# Morgan Stanley

INVESTMENT MANAGEMENT

# Counterpoint Global Insights

# Which One Is It?

# **Equity Issuance and Retirement**

CONSILIENT OBSERVER | July 24, 2024

### Introduction

In 1999, I was asked to meet with the chief executive officer (CEO) of a profitable technology company that had grown rapidly and seen excellent share price gains in the 1990s. He was in a quandary and wanted to talk it through. The company had been generous in granting stock-based compensation (SBC), and the executive team had promised the financial community that it would offset that equity issuance by buying back stock in order to maintain a roughly flat number of shares outstanding.

The issue was that the CEO perceived that his company's stock, levitated by the dot-com boom, was overvalued. He had painted himself into a corner, and the question was whether he should continue to buy back stock at a premium to maintain his pledge, or limit buybacks and allow the number of shares outstanding to rise.

In the 2023 annual report of Berkshire Hathaway, Warren Buffett, the company's chairman and CEO, wrote, "All stock repurchases should be price-dependent. What is sensible at a discount to business-value becomes stupid if done at a premium."1

The simple goal of capital allocation is to buy low and sell high. Buying low means giving less than you receive, and selling high means receiving more than you give. The distinction between price and value is crucial. Price is what you pay or receive. Value, for assets that generate cash, is the present value of future cash flows. Companies create value when they acquire an asset at a price below its value or sell an asset at a price above its value.

Public companies issue and retire equity. The main reasons to issue equity are to finance an acquisition, compensate employees, fund operations, and change the mix of debt and equity in the company's capital structure. Retiring equity returns capital to the selling shareholders. Buybacks may achieve additional perceived benefits including signaling the shares are undervalued, reducing the risk of misallocating cash, increasing earnings per share, and offsetting the dilution from SBC.<sup>2</sup>

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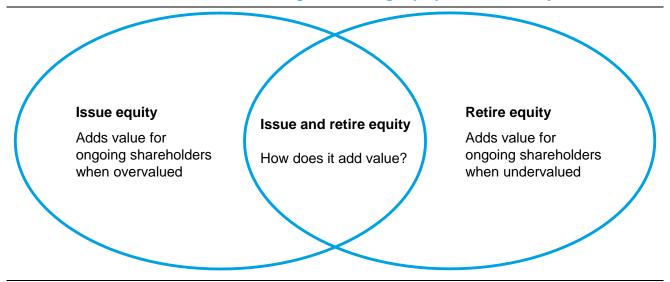


The proper answer about the virtue of any capital allocation decision is, "it depends." As Warren Buffett suggests in the quotation above, the primary consideration is the gap between price and value. What is wise at one price may be unwise at another.

From time to time, analysts publish research listing the companies that were the best at buying back stock. They calculate this using total shareholder returns after the buyback. The presumption is that the companies intentionally repurchased shares that were undervalued.

But that research often fails to note that a subset of those companies also issued equity, commonly in the form of SBC. If executives have a view that price differs from value, and they both issue and retire stock, one of those actions fails the goal of capital allocation (see exhibit 1).3 Which one is it?

Exhibit 1: Hard to Add Value While Issuing and Retiring Equity Simultaneously



Source: Counterpoint Global.

Most executives say they want to create shareholder value, yet suffer little or no cognitive dissonance as they issue and buy back stock at the same time.

Most fundamental investors consider the capital allocation skills of management in their investment process. They also value the business either directly by assessing the present value of future cash flows or indirectly using a valuation multiple. But few investors explicitly consider the wealth transfers that a company can cause when it issues or retires stock that is mispriced.

This report is about companies that both issue and retire shares simultaneously or within a short period of time. We will examine the reasons companies say they issue and buy back stock. We then segregate U.S. public companies into those that are above and below the median in issuance via SBC, as well as those that are above and below the median in share buybacks. This sorting creates a two by two grid that allows us to examine the total shareholder returns in each of the quadrants.

The audience for this report is boards of directors and executives who think carefully about capital allocation, as well as investors who want to assess those skills among the companies they evaluate.



#### **Wealth Transfers**

Lots of academic research shows that companies are good at timing the issuance and retirement of equity. On average, they buy low (price below value) and sell high (price above value).<sup>4</sup> This creates wealth transfers.

When a company buys back undervalued stock, wealth is transferred from the sellers to the ongoing holders. When a company sells overvalued stock, wealth is transferred from the buyers to the ongoing holders. Empirically, less wealth is transferred through buybacks than through equity issuance.<sup>5</sup> Institutional investors are generally more astute than individual investors when transacting with a company.<sup>6</sup>

The implications for action or inaction are different for ongoing shareholders in cases when a company is buying undervalued stock or selling overvalued stock. If a company buys undervalued stock, a shareholder doing nothing increases his or her stake while value per share rises. If a company sells overvalued stock, the value per share also increases for ongoing holders but, of course, that shareholder is better off selling alongside management.

A stock's time-weighted average return can be different than its dollar-weighted return as a consequence of these wealth transfers.<sup>7</sup> Time-weighted returns consider stock price change and dividends over some period. Dollar-weighted returns incorporate stock price change and dividends but also include the inflows and outflows associated with issuance or retirement of equity.

Total shareholder return is a time-weighted return. But since issuance and retirement change a company's equity capitalization, dollar-weighted returns can be a lot different than time-weighted returns if the company buys or sells mispriced stock.

Consider a firm that has 1,000 shares outstanding that trade at \$100 per share for a market capitalization of \$100,000. The stock then doubles and the company issues an additional 1,000 shares, raising the market cap to  $$400,000 (2,000 \times $200)$ . The shares then go back to \$100 for a market cap of \$200,000.

The original shareholders who did not transact are flat. But those who bought shares at \$200 have lost one-half of their money. The time-weighted return is zero, assuming no dividend, because the stock ended where it began. But the dollar-weighted return, calculated using the internal rate of return (IRR), is -26.8 percent.

Now think of a company that has 1,000 shares outstanding that trade at \$100, but the stock drops to \$50. This time, the company buys 500 shares. Assuming the stock reverts to its prior price of \$100, the ongoing holders are flat and the company, should it reissue the shares, would double its money. The time-weighted return is zero but the dollar-weighted return is 13.3 percent.

Ideally, investors want to find companies that trigger wealth transfers that benefit long-term ongoing holders. These are the companies that can methodically discern gaps between price and value and reliably act on them.



## **Reasons Companies Issue Equity**

Exhibit 2 shows the proceeds from equity issuance for all companies with stocks listed on the major exchanges in the U.S. from 2000 to 2023. Over this period, equity issuance was \$9.7 trillion, with equity-financed merger and acquisition (M&A) deals making up 58 percent of the total, followed by stock-based compensation (SBC) at 22 percent, and seasoned equity offerings (SEOs) at 20 percent. SEOs are new shares that are issued to investors that are not initial public offerings (IPOs).

Note that the Financial Accounting Standards Board did not require companies to disclose SBC on the income statement until 2006, which means this total of equity issuance is modestly understated.

700 ■ Seasoned Equity Offerings 600 ■ Stock-Based Compensation Mergers & Acquisitions 500 Proceeds (\$ Billions) 400 300 200 100 0 2002 2003 2005 2008 2009 2010 2011 2012 2013 2014 2001 2007 2004

Exhibit 2: Equity Issuance for M&A, SBC, and SEOs in the U.S., 2000-2023

Source: FactSet and Counterpoint Global.

Note: Includes companies on the New York Stock Exchange, NASDAQ, and NYSE American stock exchanges.

The main factors that executives consider when they decide to issue equity include the perceived difference between the price and value of the stock, potential dilution in earnings per share, the provision for SBC, and reaching or maintaining a target capital structure.<sup>8</sup>

**M&A.** In the 25 years ended in 2023, companies funded a majority of M&A deals with cash. But enough deals are financed with equity that it is the leading reason for overall issuance. Among the best known of these was the merger between America Online (AOL) and Time Warner Inc. That deal was announced in January 2000, near the peak of the dot-com boom. The executives presented the transaction as a merger of equals but Time Warner was four times larger than AOL based on trailing annual sales. AOL offered more than \$150 billion in equity to buy Time Warner, and AOL shareholders ended up with 55 percent of the combined entity. The tie-up has been described as "the worst merger of all time." 10

M&A deals financed with equity allow buyers to preserve cash, avoid debt, or do deals larger than their debt capacity would allow. Further, sellers may insist on receiving equity so as to defer their tax liabilities. This applies



to mergers that qualify as tax-free reorganizations. For example, from October 2023 to May 2024, three major oil companies in the U.S. announced acquisitions financed with equity that had a combined value of almost \$130 billion. The preference of the sellers for tax-free deals was an important factor in the payment method. Remarkably, these same companies bought back a combined total of nearly \$75 billion of stock in 2022 and 2023.

Academic studies show that the shareholders of companies that do deals with stock fare substantially worse than those of companies that do deals with cash. 11 The thinking is that companies issue equity when they consider it to be overvalued. This does not mean that stock deals are inherently bad, but executives and investors must verify that such deals make economic sense.

Warren Buffett has said he is chary of issuing equity. But in June 1998, he pledged about 20 percent of Berkshire Hathaway's shares to acquire General Re, a multinational property and casualty reinsurance company. 12 Notably, from the beginning of January 1997 to the announcement of the deal, Berkshire Hathaway's Class B stock was up 143 percent versus a gain for the S&P 500 of 52 percent. The S&P 500 is an index of approximately 500 U.S. stocks with the largest market capitalizations.

General Re had a number of operational issues that took Berkshire some years to fix. But even after addressing General Re's problems, Buffett called it "a terrible mistake" to issue so many shares to buy the business. He added, "My error caused Berkshire shareholders to give far more than they received." 13

The difference between price and value is an important consideration in determining what to pay in a deal financed with stock. Say a company determines that the maximum it can pay for a target is \$50 per share and that the value of its own stock is \$100 per share. If the buyer's value and price are the same, it can offer 0.50 shares and the deal is neutral to value.

If the buyer's stock price is \$150, it can offer 0.33 shares and add value for its shareholders because paying with overvalued stock means lower dilution. Similarly, if the buyer's stock price is \$50, it has to offer 1.0 shares, which destroys value for the buyer's ongoing stockholders.

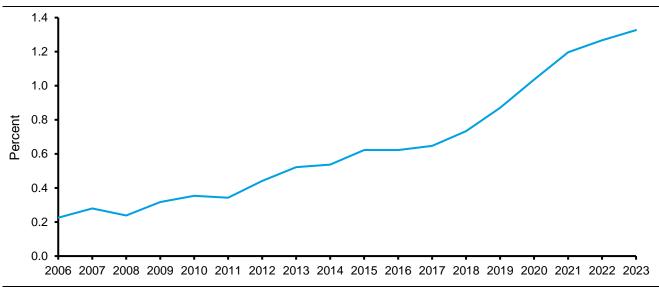
When surveyed, 50 to 80 percent of financial executives typically say they believe the stock price of their company is below its fair value.<sup>14</sup> A company can do a deal using equity financing when its stock is undervalued. But the ratio of the target's price to value has to be equal to or lower than the ratio of the buyer's price to value for it to be neutral or additive to shareholder value.

The target's value is the maximum price the buyer should be willing to pay, and it generally includes a premium for control that reflects anticipated synergies. Such discounts in price to value are unlikely in an active market for corporate control.

Stock-Based Compensation. Stock-based compensation has been the second largest source of equity issuance in the last quarter century. Exhibit 3 shows SBC as a percent of sales for companies in the Russell 3000, an index that measures the performance of roughly 3,000 U.S. stocks and represents nearly all of the investable equity market. That percentage went from 0.2 of sales in 2006 to 1.3 of sales in 2023. The compound annual growth rate was 15.3 percent for SBC and 3.8 percent for sales. The dollar sum of SBC rose from \$26 billion in 2006 to \$290 billion in 2023.



Exhibit 3: SBC as a Percent of Sales for the Russell 3000, 2006-2023



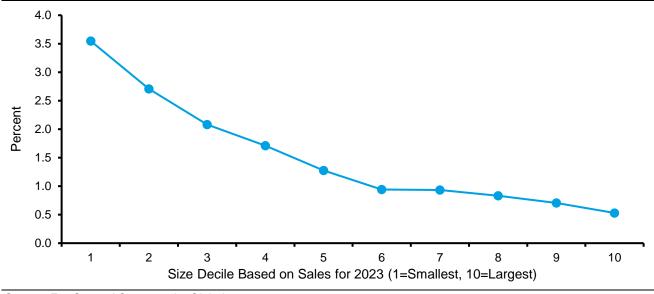
Source: FactSet and Counterpoint Global.

Note: Data for calendar years; Based on aggregate amounts.

There are a number of reasons that SBC as a percent of sales has increased in recent decades. These include a shift in the overall mix of companies toward those that grant more SBC (e.g., technology firms); the institutional imperative, which says that companies imitate one another;<sup>15</sup> competition in a labor market where SBC is more common; SBC filling in for lower cash payments to employees;<sup>16</sup> a reflection of rising CEO pay with SBC making up a large component of the increase;<sup>17</sup> and the perceived benefit of incentivizing and retaining employees.<sup>18</sup>

Exhibit 4 reveals that SBC as a percent of sales is closely related to the size of the company, as measured by sales. The median SBC as a percent of sales is 3.5 percent for the smallest decile in the Russell 3000 and 0.5 percent for the largest. SBC issuance as a percent of sales tends to decline as companies grow larger.

Exhibit 4: SBC as a Percent of Sales Based on Size for the Russell 3000, 2023



Source: FactSet and Counterpoint Global.

Note: Data for calendar year 2023; Minimum sales of \$100 million; Medians.



A company causes dilution when it issues new shares. Dilution lowers the percentage ownership of existing shareholders and is calculated as one minus the shares outstanding before issuance divided by the shares outstanding after issuance. For example, the holders of a firm with 1,000 shares outstanding realize about 9.1 percent dilution when the company issues 100 new shares, as they now own 90.9 percent of the company (1 - [1,000/1,100] = 1 - 0.909 = 0.091).

The companies in the smallest two deciles have median three-year dilution that is relatively high at 8.5 percent (exhibit 5). The median dilution for firms in the largest two deciles is negative, which means that shareholders who do not sell increase their percentage ownership between one and four percent. Again, the stylized fact is that dilution falls, and is eventually negative, as companies grow larger.

10 8 6 4 Percent 2 0 -2 -4 -6 4 5 6 7 1 2 3 9 10 Size Decile Based on Sales (1=Smallest, 10=Largest)

Exhibit 5: Three-Year Dilution of Shareholders by Decile for the Russell 3000, 2021-2023

Source: FactSet and Counterpoint Global.

Note: Data for calendar years; Universe and deciles based on 12/31/2023; Minimum sales of \$100 million; Medians.

Modeling the impact of SBC on corporate value is tricky. There are two basic approaches that get to the same answer in theory.<sup>19</sup> The first treats SBC as an expense on the income statement, as accounting rules stipulate, and does not adjust future shares outstanding for stock the company has not issued. The second adds back SBC to cash flow, as is done in the statement of cash flows, and adjusts future shares outstanding to reflect the dilution from SBC.

The most common definition of free cash flow that investors and companies use, cash flow from operations minus capital expenditures, does not match the theoretical definition in finance and requires anticipating dilution.<sup>20</sup> The data in exhibit 5 provide useful reference classes for that modeling.

Stock-based compensation, especially for executives, seeks to satisfy three goals that can be difficult to balance.<sup>21</sup> The first is to create proper incentives for employees to create value. Research suggests that SBC can incentivize executives yet has a limited effect on the rank and file.<sup>22</sup> The strength of the incentives can vary based on employee age and tenure.<sup>23</sup>

The second objective is to retain employees. Note that compensation is only one of the factors that determines retention. Others include workplace recognition, the opportunity for growth, balance between work and life, and



job security.<sup>24</sup> Analysis by the Sustainability Research team at Counterpoint Global shows a positive correlation between retention and total shareholder returns.<sup>25</sup> There is support for the proposition that SBC for a broad base of employees helps retention, but the increase in retention diminishes after grants vest.<sup>26</sup>

The final goal is to find the level of overall compensation that attracts, retains, and rewards the best employees while creating value for the non-employee shareholders. Paying employees well can be consistent with maximizing shareholder value.

Employees and shareholders are aligned when SBC creates a proper incentive. This is one of the virtues of pay packages in private equity buyout deals.<sup>27</sup> The level of executive compensation is generally tied to shareholder returns, and shareholders who have fared well rarely have qualms about executive pay.<sup>28</sup>

But wealth transfers between shareholders and employees can occur if the price of the stock differs from its value. For instance, issuing undervalued stock for SBC transfers wealth from ongoing shareholders to employees. Issuing overvalued stock transfers wealth from employees to ongoing shareholders.

The risk of misalignment arises when companies use SBC as a pay delivery system versus an incentive compensation program. This happens when a company issues additional shares to replenish pay to former or pledged levels following poor stock performance.<sup>29</sup> For instance, in 2022 the Russell 3000 Index was down 19 percent and total SBC was up 19 percent.

Exhibit 6 shows that the stocks of the companies in the top 20 percent of SBC as a percent of sales produced substantially lower excess stock price returns than those companies in the bottom 20 percent. These data cover a period from July 2007 to December 2018. This does not mean that the SBC levels caused the excess returns, but the result is consistent with the point that equity issuance often portends subpar future returns.

0.25 -uture Excess Monthly Returns (Percent) 0.20 0.15 0.10 0.05 0.00 -0.05 -0.10 -0.15 -0.20-0.25 2 3 4 5 Quintile Based on Stock-Based Compensation to Sales (1=Least, 5=Most)

Exhibit 6: SBC to Sales and Future Excess Returns, July 2007 to December 2018

Source: Counterpoint Global and Partha Mohanram, Brian White, and Wuyang Zhao, "Stock-Based Compensation, Financial Analysts, and Equity Overvaluation," Review of Accounting Studies, Vol. 25, No. 3, September 2020, 1040-1077.



Getting SBC right is a challenge for a number of reasons. Intrinsic employee motivation, promoted by a sense of autonomy, mastery, and purpose, does a better job of predicting worker performance than pay does.<sup>30</sup> The effectiveness of SBC is also limited because shareholders with diversified portfolios are generally risk neutral whereas employees are commonly risk averse. As a result, equity is more valuable to shareholders than workers. For employees, equity is correlated with human capital and therefore reduces diversification, is not liquid, and can be difficult to value.

Employees who are given a choice of the form of pay often prefer cash to stock. For example, Netflix, a subscription video service, put into place a compensation arrangement, finalized in 2006, whereby eligible employees could request a mix of cash and stock for the following year. About 60 to 75 percent of employees requested all cash.<sup>31</sup> In late 2022, Shopify, a multinational e-commerce company, launched a similar program called "Flex Comp." It was reported that a popular choice among software engineers was to get "all or most of their compensation in cash," a data point supported by the fact that the total value of restricted stock units that Shopify granted in 2023 was less than one-third of what it was in 2022.<sup>32</sup>

**Seasoned Equity Offerings.** SEOs are a third form of equity issuance. Consistent with the finding that companies tend to be good at buying low and selling high, the research shows companies that do SEOs have subpar stock returns, on average, following the deal.<sup>33</sup> But introducing other considerations refines this broad conclusion.

For example, a company's motivation to do an SEO is relevant. There are three reasons firms cite to justify a deal: to recapitalize the balance sheet (increasing the ratio of equity to debt); to fund an investment; and for "general corporate purpose," a catchall for any action. The research shows that the stocks of the companies that issue stock earmarked for recapitalizing the balance sheet or for general corporate purposes underperform the market. Companies that do an SEO for a specific investment do not underperform.<sup>34</sup>

Who buys the SEO is also relevant. Institutional investors tend to be more savvy than individual investors.<sup>35</sup> SEOs with large institutional allocations outperform those without those allocations.<sup>36</sup> This pattern is also evident in IPOs and trading.<sup>37</sup>

#### **Reasons Companies Retire Equity**

U.S. public companies retired \$14.0 trillion of equity from 2000 to 2023 (see exhibit 7). There is net retirement of equity because small companies tend to issue equity and large companies generally retire equity.<sup>38</sup> In this century, U.S. public companies have funded their growth largely with cash from operations. There was also a small contribution from an increase in debt. Buybacks have been substantial in the last 25 years but remain controversial.<sup>39</sup>

Ideally, companies would pay attention to Warren Buffett and buy back shares only when their price is below their value. Some companies are good at this, and the evidence suggests that buybacks modestly benefit ongoing shareholders in the aggregate.<sup>40</sup> The size and method of buybacks can also provide insight into the strength of the potential signal of undervaluation.<sup>41</sup>

But in reality many companies decide to buy back stock because they have excess cash, want to offset dilution from SBC, and seek to boost earnings per share (EPS).<sup>42</sup> The motivation to increase EPS flies in the face of finance theory and empirical research.<sup>43</sup>



1,200 1,000 **Buybacks (\$ Billions)** 800 600 400 200 2009 2013 2003 2005 2006 2008 2012 2000 2002 2007 2011

Exhibit 7: Gross Share Buybacks in the U.S., 2000-2023

Source: FactSet and Counterpoint Global.

Note: Includes companies on the New York Stock Exchange, NASDAQ, and NYSE American stock exchanges.

The vast majority of chief financial officers (CFOs), when surveyed, say that buying back shares when they are undervalued is important or very important.<sup>44</sup> But CFOs generally think the stocks of their companies are undervalued, are poor at predicting outcomes, and commonly value their own stock based on the "current price relative to historic highs and lows."<sup>45</sup>

The principal-agent problem provides a useful way to think about buybacks. This problem describes the conflict between the objectives of principals and agents. In this case, shareholders are the principals and executives are the agents. Agency costs are actions that harm principals and benefit agents.

Buybacks can mitigate or create agency costs.<sup>46</sup> They reduce them when a company returns excess cash to investors and, as a result, does not squander the capital on investments with low returns or perquisites for executives.<sup>47</sup> But they create agency costs when they are deployed to benefit executives or to show superficial results without creating value.<sup>48</sup>

For instance, recent research points to a causal link between higher SBC and greater buyback activity with the intent to offset dilution. Many companies that buy back stock do so frequently, which limits their ability to time the market.<sup>49</sup> And there appears to be a positive correlation between buybacks and sales of equity holdings by executives.<sup>50</sup>

The lag between issuance and retirement can be relevant for companies seeking to manage dilution in shares outstanding. Most SBC vests over time, commonly four years. If stock issued at the grant date rises over the vesting period, the price paid to retire shares in order to offset dilution will exceed the original cost to issue the shares.<sup>51</sup>



## **Theory and Practice**

The guiding principle in the issuance or retirement of equity is for the company to receive more than it gives. This means issuing shares that are overvalued and retiring shares that are undervalued. Overall, companies are reasonably good at this. One way to think about it is that firms increase supply by issuing shares when prices are too high and increase demand by retiring shares when prices are too low.<sup>52</sup>

There is a great deal of evidence that issuing stock in an M&A deal or an SEO is often a predictor of poor subsequent shareholder returns for the issuer. But this is not a blanket observation. Under certain conditions an equity-financed acquisition or an SEO can make sound economic sense. In other words, there are cases when a company can issue shares that are at fair value, or even undervalued, if they fetch a stream of cash flows that compensates for that parity or discount.

We now focus more closely on SBC and buybacks, in part because the motivation for buybacks is related to the share issuance associated with SBC.

In theory, SBC should provide an incentive for employees to work effectively, be a mechanism to retain workers, and balance the interests of employees and shareholders.

In practice, SBC meets those objectives with varying degrees of success from one company to the next. Further, for many companies SBC has evolved into a mechanism to pay employees a certain amount, disconnecting their outcomes from those of shareholders, and it appears heavily influenced by the institutional imperative to follow the actions of peers and competitors.

In theory, buybacks should add value to ongoing shareholders and provide them with an ability to time their tax liabilities.

In practice, companies regularly tie the magnitude of their buyback programs to the dilution that SBC causes and look to buybacks as a means to manage EPS.

Because practice can be at odds with theory, some companies issue and retire a meaningful amount of stock at the same time.<sup>53</sup> Yet research supports the idea that companies are the smart money, especially when they issue stock.54 This leads us to narrow our attention to the subset of companies that both issue and retire significant amounts of stock and ask how their shareholder returns stack up versus the rest of the market.



## SBC, Buybacks, and Total Shareholder Returns

For this analysis, we start with the Russell 3000 universe and consider the stocks of companies with a minimum of \$1 billion of sales. For each year from 2021 to 2023, we calculate issuance as SBC divided by sales and retirement as gross buybacks divided by market capitalization. We include only companies that have these statistics for at least one year. Our sample includes roughly 1,350 stocks.

We take the average of these issuance and retirement measures over the three years for each company, and calculate the median of each metric for the universe. The median of SBC to sales is 0.8 percent and the median for buybacks to market cap is 1.5 percent. We then divide the population into quadrants based on whether the company is below the median (low) or above the median (high) in each measure. We use the combinations to calculate the average and median annual TSRs for each quadrant for the 3 years through December 31, 2023.

The results are in exhibit 8. The stocks of companies that were below the median on SBC issuance and above the median on buybacks (upper right corner) delivered the highest TSRs over the period. Those below the median in issuance and retirement (upper left corner) had the second-highest TSRs.

Exhibit 8: Annual TSRs for Companies with Low and High SBC and Buybacks, 2021-2023

Average TSR	Buybacks Low	Buybacks High
SBC Low	9.4%	13.7%
SBC High	-0.1%	5.3%

Median TSR	Buybacks Low	Buybacks High
SBC Low	7.6%	11.4%
SBC High	2.6%	6.2%

Source: FactSet and Counterpoint Global.

Note: Includes companies in the Russell 3000 with minimum sales of \$1 billion.

The stocks of companies that were above the median in issuance and retirement (bottom right corner) are the primary group of interest. Their TSRs were the third highest. Finally, the stocks of companies that issued a lot of stock for compensation and bought few or no shares had the worst TSRs.

The ranking based on the Sharpe ratio, a measure of risk-adjusted return, was in the same order as the average and median returns. The Russell 3000 Index rose at a compound annual rate of 8.5 percent over this period.

We ran this analysis for the 5 years ending in 2023 and found that the TSRs remained highest for the quadrant "SBC low/buybacks high" and lowest for "SBC high/buybacks low." But the TSRs for the other guadrants flipped order, with "SBC high/buybacks high" outperforming "SBC low/buybacks low."

To be clear, these TSRs were likely driven by lots of factors that had nothing to do with equity issuance and retirement. These include changes in fundamentals and expectations, industry exposures, the impact of COVID, and interest rates. But executives and investors should understand what the empirical research shows about equity issuance and assess capital allocation decisions in that light.



#### Conclusion

Companies that are successful at capital allocation over time buy low and sell high. Most capital allocation decisions relate to a firm's operations and require determining the prospects for satisfactory returns on investments such as M&A, capital expenditures, and intangible investments. But companies can also trigger wealth transfers by buying and selling stock at prices below or above value.

A company that buys back shares below value initiates a wealth transfer from selling shareholders to ongoing shareholders. Conversely, selling overvalued shares transfers wealth from buyers to ongoing holders. Academic research shows that companies do this effectively, although the magnitude of the transfer is smaller for purchases than sales.

From 2000 to 2023, public companies in the U.S. issued nearly \$10 trillion in equity and retired just over \$14 trillion. Most of the issuance was to fund M&A, followed by SBC and seasoned equity offerings.

Issuing equity is associated with poor subsequent returns for ongoing shareholders in the aggregate, but this result is not definitive. For example, companies that issue equity earmarked to fund specific investments tend to have better returns than those that issue for general corporate purposes.

The main reason companies say they buy back stock is to signal their stock is undervalued. But there is also evidence executives are very mindful of dilution due to SBC and the impact of buybacks on earnings per share.

Overall, ongoing shareholders of smaller companies realize dilution, a reduction in their percentage of ownership, which means these companies issue more equity than they retire. Ongoing shareholders of large companies increase their ownership, on average, because these companies retire more equity than they issue.

Our focus is on companies that issue and retire substantial amounts of equity either simultaneously or within a short amount of time. If the stock price is any different than fair value, either issuing or retiring equity is suboptimal from the point of view of ideal capital allocation.

We examine the total shareholder returns from 2021 to 2023 for the stocks of the companies based on their issuance and retirement of equity. We separate the population into quadrants based on whether the companies are above or below the median for issuance and retirement. We measure issuance as SBC divided by sales and retirement as gross buybacks divided by market capitalization.

We find that companies with low SBC issuance and high buybacks delivered the highest average and median TSRs of the groups. Firms with high SBC and low buybacks produced the lowest returns. Returns for the stocks of companies that were high in SBC and buybacks had the third highest returns. We would hasten to add that numerous causes that had nothing to do with equity issuance were probably important in driving these TSRs.

This discussion should be helpful for boards of directors, executives, and investors who seek to think carefully about capital allocation. From an investor's point of view, the returns for the stocks of companies issuing stock have been substandard, and the returns have been attractive for those that retire stock, on average. Those signals cross for companies that issue and retire stock at the same time. Presuming that executives can distinguish between stock price and value because they have better information than investors do, either issuing or retiring fails to meet the central goal of capital allocation.55 Which one is it?

#### Please see Important Disclosures on pages 18-20



### **Endnotes**

- <sup>1</sup> Warren E. Buffett, "Letter to Shareholders," Berkshire Hathaway Annual Report, 2023. See https://berkshire hathaway.com/2023ar/2023ar.pdf.
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