FUNDAMENTALS™

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Chris Brightman, CFA

"Aggregating the equity of all publicly held U.S. corporations, we find [they] issued stock equal to $1.2 trillion in 2014."

KEY POINTS

1. In 2014, the S&P 500 Index's dividend (1.9%) + buyback (2.9%) yield = 4.8%, but this yield was not realized by investors.
2. As in most years, in 2014 issuance of new shares—for management compensation, new investments, and funding mergers and acquisitions—exceeded buybacks.
3. The dilution rate for the U.S. equity market in 2014 was 1.8% compared to the historical dilution rate of 1.7% over the 80-year period from 1935 to 2014.
4. U.S. equity investors in aggregate—contrary to appearances—have not realized a benefit from the recent spate of stock repurchases.

Are Buybacks an Oasis or a Mirage?

Chris Brightman, CFA, Vitali Kalesnik, Ph.D., and Mark Clements, Ph.D.

Like travelers in the desert searching for water, we survey the parched investment landscape looking for high-yielding assets to quench our thirst for investment income. Shimmering on the barren surface of zero real yields, is that a lush garden of stock buybacks that we spy on the horizon? We examine the impact on investors of the recent increase in buybacks using an approach introduced by Bernstein and Arnott (2003).

In 2014, buybacks represented 2.9% of the S&P 500 Index's market capitalization. When this distribution of cash is added to the 1.9% dividend yield of the S&P 500,[1] it produces a dividend-plus-buyback yield of 4.8%. For yield-thirsty investors, this combination appears to be an oasis in the capital market desert. To be that oasis, however, buybacks must not be diluted by net new issuance. We scour a range of sources to tally new issuance, discuss why companies issue new stock, and explain the possible dilutive impact of this new issuance.

Who's Buying Back Stock?

In 2013, S&P 500 companies, the largest in the United States but nonetheless a subset of the market, spent $521 billion on buybacks. In 2014 that amount rose to $634 billion and moved higher still to $696 billion when total repurchases by all publicly traded companies in the U.S. market are included.[2] The top 15 companies by repurchases are listed in **Table 1**.

Six of the 15 top companies are in the tech sector: Apple, IBM, Intel, Cisco, Oracle, and Microsoft. Combined, these six huge cash-flow-generating companies are responsible for 14% of all public company buybacks in 2014. Apple alone bought back $45 billion of its stock, nearly equivalent to the annual gross national product of Costa Rica, a country with a population of 5 million.

In order to ascertain the true impact of a company's repurchases on its shareholders, we need to determine the amount of stock a company issues over the same period it is buying back its stock.

Lifting the Veil on New Issuance

Companies do not make it easy for investors to know how much new stock they are issuing. Finding these numbers takes investigation and research, lifting the veil on a company's true financial operations. Our first path of approach is a company's cash flow statement. The financing section of the statement captures the securities sold to raise capital, transfers of different classes of shares into common stock, and the exercise

Table 1. Top 15 Largest Companies by Stock Repurchases (in 2014)

Number	Company	Repurchases (in billions)	Number	Company	Repurchases (in billions)
1	Apple	$45.0	9	Microsoft	$7.3
2	IBM	$13.7	10	Johnson and Johnson	$7.1
3	Exxon Mobil	$13.2	11	Monsanto	$7.1
4	Intel	$10.8	12	Goldman Sachs	$7.1
5	Cisco	$9.8	13	Home Depot	$7.0
6	Wells Fargo	$9.4	14	Walt Disney	$6.5
7	Oracle	$8.1	15	Boeing	$6.0
8	Merck	$7.7		**Total U.S. Market**	**$695.6**

Source: Research Affiliates, LLC, based on data from Compustat. These numbers represent repurchases of common stock only.

of options and warrants. **Table 2** lists the companies with the largest stock issuance as reported in their respective cash flow statements. Total issuance reported for the 2014 fiscal year equals $257 billion dollars, 1% of market capitalization.

Interestingly, 5 of the companies in the top 15 buyback list (Table 1) are also in the top 15 issuance list. These five companies are highlighted in Table 2. Delving deeper into these companies' cash flow statements we see that they engaged in significant options-based compensation programs.

Stock Options for Management

The 5 companies in the top 15 buyback list that are also in the top 15 issuance list are Cisco, Oracle, Johnson and Johnson, Wells Fargo, and Merck. Although all five have massive buyback programs, the programs coincide with significant share issuance. Largely responsible for this overlap is employee compensation, in particular, stock options.

When management redeems stock options, new shares are issued to them, diluting other shareholders. A buyback is then announced that roughly matches the size of the option redemption. This facilitates management's resale of the new stock they were issued in the option redemption. Buyback? Not really! Management compensation? Yes.[3]

Because the stock options a company issues its management dilute the value of its stockholders' shares, companies often repurchase their stock to offset

Table 2. Top 15 Largest Companies by Stock Issuance Measured by Cash Flow Statements (in 2014)

Number	Company	Stock Issuance (in billions)	Number	Company	Stock Issuance (in billions)
1	Williams	$3.4	9	Oracle	$1.8
2	Thermo Fisher Scientific	$3.1	10	Johnson and Johnson	$1.8
3	General Electric	$2.8	11	Wells Fargo	$1.7
4	Synchrony Financial	$2.8	12	Merck	$1.6
5	Tyson Foods	$2.2	13	Coca Cola	$1.5
6	Investors Bancorp	$2.2	14	Platform Specialty Products	$1.5
7	Kennedy Wilson Holdings	$2.0	15	Overseas Shipholding Grp	$1.5
8	Cisco	$1.9		**Total U.S. Market**	**$257.0**

Source: Research Affiliates, LLC, based on data from Compustat.

this dilutive effect. The net impact is a transfer to management of more of a company's cash flow than is reported as compensation on the income statement. Irrespective of the intent of the company to reduce the dilutive impact of its options-based stock issuance with buybacks, the reality is that the dilution is not always totally offset.

But We Must Lift the Veil Higher…

Upon closer examination, we find that the cash flow statement often fails to report the majority of a company's stock issuance. How do we know this? We compare the market capitalization of a company at the end of the year to its market capitalization at the beginning of the year, adjusted for the change in the company's stock price. If the market capitalization is up 10% and stock price is unchanged, there must have been 10% new share issuance. This analysis allows us to determine the amount of a company's stock buybacks or issuance. We then follow a thorough process of fundamental research into each company's corporate actions as described in its press releases and by the financial media to determine the source of and reason for the new issuance unexplained by the cash flow statement.

"With so much new issuance, the potential benefit of stock buybacks may not be realized by the investor."

Aggregating the equity of all publicly held U.S. corporations, we find that U.S. companies issued stock equal to $1.2 trillion in 2014. Whereas part of this aggregate market issuance was in the form of initial public offerings, far more stock was issued by existing companies, the largest of which are listed in **Table 3**.

Why are companies issuing such large amounts of stock? In addition to stock options for management, we find that a substantial amount of new issuance is to support companies funding merger and acquisition activity. With so much new issuance, the potential benefit of stock buybacks may not be realized by the investor.

Currency for M&A

Companies are issuing new shares to fund merger and acquisition (M&A) activity. Like a corporate currency, companies print new stock, beyond the issuance that's reported on their cash flow statements, to purchase other companies. These stock-for-stock transactions are not always reported as cash flows; neither are they necessarily nondilutive. Examples of such issuance in 2014 for M&A purposes are Kinder Morgan consolidating a few of its subsidiaries, Verizon acquiring Vodafone's U.S. operations, and Facebook acquiring Whatsapp.

Table 3. Top 15 Largest Companies by Stock Issuance Measured by Adjusted Market Capitalization (in 2014)

Number	Company	Stock Issuance (in billions)	Number	Company	Stock Issuance (in billions)
1	Kinder Morgan	$118.5	9	Comcast	$7.9
2	Verizon	$87.5	10	Berkshire Hathaway*	$7.2
3	Facebook	$22.1	11	Tableau Software	$6.1
4	R C S Capital	$21.8	12	Alliance Data Systems	$6.0
5	Walgreens	$12.9	13	Pacwest Bancorp	$5.9
6	Tri Pointe Homes	$10.1	14	Thermo Fisher Scientific	$5.4
7	Level 3 Communications	$8.3	15	Zulily	$5.2
8	General Motors	$8.2		**Total U.S. Market**	**$1,214.2**

Source: Research Affiliates, LLC, based on data from CRSP and Compustat. Net Issuance for each firm is computed from CRSP as the gross growth rate in shares outstanding multiplied by the market capitalization at the end of the year. Repurchases of common stock are taken from Compustat. We avoid issuance data from Compustat here, as these data only include issuances that appear on the firm's financing cash flow statement and leave out shares issued for corporate actions such as mergers and acquisitions. Issuance is then computed as net issuance plus repurchases.

*The issuance reported for Berkshire Hathaway is due to the change in shares outstanding of their Class B shares only. Most of this change was due to conversion of Class A shares into Class B shares. This reduction in Class A shares would mostly offset issuance to zero for the firm as a whole. This is also true for the aggregate market provided all share classes are included in the market measure.

The first two examples are of nondilutive transactions. Kinder Morgan was retiring the stock of subsidiary companies and concurrently issuing new stock of the parent company. The net effect is that no new stock was added to the market in aggregate. Similarly, acquisitions of one public company by another, such as Verizon acquiring Vodafone's U.S. operations, are not dilutive to the aggregate public market. Because these types of transactions are accounted for in the $1.2 trillion of stock issuance reported in Table 3, this measure effectively overstates issuance in terms of the aggregate market.

The acquisition of Whatsapp by Facebook, however, is an example of a transaction in which net new shares were issued with a corresponding impact in the aggregate public equity market. Whatsapp was a private company prior to the acquisition, making the new shares used for its purchase true new issuance.

Swapping Equity for Debt

Dilution of earnings can also occur because a company issues debt, funneling earnings away from dividend payments to shareholders and toward principal and interest payments to the company's lenders. Aggregate net debt issuance by public companies was $693 billion in 2014, almost equivalent to the $696 billion of buybacks in the same year. Our analysis of U.S. publicly held companies' cash flow statements for the 2014 fiscal year reveals a similar story: often a company's repurchase of its stock was accompanied by a net increase in debt. **Table 4** reports the top 15 debt issuers in the U.S. public market (net of the rollover of existing debt).

"For investors in the aggregate U.S. public equity market, buybacks are simply a mirage."

Five of the largest debt issuers (highlighted in Table 4) were also among the largest repurchasers of equity. Apple, the company that orchestrated the largest 2014 share buyback, financed a significant part of its buyback program by issuing debt in order to avoid the tax required to repatriate its foreign-based cash reserves. Apple's net debt increase in 2014 was equal to 41% of its buybacks, and its share issuance equaled another 4% of buybacks. Still, over half of the buybacks at Apple were "real", not so for some others. As a percentage of its buybacks, Cisco's net debt issuance was 48% and share issuance was 37%; Oracle's net debt issuance was 227% and share issuance was 42% of buybacks; and Microsoft had net debt issuance of 95% and share issuance of 48% as a percentage of buybacks.

The 2% Dilution

Bernstein and Arnott (2003) explain a simple and intuitive method for observing aggregate market dilution by taking the ratio of the proportionate increase in market capitalization to the proportionate increase in the market's price index. This simple method provides a proxy for the change in shares outstanding by factoring out valuation changes, ignoring all the cases in which one public company acquires or merges with another. Positive dilution implies that, in aggregate, companies

Table 4. Top 15 Largest Companies by Net Debt Issuance (in 2014)

Number	Company	Net Debt Issuance (in billions)	Number	Company	Net Debt Issuance (in billions)
1	Wells Fargo	$34.4	9	Goldman Sachs	$11.8
2	JPMorgan Chase	$33.4	10	PNC Financial Services	$10.5
3	Medtronic	$18.7	11	Capital One	$7.6
4	Oracle	$18.3	12	Chevron	$7.4
5	Apple	$18.3	13	Ford Motor	$7.3
6	U.S. Bancorp	$14.6	14	Exxon Mobil	$7.0
7	Verizon	$12.8	15	Microsoft	$7.0
8	General Motors	$12.2		**Total U.S. Market**	**$693.4**

Source: Research Affiliates, LLC, based on data from Compustat. These numbers represent the change in total debt (change in current debt plus change in long-term debt).

are issuing more stock than they are repurchasing.[4]

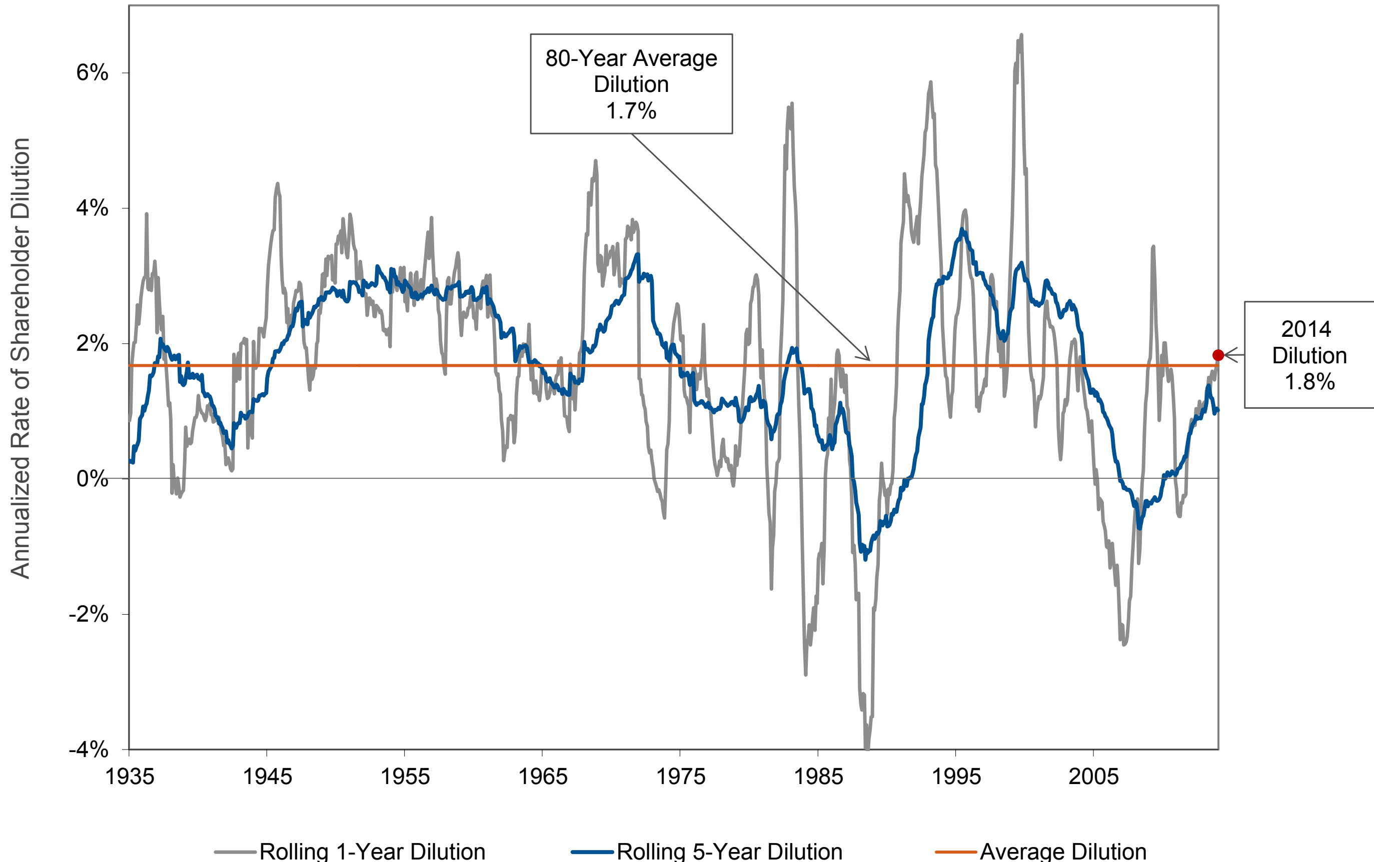
The dilution rate for the U.S. equity market in 2014 was 1.8%, equivalent to roughly $454 billion. Companies thus issued significantly more shares than they repurchased. **Figure 1** plots the historical rate of dilution, 1.7%, for the 80-year period from 1935 to 2014. The 2014 dilution rate of 1.8% for U.S. equity market investors, in aggregate, was essentially the same. We find no evidence of a reduction in net dilution coincidental with the recent increase in buybacks.

The media has been all over the $700 billion in buybacks. But how many have noticed the $1.2 trillion in new share issuance? Commentators and strategists like to suggest that we add buybacks to the dividend yield. How many of them would be comfortable suggesting that we subtract net issuance from the yield?! Perhaps the dividend yield of 1.9% has been very nearly wiped out by the 1.8% net dilution? We don't advocate this interpretation. But, for obvious reasons, we do not think that the naïve sum of dividends plus buybacks has merit.

Mirage, Not Oasis

Alas, like the cool pool of water shimmering on the desert horizon that turns out to be only the refraction of light from blue sky onto hot sand, the 4.8% dividend-plus-buyback yield in the U.S. equity market is a cruel mirage. The reality is that publicly traded companies in the United States are issuing far more new securities than they are buying back, diluting existing investors' ownership and reducing growth in earnings and dividends per share well below the growth of their reported profits. There is, in fact, no net transfer of cash from the coffers of U.S. corporations to the wallets of U.S. equity investors. The buyback oasis evaporates as we approach it. For investors in the aggregate U.S. public equity market, buybacks are simply a mirage.

Figure 1. Historical U.S. Equity Market Dilution Rates , 1935–2014



Source: Research Affiliates, LLC, based on data from CRSP and S&P.

Endnotes

1. This was the dividend yield as of December 31, 2014. As of the market close on September 21, 2015, the dividend yield for the S&P 500 was 2.06%.
2. The universe of companies includes all publicly traded U.S. and foreign companies as well as REITs traded on U.S. equity market exchanges.
3. We're fine with huge compensation for management teams that create great wealth for society and for their shareholders. We're not as enthusiastic about pretending that it's a stock buyback!
4. The dilution measure is a proxy for the percentage change in shares outstanding; issuances and repurchases are reported in U.S. dollars. Though not directly comparable, to the extent that prices are being controlled for in the measure, positive dilution implies more issuances than repurchases.

Reference

Bernstein, William J., and Robert D. Arnott. 2003. "Earnings Growth: The Two Percent Dilution." *Financial Analysts Journal*, vol. 59, no. 5, (September/October): 47–55.

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