

RATIO OF DEFERRED TAX LIABILITIES TO SHARES AS A PREDICTOR OF STOCK PRICES

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ABSTRACT

This research examines whether deferred tax ratios predict US stock prices. The importance of deferred tax ratios stems from the existence of two separate reporting systems. US financial reporting is subject to managerial discretion, but US tax reporting is not. Investors may prefer to review tax numbers which are free from earnings management. However, only financial numbers are publicly disclosed. Deferred tax items enable investors to translate the financial results into less subjective numbers. Deferred tax liabilities also indicate successful tax planning. Correlation and regression establish the ratio of deferred tax liabilities over shares is more related to price than traditional ratios, such as basic earnings per share, earnings per share including extra items, cash flow per share, and book value per share.

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KEYWORDS: Deferred tax liabilities over shares, ratios, US stock prices, deferred tax items

INTRODUCTION

This research seeks to show that deferred tax liabilities to shares (DTL/Sh.) is so related to price that price to DTL/Sh. could replace price to earnings and other ratios in determining whether a stock is overpriced or underpriced. No ratio currently utilized seems entirely effective in ascertaining whether a stock is priced adequately. This study uses a data set of 3,016 US stocks, which allows us to draw statistically robust conclusions. Correlation and regression identify the statistical significance of the relationship between DTL/Sh. and price.

Even though the relevant literature shows relationships between the deferred tax accounts and earnings, no known research harnesses these relationships into some useful ratio. This relatively simple but powerful finding has heretofore been undiscovered likely for two reasons. First, the US market overemphasizes earnings and therein earnings per share. Second, despite the research demonstrating otherwise, market participants continue to misunderstand the predictive power of deferred tax accounts.

Deferred tax liabilities (DTLs) and deferred tax assets (DTAs) are the important considerations. The true benefits of DTLs tend not to be understood. There are two separate reporting systems in the US: the financial reporting system and the tax reporting system. In the US financial reporting system, managers have significant discretion over reported numbers. The US tax system does not provide that flexibility. Thus, investors may prefer to review tax numbers that are free from earnings management. Unfortunately, only the financial reporting numbers are publicly disclosed. However, investors can utilize the financially reported deferred tax items to reconcile the two systems. In fact, they enable investors to translate the financial results into numbers less subject to discretion and therein produce higher quality information to predict what US stock prices should be.

The research here shows that, DTL/Sh. explains price significantly more than previous research on deferred tax assets (DTAs) and deferred tax liabilities (DTLs). The research here provides significant value in establishing two findings: 1) the superiority of price to DTL/Sh. over price to earnings, and other ratios and 2) greater significance in the relationship between DTLs and price than has been found in previous research.

The remainder of the paper is organized as follows. In the next section the relevant literature is discussed. This section is followed by a discussion of the data and methodology used in the paper. The paper continues with a presentation of the empirical results. The paper closes with some concluding comments and suggestions for future research.

LITERATURE REVIEW

While accountants have emphasized the power of the accrual method to explain stock prices, finance professionals have disregarded these reported numbers as too subject to managerial discretion and resorted to cash flows and dividend methods to value stocks (Orpurt and Zang, 2009). Further, there have been struggles within each discipline to find the guiding light to simplify on average what the stock price should be for any particular company (Penman and Sougiannis, 1998).

The price to earnings ratio has been investors' favorite quick method to test what stock prices should be on average. However the price to book ratio could increase in importance with the gradual shift toward fair values and the emphasis on balance sheets over income statements (Penman and Zhang, 2006). Indeed, FAS 157 and other provisions indicate this trend. However, the benefit of more relevant balance sheets comes with the price of potentially less value relevant earnings numbers (Paananen and Parmar, 2008). Moreover, the price to earnings ratio has not always been that useful. Many companies do not have any earnings, forcing investors to utilize the price to sales ratio. If deferred tax liabilities over the number of shares (DTL/Sh.) is a better predictor of stock prices than traditional prediction variables, it might replace these traditional quick method measures.

Using DTA's to predict stock prices has not received attention in the literature, perhaps because the number of researchers who have the necessary understanding of financial and tax accounting is not extensive. Together the meaning of DTLs and DTAs under FAS 109 requires knowledge of financial and tax accounting (Graham et al., 2010). Financial accounting implies that liabilities are not preferred, so many consider DTAs are superior to DTLs in their value to companies. Unfortunately, this understanding is not correct.

Companies take their book income times the tax rate to determine their income tax expense. Theoretically, at the time of this entry, they also record income taxes payable as what they have reported on their income tax return (taxable income times the relevant tax rates). The book income tax expense and the taxes payable usually are not equal because of temporary differences between book income and taxable income. Cost recovery best exemplifies temporary differences. For book purposes then, companies could select straight-line cost recovery. However, for tax purposes, they would generally choose modified accelerated cost recovery, which resembles double-declining balance book depreciation. This situation creates the temporary difference, resulting in an ordinary deferred tax liability.

Depreciation method choice is not the only difference. Under the tax system, companies can elect to write off \$250,000 immediately in the year that property is purchased and placed in service. However, this cost recovery is permitted only to the extent that they have sufficient business income and have not placed in service more than \$850,000 of property. After taking advantage of this cost recovery, companies in recent years have then been able to recover an extra 50 percent as bonus depreciation for property in the year placed in service.

The subsequent discussion shows that DTLs are valuable and, in fact, more valuable than DTAs. DTLs involve tax planning (Graham et al., 2010). DTLs signify that companies submit less in tax payments than expected based on book income. DTAs show that more tax is being paid than was expected based on book income. As generating positive net cash flows is generally favorable, DTL's worth is already on

display. In fact, to some, utilizing these positive net cash flows is the best means to value companies (Orpurt and Zang, 2009).

The time value of money conceptually explains this value of DTLs. Deferring taxes provides the opportunity to invest the savings to earn some return, making the dollar of tax savings today from DTLs more valuable than the dollar of tax savings in the future from DTAs. Thus, from the level of DTLs, investors would tend to find guidance in setting prices.

Even though the desirability of producing DTLs instead of DTAs is settled, some still would question why DTL/Sh. would be relevant to determining the stock price. DTLs include the results of so many different types of transactions within their numbers. Only the retained earnings account contains results of more types of transactions. DTLs represent many of the comprehensive income items that do not move through net income. These items include gains on investments that, though they are realized, are not recognized for tax purposes. They also include derivatives, foreign exchange, and other related transactions. This area could be explored in other research.

Some contend that DTL/Sh. is not relevant to price. To them, price is based on expectations of future recurring earnings. DTLs are volatile because of business cycles (Graham et al., 2010). Until the underlying meaning of DTLs is considered, the persistence, and therein the relevance, of DTL/Sh. cannot be determined. DTL/Sh. is persistent in every meaning of that term. As taxes are paid every year, to the extent there is taxable income, skilled tax management postpones paying taxes to the extent possible and therein provides more earnings after taxes each year in the future. Thus, insofar as the presence of skilled tax management can provide for tax savings every year, DTL/Sh. is entirely persistent. Large DTL/Sh. numbers then signal successful tax management. Thus, investors could be willing to pay premiums on stocks based on the level of DTL/Sh.

Large DTL/Sh. numbers signal more than just successful tax management. Though companies can utilize deferred taxes to manage earnings (Graham et al., 2010), managerial discretion through earnings management can signal future increases in net cash receipts over cash payments. With this discussion set to the side, there is substantial power to this tax minimization strategy signal because of the aggressiveness it implies (Frank et al., 2009). The Internal Revenue Service (IRS) tends to challenge companies with large DTLs because, if successful, it receives back more for each increment of employee time spent (Mills, 1998). Successful tax minimization does signal aggressiveness (Frank et al., 2009). The presence of aggressiveness anywhere implies aggressiveness everywhere (Frank et al., 2009). Aggressive companies tend to have higher equity values compared with more neutral, non-aggressive companies (Frank et al., 2009). This logic shows why DTL/Sh. has the opportunity to be statistically significant to determining price.

DTL/Sh. provides signals beyond just characterizing the quality of tax management and the overall company aggressiveness. An important signal can be in the financial accounting area. Differences between depreciation for book and tax comprise much of the DTL category (Graham et al., 2010). The choice of straight-line depreciation for book purposes seems not to be conservative from an expense view. However, it can be from the gain view. Less depreciation expenses are reported in early years compared to sum-of-the-years and double-declining balance, but over time the depreciation expenses can be identical. Even with less expenses reported in earlier years, straight line becomes conservative if the properties in question are sold before they are fully depreciated to their salvage values. The reason is straight line would result in the lowest gain reported for book income purposes. Understanding that they can still meet earnings targets, managers could choose methods that lower earnings below what they could be. This fact would signal an expectation of future increases in profitability. Thus, DTL/Sh. could also signal conservative accounting, which would be rewarded in the market (LaFond and Watts, 2008).

DTL/Sh. is more explanatory of US stock prices than the traditional prediction variables of earnings per share, cash flow per share, and book value per share and the control variables of retained earnings per share, market capitalization, and shares. This result is demonstrated through statistical significance as DTL/Sh. is one-to-one directly correlated with price and is the most explanatory t-statistic in regression.

The connection between taxes and stock prices is well established (Blouin et al., 2004). Thus, research on the relevance of deferred taxes to stock price is nothing new (Graham et al., 2010). In 1972, Beaver and Dukes established that the presence of deferred tax items in earnings provides incremental value over the absence of those components. In 1986, Rayburn followed, establishing tax accruals as more informative of price than cash flows. In 1994, Chaney and Jeter essentially supported Beaver and Dukes. Amir et al., Amir and Sougiannis, Ayers, and Dhaliwal et al. followed with their 1997, 1999, 1998, and 2000 research.

This current line of research examines the relationship between price as the dependent variable and deferred tax items as explanatory variables. Researchers include other explanatory variables to identify, by comparison, how powerful deferred tax items are. This line of inquiry is what the present research advances. The research of Amir et al. (1997), Amir and Sougiannis (1999), Ayers (1998), and Dhaliwal et al. (2000) exemplifies this line.

Amir et al. (1997) explore which separate components of deferred tax accounts significantly influence price based on their tendencies to reverse. The following important deferred tax components are involved: amortization and depreciation; losses, carryforwards, and credits; restructuring costs; environmental costs; employee benefits; etc. They find that the market discounts deferred tax account components with regard to how likely they are to reverse and how long they take to reverse.

Amir and Sougiannis (1999) look at one category of DTAs. Their research reviews how investors utilize DTAs, specifically with respect to carryforwards, in determining prices. They find that earnings from carryforward companies are less persistent, but the DTAs carryforwards do not limit investors' predictive capabilities in setting prices. The next researcher moves from research on one category of DTAs to research on differences between standards.

Ayers (1998) investigates whether FAS 109 is more relevant than Accounting Principles Board (APB) 11. The research finding is that FAS 109 has greater relevance to price than APB 11. Ayers (1998) also provides that DTLs and DTAs have separable effects on price. This discovery lends credibility to this research methodology, looking only at DTLs' effect on price through DTL/Sh.

Dhaliwal et al. (2000) determine whether DTLs that are not reported on the balance sheet are valued in the context of FIFO or LIFO choices. If investors choose to value all companies based on FIFO, it would require an adjustment of LIFO to this method. If the general market has increasing costs for inventory, then some price effect could result from implying an increase to DTLs. Dhaliwal et al. (2000) find that the market does value the DTLs that are not on the balance sheet.

Another research methodology involves exploring the valuation of deferred tax accounts at the time of changes in corporate tax rates. Givoly and Hayn (1992) test the market pricing of DTLs under APB 11 during the 1986 income tax rate reduction from 46 percent to 34 percent. Stock prices move with the level of DTLs as the market imports their reversal (from declining tax rates) into those prices. The change in price in the following two situations: where DTLs are less likely to be realized or the components of DTLs have more time to reversal on average.

Chen and Schoderbek (2000) continue this methodology. Their research examines whether, before any earnings releases, investors adjust stock prices in the aftermath of uniform DTL increases. The

methodology involves reviewing the effect of the 1 percent change in corporate tax rates in 1993. They find that the market does not import those changes into price. Graham et al. (2010) remark that stock prices import information from DTLs. However the market does not always discount DTLs based on the time until reversal. This finding differs from the research results of Givoly and Hayn (1992) and Amir et al. (1997). Ultimately, research should resolve this conflict on what effect time until reversal has on stock price.

Sansing (1998) examines whether authorities should revise the current financial reporting standards to require discounting DTLs. The applicable standards do not force discounting for many reasons. DTLs also face uncertainty as to the effects of time until reversal of the temporary differences. The research finds that DTLs should receive valuation at the full book number. Guenther and Sansing (2000) consider two conditions as necessary for DTLs to be reported at their book numbers. These conditions are that companies record the assets and liabilities underlying the deferred tax items at present value and take tax deductions under the cash basis. Investors generally prefer discounting to reliance on book values. Guenther and Sansing (2004) demonstrate that time until reversal does not influence DTL valuation. As many finance researchers have shown, only cash flow effects can make time until reversal relevant to DTL value. The reversal pace relies on book depreciation, which has no cash flow implications. Thus, finance does influence this research.

The next line of research involves whether the presence of tax items on the financial statements is relevant to price. This research generally utilizes comparisons to book income without any deferred tax disclosures. Lipe (1986) expresses that the category income tax expense gives more information that is relevant to price than other earnings components do. Thomas and Zhang (2009) establish that market income tax expense positively, which differs from other expense items. The reasoning could be that this item helps measure economic income.

Hanlon et al. (2005) review whether estimated taxable income discloses certain information relevant to price that book income does not. Their results show that book income has the larger coefficient and t-statistic. However, estimated taxable income still is statistically significant, which indicates that it provides information that book income does not. Nevertheless, they do discover that overall book income is more value relevant than taxable income.

Ayers et al. (2009) consider company differences in the areas of tax strategy and earnings quality. They compare estimated taxable income and book income. They find that estimated taxable income for companies that engage in significant tax planning has lower information value. However, estimated taxable income for companies that could engage in earnings management has higher information value. Raedy (2009) and Chen et al. (2007) support this finding of lower information value for estimated taxable income disclosed from companies engaging in significant tax planning.

Lev and Nissim (2004) research the effect of taxable-to-book-income differences on earnings growth and therein earnings quality. They determine that this ratio provides information that accrued earnings and cash flows do not. Companies make discretionary accruals for book, not taxable, income disclosures. Reversals reduce the quality of accrued earnings. To the extent that companies seek to have consistent taxable income, estimated taxable income provides information on expected future taxable income. Thus, recording high estimated taxable income currently shows an expectation of high taxable income and therein high book income in the subsequent years. Because companies tend to recognize income for tax before the corresponding revenue for book, high taxable-to-book-income ratios should forecast high future book revenues. Because companies tend to recognize deductions for tax after expenses for book, high taxable-to-book-income ratios should forecast low future book expenses.

Hanlon (2005) determines that companies with the largest book-to-tax differences have less persistent earnings, accruals, and cash flows. Where book income is substantially less than estimated taxable income, stock pricing properly imports persistence of earnings and cash flows but overstates accruals' persistence. Where book income is substantially greater than estimated taxable income, stock pricing properly imports accruals' persistence but understates the persistence of earnings and cash flows. Blaylock et al. (2009) discover that aggressive tax strategy that results in book income substantially greater than taxable income best explains persistence in earnings and accruals.

Thomas and Zhang (2007) look at the relationship between estimated taxable income and future returns. Unexpected results for estimated taxable income correspond with stock returns six months later. Lev and Nissim (2004) find it to be one year. Thomas and Zhang (2007) discuss two reasons for this discovered relationship. The tax surprise could forecast subsequent book income not ascertainable from the current book income numbers. It could also forecast other subsequent financial information.

Weber (2009) shows that only for companies with lower-quality information does the relationship between book-to-tax differences and future returns exist. The research finds that prediction errors are statistically significant to taxable-to-book-income ratios. It also discloses that prediction errors are more positive where large book-to-tax differences exist. Chen et al. (2003) support these results.

Graham et al. (2010) demonstrate that tax information has an effect on future stock returns and prices. As this literature review has shown, there is incremental value to DTLs. There are also two lines of research into DTLs. Despite all this deferred tax research, there has not been inquiry into whether deferred tax ratios can predict stock prices.

US DATA AND METHODOLOGY

The US data was gathered from Compustat's Global Vantage database as of January 29, 2010. After the companies with no price data available are removed, 3,016 US companies are left. This sample is the basis for this research. Each of the respective variables is gathered directly or indirectly from this information source. Correlations and regressions are utilized to show the power of DTL/Sh. in predicting US stock prices. DTLs are placed over the denominator of shares to compare companies on identical terms. If the basis for comparison were just DTL, market capitalization could skew the results. Larger market capitalization companies would have larger DTLs *ceteris paribus*.

Price is market capitalization divided by the number of shares. Thus, it makes sense to divide the DTL by those shares as well to enhance comparability between categories. No known researcher has made this simple calculation for inquiry purposes. Thus, there is continued value to this process. Basic earnings per share, earnings (including all items then) per share, book value per share, DTL/Sh., and retained earnings per share (RE/Sh.) are included. The variables presented with DTL/Sh., except for market capitalization and number of shares, are included because they are the standards for valuing stock prices. RE/Sh. is included as the control to demonstrate how significant DTL/Sh. is.

Because of the trend toward fair values and the increasing importance of book value per share, some could be concerned that other variables on the balance sheet could be at the level of significance of DTL/Sh. Thus, RE/Sh. is included to represent all the other variables on the balance sheet and therein demonstrate that no other variable on the balance sheet is at the level of DTL/Sh. RE/Sh. incorporates much of what comprises the DTL/Sh. and more. Thus, if it is not more statistically significant or explanatory than DTL/Sh., nothing else on the balance sheet could be.

Care should be taken as Lev and Nissim (2004) indicate that current taxable income and DTLs are not imported into stock prices. Care should also be taken to separate out DTLs from DTAs as Amir et al.

(1997) show. Thus, it could be desirable to isolate the DTL into the long-term component and separate the DTLs from DTAs. Any legacy Compustat system would do these tasks automatically.)

RESULTS

As the correlation results in Table 1 demonstrate, DTL/Sh. is statistically significant at the .01 level and is one-to-one directly correlated with stock price. RE/Sh. is less associated with price with a correlation of 0.053. Basic earnings per share and earnings per share including all items with correlation of 0.465 is less associated with price. The ratio of cash flows per share is .159, even less associated with price. Book value per share is 0.20, less associated with price. These results indicate that DTL/Sh. is more explanatory than the traditional prediction variables for determining stock price. Book value per share is close to the level of DTL/Sh. but is still less associated.

Table 1: Correlation

	Price	DTL/Sh	RE/Sh	EPS Basic	EPS Extra	CF/Sh	BV/Sh	Mkt. Cap.	Sh
<i>Price</i>	1								
<i>DTL/Sh</i>	1.000***	1							
<i>RE/Sh</i>	.947***	.947***	1						
<i>EPS Basic</i>	.535***	.537***	.770***	1					
<i>EPS Extra</i>	.535***	.537***	.770***	1.000***	1				
<i>CF/Sh</i>	.841***	.844***	.960***	.899***	.899***	1			
<i>BV/Sh</i>	.980***	.980***	.992***	.684***	.684***	.924***	1		
<i>Mkt. Cap.</i>	.144***	.141***	.136***	.086***	.086***	.124***	.139***	1	
<i>Sh</i>	-.005	-.005	-.003	.004	.005	-.001	-.004	.774***	1

*Price is the price of the US stocks. The ratio DTL/Sh represents deferred tax liabilities for each company over its shares. The ratio RE/Sh stands for retained earnings per share. EPS Basic is earnings per share without extra items. EPS Extra is earnings per share with all items included. The ratio of CF/Sh represents cash flows per share. Mkt. Cap. is the market capitalization. Sh stands for the number of shares. ** Correlation is significant at the .05 level. *** Correlation is significant at the .01 level.*

What is important is that dividing by the number of shares does not change the results. The category described as number of shares is not statistically significant to price. That control is important. With shares removed then, the DTLs can be isolated as the predominant component causing this correlation with price.

Market capitalization is .856, less associated with price than DTL/Sh. However, it is statistically significant. DTLs could be somewhat related to market capitalization. For the year in question, companies with assets of \$250 million or more had 96.9 percent of the book-tax differences, which was higher than their percentages of the country’s assets, book income, and taxable income (Plesko, 2002). The reason for market capitalization’s correlation with stock price could well be due to the large number of institutional investors in the US. As they do not want to acquire 5 percent of any company and therein have to begin SEC filing routines, institutional investors largely gravitate toward larger market capitalization companies. This gravitation increases their stock prices relative to smaller market capitalization companies ceteris paribus. As Plesko (2002) mentions, companies with higher market capitalizations have more book-tax differences and therein more DTL than other companies do. As such, higher market capitalization companies have higher DTL/Sh., which could partly influence the extent to which DTL/Sh. explains share prices.

The next discussion involves regression. All the regression involves changes to the following formula:

$$Price = Intercept + \beta_1(DTL/Sh) + \beta_2(RE/Sh) + \beta_3(EPS Basic) + \beta_4(EPS Extra) + \beta_5(CF/Sh) + \beta_6(BV/Sh)$$

Column 1 is the formula without β_4 (EPS Extra). Column 2 is the formula without β_3 (EPS Basic). The next column is $Price = Intercept + \beta_1(DTL/Sh)$. Column 4 is $Price = Intercept + \beta_2(RE/Sh)$. Column 5 is $Price = Intercept + \beta_3(EPS Basic)$. Column 6 is $Price = Intercept + \beta_4(EPS Extra)$. Column 7 is $Price = Intercept + \beta_5(CF/Sh)$. The final column is $Price = Intercept + \beta_6(BV/Sh)$.

As Table 2 shows, regression supports these findings with DTL/Sh. statistically significant with the highest t-statistic (46.375). The t-statistic is 14.387 stronger than BV/Sh. and 37.846 stronger than earnings per share in each format. The ratio of cash flows per share is not positive with respect to price and is almost the identical distance from DTL/Sh. in t-statistics that the earnings per share ratios are. RE/Sh. is also not positive and is close to 20 less in strength than the t-statistic for DTL/Sh.

Table 2: Regression

Price Non-standardized coefficient (t-statistic)	No β_4	No β_3	β_1	β_2	β_3	β_4	β_5	β_6
Intercept	2.376*** (2.772)	2.373*** (2.769)	6.892*** (5.806)	34.179*** (2.791)	74.213** (2.310)	74.159** (2.309)	42.074** (2.047)	18.124** (2.409)
DTL/Sh	7.833*** (46.372)	7.832*** (46.375)	13.009*** (1758.035)					
RE/Sh	-971*** (-26.830)	-971*** (-26.827)		1.392*** (161.406)				
EPS Basic	.636*** (8.528)				10.141*** (34.783)			
EPS Extra		.636*** (8.529)				10.141*** (34.782)		
CF/Sh	-.627*** (-8.754)	-.626*** (-8.753)					10.963*** (85.430)	
BV/Sh	1.118*** (31.991)	1.118*** (31.988)						1.027*** (271.990)

*These results are from regressions on price. The non-standardized coefficient is reported. Beneath it for each variable is the t-statistic. Intercept represents all the explanatory variables not expressed within the separately stated regression variables. DTL/Sh stands for the deferred tax liabilities over shares. RE/Sh represents retained earnings per share. EPS Basic has no statistics reported because it is collinear. EPS Extra involves earnings per share including all items. CF/Sh stands for cash flows per share. BV/Sh is the book value per share. ** Correlation is significant at the .05 level. *** Correlation is significant at the .01 level.*

As Penman and Zhang (2006) discuss, the ratio of price to earnings is the most utilized valuation technique. However, the ratio of price to DTL/Sh. is more relevant because earnings per share provides lower-quality price information than DTL/Sh. does. Book value per share explains price more adequately than any category of earnings per share, making price to book relevant for comparison purposes. However, even book value per share is less explanatory than DTL/Sh. Thus, price to DTL/Sh. could well be the best means to determine stock prices in the US.

CONCLUDING COMMENTS

Even after this discussion, there is still no reason why the DTL/Sh. should be one-to-one correlated with prices. Sloan (1996) provides the necessary logic. Investors do not properly incorporate persistence into their expectations. Nevertheless, the following paragraphs review this current research process.

Given that 3,016 US companies are included in the data set, so the results are statistically robust. Correlation shows DTL/Sh. to be one-to-one correlated with US stock prices. Regression on price then supports this finding as DTL/Sh. is more statistically significant to price than the components of the traditional prediction ratios, earnings per share from price to earnings, cash flows per share from price to cash flows, book value per share from price to book, etc. The retained earnings per share control shows that other balance sheet categories could not have similar predictive value as DTLs. The market capitalization control emphasizes that, even though larger companies tend to have more DTLs, this

largeness factor is not driving the DTL results. The number of shares also is not statistically significant to price, showing that DTLs are underlying the statistical significance of the ratio of DTL/Sh. to price.

Future research could examine this phenomenon over more years and in other markets. The results could continue over more years for the US market and could continue in other markets. However, if DTL/Sh. were not as predictive of price over more years and in other markets, it would not diminish the extraordinary significance of this finding. In fact, if this relationship did not continue into future years, it would be an interesting project to determine why this time period was so significant to the relationship between DTL/Sh. and price.

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