	2009																				
	2010																				
	2011																				
	2012																				
	2013																				
2014																					
2015																					
2016																					

Figure 2 (Cont'd)

Panel B: Post Periods, by Law Change

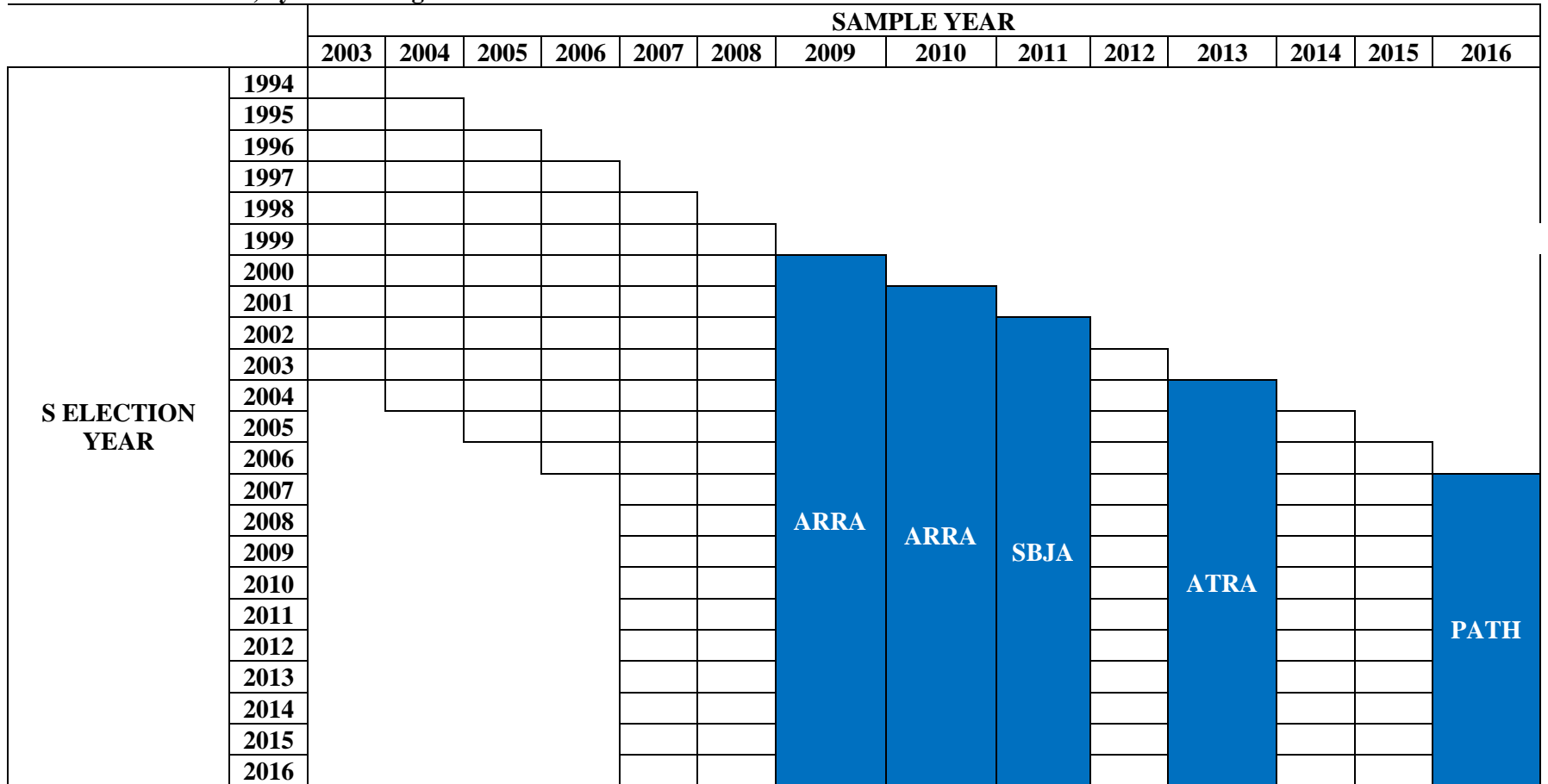


Figure 2 (Cont'd)

Panel C: Treat \* Post Periods, by Law Change

		SAMPLE YEAR													
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
S ELECTION YEAR	1994														
	1995														
	1996														
	1997														
	1998														
	1999														
	2000														
	2001														
	2002														
	2003														
	2004														
	2005														
	2006														
	2007														
	2008														
	2009														
	2010														
	2011														
2012															
2013															
2014															
2015															
2016															

Figure 2 (Cont'd)

Panel D: Cleaner Treat \* Post Periods, by Law Change

		SAMPLE YEAR															
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016		
S ELECTION YEAR	1994																
	1995																
	1996																
	1997																
	1998																
	1999																
	2000																
	2001																
	2002																
	2003																
	2004																
	2005																
	2006																
	2007																
	2008																
	2009																
	2010																
	2011																
	2012																
2013																	
2014																	
2015																	
2016																	

**Table 1**  
**Sample Selection**

S corporation-years between 2003 and 2016 for S corporation election dates in 1993 or later	186,998
Less: observations more than 10 years later than the S corporation election date	(62,999)
Less: observations with missing asset sale, acquisition, and control variable data	(13,478)
Less: S corporation-year observations without positive net unrealized built-in gains	(99,511)
<b>ACQUISITION and ASSET SALE SAMPLE</b>	<b>11,010</b>
Less: S corporation-years that did not file Form 8594 as the seller	(10,754)
<b>PRICETOEQUITY and PRICETOSALES SAMPLE</b>	<b>252</b>

**Table 2**  
**Descriptive Statistics**

**Panel A: Unweighted Sample of S Corporations with Positive NUBIG**

<b>Variable</b>	<b>Observations with Positive NUBIG</b>			<b>Treatment Observations with Positive NUBIG</b>			<b>Control Observations with Positive NUBIG</b>		
	<b>N</b>	<b>Mean</b>	<b>S.D.</b>	<b>N</b>	<b>Mean</b>	<b>S.D.</b>	<b>N</b>	<b>Mean</b>	<b>S.D.</b>
<i>Acquired</i>	11,010	0.023	0.149	7,475	0.021	0.143	3,535	0.027	0.161
<i>Asset_Sale</i>	11,010	0.580	0.494	7,475	0.572	0.495	3,535	0.597	0.490
<i>PriceToSales</i>	252	1.217	3.258	157	1.277	3.758	95	1.117	2.211
<i>PriceToEquity</i>	252	1.960	7.486	157	1.829	8.578	95	2.177	5.239
<i>Treat</i>	11,010	0.679	0.467	7,475	1.000	0.000	3,535	0.000	0.000
<i>NUBIG</i>	11,010	0.235	0.251	7,475	0.245	0.258	3,535	0.216	0.235
<i>Size</i>	11,010	3.397	1.494	7,475	3.419	1.550	3,535	3.351	1.367
<i>ROA</i>	11,010	0.141	0.837	7,475	0.135	0.760	3,535	0.154	0.979
<i>Sales_Growth</i>	11,010	-0.102	0.542	7,475	-0.102	0.547	3,535	-0.104	0.529
<i>Liquidity</i>	11,010	0.600	0.388	7,475	0.596	0.384	3,535	0.610	0.398
<i>Leverage</i>	11,010	0.321	0.452	7,475	0.327	0.474	3,535	0.306	0.400
<i>CG_Rate</i>	11,010	0.160	0.020	7,475	0.161	0.021	3,535	0.157	0.018
<i>MedMTB</i>	11,010	1.854	0.329	7,475	1.806	0.329	3,535	1.958	0.304
<i>STInt/LTInt</i>	11,010	0.401	0.339	7,475	0.336	0.336	3,535	0.538	0.303
<i>AAA</i>	11,010	0.050	0.007	7,475	0.049	0.007	3,535	0.053	0.006
<i>GNP</i>	11,010	15.672	1.055	7,475	15.916	0.914	3,535	15.156	1.143
<i>Agg_ΔCash</i>	11,010	0.047	0.076	7,475	0.048	0.084	3,535	0.045	0.054
<i>IndShock</i>	11,010	0.482	0.521	7,475	0.510	0.554	3,535	0.421	0.437
<i>Ind_Acq_Percentage</i>	11,010	0.011	0.011	7,475	0.011	0.010	3,535	0.011	0.011

**Table 2 (Continued)**  
**Descriptive Statistics**

<b>Panel B: Weighted Sample of S Corporations with Positive NUBIG</b>									
<b>Variable</b>	<b>Observations with Positive NUBIG - Weighted</b>			<b>Treatment Observations with Positive NUBIG - Weighted</b>			<b>Control Observations with Positive NUBIG - Weighted</b>		
	<b>N</b>	<b>Mean</b>	<b>S.D.</b>	<b>N</b>	<b>Mean</b>	<b>S.D.</b>	<b>N</b>	<b>Mean</b>	<b>S.D.</b>
<i>Acquired</i>	132,054	0.011	0.364	93,688	0.011	0.370	38,366	0.012	0.351
<i>Asset_Sale</i>	132,054	0.286	1.565	93,688	0.290	1.606	38,366	0.277	1.475
<i>PriceToSales</i>	1,479	2.364	6.299	1,037	2.636	7.135	442	1.728	4.329
<i>PriceToEquity</i>	1,479	1.826	19.691	1,037	1.076	24.036	442	3.584	7.474
<i>Treat</i>	132,054	0.709	1.572	93,688	1.000	0.000	38,366	0.000	0.000
<i>NUBIG</i>	132,054	0.408	1.057	93,688	0.417	1.097	38,366	0.385	0.963
<i>Size</i>	132,054	0.104	6.872	93,688	0.259	6.586	38,366	-0.275	7.293
<i>ROA</i>	132,054	0.331	4.859	93,688	0.298	3.731	38,366	0.414	6.633
<i>Sales_Growth</i>	132,054	-0.059	1.913	93,688	-0.053	1.554	38,366	-0.073	2.508
<i>Liquidity</i>	132,054	0.618	1.930	93,688	0.587	1.664	38,366	0.693	2.380
<i>Leverage</i>	132,054	0.307	1.732	93,688	0.309	1.849	38,366	0.301	1.452
<i>CG_Rate</i>	132,054	0.164	0.078	93,688	0.163	0.078	38,366	0.167	0.078
<i>MedMTB</i>	132,054	1.826	1.106	93,688	1.781	1.136	38,366	1.936	0.945
<i>STInt/LTInt</i>	132,054	0.350	1.142	93,688	0.302	1.150	38,366	0.465	1.030
<i>AAA</i>	132,054	0.048	0.026	93,688	0.048	0.025	38,366	0.050	0.027
<i>GNP</i>	132,054	15.967	3.715	93,688	16.045	3.037	38,366	15.779	4.790
<i>Agg_ΔCash</i>	132,054	0.042	0.277	93,688	0.046	0.307	38,366	0.032	0.195
<i>IndShock</i>	132,054	0.478	1.849	93,688	0.508	1.993	38,366	0.406	1.473
<i>Ind_Acq_Percentage</i>	132,054	0.009	0.032	93,688	0.010	0.033	38,366	0.009	0.027

**Table 2 (Continued)**  
**Descriptive Statistics**

<b>Panel C: Unweighted Sample Without Requirement for Positive NUBIG</b>									
<b>Variable</b>	<b>Full Sample</b>			<b>Treatment Sample</b>			<b>Control Sample</b>		
	<b>N</b>	<b>Mean</b>	<b>S.D.</b>	<b>N</b>	<b>Mean</b>	<b>S.D.</b>	<b>N</b>	<b>Mean</b>	<b>S.D.</b>
<i>Acquired</i>	110,070	0.008	0.091	7,475	0.021	0.143	102,595	0.007	0.086
<i>Asset_Sale</i>	110,070	0.236	0.424	7,475	0.572	0.495	102,595	0.211	0.408
<i>PriceToSales</i>	931	1.567	3.901	157	1.277	3.758	774	1.626	3.929
<i>PriceToEquity</i>	931	3.891	13.763	157	1.829	8.578	774	4.310	14.561
<i>Treat</i>	110,070	0.068	0.252	7,475	1.000	0.000	102,595	0.000	0.000
<i>NUBIG</i>	110,070	0.024	0.106	7,475	0.245	0.258	102,595	0.007	0.059
<i>Size</i>	110,070	0.536	3.087	7,475	3.419	1.550	102,595	0.326	3.066
<i>ROA</i>	110,070	0.912	3.513	7,475	0.135	0.760	102,595	0.968	3.627
<i>Sales_Growth</i>	110,070	-0.179	0.823	7,475	-0.102	0.547	102,595	-0.185	0.840
<i>Liquidity</i>	110,070	0.703	0.681	7,475	0.596	0.384	102,595	0.711	0.697
<i>Leverage</i>	110,070	0.654	1.483	7,475	0.327	0.474	102,595	0.677	1.528
<i>CG_Rate</i>	110,070	0.162	0.021	7,475	0.161	0.021	102,595	0.162	0.021
<i>MedMTB</i>	110,070	1.852	0.324	7,475	1.806	0.329	102,595	1.855	0.324
<i>STInt/LTInt</i>	110,070	0.390	0.339	7,475	0.336	0.336	102,595	0.394	0.338
<i>AAA</i>	110,070	0.050	0.007	7,475	0.049	0.007	102,595	0.050	0.007
<i>GNP</i>	110,070	15.783	1.079	7,475	15.916	0.914	102,595	15.773	1.089
<i>Agg_ΔCash</i>	110,070	0.044	0.077	7,475	0.048	0.084	102,595	0.044	0.076
<i>IndShock</i>	110,070	0.478	0.521	7,475	0.510	0.554	102,595	0.476	0.519
<i>Ind_Acq_Percentage</i>	110,070	0.009	0.009	7,475	0.011	0.010	102,595	0.009	0.009

This table reports descriptive statistics for our unweighted positive NUBIG sample (Panel A), weighted positive NUBIG sample (Panel B), and full unweighted sample (Panel C). Continuous variables are winsorized at 1% and 99%. Appendix A presents variable definitions.



**Table 3**  
**Effect of S Corporation Built-In Gains Tax Changes on Acquisition Premiums**

	(1)	(2)	(3)	(4)
	<i>PriceToSales</i>	<i>PriceToSales</i>	<i>PriceToEquity</i>	<i>PriceToEquity</i>
<i>Treat</i>	0.740 *** (3.01)	-0.680 * (-1.91)	1.641 (1.50)	0.688 (0.46)
<i>Post</i>	-0.474 (-0.61)	-1.742 *** (-3.50)	3.191 *** (3.90)	3.278 *** (5.27)
<i>Treat * Post</i>	-1.170 (-1.48)	0.154 (0.33)	-3.712 *** (-3.81)	-4.172 *** (-4.29)
<i>NUBIG</i>	-0.044 (-0.04)	0.888 (1.17)	0.135 (0.05)	4.156 * (1.77)
<i>Size</i>	-0.190 (-0.99)	-0.156 (-1.00)	-0.887 ** (-2.33)	-0.383 (-1.15)
<i>ROA</i>	-0.077 (-0.71)	-0.006 (-0.08)	-1.885 *** (-5.75)	-1.648 *** (-10.30)
<i>Sales_Growth</i>	-0.351 (-1.48)	-0.005 (-0.02)	-2.744 *** (-2.71)	-1.933 ** (-2.49)
<i>Liquidity</i>	0.379 (0.64)	0.524 (1.12)	0.011 (0.01)	-0.849 (-0.82)
<i>Leverage</i>	-0.647 (-0.66)	-1.239 * (-1.75)	-2.265 (-1.24)	-6.037 * (-1.84)
<i>CG_Rate</i>	2.047 (0.20)	-5.400 (-0.46)	-7.217 (-0.84)	-32.463 (-1.43)
<i>MedMTB</i>	-0.005 (-0.01)	-1.952 ** (-2.43)	5.119 *** (4.87)	1.044 (0.71)
<i>STInt/LTInt</i>	-0.289 (-0.33)	-0.189 (-0.27)	-4.130 *** (-5.98)	-1.214 (-0.82)
<i>AAA</i>	11.488 (0.32)	162.749 *** (3.26)	-86.681 * (-1.93)	138.200 (1.08)
<i>GNP</i>	-0.005 (-0.02)	1.189 *** (3.95)	-1.701 *** (-3.75)	-0.041 (-0.04)
<i>Agg_ΔCash</i>	-0.051 (-0.02)	0.772 (0.40)	-12.816 *** (-2.84)	-11.726 (-1.61)
<i>Ind_Shock</i>	-0.230 (-1.04)	-0.786 *** (-2.96)	2.826 *** (11.89)	2.047 * (2.15)
<i>Ind_Acq_Percentage</i>	19.068 (1.50)	12.994 (0.83)	32.312 (1.15)	29.880 (0.52)
Fixed Effects	Industry	Industry	Industry	Industry
Cluster	Year	Year	Year	Year
Sample	Unweighted	Weighted	Unweighted	Weighted
N	252	1,479	252	1,479
R-squared	0.0964	0.6792	0.2775	0.7100

This table reports OLS regression estimates for the unweighted (weighted) price-to-sales multiples in column 1 (2) and price-to-equity multiple in column 3 (4). The sample consists of those S corporations selling their entire business as reported on Form 8594. \*, \*\*, and \*\*\* represent significance at the 0.10, 0.05, and 0.01 levels, respectively. Appendix A presents variable definitions.

**Table 4**  
**Effect of S Corporation Built-In Gains Tax Changes on Likelihood of Acquisition and Asset Sales**

	(1)	(2)	(3)	(4)
	<i>Acquired</i>	<i>Acquired</i>	<i>Asset_Sale</i>	<i>Asset_Sale</i>
<i>Treat</i>	-0.138 (0.49)	0.255 (0.58)	-0.059 (0.32)	0.008 (0.95)
<i>Post</i>	0.460 ** (0.03)	2.101 *** (0.00)	0.023 (0.88)	0.092 (0.75)
<i>Treat * Post</i>	-0.538 ** (0.02)	-2.724 *** (0.00)	-0.019 (0.92)	-0.300 (0.38)
<i>NUBIG</i>	-0.238 (0.47)	1.064 (0.41)	-0.649 *** ( $<.0001$ )	-0.120 (0.65)
<i>Size</i>	0.436 *** ( $<.0001$ )	0.444 *** ( $<.0001$ )	0.435 *** ( $<.0001$ )	0.452 *** ( $<.0001$ )
<i>ROA</i>	0.131 (0.11)	0.193 *** (0.00)	0.038 * (0.09)	-0.015 (0.93)
<i>Sales_Growth</i>	-0.023 (0.87)	1.024 (0.26)	-0.055 (0.13)	-0.046 (0.72)
<i>Liquidity</i>	-0.848 * (0.06)	0.631 (0.26)	-0.181 *** (0.01)	-0.109 (0.69)
<i>Leverage</i>	-1.174 *** ( $<.0001$ )	-2.265 ** (0.03)	-0.101 * (0.10)	-0.224 (0.34)
<i>CG_Rate</i>	-1.978 (0.49)	-26.361 * (0.08)	1.150 (0.44)	-2.910 (0.53)
<i>MedMTB</i>	0.443 *** (0.01)	1.798 (0.18)	0.032 (0.74)	-0.163 (0.72)
<i>STInt/LTInt</i>	-0.162 (0.32)	-2.394 *** (0.01)	0.208 ** (0.05)	0.682 (0.13)
<i>AAA</i>	6.694 (0.44)	133.600 *** (0.00)	-6.069 (0.24)	22.958 (0.14)
<i>GNP</i>	-0.136 (0.14)	0.769 * (0.06)	-0.083 * (0.08)	0.140 (0.38)
<i>Agg_ΔCash</i>	-0.267 (0.51)	-4.984 (0.11)	0.560 *** (0.00)	0.943 (0.20)
<i>Ind_Shock</i>	-0.002 (0.97)	-0.206 (0.45)	-0.006 (0.83)	-0.261 *** (0.01)
<i>Ind_Acq_Percentage</i>	42.351 *** ( $<.0001$ )	56.851 *** ( $<.0001$ )	2.748 (0.33)	16.182 * (0.08)
Fixed Effects	Industry	Industry	Industry	Industry
Cluster	Year	Year	Year	Year
Sample	Unweighted	Weighted	Unweighted	Weighted
N	11,010	132,054	11,010	132,054
Likelihood Ratio $\chi^2$	259	5,212	1,549	24,378
Pr > $\chi^2$	$<.0001$	$<.0001$	$<.0001$	$<.0001$

This table reports logit regression estimates for the unweighted (weighted) acquisition likelihood in column 1 (2) and asset sale likelihood in column 3 (4). The sample consists of S corporation-years with positive NUBIG and within 10 years of their S election date. \*, \*\*, and \*\*\* represent significance at the 0.10, 0.05, and 0.01 levels, respectively. Appendix A presents variable definitions.

**Table 5**  
**Subperiod Analysis**

<b>Panel A: Acquisition Premiums</b>					
	(1)		(2)	(3)	(4)
	<i>PriceToSales</i>		<i>PriceToSales</i>	<i>PriceToEquity</i>	<i>PriceToEquity</i>
<i>ARRA</i>	-1.039 (-1.39)		-1.703 *** (-2.07)	0.297 (0.33)	4.085 * (1.70)
<i>SBJA</i>	-1.747 *** (-2.03)		-1.576 (-1.60)	-1.789 (-1.61)	0.511 (0.21)
<i>ATRA</i>	-2.210 (-1.64)		-1.765 *** (-2.33)	2.983 (1.18)	4.316 *** (3.82)
<i>PATH</i>	-0.953 (-0.96)		-1.482 (-1.62)	2.191 * (1.67)	5.285 *** (4.21)
<i>Treat_ARRA</i>	0.833 (1.50)		-0.165 (-0.36)	-0.798 (-0.51)	-3.356 * (-1.87)
<i>Treat_SBJA</i>	0.429 (0.38)		0.343 (0.42)	1.295 (0.70)	4.805 * (1.85)
<i>Treat_ATRA</i>	0.480 (0.45)		0.256 (0.40)	0.345 (0.31)	-0.905 (-0.85)
<i>Treat_PATH</i>	0.132 (0.16)		-1.514 *** (-2.17)	-0.225 (-0.23)	-0.539 (-0.48)
<i>ARRA*Treat_ARRA</i>	-1.312 (-1.26)		-1.565 (-1.26)	0.388 (0.13)	1.564 (0.45)
<i>SBJA*Treat_SBJA</i>	0.284 (0.32)		-0.639 (-0.73)	0.463 (0.43)	-4.007 (-1.38)
<i>ATRA*Treat_ATRA</i>	0.747 (0.52)		1.057 (1.02)	-2.939 (-1.17)	-3.314 *** (-3.26)
<i>PATH*Treat_PATH</i>	-1.610 (-0.99)		0.026 (0.02)	-3.023 (-1.21)	-1.583 (-0.71)
Controls	Yes		Yes	Yes	Yes
Fixed Effects	Industry		Industry	Industry	Industry
Cluster	Year		Year	Year	Year
Sample	Unweighted		Weighted	Unweighted	Weighted
N	252		1,479	252	1,479
R-squared	0.1124		0.693	0.2797	0.7328

**Table 5 (Continued)**  
**Subperiod Analysis**

<b>Panel B: Likelihood of Acquisitions and Asset Sales</b>								
	<b>(1)</b>		<b>(2)</b>		<b>(3)</b>		<b>(4)</b>	
	<i>Acquired</i>		<i>Acquired</i>		<i>Asset_Sale</i>		<i>Asset_Sale</i>	
<i>ARRA</i>	0.429	**	-1.704	**	-0.090	*	-1.028	***
	(0.04)		(0.02)		(0.10)		(<.0001)	
<i>SBJA</i>	-0.876	***	-2.901	***	-0.111	***	-1.032	***
	(<.0001)		(<.0001)		(0.00)		(<.0001)	
<i>ATRA</i>	-0.006		1.154	*	0.118		0.605	***
	(0.97)		(0.10)		(0.14)		(0.01)	
<i>PATH</i>	0.342	*	2.225	***	0.123		0.445	**
	(0.08)		(<.0001)		(0.25)		(0.04)	
<i>Treat_ARRA</i>	-0.151		0.517		-0.079		-0.104	
	(0.47)		(0.24)		(0.15)		(0.62)	
<i>Treat_SBJA</i>	0.005		-1.368	*	-0.094	*	0.332	*
	(0.99)		(0.10)		(0.08)		(0.08)	
<i>Treat_ATRA</i>	0.074		1.634	*	0.177		-0.454	*
	(0.80)		(0.08)		(0.11)		(0.06)	
<i>Treat_PATH</i>	-0.303		-2.053	***	-0.193	***	-0.123	
	(0.36)		(<.0001)		(0.01)		(0.42)	
<i>ARRA*Treat_ARRA</i>	-0.080		-0.664		-0.044		0.278	
	(0.85)		(0.41)		(0.67)		(0.48)	
<i>SBJA*Treat_SBJA</i>	0.838	***	2.189	***	0.095	**	0.838	***
	(0.00)		(0.00)		(0.03)		(<.0001)	
<i>ATRA*Treat_ATRA</i>	-0.020		0.661		0.033		-0.105	
	(0.93)		(0.12)		(0.72)		(0.71)	
<i>PATH*Treat_PATH</i>	-0.287		-2.337	***	-0.233	***	-0.413	**
	(0.33)		(0.00)		(0.00)		(0.05)	
Controls	Yes		Yes		Yes		Yes	
Fixed Effects	Industry		Industry		Industry		Industry	
Cluster	Year		Year		Year		Year	
Sample	Unweighted		Weighted		Unweighted		Weighted	
N	11,010		132,054		11,010		132,054	
Likelihood Ratio $\chi^2$	263.436		5,727.182		1,567		26,103	
Pr > $\chi^2$	<.0001		<.0001		<.0001		<.0001	

Panel A of this table reports OLS regression estimates for the unweighted (weighted) price-to-sales multiples in column 1 (2) and price-to-equity multiple in column 3 (4). The sample consists of those S corporations selling their entire business as reported on Form 8594. Panel B of this table reports logit regression estimates for the unweighted (weighted) acquisition likelihood in column 1 (2) and asset sale likelihood in column 3 (4). The sample consists of S corporation-years with positive NUBIG and within 10 years of their S election date. Rather than using a single “Post” and “Treat” variable, this table uses separate indicators for each tax law change. \*, \*\*, and \*\*\* represent significance at the 0.10, 0.05, and 0.01 levels, respectively. Appendix A presents variable definitions.

**Table 6**  
**Standalone Law Analysis**

<b>Panel A: Acquisition Premiums</b>		(1)	(2)	(3)	(4)
		<i>PriceToSales</i>	<i>PriceToSales</i>	<i>PriceToEquity</i>	<i>PriceToEquity</i>
ARRA	<i>Treat*Post</i>	-3.823 *	-2.558	-0.383	3.586
	T-statistic	(-1.80)	(-1.60)	(-0.11)	(0.90)
	N	179	842	169	726
SBJA	<i>Treat*Post</i>	-2.296	-0.175	2.877	-6.729
	T-statistic	(-0.58)	(-0.06)	(0.72)	(-1.40)
	N	162	865	153	753
ATRA	<i>Treat*Post</i>	-2.533	-2.638	-4.344	-10.312 ***
	T-statistic	(-0.56)	(-0.76)	(-1.02)	(-3.26)
	N	173	925	164	814
Controls		Yes	Yes	Yes	Yes
Fixed Effects		Industry	Industry	Industry	Industry
Cluster		Year	Year	Year	Year
Sample		Unweighted	Weighted	Unweighted	Weighted
<b>Panel B: Acquisition Likelihood</b>		(1)	(2)	(3)	(4)
		<i>Acquired</i>	<i>Acquired</i>	<i>Asset_Sale</i>	<i>Asset_Sale</i>
ARRA	<i>Treat*Post</i>	0.062	-0.316	-0.032	0.345
	Pr > $\chi^2$	(0.89)	(0.68)	(0.75)	(0.31)
	N	7,386	75,200	7,386	75,200
SBJA	<i>Treat*Post</i>	0.808 ***	1.960 ***	0.256 ***	1.417 ***
	Pr > $\chi^2$	(0.00)	(0.00)	(<.0001)	(<.0001)
	N	6,568	64,903	6,568	64,903
ATRA	<i>Treat*Post</i>	-0.117	0.596	0.238 ***	0.410
	Pr > $\chi^2$	(0.36)	(0.53)	(0.00)	(0.29)
	N	7,217	74,180	7,217	74,180
Controls		Yes	Yes	Yes	Yes
Fixed Effects		Industry	Industry	Industry	Industry
Cluster		Year	Year	Year	Year
Sample		Unweighted	Weighted	Unweighted	Weighted

Panel A of this table reports OLS regression estimates for the unweighted (weighted) price-to-sales multiples in column 1 (2) and price-to-equity multiple in column 3 (4). The sample consists of those S corporations selling their entire business as reported on Form 8594. Panel B of this table reports logit regression estimates for the unweighted (weighted) acquisition likelihood in column 1 (2) and asset sale likelihood in column 3 (4). The sample consists of S corporation-years with positive NUBIG and within 10 years of their S election date. Rather than using a pooled

---

sample, this table estimates separate regressions for each tax law change. \*, \*\*, and \*\*\* represent significance at the 0.10, 0.05, and 0.01 levels, respectively. Appendix A presents variable definitions.

---