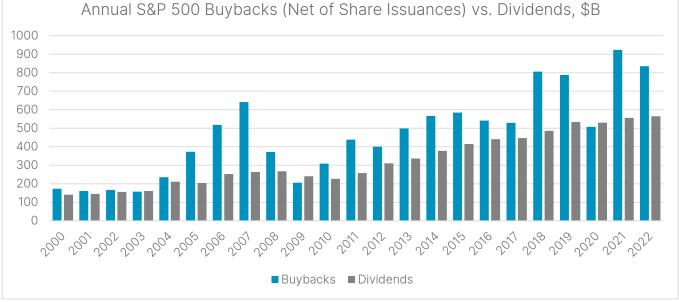


The Nasdaq US Buyback Achievers Index™: Delivering an Important Component of Total Yield for Income-Oriented Investors

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Perhaps the most central principle of stock buybacks is that they are functionally equivalent, in terms of their impact on total shareholder wealth, to cash dividends. In each case, a company delivers cash on its balance sheet – either internally generated or via debt issuance – to holders of its stock. In the case of dividends, shareholders receive predetermined cash payments in their brokerage accounts in proportion to the number of shares they own; this creates an incremental source of returns, in addition to changes in the share price. In the case of buybacks, outstanding shares are retired by the issuer thereby increasing the per-share flow of earnings, which also generates an incremental source of returns (and will often directly boost the share price). In theory, a dollar of buybacks should equal a dollar of dividends in terms of the net effect on shareholder returns, all else (e.g. differences in tax treatment) being equal. For equity market investors looking for income, focusing on dividends alone therefore excludes a crucial component of total shareholder yield.

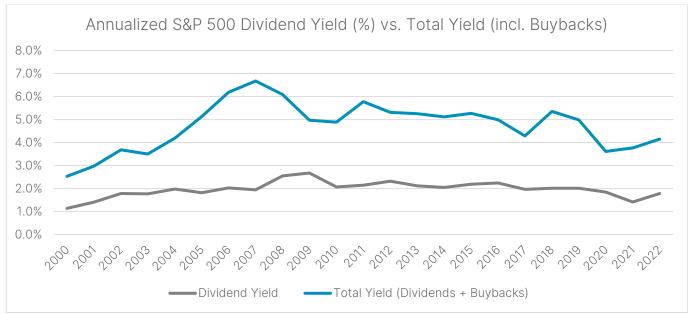
The Nasdaq US Buyback Achievers Index[™] (DRB[™]) was launched on December 20, 2006 to provide investors with targeted exposure to the most active share repurchasers in the US equity market. Specifically, any US-listed security whose net reduction in shares outstanding totalled at least 5% in the trailing 12-month period is eligible for inclusion in the index. DRB is reconstituted annually and rebalanced quarterly, using a modified market capitalization weighting scheme with individual security capping at 5% of index weight.



Accelerated Growth of Buybacks in the 21st Century vs. Dividends

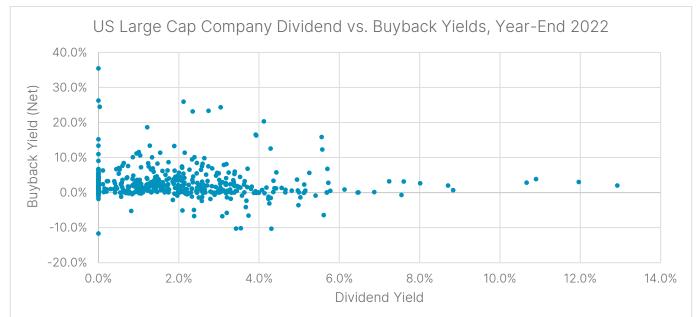
Source: Bloomberg for 2000-2021 data, Factset/S&P Dow Jones Indices for 2022. Buyback data for 2022 still considered preliminary.

At the turn of the century, the US large cap equity market (as proxied by the S&P 500 Index) recorded very similar levels of buybacks and dividends, approximately \$150-160B annually until 2003. Since then, dividends have steadily grown to more than \$500B per year, while buybacks have reached as high as \$900B in 2021 with more variability year-over-year. Despite that, aggregate buybacks have exceeded aggregate dividends in 17 of the past 19 calendar years, and have cumulatively outpaced dividends by more than \$3T over the period.



Source: Bloomberg for 2000-2021 data, Factset/S&P Dow Jones Indices for 2022. Buyback data for 2022 still considered preliminary.

In terms of the effective yield, measuring dividends on a standalone basis would undershoot the total yield of the US large cap equity market by at least half in most years, and by as much as two-thirds in some cases. On average in the 21st century, the trailing 12-month annualized dividend yield of the S&P 500 was 1.97%, vs. a total yield of 4.72% when including a buyback yield of 2.76%.



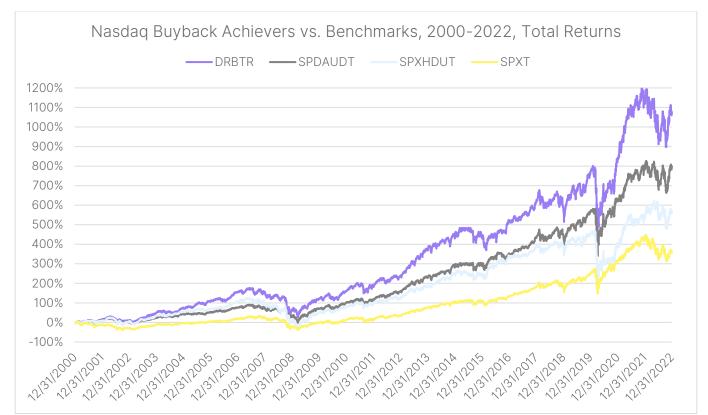
Not All Dividend Payers Utilize Buybacks, and Vice Versa

Source: Nasdaq, Factset as of December 30, 2022. Based on Nasdaq US 500 Large Cap Index™ constituents. Buyback yield based on total share repurchases, net of issuances. Yields are annualized based on trailing 12-month dividend and buyback activity.

Using the Nasdaq US 500 Large Cap Index as a proxy, we observe that of the top 50-ranked companies by trailing 12-month dividend yield as of year-end 2022, only three companies were also ranked in the top 50 in terms of their buyback yield. Of the top 100-ranked dividend payers, only 15 were ranked in the top 100 for buybacks. And of the 119 companies with no dividends in 2022, 72 of them repurchased shares on a net basis. (On the other hand, only 23 companies neither bought back nor net issued shares in 2022, and of those, 14 paid some dividends.) Thus an income-oriented investor utilizing a standalone dividend strategy may not only miss allocating to companies that have much higher total yields than their dividends might indicate, but they will also miss out on a number of non-dividend-payers that are nonetheless providing shareholders with a substantial buyback yield. Overall, more than half of the companies in the index (298 out of 497) generated a higher buyback yield in 2022 than their dividend yield; about three-quarters (373) of companies paid a dividend; and three-quarters (365) repurchased shares on a net basis.

Above-Average Shareholder Yield Drives Outperformance

When looking at some of the leading indexes that track high dividend-paying companies, such as the S&P 500 Dividend Aristocrats Index (SPDAUD) or the S&P 500 High Dividend Index (SPXHDU), it is clear to see the long-term outperformance potential vs. a broad market benchmark such as the S&P 500 (SPX). Since year-end 2000, the S&P 500 has generated a total return of 345%, or 7.0% annualized. The other two dividend indexes have generated total returns of 766% and 554%, respectively, or 10.3% and 8.9% annualized. The Nasdaq US Buyback Achievers Index, however, has outperformed them all, up 1,054% or 11.75% annualized.

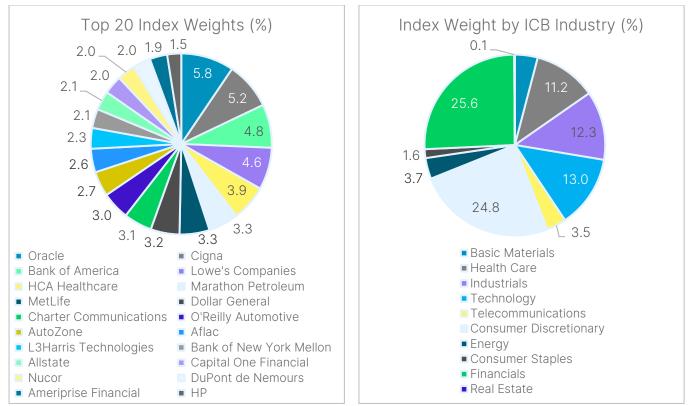


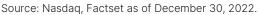
Source: Nasdaq, Bloomberg as of December 30, 2022. Returns for DRB Index prior to December 20, 2006 based on backtested data.

The fact that the strongest period of outperformance occurred during the first six to seven years of the century suggests the strategy behind DRB may be well-positioned to outperform in today's market environment – a similar combination of Value rotating back in favor after years of Growth outperformance, as well as rising rates – in which investors are putting a premium on companies that generate substantial cash today, as opposed to

projections of higher cash flows far into the future. Indeed, the ability of companies to return cash to shareholders via buybacks may be especially valuable in the context of falling equity valuations and multiples, providing additional support for share prices when they are needed most. Moreover, buybacks are an important signalling mechanism to investors that company management believes their shares are undervalued; in the instance of a company that buys back its stock at a price that is less than its book value, then it will also serve to increase its book value per share.¹

In terms of DRB's current exposures, the index counts several Value-oriented constituents within Healthcare and Financials among its top 20 largest constituents, which in aggregate contribute 61.4% of index weight. Overall, Financials and Consumer Discretionary make up the biggest sector allocations, with roughly half of the index weight combined. Within Consumer Discretionary, more defensive names such as Lowe's, Dollar General, O'Reilly Automotive, and AutoZone are represented, as opposed to some of the more high-flying consumer names in recent years that are now underperforming (e.g. Tesla, Amazon).





Summary

Companies have utilized buybacks as an alternate means of returning capital to their shareholders for a long time. All else equal, the impact to shareholder wealth is equivalent to the usage of cash dividends. Investors looking for companies that prioritize return of shareholder capital should consider tracking an index such as the Nasdaq US Buyback Achievers Index, which screens the US equity universe for constituents that have a buyback yield of at least 5%. Over the past two decades, buybacks have contributed more than half of the total equity yield in the US.

ETFs currently tracking DRB include the Invesco Buyback Achievers ETF (Nasdaq: PKW).

¹ https://www.cfainstitute.org/en/membership/professional-development/refresher-readings/analysis-dividends-share-repurchases

Sources: Nasdaq Global Indexes, FactSet, Bloomberg.

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