SHARE REPURCHASES

2017

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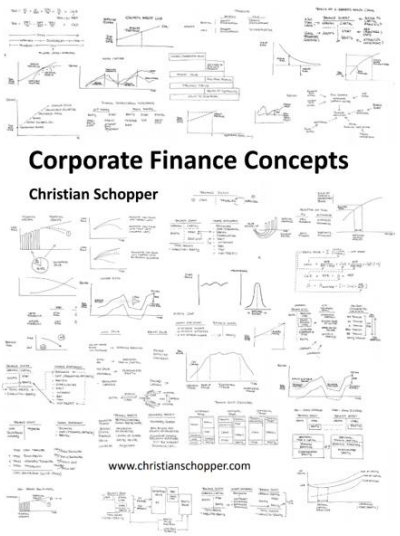

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General Thoughts on Dividends

Dividend Strategy and the Life Cycle Model

	Cash availability	Profit availability	Dividend policy
Launch	No spare cash available All cash is needed for investment in developing the business	None. Probably making losses	Nil dividend payout
Growth	Cash is needed for development and investment in growing market share	May be profitable	Nil dividend payout is preferable. However, new shareholders might prefer a nominal payout
Maturity	The company is now cash positive and has fewer opportunities to invest in profitable growth	Profitable	A medium to high dividend payout is preferred
Decline	The company is cash positive, with no reinvestment potential	May be profitable	Full payout of available cash as dividend, even in excess of current profits

What Does a Dividend Change Signal?

Interpretation	Increase the dividend level	Decrease the dividend level
Good news	The company is prospering, and we can afford to pay out more of our profits without damaging our prospects	The company has changed its strategy and the directors see these very profitable investment opportunities, which will provide more shareholder value than will mere payment of dividends
Bad news	The directors have run out of ideas for profitable growth	Profits and cash flow are way down, and the company is facing trouble for the foreseeable future

Signal for **advancing** one stage in the life cycle?

Signal for **moving back** one stage in the life cycle?

Example: Smoothing Dividends over a Period of Time

- A company is believed to be in its **mature** stage, …
- … and would like to pay out **max 50%** of annual profits as **dividends**

- **However**, the company's business model includes taking on large **contracts**, …
- … the profits of which can fall either side of a year end, …
- … significantly **affecting year-on-year profitability**

	Year 1	Year 2	Year 3	Year 4	Year 5
Profit after tax £ m	100	120	110	150	130
(a) Dividends using a 50% payout ratio	50	60	55	75	65
(b) Smoothed dividend policy	40	46	53	61	70

Perceived Volatility by Investor

Distribution of Economics - Stock Dividend and Buyback

Stock Dividend

- Dividend declared but no cash **paid out**
- Shareholders wanting cash can sell these new shares …
  - …however, causing dilution
- Stock dividend is effectively **retaining the cash in the business for reinvestment**
  - … and swapping retained earnings for shareholder equity

Share Repurchases (Buybacks)

- An alternative to a cash dividend is to repurchase own shares using excess cash
- Repurchased shares (Treasury stock) can later be **re-issued**, at an appropriate market price …
  - Tax and legal positions vary by country
  - E.g.: In the US buybacks have a tax advantage over dividend payment
- … or **cancelled**, resulting in re-levering the firm

Share Buybacks

Choosing between Dividends and Equity Repurchases

Net benefit of equity repurchases vs dividends depends upon the following:

Sustainability and Stability of Excess Cash Flow

- If the excess cash flows are temporary or unstable, firms should repurchase stock; if they are stable and predictable, we would be more inclined to pay dividends, because they provide a stronger signaling benefit

Stockholder Tax Preferences

- If stockholders are taxed at much higher rates on dividends and, consequently are averse to dividends the firm will be better off repurchasing stock

Predictability of Future Investment Needs

- Firms that are uncertain about the magnitude of future investment opportunities should use equity repurchases as a way of returning cash to stockholders

Choosing between Dividends and Equity Repurchases (cont´d)

Net benefit of equity repurchases vs dividends depends upon the following (cont´d):

Undervaluation of the Stock

- First, if the stock remains undervalued, the remaining stockholders will benefit if managers buy back stock at less than true value
- Second, the stock buyback may send a signal to financial markets that the stock is undervalued, and the market will react accordingly, by pushing up the price

Management Compensation

- Managers with significant option positions may be more likely to buy back stock than pay dividends

Reasons for Stock Buy-Backs

- Unlike regular dividends, which typically commit the firm to continue payment in future periods, equity repurchases are primarily a **one-time return of cash**

- Repurchasing stock affords a firm much **more flexibility** to reverse itself and to spread the repurchases over a longer period than does a decision to pay an equivalent special dividend
  - **Many firms** that announce ambitious stock repurchase plans **do not carry them through to completion**

- Equity repurchases may offer **tax advantages to stockholders**

- Equity repurchases are much more **selective in** terms of **paying out cash only to those stockholders who need it**

- Equity repurchases may provide a way of **increasing insider control** in firms, since number of shares outstanding reduced

- Equity repurchases may provide firms with a way of **supporting** their **stock prices**, when they are declining

Example: Share Repurchase Taken Up Pro-Rata

Cash Rich Holdings plc:

- £100 million **surplus cash**
- 500m shares trading at a market price of £2 each

- **Rather than declaring a higher dividend**, …
- … it announces that it intends to **purchase 10% of existing shares** in the market at £2 per share

- **If <u>all</u> shareholders accept** the offer pro-rata to their current shareholdings, **stakes will not change** after the event
  - E.g.: The position of a 20% shareholder will be unchanged

$$\frac{9 \text{ million}}{450 \text{ million}} = \frac{10 \text{ million}}{500 \text{ million}}$$

- Seems **like a dividend payment**
  - If any particular shareholders do not want to receive cash at this time, they do not need to sell ...
  - … but proportionate shareholdings will increase

Example: Share Repurchase vs Special Dividend – Impact

Mega Cash Holdings plc

- £400m **excess cash …**
- … generating an **interest income** of £20m

- One-off **extra dividend** or …
- … a **share repurchase ?**
  - Impact on: Eps, P/E, share price

Mega Cash Holding Pre-Transaction	
Excess Cash (m)	400,0
Interest	5,0%
Tax rate	33,3%
Payout Ratio	50,0%
Shares Outstanding (m)	500,0
Market Cap (m)	1.000,0
EPS	0,20
Share Price	2,0
P/E	10,0
Operating Profit	130,0
Interest Income	20,0
PBT	150,0
Tax	50,0
Net Income	100,0
Dividends	50,0
Retained Earnings	50,0

Example: Share Repurchase – Impact

Impact

- Interest income eliminated
- 200m shares á 2.0 bought back (i.e. 200m shares)
- Share price equal …
- … resulting in higher eps (# shares; tax shield) …
- … and lower P/E

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Dividends	50,0
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Mega Cash Holding Share Buyback	
Excess Cash (m)	0,0
Interest	5,0%
Tax rate	33,3%
Payout Ratio	50,0%
Shares Outstanding (m)	300,0
Market Cap (m)	600,0
EPS	0,29
Share Price	2,0
P/E	6,9
Operating Profit	130,0
Interest Income	0,0
PBT	130,0
Tax	43,3
Net Income	86,7
Dividends	43,3
Retained Earnings	43,3

Example: Special Dividend – Impact

Impact

- Interest income eliminated
- 400m special dividend paid …
- … leading to negative retained earnings contribution …
- … decreasing market cap to 600m (as cash valued at par) …
- … share price decreasing …
- Lower eps (lack of interest income)) …
- … and same P/E

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Interest Income	20,0
PBT	150,0
Tax	50,0
Net Income	100,0
Dividends	50,0
Retained Earnings	50,0

Mega Cash Holding Special Dividend	
Excess Cash (m)	0,0
Interest	5,0%
Tax rate	33,3%
Payout Ratio	462,0%
Shares Outstanding (m)	500,0
Market Cap (m)	600,0
EPS	0,17
Share Price	1,2
P/E	6,9
Operating Profit	130,0
Interest Income	0,0
PBT	130,0
Tax	43,3
Net Income	86,7
Dividends	400,4
Retained Earnings	-313,7

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Share Repurchase Enhancing EPS

Let

N = number of shares in issue
n = number to be repurchased
p = price of shares to be bought
K_d = bank interest rate on money borrowed (or not earned) for repurchase
t = tax rate (corporate)
PAT = profits after tax before the share repurchase

Then,

$$\text{eps} = PAT/N$$

and after the buyback

$$\text{new eps} = [PAT - npK_d(1-t)]/(N-n)$$

If eps is to be enhanced by the transaction, eps < new eps
that is,

$$PAT/N < [PAT - npK_d(1-t)]/(N-n)$$

can be simplified down to:

$$PAT > NpK_d(1-t)$$
$$PAT/N > pK_d(1-t)$$

that is, $\text{eps} > pK_d(1-t)$

that is, share price paid for the repurchase, $p < \text{eps}/K_d(1-t)$

Example: Eps-Neutral Share Repurchase – Impact

$$\text{eps} = \text{share price paid} \times \text{after-tax cost of debt}$$

Mega Cash Holding Pre-Transaction	
Excess Cash (m)	400,0
Interest	5,0%
Tax rate	33,3%
Payout Ratio	50,0%
Shares Outstanding (m)	500,0
Market Cap (m)	1.000,0
EPS	0,20
Share Price	2,0
P/E	10,0
Operating Profit	130,0
Interest Income	20,0
PBT	150,0
Tax	50,0
Net Income	100,0
Dividends	50,0
Retained Earnings	50,0

Mega Cash Holding Share Buyback eps-neutral	
Transaction Volume	400,0
After-Tax Interest	3,3%
Inverse AT Interest	30,00
… equalling P/E offered	30,00
Shares Bought	66,7
EPS (as pre-Transaction)	0,20
Price Offered	6,0

- „Funding costs“ for buyback were assumed to be equivalent to lost interest income (i.e. 5% pre- or 3.3% post-tax)
- A max share price of 6.0 can be offered based on a P/E equivalent to inverse after-tax interest income

Mega Cash Holding Share Buyback eps-neutral	
Excess Cash (m)	0,0
Interest	5,0%
Tax rate	33,3%
Payout Ratio	50,0%
Shares Outstanding (m)	433,3
Market Cap (m)	866,7
EPS	0,20
Share Price	2,0
P/E	10,0
Operating Profit	130,0
Interest Income	0,0
PBT	130,0
Tax	43,3
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Dividends	43,3
Retained Earnings	43,3

Example: Impact of Share Repurchase on WACC

Share buyback, hypothetical example[1]

	Before	After
Balance sheet		
Cash, € million	200	0
Operating assets, € million	580	580
Total assets, € million	780	580
Equity, € million	780	580
Value		
Value of operations, € million	1,300	1,300
Cash, € million	200	0
Total equity value, € million	1,500	1,300

	Before	After
Income statement		
Earnings before interest, taxes (EBIT), € million	94	94
Interest, € million	6	0
Net income, € million	**100**	**94**
Shares outstanding, million	100.0	86.7
Share price, €	15.00	15.00
Earnings per share (EPS), €	1.00	1.08
P/E	15.0	13.8
Return on invested capital (ROIC)[2]	**16%**	**16%**

[1]Excludes corporate taxes; assumes cost of equity = 10%, cost of debt = 3%, growth = 5%.
[2]Posttax EBIT ÷ operating capital.

Example: Impact of Share Repurchase on WACC (cont´d)

- Company's operations don't change with return on operating capital same after buyback
  - **Equity value reduced** to €1.3bn
  - **EPS rises** because the **number of shares has fallen more than earnings** have
  - **Share price remains the same**, as company value has fallen in line with the number of shares
  - Therefore, **P/E**, whose inputs are intrinsic value and EPS, **drops** to 13.8, from 15
  - The impact is similar if the company increases debt to buy back more shares

- P/E declines, as the **buyback deconsolidates the company** into two distinct entities: an **operating company and** one that holds **cash**
  - The former has a P/E of 13.8; the latter, 33.3

Example: Impact of Share Repurchase on WACC (cont´d)

- **If corporate taxes *are* part of the equation**, the **company's value does increase** as a result of share buybacks, albeit **by a small amount**, …
- … because cost of capital fall from having less cash or **greater debt** …
- … not least because **interest** payments are **tax deductible** while dividends are not
- The **share price increase** from a buyback **in theory** results **purely from the tax benefits** of a company's new capital structure rather than from any underlying operational improvement

Share buyback, hypothetical example[1]

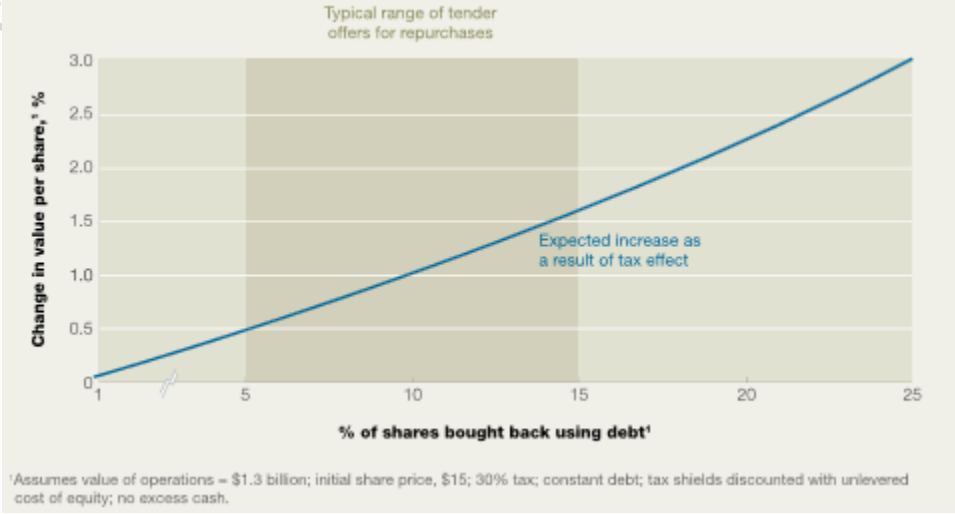
	Before	After
Balance sheet		
Cash, € million	200	0
Operating assets, € million	580	580
Total assets, € million	780	580
Equity, € million	780	580
Value		
Value of operations, € million	1,300	1,300
Cash, € million	200	0
Tax penalty of cash, € million	–18	0
Total equity value, € million	1,482	1,300

	Before	After
Income statement		
Earnings before interest, taxes (EBIT), € million	134	134
Interest, € million	6	0
Net income, € million	**140**	**134**
Tax, € million	–42	–40
Net income, € million	**98**	**94**
Shares outstanding, million	100	86.5
Share price, €	14.80	15.00
Earnings per share (EPS), €	0.98	1.09
P/E	15.1	13.8
Return on invested capital (ROIC)[2]	**16%**	**16%**

[1]Assumes cost of equity = 10%, cost of debt = 3%, growth = 5%; assumes no growth in excess, posttax interest streams discounted at cost of equity.
[2]Posttax EBIT ÷ operating capital.

Example: Impact of Share Repurchase on WACC (cont´d)

- The impact on share prices from a tax effect can be assessed, …
- … **but** historical and **recent buyback announcements typically result in a much bigger rise in share price**
  - Positive **signal** in a buyback is that management believes that the **stock is undervalued**
  - Management's confidence that the **company doesn't need the cash to cover future commitments** such as interest payments and capital expenditures
- **But**: **Seemingly also a *negative*** signal that **management** team **sees few investment opportunities ahead** …

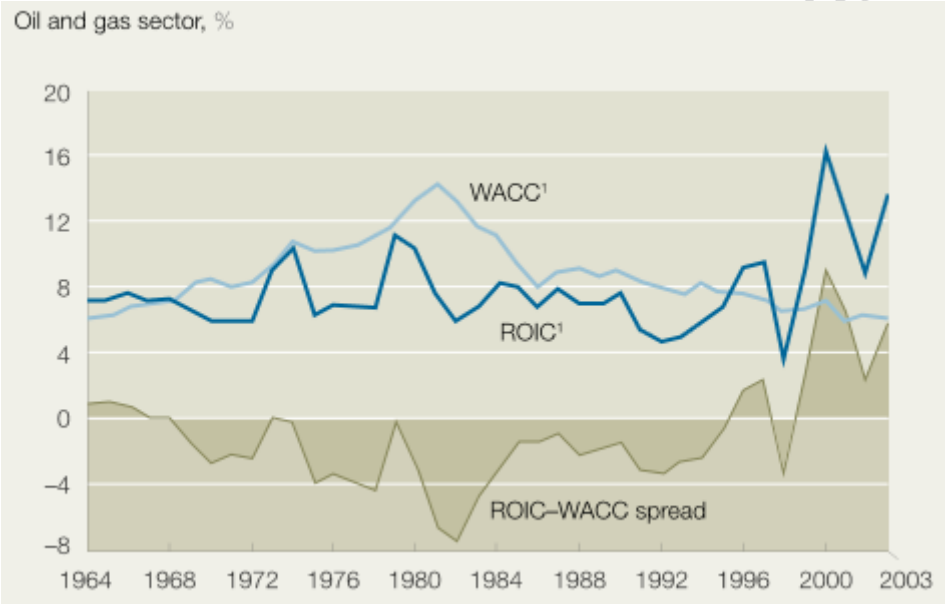


Example: Impact of Share Repurchase on WACC (cont´d)

- Therefore, the overall **positive response** to a buyback **may result from investors being *relieved* that managers aren't going to spend** a company's cash on "bad" mergers and acquisitions or **on projects with a negative net present value** …
  - In many cases, a company seems to be undervalued just before it announces a buyback, reflecting an uncertainty among investors about what management will do with excess funds.

- In many industries, **management teams have historically allocated cash reserves poorly**. The oil industry since 1964 is one example
  - For almost three decades the spread between ROIC and cost of capital for the industry as a whole was negative
  - The petroleum industry could not deliver a balanced source of income, many companies committed their excess cash to what turned out to be value-destroying acquisitions or other diversification strategies

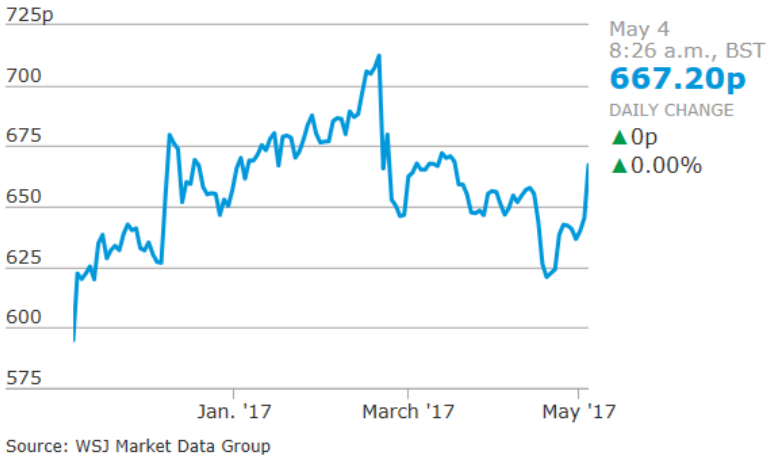
Example: Impact of Share Repurchase on WACC (cont´d)



WSJ City

4 May 2017 - **HSBC Profit Beat Sparks Hopes for Buybacks**

- HSBC, which has been shedding assets to improve returns reported better-than-expected profits
  - Shares were up in Hong Kong after the bank said net profit for the three months was $3.13 billion, down from $3.89 billion in the first quarter of 2016 but better than the $2.67 billion analysts had estimated
  - Stripping out one-time items and tax, profit actually rose 12% to $5.94 billion
  - The bank's closed almost 100 businesses since 2011



Source: WSJ Market Data Group

In the News (cont´d)

WSJ City

4 May 2017 - **HSBC Profit Beat Sparks Hopes for Buybacks**

- HSBC freed up capital for other investment, but a lack of opportunities led HSBC to spend $3.5 billion in the past year buying back shares

- Analysts are expecting up to another $2 billion in stock buybacks in the second half as capital is freed from the bank's legacy US consumer finance portfolio

- But Finance Director Iain Mackay in an interview said there may be better things to do with the cash …

Are share buybacks jeopardizing future growth?

Are share buybacks jeopardizing future growth?

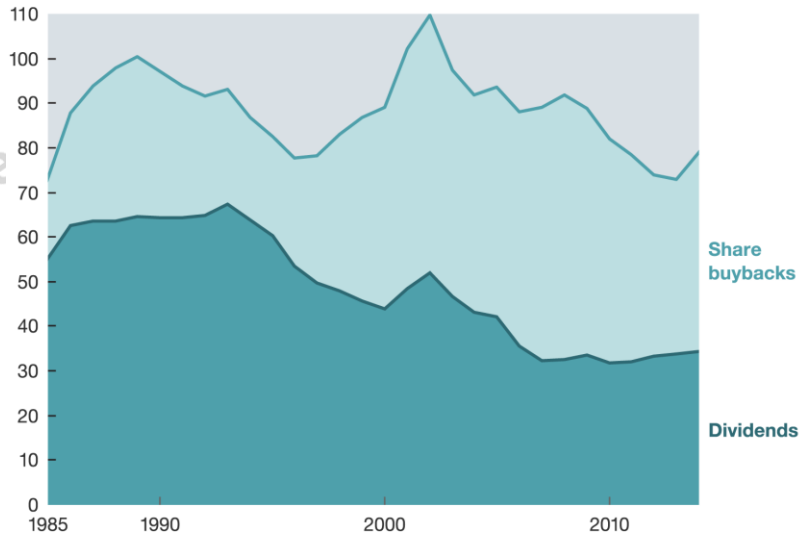
McKinsey&Company

- While dividends accounted for more than 90 percent of aggregated distributions to shareholders before 1982, …
- … today they account for less than half—the rest are buybacks

- Buybacks afford companies more flexibility
- Executives have learned that once they announce dividends, investors tend to expect that the dividends will continue in perpetuity unless a company falls into financial distress
- By contrast, a company can easily add or suspend share buybacks without creating such expectations

Overall distributions to shareholders have fluctuated cyclically since deregulation in the mid-1980s, though the ratio of buybacks to dividends has grown.

Distributions as % of adjusted net income, 5-year rolling average[1]



[1]For US nonfinancial companies with revenues greater than $500 million (adjusted for inflation).

McKinsey&Company | Source: Corporate Performance Analysis Tool; McKinsey analysis

Are share buybacks jeopardizing future growth? (cont´d)

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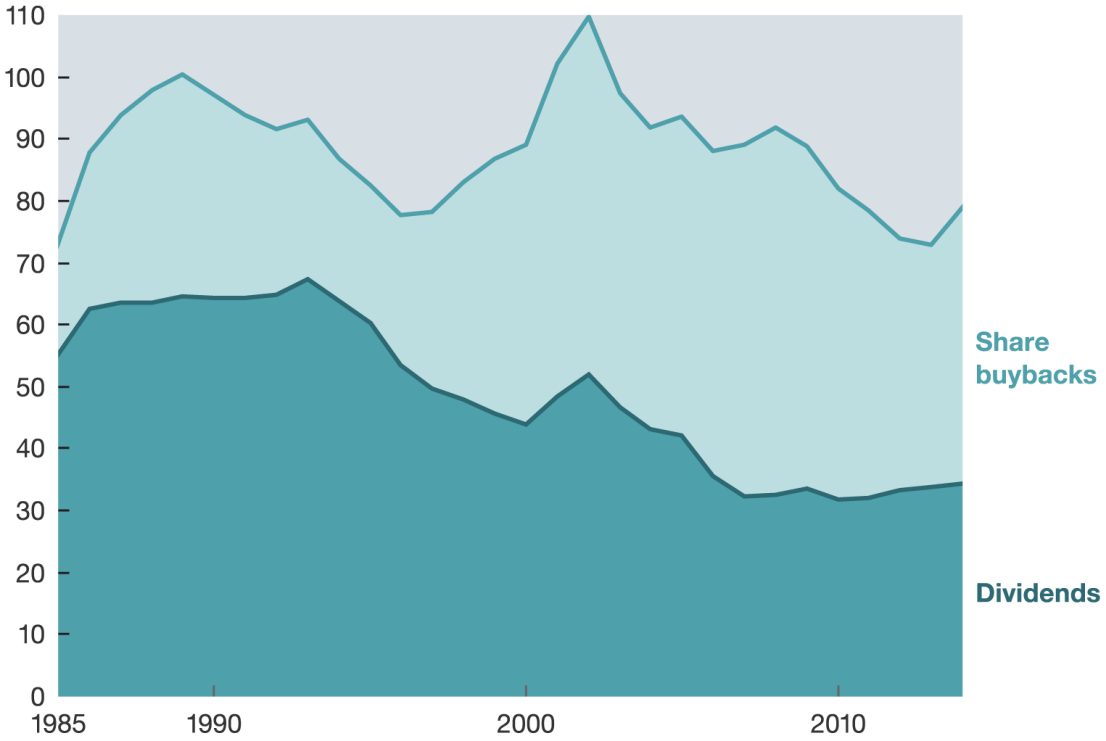


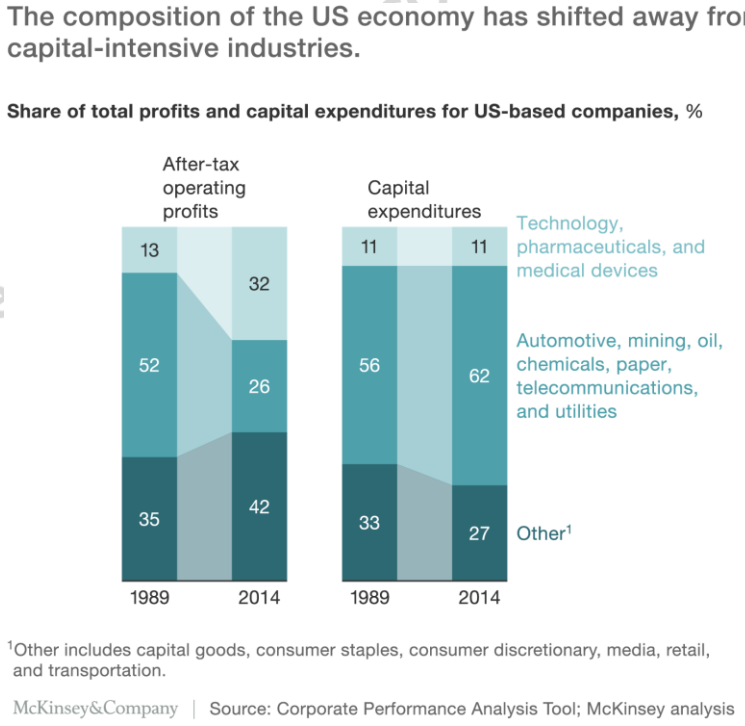
[1]For US nonfinancial companies with revenues greater than $500 million (adjusted for inflation).

McKinsey&Company | Source: Corporate Performance Analysis Tool; McKinsey analysis

Are share buybacks jeopardizing future growth? (cont´d)

McKinsey&Company

- Fears that US companies underinvest by paying too much back to shareholders are unfounded
- Rather, the rise in buybacks reflects changes in the economy
- Distributions to shareholders overall, including both buybacks and dividends, are currently around 85 percent of income, about the same as in the early 1990s
  - Instead, the trend in shareholder distributions reflects a decades-long evolution in the way companies think strategically about dividends and buybacks and mirrors the growing dominance of sectors that generate high returns with relatively little capital investment

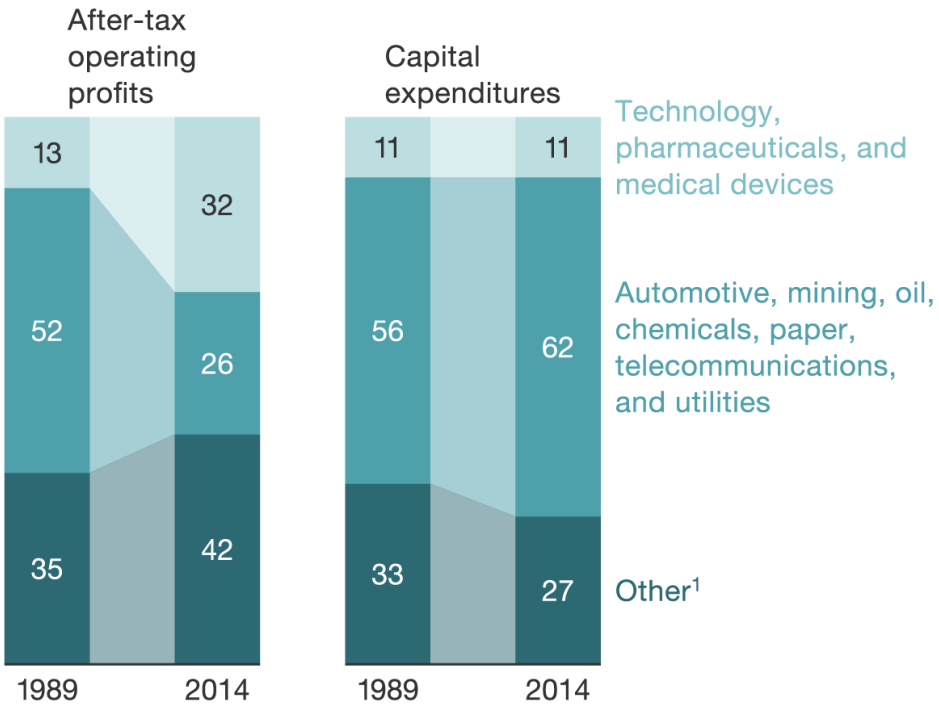


Are share buybacks jeopardizing future growth? (cont´d)

McKinsey&Company

The composition of the US economy has shifted away from capital-intensive industries.

Share of total profits and capital expenditures for US-based companies, %



[1]Other includes capital goods, consumer staples, consumer discretionary, media, retail, and transportation.

McKinsey&Company | Source: Corporate Performance Analysis Tool; McKinsey analysis

How share repurchases boost earnings without improving returns

How share repurchases boost earnings without improving returns

McKinsey&Company

- Only a small portion of the correlation between TRS and EPS growth is due to share repurchases
- Much of it can be attributed to revenue and total earnings growth and to return on invested capital (ROIC), which determines how much cash flow a company generates for a given dollar of income
  - All else being equal, a company with higher ROIC will generate more cash flow than a similar company with lower ROIC

There is no correlation between share-repurchase intensity and TRS.

Effect of share repurchases on total return to shareholders (TRS) vs repurchase intensity, 2004–14[1]

[1]Based on sample set of more than 250 nonfinancial S&P 500 companies.
[2]Effect of share repurchases on TRS is measured by residuals of multivariate regression. Variables are share-repurchase intensity and economic-profit growth. Economic-profit growth is a measure that combines earnings growth and return on capital (relative to cost of capital). This regression shows effect of share-repurchase intensity is not statistically significant.
[3]Difference between EPS growth and net income growth used as proxy for degree of share-repurchase intensity.

Source: Analysis of data provided by McKinsey Corporate Performance Analytics, a McKinsey Solution

McKinsey&Company

How share repurchases boost earnings without improving returns (cont´d)

- But without the contribution of growth and ROIC to TRS, there is no relationship between TRS and the intensity of a company's share repurchase
- That's because it's the generation of cash flow that creates value, regardless of how that cash is distributed to shareholders
  - So share repurchases are just a reflection of how much cash flow a company generates
  - The greater the cash flow, the more of it a company will eventually need to return to shareholders as dividends and share repurchases

McKinsey&Company

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