



Why Do Companies Purchase Their Own Stock?

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ABSTRACT

Common theories as to why companies purchase their stock include signaling to the market the stock is selling at a discount, using treasury stock for the issuance of contingent shares, as a substitute for dividends, and increasing earnings per share. These theories are tested by examining the treasury stock transactions from 2016 to 2021 of the 100 largest companies in the S&P 500. Although each of these motivations has merit, the results show that none provides a dominant cause for the purchase of treasury shares. An alternative cause is proposed.

Keywords: Treasury stock, treasury shares, negative equity, repurchase shares

Introduction

Why do companies purchase their stock? Numerous reasons have been theorized and investigated. Companies have treasury stock so their executives can exercise their stock options without issuing new stock. Management is signaling to the market that their stock is undervalued (Stephens and Weisbach 1998, Huang 2015 Ben-Rephael, Oded and Wohl 2013). Purchasing treasury stock is a suitable substitute for dividends that do not affect the company's consistent or consistently growing dividend policy (Sonika, Carline, and Shackleton, 2014, Subramanian 2017)). Management needs the company to purchase its shares to meet earnings per share estimates (Dittmar and Field 2015).

Almeida, Fos, and Kronlund 2016, Hibar, Thorne, and Johnson 2006). These are all plausible reasons, and there are others, for a company purchasing their shares, but none of them address the following phenomenon.

Home Depot's 2020 financial statements had negative equity. The common stock and additional paid-in capital showed a significant investment by shareholders. There was a sizable balance in retained earnings. The negative equity resulted from the company holding treasury stock above all other components of shareholders' equity. Why did this occur? Inquiring minds want to know.

This project began by examining a handful of the company's financial statements to determine if other companies' treasury stock purchases would explain Home Depot's management rationale for their actions. The previous six years' financial statements were pulled from SEC's EDGAR and examined.

One company had no treasury stock purchases in the previous six years and no treasury stock on its balance sheet. One company only purchased its shares in one of the six years. One company had treasury stock purchases in the last three years, but none in the previous three years. Three companies had purchased their shares of stock in all six years under review and two of the companies' purchases were very significant in each of the years. The results caused more confusion than clarity. Why were these companies' actions so different? Further investigation was

warranted. The objective of this investigation was to examine the evidence supporting any of the common explanations of why companies purchase their shares and identify any other rational explanations.

Materials and Methods

The one hundred largest companies in the S&P 500 were identified. Financial information for the year ending in 2021 and the previous five years was hand collected from SEC 10k filings on EDGAR (2022) and Yahoo! Finance (2022) for each of those companies.

Manually examining each company's financial statements and management discussion identified data that was relevant to the project and not always included in commercial databases. The presentation of data in the cash flow statement, statement of shareholders' equity, and the footnotes for treasury stock, stock options, and convertible instruments was particularly enlightening.

The data was often presented differently when comparing multiple companies' presentations. The amount of detailed information about a particular subject also varied dramatically. Hand-collecting the data also allowed for the initial identification of certain patterns for treasury stock purchases. Although the process was arduous, the insights that it provided made it very worthwhile.

Results

In the following section, various explanations of why companies purchase their shares are summarized. The one hundred companies in the sample are then examined to determine the level of support for that explanation.

The first explanation examined is that companies hold sufficient treasury stock to be used for the issuance of stock resulting from the exercise of stock options held by their executives. This belief is so widely recognized that the Financial Accounting Standards Board Codification identifies the calculation for the effect of outstanding stock options on diluted earnings per share as the Treasury Stock Method. The theory behind this method is the holder of the stock options can purchase stock at a discount, usually at the market price of the



stock on the date the option was granted, the strike price. The holder of the option generally does not have the cash to exercise the option when it becomes exercisable, so the holder exercises the option and then sells sufficient shares at the current market price to pay for the shares purchased. Due to the difference between the strike price and the current market price, the holder retains the net shares from these transactions. To simplify this transaction, many companies issue the net shares resulting from the transaction from treasury stock upon the exercise of the option.

Using the same logic for having treasury stock for the exercise of options, companies may also use treasury stock for the exercise of warrants, the exchange of convertible securities, and the issuance of contingent shares in a purchase agreement. The sum of the shares needed to fulfill all outstanding contingent issuances that are probable is presented in the financial statements as the difference between the number of shares in the diluted earnings per share and the earnings per share calculations. If the accumulation of treasury shares is primarily accumulated for the fulfillment of the issuance of contingent shares, companies would maintain a sufficient but not excessive number of treasury shares to meet this demand. The information relating to the one hundred companies does not support this conclusion.

Of the one hundred companies, 13 have no contingent shares but purchased treasury shares and retired them. Ten have treasury stock but no contingent issuance of shares. These 23 do not purchase treasury shares for the issuance of contingent shares. Of the remaining 55 companies that have contingent issuance of shares, the quotient of treasury shares divided by the difference between the number of shares in the calculation of diluted earnings per share and earnings per share was calculated. If treasury shares are used to fulfill the contingent issuance of shares, this number should be about one but less than three. The results for 2021 were an average of 55.21, a median of 31.36, a maximum of 227.74, four occurrences of less than 1, and 39 occurrences of more than 10.

If you compare this calculation for 2016 and 2021, 11 companies have treasury stock in 2021 but not in 2016, 27 companies' calculations increased by a median amount of 55%, and 17 decreased.

Although companies may use treasury shares for the issuance of contingent shares, these results do not support the conclusion that this is their primary purpose.

Do companies purchase treasury stock as a signal that the stock is selling at a discount? To examine the answer to this question, a discount was defined as the annual return for an individual stock being greater than the annual return of the S&P 500 (S&P 500 Data, 2022). Annual return is defined as the sum of the year's change in the price of the stock plus dividends divided by the previous year's year-end price (Yahoo! Finance, 2022). Simply put, the stock was a bargain if it beat the return of the market. Since most investors do not invest in the short term, this is an appropriate measure of a bargain.

The results from the 500 observations varied (100 companies with five observations of a price change). There were 358 observations where treasury stock was purchased. Fifty-six percent of those who purchased treasury stock beat the market. Fifty-seven percent of those who did not purchase treasury stock beat the market. The latter result does not show that treasury stock is not used by management to signal to the market their stock is a bargain, just that some chose not to use it. The 56% success rate in the first statistic does show that if the purchase of treasury stock is used to signal the company's stock is a bargain, it is not very accurate.

The same data was then used to examine whether an individual company's management purchase of treasury stock was an effective signal their stock was a bargain.

Each company's observation of the purchase of treasury stock was evaluated whether the purchase of that company's stock was a bargain (they were right) or not (they were wrong). Of the 94 companies that purchased treasury stock within the five years, 54% of the companies were right more than they were wrong and 6% were right as many times as they were wrong. Using a different analysis of the data provides no more support for this supposition than the previous analysis.

Does management purchase treasury share to increase earnings per share? Seventy-one percent of the companies in the sample purchased treasury shares during the five years. Of those, only 67% increased earnings per share in the same period. Although management may have purchased treasury shares to increase earnings per share, in 33% of the cases it was not a very effective strategy. A year-over-year calculation provides additional evidence. For those companies that purchased treasury stock in a given year and earnings per share increased, the average increase in earnings per share was 121.95%. The median was 26.37%. Of those increases, only 3.84% can be attributed to the purchase of treasury stock.

There is also a more positive argument that management does not purchase treasury shares to increase earnings per share. Earnings per share are defined as income attributable to common shareholders divided by average shares outstanding. If earnings were not meeting expectations for the year, management may not know that until later in the year. If the purchase of treasury stock was used to increase earnings per share for the year, the impact of purchase later in the year would have little impact on average shares outstanding and thus little impact on earnings per share.

There is a second counterargument that increasing earnings per share is not the motivation for the purchase of treasury shares. The average increase in earnings per share in the year a company purchases treasury stock is 121.95%. The median is 26.37%. The relationship may be just the opposite. An argument could be made that the reason that the company is purchasing treasury stock in a year where earnings per share increased is that they have the money. Their higher earnings produced excess cash that they used to purchase treasury stock.



The market value of a company is based on the present value of future cash flows. Both dividends and a company's purchase of its shares reduce net assets and thus may decrease the valuation of the company. A dividend is prudent if the absolute value of the decrease in the value of the company resulting from the payment of the dividend is less than the amount of the dividend. The shareholders receive a positive return. The purchase of a company's shares of stock is prudent if the value of the company per share is greater after the purchase of the shares than before the purchase. This is possible since even if the valuation of the company has decreased, there are fewer shareholders in the calculation. The remaining shareholders receive a positive return. Management has discretion in the payment of dividends and the purchase of their shares.

Millions of market participants decide the impact these transactions have on the valuation of the company. So how do they decide on which to choose and the magnitude of each?

Management may use an increase in dividends per share to indicate the long-term health of the company. Sixty-four percent of the companies who paid dividends in the sample increased their dividend per share each year. Why must they use dividends to signal the market? Simple. The results of operations do not show the same result. For those companies who increased their dividends each year, only 7% had their income increase in each of those five years, 28% in each of four years, and 43% in each of three years. 11% incurred a loss in at least one year. If the primary purpose of the payment of dividends is to signal the market, the dividends may be paid even though they are not prudent.

Could the purchase of treasury shares provide the same information to the market? It could, but there are no occurrences in the sample where treasury shares purchased increased five times whether the company had dividends or not. For companies where dividends per share increased in each of the five years, only 11% had the number of treasury shares purchased increase in each of four years, 31% in each of three years, and 35% in each of two years.

Even though it cannot be determined that the purchase of treasury shares was prudent, it appears that management may be using more discretion in the purchase of treasury shares than the issuance of dividends.

If one subscribes to the theory that management uses continuously increasing dividends to signal the long-term health of the company, the purchase of treasury stock provides an

alternative method for management to provide a return to their shareholders. From a shareholder's perspective, if a dividend and a purchase of treasury shares provide the same return, dollar for dollar, the purchase of treasury shares may be better from a tax perspective the shareholder. Qualified dividends are taxed at capital gain rates. So are the capital gains realized from increases in share prices.

The tax on dividends is paid in the year of the dividend. The capital gains realized from increases in share prices are deferred until the stock is sold. If the stock is passed from an estate, it generally gets a step up in basis, so the tax may never be paid.

The use of the issuance of dividends or the purchase of treasury stock to signal to the market the health of the company may have minimal impact on an intelligent investor. It may be only one of the many sources of data they use in the evaluation of a potential investment. If a company is not financially strong, no dividend policy or the purchase of its stock will support the purchase of the company's stock as an investment.

None of these theories that have been presented answer the question as to why Home Depot has negative equity resulting from the purchase of treasury stock over the original shareholders' investment and substantial retained earnings. The data from the hundred companies did, however, identify four additional companies that experienced the same phenomenon. All five are quite profitable. These companies had an average return on assets of 16.15%. and all five's ROA exceed 7.75%. Why did they buy so much treasury stock? Bonaime, Oztekin, and Warr (2014) may have the best answer. When comparing alternative investments, management evaluates the returns on those investments and the probability of obtaining their projected return. They select the most promising investment. In the turbulent political atmosphere that the United States has been experiencing for decades, it is nearly impossible to determine the effective tax rates will have on most investments in the long run. The return on the purchase of treasury stock is not affected by corporate tax rates. Purchasing treasury stock may be the best investment alternative.

Conclusion

One hundred largest companies in the S&P 500 are examined to evaluate various explanations for a company purchasing its stock. Although none of the explanations are disproven, it is shown that none of the explanations examined to provide the primary motivation for the purchase of treasury shares.

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