US Equity Views

Misperceptions surrounding corporate cash spending priorities and the economics of share repurchases

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Growth investment has accounted for the largest share of US corporate cash outlays every year since at least 1990. This fact is contrary to the popular belief advanced by some politicians that buybacks dominate corporate spending.

Growth investment has accelerated sharply since the passage of tax reform in late 2017. This fact contradicts the widespread belief that tax reform led only to a surge in corporate cash returned to shareholders in the form of share repurchases.

US companies have consistently returned cash to shareholders for nearly 140 years. This established historical pattern contradicts the perception of many commentators that significant cash return is a recent development.

Firms have increased the buyback component of their cash return relative to dividends for two reasons: (1) Cash use flexibility in an environment of increased earnings variability; and (2) repatriation of overseas profits following tax reform.

Buyback growth typically follows the trajectory of earnings growth. Managements during the past 30 years have embraced the flexibility offered by buybacks relative to dividends when determining how to return cash to shareholders.

Tax reform prompted firms to reconsider their cash holdings and share repurchases were an efficient way for many companies to use the repatriated funds. Just 20 stocks in the S&P 500 index accounted for 38% of the $819 billion in aggregate cash spent to repurchase shares last year, but those firms represented fully 69% of the $279 billion overall *increase* in share buybacks. These companies also had the largest amount of earnings trapped overseas.

One of the greatest misconceptions in the public discourse surrounding corporate buybacks is the belief that managements repurchase stock in an attempt to inflate earnings per share (EPS) and meet incentive compensation targets. Contrary to popular belief, executives whose compensation depends on EPS – a metric that would benefit from accretive share buybacks –did not allocate a higher proportion of 2018 total cash spending to buybacks than companies where management pay is not linked to EPS.

Summary: Myths and realities about corporate cash spending

Growth investment has accounted for the largest share of US corporate cash outlays every year since at least 1990. This fact is contrary to the popular belief advanced by some politicians that buybacks dominate corporate spending. For the past 30 years, corporate cash spending devoted to capital projects and research and development initiatives has consistently equaled roughly 10% of sales. During 2018, S&P 500 firms increased capex and R&D spending by 13% to $1.1 trillion, equal to 11% of annual sales. In 2019, we forecast capex and R&D spending will rise by 9% to $1.2 trillion and account for 38% of the $3.0 trillion of aggregate cash spent by S&P 500 companies. Cash M&A spending will rise by 7% and account for an additional 13% of total cash outlays.

Growth investment has accelerated sharply since the passage of tax reform in late 2017. This fact contradicts the widespread belief that tax reform led only to a surge in corporate cash returned to shareholders in the form of share repurchases. A company must invest at the same rate as depreciation in order to maintain a consistent asset base, while capex in excess of depreciation represents investment for incremental growth. The capex-to-depreciation ratio (sometimes referred to as the "reinvestment ratio") had been persistently declining since the summer of 2014 and reached the lowest level this cycle in the summer of 2017. However, following tax reform, the S&P 500 reinvestment ratio rebounded sharply to 130% in 2018.

In addition to investing for growth, for nearly 140 years companies have consistently returned cash to shareholders. The S&P 500 cash return payout ratio (dividends + net buybacks / net income) has averaged 73% of earnings since 1880. Between 1880 and 1980, most distributions were in the form of dividends. However, since the early 1980s companies returned cash to shareholders via both dividends and share repurchases. In 2018, the combined payout ratio equaled 88% of earnings, ranking in the 76th historical percentile since 1880.

Companies have increased the buyback component of their cash return relative to dividends for two reasons: (1) Cash use flexibility in an environment of increased earnings variability; and (2) repatriation of overseas profits following tax reform.

Corporate leverage has increased substantially during the current decade-long economic expansion. Companies have increased their financial leverage to enhance returns in a slow-growing economic environment characterized by sustained low interest rates and generally muted market volatility. One consequence of higher leverage is that S&P 500 earnings variability has also climbed.

Buyback growth typically follows the trajectory of earnings growth. Large swings in profits means buyback growth also varies widely. Managements during the past 30 years have embraced the flexibility offered by buybacks relative to dividends when determining how to return cash to shareholders. For example, during the current economic expansion, buybacks plunged by 12% in 2012, rose by 13% annually during the next three years, dropped by 7% in 2016, and fell by 2% in 2017, before rebounding last year.

S&P 500 earnings jumped by 23% in 2018 while spending on buybacks soared by 52% to $819 billion and dividends rose by 7%. Looking forward, we forecast S&P 500 aggregate buyback spending will rise by 15% to $940 billion in 2019. In contrast, dividend growth has been far more stable, rising steadily by an average of 7% annually during the past decade. We forecast spending on dividends will grow by 9% in 2019.

Tax reform prompted firms to reconsider their cash holdings. One consequence of the 2017 Tax Cuts and Jobs Act was that earnings permanently reinvested overseas were subject to tax regardless of whether the profits were actually repatriated. Accordingly, after paying the tax, firms had an incentive to return cash to the US rather than leave earnings trapped abroad.

Share repurchases were an efficient way for many companies to use the repatriated funds. In 2018, buyback spending jumped by $279 billion or 52% above the prior year's level. Just 20 stocks in the S&P 500 index accounted for 38% of the $819 billion in aggregate cash spent to repurchase shares. However, those firms represented fully 69% of the overall *increase* in share buybacks! Unsurprisingly, these companies also had the largest amount of earnings trapped overseas.

One of the greatest misconceptions in the public discourse surrounding corporate buybacks is the belief that managements only repurchase stock in an attempt to inflate EPS and meet incentive compensation targets. Contrary to popular belief, executives whose compensation depends on EPS did not allocate a greater proportion of total cash spending to buybacks in 2018 than companies where management pay was not linked to EPS. The 247 companies in the S&P 500 with incentive compensation programs linked to earnings per share – a metric that would benefit from accretive share buybacks – actually spent a smaller share (28%) of their total cash outlays on repurchasing stock compared with the 253 firms without a performance metric linked to EPS (32%). Moreover, the 49% of S&P 500 firms with EPS-linked compensation accounted for just 44% of total 2018 buybacks ($360 billion).

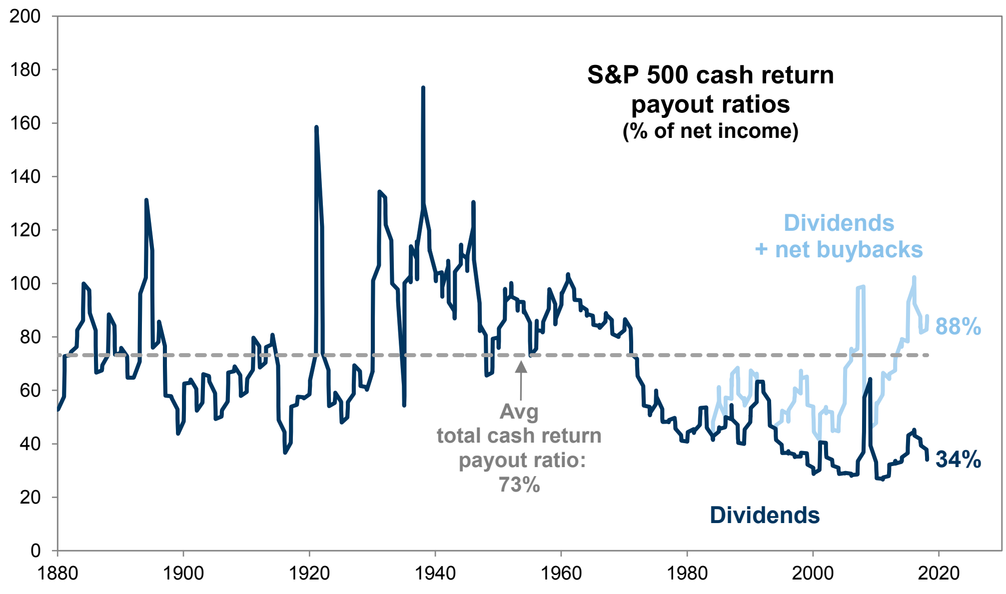
Five observations on the economics of share repurchases

1. Returning cash to shareholders is not a new phenomenon

Firms have been returning cash to shareholders for more than a century. Since 1880, the total cash return payout ratio (net buybacks + dividends / net income) has averaged 73% (see Exhibit 1). The trailing 12-month total cash return payout ratio is slightly above the long-term average, but the composition of cash return has shifted during the past decade. Additionally, the S&P 500 net buyback payout ratio is far more volatile than the dividend payout ratio (see Exhibit 2).

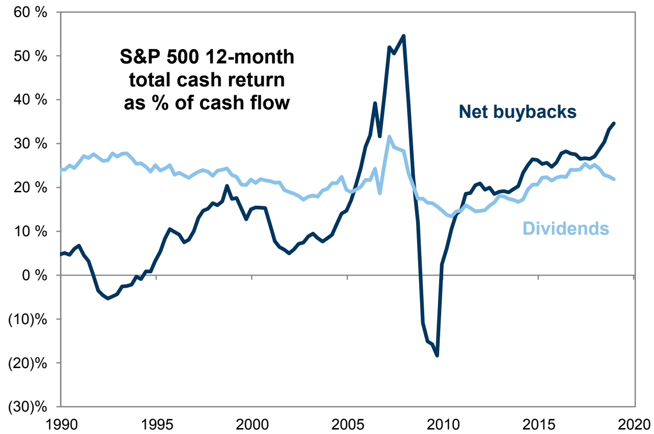
From 1880 to 1980, the dividend payout ratio averaged 78% of earnings and the resulting dividend yield averaged 4.8%. Buybacks were only explicitly permitted by the SEC following the passage of Rule 10b-18 in 1982. The number of S&P 500 firms repurchasing at least some of their shares during the prior 12 months has risen from 196 in 1992 to 424 in 2018 (see Exhibit 3). In recent years, the rapid growth in share repurchases has come at the expense of common dividends.

Exhibit 1: S&P 500 total cash return payout is slightly above the 140-year historical average
as of 4Q 2018; net buybacks floored at 0



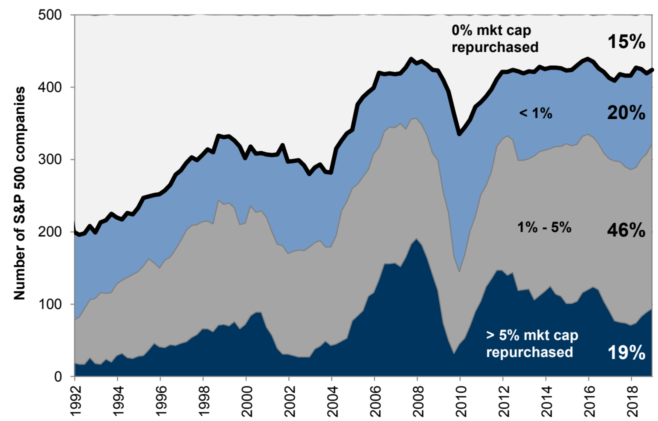
Source: Robert Shiller, Compustat, Goldman Sachs Global Investment Research

Exhibit 2: Net buyback payout more volatile than dividend payout
as of 4Q 2018



Source: Compustat, Goldman Sachs Global Investment Research

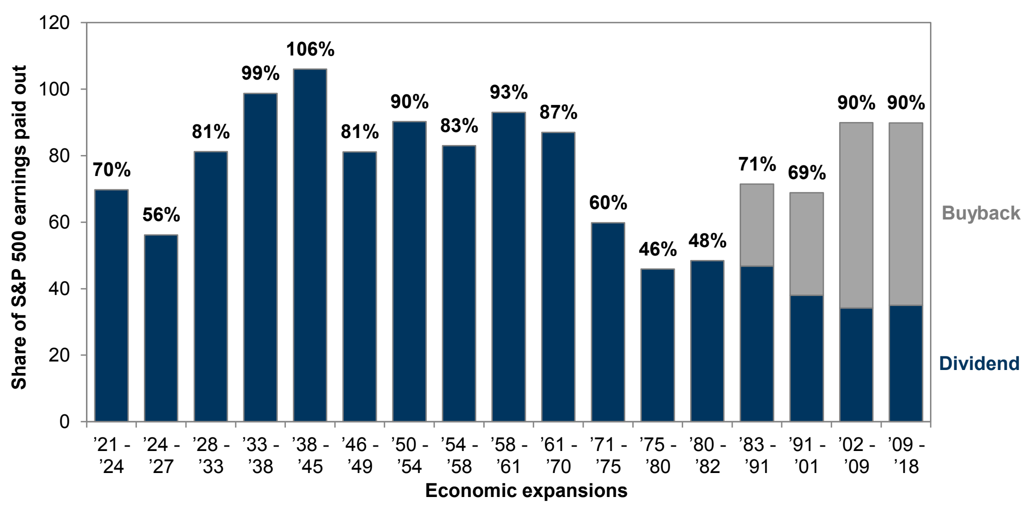
Exhibit 3: Most S&P 500 firms repurchase some shares
as of 4Q 2018; trailing 12-month buybacks as a percentage of average market cap



Source: Compustat, Goldman Sachs Global Investment Research

The share of cumulative net income that has been returned to shareholders during the current economic expansion is similar to past expansions. S&P 500 firms have generated $9.0 trillion of cumulative net income since the current economic expansion began in 3Q 2009. Of this amount, 90% has been returned to shareholders in the form of dividends ($3.1 trillion, 35%) and buybacks ($4.9 trillion, 55%). This distribution ratio is consistent with the share of net income returned to shareholders during the 2002-2009 cycle, both in terms of the share of net income returned (90%) and the mix of buybacks and dividends. Recent payouts are somewhat above the 50%-70% returned from the 1970s to 2000 but are comparable to shareholder return during the first half of the 20th century (see Exhibit 4).

Exhibit 4: Cumulative payout ratio during economic expansions
as of 4Q 2018



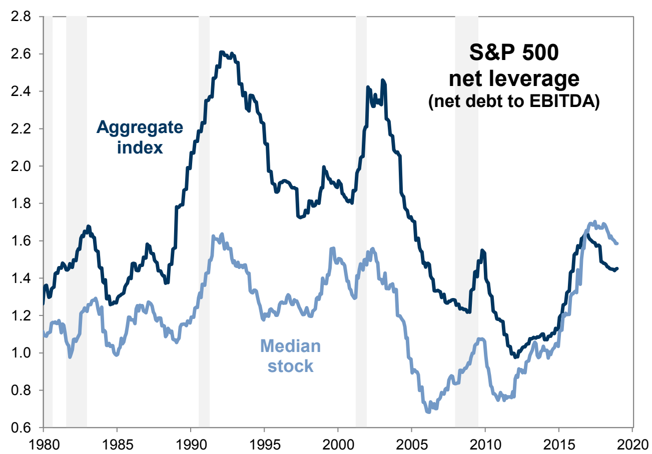
Recessions based on NBER data and are attached to the cycle prior.

Source: Robert Shiller, NBER, Standard and Poor's, Goldman Sachs Global Investment Research

2. Buybacks offer greater flexibility than dividends to match earnings volatility

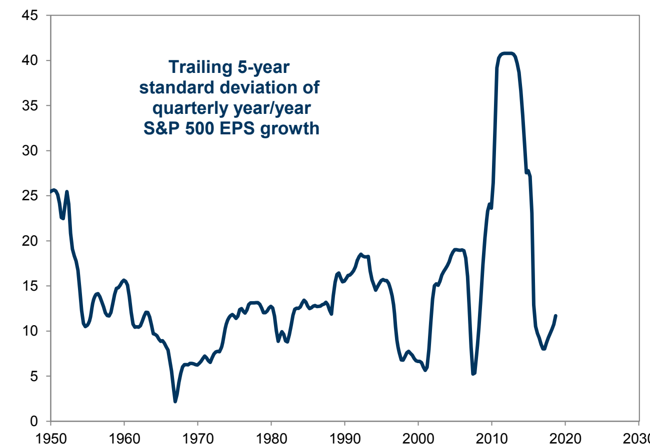
Corporate leverage for the typical S&P 500 company has increased dramatically during the current economic expansion. In a desire to boost growth during a slow decade-long expansion, leverage as measured by net debt/EBITDA has steadily climbed (see Exhibit 5). In particular, leverage for the median company in the S&P 500 now stands close to the highest level in 40 years.

Exhibit 5: Net leverage for the median S&P 500 stock is near an all-time high
as of February 28, 2019



Source: Compustat, Goldman Sachs Global Investment Research

Exhibit 6: S&P 500 earnings volatility has risen in recent years
as of 3Q 2018

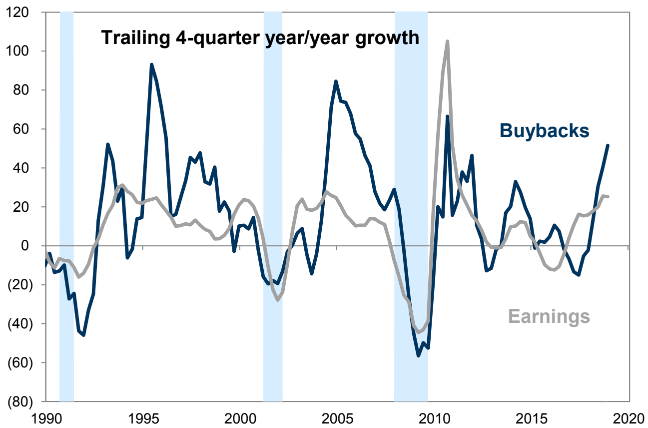


Source: FactSet, Goldman Sachs Global Investment Research

Managements during the past 20 years have embraced the flexibility offered by buybacks relative to dividends when determining how to return cash to shareholders. S&P 500 dividend growth has averaged 8% annually during the past 20 years. However, growth in share repurchases has been more volatile and more closely tracks growth in corporate earnings (see Exhibits 7 and 8). For example, S&P 500 EPS plunged by 23% following the Tech Bubble and collapsed by 45% during the financial crisis. Buybacks during the subsequent years fell by 19% and 45%, respectively, compared with dividends which fell by only 1% and 10%. During the past three decades annual growth in buyback spending has swung significantly, rising by as much as +85% and falling by as much as -46%.

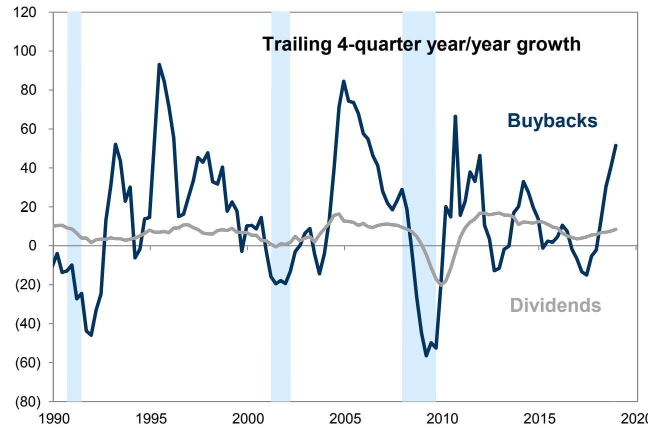
The fluctuations in profit growth explain a key benefit of buybacks. When earnings drop sharply, managements can easily reduce the cash spent on buybacks without disrupting dividend policy. In contrast, investors expect steady growth in regular dividends and do not take kindly to firms that cut dividends per share (DPS).

Exhibit 7: Buyback growth tracks earnings growth
as of 4Q 2018



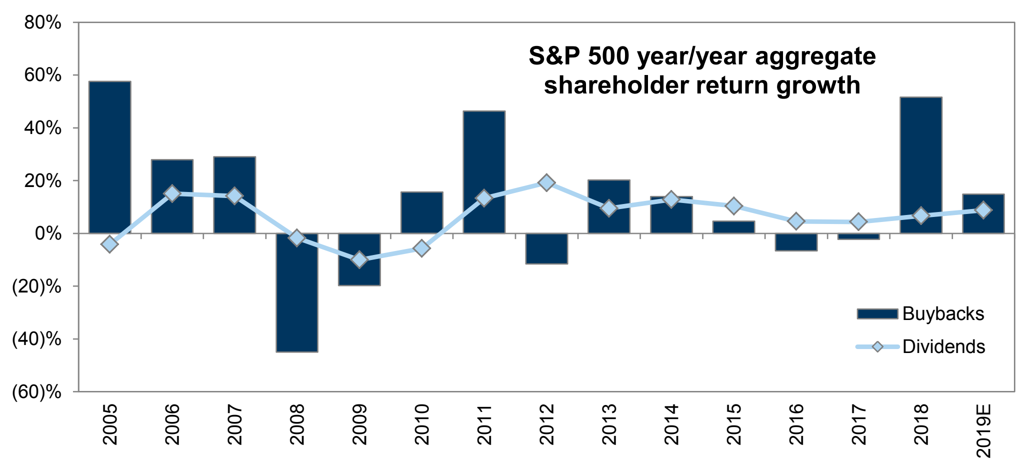
Source: Compustat, FactSet, Goldman Sachs Global Investment Research

Exhibit 8: Growth in buybacks more volatile than dividends
as of 4Q 2018



Source: Compustat, Standard and Poor's, Goldman Sachs Global Investment Research

Exhibit 9: Dividend growth this cycle has been less volatile than buyback growth
as of 4Q 2018

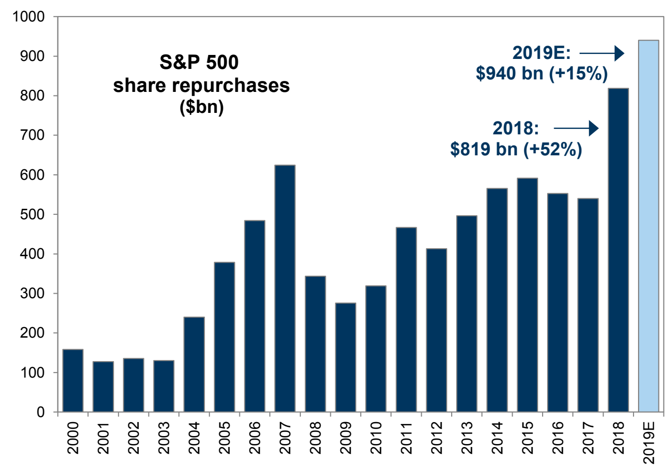


Source: Compustat, Goldman Sachs Global Investment Research

3. Tax reform sparked a jump in cash spent on buybacks

The Tax Cuts and Jobs Act of 2017 prompted firms to reconsider their cash holdings. One consequence of the tax law passed in December 2017 was that earnings permanently reinvested overseas were subject to tax regardless of whether the profits were actually repatriated. Accordingly, after paying the tax, firms had an incentive to return cash to the US rather than leave earnings trapped abroad.

Exhibit 10: S&P 500 share repurchases surged after tax reform
as of 4Q 2018



Source: Compustat, Goldman Sachs Global Investment Research

Share repurchases were an efficient way for many companies to use the repatriated funds. In 2018, buyback spending jumped by $279 billion or 52% above the prior year's level. However, just 20 stocks in the S&P 500 index accounted for 38% of the $819 billion in aggregate cash spent to repurchase shares during 2018, but those firms represented fully 69% of the $279 billion overall increase in share buybacks (see Exhibit 11). Unsurprisingly, these companies from six different sectors also had the largest amount of earnings trapped overseas.

Much of the cash that firms repatriated in 2018 has been recycled back into the domestic economy through a combination of both buybacks and dividends. Much of this distributed cash has likely been invested in firms with superior growth prospects, retained by investors as cash savings, or has led to consumption. These uses of cash are more productive than if the company had simply left the funds abroad.

Exhibit 11: 20 stocks with high overseas earnings accounted for 69% of S&P 500 buyback growth in 2018
as of 4Q 2018; overseas earnings as of 2017

			Overseas Earnings Permanently Reinvested	2018 buybacks			
				Spending		Growth (yoy)	
Ticker	Company	Sector	(2017, $ bn)	$ bn	% of SPX	$ bn	% of SPX
AAPL	Apple Inc.	Information Technology	$110	$74	9 %	**$40**	14 %
ORCL	Oracle Corp.	Information Technology	55	29	4	**25**	9
QCOM	QUALCOMM Inc.	Information Technology	33	24	3	**22**	8
CSCO	Cisco Systems Inc.	Information Technology	71	23	3	**15**	5
AMGN	Amgen Inc.	Health Care	37	18	2	**15**	5
BAC	Bank of America	Financials	18	25	3	**12**	4
ABBV	AbbVie Inc.	Health Care	29	12	1	**11**	4
MSFT	Microsoft Corp.	Information Technology	142	16	2	**8**	3
PFE	Pfizer Inc.	Health Care	86	12	1	**7**	3
INTC	Intel Corp.	Information Technology	46	11	1	**7**	3
JPM	JPMorgan Chase	Financials	38	22	3	**5**	2
GOOGL	Alphabet Inc.	Communication Services	61	9	1	**4**	2
PCLN	Booking Holdings	Consumer Discretionary	13	6	1	**4**	1
LLY	Eli Lilly & Co.	Health Care	28	4	1	**4**	1
CAT	Caterpillar Inc.	Industrials	16	4	0	**4**	1
MMM	3M Co.	Industrials	14	5	1	**3**	1
CELG	Celgene Corp.	Health Care	13	6	1	**2**	1
NKE	NIKE Inc.	Consumer Discretionary	12	5	1	**2**	1
GILD	Gilead Sciences	Health Care	38	3	0	**2**	1
MS	Morgan Stanley	Financials	12	6	1	**1**	0
20 stocks with high permanently reinvested overseas earnings			**$872**	**$313**	**38 %**	**$193**	**69 %**
Rest of S&P 500 index			**2,472**	**506**	**62**	**85**	**31**
S&P 500				**$819**		**$279**	

Source: Compustat, FactSet; compiled by Goldman Sachs Global Investment Research

4. Compensation incentives do not appear to have influenced cash spending priorities in 2018

One of the greatest misconceptions in the public discourse surrounding corporate buybacks is the belief that managements only repurchase stock in an attempt to inflate EPS and meet incentive compensation targets. However, the facts do not support this story. Our GS SUSTAIN analysts Derek Bingham and team have conducted a detailed analysis of the executive compensation programs for each S&P 500 company (see What are your CEOs solving for? 2018-19 mid-year update, January 16, 2019, and What are your CEOs solving for? 2018 S&P 500 Management Incentives Guide, July 1, 2018). We combined the GS SUSTAIN team's S&P 500 company-level compensation analysis with our cash spending data to explore whether there is a linkage between how executives are rewarded and how companies prioritize their cash spending.

Executives whose compensation depends on EPS did not allocate a greater proportion of 2018 total cash spending to buybacks than companies where management pay was not linked to EPS. Contrary to popular belief, the 247 companies in the S&P 500 with incentive compensation programs linked to earnings per share – a metric that would benefit from accretive share buybacks – actually spent a smaller share (28%) of their total cash outlays on repurchasing stock compared with the 253 firms without a performance metric linked to EPS (32%). Moreover, the 49% of S&P 500 firms with EPS-linked compensation accounted for just 44% of total 2018 buybacks ($360 billion). See Exhibit 12.

In addition, these same firms with EPS-linked incentive compensation actually devoted 22% of their 2018 cash spending to dividends compared with just 14% for counterpart firms without EPS incentives. The irony of this situation is that executives chose to return cash to shareholders in a manner that resulted in lower personal compensation than might have been earned if the spending was used to repurchase shares rather than pay dividends.

We also found no relationship between how management teams with compensation incentives tied to total shareholder return (TSR) spent cash relative to those firms with no shareholder return incentive.

Exhibit 12: 2018 Cash spending priorities among S&P 500 firms with and without EPS-linked incentive compensation plans (aggregate)
2018; "Invest for growth" includes capex, R&D, and cash M&A while "Return to investors" includes buybacks and dividends

			EPS-linked compensation			
			2018 aggregate spending ($bn)			
Incentive comp. metrics	# of firms	% of firms	Invest for growth	Return to investors	Return to investors: Buybacks	Return to investors: Dividends
EPS-linked	247	49 %	$650	$640	$360	$281
Not linked to EPS	253	51	771	661	459	202
All S&P 500	**500**	**100 %**	**$1,421**	**$1,301**	**$819**	**$483**

			% of total cash spending			
Incentive comp. metrics	# of firms	% of firms	Invest for growth	Return to investors	Return to investors: Buybacks	Return to investors: Dividends
EPS-linked	247	49 %	50 %	50 %	**28 %**	22 %
Not linked to EPS	253	51	54	46	**32**	14
All S&P 500	**500**	**100 %**	**52 %**	**48 %**	**30 %**	**18 %**

Source: Compustat, FactSet, Goldman Sachs Global Investment Research

The median S&P 500 constitutent showed a similar pattern of cash use as the aggregate index. The typical company with EPS-linked compensation had a similar buyback yield and buyback payout ratio as the median firm without EPS-based compensation (see Exhibit 13).

Exhibit 13: 2018 Cash spending priorities among S&P 500 firms with and without EPS-linked incentive compensation plans (median)
2018; yield metrics reflect share of starting market cap, payout ratios reflect share of 2018 net income

	Median S&P 500 stock					
	Trailing 12-month yield			Trailing 12-month payout		
Incentive comp. metrics	Buybacks	Dividends	Total	Buybacks	Dividends	Total
EPS-linked	**2.6 %**	2.2 %	4.8 %	**45 %**	35 %	88 %
Not linked to EPS	**2.5**	1.7	4.5	**44**	26	79
All S&P 500	**2.5 %**	**2.0 %**	**4.6 %**	**44 %**	**31 %**	**85 %**

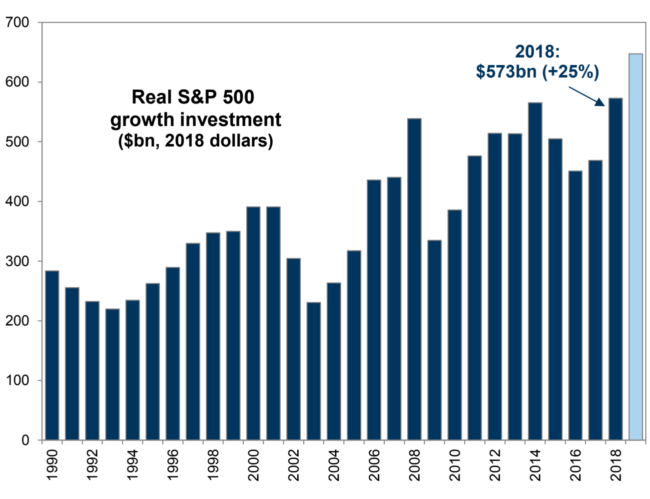
Source: Compustat, FactSet, Goldman Sachs Global Investment Research

5. Evidence suggests buybacks are not crowding out capital investment

Although buybacks soared by 52% in 2018, capex grew by 14% and R&D by 11% – the fastest annual pace of capex growth since 2011 and the fastest R&D growth since 2006. Importantly, much of the increase in capex during the past 12 months reflects true growth investment. Companies must invest at the same rate as depreciation in order to maintain a consistent asset base. Capex in excess of depreciation represents investment for growth ("growth capex"). Real spending on growth capex and R&D last year registered the highest level since at least 1990 (see Exhibit 14).

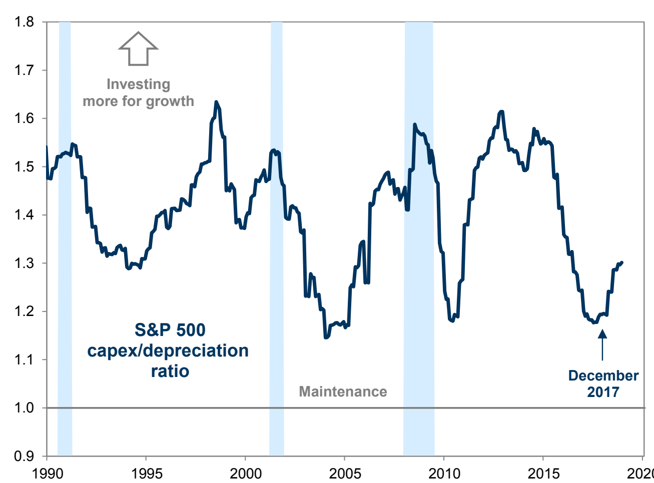
The capex-to-depreciation ratio (sometimes referred to as the "reinvestment ratio") also suggests an acceleration in the pace of growth investment. The ratio indicates the extent to which companies are investing above the amount needed to maintain a consistent asset base. The ratio is cyclical and tends to peak near the end of the business cycle or in the early innings of recession. Breaking the historical trend, the ratio had been in persistent decline since the summer of 2014 and reached the lowest level this cycle in the summer of 2017. However, the capex-to-depreciation has rebounded sharply since the passage of tax reform (see Exhibit 15).

Exhibit 14: Real S&P 500 growth investment (growth capex + R&D)
as of 4Q 2018; deflated using CPI inflation



Source: Compustat, Goldman Sachs Global Investment Research

Exhibit 15: Capex/depreciation has bounced from its December 2017 low
as of 4Q 2018

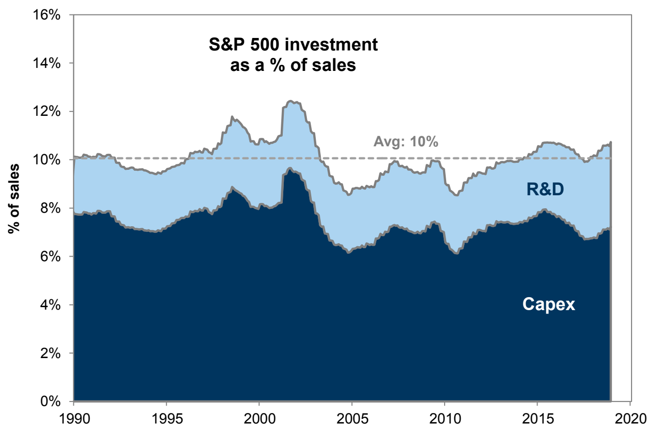


Source: Compustat, Goldman Sachs Global Investment Research

Investment spending as a share of sales has also inflected upwards and currently stands at the highest level since December 2002. During the past 12 months, capital spending amounted to 7% of sales and R&D spending represented 4% of sales for a combined total investment equal to 11% of 2018 revenues. This ratio is slightly higher than the 30-year average of 10% (see Exhibit 16).

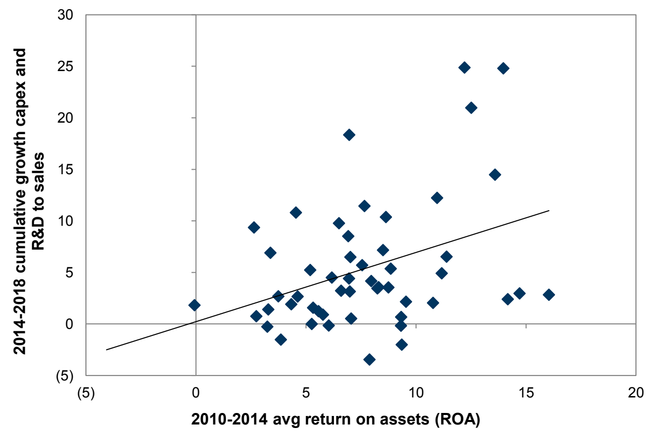
Corporates are generally efficient allocators of capital. We find some evidence that the companies that are able to generate the highest returns on assets (ROA) are also those that invest the most in growth capex and R&D. Companies in industries that generated the highest average ROA during the five-year period ending 2014 (2010-2014) went on to invest a greater proportion of sales in growth capex and R&D initiatives during the subsequent five-year period (2014-2018) than firms in industries with lower average ROAs (see Exhibit 17). Firms that generate lower asset returns may find the economics of cash return to shareholders to be superior to investing for growth.

Exhibit 16: Total investment as a share of sales in line with the long-term average
as of 4Q 2018



Source: Compustat, Goldman Sachs Global Investment Research

Exhibit 17: Firms in industries with high asset returns typically invest the most
as of 4Q 2018; S&P 500 industries



Source: Compustat, Goldman Sachs Global Investment Research

Disclosure Appendix

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We, David J. Kostin, Ben Snider, Arjun Menon, CFA, Ryan Hammond, Cole Hunter, CFA and Nicholas Mulford, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

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